# Baltimore Inner Harbor Environmental Media Monitoring Plan Quarterly Report No. 107 Second Quarter 2016

Prepared for Honeywell International Inc.

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# Acronyms and Abbreviations

| μg             | microgram                               |
|----------------|---|
| EMMP           | Environmental Media Monitoring Plan     |
| EPA            | U.S. Environmental Protection Agency    |
| ERM            | Environmental Resources Management Inc. |
| m <sup>3</sup> | cubic meter                             |
| 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            |

### 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 first quarter of 2016 as well as groundwater data from fourth quarter 2015.

### 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 of 2016. Appendix A provides data associated with surface water sampling performed during the second quarter of 2016. Groundwater samples were collected during the second quarter of 2016. Groundwater sample results are provided in Appendix B. Drainage layer sampling was conducted in the second quarter of 2016. Appendix C provides data associated with the annual drainage layer sampling. Air monitoring results for the first quarter of 2016 are described in Section 5.

All sampling data for the second quarter of 2016 were validated by Validata. The validation reports for the second quarter 2016 surface water, groundwater, and drainage layer sampling are presented in Appendix D. All data quality objectives were met for sample results reported herein.

### 1.4 Progress Report Organization

Progress reports prepared in accordance with the Consent Decree are organized by medium. The media section included in this document provides a summary of methodology, the current quarter's sampling plan, and a summary of results. Also provided in these sections are a discussion of the sampling event; explanations for any deviations from the EMMP or SSMP procedures; data summaries; and discussion of the data, quality control results, and pertinent data trends. Surface water monitoring details are

presented in Section 2. Groundwater sampling details are presented in Section 3. Drainage layer sampling data are presented in Section 4. Air monitoring details are provided in Section 5. Associated raw data and chain-of-custody records are provided in Appendixes A, B, and C. Validation results are presented in Appendix D.

## 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 middepth sample is required from sampling locations where the depth is more than 10 feet. The lateral placement of each sample location is about 5 feet from the bulkhead/shoreline. Laboratory sampling personnel record measurements and observations on sampling sheets, which are presented in Appendix A.

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

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

## 2.2 Current Quarter Results

Surface water sampling for the second quarter of 2016 was performed by Maryland Environmental Services (MES) at all 20 surface water sampling locations on April 4, 2016. The surface water sampling locations are shown in Figure 2-1 (at the end of this section). Results for these surface water samples are included in this report.

All of the collected samples were transported to Lancaster Laboratories in Lancaster, Pennsylvania, for total dissolved chromium analysis. Summaries of the surface water data and average concentrations for April 4, 2016, including individual sample detection limits and validated data qualifiers, are presented in Tables 2-1 and 2-2.

### 2.3 Data Review

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

The Consent Decree, Section V, Part 12, establishes the Surface Water Performance Standard: "The surface water performance standard [...] for total chromium shall be 50 parts per billion (ppb), calculated for each sample location by arithmetically averaging the samples taken at all depths over 4

consecutive days." In October 2002, the sample frequency was amended to be 1 day of sampling at each sampling location per quarter.

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

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

Total dissolved chromium concentrations in surface water reported for the second quarter of 2016 are similar to the analytical values reported in the first quarter of 2016. All values reported for the sample event are at or below the sample detection of 15 ppb and most of the values are below the method detection limit of 2 ppb.

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

- Table 2-1. Percent of Average or Actual Surface Water Results below Specific Criteria
- Table 2-2. Surface Water Sampling Data per Location
- Table 2-3. Surface Water Sampling Data per Sampling Station

Figure 2-1. Surface Water Sample Locations

|              | Table 2-1           Percent of Average or Actual Surface Water Results Below Specific Criteria |   |   |  |  |  |  |  |  |  |  |  |
|--------------|--|---|---|--|--|--|--|--|--|--|--|--|
| Sample Event | <u>Performance</u><br><u>Standard</u><br>Actual Concentration<br>< 50 ppb                      | <u>Fresh Water Chronic</u><br><u>Exposure Level</u><br><u>Actual Concentration</u><br><u>&lt;11 ppb</u> | Analytical Detection<br>Limit†<br>Actual Concentration<br><15 ppb | Method Detection<br>Limit†<br>Actual Concentration<br><2 ppb |  |  |  |  |  |  |  |  |
| April        | 100%   | 100%  | 100%  | 76%  |  |  |  |  |  |  |  |  |

† The Analytical Detection Limit as determined by the Laboratory QC is 10 ppb

| Total Dissolved Chromium (mg/L)           Station<br>Number         Detection<br>Limit         4/4/2016           3B         0.01         0.005 U           3T         0.01         0.005 U           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           7B         0.01         0.005 U           7T         0.01         0.005 U           8B         0.015         0.0075 U           8T         0.015         0.0075 U           9B         0.015         0.0075 U  |
|---|
| Station<br>Number         Detection<br>Limit         4/4/2016           3B         0.01         0.005 U           3T         0.01         0.005 U           4B         0.01         0.005 U           4T         0.01         0.005 U           5B         0.01         0.005 U*           5T         0.01         0.002 J           6B         0.01         0.005 U           7B         0.01         0.005 U           7T         0.01         0.005 U           8B         0.015         0.0075 U           8T         0.015         0.0075 U           9B         0.015         0.0075 U           9T         0.015         0.008 U |
| Number         Limit           3B         0.01         0.005 U           3T         0.01         0.005 U           4B         0.01         0.005 U           4T         0.01         0.005 U           5B         0.01         0.005 U*           5T         0.01         0.002 J           6B         0.01         0.005 U           7B         0.01         0.005 U           7T         0.01         0.005 U           8B         0.015         0.0075 U           8T         0.015         0.0075 U           9B         0.015         0.0075 U           9T         0.015         0.008 U  |
| 3B         0.01         0.005 U           3T         0.01         0.005 U           4B         0.01         0.005 U           4T         0.01         0.005 U           5B         0.01         0.005 U*           5T         0.01         0.002 J           6B         0.01         0.005 U           7B         0.01         0.005 U           7T         0.01         0.005 U           8B         0.015         0.0075 U           8T         0.015         0.0075 U           9B         0.015         0.008 U   |
| 3T         0.01         0.005 U           4B         0.01         0.005 U           4T         0.01         0.005 U           5B         0.01         0.005 U*           5T         0.01         0.002 J           6B         0.01         0.005 U           7B         0.01         0.005 U           7T         0.01         0.005 U           8B         0.015         0.0075 U           8T         0.015         0.0075 U           9B         0.015         0.008 U   |
| 4B         0.01         0.005 U           4T         0.01         0.005 U           5B         0.01         0.005 U*           5T         0.01         0.002 J           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         0.015         0.0075 U           8T         0.015         0.0075 U           9B         0.015         0.008 U   |
| 4T         0.01         0.005 U           5B         0.01         0.005 U *           5T         0.01         0.002 J           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         0.015         0.0075 U           8T         0.015         0.0075 U           9B         0.015         0.008 U  |
| 5B         0.01         0.005 U*           5T         0.01         0.002 J           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         0.015         0.0075 U           8T         0.015         0.0075 U           9B         0.015         0.008 U   |
| 5T         0.01         0.002 J           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         0.015         0.0075 U           8T         0.015         0.0075 U           9B         0.015         0.0075 U           9T         0.015         0.008 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         0.015         0.0075 U           8T         0.015         0.0075 U           9B         0.015         0.0075 U           9T         0.015         0.008 U  |
| 6T         0.01         0.005 U           7B         0.01         0.005 U           7T         0.01         0.005 U           8B         0.015         0.0075 U           8T         0.015         0.0075 U           9B         0.015         0.0075 U           9T         0.015         0.008 U  |
| 7B         0.01         0.005 U           7T         0.01         0.005 U           8B         0.015         0.0075 U           8T         0.015         0.0075 U           9B         0.015         0.0075 U           9T         0.015         0.008 U  |
| 7T         0.01         0.005 U           8B         0.015         0.0075 U           8T         0.015         0.0075 U           9B         0.015         0.0075 U           9T         0.015         0.008 U  |
| 8B         0.015         0.0075 U           8T         0.015         0.0075 U           9B         0.015         0.0075 U           9T         0.015         0.008 U  |
| 8T         0.015         0.0075 U           9B         0.015         0.0075 U           9T         0.015         0.008 U  |
| 9B         0.015         0.0075 U           9T         0.015         0.008 U  |
| 9T 0.015 0.008 U  |
|   |
| 10B 0.015 0.0075 U  |
| 10T 0.0125 0.00625 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 0.0125 0.00625 U *  |
| 14T 0.01 0.0022 J   |
| 15B 0.01 0.005 U  |
| 15T 0.01 0.005 U  |
| 16B 0.015 0.008 U   |
| 16T 0.015 0.0075 U  |
| 17B 0.015 0.0075 U  |
| 17T 0.015 0.0075 U  |
| 18B 0.015 0.008 U   |
| 18M 0.015 0.008 U   |
| 18T 0.015 0.0075 U *  |
| 19B 0.01 0.003 J  |
| 19T 0.01 0.002 J  |
| 20B 0.01 0.003 J  |
| 20T 0.00 0.003 J  |
| Cent B 0.01 0.0024 J  |
| Cent T 0.01 0.002 J   |
| LADY B 0.01 0.002 J   |
| LADY T 0.01 0.003 J   |

Table 2-2 Surface Water Sampling Data per Location

### NOTES

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

|         | April 2016                      |
|---------|---------------------------------|
|         | Total Dissolved Chromium (mg/L) |
| Station | 4/4/2016                        |
| Number  | Station Average of All Depths   |
| 3       | 0.005                           |
| 4       | 0.005                           |
| 5       | 0.004                           |
| 6       | 0.005                           |
| 7       | 0.005                           |
| 8       | 0.008                           |
| 9       | 0.008                           |
| 10      | 0.006                           |
| 11      | 0.005                           |
| 12      | 0.005                           |
| 13      | 0.005                           |
| 14      | 0.004                           |
| 15      | 0.005                           |
| 16      | 0.008                           |
| 17      | 0.008                           |
| 18      | 0.008                           |
| 19      | < 0.002                         |
| 20      | < 0.003                         |
| Lady    | < 0.002                         |
| Cent    | < 0.002                         |

Table 2-3Surface Water Sampling Data per Sampling StationApril 2016



E062005033WDC FIGURE 1\_v1

## Groundwater Monitoring

### 3.1 Methodology

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

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

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

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

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

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

## 3.2 Current Quarter Results

Groundwater samples were collected on April 20, 2016. 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 2016 monitoring data and the total dissolved chromium concentrations detected at the respective sampling stations during monitoring performed over the last 5 years.

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

#### 3.2.2 Cyanide

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

### 3.3 Historical Results

#### 3.3.1 Chromium

The second quarter 2016 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 2016, including annual averages for data collected during the last 5 years, are presented in Table 3-3.

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

#### 3.3.2 Cyanide

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

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

| Monitoring Wells     | Elevation<br>(ft) Top of<br>Well Screen | Current<br>Results mg/l | Sample<br>Detection<br>Limit mg/l |           |           |           | Sample E  | vent Dates |           |           |           |
|----------------------|---|-------------------------|-----------------------------------|-----------|-----------|-----------|-----------|------------|-----------|-----------|-----------|
| Outboard Piezometers |   | Apr, 2016               |                                   | Dec, 2015 | Nov, 2015 | Apr, 2015 | Oct, 2014 | Apr, 2014  | Oct, 2013 | Apr, 2013 | Oct, 2012 |
|                      |   |                         |                                   |           |           |           |           |            |           |           |           |
| 11B                  |   | 0.0020                  | 0.01                              |           | 0.0026    | 0.0013    | 0.0015    | 0.0016     | 0.001     | 0.0011    | 0.001     |
| 13B                  |   | 0.0020                  | 0.01                              |           | 0.002     | 0.0013    | 0.0022    | 0.0016     | 0.001     | 0.0011    | 0.001     |
| 15B                  |   | 0.0020                  | 0.01                              |           | 0.002     | 0.0013    | 0.0016    | 0.0016     | 0.001     | 0.0011    | 0.001     |
| 6B                   |   | 0.0020                  | 0.01                              |           | 0.002     | 0.0025    | 0.0025    | 0.0016     | 0.001     | 0.0011    | 0.001     |
| NWM-27               | 32.68                                   | 2010                    | 2                                 | 1300      |           | 1700      | 1820      | 2200       | 2280      | 2450      | 1910      |
| OP11                 | 44.47                                   | 0.008                   | 0.01                              | 0.0094    |           | 0.0111    | 0.019     | 1.520      | 0.889     | 0.869     | 0.751     |
| OP2                  | 64.31                                   | 4.80                    | 0.01                              | 4.78      |           | 5.42      | 5.34      | 5.52       | 5.09      | 5.77      | 5.14      |
| OP3                  | 68.53                                   | 121                     | 0.1                               | 116       |           | 123       | 127       | 146        | 141       | 137       | 140       |
| OP4                  | 69.14                                   | 285                     | 0.2                               | 320       |           | 329       | 298       | 376        | 400       | 3         | 323       |
| OP5                  | 60.7                                    | 1.67                    | 0.01                              | 3.53      |           | 3.51      | 3.90      | 3.93       | 4.04      | 3.95      | 2.96      |
| OP7                  | 55.42                                   | 0.006                   | 0.01                              | 0.0047    |           | 0.0332    | 0.026     | 0.021      | 0.002     | 0.002     | 0.002     |
| OP9                  | 47.13                                   | 1710                    | 1                                 | 1450      |           | 1800      | 1660      | 1850       | 1840      | 1900      | 1870      |

| Outboard Piezometers | Apr, 2012 | Oct, 2011 | Jun, 2011 | Apr, 2010 | Oct, 2009 | Apr, 2009 | Oct, 2008 | Apr, 2008 | Oct, 2007 | Apr, 2007 | Oct, 2006 |
|----------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|                      |           |           |           |           |           |           |           |           |           |           |           |
| 11B                  | 0.001     | 0.001     | 0.003     | 0.0034    | 0.003     | 0.003     | 0.003     | 0.002     | 0.002     | 0.015     | 0.015     |
| 13B                  | 0.002     | 0.001     | 0.003     | 0.0034    | 0.003     | 0.003     | 0.003     | 0.002     | 0.002     | 0.015     | 0.015     |
| 15B                  | 0.0011    | 0.001     | 0.003     | 0.0034    | 0.003     | 0.003     | 0.003     |           | 0.0023    | 0.015     | 0.015     |
| 6B                   | 0.001     | 0.001     | 0.003     | 0.0034    | 0.004     | 0.003     | 0.003     | 0.003     | 0.004     | 0.015     | 0.015     |
| NWM-27               | 2150      | 2310      | 1910      | 1840      | 1950      | 2240      | 174       | 2130      | 699       | 1690      | 710       |
| OP11                 | 0.507     | 0.210     | 0.390     | 0.470     | 0.201     | 0.368     | 0.192     | 0.483     | 0.033     | 0.122     | 0.015     |
| OP2                  | 5.20      | 5.82      | 5.79      | 6.31      | 6.36      | 6.05      | 7.12      | 5.77      | 7.34      | 6.33      | 6.39      |
| OP3                  | 126       | 142       | 144       | 146       | 153       | 165       | 6         | 189       | 166       | 202       | 199       |
| OP4                  | 17        | 457       | 504       | 503       | 533       | 548       | 616       | 601       | 526       | 684       | 584       |
| OP5                  | 1.89      | 2.84      | 4.61      | 5.030     | 6.520     | 5.36      | 7.7       | 7.7       | 8.1       | 7.8       | .8        |
| OP7                  | 0.012     | 0.010     | 0.005     | 0.006     | 0.005     | 0.003     | 0.004     | 0.005     | 0.002     | 0.015     | 0.015     |
| OP9                  | 1950      | 2110      | 2200      | 2040      | 2150      | 2070      | 5020      | 4800      | 3020      | 3170      | 3050      |

 Table 3-1

 Total Dissolved Chromium Concentrations in Groundwater (mg/l)

| Outboard Piezometers | Apr, 2006 | Oct, 2005 | Apr, 2005 | Oct, 2004 | Apr, 2004 | Oct, 2003 | Apr, 2003 | Oct, 2002 | Apr, 2002 | Jan, 2002 | Dec, 2001 |
|----------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|                      |           |           |           |           |           |           |           |           |           |           |           |
| 11B                  | 0.015     | 0.015     | 0.015     | 0.005     | 0.010     | 0.005     | 0.005     | 0.005     | 0.008     | 0.008     | 0.008     |
| 13B                  | 0.015     | 0.015     | 0.015     | 0.005     | 0.010     | 0.005     | 0.005     | 0.005     | 0.008     | 0.008     | 0.008     |
| 15B                  | 0.015     | 0.015     | 0.015     |           |           | 0.005     | 0.005     | 0.005     | 0.008     | 0.008     | 0.008     |
| 6B                   | 0.015     | 0.015     | 0.015     | 0.005     | 0.010     | 0.005     | 0.005     | 0.005     | 0.008     | 0.009     | 0.008     |
| NWM-27               | 1540      | 1010      | 874       | 744       | 422       | 603       | 603       | 550       | 930       | 1100      | 690       |
| OP11                 | 0.235     | 0.182     | 0.026     | 0.017     | 0.080     | 0.005     | 0.005     | 0.017     | 0.009     | 0.029     | 0.033     |
| OP2                  | 6.20      | 6.32      | 6.08      | 5.98      | 5.75      | 6.16      | 6.00      | 5.63      | 4.90      | 5.50      | 5.60      |
| OP3                  | 219       | 286       | 288       | 297       | 309       | 342       | 342       | 378       | 440       | 440       | 440       |
| OP4                  | 812       | 1020      | 1100      | 1150      | 1260      | 1290      | 1210      | 1620      | 1800      | 1400      | 1700      |
| OP5                  | .3        | 8.7       | 11.5      | 11.9      | 11.9      | 13.3      | 15.4      | 16.9      | 21.0      | 19.5      | 18.5      |
| OP7                  | 0.015     | 0.015     | 0.005     | 0.005     | 0.010     | 0.004     | 0.006     | 0.005     | 0.008     | 0.008     | 0.008     |
| OP9                  | 2790      | 2810      | 2680      | 2780      | 2510      | 2480      | 2510      | 2410      | 2500      | 2200      | 2500      |

| Outboard Piezometers | Nov, 2001 | Oct, 2001 | Sep, 2001 | Aug, 2001 | Jul, 2001 | Jun, 2001 | May, 2001 | Apr, 2001 | Mar, 2001 | Feb, 2001 | Jan, 2001 |
|----------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|                      |           |           |           |           |           |           |           |           |           |           |           |
| 11B                  | 0.008     | 0.008     | 0.008     | 0.008     | 0.008     | 0.010     | 0.010     | 0.010     | 0.011     | 0.010     | 0.010     |
| 13B                  | 0.008     | 0.008     | 0.008     | 0.008     | 0.008     | 0.010     | 0.010     | 0.010     | 0.010     | 0.010     | 0.010     |
| 15B                  | 0.008     | 0.008     | 0.008     | 0.008     | 0.008     | 0.010     | 0.010     | 0.010     | 0.010     | 0.010     | 0.010     |
| 6B                   | 0.008     | 0.008     | 0.008     | 0.008     | 0.008     | 0.010     | 0.010     | 0.010     | 0.010     | 0.010     | 0.010     |
| NWM-27               | 1300      | 830       | 1000      | 1500      | 1300      | 1600      | 1700      | 1300      | 1500      | 1600      | 1600      |
| OP11                 | 0.026     | 0.032     | 0.049     | 0.034     | 0.032     | 0.042     | 0.031     | 0.010     | 0.050     | 0.014     | 0.012     |
| OP2                  | 4.90      | 6.20      | 6.50      | 5.80      | 4.80      | 5.80      | 6.00      | 5.75      | 4.90      | 6.20      | 6.10      |
| OP3                  | 480       | 570       | 420       | 410       | 450       | 420       | 430       | 460       | 470       | 450       | 470       |
| OP4                  | 2000      | 1700      | 1800      | 1800      | 1800      | 1900      | 1800      | 1900      | 1900      | 2000      | 2000      |
| OP5                  | 20.0      | 20.5      | 21.0      | 17.5      | 23.5      | 23.0      | 23.0      | 24.0      | 25.0      | 25.5      | 26.0      |
| OP7                  | 0.008     | 0.012     | 0.008     | 0.008     | 0.008     | 0.010     | 0.010     | 0.010     | 0.010     | 0.010     | 0.010     |
| OP9                  | 2650      | 2500      | 2600      | 2400      | 2500      | 2500      | 2400      | 2400      | 2400      | 2300      | 2600      |

 Table 3-1

 Total Dissolved Chromium Concentrations in Groundwater (mg/l)

| Outboard Piezometers | Dec, 2000 | Nov, 2000 | Oct, 2000 | Sep, 2000 | Aug, 2000 | Jul, 2000 | Jun, 2000 | May, 2000 | Apr, 2000 | Mar, 2000 | Feb, 2000 |
|----------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|                      |           |           |           |           |           |           |           |           |           |           |           |
| 11B                  | 0.010     | 0.010     | 0.010     | 0.010     | 0.010     | 0.01      | 0.01      | 0.01      | 0.01      | 0.01      | 0.002     |
| 13B                  | 0.010     | 0.010     | 0.010     | 0.010     | 0.010     | 0.01      | 0.01      | 0.01      | 0.010125  | 0.0105    | 0.002     |
| 15B                  | 0.010     | 0.010     | 0.010     | 0.010     | 0.010     | 0.01      | 0.01      | 0.01      | 0.01      | 0.01      | 0.002     |
| 6B                   | 0.010     | 0.010     | 0.010     | 0.010     | 0.010     | 0.01      | 0.01      | 0.01      | 0.01      | 0.01      | 0.002     |
| NWM-27               | 1600      | 1700      | 1700      | 1800      | 1700      | 1600      | 1700      | 1700      | 1800      | 3600      | 2600      |
| OP11                 | 0.015     | 0.022     | 0.011     | 0.010     | 0.011     | 0.01      | 0.01      | 0.010     | 0.010     | 0.004     | 0.047     |
| OP2                  | 6.00      | 5.90      | 6.10      | 5.85      | 5.90      | 3.15      | 3.6       | 3.70      | 5.40      | 8.00      | 4.40      |
| OP3                  | 480       | 500       | 490       | 500       | 510       | 530       | 540       | 580       | 570       | 1045      | 630       |
| OP4                  | 2100      | 2100      | 2400      | 2250      | 2400      | 2400      | 2400      | 2800      | 2500      | 3300      | 2300      |
| OP5                  | 25.0      | 26.0      | 28.0      | 25.0      | 24.0      | 18        | 34        | 27.0      | 33.0      | 47.0      | 44.0      |
| OP7                  | 0.010     | 0.010     | 0.010     | 0.013     | 0.010     | 0.012     | 0.041     | 0.050     | 0.051     | 0.002     | 0.002     |
| OP9                  | 2500      | 2400      | 2700      | 2500      | 2500      | 2400      | 2400      | 2800      | 2500      | 4500      | 2400      |

| Outboard Piezometers | Dec, 1999 | Aug, 1999 | May, 1999 | Mar, 1999 | Dec, 1998 | Sep, 1998 | Jun, 1998 | Mar, 1998 | Dec, 1997 |
|----------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|                      |           |           |           |           |           |           |           |           |           |
| 11B                  |           |           |           |           |           |           |           |           |           |
| 13B                  |           |           |           |           |           |           |           |           |           |
| 15B                  |           |           |           |           |           |           |           |           |           |
| 6B                   |           |           |           |           |           |           |           |           |           |
| NWM-27               | 1800      | 2300      | 1900      | 1400      | 1000      |           |           | 610       |           |
| OP11                 | 0.020     | .01       | 0.01      | 0.03      | 0.01      | 2.7       |           |           |           |
| OP2                  | 7.30      | 6.50      | 1.8       | 2.4       | 2.8       | 4.6       |           |           |           |
| OP3                  | 670       | 800       | 670       | 690       | 750       | 780       | 890       | 2200      | 2400      |
| OP4                  | 2900      | 3800      | 2900      | 2000      | 3000      | 1900      | 2000      | 2500      | 3700      |
| OP5                  | 42.0      | 31.0      | 59.0      | 45        | 58        | 65        | 70        | 130       | 150       |
| OP7                  | .02       | .01       | 0.010     | 0.060     | 1.600     | 8.6       | 0.3       | 0.02      | 0.02      |
| OP9                  | 3200      | 2200      | 1800      | 3200      | 2200      | 2300      | 2800      | 3600      |           |

| Monitoring           | Elevation (ft) | Current | Sample       | Last Sample    |       |        | Average |       |       |       | Notos |
|----------------------|----------------|---------|--------------|----------------|-------|--------|---------|-------|-------|-------|-------|
| Wells                | Well Screen    | ppm     | Limit<br>ppm | Results<br>ppm | 2015  | 2014   | 2013    | 2012  | 2011  | 2010  | NUCES |
| Outboard Piezometers |                |         |              |                |       |        |         |       |       |       |       |
| OP-3                 | -53.5          | 121     | 0.1          | 116            | 119   | 137    | 139     | 133   | 139   | 145   | 4     |
| OP-4                 | -57.1          | 285     | 0.2          | 320            | 325   | 337    | 201     | 170   | 457   | 504   | 4     |
| OP-5                 | -51.3          | 1.72    | 0.01         | 3.545          | 3.55  | 3.92   | 4.00    | 2.43  | 3.10  | 4.82  | 4     |
| OP-7                 | -47.6          | 0.0060  | 0.01         | 0.0047         | 0.019 | 0.0252 | ND      | ND    | 0.01  | ND    | 4     |
| OP-9                 | -37.8          | 1710    | 1.0          | 1450           | 1625  | 1755   | 1870    | 1910  | 2045  | 2120  | 4     |
| Deep Surface Water   |                |         |              |                |       |        |         |       |       |       |       |
| SW-06                | NA             | 0.002   | 0.01         | 0.0015         | ND    | ND     | ND      | ND    | ND    | ND    | 4     |
| SW-11                | NA             | 0.002   | 0.01         | 0.0026         | ND    | ND     | ND      | ND    | ND    | ND    | 4     |
| SW-13                | NA             | 0.002   | 0.01         | 0.0017         | ND    | ND     | ND      | ND    | ND    | ND    | 4     |
| SW-15                | NA             | 0.002   | 0.01         | 0.0035         | ND    | ND     | ND      | ND    | ND    | ND    | 4     |
| Offsite Wells        |                |         |              |                |       |        |         |       |       |       |       |
| OP-2                 | -48.0          | 4.8     | 0.01         | 4.78           | 5.10  | 5.43   | 5.43    | 5.17  | 5.81  | 6.11  | 4     |
| OP-11                | -35.5          | 0.0079  | 0.01         | 0.0094         | 0.01  | 0.769  | 0.879   | 0.699 | 0.381 | 0.442 | 4     |
| NWM-27               | -24.7          | 2010    | 2.0          | 1300           | 1500  | 2010   | 2365    | 2030  | 2270  | 1875  | 4     |

 Table 3-2

 Current and Annual Total Dissolved Chromium Concentrations in Groundwater (mg/l)

NA - Not Applicable

ND - Not Detected

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

**U** - Not detected validated results

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

\* - Average of the sample and its duplicate

1 - Consists of averages of monthly data

2 - Consists of averages of quarterly data

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

4 - Average consists of all available data

| Wells         | Sample Dates                     | Data Points | Minimum | Maximum | Average | <b>Standard Deviation</b> | <b>Current Quarter Concentrations</b> |
|---------------|----------------------------------|-------------|---------|---------|---------|---------------------------|---------------------------------------|
| Outboard Pie  | ezometers                        |             |         |         |         |                           |                                       |
| OP-3          | December,31 1980 to June,30 2016 | 69          | 6       | 2400    | 448     | 398                       | 121                                   |
| OP-4          | December,31 1980 to June,30 2016 | 68          | 3       | 3800    | 1507    | 939                       | 285                                   |
| OP-5          | December,31 1980 to June,30 2016 | 83          | 0.27    | 150     | 21      | 24                        | 1.72                                  |
| OP-7          | December,31 1980 to June,30 2016 | 67          | 0.002   | 9       | 0.170   | 1.064                     | 0.006                                 |
| OP-9          | December,31 1980 to June,30 2016 | 63          | 1660    | 5020    | 2546    | 635                       | 1710                                  |
| Offsite Wells |                                  |             |         |         |         |                           |                                       |
| OP-2          | December,31 1980 to June,30 2016 | 73          | 1.80    | 8.00    | 5.54    | 1.11                      | 4.80                                  |
| OP-11         | December,31 1980 to June,30 2016 | 64          | 0.004   | 2.700   | 0.210   | 0.434                     | 0.008                                 |
| NWM-27        | December,31 1980 to June,30 2016 | 59          | 174     | 3600    | 1534    | 637                       | 2010                                  |

### Table 3-3 - Groundwater Trend Analysis <sup>(1)</sup>

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<br>(ft) Top of<br>Well Screen | Current<br>Results ug/l | Sample<br>Detection<br>Limit ug/l | Sample Event Dates |           |           |           |           |           |           |           |
|----------------------|---|-------------------------|-----------------------------------|--------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Outboard Piezometers |   | Apr, 2016               |                                   | Dec, 2015          | Apr, 2015 | Oct, 2014 | Apr, 2014 | Oct, 2013 | Apr, 2013 | Oct, 2012 | Apr, 2012 |
|                      |   |                         |                                   |                    |           |           |           |           |           |           |           |
| OP2                  | 64.31                                   | 5.00                    | 10                                | 5.00               | 8.70      | 5.00      | 5.00      | 5.00      | 5.0       | 5.0       | 5.00      |
| OP3                  | 68.53                                   | 14.0                    | 10                                | 9.9                | 5.0       | 16.0      | 14.0      | 19.0      | 5.0       | 17.00     | 9.5       |

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

| Outboard Piezometers | Apr, 2006 | Oct, 2005 | Apr, 2005 | Oct, 2004 | Apr, 2004 | Oct, 2003 | Apr, 2003 | Oct, 2002 | Apr, 2002 | Jan, 2002 | Nov, 2001 |
|----------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|                      |           |           |           |           |           |           |           |           |           |           |           |
| OP2                  | 10.00     | 10.00     | 10.00     | 10.0      | 10.0      | 5.0       | 5.0       | 5.0       | 10.0      | 10.0      | 10.0      |
| OP3                  | 10.0      | 35.0      | 17.0      | 34.0      | 20.0      | 30.0      | 36.0      | 40.4      | 24.0      | 15.0      | 47.0      |

| Outboard Piezometers | Aug, 2001 | May, 2001 | Feb, 2001 | Nov, 2000 | Aug, 2000 | May, 2000 | Feb, 2000 | Dec, 1999 | Aug, 1999 | May, 1999 | Mar, 1999 |
|----------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|                      |           |           |           |           |           |           |           |           |           |           |           |
| OP2                  | 10.00     | 10.00     | 10.0      | 10.00     | 10.00     | 10.00     | 10.00     | 5.00      | 5.00      | 5.00      | 5.00      |
| OP3                  | 42.0      | 18.0      | 37        | 10        | 41.0      | 53.0      | 110.0     | 110.0     | 37.0      | 69.0      | 55.0      |

| Outboard Piezometers | Dec, 1998 | Sep, 1998 | Jun, 1998 | Mar, 1998 |  |
|----------------------|-----------|-----------|-----------|-----------|--|
|                      |           |           |           |           |  |
| OP2                  | 5.00      |           |           |           |  |
| OP3                  | 29.0      | 9.0       | 14.00     | 1.00      |  |



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Figure 3-2 Historical Total Dissolved Chromium Concentrations in Groundwater



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

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

OP3 — Trend Line



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

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

OP4 — Trend Line



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

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

OP5 — Trend Line



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

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

OP7 — Trend Line



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

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

OP9 — Trend Line



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

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

OP2 — Trend Line



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

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

OP11

Trend Line



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

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





### Figure 3-11 Total Dissolved Cyanide Concentrations in Groundwater OP-2 (Values between 1998 and 2001 are averaged over a six month period. Subsequent values represent a individual sample results. See Table 3-1)



OP3 **Detection Limit** Concentration (ppb) 2nd 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015

Figure 3-12 Total Dissolved Cyanide Concentrations in Groundwater OP-3 (Values between 1998 and 2001 are averaged over a six month period. Subsequent values represent a individual sample results. See Table 3-1)

## 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, have been sampled for total chromium, filtered total chromium, and filtered total cyanide. As part of the Area 1, Phase 1 construction, one of the perimeter locations (SSMP4) was relocated, and an additional perimeter location (SSMP4A) was added. The relocated location and additional location were sampled during the April 8, 2015, sampling event. The depth to water in each sample point. Sample point SSSP1 is located at the end of a perforated pipe running within a toe drain along the landward perimeter of the site. Points SSMP2 and SSMP3 are located within an infiltration trench running along the harbor perimeter of the site. The other two locations, SSMP4 and SSMP4A, are located at the intersection of a pair of drain pipes located to the east and west of the Exelon Tower in a valley in the synthetic layers and the originally installed toe drain system. SSMP4 drains to the east around the site and out through SSMP1. SSMP4A connects to the original HDPE drain pipe located in the rip rap fill outboard of the hydraulic barrier.

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

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

### 4.2 Current Quarter Results

Drainage layer samples were collected on May 23, 2016. The results from the event are attached to this report as Appendix C. Water elevations from each sample point, the tidal elevation when the water elevation was taken, and monthly rainfall totals are presented in Figure 4-2.

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

#### 4.2.1 Chromium

The total chromium results for the current sample round, as well as historical results, are shown in Tables 4-1 through 4-5. With the exception of SSMP3, total chromium concentrations were elevated compared to samples taken prior to the beginning of site construction.

#### 4.2.2 Dissolved Chromium

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

all locations except SSMP4 and SSMP4A. Concentrations above the method detection limit were reported for all SSMP sampling locations.

#### 4.2.3 Cyanide

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

### 4.3 Trend Analysis

With the exception of the results from SSMP3, all SSMP sampling locations were either elevated or consistent with sampling from the 2015 drainage layer sampling. On March 23, 2016, a cleaning and inspection of SSMP4 was performed. The purpose of this cleaning and inspection was to remove residual concrete deposits discovered to be present as a result of site redevelopment. A follow-up monitoring plan for cleaning, inspecting and sampling of the drainage layer and sampling points will be prepared and implemented as part of post-construction activities. The results of any additional sampling will be reported in the corresponding reports.

### Table 4-1

### Drainage Layer Sampling Data SSMP1

| Year | CR     | CR         | Cyanide | Spec. | рН   | Temp. | D.O.  | ORP |
|------|--------|------------|---------|-------|------|-------|-------|-----|
|      | mg/L   | (Filtered) | μg/l    | Cond. | S.U. | °C    | mg/L  | mV  |
|      |        | Mg/L       |         | ms/cm |      |       |       |     |
| 2016 | 0.0301 | 0.002      | 5       | 1.96  | 7.50 | 27.09 | 6.25  | 111 |
| 2015 | 0.0041 | 0.0013     | 5       |       | 6.46 | 9.55  | 4.85  | 206 |
| 2014 | 0.0027 | 0.0016     | 5       | 0.316 | 6.71 | 12.6  | 10.74 | 3   |
| 2013 | 0.0031 | 0.0018     | 5       | 0.75  | 6.98 | 21.19 | 5.14  | 146 |
| 2012 | 0.0046 | 0.0029     | 10      | 0.795 | 5.68 | 14.58 | 6.13  | 260 |
| 2011 | 0.0079 | 0.0034     | 5       | 0.901 | 6.62 | 19.7  | 0.37  | 9   |
| 2010 | 0.0061 | 0.0034     | 5       | -     | -    | -     | -     | -   |
| 2009 | 0.0032 | 0.0095     | 5       | 0.704 | -    | 13.5  | 8.95  | -   |
| 2008 | 0.0289 | 0.0023     | 5       | -     | -    | 20    | 6.43  | -   |
| 2007 | 0.0793 | 0.015      | 10      | -     | -    | 17.38 | 0     | -   |
| 2006 | 0.0103 | 0.015      | 10      | 0.661 | 6.39 | 19.1  | 7.98  | -   |
| 2005 | 0.0053 | 0.015      | 10      | 795   | 6.64 | 16.4  | -     | -   |
| 2004 | 0.01   | 0.01       | 10      | 1448  | 6.7  | 22.6  | 4.9   | -   |
| 2003 | 0.0121 | 0.006      | 5       | 568   | 7.64 | 15.1  | 3.15  | -   |
| 2002 | 0.008  | 0.008      | 10      | 0.63  | 7.16 | 11.1  | 9.26  | -   |
| 2001 | 0.01   | 0.01       | 10      | 3.3   | 6.5  | 8.8   | -     | -   |
| 2000 | 0.011  | 0.01       | 10      | -     | -    | -     | -     | -   |

### Second Quarter 2016
### Drainage Layer Sampling Data SSMP2

| Year | CR     | CR         | Cyanide | Spec. | pН   | Temp. | D.O.  | ORP |
|------|--------|------------|---------|-------|------|-------|-------|-----|
|      | mg/L   | (Filtered) | μg/l    | Cond. | S.U. | °C    | mg/L  | mV  |
|      |        | mg/L       | 1 0     | ms/cm |      |       |       |     |
| 2016 | 0.0439 | 0.002      | 5       | 1.64  | 7.90 | 25.47 | 4.53  | 18  |
| 2015 | 0.0038 | 0.0013     | 5       | 1.56  | 8.17 | 8.21  | 5.60  | 143 |
| 2014 | 0.0033 | 0.0017     | 5       | 1.35  | 6.93 | 13.43 | 9.64  | -24 |
| 2013 | 0.0011 | 0.0011     | 5       | 1.20  | 6.90 | 21.65 | 3.86  | 78  |
| 2012 | 0.0028 | 0.0014     | 1       | 2.54  | 6.59 | 14.22 | 5.07  | 200 |
| 2011 | 0.0034 | 0.0034     | 5       | 2.01  | 6.5  | 20.1  | 0.88  | 34  |
| 2010 | -      | -          | -       | -     | -    | -     | -     | -   |
| 2009 | -      | -          | -       | -     | -    | -     | -     | -   |
| 2008 | -      | -          | -       | -     | -    | -     | -     | -   |
| 2007 | 0.116  | 0.015      | 10      | -     | -    | -     | -     | -   |
| 2006 | 0.015  | 0.015      | 10      | 20.1  | 2.59 | 19.4  | 7.84  | -   |
| 2005 | 0.015  | 0.015      | 10      | 11360 | 7.27 | 18.3  | -     | -   |
| 2004 | 0.01   | 0.01       | 10      | 123.5 | 6.99 | 23.5  | 3.37  | -   |
| 2003 | 0.005  | 0.005      | 5       | 360.8 | 7.92 | 15    | 5.16  | -   |
| 2002 | 0.008  | 0.008      | 10      | 0.246 | 7.14 | 8.3   | 10.65 | -   |
| 2001 | 0.01   | 0.01       | 10      | 66.4  | 7.23 | 6.7   | -     | -   |
| 2000 | 0.01   | 0.01       | 10      | -     | -    | -     | -     | -   |

### Second Quarter 2016

### Drainage Layer Sampling Data SSMP3

| Year | CR     | CR         | Cyanide   | Spec. | рH   | Temp. | D.O. | ORP  |
|------|--------|------------|-----------|-------|------|-------|------|------|
|      | mg/L   | (Filtered) | ,<br>ug/l | Cond. | S.U. | °C    | mg/L | mV   |
|      | Ç.     | mg/L       | 1 0.      | ms/cm |      |       | 0.   |      |
| 2016 | 0.0048 | 0.002      | 5         | 23.3  | 7.64 | 18.12 | 4.93 | -9   |
| 2015 | 0.0049 | 0.0013     | 5         | 18.4  | 6.14 | 8.79  | 4.12 | 127  |
| 2014 | 0.0030 | 0.0020     | 5         | 19.3  | 6.69 | 10.98 | 7.30 | -104 |
| 2013 | 0.0011 | 0.0012     | 5         | 18.9  | 7.00 | 22.54 | 8.05 | -98  |
| 2012 | 0.0016 | 0.0019     | 10        | 13.8  | 7.14 | 14.79 | 8.82 | 167  |
| 2011 | 0.0034 | 0.0034     | 5         | 2.696 | 6.89 | 19.8  | 0.75 | 12   |
| 2010 | 0.0034 | 0.0034     | 5         | -     | -    | -     | -    | -    |
| 2009 | 0.003  | 0.003      | 5         | 31.9  | -    | 13.8  | 9.88 | -    |
| 2008 | 0.0023 | 0.0023     | 5         | -     | -    | 19.1  | 3.26 | -    |
| 2007 | 0.015  | 0.015      | 10        | -     | -    | 20.89 | 0    | -    |
| 2006 | 0.015  | 0.015      | 10        | 12.9  | 6.71 | 20    | 4.11 | -    |
| 2005 | 0.015  | 0.015      | 10        | 6460  | 6.35 | 19.5  | -    | -    |
| 2004 | 0.01   | 0.01       | 10        | 5750  | 7.45 | 23.8  | 4.9  | -    |
| 2003 | 0.005  | 0.005      | 5         | 1919  | 7.38 | 15.1  | 3.35 | -    |
| 2002 | 0.008  | 0.008      | 10        | 23.8  | 6.95 | 8.3   | 4.9  | -    |
| 2001 | 0.01   | 0.01       | 10        | 23.55 | 7.21 | 6.8   | -    | -    |
| 2000 | 0.01   | 0.01       | 10        | -     | -    | -     | -    | -    |

### Second Quarter 2016

Drainage Layer Sampling Data SSMP4(Relocated between 2014 and 2015)

| Year              | CR     | CR         | Cyanide | Spec. | рН   | Temp. | D.O.  | ORP |
|-------------------|--------|------------|---------|-------|------|-------|-------|-----|
|                   | mg/L   | (Filtered) | μg      | Cond. | S.U. | °C    | mg/L  | mV  |
|                   |        | mg/L       |         | ms/cm |      |       |       |     |
| 2016              | 0.0169 | 0.0156     | 5       | 1.95  | 7.41 | 13.85 | 9.78  | 310 |
| 2015 <sup>1</sup> | 0.0329 | 0.0173     | 5       | 0.793 | 8.82 | 9.50  | 5.64  | 85  |
| 2014              | 0.0033 | 0.0031     | 5       | 1.95  | 6.69 | 7.31  | 7.51  | 85  |
| 2013              | 0.0083 | 0.0069     | 5       | 1.83  | 6.51 | 20.05 | 8.64  | 218 |
| 2012              | 0.0106 | 0.0110     | 10      | 2.38  | 7.32 | 15.40 | 9.18  | 189 |
| 2011              | 0.0058 | 0.004      | 5       | 1.592 | 7.34 | 19.8  | 0.88  | 41  |
| 2010              | 0.0073 | 0.0069     | 5       | -     | -    | -     | -     | -   |
| 2009              | 0.0093 | 0.0086     | 5       | 6.44  | -    | 13.1  | 10.79 | -   |
| 2008              | 0.0023 | 0.0023     | 5       | -     | -    | 19    | 3.1   | -   |
| 2007              | 0.0049 | 0.0024     | 10      | -     | -    | 19.94 | 9.02  | -   |
| 2006              | 0.015  | 0.015      | 10      | 1.46  | 7.19 | 18.7  | 5.82  | -   |
| 2005              | 0.015  | 0.015      | 10      | 1215  | 7.01 | 19.1  | -     | -   |
| 2004              | 0.0043 | 0.0037     | 10      | 5756  | 7.44 | 21.1  | 6.14  | -   |
| 2003              | 0.0031 | 0.0024     | 5       | 677   | 8.26 | 15    | 6.71  | -   |
| 2002              | 0.008  | 0.008      | 10      | 1.62  | 7.3  | 9.7   | 10.27 | -   |
| 2001              | 0.01   | 0.01       | 10      | 1376  | 7.78 | 7.2   | -     | -   |
| 2000              | 0.01   | 0.01       | 10      | -     | -    | -     | -     | -   |

#### Second Quarter 2016

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

### Drainage Layer Sampling Data SSMP4A

### Second Quarter 2016

| Year              | CR     | CR         | Cyanide | Spec. | рН   | Temp. | D.O. | ORP |
|-------------------|--------|------------|---------|-------|------|-------|------|-----|
|                   | mg/L   | (Filtered) | μg/L    | Cond. | S.U. | °C    | mg/L | mV  |
|                   |        | mg/L       |         | ms/cm |      |       |      |     |
| 2016              | 0.0458 | 0.0237     | 5       | 5.41  | 7.99 | 15.88 | 9.71 | 107 |
| 2015 <sup>1</sup> | 0.17   | 0.0354     | 5       | 0.793 | 8.64 | 9.31  | 5.99 | 62  |

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







# Air Monitoring Methodology and Reporting

## 5.1 Methodology

Per Section 1.2.1 of the Environmental Media Monitoring Plan, written in response to Exhibit 2 of the Consent Decree, Honeywell is required to prepare and implement an air emissions monitoring plan and submit the results on a quarterly basis in quarters during which dismantlement, corrective measures implementation, or any intrusive activity occurs after the completion of the installation of the remedial measure occur. The air monitoring program is intended to provide information on the degree of exposure to contaminants, if any, past the boundary of the defined intrusive limit of construction.

On March 21, 2014, a project specific air monitoring plan was accepted by the USEPA and MDE updating the requirements for both work zone and perimeter air monitoring to occur during Area 1/Phase 1 construction. On March 31, 2014, an action level for total dust for work zone monitoring was established at 68  $\mu$ g/m<sup>3</sup>, and a perimeter action level was set at 150  $\mu$ g/m<sup>3</sup>. On May 21, 2014, the Preconstruction Air Monitoring report which established a perimeter hexavalent chromium action level of 0.178 ng/m<sup>3</sup> was accepted.

Total dust levels are monitored using a DustTrak model 8534 real-time dust monitor which is zeroed and calibrated daily on days when monitoring is to occur. Hexavalent chromium levels are monitored using Modified CARB Method 039. This method defines specific types of filters, pumps, and calibration procedures to be used. The Construction Air Monitoring Plan defines the specific field documentation to be collected during air sampler setup and sample collection.

The information collected during the work zone and perimeter air monitoring was used to evaluate the effectiveness of the control of airborne emissions during intrusive activities, and to modify work practices when monitoring results exceed the established action level. The results from onsite real time dust monitors and those received from the laboratory are entered into an online database. Reporting of air monitoring results is provided by ERM pursuant to Section 5 of the Construction Air Monitoring Plan approved by EPA and MDE.

Air monitoring for the Exelon Tower construction ceased on May 15, 2015 with the closure of intrusive excavations. On January 11 2016, non-intrusive air monitoring began for the Point Street Apartments construction, located directly north of the Morgan Stanley building, at the southeast side of the property. Air monitoring for all nonintrusive construction was performed by GTA (Geo-Technology Associates) and is not included in this report but will be included in the Construction Completion Report.

Starting March 11, 2016, and ending on April 11, 2016, ERM provided air monitoring in accordance with the Revised Air Monitoring plan<sup>1</sup> approved by EPA and MDE for all intrusive work associated with sheet pile extension operations along the east side of the hydraulic barrier, south of the Exelon Tower Plaza Garage.

Additional air monitoring will begin with the start of the next phase of development which includes the Wills Wharf building, slated to begin in the fall of 2016.

<sup>&</sup>lt;sup>1</sup> Air monitoring was performed in accordance with ERM's 16 December 2015 memorandum to the Beatty Development Group (BDG). The United States Environmental Protection Agency (EPA) and the Maryland Department of the Environment (MDE) approved the Work Plan in separate emails dated 23 December 2015.

### 5.2 Current Quarter Results

Starting March 11, 2016, and ending on April 11, 2016, ERM performed air monitoring in accordance with the Revised Air Monitoring plan approved by EPA and MDE for all intrusive work associated with sheet pile extension operations along the east side of the hydraulic barrier, south of the Exelon Tower Plaza. Samples of particles in the air were collected from two fixed monitoring stations located approximately 100 feet east of the work area during each day of active work that required sampling. All of the total particulate and hexavalent chromium results were below the action levels established for the Area 1/Phase 1 development.

Appendix A Surface Water Sampling Program Data

Appendix A-1 Raw Laboratory Data—April 2016



Appendix A-2 Chain-of-Custody Records—April 2016

## 10651 1647342 8318623-44

| 19                | ;  |                            | ~   |  |                   |                | 106                                | sı   I                        | 6473                        | 42                | 8                    | 378                | 367              | Ζ3                   | -4               | 4                  |                       |                  |                        |                 |                      |                    |                          |   |                               |
|-------------------|--|----------------------------|---|--|-------------------|----------------|------------------------------------|-------------------------------|-----------------------------|-------------------|----------------------|--------------------|------------------|----------------------|------------------|--------------------|-----------------------|------------------|------------------------|-----------------|----------------------|--------------------|--------------------------|---|-------------------------------|
| 242<br>Lar        | ancaster Lai<br>25 New Holland F<br>ncaster, PA 1760 | ooratori<br>Pike<br>5-2425 | es  |  |                   | lone           | eywe                               |                               | Chain                       | Of C              | usto                 | ody /              | Anal             | lysis                | s Re             | quest              | <u>.</u>              |                  |                        |                 |                      | angu ang           |                          | AESI Ref:<br>COC#   | <b>42461.498</b><br>30905-110 |
| (71               | 7) 656-2300  |                            |   |  | Privileged        | & Confider     | ntial                              | N                             |                             |                   | Site                 | Name               |                  | Balti                | imore            |                    |                       |                  | Bha                    |                 |                      | -7                 | la el conservation de la | Lab Proj # (SDG):   |                               |
| Sa                | mpling Co.:  | Marylan                    | d Environ                                   | mental Service   | EDD To:           |                | matthew.gill                       | is@ch2m.co                    | om i                        |                   | Loca                 | ation o            | f Site:          | BAL                  | TIMO             | RE, MD             | and the second second |                  | Sam                    | piing<br>piing  | Surfac               | ce Wa              | ater                     | Lab ID  | LLI                           |
| Cli               | ent Contact: (                                       | name, co                   | ., addre                                    | ss)  | Sampler:          | Doug Gr        | iffith, Tim May                    | nard, Lien                    | /u                          |                   |                      |                    | 1                | $\vdash$             | [                |                    |                       | ł                | 1100                   |                 | Samp                 | JDQ<br>I           |                          | Site ID   | BALTIMO                       |
| 115               | Tabor Rd   |                            |   |  | PO #              | 4500013        | 806                                |                               |                             |                   | Prese                | rvative            | 3                | 1                    |                  |                    |                       |                  |                        |                 |                      |                    |                          | Lab Job #   |                               |
| Mor               | ris Plains, NJ 079                                   | 50                         | u o i llio contro                           | 2  | Analysis          | Consulta       | nt                                 |                               | 14<br>CH2M                  |                   |                      |                    |                  |                      |                  |                    |                       |                  |                        |                 |                      |                    |                          | Authorized User:  | Honeyw                        |
| San<br>Ack<br>Han | nple Receipt<br>nowledgement 1<br>d Copy To          | o amy klor<br>Amy Klor     | vollis@ch<br>vollis@ch<br>mer@criti<br>pper | zuncom:<br>pen.com: hernice kidd@ch2m.com<br>2m.com:<br>gen.com; bernice kidd@ch2m.com | ν<br>Ι <u>.</u> Ε | ull Report     | ΓΔΤ                                |                               | 29                          |                   | Grab                 | d Sample ?         | mium             |                      |                  |                    |                       |                  |                        |                 |                      |                    |                          | Toxt & Excel File Drive   | Excel & Text<br>Order         |
| Invo              | dee To:  | Christop                   | her Frencl                                  | n  |                   | annepon        |                                    |                               | 20                          |                   | site/                | Itere              | Chro             |                      |                  |                    |                       | ĺ                |                        |                 |                      |                    | Ì                        |   | ٨                             |
| فساد والمت        |  | Samı<br>Start              | ole Identii                                 | lication   | Sample<br>Date    | Sample<br>Time | Sample<br>Type                     | Sample<br>Matrix              | Sample<br>Purpose           | # of<br>Cont.     | Compo                | Field Fi           | SW6010           |                      |                  |                    |                       |                  |                        |                 |                      |                    |                          | Copyright AESI: Version<br>8.0 Unauthorized use<br>strictly prohibited, |                               |
|                   | Location ID  | Depth<br>(ft)              | Depth<br>(ft)                               | Field Sample ID  |                   |                |                                    |                               |                             |                   | Units                |                    | bpb              |                      |                  |                    |                       |                  |                        |                 |                      |                    |                          | Sampling Method<br>(code)   | Lab Samp<br>Number            |
| 1                 | 3T   | 7.55                       | 10  | 30905-SW3T-040416  | 4/4/2016          | 10.01          | W-SW                               | WATER                         | REG                         | 1                 | grab                 | Y                  | х                |                      |                  |                    |                       |                  |                        |                 |                      |                    |                          |   |                               |
| 2                 | 3M   |                            | a la factor de la                           | 30905-SW3M-040416  | 4/4/2016          | a              | w-sw                               | WATER                         | REG                         |                   | grab                 |                    |                  |                      |                  |                    |                       |                  |                        |                 |                      |                    |                          |   |                               |
| 3                 | 3B   | 7.35                       | 6.33  | 30905-SW3B-040416  | 4/4/2016          | 10:03          | w-sw                               | WATER                         | REG                         | 1                 | grab                 | Y                  | х                |                      |                  |                    |                       |                  |                        |                 |                      |                    |                          |   |                               |
| 4                 | 4T   | 4.42                       | <u>/. ()</u>                                | 30905-SW4T-040416  | 4/4/2016          | 10:06          | w-sw                               | WATER                         | REG                         | 1                 | grab                 | Y                  | х                |                      |                  |                    |                       |                  |                        |                 |                      |                    |                          |   |                               |
| 5                 | 4M   | ****                       | -majana                                     | 30905-SW4M-040416  | 4/4/2016          | 17 waaradadi   | W-SW                               | WATER                         | REG                         |                   | grab                 |                    |                  |                      |                  |                    |                       |                  |                        |                 |                      | $\neg$             |                          |   |                               |
| 6                 | 4B   | 1.12                       | z.42  | 30905-SW4B-040416  | 4/4/2016          | 0:03           | W-SW                               | WATER                         | REG                         | 1                 | grab                 | Y                  | х                |                      |                  |                    |                       |                  |                        |                 |                      |                    |                          |   |                               |
| 7                 | 5T   | 4.33                       | <u>1. O</u>                                 | 30905-SW5T-040416  | 4/4/2016          | 10:07          | W-SW                               | WATER                         | REG                         | 1                 | grab                 | Y                  | х                |                      | Ì                |                    |                       |                  |                        |                 |                      |                    |                          |   |                               |
| 8                 | 5M   | - McMan                    | , opposition for                            | 30905-SW5M-040416  | 4/4/2016          | university.    | W-SW                               | WATER                         | REG                         |                   | arab                 |                    |                  |                      |                  |                    |                       | -                |                        |                 |                      | +                  |                          |   |                               |
| 9                 | 5B   | 7.33                       | 3.33  | 30905-SW5B-040416  | 4/4/2016          | 10:10          | w-sw                               | WATER                         | REG                         | 1                 | grab                 | Y                  | x                |                      |                  |                    |                       |                  |                        |                 |                      | -                  |                          |   |                               |
| 10                | 6T   | 7. Ô                       | 1.0   | 30905-SW6T-040416  | 4/4/2016          | 10:12          | W-SW                               | WATER                         | REG                         | 1                 | grab                 | Y                  | x                |                      | -f               |                    |                       |                  |                        |                 |                      | -                  |                          |   |                               |
| 11                | 6M   | **360075                   | wer   | 30905-SW6M-040416  | 4/4/2016          |                | W-SW                               | WATER                         | REG                         |                   | grab                 |                    |                  |                      |                  |                    |                       | 1                |                        |                 |                      |                    |                          |   |                               |
| 12                | 6B   | 7.0                        | 5.0   | 30905-SW6B-040416  | 4/4/2016          | 0:13           | W-SW                               | WATER                         | REG                         | 1                 | grab                 | Y                  | x                | -+                   |                  |                    |                       | -                |                        | -+              |                      | +                  | -                        |   |                               |
| Relinc            | uished by  |                            | 1   | Company  | AAES              |                | Received bv                        | ·                             | ······                      |                   |                      |                    |                  | Com                  | panvl            | Cil                | 12                    | Conc             | lition                 |                 |                      |                    | Justody                  | Seals Intact  |                               |
| 7                 | NDR  | Al                         | >   | Date/Time  | 4/4/11            | 2<br>1K-7      | > MA/                              |                               |                             |                   |                      | Da                 | ate/Tim          | ne                   |                  | 1 sili             | <u>~ 7</u><br>/ w.    | Cool             | ər Tem                 | p.              |                      | +                  |                          |   |                               |
| télíno            | uished by  |                            |   | Company  | 6420              | Dic.           | Received by                        |                               |                             |                   |                      |                    |                  | Com                  | pany             | 71 7/16            | 6 91                  | Conc             | lition                 |                 |                      | c                  | ustody (                 | Seals Intact  |                               |
| Mи                | W- 6,1   | <u>_</u>                   |   | Date/Time  | 4/5/16            | 1324           | El                                 | m                             |                             |                   | 41                   | s Pl               | ite/Tim          | 1e.<br>]: <u>v</u> / | ,-               |                    |                       | Coole            | er Tem                 | D.              |                      |                    |                          |   |                               |
| rese              | rvatives: (Other;                                    | Specify):                  |   |  | 1                 | 0              | 0 (none); 1 (4 D<br>(pH<2), 4Deg C | eg C); 2 (HC<br>;); 11 (4C Na | l pH<2); 3 (I<br>OH (pH>12) | INO3 pl<br>& Asco | -l<2); 4<br>rbic Aci | (H2SO<br>d); 12 (/ | 4 pH<2<br>4C H2S | !); 5 (N<br>3O4 (pl  | aOH pi<br>H<2) & | H>12); 6<br>Na2S20 | (NaOH<br>03); 13 (    | Zn Ace<br>Zn Ace | etate); 7<br>late); sp | (H2SC<br>(speci | 04 (pH<<br>al instru | 2), 4 E<br>uctions | )eg C)); (<br>3)         | 3 (HCI pH<2); 9 (HCI 4 De   | ∋g C); 10 (HNC                |

Rel. Km 4/s/14 17:35 Parts 4/5/16 1735

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| - 24<br>Li                | 25 New Holland   | Pike<br>)5-2425                  | 163  |  |            | lon         | eywe            |               | Chaiı                                   | n Of (  | Cust           | ody /                | Ana                | lysis    | Req   | uest             |                    |          |             |              |                                       | Barton Barton Parka  |                    | AESI Ref:<br>COC#  | 42461.499                             |
|---------------------------|--|----------------------------------|--|--|------------|-------------|-----------------|---------------|---|---------|----------------|----------------------|--------------------|----------|-------|------------------|--------------------|----------|-------------|--------------|---------------------------------------|--|--------------------|--|---------------------------------------|
|                           |  |                                  |  |  | Privileged | & Confide   | ential          |               | 1                                       |         |                |                      |                    | T        |       |                  |                    |          |             |              |                                       |  |                    |  |                                       |
| S                         | mpling Co.:  | Maryla                           | nd Enviror   | mental Service   | EDD To:    |             | In all have a   |               |   |         | Site           | e Name               | :                  | Baltin   | nore  |                  |                    |          | Phas        | ie:          |                                       | Contraction of the local division of the loc |                    | Lab Proj # (SDG):  |                                       |
| C                         | ient Contact: (  | name, co                         | o., addre  | SS)  |            | 1.          | Inattnew.gi     | lis@ch2m.c    | om                                      |         | Loc            | cation o             | f Site:            | BALT     | MORE  | , MD             |                    |          | Sam<br>Prog | pling<br>ram | Surfac                                | e Water  | ٢                  | Lab ID   | LU                                    |
|                           | ristopher French                                       |                                  |  |  | PO #       | Doug G      | riffith, Tim Ma | ynard, Lien   | Vu                                      |         |                |                      |                    |          | Γ     |                  |                    | Γ        |             |              | Samp                                  |  |                    | Site ID  | BALTIMO                               |
| Mo                        | rris Plains, NJ 079                                    | 50                               |  |  | Analysis   | Turnaroun   | d Time (TAT)    | :             | 14                                      |         | Pres           | ervative             | 3                  |          |       |                  |                    |          |             |              |                                       |  | +                  | Lab Job #  |                                       |
| 196                       | ilminary Data To                                       | malthey                          | v.qillis@ch  | 12m.com;   |            | Consulta    | int             | -             | CH2M                                    |         | -              |                      |                    |          |       |                  |                    |          |             |              |                                       |  |                    | Authorized User:   | Honeyw                                |
| Sta<br>Ala<br>Hai<br>Inve | nple Receipt<br>nowledgement 1<br>d Copy To<br>Nee To: | o amy klo<br>Amy klo<br>Christop | ANS (Derit<br>oper@erit<br>oper<br>oper<br>her Frenc | inen rom: hernice kidd@ch2m.cov<br>12m.com;<br>gen.com; bernice kidd@ch2m.cov<br>h | 0.<br>F    | ull Report  | TAT:            |               | 28                                      |         | te/Grab        | ared Sample ?        | nromium            |          |       |                  |                    |          |             |              |                                       |  |                    | Text & Excel File Drive  | Excel & Tex<br>Order                  |
|                           |  | Same                             | ala lata sut   |  | Sample     | Sample      | Sample          | Sample        | Sample                                  | # 05    | liposi         | d Filte              | 010 Cł             |          |       |                  |                    |          |             |              |                                       |  |                    |  |                                       |
| Course some               | Location ID  | Start                            | End  |  | Date       | Time        | Туре            | Matrix        | Purpose                                 | Cont.   | - <sup>5</sup> | Field                | SW6                |          |       |                  |                    |          |             |              |                                       |  |                    | Copyright AESI: Version<br>8.0 Unauthorized use<br>strictly prohibited | (P)                                   |
|                           |  | (ft)                             | (ft)   | Field Sample ID  |            |             |                 |               |   |         |                |                      | ų                  |          |       |                  |                    |          |             |              |                                       |  | 1                  | Sampling Method  | Lah Sama                              |
| _1_                       | 7T   | 7.67                             | 1.0  | 30905-SW7T-040416  | 4/4/2016   | 10.15       | w-sw            | WATER         | REG                                     | 1       | Unite          | s<br>V               | 3                  |          |       |                  |                    |          |             |              |                                       |  |                    | (code)   | Number                                |
| 2                         | 7M   | -*********                       | i -mase  | 30905-SW7M-040416  | 4/4/2016   |             | w-sw            | WATER         | REG                                     | '       | grab           |                      | -^-                | -+-      |       | +                |                    | -        |             | -+           |                                       |  | +                  |  |                                       |
| 3                         | 7B   | 1.60                             | 6.67   | 30905-SW7B-040416  | 4/4/2016   | 10:16       | W-SW            | WATER         | REG                                     | 1       | grab           | $\frac{1}{\sqrt{1}}$ |                    |          |       | +                |                    |          |             |              |                                       |  |                    | <u> </u>   |                                       |
| 4                         | 8T   | 4.83                             | 1.0  | 30905-SW8T-040416  | 4/4/2016   | 10:25       | W-SW            | WATER         | REG                                     | 1       | grab           |                      | ${}$               |          | +     |                  |                    |          |             |              |                                       |  |                    | ·  |                                       |
| 5                         | 8M   | - and                            | -meany   | 30905-SW8M-040416  | 4/4/2016   | Calculut    | W-SW            | WATER         | REG                                     |         | grab           |                      |                    |          |       |                  | $\left  - \right $ |          |             |              |                                       |  |                    |  |                                       |
| 6                         | 8B   | 4.83                             | 3,83   | 30905-SW8B-040416  | 4/4/2016   | 0:26        | W-SW            | WATER         | REG                                     | 1       | grab           |                      |                    |          | +     |                  |                    |          |             |              |                                       |  |                    |  |                                       |
| 7                         | 9T   | 617                              | 1.0  | 30905-SW9T-040416  | 4/4/2016   | 16° 28      | W-SW            | WATER         | REG                                     |         | grab           |                      | $\hat{\mathbf{v}}$ |          |       |                  |                    |          |             | -+-          |                                       |  | ┝┦                 | <u> </u>   |                                       |
| 8                         | 9M   | K-emolog                         | -Segura-   | 30905-SW9M-040416  | 4/4/2016   |             | w-sw            | WATER         | REG                                     |         | grab           |                      |                    |          | +     |                  |                    |          |             |              |                                       |  |                    |  |                                       |
| 9                         | <u>9B</u>  | 6.17                             | <u>S./7</u>  | 30905-SW9B-040416  | 4/4/2016   | 10:30       | W-SW            | WATER         | REG                                     | 1       | grab           |                      | v                  |          |       | $\left  \right $ |                    |          |             |              |                                       |  | $\left  - \right $ |  |                                       |
| 10                        | 10T  | 5.67                             | 1.0  | 30905-SW10T-040416   | 4/4/2016   | 0:39        | W-SW            | WATER         | REG                                     | 1       | grab           | v                    | $\frac{2}{x}$      |          | +     |                  |                    |          |             | - -          |                                       | +  |                    |  |                                       |
| 11                        | 10M  | ·~~~                             |  | 30905-SW10M-040416   | 4/4/2016   | NORTOWING . | W-SW            | WATER         | REG                                     | - 1     | orab           |                      | <u>^</u>           | -        |       |                  |                    |          |             |              | +                                     | +  |                    |  |                                       |
| 2                         | 10B  | 5.67                             | 4.67   | 30905-SW10B-040416   | 4/4/2016   | 10:41       | W-SW            | WATER         | REG                                     | 1 9     | grab           | Y                    | x                  | - -      | 1     |                  | -+                 |          |             |              |                                       | +  |                    |  | · · · · · · · · · · · · · · · · · · · |
| elinqi                    | ished by   | s la                             |  | Company  | MES        | F           | leceived by     |               |   |         |                |                      |                    |          |       |                  |                    |          | ·····       |              |                                       |  |                    |  |                                       |
|                           | $\underline{AIL}$                                      | 7 <u>7</u>                       | 7  | Date/Time  | 4/4/10     | 15.27       | miss            | L             |   |         |                | Date                 | e/Time             |          |       | MZ               | ~~ C               | Conditio | 00<br>      | _ _          | · · · · · · · · · · · · · · · · · · · | Custo  | dy Sea             | als Intact   |                                       |
| elinqu                    | ished by   |                                  | 1  | Company  | cvtn m     | R           | eceived by      | <u>- 011</u>  | ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ |         |                |                      | Č                  | Company  | 114   | 16               |                    | onditio  | nemp.       |              |                                       |  |                    |  |                                       |
| <u>V</u> V                | 1100 G1  | 12                               |  | Date/Time  | 1-5-16 13  | 321         | pm              |               |   |         | ¥/5            | Date                 | /Time              | V-       |       |                  |                    | ooler 1  | emp.        |              |                                       | Custor   | ay Sea             | ils Intact   |                                       |
| esen                      | vatives: (Other; S                                     | pecify):                         |  | 514  |            | 0           | (none); 1 (4 De | g C); 2 (HCI) | pH<2); 3 (HN                            | √O3 pH< | 2); 4 (1       | H2SO4 p              | H<2);              | 5 (NaOH  | pH>12 | ); 6 (Na         | OH, Zn             | Acetate  | ∍); 7 (H2   | 2504 (       | (pH<2).                               | 4 Deg C  | ;)); 8 (F          |  | C): 10 (HNO)                          |
| Ø                         | 14 m   | 4/5                              | 110  | 17:15  |            |             | /, 1009 0),     |               | 11 (PHZ 12) &                           | ASCOLD  | ic Acid)       | <u>);</u> 12 (4C     | H2SO               | 4 (pH<2) | & Na2 | 5203); 1         | 13 (Zn /           | Acetate  | ); sp (sr   | oecial i     | nstructi                              | ons)   |                    |  |                                       |

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Euls 4/5/16 1735

## 10651 / 1647343/ 8318645-67

|                                | ncaster Lal  | ooratori   | es  |  |                |                 |                                    | en                           |                             |                    |                     |                      |                  |                          |                    |                       |                     |                         |                     |                        |                        | AESI F                                  | Ref:                                    | 42461.500            |
|--------------------------------|--|--|---|--|----------------|-----------------|------------------------------------|------------------------------|-----------------------------|--------------------|---------------------|----------------------|------------------|--------------------------|--------------------|-----------------------|---------------------|-------------------------|---------------------|------------------------|------------------------|---|---|----------------------|
| Lanc                           | new Holland F<br>aster, PA 1760                          | 'ike<br>5-2425   |   |  |                | ION             | eywe                               |                              | Chain                       | Of C               | usto                | ody / .              | Anal             | lysis R                  | eque               | st                    |                     |                         |                     |                        |                        | COC#                                    |   | 30906-110            |
| (717)                          | 656-2300   |  |   |  | Privileged &   | k Confide       | ntial                              | N                            |                             |                    | Site                | Name:                |                  | Baitimo                  | re                 | 0.41.41               |                     | Ph                      | ase.                | 1                      |                        | Lab Pr                                  | oj # (SDG):                             |                      |
| Sam                            | pling Co.:   | Marylan  | d Environi  | mental Service   | EDD To:        |                 | matthew.gillis                     | s@ch2m.co                    | m                           |                    | Loca                | ation of             | f Site:          | BALTIM                   | ORE, N             | 1D                    |                     | Sa                      | mpling              | Surfac                 | e Water                | Lab ID                                  |   | LLI                  |
| Clie                           | nt Contact: (  | name, co   | ., addre  | ss)  | Sampler:       | Doug Gr         | iffith, Tim Mayn                   | ard, Lien Vi                 | J                           |                    |                     |                      | Γ                |                          |                    | ΤΤ                    |                     |                         | 1                   | Sampli                 |                        | Site ID                                 |   | BALTIMO              |
| 115 1                          | abor Rd  |  |   |  | PO #           | 4500013         | 3806                               | 1                            |                             |                    | Prese               | rvative              | 3                |                          |                    |                       |                     |                         |                     |                        |                        | Lab Jo                                  | b#                                      |                      |
| Morri                          | s Plains, NJ 079   | 50   |   |  | Analysis I     | Consulta        | a Time (TAT):<br>ant               |                              | 14<br>CH2M                  |                    | -                   |                      |                  |                          |                    |                       | [·                  |                         |                     |                        |                        | Author                                  | ized User:                              | Honeyw               |
| Prolli<br>Samj<br>Ackn<br>Hard | ninary Data To<br>de Receipt<br>owledgement T<br>Copy To | matthew<br>amy klor<br>matthew<br>o amy klor<br>Amy Klor | Adillis@ch<br>Dear@cdti<br>Adills@ch<br>Dear@cdti<br>Dear@cdti<br>Dear  | <u>2m.com.</u><br>nen com:<br>2 <u>m.com:</u><br>2 <u>m.com:</u> bernice.kidd@ch2m.com<br>gen.com: bernice.kidd@ch2m.com |                |                 |                                    |                              |                             |                    | irab                | I Sample ?           | nium             |                          |                    |                       |                     |                         |                     |                        |                        | Text & F                                | xcel File Drive                         | Excel & Tex<br>Order |
| Invol                          | :0 To;   | Christop   | ner Frencl  | - <del>R - 1</del>   | Fi             | III Report      | TAT:                               |                              | 28                          |                    | ite/                | tered                | Chror            |                          | Ì                  |                       |                     |                         |                     |                        |                        |   |   |                      |
|                                |  | Sam  | ole Identii   | ication  | Sample<br>Date | Sample<br>Time  | Sample<br>Type                     | Sample<br>Matrix             | Sample<br>Purpose           | # of<br>Cont.      | Compos              | Field Fil            | SW6010 (         |                          |                    |                       |                     |                         |                     |                        |                        | Copyright<br>8.0 Unauti<br>strictly pro | AESI: Version<br>orized use<br>oblited. | Ô                    |
|                                | Location ID  | Depth<br>(ft)  | End<br>Depth<br>(ft)  | Field Sample ID  |                |                 |                                    |                              |                             |                    | Units               | 3                    |                  |                          |                    |                       |                     |                         |                     |                        |                        | Sampl                                   | ng Method<br>code)                      | Lab Sam<br>Numbei    |
| 1                              | 11T  | 7.50   | 1.0   | 30905-SW11T-040416   | 4/4/2016       | 16:42           | W-SW                               | WATER                        | REG                         | 1                  | grab                | Y                    | x                |                          |                    |                       |                     |                         |                     |                        |                        |   |   |                      |
| 2                              | 11M  | r valaasiyyaasi  | - Aggraphede  | 30905-SW11M-040416   | 4/4/2016       | , aqueeneng     | W-SW                               | WATER                        | REG                         |                    | grab                |                      |                  |                          |                    |                       |                     |                         |                     |                        |                        |   |   |                      |
| з                              | 11B  | 7.50   | 6,56  | 30905-SW11B-040416   | 4/4/2016       | 0:43            | w-sw                               | WATER                        | REG                         | 1                  | grab                | Y                    | х                |                          |                    |                       |                     |                         |                     |                        |                        |   |   |                      |
| 4                              | 12T  | 4.0  | 1.0   | 30905-SW12T-040416   | 4/4/2016       | 10:46           | w-sw                               | WATER                        | REG                         | 1                  | grab                | Y                    | х                |                          |                    |                       |                     |                         |                     |                        |                        |   |   |                      |
| 5                              | 12M  | 1-1250 <sup>4</sup>                                      | . 1620A   | 30905-SW12M-040416   | 4/4/2016       | · ,700003355094 | w-sw                               | WATER                        | REG                         |                    | grab                |                      |                  |                          |                    |                       |                     |                         |                     |                        |                        |   |   |                      |
| 6                              | 12B  | 4.0  | 3.0   | 30905-SW12B-040416   | 4/4/2016       | 16:47           | w-sw                               | WATER                        | REG                         | 1                  | grab                | Y                    | х                |                          |                    |                       |                     |                         |                     |                        |                        |   |   |                      |
| 7                              | 13T  | 3.33   | 1.0   | 30905-SW13T-040416   | 4/4/2016       | 10:48           | W-SW                               | WATER                        | REG                         | 1                  | grab                | Y                    | х                |                          | 1                  |                       |                     |                         |                     |                        |                        |   |   |                      |
| 8                              | 13M  | A ratesym  | 2000  | 30905-SW13M-040416   | 4/4/2016       | P transform     | W-SW                               | WATER                        | REG                         |                    | grab                |                      |                  |                          | 1                  |                       |                     |                         |                     |                        |                        |   |   |                      |
| 9                              | 13B  | 3.33   | 2.3   | 30905-SW13B-040416   | 4/4/2016       | 10:49           | W-SW                               | WATER                        | REG                         | 1                  | grab                | Y                    | x                |                          |                    |                       |                     |                         |                     |                        |                        |   |   |                      |
| 10                             | 14T  | 7.17   | 1.6   | 30905-SW14T-040416   | 4/4/2016       | 10:51           | W-SW                               | WATER                        | REG                         | 1                  | grab                | Y                    | x                |                          |                    |                       |                     |                         |                     |                        |                        |   |   |                      |
| 11                             | 14M  | p calorereidentit.                                       | www.  | 30905-SW14M-040416   | 4/4/2016       | 6 concentration | w-sw                               | WATER                        | REG                         |                    | grab                |                      |                  |                          |                    |                       |                     |                         |                     |                        |                        |   |   |                      |
| 12                             | 14B  | 7.17   | 6.17  | 30905-SW14B-040416   | 4/4/2016       | 10:52           | w-sw                               | WATER                        | REG                         | 1                  | grab                | Y                    | x                |                          |                    |                       |                     |                         |                     |                        |                        |   |   |                      |
| Relinq                         | ished by   |  |   | Сотрапу  | ME             |                 | Received by                        |                              |                             |                    |                     |                      |                  | Compan                   | 1/ 14              | LAN                   | Cc                  | ndition                 |                     |                        | Custo                  | dy Seals Intac                          | t                                       |                      |
|                                | NDO  | 1A   | at the second | Date/Time  | 4/4/16         | 15.2            | Mastel                             | da a                         |                             |                    |                     | Da                   | ate/Tim          | ne                       | ulil.              | 11 12                 | 27 00               | oler Tei                | mp.                 |                        |                        |   |   |                      |
| Relinqu                        | ished by   | <i>f</i>   | ć   | Company  | CYFJ.V         | M               | Received by                        | ing_                         |                             |                    |                     |                      |                  | Company                  | 19776-1            | <u>fa</u>             | Co                  | ndition                 |                     |                        | Custo                  | dy Seals Intac                          | t                                       |                      |
| Muj                            | 2 (9)  | 45   |   | Date/Time  | 15/16          | 1321            | lin                                |                              |                             |                    | 41                  | silli                | ate/Tim          | 1e<br>                   |                    |                       | Co                  | oler Ter                | mp.                 |                        |                        |   |   |                      |
| Preser                         | vatives: (Other  | ; Specify):  |   |  |                |                 | 0 (none); 1 (4 D<br>(pH<2), 4Deg C | eg C); 2 (HC<br>); 11 (4C Na | I pH<2); 3 (F<br>OH (pH>12) | INO3 pl<br>& Ascol | H<2); 4<br>rbic Aci | (H2SO4<br>id); 12 (4 | 4 pH<2<br>4C H25 | !); 5 (NaOF<br>304 (pH<2 | i pH>12<br>) & Na2 | ); 6 (NaC<br>S2O3); 1 | 0H, Zn /<br>3 (Zn A | Acetate);<br>cetate); : | 7 (H2SC<br>sp (spec | O4 (pH<2<br>ial instru | ?), 4 Deg C<br>ctions) | C)); 8 (HCI pH<2                        | !); 9 (HCl 4 De                         | eg C); 10 (HN        |

Al they 4/1/16 17:35

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July 4/5/16 1735

## 10651 1647343 8318645-67

| Ľ              | ancaster La                              | ooratori               | 818  |  |                | 8              |                                    | 000 502  |  |                  |  |  |                  |                           |                  |                     |                      |                         | - description of the second |                        |                    |            | AESI Ref:                                    | 42461.501        |
|----------------|--|------------------------|--|--|----------------|----------------|------------------------------------|--|--|------------------|--|--|------------------|---------------------------|------------------|---------------------|----------------------|-------------------------|---|------------------------|--------------------|------------|--|------------------|
| 24             | 125 New Holland I                        | Pike                   |  |  |                | lon            | evwe                               |  | Chain  | Of C             | usto   | dy/                                      | Ana              | ysis Re                   | eques            | st                  |                      |                         |   |                        |                    |            | COC#   | 30905-110        |
| L:             | ancaster, PA 1760                        | 5-2425                 |  |  |                |                | - v                                | 1005 2AV   |  |                  |  |  |                  |                           |                  |                     |                      |                         |   |                        |                    |            |  | +                |
|                | 17) 000-2300                             |                        |  |  | Privileged     | & Confide      | ntial                              | N  |  |                  | Site   | Name:                                    |                  | Baltimor                  | e                | and the second      |                      | Phas                    | e:  |                        | alised lineares    |            | Lab Proj # (SDG):                            | 1                |
| S              | ampling Co.:                             | Marylan                | d Environn   | nental Service   | EDD To:        |                | matthew.gilli                      | s@ch2m.co  | m  |                  | Loca   | tion o                                   | Site:            | BALTIM                    | DRE, M           | D                   |                      | Samp                    | ning<br>ram   | Surfac<br>Sampl        | e Wa               | ter        | Lab ID                                       | LLI              |
| C              | lient Contact: (                         | name, co               | ., addres  | ss)  | Sampler:       | Doug Gr        | iffith, Tim Mayr                   | nard, Lien V   | u  |                  | 1  |  | [                |                           | Τ                |                     | Τ                    |                         |   |                        | T                  |            | Site ID                                      | BALTIM           |
| 11             | hristopher French                        |                        |  |  | PO #           | 4500013        | 806                                |  |  |                  | Prese  | vative                                   | 3                |                           |                  |                     |                      |                         |   |                        |                    |            | Lab Job #                                    |                  |
| M              | orris Plains, NJ 079                     | 50                     | ·  |  | Analysis 1     | Consulta       | d Time (TAT):                      |  | 14<br>CH2M   |                  | -  |  |                  |                           |                  |                     |                      |                         |   |                        |                    |            | Authorized User:                             | Honeyv           |
| 184            | eliminary Data To                        | matthew                | allis@ch2  | <u>2m.com;</u>   |                |                |                                    | 1  | <u>OTTEM</u>   |                  | -  | ~  |                  |                           |                  |                     |                      |                         |   |                        |                    |            | Text & Excell File Drive                     | Exact & To       |
| (S)            | ample Receipt                            | matthew                | .gillis@ch2  | ien com: bemice kidd@ch2m.com<br>?m.com;   |                |                |                                    |  |  |                  | -  | nple                                     |                  |                           |                  |                     |                      |                         |   |                        |                    |            |  | Order            |
|                | Roowledgementa<br>ard Gony To            | Amy Kio                | per@enlig<br>oper  | ien.com; bernice kidd@ch2m.com;  | ļ              |                |                                    |  |  |                  | lab  | Sar                                      | nin              |                           |                  |                     |                      |                         |   |                        |                    |            |  |                  |
| Im             | valce Ta:                                | Christop               | ner French   |  | Fi             | ull Report     | TAT:                               |  | 28   |                  | ite/G  | ered                                     | hron             |                           |                  |                     |                      |                         |   |                        |                    | Ì          |  |                  |
|                | Contractor of Contractor Contractor Inc. | Termeter               |  |  |                |                | <u> </u>                           | +  | r  | 1                | posi   | Ē  | 10 0             |                           |                  |                     |                      | 1                       |   |                        |                    |            |  |                  |
|                |  | Sam                    | ole Identifi   | cation   | Sample<br>Date | Sample<br>Time | Sample<br>Type                     | Sample<br>Matrix   | Sample   | # of<br>  Cont.  | Com  | Field                                    | SW6C             |                           |                  |                     |                      |                         |   |                        |                    | ĺ          | 8.0 Unauthorized use<br>strictly prohibited. | - CY             |
|                | Location ID                              | Start<br>Depth<br>(ft) | End<br>Depth<br>(ft)   | Field Sample ID  |                |                |                                    |  |  |                  | Units  |  |                  |                           |                  |                     |                      |                         |   |                        |                    |            | Sampling Method<br>(code)                    | Lab Sam<br>Numbe |
| 1              | 15T                                      | 6,58                   | 1.0  | 30905-SW15T-040416   | 4/4/2016       | 10:55          | w-sw                               | WATER  | REG  | 1                | grab   | Y  | х                |                           |                  |                     |                      |                         |   |                        |                    |            |  |                  |
| 2              | 15M                                      | and passion            | and the second s | 30905-SW15M-040416   | 4/4/2016       | Waleyer        | w-sw                               | WATER  | REG  |                  | grab   |  |                  |                           |                  |                     |                      |                         |   |                        |                    |            |  |                  |
| 3              | 15B                                      | 6.58                   | 5.58   | 30905-SW15B-040416   | 4/4/2016       | 10:56          | w-sw                               | WATER  | REG  | 1                | grab   | Y  | х                |                           |                  |                     |                      |                         |   |                        |                    |            |  |                  |
| 4              | 16T                                      | 7.33                   | 1.0  | 30905-SW16T-040416   | 4/4/2016       | 10:58          | w-sw                               | WATER  | REG  | 1                | grab   | Y  | х                |                           |                  |                     |                      |                         |   |                        |                    |            |  |                  |
| 5              | 16M                                      | a presented            | -manaj   | 30905-SW16M-040416   | 4/4/2016       | > costationers | w-sw                               | WATER  | REG  |                  | grab   | Υ  |                  |                           |                  |                     |                      |                         |   |                        |                    |            |  |                  |
| 6              | 16B                                      | 7.33                   | 6.33   | 30905-SW16B-040416   | 4/4/2016       | 0:57           | w-sw                               | WATER  | REG  | 1                | grab   | Y  | х                |                           |                  |                     |                      |                         |   |                        |                    |            |  |                  |
| 7              | <u>17T</u>                               | 6.83                   | 1.0  | 30905-SW17T-040416   | 4/4/2016       | 11:01          | w-sw                               | WATER  | REG  | 1                | grab   | Y  | x                |                           |                  |                     |                      |                         |   |                        |                    |            |  |                  |
| 8              | 17M                                      | R <sup>an</sup> ington | ~-150.8m×.   | 30905-SW17M-040416   | 4/4/2016       | , James        | w-sw                               | WATER  | REG  |                  | grab   |  |                  |                           |                  |                     |                      |                         |   |                        |                    |            |  |                  |
| 9              | 17B                                      | 6.83                   | 5.33   | 30905-SW17B-040416   | 4/4/2016       | 11:02          | w-sw                               | WATER  | REG  | 1                | grab   | Y  | x                |                           |                  |                     |                      |                         | $\square$   |                        | $\square$          |            |  |                  |
| 10             | 18T                                      | 10.83                  | 1.0  | 30905-SW18T-040416   | 4/4/2016       | 11:13          | w-sw                               | WATER  | REG  | 1                | grab   | Y  | x                |                           |                  |                     |                      |                         |   |                        | $\square$          |            |  |                  |
| 11             | 18M                                      | 10.83                  | 5.42   | 30905-SW18M-040416   | 4/4/2016       | 11-15          | w-stw                              | WATER  | REG  |                  | grab   |  |                  |                           |                  |                     | -                    |                         |   |                        |                    |            |  |                  |
| 12             | 18B                                      | 10.83                  | 7.83   | 30905-SW18B-040416   | 4/4/2016       | 11:16          | W-SW                               | WATER  | REG  | 1                | grab   | Y  | X                |                           |                  |                     |                      |                         |   |                        |                    |            |  |                  |
| Reli           | inquished by                             | XT                     |  | Company  | ME             | S              | Received by                        |  |  |                  |  |  |                  | Company                   | GA               | zny                 | Cond                 | ition                   | T   |                        | C                  | ustody     | Seals Intact                                 |                  |
|                | NJQ                                      | AVC                    |  | Date/Time  | 4/4/1          | 6, 15:         | 27 Mars                            | + Gur  | han an a  |                  |  | Da                                       | ite/Tin          | 10                        | 4/41             | 6 557               | Coole                | er Temp                 | ).  |                        |                    |            |  |                  |
| Reli           | inquished by                             |                        |  | Company  | CABA           | 1              | Received by                        |  | 2  |                  |  |  |                  | Company                   | 1 . 8 2          |                     | Cond                 | ition                   |   |                        | C                  | ustody     | Seals Intact                                 |                  |
| K              | aff 61                                   | 13                     |  | Date/Time  | 4-5-16 1       | 32             | ha                                 | a for a second |  |                  | 41   | 5//Ú                                     | ite/Tin          | 11:11                     | +                |                     | Coole                | er Temp                 | ).  |                        |                    |            |  |                  |
| Pre            | servatives: (Other                       | ; Specify):            |  |  |                | -              | 0 (none); 1 (4 D<br>(pH<2), 4Deg C | )eg C); 2 (HC<br>C); 11 (4C Na   | Cl pH<2); 3 (l<br>OH (pH>12)   | HNO3 p<br>& Asco | H<2); 4<br>rbic Aci  | (H2SO<br>d); 12 (4                       | 4 pH<2<br>4C H28 | ?); 5 (NaOH<br>5O4 (pH<2) | pH>12)<br>& Na2S | 6 (NaOF<br>2O3); 13 | , Zn Ace<br>(Zn Acet | itate); 7 (<br>ate); sp | (H2SC<br>(speci   | )4 (pH<2<br>ial instru | 2), 4 D<br>uctions | )eg C)); / | 8 (HCI pH<2); 9 (HCI 4 D                     | eg C); 10 (HN    |
| Dadaffir souls |  | and the second stress  | 7  | an geografic ann an an Ann |                |                |                                    |  | and the second |                  | a a la mana a la man<br>La mana a la | an a | 0,000,000,000    |                           |                  |                     |                      |                         |   |                        |                    |            |  |                  |

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## 10651 1647344 8318668-85

|              | ancaster La          | oorator            | ies                      |   |                   |                 |                   | aik sia                  | •                    |               | 6960 <u></u> 996 |              |         |                  |             |           |           |          |             |        | <u></u>   |                              |   | AFSI Rof  | 42464 501  |
|--------------|----------------------|--------------------|--------------------------|---|-------------------|-----------------|-------------------|--------------------------|----------------------|---------------|------------------|--------------|---------|------------------|-------------|-----------|-----------|----------|-------------|--------|-----------|------------------------------|---|---|--|
|              | #25 New Holland F    | Pike               |                          |   |                   | lon             | evwe              |                          | Chair                | Of C          | Cust             | ody/         | Ana     | lysis            | Rea         | uest      |           |          |             |        |           |                              |   | COC#  | 42401.303  |
| (7           | 17) 656-2300         | 5-2425             |                          |   |                   |                 | -v                | suri sod                 |                      |               |                  | 5            |         | -                | '           |           |           |          |             |        |           |                              |   |   | -  |
| _            |                      |                    |                          |   | Privileged        | & Confide       | ntial             | N                        |                      |               | Site             | Name         |         | Baltir           | nore        |           |           |          | Dhan        |        | Γ         | and the second second second | la fa | Lab Proj # (SDG):                               |  |
| S            | ampling Co.:         | Marylar            | nd Enviror               | nmental Service   | EDD To:           |                 | matthew.gilli     | s@ch2m.c                 | om                   |               | Lor              | ation        | of Site | BALT             | IMOR        | E, MD     |           |          | Samp        | ning   | Surfac    | e Water                      |   | Lab ID  |  |
| C            | lient Contact: (     | name, co           | o., addre                | ess)  | Sampler:          | Doug Gr         | iffith. Tim Mavr  | hard Lien V              | /11                  |               |                  | anon         |         | +                | T           | ,<br>T    | 1         | T        | Progr       | am     | Sampl     | ng                           |   | Sito ID   |  |
|              | Instopher French     |                    |                          |   | PO #              | 4500013         | 3806              |                          | <u>.</u>             | ··            | Pres             | ervativo     | 3       | ╉━─┨             |             |           |           |          |             |        |           |                              |   | Joile ID  | EAL HWA  |
| M            | orris Plains, NJ 079 | 50                 |                          |   | Analysis 1        | Turnaroun       | d Time (TAT):     |                          | 14                   |               | -                | T            |         | ╇╼╍╇             |             |           |           |          | ╉──┤        |        |           | _                            |   | Lab Job #                                       | Honny  |
| Pr           | eliminary Data To    | matthew            | v.gillis@ci              | <u>h2m.com;</u>   |                   | Consulta        | int               |                          | CH2M                 |               |                  |              |         |                  |             |           |           |          |             |        |           |                              |   | Fluthonized User,                               | Попеум   |
| S            | mple Receipt         | matthew            | oper@orit<br>∕.gillis@cl | lisen.com: hernice kidd@ch2m.com<br>h2m.com;                                    | <u> </u>          |                 |                   | ļ                        |                      |               |                  | ole 3        |         |                  |             |           |           |          |             |        |           |                              |   | Text & Excel File Drive                         | Excel & Tex<br>Order   |
|              | knowledgement T      | o <u>amy kio</u> j | oper@crit                | igen.com; bernice.kidd@ch2m.com   | L                 |                 |                   |                          |                      |               | ٩                | ami          | Ε       |                  |             |           |           |          |             |        |           | Í                            |   |   | Contraction of the Park of the |
| lin          | ru copy to           | Floneyw            | ell; 1000                | Wills Street; Baltimore, MD 21231   | F                 | II Report       | TAT:              |                          | 28                   |               | 1 5              | ed S         | omiu    |                  |             |           |           |          |             |        |           |                              |   |   |  |
| Mar In       | 6050 FG,             | Christop           | ner Frend                | h   |                   |                 |                   |                          |                      |               | site             | ilter        | Chr     |                  |             |           |           |          |             |        |           | 1                            |   |   | A  |
|              |                      | Sam                | ple Identi               | ification   | Sample<br>Date    | Sample<br>Time  | Sample<br>Type    | Sample<br>Matrix         | Sample<br>Purpose    | # of<br>Cont. | Compo            | Field F      | SW6010  |                  |             |           |           |          |             |        |           |                              |   | Copyright AESI: Version<br>8.0 Unauthorized use | (P)  |
|              | Location ID          | Depth<br>(ft)      | Depth<br>(ft)            | Field Sample ID   |                   |                 |                   |                          |                      |               | Unit             | \$           |         |                  |             |           |           |          |             |        |           |                              | -   | Sampling Method                                 | Lab Sam  |
| 1            | <u>197</u>           | 6.0                | 1.0                      | 30905-SW19T-040416  | 4/4/2016          | 11:18           | w-sw              | WATER                    | REG                  | 1             | orah             |              | Y       |                  | -           |           |           |          | +           |        |           |                              | +   | (code)  | Number   |
| 2            | 19M                  | - Aldeballe        | Cardinal State           | 30905-SW19M-040416  | 4/4/2016          | y wantering     | w-sw              | WATER                    | REG                  | <u>'</u>      | grab             |              | †^      |                  | -           |           |           | 1-       |             |        |           |                              |   | <u> </u>  |  |
| 3            | 19B                  | 6.0                | 50                       | 30905-SW19B-040416  | 4/4/2016          | 11-19           | W-SW              | WATER                    | REG                  | 1             | arab             |              |         |                  | -           |           |           |          |             |        | -         |                              | +   |   |  |
| 4            | 20T                  | 2.0                | 1.0                      | 30905-SW20T-040416  | 4/4/2016          | 11:28           | W-SW              | WATER                    | PEC                  | 1             | grab             |              |         |                  | -+-         |           | +         |          |             |        | -         |                              | +   |   |  |
| 5            | 20M                  | success 4          | N400011280-1             | 30905-SW20M-040416  | 4/4/2016          | ~ .commune.     | W-6W              | WATED                    | DEC                  |               | grab             | - <u>-</u> - | Ĥ       |                  |             |           | -         |          |             |        |           |                              | +   |   |  |
| 6            | 20B                  | 2.0                | 1.0                      | 30905-SW20B-040416  | 4/4/2016          | 11:21           | W-SW              | WATER                    | PEG                  | 1             | grab             |              | V       |                  |             |           |           |          |             | +      |           |                              |   |   |  |
| 7            | Cent T               | 5.58               | 1.0                      | 30905-SWCentT-040416  | 4/4/2016          | 9:57            | W-SW              | WATER                    | REG                  | 1             | grab             |              | Ŷ       |                  |             |           | +-        |          |             | -      |           |                              | $\left  \right $                          |   | <u> </u>   |
| 8            | Cent M               | f.m.c              | -m-month                 | 30905-SWCentM-040416  | 4/4/2016          | Manang          | W-SW              | WATER                    | REG                  |               | orab             | † '          |         |                  |             |           |           |          |             |        |           |                              |   | ·   |  |
| 9            | Cent B               | 3.58               | 5 28                     | 30905-SWCentB-040416  | 4/4/2016          | 9:58            | w-sw              | WATER                    | REG                  | 1             | grab             | Y            | x       |                  |             |           |           |          |             | -      |           |                              |   |   |  |
| 10           | LADY T               | 1.83               | 1.0                      | 30905-SWLadyT-040416  | 4/4/2016          | 9:52            | W-SW              | WATER                    | REG                  | 1             | grab             | Y            | x       |                  |             | _         |           |          |             | +      |           |                              |   |   |  |
| 11           | Lady M               | <                  |                          | 30905-SWLadyM-040416  | 4/4/2016          | , 0000000000000 | W-SW              | WATER                    | REG                  |               | arab             |              |         |                  |             |           |           |          |             |        |           |                              |   |   | ·  |
| 12           | LADY B               | 1.83               | 0.83                     | 30905-SWLadyB-040416  | 4/4/2016          | 9:53            | W-SW              | WATER                    | REG                  | 1             | grab             | Y            | x       |                  |             |           | 1         |          |             |        |           |                              |   |   |  |
| Relir        | quished by           | 10                 |                          | Company   | AATO              |                 | Received by       |                          |                      |               |                  | ·            |         | Compa            | nul         |           |           | Candl    | tion.       |        |           |                              |   |   |  |
| 7            | DTA.                 | 17                 | 5                        | Date/Time   | 411,11            | 15:5            | 7.1.4 15          | 1.                       | _                    |               |                  | Da           | ate/Tim | e compa          |             | 112       | ny        | Coole    | r Temp      |        |           | Custo                        | Jay Sea                                   | als Intact                                      |  |
| Relin        | quished by           | (                  | /                        | Company   | 14/16             | M               | - WILL TY         | 6                        |                      |               |                  |              |         | Compo            | <u>- 11</u> | 416       | 1527      | Candia   | - rompi     |        |           | _                            |   |   |  |
| įV.          | 424-611              | 19                 |                          | Date/Time   | 110-11            | 1329            | En.               | $\overline{\mathcal{N}}$ |                      |               | 4                | (P           | ate/Tim | e                |             |           |           | Cooler   | r Temp.     |        |           | Custo                        | ay Sea                                    | als Intact                                      |  |
| res          | ervatives: (Other:   | Specifieli         |                          | daam mooren egadaalaan oo waxayay da Maan aang saare Adamaan a saarey da araa a | <del>/13/16</del> |                 | D (none); 1 (4 De | eg C); 2 (HC             | pH<2); 3 (⊦          | NO3 pł        | 1<2); 4          | (H2SO        | 4 pH<2  | <u>);</u> 5 (NaC | H pH>       | >12); 6 ( | NaOH,     | Zn Acet  | ate); 7 (F  | 12504  | 4 (pH<2   | . 4 Deg (                    | C)): 8 (ŀ                                 | HCI pH<2); 9 (HCI 4 De                          | a C): 10 (HNC  |
| 1 annual age | $\wedge$ 1           | /                  |                          |   | مر ،              |                 | pH<2), 4Deg C)    | ; 11 (4C Na              | <u>ЭН (pH&gt;12)</u> | & Ascor       | bic Aci          | d); 12 (     | 4C H2S  | 04 (pH<          | 2) & N      | a2S2O     | 3); 13 (2 | 'n Aceta | ite); sp (s | specia | l instruc | tions)                       |   |   |  |
|              | Kel.                 | Ch                 | wit                      | 4/5/14 1  | 7.31              |                 |                   |                          | /h                   | 15            |                  | 41           | 5       | 16               | 1           | 73:       | /» ·<br>> |          |             |        |           |                              |   |   |  |

fatz 4/5/16 1735

## 10651 1647344 8318668-85

|             | Jancaster Lab         | orator   | les               |   |                | 103                |                   | dia por          |                   |               |          |            | 00-1        |           | in an |          |          |        |          |                |            |                   | and a support of some |               |  |                      |
|-------------|-----------------------|--|-------------------|---|----------------|--------------------|-------------------|------------------|-------------------|---------------|----------|------------|-------------|-----------|---|----------|----------|--------|----------|----------------|------------|-------------------|-----------------------|---------------|--|----------------------|
|             | 420 New Holland P     | ike  |                   |   |                | lon                | evwe              |                  | Chair             | Of C          | Cust     | odv /      | Ana         | lvsis I   | Seu                                       | libet    |          |        |          |                |            |                   |                       |               | AESI Ref:  | 42461.503            |
| (7          | (17) 656-2300         | -2425  |                   |   | -              | and others and but |                   | / # 12           |                   |               |          | <b>,</b> , |             | 190101    | ιcq                                       | ucat     | •        |        |          |                |            |                   |                       |               | 000#   | 30905-110            |
|             |                       | 1  |                   |   | Privileged     | & Confid           | ential            | N                |                   |               | Site     | Mamo       |             | Baltim    | оге                                       |          |          |        |          |                | ļ          | 10722annoverseggg |                       |               | Lab Proi # (SDG):  |                      |
| S           | ampling Co.:          | Marylar  | nd Enviror        | nmental Service   | EDD To:        |                    | matthew.gill      | lis@ch2m.c       | om                |               |          | a Name:    |             | BALTI     | MOR                                       |          |          |        | Ph<br>Sa | ase:<br>mpling | )<br>USuri | facel             | Nator                 |               |  |                      |
| C           | lient Contact: (r     | iame, co   | o., addre         | ess)  | Sampler:       | Doug C             | riffith Tim May   | nard Lion V      | () (              |               |          | ation o    | f Site:     |           |   | =, MD    |          |        | Pro      | gram           | San        | npling            |                       |               |  | LUI                  |
| 11          | 5 Tabor Rd            |  | _                 |   | PO #           | 450001             | 3806              | naru, Lien v     | <u>u</u>          |               | Pros     | enuativo   |             | ┢━┥       | _   |          |          |        |          |                |            |                   |                       |               | Site ID  | BALTIMO              |
| M           | orris Plains, NJ 0795 | 0  |                   |   | Analysis       | Turnarou           | nd Time (TAT)     | :                | 14                |               |          |            |             |           |   |          |          |        |          |                |            | —                 | 4                     | <u> </u>      | Lab Job #  |                      |
| Pla         | eliminary Data To     | matthey  | v.gillis@cl       | <u>12m.com;</u>   |                | Consult            | ant               |                  | CH2M              |               | ]        |            |             |           |   |          |          |        |          |                |            |                   |                       |               | Authorized User:   | Honeyv               |
| S:          | mple Receipt          | matthew  | v.gillis@cl       | <u>12m.com; hernice kirld/@ch2m.cor</u><br>1 <u>2m.com;</u> | n:             |                    |                   | +                | ·                 |               | 4        | ple        |             |           |   |          |          |        |          | 1              |            |                   |                       |               | Text & Excel File Drive  | Excel & Tex<br>Order |
| Ha          | rd Copy To            | Amy Kio  | oner<br>opper     | igen.com; bernice kidd@ch2m.cor                             | <u>n:</u>      |                    |                   |                  |                   |               | q        | am         | Ę           |           |   |          |          |        |          |                |            |                   |                       |               |  | Provinsi Statistica  |
| In          | olce To:              | Christon   | her Frenc         | h   | F              | ull Report         | TAT:              |                  | 28                |               | ۲ų       | pe         | omir        |           |   |          |          |        |          |                |            |                   |                       |               |  |                      |
|             |                       | 1  |                   |   |                |                    |                   |                  |                   |               | osite    | ilter      | -<br>U<br>U |           |   |          |          |        |          |                |            |                   |                       |               |  | Å                    |
|             |                       | Sam<br>Start   | ple Identi<br>End | fication  | Sample<br>Date | Sample<br>Time     | e Sample<br>Type  | Sample<br>Matrix | Sample<br>Purpose | # of<br>Cont. | Comp     | Field F    | SW6010      |           |   |          |          |        |          |                |            |                   |                       | (<br>()<br>() | Copyright AESI: Version<br>3.0 Unauthorized use<br>strictly prohibited | Ô                    |
| <u> </u>    | SB DUP                | Depth<br>(ft)  | Depth<br>(ft)     | Field Sample ID   |                |                    |                   |                  |                   |               | Unite    | 5          | ng/L        |           |   |          |          |        |          |                |            |                   |                       |               | Sampling Method  | Lab Sam              |
| <u> -</u> _ | 14B-0                 | 9.33   | 12.20             | 30905-SWD1-040416   | 4/4/2016       | 10:11              | w-sw              | WATER            | FD                | 1             | arab     | I Y        | x           |           |   |          |          |        | 1-       | 1              |            | †                 | <u>├</u> ─-}          |               | (coue)   | Number               |
| 2           | 10T                   | 5.67   | 1.0               | 30905-SWD2-040416   | 4/4/2016       | 16:40              | W-SW              | WATER            | FD                | 1             | arab     |            | ~           |           | +   | -        | +        |        |          |                |            | <u> </u>          | $\vdash$              | -+-           |  |                      |
| 3           | 14B                   | 7 17   | 6.17              | 30905-SWD3-040416   | 4/4/2016       | 10:53              | w-sw              | WATER            | FD                | 1             | grab     |            | Ŷ           |           |   |          |          |        | +        |                |            |                   | $\vdash$              |               |  |                      |
| 4           | 1811001               | 10.83  | 10                | 30905-SWD4-040416   | 4/4/2016       | 11-14              | w-sw              | WATER            | FD                | 1             | grab     |            | X           |           |   |          |          |        | +        |                |            |                   | ╞─┼                   |               |  |                      |
| 5           | FIELDQC               | (Mintererie  | 1                 | 30905-SW-FB1-040416   | 4/4/2016       | 10:34              | BLKWATER          | WATER            | FB                | 1             | grab     |            | Ŷ           |           | +   |          | +        |        | +        |                |            |                   | ┢──┾                  |               |  |                      |
| 6           | FIELDQC               | interesting and the second sec | 60%;m;rm;         | 30905-SW-RB1-040416   | 4/4/2016       | 10:35              | BLKWATER          | WATER            | EB                | 1             | arab     |            | x           |           | +-  |          |          |        |          |                |            |                   | r                     |               |  |                      |
| 7           | FIELDQC               | ; <sup>558</sup> 38re  | ~ .00.000000y     | 30905-SW-RB2-040416   | 4/4/2016       | 11 08              | BLKWATER          | WATER            | EB                | 1             | grab     | N          | x           |           | +   |          |          | -      |          |                |            |                   |                       |               |  |                      |
| 8           | FIELDQC               |  |                   | 30905-SW-RB3-040416   | 4/4/2016       |                    | BLKWATER          | WATER            | EB                |               | grab     | N          |             |           |   |          | +        |        |          |                |            |                   |                       | +             |  |                      |
| 9           |                       |  |                   |   |                |                    |                   |                  |                   | _             | <u> </u> |            |             |           | +   |          |          | 1      |          |                |            |                   |                       |               |  |                      |
| 10          |                       |  |                   |   |                |                    |                   |                  |                   |               |          |            |             |           | +   |          | +        | +      | <u>├</u> |                |            |                   |                       |               |  |                      |
| 11          |                       |  |                   |   |                |                    |                   |                  |                   |               |          |            |             |           |   | -1       |          |        | -        |                |            |                   |                       |               |  |                      |
| 12          |                       |  |                   |   |                |                    |                   |                  |                   | ŀ             |          |            |             |           |   |          |          |        |          |                |            |                   |                       | $\rightarrow$ |  |                      |
| Polin       | nuisbod by            |  | ·····             |   |                |                    |                   |                  |                   |               |          |            |             |           |   |          |          |        |          |                |            |                   |                       |               |  |                      |
|             |                       | 1  |                   | Company   | MES            |                    | Received by       |                  |                   |               |          |            |             | Compan    | y 7                                       | 10-2-    | M        | Cond   | ition    |                |            |                   | Custody               | y Seal        | s Intact   |                      |
| laline      | WDM                   | d-E.   |                   | Date/Time   | 4/4/16         | 15:2               | 7 mutst           | G.L.             | 5                 |               |          | Date       | e/Time      | )         | uh  | 111.     | 152      | Coole  | er Tem   | p.             |            | $\rightarrow$     |                       |               | <u>l</u>   |                      |
|             | A C                   |  |                   | Company   | レイスい           | 1                  | Received by       |                  |                   |               |          |            | (           | Company   | 1   | 21.110   |          | Cond   | ition    |                |            |                   | Custody               | V Seals       | s Intact   |                      |
| V_1         | O Gin                 |  |                   | Date/Time   | 1326 4         | 15/16              | n                 | $\sim$           |                   |               | 4/1.5    | -/Pate     | e/Time      | iv-       | F   |          |          | Coole  | r Tem    | э.             |            | -                 |                       |               |  |                      |
| rese        | rvatives: (Other; S   | pecify):   |                   |   |                |                    | 0 (none); 1 (4 De | g C); 2 (HCI     | pH<2); 3 (HI      | 1O3 pH        | <2); 4 ( | (H2SO4     | pH<2);      | 5 (NaOH   | ,<br> pH>1                                | 2); 6 (1 | √aOH,    | Zn Ace | tate); 7 | (H2SO          | 4 (pH<     | <br><2). 4        | Deg C))               | : 8 (HC       | ) pH<2); 9 (HCI 4 Deg  | C): 10 (HN(          |
|             |                       |  | 1                 |   |                | <u> </u>           | (pH<2), 4Deg C)   | ; 11 (4C NaO     | PH (pH>12) 8      | Ascort        | oic Acio | i); 12 (40 | CH2SC       | 04 (pH<2) | & Na                                      | 28203    | ); 13 (Z | n Acet | ate); sp | (specia        | al instr   | uction            | s)                    | , - (110      |  | -7, 10 (First        |
|             | $\mathcal{A}$         |  |                   |   |                |                    |                   |                  |                   |               |          |            |             |           |   |          |          |        |          |                |            |                   |                       |               |  |                      |

Rel Kin 4/5/14 17:31

4/5/16/735 futs

# Appendix A-3 Field Report—April 2016

## **BALTIMORE INNER HARBOR**

## SURFACE WATER MONITORING 2nd Quarter 2016

April 4, 2016





## **METER CALIBRATION LOG**

PROJECT\_\_\_\_\_

## Notebook No.

|             |               | 1                 |                     | Faitints          |
|-------------|---------------|-------------------|---------------------|-------------------|
| Date        | TIME          | Meter             | Biffer              | Comments          |
| 5170115     | 7:15          | VSZ 63            | 7,10,4              | 4.15 - 135        |
| 5120/15     | 7:15          | Y\$255            | Ato car             | 4+5 - 31          |
| 614/15      | 10:20         | YS 2 63           | 7,104               | 245-85            |
| 614115      | 10:20         | YS2 55            | 4.10                | Ats-Bs            |
| 6/11/15     | 7:30          | Y 52 13           | 7104                | 445-31            |
| 6/11/15     | 7:30          | Y62 55            | aro                 | 9+5-25            |
| 6(18/15     | 7:25          | y 57 63           | 7104                | Ats- Rs           |
| 6118115     | 7:25          | y52 5T            | Ala                 |                   |
| 6/21/15     | 8:27          | USF 63            | 7,4,10              | RSD Day weather   |
| 712115      | 7:20          | 8                 |                     | ß                 |
| 712/15      | 7:20          |                   |                     |                   |
| 7/7/15      | 6:53          | HORIBA-1          | AUTO CAL            | WDG- (BH SED.     |
| 79/15       | 7:05          | 45+63             | 710,4               | Ats-Jr            |
| 7/9/15      | 7:05          | -stere            | ohA                 | ATS-DI            |
| 8 4 15      | 10:30         | 45763             |                     |                   |
| 8/10/15     | 7:45          | 45763             | 7,4,10              | NPDES             |
| 8/11/15     | 7:30          | 45263             | 7,4,10              | NPDES             |
| 8/12/15     | 7.00          | USI 63            | 7,4,10              | NPDES             |
| 8/24/15     | 6:31          | HORIZA 1          | AUTO CAL            | WDG - BIH WATER   |
| 9/10/15     | 845           | 4SI 63            | 7,11,10             | wetweather NIDOS  |
| 9/11/15     | 1315          | 49I 63            | 7,4,10              | wetweather NRDES  |
| 10/23/15    | 7:14          | HORIBA-1          | AUTO CAL            | BIH GROUNDWATER   |
| 10/27/2015  | 11:30         | 45763             | 7,4,10              | Dry weather NPDES |
| 11/23/2015  | 8:24          | HORIBA 2          | AUTO CAL            | BIM SURFACE WATCH |
| 12/18/2015  | 1130          | Fisher Scientific | 6,94, 3,95,10.06    | NPDES wet-weather |
| 12/29/205   | 6:49          | HORIBA 2.         | AUTO CAL            | TSIH GROUNDWARESR |
| 1/S/2016    | 10:22         | Fisher Scienticic | 4,7,0               | NPDESDAY          |
| 1/16/2016   | 8:00am        | Fisher Scientre   | 6.78 3.65, 10.85    | NPDESLIET         |
| 2/17/2016   | n:009M        | FisherScientific  | 4,7,10              | NPDEStlet ACP     |
| 21 24/20 16 | 10:00am       | Fisher Scientific | 4, 7, 10.2          | MPDES wet weather |
| 313/10/16   | 10:00am       | Eisher Scientifi  | 4,7,10              | MDESDRYWallier    |
| 3/18/16     | 7:45 AMA      | 6155 Horiba       | Anto Cal            | Bitt Surface      |
| 4/4/16      | 8:32 AM       | HI GIRIBA I       | AUTOCAL             | BIH SURTACE WATER |
|             |               |                   |                     | Continued on Page |
|             | . <del></del> | Rea               | d and Understood By | 0 <del>7</del> -  |
| 5           |               |                   |                     |                   |
| C) and      |               | tE                | Sinned              | Date              |
| Signi       | сч<br>        | W 1364            | 0191100             |                   |

9

## **FIELD NOTES**

| BIH SUR   | ACE WAT    | SAMPI    | INC-       | 4/4/2010 | o Do                                    | UGLAS GR  | TETAL |
|-----------|------------|----------|------------|----------|---|-----------|-------|
|           |            | EMS      |            |          | tim                                     | MYNARD    |       |
| WOATHER C | onditions: | SU PAR   | SW, WIN    | DY       |   | AMES COOL | Pite  |
| 1 DW TITE | · @ 11     | : 61 AM. |            |          | ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ |           |       |
| SAMPLING- | WINDOW     | 10:01    | - 12:0     | 31       |   |           | IN: N |
|           | 1 2 2 4    |          |            |          |   |           |       |
| CAMPIE    | DEPTH      | SAMPLE   | TIME       | PH       | TIME                                    | SP. COND  | MATAK |
| ID        | 130TOM(FT) | DEPTH    | (HRS)      | (UNITS)  | °C                                      | (MS/CM)   |       |
| LudyT     | 1.10 10    | V        | 952        | 6.13     | 11.67                                   | 10.3      | LV:   |
|           |            |          |            |          | 11:00                                   | 107       |       |
| LadyB     | 1'10''     | 1011     | 953        | 6.53     | 11:02                                   | 10,7      | LV    |
| Colar, T  | -21-70     | 0        | 957        | 6.67     | 11.97                                   | 11.7      | 1V    |
| CCVI+ I   |            |          |            |          |   |           |       |
| Cent B    | 317"       | 3, 11    | 958        | 6.72     | 11.44                                   | 14.5      | LV    |
| 7-        | 7161       | 0        | il No i    | (, 89    | 10.82                                   | 131.      | 1     |
| 5.1       | <u> </u>   |          | 1001       |          | 10,0.5                                  | 1510      | LIV   |
| 38        | 7:41       | GEYE     | 1003       | 6.92     | 1094                                    | 15:9      | W     |
|           |            | 7        |            |          | 16 07                                   | · · · · · |       |
| 9T        | 4:5"       | 0        | 1000       | 7.01     |   | 3.1       | LV.   |
| 42        | 4161       | 2151     | 1009       | 7.12     | 10.85                                   | 150       | IN    |
| - 10.     |            |          |            | 1.5      |   |           |       |
| 57        | 4141       | 0        | N D9       | 7.16     | 10.93                                   | 12.7      | W.    |
|           | 40.1751    | 7111     | 10         | -11      | 10.88                                   | 15:24     | 1.07  |
| -5B       | 4.4.       | 5.7      | 10 10      | 1.15     |   | 13, 7     |       |
| * 5B(DUP) | 4141       | 3'41     | 101        | 7.15     | 16.80                                   | 15.4      | W     |
|           |            |          |            |          |   |           | 1.1   |
| ÚT.       | 7.1        | 0        | 1012       | 7.28     | 1103                                    | 10.3      |       |
| 6.0       | 71         | 1.0      | 1012       | 715      | 10.81-                                  | 16.0      | LV    |
| UD        |            |          |            | / (1)    | 10.05                                   |           |       |
| 71        | 7'8"       | 0        | 0.15       | 7.40     | 11,14                                   | 8.35      | LV    |
|           | - 101      | 101      |            |          | in 81                                   | 157       | IN    |
| -715      | 1.0.       | 6.8.     | : \0: [\5: | 1.77     |   | 1911      | L     |
|           |            |          |            | . Jal    |   |           |       |
|           |            |          |            | 10       |   |           | 1     |
|           |            |          |            |          |   | 1         |       |

| BIH SURFA | HE WATER     | 4/4/16    |          |          | DO, TM, LV, | 30              |          |   |
|-----------|--------------|-----------|----------|----------|-------------|-----------------|----------|---|
| SAMPLE    | DEPTH TO     | SAMPLE    | TIME     | pН       | TEMP        | SP.COND         | INITIALS |   |
| ÎP        | (FT)         | (PT)      | (HRS)    | (UNITS)  | (0)         | (ms/cm)         |          | - |
| 8T        | 4'10''       | 0         | 1025     | 7.54     | 11.4431     | 8.693           | W        |   |
| 0.0       | and solution | 21101     | last     | - 10.    |             | 1. 1.           | 1.1.1    | - |
| 0.0       | 4, 10        | 5.10"     | 1020     | 7,44     | 11.24       | 11, )           | W        |   |
| DT.       | (12)         | 0         | 10.28    | 757      | 1130        | 7.84            | 217      |   |
|           | 0.2          |           | 10 2 0   |          | 11.50       | A_0_1           |          |   |
| 9B        | 61211        | 5'2"      | 1030     | 737      | 1118        | 11.8            | LV :     |   |
|           |              |           |          |          |             |                 |          |   |
| A FB      |              | -         | 1034     | 8.58     | 6.09        | 0.111           | LV       | _ |
|           |              |           | 1.1.1    | 0.10     | 1/100       | n Dim           | 1.17     | - |
| X KB      |              |           | 1035     | 8 49     | 17.05       | 0.017           | W        | - |
| INTELS    | CIQI         | 0         | 1029     | 7.09     | 17.14       | 11.6            | Jal :    | - |
| TUTTOT    |              |           |          |          | 1211        |                 | V        |   |
| IDT DUP   | 51811        | 0         | 1040     | 7.09     | 12.14       | 11.6            | IN       |   |
|           |              |           |          |          | 11/10       |                 |          | _ |
| 10.8      | 5'8"         | 4'8'      | 1047     | 7.23     | 11,45       | 6               | W        | - |
| 114       | -77(1)       | - 1       | (01)     | 7 20     | 116-7       | 2.              |          | - |
|           | / 1          | 0         | 1092     |          |             | 1216            | DV       | - |
| IIR       | 744          | 101 10 11 | 1643     | 7.3)     | 10 78       | 16.1            | 11       | - |
|           | / ()         | VV        | 1010     | 1100     |             |                 |          |   |
| 12T       | 411          | 0         | 10.96    | 7.47     | 10.96       | 12.1            | W        |   |
|           |              |           |          |          |             |                 |          |   |
| 12B       | 411          | 3         | 10 47    | 1.20     | 10.82       | 14,5            | W        | - |
| 125       | 2/11         |           | 117/10   | 7 410.   | 10.97       | 17.2            | 11       | - |
| 121       | 5.7          | 0         | 1040     | 1.10     | 10,11       | 14.2            | LV       |   |
| 138       | 2'4(1        | 2'411     | 10.49    | 7.43     | 10.95       | 16,2            | W        | 1 |
|           |              |           | 10 11    |          |             |                 |          |   |
| 14T       | 712"         | 0         | 1051     | 7.53     | 11.03       | 12.0            | W        |   |
|           | -121         |           | 1.50     |          | 10 10-000   | Acres 100       |          | - |
| 148       | 1. 4.        | 62        | 1023     | 14S      | 10.078      | 15.8            | W        | - |
| × 40 010  | ייביר        | 6121      | 1053     | 7.45     | 10 88       | 158             | 14       | - |
| 1 CHDWR   |              |           | 103      | 11 15    | 10100       |                 |          |   |
| 158       | 6,71)        | 0         | 10 55    | 7.54     | 11,00       | 12.6            | LV       |   |
|           |              |           |          |          |             |                 |          |   |
| 15B       | 6.7          | 5'7"      | 1056     | 1.48     | 10.94       | 16.2            | W        |   |
|           |              |           | Rite in. | the Rain |             | Scale: 1 square | =        | - |

| BIH SURFA     | EE WATER    | 4/4/16 |         | ЪC       | TM, W, J | Ċ        |          |
|---------------|-------------|--------|---------|----------|----------|----------|----------|
| SAMPLE        | DEPTH       | SAMPLE | TME     | PH       | TEMP     | SP. COND | INITIALS |
| ID            | BOTTOM (FT) | (FT)   | (HRS)   | (UNITS)  | (°C)     | (ms/cm)  |          |
| NOT           | 741         | 0      | 1058    | 755      | 10.84    | 13.5     | W        |
|               |             |        |         |          | 1 1 1    |          |          |
| UR            | 7141        | 6 41   | 1059    | 7.50     | 10.07    | 16.60    | W        |
|               |             |        |         |          |          | 12.2     | 6.1      |
| 177           | 6 1011      | U      | 1014    | 7,52     | 0.74     | 16.6     | () ()    |
|               |             |        |         |          | 111 20   |          | ist      |
| 173           | 61101       | 5'10"  | 1102    | 7.53     | 10.70    | 166      |          |
|               |             |        |         | 10 6 / 1 | 1 1 4    | 20-      | CAZ .    |
| RB2           |             |        | 1108    | .9.59    | 12.04    | 0.237    |          |
|               |             |        |         |          | 1        | il à l   | i M      |
| 185           | 10,10,1     | 0      | 1113    | 1.27     | 11.31    | 16.0     |          |
|               | 1           | 1 10   |         |          | 11.2 -   |          | 1.1      |
| 187 (DVF      | 10 10 11    | 0      | 1114    | 7.94     | 1637     | 16.0     | W        |
|               | 11          | -1-11  |         |          | 11.75    | 1.4      | IV       |
| 1819          | 10.10"      | 5.5.   | 1115    | 1.31     | 11.5)    | 16.      | U        |
|               | 3 (1)       | alloit | HIRAN   | -14-     | In Can   | 11.9     | W        |
| 18B           | (0' (0'     | 000    | 11120   | 1.15     | N. T1    | 10.0     |          |
|               | ( 14        |        | 110     | 7/10     | indo     | 161      | 1.1      |
| 191           | 6.0         | 0      | 0111    | 1.70     | 10.00    | 10.0     | VV       |
|               | 7 16        | CII    | 0110    | -7/10    | haa      | 11.5     | Liz      |
| 1913          | 6.10        | 3.     | - 1111- | 1.41     | 10,01-1  | 14.5     |          |
| ant           | 211         | 1 D    | 1100    | 751      | 10.82    | 16.4     | W        |
| 201           | 2           | U.     | 1100    | 1 1      | 10:00    |          |          |
| 0.0           | ()          |        | 112A    | 7.52     | 10 78    | 16.5     | M        |
| 20 B          | 5           |        |         |          | 10,10    |          |          |
|               |             |        |         | 5 0 1    |          |          |          |
|               |             |        |         |          |          |          |          |
|               |             |        | 4 2 3   | 1        |          |          |          |
|               |             |        | L li    |          | \$ 1 L   |          |          |
|               | 1 1 0       |        | 1       |          |          |          |          |
|               |             |        | 3 1 4   |          |          |          |          |
|               |             |        |         |          | 1        |          | 1        |
|               |             |        |         |          |          |          |          |
|               |             |        |         |          | 1 1 1    |          |          |
|               |             |        |         |          |          |          |          |
|               |             |        |         |          |          |          |          |
|               |             |        |         |          |          |          | 1        |
|               |             |        |         |          |          | . 8 5 1  | -1-1-2-  |
| Scale: 1 saus |             |        | -       |          | -        |          |          |

## **CHAIN of CUSTODY**

| La        | incaster Lab       | oratorie               | S                         | and the second second                    |              |                        | 12                                 |                              |                             |                     |          |        |                  |          |                  |                 |                    |                  |       | _                    | _      |               |         |       |             | AESI Ref:                                    | 42461.49820           |
|-----------|--------------------|------------------------|---------------------------|--|--------------|------------------------|------------------------------------|------------------------------|-----------------------------|---------------------|----------|--------|------------------|----------|------------------|-----------------|--------------------|------------------|-------|----------------------|--------|---------------|---------|-------|-------------|--|-----------------------|
| 242       | 5 New Holland Pi   | ke                     |                           |  | 1 H          | one                    | vwe                                |                              | Chain                       | Of C                | ustoc    | ly / A | Anal             | ysis     | Req              | ues             | t                  |                  |       |                      |        |               |         |       |             | COC#   | 30905-110414-1        |
| Lar       | ncaster, PA 17605  | -2425                  |                           |  | 2            | 0.10                   |                                    |                              |                             |                     |          |        |                  |          |                  |                 |                    |                  |       |                      |        |               |         |       |             |  |                       |
| (71       | 7) 656-2300        |                        |                           |  | Privileged & | Confident              | ial                                | N                            |                             |                     | Site N   | ame:   |                  | Baltin   | nore             |                 |                    |                  |       | Phas                 | e:     |               |         |       |             | Lab Proj # (SDG):                            |                       |
| Sa        | mpling Co.:        | Maryland               | l Environm                | ental Service                            | EDD To:      |                        | matthew gillis                     | @ch2m.co                     | m                           |                     | Locat    | ion of | Site:            | BALT     | IMOR             | E, MC           |                    |                  |       | Samp<br>Progr        | am     | Surfa<br>Samr | ce Wa   | ater  |             | Lab ID                                       | LUI                   |
| Cli       | ent Contact: (n    | ame, co.               | , addres                  | is)                                      | Sampler:     | Doug Grit              | fith, Tim Mayn                     | ard, Lien V                  | 'u                          |                     |          | _      |                  |          |                  |                 |                    |                  |       |                      |        |               |         |       |             | Site ID                                      | BALTIMORE             |
| Chr       | ristopher French   |                        |                           |  | PO #         | 45000138               | 06                                 |                              |                             |                     | Preserv  | ative  | 3                |          |                  |                 |                    |                  |       |                      |        |               |         |       |             | Lab Job #                                    |                       |
| 115<br>Mo | Tabor Rd           | 50                     |                           |  | Analysis T   | urnaround<br>Consultar | Time (TAT):                        |                              | 14<br>CH2M                  | _                   |          |        |                  |          |                  |                 |                    |                  |       |                      |        |               |         |       |             | Authorized User:                             | Honeywell             |
| Pre       | liminary Data To   | matthew                | gillis@ch2                | 2m com,                                  |              |                        |                                    |                              | UTLUT.                      |                     |          | ¢.     |                  |          |                  |                 |                    |                  |       |                      |        |               |         |       |             | Text & Excel File Drive                      | Excel & Text File     |
| Sar       | mple Receipt       | matthew.               | per@critig<br>.qillis@ch2 | en com harnice kidd@ich2m.com.<br>m.com. | -            |                        |                                    |                              |                             |                     |          | ble    |                  |          |                  |                 |                    |                  |       |                      |        |               |         |       |             | THE REAL PROPERTY OF                         | Order                 |
| Acl       | knowledgement T    | o amy klop             | per@critiq                | en com; bernice kidd@ch2m com;           |              |                        |                                    |                              |                             |                     | srab     | l Sa   | nium             |          |                  |                 |                    | - 1              |       |                      |        |               | - 1     |       |             |  |                       |
| Hai       |                    | Christoph              | oper French               | Deed                                     | Fu           | II Report T            | AT:                                |                              | 28                          |                     | ite/G    | erec   | Chror            |          |                  |                 |                    |                  |       |                      |        |               |         |       |             |  | w.                    |
| -         | oice to.           | Співсорі               | ler i renon               |  | Comula       | Comple                 | Comula                             | Comula                       | Comple                      |                     | sodu     | H H    | 010 (            |          |                  |                 |                    |                  |       |                      |        |               |         |       |             | Copyright AESI: Version                      |                       |
|           |                    | Samp                   | ole Identifi              | ication                                  | Date         | Time                   | Type                               | Matrix                       | Purpose                     | Cont.               | Con      | Field  | SW6              |          |                  |                 |                    |                  |       |                      |        |               |         |       |             | 8.0 Unauthorized use<br>strictly prohibited. |                       |
| . h.      | Location ID        | Start<br>Depth<br>(ft) | End<br>Depth<br>(ft)      | Field Sample ID                          |              |                        |                                    | -                            |                             |                     | Units    |        | dqo              |          |                  | -               |                    |                  |       |                      |        |               |         |       |             | Sampling Method<br>(code)                    | Lab Sample<br>Numbers |
| 1         | ЗТ                 | 7.35                   | 10                        | 30905-SW3T-040416                        | 4/4/2016     | 10.01                  | w-sw                               | WATER                        | REG                         | 1                   | grab     | Y      | x                |          |                  |                 |                    |                  |       |                      |        |               |         |       |             |  |                       |
| 2         | ЗМ                 | -                      | -                         | 30905-SW3M-040416                        | 4/4/2016     | _                      | w-sw                               | WATER                        | REG                         |                     | grab     |        |                  |          |                  |                 |                    |                  |       | P                    |        |               |         |       |             |  |                       |
| 3         | 3B                 | 7.35                   | 6.33                      | 30905-SW3B-040416                        | 4/4/2016     | 10:03                  | w-sw                               | WATER                        | REG                         | 1                   | grab     | Y      | x                |          |                  |                 |                    |                  |       |                      |        |               |         |       |             |  |                       |
| 4         | 4T                 | 4.42                   | 1.0                       | 30905-SW4T-040416                        | 4/4/2016     | 10:06                  | w-sw                               | WATER                        | REG                         | 1                   | grab     | Y      | x                |          |                  |                 |                    |                  |       |                      |        |               |         |       |             |  |                       |
| 5         | 4M                 |                        |                           | 30905-SW4M-040416                        | 4/4/2016     |                        | w-sw                               | WATER                        | REG                         |                     | grab     |        |                  |          |                  |                 |                    |                  |       |                      |        |               |         |       |             |  |                       |
| 6         | 4B                 | 7.52                   | 2.42                      | 30905-SW4B-040416                        | 4/4/2016     | 10:03                  | w-sw                               | WATER                        | REG                         | 1                   | grab     | Y      | x                |          |                  |                 |                    |                  |       |                      |        |               |         |       |             |  |                       |
| 7         | 5T                 | 433                    | i. O                      | 30905-SW5T-040416                        | 4/4/2016     | 10:07                  | w-sw                               | WATER                        | REG                         | 1                   | grab     | Y      | x                |          |                  |                 |                    |                  |       |                      |        |               |         | d (   |             |  |                       |
| 8         | 5M                 | -                      | -                         | 30905-SW5M-040416                        | 4/4/2016     |                        | w-sw                               | WATER                        | REG                         |                     | grab     |        |                  |          |                  |                 |                    |                  |       |                      |        |               |         |       |             |  |                       |
| 9         | 5B                 | 4.33                   | 3.33                      | 30905-SW5B-040416                        | 4/4/2016     | 10110                  | w-sw                               | WATER                        | REG                         | 1                   | grab     | Y      | x                |          |                  |                 |                    |                  |       |                      |        |               |         |       |             |  |                       |
| 10        | 6Т                 | 7.0                    | 1.0                       | 30905-SW6T-040416                        | 4/4/2016     | 10:17                  | w-sw                               | WATER                        | REG                         | 1                   | grab     | Y      | x                |          |                  |                 |                    |                  |       |                      |        |               |         |       |             |  |                       |
| 11        | 6M                 |                        |                           | 30905-SW6M-040416                        | 4/4/2016     | -                      | w-sw                               | WATER                        | REG                         |                     | grab     |        |                  |          |                  |                 |                    |                  |       |                      |        |               |         |       |             |  |                       |
| 12        | 6B                 | 7.0                    | 6.0                       | 30905-SW6B-040416                        | 4/4/2016     | 0:13                   | W-SW                               | WATER                        | REG                         | 1                   | grab     | Y      | х                |          |                  |                 |                    |                  |       |                      |        |               |         |       |             |  |                       |
| Rel       | inquished by       |                        |                           | Company                                  | ME           | S                      |                                    |                              |                             |                     |          |        | Com              | pany     | 44               | -2-             | 3                  | Condi            | ition |                      |        |               | Cust    | ody S | eals Intact |  |                       |
|           | INDA.              | At                     | 7                         | Date/Time                                | 4/4/16       | 2                      | -                                  |                              |                             | D                   | ate/Ti   | me     |                  | 4/4      | 11/2             | 520             | Coole              | r Terr           | p.    |                      |        |               |         |       |             |  |                       |
| Re        | inquished by       | inc                    | C Company Recei           |  |              |                        |                                    | _                            |                             |                     |          |        |                  | Com      | pany             |                 |                    | (                | Condi | ition                |        |               |         | Cust  | ody S       | eals Intact                                  |                       |
|           |                    | -                      |                           | Date/Time                                |              |                        |                                    |                              |                             |                     |          | D      | ate/Ti           | me       |                  |                 |                    | (                | Coole | r Tem                | p.     |               |         |       |             |  |                       |
| Pre       | eservatives: (Othe | r; Specify):           |                           |  |              |                        | 0 (none); 1 (4 [<br>(pH<2), 4Deg ( | Deg C); 2 (H<br>C): 11 (4C N | CI pH<2); 3 (<br>aOH (pH>12 | (HNO3 p<br>2) & Asc | oH<2); 4 | (H2SC  | )4 pH<<br>(4C H2 | 2); 5 (N | laOH p<br>H<2) 8 | )H>12<br>& Na29 | ); 6 (Na<br>5203): | aOH, Z<br>13 (Zn | n Ace | tate); 7<br>ate): si | 7 (H2S | SO4 (pl       | H<2), 4 | 4 Deg | C)); 8      | (HCI pH<2); 9 (HCI 4 D                       | eg C); 10 (HNO3       |

| La  | ancaster Lab       | oratorie      | s             |                               | 144                 |           |                  |              |               |         |          |         |         |           | _    |       |        |          |        | _        | -    |        |        |             |          | AESI Ref:                                    | 42461.49924           |
|-----|--------------------|---------------|---------------|-------------------------------|---------------------|-----------|------------------|--------------|---------------|---------|----------|---------|---------|-----------|------|-------|--------|----------|--------|----------|------|--------|--------|-------------|----------|--|-----------------------|
| 24  | 25 New Holland Pi  | ike           |               |                               | H                   | one       | ywe              |              | Chain         | Of C    | usto     | dy//    | Anal    | ysis I    | Rec  | lues  | t      |          |        |          |      |        |        |             |          | COC#   | 30905-110414-:        |
| La  | ncaster, PA 17605  | -2425         |               |                               |                     |           |                  |              |               |         |          |         |         |           |      |       |        |          |        |          |      |        |        |             |          |  |                       |
| (71 | 7) 656-2300        |               |               |                               | Privileged 8        | Confiden  | tial             | N            |               |         | Site     | Name:   |         | Baltim    | оге  |       |        |          | Р      | nase:    | Т    |        |        |             |          | Lab Proj # (SDG):                            |                       |
| Sa  | mpling Co.:        | Maryland      | l Environm    | ental Service                 | EDD To:             |           | matthew.gillis   | @ch2m.co     | m             |         | Loca     | tion of | f Site: | BALTI     | MOR  | E, MC | )      | -        | P      | mpilir   | 19 s | Surfac | e Wa   | ater        |          | Lab ID                                       | LU                    |
| CI  | ient Contact: (n   | name, co.     | , addres      | is)                           | Sampler:            | Doug Gri  | iffith, Tim Mayr | hard, Lien \ | /u            |         |          |         |         |           |      | Т     |        | T        |        | Ť        | ┢    |        | T      |             |          | Site ID                                      | BALTIMORE             |
| Ch  | ristopher French   |               |               | ·                             | PO #                | 45000138  | 806              |              |               |         | Preser   | vative  | 3       |           |      |       |        |          |        |          | +    | -      |        |             | -        | Lab Job #                                    |                       |
| 119 | 5 Tabor Rd         |               |               |                               | Analysis T          | urnaround | Time (TAT):      |              | 14            |         |          |         |         |           |      |       |        |          |        |          |      |        | -      |             | -        | Authorized User:                             | Honeywell             |
| Pre | eliminary Data To  | matthew       | aillis@ch2    | 'm.com                        |                     | Consultai | nt               |              | CH2M          |         | -        | ~       |         |           |      |       |        |          |        |          |      | - 1    |        |             |          |  | Fund & Tout Fil       |
| Sa  | mple Peccint       | amy klop      | ner@critia    | en com bernice kidd/@ch2m.com |                     |           |                  |              |               |         |          | be      |         |           |      |       |        |          |        |          |      |        |        |             |          | Text & Excel File Drive                      | Order                 |
| Ac  | knowledgement T-   | o amy klop    | per@critig    | en.com, bernice.kidd@ch2m.com |                     |           |                  |              |               |         | ę        | , meg   | Ę       |           |      |       |        |          |        |          |      |        |        |             |          |  |                       |
| На  | rd Copy To         | Amy Klop      | oper          | 0                             | Fu                  | II Report | TAT:             |              | 28            |         | 1 U      | g       | omit    |           |      |       |        |          |        |          |      |        |        |             |          |  |                       |
| ĺnv | roice To:          | Christoph     | her French    |                               |                     |           |                  |              |               |         | osite    | ilter   | Ch.     |           |      |       |        |          |        |          |      |        |        |             |          |  |                       |
|     |                    |               |               |                               | Sample              | Sample    | Sample           | Sample       | Sample        | # of    | d        | P       | 601(    |           |      |       |        |          |        |          |      |        |        |             |          | Copyright AESI: Version                      |                       |
| ⊢   |                    | Samp          | le Identifi   | cation                        | Date                | Time      | Туре             | Matrix       | Purpose       | Cont.   | ပိ       | l iii   | NS N    |           | _    |       |        |          |        | _        | _    |        |        |             |          | 8,0 Unauthorized use<br>strictly prohibited. |                       |
|     | Location ID        | Depth<br>(ft) | Depth<br>(ft) | Field Sample ID               |                     |           |                  |              |               |         | Units    |         | ng/L    |           |      |       |        |          |        |          |      |        |        |             |          | Sampling Method<br>(code)                    | Lab Sample<br>Numbers |
| 1   | 7T                 | 7.67          | 1. O          | 30905-SW7T-040416             | 4/4/2016            | 10:15     | w-sw             | WATER        | REG           | 1       | grab     | Y       | x       |           |      |       |        |          |        |          |      |        |        |             |          | /  |                       |
| 2   | 7M                 |               | -             | 30905-SW7M-040416             | 4/4/2016            |           | W-SW             | WATER        | REG           |         | grab     |         |         |           |      |       |        |          |        |          |      |        |        |             | 1        |  |                       |
| 3   | 7B                 | 7.67          | 6.67          | 30905-SW7B-040416             | 4/4/2016            | 10:16     | w-sw             | WATER        | REG           | 1       | grab     | Y       | x       |           |      |       |        |          |        |          |      |        |        |             |          |  |                       |
| 4   | 8T                 | 483           | 1.0           | 30905-SW8T-040416             | 4/4/2016            | 10:25     | w-sw             | WATER        | REG           | 1       | grab     | Y       | x       |           |      |       |        |          |        |          |      |        |        |             |          |  |                       |
| 5   | 8M                 | -             | -             | 30905-SW8M-040416             | 4/4/2016            | -         | w-sw             | WATER        | REG           |         | grab     |         |         |           |      |       |        |          |        |          |      |        |        |             |          |  |                       |
| 6   | 8B                 | 483           | 3.83          | 30905-SW8B-040416             | 4/4/2016            | 0:26      | w-sw             | WATER        | REG           | 1       | grab     | Y       | x       |           |      |       |        |          |        |          |      |        |        |             |          |  |                       |
| 7   | 9T                 | 617           | 1.0           | 30905-SW9T-C40416             | 4/4/2016            | 10:28     | w-sw             | WATER        | REG           | 1       | grab     | Y       | x       |           |      |       |        |          |        |          |      |        |        |             |          |  |                       |
| 8   | 9M                 | -             | -             | 30905-SW9M-040416             | 4/4/2016            | -         | w-sw             | WATER        | REG           |         | grab     |         |         |           |      |       |        |          |        |          |      |        |        |             |          |  |                       |
| 9   | 9B                 | 6.17          | 5.17          | 30905-SW9B-040416             | 4/4/2016            | 10:30     | w-sw             | WATER        | REG           | 1       | grab     | Y       | x       |           |      |       |        |          |        |          |      |        |        |             |          |  |                       |
| 10  | 10T                | 5.67          | 1.0           | 30905-SW10T-040416            | 4/4/2016            | 10:39     | W-SW             | WATER        | REG           | 1       | grab     | Y       | x       |           |      |       |        |          |        |          |      |        |        |             |          |  |                       |
| 11  | 10M                | -             |               | 30905-SW10M-040416            | 4/4/2016            |           | w-sw             | WATER        | REG           |         | grab     |         |         |           |      |       |        |          |        |          |      |        |        |             |          |  |                       |
| 12  | 10B                | 5.61          | 4.67          | 30905-SW10B-040416            | 4/4/2016            | 10:41     | W-SW             | WATER        | REG           | 1       | grab     | Y       | х       |           |      |       |        |          | (F)    |          |      |        |        |             |          |  |                       |
| Rel | inquished by       | all           |               | Company                       | MEC                 | S         | Received by      |              |               |         |          |         |         | Comp      | any  | C     | 12:    | Co       | nditio | n        | Т    |        | 1      | Custo       | dy Se    | eals Intact                                  |                       |
|     | M                  | XH            | 7             | Date/Time                     | 4/4/16 15.27 Must   |           |                  |              | une .         |         |          | D       | ate/Tir | ne        |      | 4/4   | 16 1   | 2700     | oler 7 | emp.     |      |        |        |             |          |  |                       |
| Rel | inquished by       | 1             | (             | Company                       | Company Received by |           |                  |              |               |         |          | Comp    | any     |           |      | Co    | nditio | n        |        |          |      | Custo  | dy Se  | eals Intact |          |  |                       |
|     |                    |               |               | Date/Time                     |                     |           |                  |              |               |         |          | D       | ate/Tir | ne        |      |       |        | Co       | oler T | emp.     |      |        |        |             |          |  |                       |
| Pre | servatives: (Other | ; Specify):   |               |                               |                     |           | 0 (none); 1 (4 E | Deg C); 2 (H | CI pH<2); 3 ( | (HNO3 p | 0H<2); 4 | (H2SC   | 04 pH<  | 2); 5 (Na | OH p | H>12) | 6 (NaC | )H, Zn / |        | ∋); 7 (⊢ | 1250 | )4 (pH | <2), 4 | Deg C       | C)); 8 ( | (HCI pH<2); 9 (HCI 4 De                      | eg C); 10 (HNO3       |

|  | Lancas                      | ter Lab     | oratorie               | S                    |  | 1.23                |                |                  |                  |               |       |          |         | -        |           | _    | -      | _       | _       |          | -               |       | _      |       |        | AESI Ref:                                       | 42461.50006       |
|--|-----------------------------|-------------|------------------------|----------------------|--|---------------------|----------------|------------------|------------------|---------------|-------|----------|---------|----------|-----------|------|--------|---------|---------|----------|-----------------|-------|--------|-------|--------|---|-------------------|
| Link   | 2425 New                    | Holland Pi  | ke                     |                      | 1.1                                    | H                   | one            | ywe              |                  | Chain         | Of C  | usto     | dy / /  | Anal     | ysis l    | Req  | ues    | t       |         |          |                 |       |        |       |        | COC#  | 30905-110414-     |
| Sampling Co.:     Maryond Environmental Service     ED To:     matheway/list (dot monitor)     Control of the service     Control of the service     Sample:     Decarding of the service     Sample:  | (717) 656-2                 | 2300        | -2420                  |                      |  | Privileged 8        | Confiden       | tiał             | N                | l –           | _     | Cite I   | lama    |          | Baltim    | ore  |        |         |         |          |                 | Т     |        |       |        | Lab Proj # (SDG):                               |                   |
| Clent Contact: (name, co., address)     Sample     Doug-filth     The Manual Link Vul     Para Market Sample II     Sample II     Sample II     Sample II     Sample III     Sample III     Sample III     Sample III     Sample III     Sample IIII     Sample IIII     Sample IIII     Sample IIII     Sample IIIII     Sample IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII  | Sampling                    | g Co.:      | Maryland               | Environme            | ental Service                          | EDD To:             |                | matthew.gillis   | @ch2m_co         | i<br>m        |       | Loca     | tion of | Site:    | BALTI     | MOR  | E, MD  |         |         | Sar      | npling<br>ogram | I Sur | face V | Vater |        | Lab ID  | LLI               |
| Characterization   PO #   Monoreality and the grant free (TAT):   14   | Client Co                   | ontact: (n  | ame, co.               | , addres:            | s)                                     | Sampler:            | Doug Grif      | fith, Tim Mayn   | ard, Lien V      | u             |       |          |         |          |           |      |        |         | T       |          | T               | 15an  | Pound  | Г     | T      | Site ID   | BALTIMORE         |
| 1111 Black   Analysis Turnaround Time (TAT):   14   Authorsed Lett   Honorywell     Consultant   Con   | Christopher                 | r French    |                        |                      |  | PO #                | 45000138       | 106              |                  |               |       | Preser   | vative  | 3        |           |      |        |         |         |          |                 |       |        |       |        | Lab Job #                                       |                   |
| Decisionary Data To:     Decisiona   | 115 Tabor I<br>Morris Plain | Rd          | 50                     |                      |  | Analysis T          | urnaround      | Time (TAT):      |                  | 14            |       | -        |         |          |           | -1   |        |         |         |          | T               |       |        |       |        | Authorized User:                                | Honeywell         |
| Sample Revended method code de value de la code de la                         | Preliminar                  | y Data To   | matthew                | gillis@ch2i          | m com                                  |                     | Consultar      |                  |                  | CHZM          |       | -        | ~       |          |           |      |        |         |         |          | 1               |       |        |       |        |   | Excel & Text File |
| Additional operation     Automatical and a constraints and a constraint of an analysis of a constraint of a con                                     | Sample Re                   | eceipt      | matthew                | qillis@critiq        | an com hernice kidd@ch2in com<br>m.com |                     |                |                  |                  |               | _     | -        | ple     |          |           |      |        |         |         |          |                 |       |        |       |        | Text & Excel File Drive                         | Order             |
| Hard Copy Io   My Nuclear   Full Report TAT:   2.2   General Structure   | Acknowled                   | dgement T   | o amv klop             | per@critige          | en com; bernice kidd@ch2m com          |                     |                |                  |                  |               |       | ab       | San     | Ē        |           |      |        |         |         |          | 1               |       |        |       |        |   |                   |
| Involue rie:   Considering and the relation   Sample Samp  | Hard Copy                   | / 10        | Amy Klop               | oper                 |  | Fu                  | III Report T   | AT:              |                  | 28            |       | te/G     | ered    | hrom     |           |      |        |         |         |          |                 |       |        |       |        |   |                   |
| $ \begin{array}{ c c c c c c c c c c c c c c c c c c c$  | Invoice to                  | :           | Chinstopr              | ier French           |  |                     |                |                  |                  |               | 1     | l losi   | Filte   | 10 C     |           |      |        |         |         |          |                 |       |        |       |        |   | ~                 |
| Start     End<br>(h)     Depth<br>(h)     Field Sample ID<br>(h)     Min     Outputs     Units     Un  |                             |             | Samo                   | le Identifi          | cation                                 | Sample<br>Date      | Sample<br>Time | Sample<br>Type   | Sample<br>Matrix | Sample        | # of  | I WO     | ield    | W60      |           |      |        |         |         |          |                 |       |        |       |        | Copyright AESI: Version<br>8.0 Unauthorized use |                   |
| 1   11   7   50   1.0   30905-SW117-040416   4/4/2016   12.2   w.Sw   WATER   REG   1   grab   1   1   1   1   1   1   1   grab   1   <  | Locat                       | tion ID     | Start<br>Depth<br>(ft) | End<br>Depth<br>(ft) | Field Sample ID                        | 1.18-1              |                |                  |                  | Tupeoc        |       | Unite    |         | 05       |           |      |        | 1       |         |          |                 |       |        |       |        | Sampling Method                                 | Lab Sample        |
| Image: Non-With Construction in Value in Construction in Value                                | 1                           | 11T         | 750                    | 10                   | 30905 SW(11T 040416                    | 4/4/2016            | 11:43          |                  | MATER            | DEO           |       |          |         | v        |           |      |        |         | -       |          |                 |       |        |       |        | (code)  | Numbers           |
| 2   11M  |                             |             | 1.50                   | 1.0                  | 50905-544111-040410                    | 4/4/2010            | 10.16          | VV-SVV           | WATER            | REG           | +     | grab     | Ŷ       | <u> </u> |           | -    | -      |         |         | -        | +               | +     | -      | +     | -      |   |                   |
| 3   11B   7.50   6.50   30905-SW11B-040416   4/4/2016   10:74'S   W-SW   WATER   REG   1   grab   Y   X  | 2                           | 11M         | 750                    |                      | 30905-SW11M-040416                     | 4/4/2016            |                | W-SW             | WATER            | REG           |       | grab     |         |          |           | _    | _      |         | _       | _        | _               |       | _      | _     |        |   |                   |
| 4   12T   4,0   i.O   30905-SW12T-040416   414/2016   i.C. 4/6   w.Sw   wATER   REG   1   grab   v   x   v   | 3                           | 11B         | 1.50                   | 6.50                 | 30905-SW11B-040416                     | 4/4/2016            | 10:43          | W-SW             | WATER            | REG           | 1     | grab     | Y       | x        |           |      |        |         |         |          |                 |       |        |       |        |   |                   |
| 5   12M   -   30905-SW12M-040416   4/4/2016   -   W-SW   WATER   REG   grab   - <td>4</td> <td>12T</td> <td>4.0</td> <td>1.0</td> <td>30905-SW12T-040416</td> <td>4/4/2016</td> <td>10:46</td> <td>w-sw</td> <td>WATER</td> <td>REG</td> <td>1</td> <td>grab</td> <td>Y</td> <td>x</td> <td></td>  | 4                           | 12T         | 4.0                    | 1.0                  | 30905-SW12T-040416                     | 4/4/2016            | 10:46          | w-sw             | WATER            | REG           | 1     | grab     | Y       | x        |           |      |        |         |         |          |                 |       |        |       |        |   |                   |
| 6   128   1.0   3.0   30905-SW12B-040416   414/2016   1C: 47   W-SW   WATER   REG   1   grab   Y   X   V   | 5                           | 12M         |                        | -                    | 30905-SW12M-040416                     | 4/4/2016            |                | w-sw             | WATER            | REG           |       | grab     |         |          |           |      |        |         |         |          | 1               |       |        |       |        |   |                   |
| 7   13T   3.33   1.0   30905-SW13T-040416   414/2016   10:4%   W-SW   WATER   REG   1   grab   Y   X   V   | 6                           | 12B         | 4.0                    | 3.0                  | 30905-SW12B-040416                     | 4/4/2016            | 10:47          | w-sw             | WATER            | REG           | 1     | grab     | Y       | x        |           |      |        |         |         |          |                 |       |        |       |        | · · · · · · · · · · · · · · · · · · ·           |                   |
| 8   13M   -   -   30905-SW13M-040416   4/4/2016   -   W-SW   WATER   REG   grab   - <td>7</td> <td>13T</td> <td>3.33</td> <td>1.0</td> <td>30905-SW13T-040416</td> <td>4/4/2016</td> <td>10:48</td> <td>w-sw</td> <td>WATER</td> <td>REG</td> <td>1</td> <td>grab</td> <td>Y</td> <td>x</td> <td></td>   | 7                           | 13T         | 3.33                   | 1.0                  | 30905-SW13T-040416                     | 4/4/2016            | 10:48          | w-sw             | WATER            | REG           | 1     | grab     | Y       | x        |           |      |        |         |         |          |                 |       |        |       |        |   |                   |
| 9   13B   3.33   Z.35   30905-SW13B-040416   4/4/2016   10.'Y4   W-SW   WATER   REG   1   grab   Y   X   I   | 8                           | 13M         | -                      | -                    | 30905-SW13M-040416                     | 4/4/2016            | -              | W-SW             | WATER            | REG           |       | grab     |         |          |           |      |        |         |         |          |                 |       |        |       |        |   |                   |
| 10   14T   7.17   1.0   30905-SW14T-040416   4/4/2016   10   S1   W-SW   WATER   REG   1   grab   Y   X   V   <  | 9                           | 13B         | 3.33                   | 2.3                  | 30905-SW13B-040416                     | 4/4/2016            | 10:44          | w-sw             | WATER            | REG           | 1     | grab     | Y       | x        |           |      |        |         |         |          |                 |       | 1      | 1     | -      |   |                   |
| 11   14M   -   -   30905-SW14M-040416   4/4/2016   -   W-SW   WATER   REG   grab   - <td>10</td> <td>14T</td> <td>7.17</td> <td>1.0</td> <td>30905-SW14T-040416</td> <td>4/4/2016</td> <td>10:51</td> <td>w-sw</td> <td>WATER</td> <td>REG</td> <td>1</td> <td>grab</td> <td>Y</td> <td>x</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>1</td> <td></td> <td></td> <td></td> <td></td>  | 10                          | 14T         | 7.17                   | 1.0                  | 30905-SW14T-040416                     | 4/4/2016            | 10:51          | w-sw             | WATER            | REG           | 1     | grab     | Y       | x        |           |      |        |         |         |          |                 |       | 1      |       |        |   |                   |
| 12   14B   7.17   6.17   30905-SW14B-040416   4/4/2016   6.52   W-SW   WATER   REG   1   grab   Y   X   Image: Company of the company of t  | 11                          | 14M         | -                      | -                    | 30905-SW14M-040416                     | 4/4/2016            |                | W-SW             | WATER            | REG           |       | grab     |         |          |           |      |        |         | 1       |          |                 |       | 1      |       |        |   |                   |
| Relinquished by   Company   MES   Received by   Company   Condition   Custody Seals Intact     Date/Time   U/U/U/U/U/U/U/U/U/U/U/U/U/U/U/U/U/U/U/  | 12                          | 14B         | 7.17                   | 617                  | 30905-SW14B-040416                     | 4/4/2016            | 10:52          | w-sw             | WATER            | REG           | 1     | grab     | Y       | x        |           |      | -      |         |         | 1        |                 |       | 1      |       |        |   |                   |
| Received by Received by Company Company Custody Seals Intact   Date/Time U/U/U/U/U/U/U/U/U/U/U/U/U/U/U/U/U/U/U/  | Relinquishe                 | d by        | 1.1                    |                      | Composi                                | 100                 |                |                  |                  |               |       |          |         | _        |           |      | _      |         | -       | <u>.</u> | 1               | -     |        |       |        |   |                   |
| Date/Time     United by     United by     United by     Date/Time     United by     Cooler Temp.     C  | i C                         | u by        | MA                     |                      | Data/Time                              | NE                  | >              | Received by      |                  | _             |       |          |         |          | Comp      | any  | CVt.   | 224     | Cor     | ndition  | 3               |       |        | Cust  | ody S  | eals Intact                                     |                   |
| Relinquished by Company Received by Company Company Condition Custody Seals Intact   Date/Time Date/Time Cooler Temp. Cooler Temp. Cooler Temp. Cooler Temp.   | N                           | DU          | 11                     | 7                    | Date/Time                              | 4/4/16              | -              | 5                |                  |               | D     | ate/Tir  | ne      | 1        | H/i       | 1 19 | Coc    | oter Te | emp.    |          |                 |       |        |       |        |   |                   |
| Date/Time Date/Time Cooler Temp.   | Relinquishe                 | d by        | / -                    | 0                    | Company                                | Company Received by |                |                  |                  |               |       |          |         |          | Comp      | any  | 1.011  |         | Cor     | ndition  |                 |       |        | Cust  | ody Se | eals Intact                                     |                   |
|  |                             |             |                        |                      | Date/Time                              |                     |                |                  |                  |               |       |          | D       | ate/Tir  | ne        |      |        |         | Cod     | oler Te  | mp              |       |        |       |        |   |                   |
| Preservatives: (Other; Specify): (HCl 204 pHz2); 5 (HCl 4 Deg C); 7 (HCl 204 pHz2); 5 (HCl 4 Deg C); 7 (HCl 204 pHz2); 7 | Preservativ                 | /es: (Other | ; Specify):            |                      |  |                     |                | 0 (none); 1 (4 E | Deg C); 2 (H     | CI pH<2); 3 ( | (HNO3 | oH<2); 4 | (H2SC   | 04 pH<   | 2); 5 (Na | OH p | H>12); | 6 (NaO  | H, Zn A | cetate)  | 7 (H2           | SO4 ( | pH<2), | 4 Deg | C)); 8 | (HCI pH<2); 9 (HCI 4 D                          | eg C); 10 (HNO3   |

| La  | incaster Lab      | oratorie      | s             |  |               | 4            |                  |              |             |       |              |         |          |          | _     |       |          |        | _     |                |           |        |         |         |        | AESI Ref:                 | 42461.50167           |
|-----|-------------------|---------------|---------------|--|---------------|--------------|------------------|--------------|-------------|-------|--------------|---------|----------|----------|-------|-------|----------|--------|-------|----------------|-----------|--------|---------|---------|--------|---------------------------|-----------------------|
| 242 | 5 New Holland Pi  | ike           |               |  | H             | one          | ywe              |              | Chain       | Of C  | usto         | dy / /  | Anal     | ysis     | Rec   | ques  | st       |        |       |                |           |        |         |         |        | COC#                      | 30905-110414-         |
| Lar | ncaster, PA 17605 | -2425         |               |  |               |              | •                |              | ·           |       |              |         |          |          |       |       |          |        |       |                |           |        |         |         |        |                           |                       |
| (71 | 7) 656-2300       |               |               |  | Privileged 8  | Confiden     | tial             | N            |             |       | Site I       | lame:   |          | Balti    | more  | 1     |          |        | 1     | hase           | :         |        |         |         |        | Lab Proj # (SDG):         |                       |
| Sa  | mpling Co.:       | Maryland      | I Environn    | nental Service                                   | EDD To:       |              | matthew,gillis   | @ch2m co     | m           |       | Loca         | tion of | Site:    | BAL      | TIMOF | RE, M | D        |        |       | Samp<br>Progra | ing<br>im | Surfa  | ice W   | ater    |        | Lab ID                    | LU                    |
| Cli | ent Contact: (r   | name, co.     | , addres      | ss)  | Sampler:      | Doug Grif    | fith, Tim Mayn   | ard, Lien V  | u 🔍         |       |              |         |          |          |       |       |          |        |       |                | Î         |        |         |         |        | Site ID                   | BALTIMORE             |
| Chr | istopher French   |               |               |  | PO #          | 45000138     | 306              |              |             |       | Preser       | vative  | 3        |          |       |       |          |        |       |                | 1         |        |         |         |        | Lab Job #                 |                       |
| 115 | Tabor Rd          |               |               |  | Analysis T    | urnaround    | Time (TAT):      |              | 14          |       |              |         |          |          |       |       |          |        |       |                |           |        | n Ú     |         |        | Authorized User:          | Honeywell             |
| Pre | liminary Data To  | matthew       | aillis @.ch   | 2m.com   |               | Consultar    | nt               |              | CH2M        |       |              | ~       |          |          |       |       |          |        |       |                |           |        | 1       |         |        |                           | Excel & Text File     |
|     | nale Dessiat      | amyklon       | nor@critic    | an com harnica kidd@ch?m.com                     |               |              |                  |              |             |       | -            | ble     |          |          |       |       |          |        |       | - 1            |           |        |         |         |        | Text & Excel File Drive   | Order                 |
| Ack | nple Receipt      | o amy klop    | per@cnti      | <u>zm com;</u><br>gen com; bernice kidd@ch2m com |               |              |                  |              |             |       | g            | am      | Ę        |          |       |       |          |        |       |                |           |        |         |         |        |                           |                       |
| Hai | rd Copy To        | Amy Klop      | орег          |  | Fu            | III Report 1 | TAT:             |              | 28          |       | ,Gr          | g       | omit     |          |       |       |          |        |       | - 1            |           | - 1    |         |         |        |                           |                       |
| Inv | oice To:          | Christopr     | ner French    | n  |               |              |                  |              |             |       | site         | ilter   | -H       |          |       |       |          |        |       |                |           |        |         |         |        |                           |                       |
| Г   |                   |               |               |  | Sample        | Sample       | Sample           | Sample       | Sample      | # of  | du           | L P     | 6010     |          |       |       |          |        |       |                |           |        |         |         |        | Copyright AESI: Version   |                       |
|     |                   | Samp          | ole Identif   | fication   | Date          | Time         | Туре             | Matrix       | Purpose     | Cont  | . <u>ပ</u> ိ | Ë       | NS<br>NS |          |       |       |          |        |       |                |           |        |         |         | _      | strictly prohibited.      |                       |
|     | Location ID       | Depth<br>(ft) | Depth<br>(ft) | Field Sample ID                                  |               | -            |                  |              |             |       | Units        |         |          |          |       |       |          |        |       |                |           |        |         |         |        | Sampling Method<br>(code) | Lab Sample<br>Numbers |
| 1   | 15T               | 658           | 1.0           | 30905-SW15T-040416                               | 4/4/2016      | 10:55        | w-sw             | WATER        | REG         | 1     | grab         | Y       | x        |          |       |       |          |        |       |                |           |        |         |         |        |                           |                       |
| 2   | 15M               | -             | -             | 30905-SW15M-040416                               | 4/4/2016      | -            | w-sw             | WATER        | REG         |       | grab         |         |          |          |       |       | -        |        |       |                |           |        |         |         |        |                           |                       |
| 3   | 15B               | 6.58          | 5.58          | 30905-SW15B-040416                               | 4/4/2016      | 10:56        | w-sw             | WATER        | REG         | 1     | grab         | Y       | x        |          |       |       |          |        |       |                |           |        |         |         |        |                           |                       |
| 4   | 16T               | 7.33          | 1.0           | 30905-SW16T-040416                               | 4/4/2016      | 10:58        | w-sw             | WATER        | REG         | 1     | grab         | Y       | x        |          |       |       |          |        |       |                |           |        |         |         |        |                           |                       |
| 5   | 16M               | -             | -             | 30905-SW16M-040416                               | 4/4/2016      |              | w-sw             | WATER        | REG         |       | grab         | Y       |          |          |       | _     |          |        |       |                |           |        |         |         |        |                           |                       |
| 6   | 16B               | 7.33          | 6.33          | 30905-SW16B-040416                               | 4/4/2016      | 0:59         | w-sw             | WATER        | REG         | 1     | grab         | Y       | x        |          |       |       |          |        |       |                |           |        |         |         |        |                           |                       |
| 7   | 17T               | 6.83          | 1.0           | 30905-SW17T-040416                               | 4/4/2016      | 11:01        | w-sw             | WATER        | REG         | 1     | grab         | Y       | x        |          |       |       |          |        |       |                |           |        |         |         |        |                           |                       |
| 8   | 17M               |               |               | 30905-SW17M-040416                               | 4/4/2016      | -            | w-sw             | WATER        | REG         |       | grab         |         |          |          |       |       |          |        |       |                |           |        |         |         |        |                           |                       |
| 9   | 17B               | 6.83          | 5.83          | 30905-SW17B-040416                               | 4/4/2016      | 11:02        | w-sw             | WATER        | REG         | 1     | grab         | Y       | x        |          |       |       |          |        |       |                |           |        |         |         |        |                           |                       |
| 10  | 18T               | 10.83         | 1.0           | 30905-SW18T-040416                               | 4/4/2016      | 11:13        | W-SW             | WATER        | REG         | 1     | grab         | Y       | x        |          |       |       |          |        |       |                |           |        |         |         |        |                           |                       |
| 11  | 18M               | 10.83         | 5.42          | 30905-SW18M-040416                               | 4/4/2016      | 11:15        | w-stw            | WATER        | REG         |       | grab         |         |          |          |       |       |          |        |       |                |           | _      |         |         |        |                           |                       |
| 12  | 18B               | 10.83         | 9.83          | 30905-SW18B-040416                               | 4/4/2016      | 11:16        | w-sw             | WATER        | REG         | 1     | grab         | Y       | X        |          |       |       |          |        |       |                |           |        |         |         |        |                           |                       |
| Rel | inquished by      | M             | 0.1           | Company  | ME            | =5           | Received by      |              |             |       | 1            |         |          | Corr     | npany | (se   | 120      |        | ondit | ion            |           |        |         | Custo   | dy Se  | eals Intact               |                       |
|     | NA                | HA            |               | Date/Time  | 4/4/1         | 6 15         | 27 Mus           | +6           | 1           |       |              | D       | ate/Ti   | me       |       | 4/4   | IIL ¥    |        | ooler | Temp           |           |        |         |         |        |                           |                       |
| Rel | inquished by      |               |               | Company  | y Received by |              |                  |              | >           |       |              |         |          | Com      | ipany | 47    |          | C      | ondit | ion            |           |        |         | Custo   | dy Se  | eals Intact               |                       |
|     |                   |               |               | Date/Time  |               |              |                  |              |             |       |              | D       | ate/Ti   | me       |       |       |          | C      | ooler | Temp           | ыс —      |        |         |         |        |                           |                       |
| Pre | servatives: (Othe | r: Specify):  |               |  |               | _            | 0 (none); 1 (4 [ | Deg C); 2 (H | CI pH<2); 3 | (HNO3 | pH<2); 4     | (H2SC   | 04 pH<   | 2); 5 (1 | NaOH  | pH>12 | ); 6 (Na | OH, Zr | Acet  | ate); 7        | (H2S      | O4 (pł | H<2), 4 | 4 Deg C | C)); 8 | (HCI pH<2); 9 (HCI 4 D    | eg C); 10 (HNO3       |

| ter Lab     | oratorie   | S   |   |   | -   |  |   | ж.  |   |   |          |   |  |   |   |  |  |  |  |   |  |   | _  | _   | AESI Ref:   | 42461.50307   |  |   |  |
|-------------|--|---|---|---|---|--|---|---|---|---|----------|---|--|---|---|--|--|--|--|---|--|---|--|---|---|---|--|---|--|
| Iolland Pil | ke   |   |   | H   | one   | ywe  |   | Chain   | Of C  | usto  | dy / /   | Anal  | ysis f   | Rec   | lues  | t  |  |  |  |   |  |   |  |   | COC#  | 30905-110414  |  |   |  |
| PA 17605-   | -2425  |   |   |   | -   |  |   |   |   | _   |          | _   |  | _   |   | _  |  |  |  |   | _  |   |  |   |   |   |  |   |  |
| 300         |  |   |   | Privileged 8  | Confident   | tial   | N   |   |   | Site I  | Name:    |   | Baltim   | ore   |   |  |  |  | Phas   | e:  |  |   |  |   | Lab Proj # (SDG):   |   |  |   |  |
| Co.:        | Maryland   | Environme   | ental Service   | EDD To:   |   | matthew gillis   | @ch2m.co  | m   |   | Loca  | tion of  | f Site:   | BALTI  | MOF   | RE, MO  | )  |  |  | Sam<br>Prog  | pling<br>ram  | Surfa  | ace W   | ater   |   | Lab ID  | LLI   |  |   |  |
| ntact: (n   | ame, co.   | , address   | s)  | Sampler:  | Doug Grif   | fith, Tim Mayna  | ard, Lien V   | u   |   |   |          |   |  |   |   |  |  |  |  |   | 1  | Ī   |  |   | Site ID   | BALTIMORE   |  |   |  |
| French      | _  |   |   | PO #  | 45000138  | 06   |   |   |   | Preser  | vative   | 3   |  |   |   |  |  |  |  |   |  |   |  |   | Lab Job #   |   |  |   |  |
| Rd S N10795 | 50   |   |   | Analysis T  | urnaround   | Time (TAT):  |   | 14<br>CH2M  |   | -   | ľ l      |   |  |   |   |  |  |  |  |   |  |   |  |   | Authorized User:  | Honeywell   |  |   |  |
| Data To     | matthew  | gillis@ch2r   | n com   |   | oonsaltai   |  |   | ONZM  |   | 1   | ~        |   |  |   |   |  |  |  |  |   |  |   |  |   | Text & Excel File Daws  | Excel & Text File   |  |   |  |
| ceipt       | matthew.   | aillis@ch2r   | n com horning kidd @ch2in com<br>Ti com   |   |   |  |   | -   | _   | {   | hple     |   |  |   |   |  |  |  |  |   |  |   |  |   | Text & Excerptie Drive  | Order   |  |   |  |
| gement To   | o amy klop   | per@critige   | en com; bernice kidd@ch2m.com   |   |   |  |   |   |   | e<br>e  | Sar      | E.  |  |   |   |  |  |  |  |   | 1  |   |  |   |   |   |  |   |  |
| То          | Honeywe  | ill; 1000 Wi  | ills Street; Baltimore, MD 21231  | Fu  | II Report T   | TAT:   |   | 28  |   | te/G  | ered     | hrom  |  |   |   | - 1  |  |  |  |   |  |   |  |   |   |   |  |   |  |
|             | Christopr  | ier French  |   |   |   | r  |   | r   | r   | lsoc  | Filte    | 10 CI   |  |   |   |  |  |  |  |   |  |   |  |   |   | A   |  |   |  |
|             | Some   | la Idantifia  | ation   | Sample  | Sample  | Sample   | Sample  | Sample  | # of  | luo   | ield     | W60   |  |   |   |  |  |  |  |   |  |   |  |   | Copyright AESI: Version<br>8.0 Unauthorized use   |   |  |   |  |
|             | Start  | End   | sation  | Date  | , inte  | Type   | INGUIA  | Fuipose   | Cont.   |   | <u> </u> | S   |  | -   |   | -  | -  |  |  | _   |  |   |  |   | strictly prohibited.  |   |  |   |  |
| ion ID      | Depth<br>(ft)  | Depth<br>(ft)   | Field Sample ID   |   |   | - <u>-</u>   |   |   |   | Units   |          |   |  |   |   |  |  |  |  |   |  |   |  |   | Sampling Method<br>(code)   | Lab Sample<br>Numbers   |  |   |  |
| 19T         | 6.0  | 1. O  | 30905-SW19T-040416  | 4/4/2016  | 10.18   | w-sw   | WATER   | REG   | 1   | grab  | Y        | x   |  |   |   |  |  |  |  |   |  |   |  |   |   |   |  |   |  |
| 19M         | -  | -   | 30905-SW19M-040416  | 4/4/2016  | -   | w-sw   | WATER   | REG   |   | grab  |          |   |  |   |   |  |  |  |  |   |  |   |  |   |   |   |  |   |  |
| 19B         | 6.0  | 5.0   | 30905-SW19B-040416  | 4/4/2016  | 11:19   | w-sw   | WATER   | REG   | 1   | grab  | Y        | x   |  |   |   |  |  |  |  |   |  |   |  |   |   |   |  |   |  |
| 20T         | 2.0  | 1.0   | 30905-SW20T-040416  | 4/4/2016  | 11:20   | w-sw   | WATER   | REG   | 1   | grab  | Y        | x   |  |   |   |  |  |  |  |   |  |   |  |   |   |   |  |   |  |
| 20M         | -  |   | 30905-SW20M-040416  | 4/4/2016  |   | w-sw   | WATER   | REG   |   | grab  |          |   |  |   |   |  |  |  |  |   |  |   |  |   |   |   |  |   |  |
| 20B         | 2.0  | 1.0   | 30905-SW20B-040416  | 4/4/2016  | <i>11</i> . ZT  | w-sw   | WATER   | REG   | 1   | grab  | Y        | x   |  |   |   |  | 4.1  |  |  |   |  |   |  |   |   |   |  |   |  |
| ent T       | 5.58   | 1.0   | 30905-SWCentT-040416  | 4/4/2016  | 9:57  | W-SW   | WATER   | REG   | 1   | grab  | Y        | x   |  |   |   |  |  |  |  |   |  |   |  |   |   |   |  |   |  |
| ent M       |  | -   | 30905-SWCentM-040416  | 4/4/2016  | -   | w-sw   | WATER   | REG   |   | grab  |          |   |  |   |   |  |  |  |  |   |  |   |  |   |   |   |  |   |  |
| ent B       | 3.58   | Z 58  | 30905-SWCentB-040416  | 4/4/2016  | 9:58  | w-sw   | WATER   | REG   | 1   | grab  | Y        | x   |  |   |   |  |  |  |  |   |  |   |  |   |   |   |  |   |  |
| ADY T       | 1.83   | 1.0   | 30905-SWLady⊺-040416  | 4/4/2016  | 952   | W-SW   | WATER   | REG   | 1   | grab  | Y        | x   |  |   |   |  |  | _  |  |   |  |   |  |   |   |   |  |   |  |
| ady M       | -  |   | 30905-SWLadyM-040416  | 4/4/2016  | -   | w-sw   | WATER   | REG   |   | grab  |          |   |  |   |   |  |  | _  |  |   |  |   |  |   |   |   |  |   |  |
| ADY B       | 1.83   | 0.33  | 30905-SWLadyB-040416  | 4/4/2016  | 7.53  | W-SW   | WATER   | REG   | 1   | grab  | Y        | X   |  |   |   |  | _  |  |  |   |  |   |  |   |   |   |  |   |  |
| aby 1       | AN   |   | Company   | ME  | S   |  |   |   |   |   |          | Comp  | any  | Cu  | 200   | 2  | Cond   | ition  | -  |   | -  | Custo   | ody Se   | eals Intact   | 1   |   |  |   |  |
| IN          | IX   | 7   | Date/Time   | 41411   | 6 15:   | 6  |   |   |   | D   | ate/Ti   | me  |  | 44  | 16 15   | 20   | Coole  | er Ten   | np.  |   | 7  |   |  |   |   |   |  |   |  |
| d by        |  | 1   | Company   | 1   |   | Received by  |   | >   |   |   |          |   | Comp   | any   |   |  | (  | Cond   | ition  |   |  |   | Custo  | dy Se   | eals Intact   |   |  |   |  |
| .56         |  |   | Date/Time   |   |   |  |   |   |   |   | D        | ate/Ti  | me   |   |   |  | 0  | Coole  | r Ten  | np  |  |   |  |   |   |   |  |   |  |
| es: (Other  | r: Specify):   |   |   |   | 0 (none); 1 (4 Deg C); 2 (HCl<br>(pH<2), 4Deg C); 11 (4C NaC  |  |   |   | (HNO3 p   | )H<2); 4  | 4 (H2SC  | D4 pH<  | <2); 5 (Na   | BOH I   | pH>12   | ; 6 (Na  | OH, Z  |  | tate);   | 7 (H2   | SO4 (p   | 0H<2),  | 4 Deg (  | C)); 8  | (HCI pH<2); 9 (HCI 4 D  | eg C); 10 (HNO3   |  |   |  |
|             | er Lab<br>olland Pi<br>PA 17605<br>300<br>Co.:<br>ntact: (r<br>French<br>d<br>S. NJ 0795<br>Data To<br>ceipt<br>gement T<br>To<br>on ID<br>19T<br>19M<br>19B<br>20T<br>20B<br>ent T<br>ent M<br>ent B<br>.DY T<br>add M<br>.DY B<br><br><br><br><br><br><br> | Er     Laboratorie       Iolland Pike     PA 17605-2425       PA 17605-2425     300       Co.:     Maryland       Intact:     (name, co.       French | er Laboratories<br>tolland Pike<br>PA 17605-2425<br>300<br>Co.: Maryland Environment<br>tact: (name, co., address<br>French<br>d<br>s, NJ 07950<br>Data To matthew gills@ch2r<br>and klopper@chilg<br>To Honeywell; 1000 Wi<br>Christopner French<br>Sample Identific<br>on ID Depth Depth<br>(ft) 100<br>Christopner French<br>Sample Identific<br>On ID Depth Depth<br>(ft) 100<br>20T 2. C 1. C<br>19M<br>19B 6. O 5. D<br>20T 2. C 1. C<br>20M<br>20B 2. O i. C<br>ent T 5. SS 1. O<br>ent M<br>ent B 3. SS 2. SS<br>DY T i. S3 0. S3<br>How<br>To By<br>Control Depth Solution<br>(ft) 10<br>(ft) 10<br>( | er Laboratories     Initial Pike     PA 17605-2425     Maryland Environmental Service     Maryland Environmental Service     Initial Environmental Service     Initial Environmental Service     Maryland Environmental Service     Initial Environmental Service     Service Initial Environmental Service     Service Initial Environmental Service More | Er Laboratories     Privileged 8       folland Pike     Privileged 8       PA 17605-2425     Sampler       800     Frivileged 8       Co.:     Maryland Environmental Service     EDD To:       intact:     (name, co., address)     Sampler:       French     Analysis T     Sampler:       French     PO #     Analysis T       attributes     attributes     Sample:       perient To     attributes     Sample:       attributes     attributes     Sample:       perient To     attributes     Sample:       attributes     Christopner French     Sample       attributes     Sample Identification     Sample       attributes     Sample ID     (ft)     Ft       attributes     Sample ID     4/4/2016     4/4/2016       attributes     Sample ID     (ft)     4/4/2016       attributes     Sample ID     (ft)     4/4/2016       attributes     Sample ID     4/4/2016     4/4/2016       attributes     Sample ID     Id     4 | If Laboratories       If Laboratories       If Laboratories       Privileged & Confident       Co.:     Maryland Environmental Service     EDD To:       match: (name, co., address)     Sampler: Doug Grif       Po # 45000138       d     Consultar       Maryland Environmental Service     EDD To:       match: Quis@Ch2m.com       Consultar       Data To     match: Quis@Ch2m.com       match: Quis@Ch2m.com       representation     Sample To       To Honeyweil: 10000 Wills Street; Baltimore, MD 21231     Full Report 1       To Honeyweil: 10000 Wills Street; Baltimore, MD 21231     Full Report 1       To Honeyweil: 10000 Wills Street; Baltimore, MD 21231     Full Report 1       To Honeyweil: 10000 Wills Street; Baltimore, MD 21231     Full Report 1       To Honeyweil: 10000 Wills Street; Baltimore, MD 21231     Full Report 1       Start     End     Sample <td>Series Series Se</td> <td>Bioland Pike       Privileged &amp; Confidential     N       Co.:     Maryland Environmental Service     EDD To:     matthew gillis (ch2m.con       Co.:     Maryland Environmental Service     EDD To:     matthew gillis (ch2m.con       To:     matthew gillis (ch2m.con       Co.:     Marthew gillis (ch2m.con       To:     matthew gillis (ch2m.con       To:     matthew gillis (ch2m.con       To:     matthew gillis (ch2m.con       To:     To:     To:       To:     To:     To:       To:     To:     To:       To:     To:     To:       Sample Identification     Sample     Sample Marin:       Sample Identification     Sample Marin:     Sample Marin:       Sample Identification     Sample Marin:       Sample Identifification</td> <td>Pri Laboratories     Chain     Chain       Maryland Environmental Service     EDD To: matthew gills@ch2m.com       matthew gills@ch2m.com       matthew gills@ch2m.com       Co.;     matthew gills@ch2m.com       <th <="" colspan="2" td=""><td>Bioland Pike<br/>PA 17605-2425<br/>300     Chain Of Cr       Microsoft Sector     Consultant     CH28       Sample Matrix     Purpose Cont.       Sample Hontification     Sample Sample</td><td>Bioland Pike       All 1260-2425       Solution Pike       Notice Pike       All 1260-2425       Bioland Pike       Bioland Pike       All 1260-2425       Bioland Pike       Bioland Pike       Colspan="2"&gt;Colspan="2"       Colspan="2"&gt;Colspan="2"       Colspan="2"&gt;Colspan="2"       Colspan="2"       Colspan="2"       Colspan="2"       Colspan="2"       Colspan="2"       Colspan="2"</td><td>Privileged &amp; Confidential     N and Privileged &amp; Confidential     N and Privileged &amp; Confidential     N     Chain Of Custody / /       Co.:     Maryland Environmental Service     EDD To:     matthew gills@ch2m.com     Location of there and the private of the private of</td><td>Private Private Privece Priv Privece Private Private Private Private Private Privat</td><td>Privileged &amp; Confidential     Notion of Custody / Analysis I       Minimized &amp; Confidential     N     Chain Of Custody / Analysis I       Sample:     Confidential     N     Stet Name:     Baitim       Co.:     Maryland Environmental Service     ED To:     matthew gills@ch7m.com     Location of Site:     BALT       NO 7850     PO #     dots colspan="2"&gt;Colspan="2"&gt;Colspan="2"&gt;Colspan="2"&gt;Colspan="2"&gt;Colspan="2"     Matrix     Sample:     Sample:     Sample     Colspan="2"     Colspan="2"     Of Table Waite Stream colspan="2"     Matrix     Colspan="2"     Of Table Waite Stream colspan="2"     Matrix     Purpse     Colspan="2"     Colspan="2"      Colspan="2"      Colspan="2"             Colspan="2"       <th colspa<="" td=""><td>Privileged &amp; 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Sample Hontification     Sample Sample</td><td>Bioland Pike       All 1260-2425       Solution Pike       Notice Pike       All 1260-2425       Bioland Pike       Bioland Pike       All 1260-2425       Bioland Pike       Bioland Pike       Colspan="2"&gt;Colspan="2"       Colspan="2"&gt;Colspan="2"       Colspan="2"&gt;Colspan="2"       Colspan="2"       Colspan="2"       Colspan="2"       Colspan="2"       Colspan="2"       Colspan="2"</td><td>Privileged &amp; Confidential     N and Privileged &amp; Confidential     N and Privileged &amp; Confidential     N     Chain Of Custody / /       Co.:     Maryland Environmental Service     EDD To:     matthew gills@ch2m.com     Location of there and the private of the private of</td><td>Private Private Privece Priv Privece Private Private Private Private Private Privat</td><td>Privileged &amp; Confidential     Notion of Custody / Analysis I       Minimized &amp; Confidential     N     Chain Of Custody / Analysis I       Sample:     Confidential     N     Stet Name:     Baitim       Co.:     Maryland Environmental Service     ED To:     matthew gills@ch7m.com     Location of Site:     BALT       NO 7850     PO #     dots colspan="2"&gt;Colspan="2"&gt;Colspan="2"&gt;Colspan="2"&gt;Colspan="2"&gt;Colspan="2"     Matrix     Sample:     Sample:     Sample     Colspan="2"     Colspan="2"     Of Table Waite Stream colspan="2"     Matrix     Colspan="2"     Of Table Waite Stream colspan="2"     Matrix     Purpse     Colspan="2"     Colspan="2"      Colspan="2"      Colspan="2"             Colspan="2"       <th colspa<="" td=""><td>Privileged &amp; Confidential     Nain of Custody / Analysis Rec       Source of the second of the s</td><td>Privileged &amp; Confidential   N   State Name:   Patience     000   Poligie &amp; Confidential   N   State Name:   Patience     000   Poligie &amp; Confidential   N   State Name:   Patience     001   Poligie &amp; Confidential   N   State Name:   Patience     01   Poligie &amp; Confidential   N   State Name:   Patience     01   Poligie &amp; Consultant   CH2M   Consultant   CH2M   CH2M     010   Poligie &amp; Consultant   CH2M   Sample:   Sample:&lt;</td><td>Stample for Earth Control of the contr</td><td>Sample Individual Office Calification   Chain Office Calification   Chain Office Calification     Construction of the calification of the calification</td><td>Sample dentification     Sample dent</td><td>Sample Mentrification     Sample Mentrification&lt;</td><td>Sample Gentleveline Review     Chain Of Custody / Analysis Request       Construction of the Name:     Bailtonice     Provide a Confidencial     N     Site Name:     Bailtonice     Provide a Confidencial     N     Site Name:     Bailtonice     Provide a Confidencial     N     Site Name:     Bailtonice     Provide a Confidencial     N     Mailtonice More Review     Site Name:     Bailtonice     Provide a Confidencial     N     Provide a Consultant     Consultant     Creation of Site Name:     Provide a Consultant       Creation of Site Name:     Sample Information of Site Name:     Provide a Consultant     Creation of Site Name:     Provide a Consultant       Creation of Site Name:     Sample Information of Site Name:     Provide Control     Provide Site Name:</td><td>Sample deathfraction   Sample io   Out of the sample io   Charles and the sample io   Notice of the sample io   Charles and the sample io   Notice of the sample io   Charles and the sample io   Notice of the sample io   Charles and the sample io   Notice of the sample io   Charles and the sample io   Notice of the sample io   Charles and the sample io   Notice of the sample io   Charles and the sample io   Consolitant   Consolitant</td><td>Semple dentification     Semple dent</td><td>Simple Construction     <th< td=""><td>Simple Service     Data Plane     Chain Of Custody / Analysis Request       Privilege &amp; Confidential     N     Simple Service     Privilege &amp; Confidential     N     Simple Service     Privilege &amp; Confidential     N     Simple Service     Simple Service     Privilege &amp; Confidential     N     Simple Service     Notice Water       Concertifies     Simple Service     Notice Water       Consultant     <th< td=""><td>Part and Pike   Protect Automatication   Prote Automatication   Protect Auto</td></th<></td></th<></td></th></td></th> | <td>Bioland Pike<br/>PA 17605-2425<br/>300     Chain Of Cr       Microsoft Sector     Consultant     CH28       Sample Matrix     Purpose Cont.       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| La        | ancaster Labo                              | ratorie                | s                    |                                       |                  |                |                                    |                              |                             |                     |                     |          |                  |                    |                 |  |                   |                   |                  |                     |             |                    |                    |       |        | AESI Ref:                                    | 42461.50307           |
|-----------|--|------------------------|----------------------|---------------------------------------|------------------|----------------|------------------------------------|------------------------------|-----------------------------|---------------------|---------------------|----------|------------------|--------------------|-----------------|--|-------------------|-------------------|------------------|---------------------|-------------|--------------------|--------------------|-------|--------|--|-----------------------|
| 24:       | 25 New Holland Pik                         | 9                      |                      |                                       | H                | one            | ywel                               |                              | Chain                       | Of C                | ustoc               | iy/A     | \nal             | ysis               | Req             | ues  | st                |                   |                  |                     |             |                    |                    |       |        | COC#   | 30905-110414-6        |
| La<br>(71 | ncaster, PA 17605-2<br>7) 656-2300         | 425                    |                      |                                       | Privilaged 8     | Confident      | tial                               | Ν                            |                             |                     |                     |          |                  | Balti              | more            |  |                   |                   |                  |                     |             | <u> </u>           |                    |       |        | Lab Proj # (SDG):                            |                       |
|           |  |                        |                      |                                       | EDD To           | Comuen         | matthew gillis                     | Och2m.co                     | <b></b>                     |                     | Site N              | lame:    | 0.1              | BAL                | TIMOR           | E. MI  | D                 |                   | -                | Phas                | e:<br>pling | Surfa              | ace W              | ater  |        | Lab ID                                       | LLI                   |
| 29        | impling Co.:                               | Maryland               | Environm             |                                       | Complex          | Davis Crif     | Cab. Tim Marrie                    | ()                           |                             |                     | Locat               | ion of   | Sne:             |                    |                 | -  |                   |                   | -                | Prog                | ram         | Sam                | plina<br>T         | r -   | T -    | Site ID                                      | BALTIMORE             |
| Ch        | ristopher French                           | me, co.,               | adures               |                                       | PO #             | 45000138       | ntri, i im Mayna<br>306            | ard, Lien vi                 | 1                           |                     | Preserv             | /ative   | 3                |                    |                 | -  |                   |                   |                  |                     |             |                    |                    |       |        | Lab Job #                                    |                       |
| 11:       | 5 Tabor Rd                                 |                        |                      |                                       | Analysis T       | urnaround      | Time (TAT):                        |                              | 14                          |                     |                     |          |                  |                    |                 |  |                   |                   |                  |                     |             |                    |                    |       |        | Authorized User:                             | Honeywell             |
| Mo        | rris Plains, NJ 07950<br>eliminary Data To | matthew                | aillis@ch2           | 'm com                                |                  | Consultar      | nt                                 |                              | CH2M                        | _                   |                     | ~        |                  |                    |                 |  |                   |                   |                  |                     |             |                    |                    |       |        |  | Excel & Text File     |
| 6.0       | mple Peceint                               | amy klone              | ner@critia           | en com bernice kidd@ch?m.com<br>m.com |                  |                |                                    |                              |                             |                     |                     | ple      |                  |                    |                 |  |                   |                   |                  |                     |             |                    |                    |       |        | Text & Excel File Drive                      | Order                 |
| Ac        | knowledgement To                           | amy.klop               | per@critig           | en com, bernice kidd@ch2m.com.        |                  |                |                                    |                              |                             |                     | đ                   | San      | Ē                |                    |                 |  |                   |                   |                  |                     |             |                    |                    |       |        |  |                       |
| Ha        | rd Copy To                                 | Amy Klop               | per                  | D 1                                   | Fu               | II Report 1    | AT:                                |                              | 28                          |                     | te/G                | ered     | hrom             |                    |                 |  |                   |                   |                  |                     |             |                    |                    |       |        |  |                       |
| Inv       | voice To:                                  | Christoph              | er French            |                                       |                  |                | r                                  |                              |                             |                     | posi                | Filte    | 10 C             |                    |                 |  |                   |                   |                  |                     |             |                    |                    |       |        |  |                       |
|           |  | Samp                   | le Identifi          | cation                                | Sample<br>Date   | Sample<br>Time | Sample<br>Type                     | Sample<br>Matrix             | Sample<br>Purpose           | # of<br>Cont.       | Com                 | Field    | SW60             |                    |                 |  |                   |                   |                  |                     |             |                    |                    |       |        | a.0 Unauthorized use<br>strictly prohibited. |                       |
|           | Location ID                                | Start<br>Depth<br>(ft) | End<br>Depth<br>(ft) | Field Sample ID                       |                  | ΓT             |                                    |                              |                             |                     | Units               |          | 1/Gr             |                    |                 |  |                   |                   |                  |                     |             |                    |                    |       |        | Sampling Method<br>(code)                    | Lab Sample<br>Numbers |
|           | SB. DUP                                    | 4.33                   | 3 33                 | 30905-SWD1-040416                     | 4/4/2016         | j0:1(          | w-sw                               | WATER                        | FD                          | 1                   | grab                | Y        | x                |                    |                 |  |                   |                   |                  |                     |             |                    |                    |       |        |  |                       |
| 2         | 10T DOP                                    | 5.67                   | 10                   | 30905-SWD2-040416                     | 4/4/2016         | 16:40          | w-sw                               | WATER                        | FD                          | . 1                 | grab                | Y        | x                |                    |                 |  |                   |                   |                  |                     |             |                    |                    |       |        |  |                       |
| 3         | 14B DOP                                    | 7.17                   | 6217                 | 30905-SWD3-040416                     | 4/4/2016         | 10:53          | w-sw                               | WATER                        | FD                          | 1                   | grab                | Y        | x                |                    |                 |  |                   |                   |                  |                     |             |                    |                    |       |        |  |                       |
| 4         | 18T DUP                                    | 10.83                  | 10                   | 30905-SWD4-040416                     | 4/4/2016         | 1114           | W-SW                               | WATER                        | FD                          | 1                   | grab                | Y        | x                |                    |                 |  |                   |                   |                  |                     |             |                    |                    |       |        |  |                       |
| 5         | FIELDQC                                    |                        | -                    | 30905-SW-FB1-040416                   | 4/4/2016         | 10:34          | BLKWATER                           | WATER                        | FB                          | 1                   | grab                | N        | x                |                    |                 |  |                   |                   |                  |                     |             |                    |                    |       |        |  |                       |
| 6         | FIELDQC                                    | -                      |                      | 30905-SW-RB1-040416                   | 4/4/2016         | 10:35          | BLKWATER                           | WATER                        | EB                          | 1                   | grab                | N        | x                |                    |                 |  |                   |                   |                  |                     |             |                    |                    |       |        |  |                       |
| 7         | FIELDQC                                    | -                      |                      | 30905-SW-RB2-040416                   | 4/4/2016         | 11:08          | BLKWATER                           | WATER                        | EB                          | 1                   | grab                | N        | x                |                    |                 |  |                   |                   |                  |                     |             |                    |                    |       |        |  |                       |
| 8         | FIELDQC                                    |                        |                      | 30905-SW-RB3-040416                   | 4/4/2016         |                | BLKWATER                           | WATER                        | EB                          |                     | grab                | N        |                  |                    |                 |  |                   |                   |                  |                     |             |                    |                    |       |        |  |                       |
| 9         |  |                        |                      |                                       |                  |                |                                    |                              |                             |                     |                     |          |                  |                    |                 |  |                   |                   |                  |                     |             |                    |                    |       |        |  |                       |
| 10        |  |                        |                      |                                       |                  |                |                                    |                              |                             |                     |                     |          |                  |                    |                 |  |                   |                   |                  |                     |             |                    |                    |       |        |  |                       |
| 11        |  |                        |                      |                                       |                  |                |                                    |                              |                             |                     |                     |          |                  |                    |                 |  |                   |                   |                  |                     |             |                    |                    |       |        |  |                       |
| 12        | 2  |                        |                      |                                       |                  | ]              |                                    |                              |                             |                     |                     |          |                  |                    |                 |  |                   |                   |                  |                     |             |                    |                    |       |        |  |                       |
| Re        | linguished by                              |                        |                      | Company                               | MES              | ·····          | Received by                        |                              |                             |                     | -                   | 1(=== \C |                  | Con                | nanvl           |  |                   |                   | Conc             | ition               |             | 1                  | -                  | ICust | tody S | eals Intact                                  | 1                     |
| -         | LIDA                                       | TAN                    | ,                    | Date/Time                             | MES Received by  |                |                                    | A 1.                         |                             |                     | -                   | D        | ate/Ti           | me                 | pairiy          | <u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u></u> | 1.                | 152               | Coole            | er Ten              | np.         | -                  |                    |       |        |  |                       |
| Re        | linguished by                              | gere                   |                      | Company                               | 4/4/16 5-2 mut 6 |                |                                    | 6.1                          | 5                           | _                   | <u> </u>            |          |                  | Con                | npany           | 114  | 16                | 1.000             | Cond             | ition               |             | -                  |                    | Cust  | ody S  | eals Intact                                  | r                     |
| F         |  |                        |                      | Date/Time                             |                  |                |                                    |                              |                             |                     | D                   | ate/Ti   | me               | party              |                 |  |                   | Coole             | er Ten           | np.                 | -           |                    | Gus                | ouy o |        |  |                       |
| Pre       | eservatives: (Other;                       | Specify):              |                      |                                       |                  |                | 0 (none); 1 (4 [<br>(pH<2), 4Deg ( | Deg C); 2 (H<br>C); 11 (4C N | CI pH<2); 3 (<br>aOH (pH>12 | (HNO3 )<br>2) & Asc | H<2); 4<br>orbic Ac | (H2SC    | 04 pH<<br>(4C H2 | 2); 5 (l<br>2SO4 ( | NaOH (<br>pH<2) | 0H>12<br>& Na2   | 2); 6 (N<br>25203 | laOH,<br>); 13 (2 | Zn Ace<br>Zn Ace | etate);<br>tate); s | 7 (H2:      | SO4 (p<br>ecial in | oH<2),<br>istructi | 4 Deg | C)); 8 | (HCI pH<2); 9 (HCI 4 D                       | eg C); 10 (HNO3       |

Appendix B Groundwater Sampling Program Data

Appendix B-1 Raw Laboratory Data—April 2016



Lancaster Laboratories Environmental



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#### ANALYTICAL RESULTS

Prepared by:

Prepared for:

Eurofins Lancaster Laboratories Environmental 2425 New Holland Pike Lancaster, PA 17601

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

Report Date: May 02, 2016

#### **Project: Baltimore, MD**

Submittal Date: 04/21/2016 Group Number: 1653002 PO Number: 45000108077 State of Sample Origin: MD

|  | Lancaster Labs |
|--|----------------|
| Client Sample Description              | <u>(LL) #</u>  |
| 30905-GW-OP7-042016 Grab Groundwater   | 8344200        |
| 30905-GW-OP11-042016 Grab Groundwater  | 8344201        |
| 30905-GW-OP5-042016 Grab Groundwater   | 8344202        |
| 30905-GW-OP2-042016 Grab Groundwater   | 8344203        |
| 30905-GW-OP3-042016 Grab Groundwater   | 8344204        |
| 30905-GW-OP4-042016 Grab Groundwater   | 8344205        |
| 30905-GW-OP9-042016 Grab Groundwater   | 8344206        |
| 30905-GW-NWM27-042016 Grab Groundwater | 8344207        |
| 30905-GWD1-042016 Grab Groundwater     | 8344208        |
| 30905-GWD2-042016 Grab Groundwater     | 8344209        |
| 30905-GW-FB1-042016 Grab Water         | 8344210        |
| 30905-GW-RB1-042016 Grab Water         | 8344211        |
|  |                |

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

Regulatory agencies do not accredit laboratories for all methods, analytes, and matrices. Our scopes of accreditation can be viewed at http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratoriesenvironmental/resources/certifications/.

| Electronic Copy To | CH2M Hill, Inc.              |
|--------------------|------------------------------|
| Electronic Copy To | Honeywell International, Inc |
| Electronic Copy To | Honeywell                    |
| Electronic Copy To | CH2M Hill, Inc.              |
| Electronic Copy To | CH2M Hill                    |
|                    |                              |

Attn: Bernice Kidd Attn: Honeywell HTS Attn: Katherine Beach Attn: Robert Steele Attn: Matt Gillis




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Respectfully Submitted,

Lay Yown

Kay Hower Manager

(510) 672-3979



**Analysis Report** 

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| Sample Descri                 | iption: 3<br>F         | 30905-GW-OH<br>Baltimore, | 97-042016 Grab<br>MD | Groundwa | ter                         |                    | LL Sample<br>LL Group<br>Account | #<br>#<br># | WW 8344200<br>1653002<br>10651 |
|-------------------------------|------------------------|---------------------------|----------------------|----------|-----------------------------|--------------------|----------------------------------|-------------|--------------------------------|
| Project Name:                 | : Baltimo              | ore, MD                   |                      |          |                             |                    |                                  |             |                                |
| Collected: 04                 | 4/20/2016              | 5 10:24                   | by DG                |          | Honeywell I<br>115 Tabor Ro | nternationa<br>oad | al, Inc.                         |             |                                |
| Submitted: 04<br>Reported: 05 | 4/21/2016<br>5/02/2016 | 5 16:15<br>5 02:01        |                      |          | Morris Plain                | ns NJ 07950        | )                                |             |                                |

| CAT<br>No. | Analysis Name |        | CAS Number | Result   | Method<br>Detection Limit* | Limit of<br>Quantitation | Dilution<br>Factor |
|------------|---------------|--------|------------|----------|----------------------------|--------------------------|--------------------|
| Metals     | 1             | SW-846 | 6010B      | mg/l     | mg/l                       | mg/l                     |                    |
| 07051      | Chromium      |        | 7440-47-3  | 0.0060 J | 0.0020                     | 0.0100                   | 1                  |

#### 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<br>No.                        | Analysis Name             | Method       | Trial# | Batch#       | Analysis<br>Date and Time | Analyst            | Dilution<br>Factor |  |
| 07051                             | Chromium                  | SW-846 6010B | 2      | 161131848001 | 04/27/2016 01:14          | Matthew Machtinger | 1                  |  |
| 01848                             | ICP-WW, 3005A (tot rec) - | SW-846 3005A | 1      | 161131848001 | 04/26/2016 07:51          | James L Mertz      | 1                  |  |

\*=This limit was used in the evaluation of the final result



**Analysis Report** 

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| Sample Description                      | : 30905-GW-O<br>Baltimore, | P11-042016 Gra<br>MD | b Groundwater                  | LL Sam<br>LL Gro<br>Accoun | ple # WW 8344201<br>up # 1653002<br>t # 10651 |
|---|----------------------------|----------------------|--------------------------------|----------------------------|---|
| Project Name: Balt                      | imore, MD                  |                      |                                |                            |   |
| Collected: 04/20/2                      | 016 09:43                  | by DG                | Honeywell Int<br>115 Tabor Roa | ernational, Inc            |   |
| Submitted: 04/21/2<br>Reported: 05/02/2 | 016 16:15<br>016 02:01     |                      | Morris Plains                  | 8 NJ 07950                 |   |

| CAT<br>No.             | Analysis Name |        | CAS Number         | Result           | Method<br>Detection Limit* | Limit of<br>Quantitation | Dilution<br>Factor |
|------------------------|---------------|--------|--------------------|------------------|----------------------------|--------------------------|--------------------|
| <b>Metals</b><br>07051 | Chromium      | SW-846 | 6010B<br>7440-47-3 | mg/l<br>0.0079 J | <b>mg/l</b><br>0.0020      | <b>mg/l</b><br>0.0100    | 1                  |

### Sample Comments

| Laboratory Sample Analysis Record |                           |                |        |              |                           |                    |                    |  |
|-----------------------------------|---------------------------|----------------|--------|--------------|---------------------------|--------------------|--------------------|--|
| CAT<br>No.                        | Analysis Name             | Method         | Trial# | Batch#       | Analysis<br>Date and Time | Analyst            | Dilution<br>Factor |  |
| 07051                             | Chromium                  | SW-846 6010B   | 2      | 161131848001 | 04/27/2016 01:18          | Matthew Machtinger | 1                  |  |
| 01848                             | ICP-WW, 3005A (tot rec) - | - SW-846 3005A | 1      | 161131848001 | 04/26/2016 07:51          | James L Mertz      | 1                  |  |



**Analysis Report** 

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| Sample Description: 30905-GW-OP5-042016 Grab<br>Baltimore, MD | Groundwater LL Sample # WW 8344202<br>LL Group # 1653002<br>Account # 10651 |
|---|---|
| Project Name: Baltimore, MD                                   |   |
| Collected: 04/20/2016 10:58 by DG                             | Honeywell International, Inc.<br>115 Tabor Road                             |
| Submitted: 04/21/2016 16:15                                   | Morris Plains NJ 07950  |
| Reported: 05/02/2016 02:01                                    |   |

| CAT<br>No. | Analysis Name |        | CAS Number | Result | Method<br>Detection Limit* | Limit of<br>Quantitation | Dilution<br>Factor |
|------------|---------------|--------|------------|--------|----------------------------|--------------------------|--------------------|
| Metals     | ł             | SW-846 | 6010B      | mg/l   | mg/l                       | mg/l                     |                    |
| 07051      | Chromium      |        | 7440-47-3  | 1.67   | 0.0020                     | 0.0100                   | 1                  |

### 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<br>No.                        | Analysis Name             | Method       | Trial# | Batch#       | Analysis<br>Date and Time | Analyst            | Dilution<br>Factor |  |
| 07051                             | Chromium                  | SW-846 6010B | 2      | 161131848001 | 04/27/2016 01:28          | Matthew Machtinger | 1                  |  |
| 01848                             | ICP-WW, 3005A (tot rec) - | SW-846 3005A | 1      | 161131848001 | 04/26/2016 07:51          | James L Mertz      | 1                  |  |

\*=This limit was used in the evaluation of the final result



Reported: 05/02/2016 02:01

Lancaster Laboratories Environmental **Analysis Report** 

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| Sample Description:  | 30905-GW-OF<br>Baltimore, | 2-042016 Grab Gr<br>MD | coundwater                            | LL Sample<br>LL Group<br>Account | # WW 8344203<br># 1653002<br># 10651 |
|----------------------|---------------------------|------------------------|---------------------------------------|----------------------------------|--------------------------------------|
| Project Name: Baltim | nore, MD                  |                        |                                       |                                  |                                      |
| Collected: 04/20/201 | 6 12:01                   | by DG                  | Honeywell Internati                   | onal, Inc.                       |                                      |
| Submitted: 04/21/201 | 6 16:15                   |                        | 115 Tabor Road<br>Morris Plains NJ 07 | 950                              |                                      |

| CAT<br>No.             | Analysis Name                   |                          | CAS Number              | Result       | Method<br>Detection Limit* | Limit of<br>Quantitation | Dilution<br>Factor |
|------------------------|---------------------------------|--------------------------|-------------------------|--------------|----------------------------|--------------------------|--------------------|
| <b>Metals</b><br>07051 | Chromium                        | SW-846                   | 6010B<br>7440-47-3      | mg/1<br>4.80 | <b>mg/l</b><br>0.0020      | <b>mg/l</b><br>0.0100    | 1                  |
| Wet Ch<br>08255        | <b>emistry</b><br>Total Cyanide | <b>SW-846</b><br>(water) | <b>9012A</b><br>57-12-5 | mg/l<br>N.D. | <b>mg/l</b><br>0.0050      | <b>mg/l</b><br>0.010     | 1                  |

### Sample Comments

|            | Laboratory Sample Analysis Record |             |        |       |        |              |                         |       |                    |                    |  |
|------------|-----------------------------------|-------------|--------|-------|--------|--------------|-------------------------|-------|--------------------|--------------------|--|
| CAT<br>No. | Analysis Name                     |             | Method |       | Trial# | Batch#       | Analysis<br>Date and Ti | me    | Analyst            | Dilution<br>Factor |  |
| 07051      | Chromium                          |             | SW-846 | 6010B | 2      | 161131848001 | 04/27/2016              | 01:31 | Matthew Machtinger | 1                  |  |
| 01848      | ICP-WW, 3005A<br>U3               | (tot rec) - | SW-846 | 3005A | 1      | 161131848001 | 04/26/2016              | 07:51 | James L Mertz      | 1                  |  |
| 08255      | Total Cyanide                     | (water)     | SW-846 | 9012A | 1      | 16119117101A | 04/29/2016              | 11:28 | Brianna A White    | 1                  |  |
| 08256      | Cyanide Water<br>Distillation     |             | SW-846 | 9012A | 1      | 16119117101A | 04/28/2016              | 10:55 | Nancy J Shoop      | 1                  |  |



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| Sample Description:  | 30905-GW-OP<br>Baltimore, | 3-042016 Grab Gro<br>MD | bundwater                               | LL Sample<br>LL Group<br>Account | # WW 8344204<br># 1653002<br># 10651 |
|----------------------|---------------------------|-------------------------|---|----------------------------------|--------------------------------------|
| Project Name: Baltin | more, MD                  |                         |   |                                  |                                      |
| Collected: 04/20/202 | 16 12:58                  | by DG                   | Honeywell Internation                   | al, Inc.                         |                                      |
| Submitted: 04/21/202 | 16 16:15                  |                         | 115 Tabor Road<br>Morris Plains NJ 0795 | 0                                |                                      |

Reported: 05/02/2016 02:01

| CAT<br>No.             | Analysis Name               |                  | CAS Number              | Result        | Method<br>Detection Limit* | Limit of<br>Quantitation | Dilution<br>Factor |
|------------------------|-----------------------------|------------------|-------------------------|---------------|----------------------------|--------------------------|--------------------|
| <b>Metals</b><br>07051 | Chromium                    | SW-846           | 6010B<br>7440-47-3      | mg/1<br>121   | <b>mg/l</b><br>0.0200      | <b>mg/l</b><br>0.100     | 10                 |
| Wet Ch<br>08255        | emistry<br>Total Cyanide (v | SW-846<br>water) | <b>9012A</b><br>57-12-5 | mg/l<br>0.014 | <b>mg/l</b><br>0.0050      | <b>mg/l</b><br>0.010     | 1                  |

## Sample Comments

| Laboratory Sample Analysis Record |                               |             |        |       |        |              |                         |       |                 |                    |
|-----------------------------------|-------------------------------|-------------|--------|-------|--------|--------------|-------------------------|-------|-----------------|--------------------|
| CAT<br>No.                        | Analysis Name                 |             | Method |       | Trial# | Batch#       | Analysis<br>Date and Ti | me    | Analyst         | Dilution<br>Factor |
| 07051                             | Chromium                      |             | SW-846 | 6010B | 1      | 161131848001 | 04/27/2016              | 17:40 | Suzanne M Will  | 10                 |
| 01848                             | ICP-WW, 3005A<br>U3           | (tot rec) - | SW-846 | 3005A | 1      | 161131848001 | 04/26/2016              | 07:51 | James L Mertz   | 1                  |
| 08255                             | Total Cyanide                 | (water)     | SW-846 | 9012A | 1      | 16119117101A | 04/29/2016              | 11:30 | Brianna A White | 1                  |
| 08256                             | Cyanide Water<br>Distillation |             | SW-846 | 9012A | 1      | 16119117101A | 04/28/2016              | 10:55 | Nancy J Shoop   | 1                  |



**Analysis Report** 

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| Sample Description: 30905-GW-OP4-042016 Grab Groundw<br>Baltimore, MD | Tater LL Sample # WW 8344205<br>LL Group # 1653002<br>Account # 10651 |
|---|---|
| Project Name: Baltimore, MD   |   |
| Collected: 04/20/2016 14:22 by DG                                     | Honeywell International, Inc.<br>115 Tabor Road                       |
| Submitted: 04/21/2016 16:15   | Morris Plains NJ 07950  |
| Reported: 05/02/2016 02:01  |   |

| CAT<br>No.             | Analysis Name |        | CAS Number         | Result      | Method<br>Detection Limit* | Limit of<br>Quantitation | Dilution<br>Factor |
|------------------------|---------------|--------|--------------------|-------------|----------------------------|--------------------------|--------------------|
| <b>Metals</b><br>07051 | Chromium      | SW-846 | 6010B<br>7440-47-3 | mg/l<br>285 | <b>mg/l</b><br>0.0400      | <b>mg/l</b><br>0.200     | 20                 |

### Sample Comments

|                | Laboratory Sample Analysis Record         |                                |        |                              |                                |   |                    |  |  |  |
|----------------|---|--------------------------------|--------|------------------------------|--------------------------------|---|--------------------|--|--|--|
| CAT<br>No.     | Analysis Name                             | Method                         | Trial# | Batch#                       | Analysis<br>Date and Time      | Analyst                                 | Dilution<br>Factor |  |  |  |
| 07051<br>01848 | Chromium<br>ICP-WW, 3005A (tot rec)<br>U3 | SW-846 6010B<br>- SW-846 3005A | 1<br>1 | 161131848001<br>161131848001 | 04/27/2016 17<br>04/26/2016 07 | :43 Suzanne M Will<br>:51 James L Mertz | 20<br>1            |  |  |  |



**Analysis Report** 

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| Sample Description: 3<br>B | 30905-GW-OP<br>Baltimore, 1 | 9-042016 Grab G<br>MD | Froundwater                             | LL Sample<br>LL Group<br>Account | # WW 8344206<br># 1653002<br># 10651 |
|----------------------------|-----------------------------|-----------------------|---|----------------------------------|--------------------------------------|
| Project Name: Baltimo      | ore, MD                     |                       |   |                                  |                                      |
| Collected: 04/20/2016      | 5 15:21                     | oy DG                 | Honeywell Internation<br>115 Tabor Road | al, Inc.                         |                                      |
| Submitted: 04/21/2016      | 5 16 <b>:</b> 15            |                       | Morris Plains NJ 0795                   | 0                                |                                      |
| Reported: 05/02/2016       | 5 02:01                     |                       |   |                                  |                                      |

| CAT<br>No.             | Analysis Name |        | CAS Number         | Result        | Method<br>Detection Limit* | Limit of<br>Quantitation | Dilution<br>Factor |
|------------------------|---------------|--------|--------------------|---------------|----------------------------|--------------------------|--------------------|
| <b>Metals</b><br>07051 | Chromium      | SW-846 | 6010B<br>7440-47-3 | mg/l<br>1,710 | <b>mg/l</b><br>0.200       | <b>mg/l</b><br>1.00      | 100                |

### Sample Comments

| Laboratory Sample Analysis Record |   |                              |        |                              |                              |                |                                 |                    |  |
|-----------------------------------|---|------------------------------|--------|------------------------------|------------------------------|----------------|---------------------------------|--------------------|--|
| CAT<br>No.                        | Analysis Name                               | Method                       | Trial# | Batch#                       | Analysis<br>Date and Time    | e              | Analyst                         | Dilution<br>Factor |  |
| 07051<br>01848                    | Chromium<br>ICP-WW, 3005A (tot rec) -<br>U3 | SW-846 6010B<br>SW-846 3005A | 1<br>1 | 161131848001<br>161131848001 | 04/27/2016 1<br>04/26/2016 0 | 17:57<br>07:51 | Suzanne M Will<br>James L Mertz | 100<br>1           |  |



**Analysis Report** 

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| Sample Descrip | ption: 30905-GW-<br>Baltimore | NWM27-042016 Grab<br>, MD | Groundwater                             | LL Sample<br>LL Group<br>Account | # WW 8344207<br># 1653002<br># 10651 |
|----------------|-------------------------------|---------------------------|---|----------------------------------|--------------------------------------|
| Project Name:  | Baltimore, MD                 |                           |   |                                  |                                      |
| Collected: 04/ | /20/2016 16:45                | by DG                     | Honeywell Internatior<br>115 Tabor Road | nal, Inc.                        |                                      |
| Submitted: 04/ | /21/2016 16:15                |                           | Morris Plains NJ 0795                   | 50                               |                                      |
| Reported: 05/  | /02/2016 02:01                |                           |   |                                  |                                      |

| CAT<br>No.      | Analysis Name |        | CAS Number         | Result        | Method<br>Detection Limit* | Limit of<br>Quantitation | Dilution<br>Factor |
|-----------------|---------------|--------|--------------------|---------------|----------------------------|--------------------------|--------------------|
| Metals<br>07051 | Chromium      | SW-846 | 6010B<br>7440-47-3 | mg/l<br>2,010 | <b>mg/l</b><br>0.400       | <b>mg/l</b><br>2.00      | 200                |

### Sample Comments

| Laboratory Sample Analysis Record |   |                              |        |                              |                                      |                                 |                    |  |  |
|-----------------------------------|---|------------------------------|--------|------------------------------|--------------------------------------|---------------------------------|--------------------|--|--|
| CAT<br>No.                        | Analysis Name                               | Method                       | Trial# | Batch#                       | Analysis<br>Date and Time            | Analyst                         | Dilution<br>Factor |  |  |
| 07051<br>01848                    | Chromium<br>ICP-WW, 3005A (tot rec) -<br>U3 | SW-846 6010B<br>SW-846 3005A | 1<br>1 | 161131848001<br>161131848001 | 04/27/2016 18:18<br>04/26/2016 07:51 | Suzanne M Will<br>James L Mertz | 200<br>1           |  |  |



**Analysis Report** 

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| Sample Desc             | cription:              | 30905-GWD1-<br>Baltimore, | 042016 Grab<br>MD | Groundwate | r                      |                      | LL<br>LL<br>Acc | Sample<br>Group<br>ount | #<br>#<br># | WW 8344208<br>1653002<br>10651 |
|-------------------------|------------------------|---------------------------|-------------------|------------|------------------------|----------------------|-----------------|-------------------------|-------------|--------------------------------|
| Project Nam             | ne: Baltim             | ore, MD                   |                   |            |                        |                      |                 |                         |             |                                |
| Collected:              | 04/20/201              | 6 10:59                   | by DG             |            | Honeywell<br>115 Tabor | Internationa<br>Road | al,             | Inc.                    |             |                                |
| Submitted:<br>Reported: | 04/21/201<br>05/02/201 | 6 16:15<br>6 02:01        |                   |            | Morris Pla             | ains NJ 0795         | 0               |                         |             |                                |

| CAT<br>No. | Analysis Name |        | CAS Number | Result | Method<br>Detection Limit* | Limit of<br>Quantitation | Dilution<br>Factor |
|------------|---------------|--------|------------|--------|----------------------------|--------------------------|--------------------|
| Metals     | ł             | SW-846 | 6010B      | mg/l   | mg/l                       | mg/l                     |                    |
| 07051      | Chromium      |        | 7440-47-3  | 1.76   | 0.0020                     | 0.0100                   | 1                  |

#### Sample Comments

|            |                                 | Labora       | tory Sa | mple Analysia | s Record                  |                    |                    |
|------------|---------------------------------|--------------|---------|---------------|---------------------------|--------------------|--------------------|
| CAT<br>No. | Analysis Name                   | Method       | Trial#  | Batch#        | Analysis<br>Date and Time | Analyst            | Dilution<br>Factor |
| 07051      | Chromium                        | SW-846 6010B | 2       | 161131848001  | 04/27/2016 01:5           | Matthew Machtinger | 1                  |
| 01848      | ICP-WW, 3005A (tot rec) -<br>U3 | SW-846 3005A | 1       | 161131848001  | 04/26/2016 07:53          | James L Mertz      | 1                  |



**Analysis Report** 

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| Sample Descripti                    | on: 30905-GWD2<br>Baltimore, | -042016 Grab<br>MD | Groundwater                             | LL Sample<br>LL Group<br>Account | # WW 8344209<br># 1653002<br># 10651 |
|-------------------------------------|------------------------------|--------------------|---|----------------------------------|--------------------------------------|
| Project Name: Ba                    | ltimore, MD                  |                    |   |                                  |                                      |
| Collected: 04/20                    | /2016 12:02                  | by DG              | Honeywell Internation<br>115 Tabor Road | al, Inc.                         |                                      |
| Submitted: 04/21<br>Reported: 05/02 | /2016 16:15<br>/2016 02:01   |                    | Morris Plains NJ 0795                   | 0                                |                                      |

| CAT<br>No. | Analysis Name   |         | CAS Number | Result | Method<br>Detection Limit* | Limit of<br>Quantitation | Dilution<br>Factor |
|------------|-----------------|---------|------------|--------|----------------------------|--------------------------|--------------------|
| Wet        | Chemistry       | SW-846  | 9012A      | mg/l   | mg/l                       | mg/l                     |                    |
| 0825       | 5 Total Cyanide | (water) | 57-12-5    | N.D.   | 0.0050                     | 0.010                    | 1                  |

## Sample Comments

|            | Laboratory Sample Analysis Record |         |        |       |        |              |                         |       |                 |                    |  |  |  |
|------------|-----------------------------------|---------|--------|-------|--------|--------------|-------------------------|-------|-----------------|--------------------|--|--|--|
| CAT<br>No. | Analysis Name                     |         | Method |       | Trial# | Batch#       | Analysis<br>Date and Ti | me    | Analyst         | Dilution<br>Factor |  |  |  |
| 08255      | Total Cyanide (                   | (water) | SW-846 | 9012A | 1      | 16119117101A | 04/29/2016              | 11:32 | Brianna A White | 1                  |  |  |  |
| 08256      | Cyanide Water                     |         | SW-846 | 9012A | 1      | 16119117101A | 04/28/2016              | 10:55 | Nancy J Shoop   | 1                  |  |  |  |



**Analysis Report** 

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| Sample Description:  | 30905-GW-FI<br>Baltimore, | 31-042016 Grab<br>MD | Water |           |             | LL<br>LL | Sample<br>Group | #<br>#<br># | WW<br>165 | 8344<br>3002 | 210 |
|----------------------|---------------------------|----------------------|-------|-----------|-------------|----------|-----------------|-------------|-----------|--------------|-----|
| Project Name: Baltin | nore, MD                  |                      |       |           |             | ACC      | count           | Ŧ           | T00       | 51           |     |
| Collected: 04/20/201 | L6 13:05                  | by DG                |       | Honeywell | Internation | al,      | Inc.            |             |           |              |     |

Submitted: 04/21/2016 16:15 Reported: 05/02/2016 02:01

| CAT<br>No.             | Analysis Name                         |               | CAS Number                | Result         | Method<br>Detection Limit* | Limit of<br>Quantitation | Dilution<br>Factor |
|------------------------|---------------------------------------|---------------|---------------------------|----------------|----------------------------|--------------------------|--------------------|
| <b>Metals</b><br>07051 | Chromium                              | SW-846        | <b>6010B</b><br>7440-47-3 | mg/l<br>0.0278 | <b>mg/l</b><br>0.0020      | <b>mg/l</b><br>0.0100    | 1                  |
| Wet Ch<br>08255        | <b>emistry</b><br>Total Cyanide (wate | <b>SW-846</b> | <b>9012A</b><br>57-12-5   | mg/l<br>N.D.   | <b>mg/l</b><br>0.0050      | <b>mg/l</b><br>0.010     | 1                  |

115 Tabor Road

Morris Plains NJ 07950

### Sample Comments

|                | Laboratory Sample Analysis Record                 |            |                  |                |        |                              |                          |                |                                  |                    |  |  |  |
|----------------|---|------------|------------------|----------------|--------|------------------------------|--------------------------|----------------|----------------------------------|--------------------|--|--|--|
| CAT<br>No.     | Analysis Name                                     |            | Method           |                | Trial# | Batch#                       | Analysis<br>Date and Ti  | me             | Analyst                          | Dilution<br>Factor |  |  |  |
| 07051          | Chromium  |            | SW-846           | 6010B          | 2      | 161131848001                 | 04/27/2016               | 01:53          | Matthew Machtinger               | 1                  |  |  |  |
| 01848          | ICP-WW, 3005A (t<br>U3                            | tot rec) - | SW-846           | 3005A          | 1      | 161131848001                 | 04/26/2016               | 07:51          | James L Mertz                    | 1                  |  |  |  |
| 08255<br>08256 | Total Cyanide (w<br>Cyanide Water<br>Distillation | water)     | SW-846<br>SW-846 | 9012A<br>9012A | 1<br>1 | 16119117101A<br>16119117101A | 04/29/2016<br>04/28/2016 | 11:34<br>10:55 | Brianna A White<br>Nancy J Shoop | 1<br>1             |  |  |  |



**Analysis Report** 

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| Sample Description: 3<br>F | 30905-GW-RE<br>Baltimore, | 31-042016 Grab Wa<br>MD | iter       |                            |                   | LL S<br>LL G<br>Acco | ample<br>roup<br>ount | #<br>#<br># | WW 8344211<br>1653002<br>10651 |  |
|----------------------------|---------------------------|-------------------------|------------|----------------------------|-------------------|----------------------|-----------------------|-------------|--------------------------------|--|
| Project Name: Baltimo      | ore, MD                   |                         |            |                            |                   |                      |                       |             |                                |  |
| Collected: 04/20/2016      | 6 13:12                   | by DG                   | Ног        | neywell In                 | ternationa        | al, 1                | Inc.                  |             |                                |  |
| Submitted: 04/21/2016      | 6 16:15                   |                         | 115<br>Mo: | .5 Tabor Ro<br>orris Plain | ad<br>15 NJ 07950 | C                    |                       |             |                                |  |

Submitted: 04/21/2016 16:15 Reported: 05/02/2016 02:01

| CAT<br>No.             | Analysis Name                          |               | CAS Number              | Result       | Method<br>Detection Limit* | Limit of<br>Quantitation | Dilution<br>Factor |
|------------------------|--|---------------|-------------------------|--------------|----------------------------|--------------------------|--------------------|
| <b>Metals</b><br>07051 | Chromium                               | SW-846        | 6010B<br>7440-47-3      | mg/l<br>N.D. | <b>mg/1</b><br>0.0020      | <b>mg/l</b><br>0.0100    | 1                  |
| Wet Ch<br>08255        | <b>emistry</b><br>Total Cyanide (water | <b>SW-846</b> | <b>9012A</b><br>57-12-5 | mg/l<br>N.D. | <b>mg/l</b><br>0.0050      | <b>mg/l</b><br>0.010     | 1                  |

### Sample Comments

|            | Laboratory Sample Analysis Record |           |          |         |        |              |                         |       |                 |                    |  |  |  |
|------------|-----------------------------------|-----------|----------|---------|--------|--------------|-------------------------|-------|-----------------|--------------------|--|--|--|
| CAT<br>No. | Analysis Name                     |           | Method   | 1       | Trial# | Batch#       | Analysis<br>Date and Ti | me    | Analyst         | Dilution<br>Factor |  |  |  |
| 07051      | Chromium                          |           | SW-846   | 5 6010B | 1      | 161131848001 | 04/28/2016              | 17:37 | Suzanne M Will  | 1                  |  |  |  |
| 01848      | ICP-WW, 3005A<br>U3               | (tot rec) | - SW-846 | 3005A   | 1      | 161131848001 | 04/26/2016              | 07:51 | James L Mertz   | 1                  |  |  |  |
| 08255      | Total Cyanide                     | (water)   | SW-846   | 5 9012A | 1      | 16119117101A | 04/29/2016              | 11:40 | Brianna A White | 1                  |  |  |  |
| 08256      | Cyanide Water<br>Distillation     |           | SW-846   | 5 9012A | 1      | 16119117101A | 04/28/2016              | 10:55 | Nancy J Shoop   | 1                  |  |  |  |



**Analysis Report** 

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## Quality Control Summary

Client Name: Honeywell International, Inc. Reported: 05/02/2016 02:01

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.

## Method Blank

| Analysis Name              | Result                 | MDL**              | LOQ           |
|----------------------------|------------------------|--------------------|---------------|
|                            | mg/l                   | mg/l               | mg/l          |
| Batch number: 161131848001 | Sample number(s):      | 8344200-8344208,83 | 44210-8344211 |
| Chromium                   | N.D.                   | 0.0020             | 0.0150        |
| Batch number: 16119117101A | Sample number(s): N.D. | 8344203-8344204,83 | 44209-8344211 |
| Total Cyanide (water)      |                        | 0.0050             | 0.010         |

## LCS/LCSD

| Analysis Name                                | LCS Spike<br>Added<br>mg/l    | LCS<br>Conc<br>mg/l   | LCSD Spike<br>Added<br>mg/l | LCSD<br>Conc<br>mg/l | LCS<br>%REC        | LCSD<br>%REC | LCS/LCSD<br>Limits | RPD | RPD<br>Max |
|--|-------------------------------|-----------------------|-----------------------------|----------------------|--------------------|--------------|--------------------|-----|------------|
| Batch number: 161131<br>Chromium             | 848001 Sample numb<br>0.200   | er(s): 83442<br>0.196 | 200-8344208,83              | 44210-8344           | 1211<br>98         |              | 80-120             |     |            |
|  | mg/l                          | mg/l                  | mg/l                        | mg/l                 |                    |              |                    |     |            |
| Batch number: 161191<br>Total Cyanide (water | 17101A Sample numb<br>) 0.200 | er(s): 83442<br>0.205 | 203-8344204,83              | 44209-8344           | 102 <sup>102</sup> |              | 90-110             |     |            |

## MS/MSD

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

| Analysis Name                  |                         | Unspiked<br>Conc<br>mg/l | MS Spike<br>Added<br>mg/l | MS<br>Conc<br>mg/l | MSD Spike<br>Added<br>mg/l | MSD<br>Conc<br>mg/l | MS<br>%Rec      | MSD<br>%Rec | MS/MSD<br>Limits | RPD | RPD<br>Max |
|--------------------------------|-------------------------|--------------------------|---------------------------|--------------------|----------------------------|---------------------|-----------------|-------------|------------------|-----|------------|
| Batch number:                  | 161131848001            | Sample numb              | er(s): 8344               | 200-8344           | 208,8344210-               | 8344211             | UNSPK: P        | 344229      | 75 105           | 1   | ~ ~        |
| Chromium                       |                         | N.D.                     | 0.200                     | 0.196              | 0.200                      | 0.195               | 98              | 97          | /5-125           | T   | 20         |
|                                |                         | mg/l                     | mg/l                      | mg/l               | mg/l                       | mg/l                |                 |             |                  |     |            |
| Batch number:<br>Total Cyanide | 16119117101A<br>(water) | Sample numb<br>N.D.      | er(s): 8344<br>0.200      | 203-8344<br>0.206  | 204,8344209-               | 8344211             | UNSPK: P<br>103 | 338734      | 72-114           |     |            |

\*- 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.

P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Group Number: 1653002



**Analysis Report** 

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## Quality Control Summary

Client Name: Honeywell International, Inc. Reported: 05/02/2016 02:01 Group Number: 1653002

## Laboratory Duplicate

Background (BKG) = the sample used in conjunction with the duplicate

| Analysis Name                      |                         | BKG Conc               | DUP Conc                 | DUP RPD                  | DUP RPD Max        |
|------------------------------------|-------------------------|------------------------|--------------------------|--------------------------|--------------------|
|                                    |                         | mg/l                   | mg/l                     |                          |                    |
| Batch number: 1<br>Chromium        | 61131848001             | Sample number(s): N.D. | 8344200-8344208,<br>N.D. | 8344210-8344211<br>0 (1) | BKG: P344229<br>20 |
|                                    |                         | mg/l                   | mg/l                     |                          |                    |
| Batch number: 1<br>Total Cyanide ( | L6119117101A<br>(water) | Sample number(s): N.D. | 8344203-8344204,<br>N.D. | 8344209-8344211<br>0 (1) | BKG: P338734<br>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.

P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

# 10651 1653002 8344200-11

| La                  | incaster Lab                   | oratori                                   | es                | and a second   | 1                | Charles and the second s |                  |                  |                    |                         |            |            |                         |               |            |        |        |      | -                | and the state |         | 0-0-1 mm                                   | Michigan                 |   | 10.100                |
|---------------------|--------------------------------|---|-------------------|--|------------------|---|------------------|------------------|--------------------|-------------------------|------------|------------|-------------------------|---------------|------------|--------|--------|------|------------------|---------------|---------|--|--------------------------|---|-----------------------|
| 242                 | 5 New Holland P                | like                                      |                   |  | 1 H              | lone  | owve             |                  | Chain              | Of C                    | usto       | dv /       | Ana                     | lvsis         | Red        | ues    | t      |      |                  |               |         |  |                          | COC#  | 42479.47375           |
| Lar                 | icaster, PA 17605              | 5-2425                                    |                   |  |                  |   |                  | 前 職              |                    |                         |            |            |                         | . <b>,</b>    |            | 10.00  | •      |      |                  |               |         |  |                          |   | 01                    |
|                     | 7) 000-2300                    | 11 A. |                   |  | Privileged 8     | Confider  | ntial            | N                |                    | 1910 Contraction (1917) | Site       | Name:      |                         | Balti         | imore      |        |        |      | Ph               | 360'          | Τ       |  | <b>Weedersterreitung</b> | Lab Proj # (SDG):                               |                       |
| Sa                  | mpling Co.:                    | Maryland                                  | d Environn        | nental Service   | EDD To:          |   | Locus Focus      | (matthew.g       | jills@ch2m         | .com)                   | Loca       | tion o     | f Site:                 | BAL           | ТІМОГ      | RE, MD |        |      | Sampling         |               |         | and an |                          | Lab ID  | LLI                   |
| Cli                 | ent Contact: (r                | name, co                                  | ., addres         | ss)  | Sampler:         | D. Griffith   | n, M. Kennedy,   | L. Vu, M. N      | Morris, J. Je      | tt                      |            |            | T                       |               |            | T      | T      | Γ    | 1                | T             |         | 1  |                          | Site ID   | BALTIMORE             |
| <u>Chr</u><br>101   | Columbia Road N                | lever 3                                   |                   |  | PO #             | 4500108   | 077              |                  |                    |                         | Prese      | rvative    | 3                       | 5             |            |        |        |      |                  | 1             |         |  |                          | Lab Job #                                       |                       |
| Mor                 | ristown, NJ 07962              | 2   |                   |  | Analysis I       | Consulta  | nt               |                  | CH2M               |                         |            |            |                         |               |            |        |        |      |                  |               |         |  |                          | Authorized User:                                | Honeywell             |
| Pre<br>Sau          | nninary Data To                | mattnew.                                  | .gillis@cn/       | <u>(m.com</u>  |                  |   |                  |                  |                    |                         | 1          | e ?        |                         | anide         |            |        | Í      | ĺ    |                  |               |         |  |                          | Text & Excel File Drive                         | Excel & Text File     |
| -Srall<br>Ack       | nple Receipt<br>nowledgement T | o materiew.                               | .quiiis@ch2       | <u>(m.com</u>  |                  |   |                  |                  |                    |                         |            | amp        | ε                       | al Cy         |            |        |        |      |                  |               |         |  | Í                        |   | Urder                 |
| Har                 | d Copy To                      | Christina                                 | Jensen            |  | Fr               | Full Report TAT:  |                  |                  | 28                 |                         | e/Gra      | ed S       | omiu                    | 2 Tot         |            |        |        |      |                  |               |         |  |                          |   |                       |
| invo                | же IO;                         | her French                                | )<br>             |  |                  |   |                  |                  | ·,···              | ] site                  | Filter     | 0 Ch       | 0/901                   |               |            |        |        |      |                  |               |         |  |                          | ~   |                       |
|                     |                                | Samp                                      | ole Identif       | ication  | Sample<br>Date   | Sample<br>Time  | Sample<br>Type   | Sample<br>Matrix | Sample             | # of                    | dmo        | ield       | W601                    | W901<br>auto) |            | ľ      |        |      |                  |               |         |  |                          | Copyright AESI: Version<br>8.0 Unauthorized use |                       |
|                     | Location ID                    | Start<br>Depth                            | End<br>Depth      | Field Sample ID  |                  |   |                  |                  |                    |                         |            |            | 0                       | 0.3           |            | -      |        |      |                  | +             |         |  |                          | strictly prohibited.                            |                       |
|                     | -                              | (ft)                                      | (ft)              |  |                  |   |                  |                  |                    |                         | Units      |            | ud d                    | qdd           |            |        |        |      |                  |               |         |  |                          | Sampling Method<br>(code)                       | Lab Sample<br>Numbers |
| 1                   | OP7                            | 6.55                                      | 6.75              | 30905-GW-OP7-042016  | 4/20/2016        | 1024  | GW-GWS           | WATER            | REG                | 1                       | grab       | Y          | x                       |               |            |        |        |      |                  |               |         |  |                          | BladPump  |                       |
| 2                   | OP11                           | 11.22                                     | 18.82             | 30905-GW-OP11-042016   | 4/20/2016        | 0943  |                  | WATER            | REG                | 1                       | grab       | Y          | x                       |               |            |        |        |      |                  |               |         |  |                          | BladPump  |                       |
| 3                   | OP5                            | 606                                       | 6.26              | 30905-GW-OP5-042016  | 4/20/2016        | 1058  | GW-GWS           | WATER            | REG                | 1                       | grab       | Y          | x                       |               |            |        |        |      | 1                |               |         |  |                          | BladPump  |                       |
| 4                   | OP2                            | 10.50                                     | 11.03             | 30905-GW-OP2-042016  | 4/20/2016        | 1201  | GW-GWS           | WATER            | REG                | 2                       | grab       | Y          | х                       | x             |            |        |        |      | 1                | ·             |         |  |                          | BladPump  |                       |
| 5                   | OP3                            | 13,21                                     | 13.30             | 30905-GW-OP3-042016  | 4/20/2016        | 1258  | GW-GWS,          | WATER            | REG                | 2                       | grab       | Y          | x                       | x             |            |        |        | 1    | 1                |               |         |  |                          | BladPump  |                       |
| 6                   | OP4                            | 9.39                                      | 9.32              | 30905-GW-OP4-042016  | 4/20/2016        | 1422  | GW-GWS           | WATER            | REG                | 1                       | arab       | Y          | x                       |               |            |        |        |      | -                |               |         |  |                          | PiedDump  |                       |
| 7                   | OP9                            | 6.48                                      | 6.49              | 30905-GW-OP9-042016  | 4/20/2016        | 1521  | GW-GWS           | WATER            | REG                | 1                       | arab       | Ŷ          | <u>́.</u><br>х          |               |            |        | _      |      | †                |               |         |  |                          | Diadmunip                                       |                       |
| 8                   | NWM-27                         | 6.75                                      | 78.40             | 30905-GW-NWM27-042016  | 4/20/2016        | 1645  | GW-GWS           | WATER            | REG                | 1                       | grae       | ,<br>V     | x                       |               |            |        |        |      |                  |               |         | -+   |                          | BladPump  |                       |
| 9                   | OP5 DUP                        | -   | ي <del>م</del> مر | 30905-GWD1-042016  | 4/20/2016        | 1059  | GW-GWS           | WATER            | ED                 | 1                       | grab       | - <u>'</u> | $\overline{\mathbf{v}}$ |               |            |        |        | -    |                  |               |         |  |                          | BladPump  |                       |
| 10                  | OP2 DUP                        | حص  |                   | 30905-GWD2-042016  | 4/20/2016        | 1202  | GW-GWS           | WATER            | 50                 |                         | grab       | - T        | <u>^</u>                |               |            |        | +      |      | +                |               |         |  |                          | BladPump  |                       |
| 11                  | FIELDQC                        | ~   | -10-              | 30905-GW-EB1-042016  | 4/20/2016        | 1305  |                  |                  | - 11D              |                         | grab       | r<br>V     | v                       | $\hat{}$      |            |        |        | -    |                  |               |         |  |                          | BladPump  |                       |
| 12                  | FIELDQC                        | 3634                                      | app::/*           | 30905-GW-RB1-042016  | 4/20/2016        | 1312  | BIKWATER         | WATER            | FB                 | 2                       | grab       | Y          | Ŷ                       | x             |            |        |        |      |                  |               |         |  |                          |   |                       |
| Relin               | nuisbed by                     |   |                   | DOCC Compose   | 1                | 1.7105  |                  | WAIEN            |                    |                         | grab       |            |                         | <u>^</u> _    |            | I      |        |      |                  |               | l       | L  |                          |   |                       |
|                     |                                |   |                   | Date/Time  |                  |   | Received by      |                  |                    |                         |            |            | 4. (T) -                | Comp          | pany       | CH     | M      | Con  | dition           |               |         | (  | Custody 8                | Seals Intact                                    |                       |
| <u>رار</u><br>Relin | 1<br>Jouished by               | C   | a management      | 4/20/16 5:25   | ( )40 -          |   | M                |                  |                    |                         |            |            |                         |               |            | Isoli  | 65     | 2    | erter            | np.           |         |  |                          |   |                       |
| m                   | > (Av->                        | $\sim$                                    |                   | Date/Time  | ul li d          | 21-   | Received by      |                  |                    |                         | LI         | /, D;      | ate/Tin                 | Comp          | oany<br>C  |        |        | Cond | lition<br>er Ter | np.           |         |  | Sustody S                | Seals Intact                                    |                       |
| 1                   |                                | <u> </u>                                  | h                 |  | <u>112;116_0</u> | INC.  | 0 (none): 1 (4 D |                  | )<br>J nH<3}• 3 (I |                         | 7 <u>(</u> | <u>しし</u>  | 4 0H-1                  | 0             | <u>Y-L</u> | 0      | (NI-C) |      |                  | 7 (1)00       | NJ /-!! |  | Des Olivit               |   | 0                     |
| Pres                | ervatives: (Other              | ; Specify):                               |                   | 0 (none); 1 (4 Deg C); 2 (HCl pH<2); 3 (HNO3 pH<2); 4 (H2SO4 pH<2); 5 (NaOH pH>12); 6 (NaOH, Zn Acetate); 7 (H2SO4 (pH<2), 4 Deg C)); 8 (HCl pH<2); 9 (HCl 4 Deg C); 10 (HNO3 (pH<2), 4 Deg C); 11 (4C NaOH (pH>12) & Ascorbic Acid); 12 (4C H2SO4 (pH<2) & Na2S2O3); 13 (Zn Acetate); sp (special instructions) |                  |   |                  |                  |                    |                         |            |            |                         |               |            |        |        |      |                  |               |         |  |                          |   |                       |

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Lancaster Laboratories Environmental

## Sample Administration Receipt Documentation Log

Client: MES

Doc Log ID: 143808

Group Number(s): 1653000

| Delivery Method: <u>El</u>         | LE Courier         | Arrival Timestamp:         | <u>04/21/2016 16:</u> | <u>15</u> |
|------------------------------------|--------------------|----------------------------|-----------------------|-----------|
| Number of Packages: <u>1</u>       |                    | Number of Projects:        | <u>1</u>              |           |
| State/Province of Origin: <u>M</u> | D                  |                            |                       |           |
|                                    | Arrival Co         | ndition Summary            |                       |           |
| Shipping Container Sealed:         | Yes                | Sample IDs on COC match    | Containers:           | Yes       |
| Custody Seal Present:              | No                 | Sample Date/Times match    | COC:                  | Yes       |
| Samples Chilled:                   | Yes                | VOA Vial Headspace ≥ 6m    | m:                    | N/A       |
| Paperwork Enclosed:                | Yes                | Total Trip Blank Qty:      |                       | 0         |
| Samples Intact:                    | Yes                | Air Quality Samples Preser | nt:                   | No        |
| Missing Samples:                   | No                 | ,                          |                       |           |
| Extra Samples:                     | No                 |                            |                       |           |
| Discrepancy in Container Qty or    | COC: No            |                            |                       |           |
| Unpacked by Patrick Engle (347     | 2) at 16:35 on 04/ | 21/2016                    |                       |           |

| Cooler # | Thermometer ID | Corrected Temp | Therm. Type | Ice Type | Ice Present? | Ice Container | Elevated Temp? |
|----------|----------------|----------------|-------------|----------|--------------|---------------|----------------|
| 1        | DT121          | 1.7            | DT          | Wet      | Y            | Loose/Bag     | Ν              |

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Lancaster Laboratories Environmental

## **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  |   |  |
| >                   | greater than   |   |  |
| ppm                 | parts per million - One ppm is equivalent to one<br>aqueous liquids, ppm is usually taken to be eq<br>very close to a kilogram. For gases or vapors, | e milligram per k<br>uivalent to millig<br>one ppm is equ | tilogram (mg/kg) or one gram per million grams. For<br>rams per liter (mg/l), because one liter of water has a weight<br>ivalent to one microliter per liter of gas. |
| ppb                 | parts per billion  |   |  |
| Dry weight<br>basis | Results printed under this heading have been a concentration to approximate the value presen   | adjusted for moi<br>t in a similar sar                    | sture content. This increases the analyte weight nple without moisture. All other results are reported on an   |

Laboratory Data Qualifiers:

- B Analyte detected in the blank
- C Result confirmed by reanalysis

as-received basis.

E - Concentration exceeds the calibration range

J (or G, I, X) - estimated value  $\geq$  the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)

P - Concentration difference between the primary and confirmation column >40%. The lower result is reported.

U - Analyte was not detected at the value indicated

V - Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference...

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods. Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

## Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) 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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Appendix B-2 Chain-of-Custody Records—April 2016

# 10651 1653002 8344200-11

| La                | ancaster Lab                           | poratori                                 | es                                      |                         |  | Mercennengiation   |                  |                  |                   | templo-nonnea | ang Malaka minang sa |           |                      |                      |         |           |           |                    | , Millio Constantina |               | an manufations | n an | Nitrianalise concernance space |   |   |
|-------------------|--|--|---|-------------------------|--|--|------------------|------------------|-------------------|---------------|--|-----------|----------------------|----------------------|---------|-----------|-----------|--------------------|----------------------|---------------|----------------|--|--------------------------------|---|---|
| 242               | 25 New Holland P                       | Yike                                     |   |                         |  | lone   | AVWA             |                  | Chain             | Of C          | usto   | dv/       | Ana                  | lvsis F              | Rear    | uest      |           |                    |                      |               |                |  |                                | COC#  | 42479.47375                                   |
| Lar               | ncaster, PA 17605                      | 5-2425                                   |   |                         |  |  |                  | 85<br>           |                   |               | •••  |           |                      |                      | , v v v | 4000      |           |                    |                      |               |                |  |                                |   | 01  |
|                   | 7) 656-2300                            | an a |   |                         | Privileged 8                                       | L Confider   | ntial            | N                | T                 |               | Site   | Name:     | ***********          | Baltim               | ore     |           |           | *                  | -                    |               |                | N  | alış da malanın məşi yaşıdır.  | Lab Proj # (SDG):                               | 1   |
| Sa                | mpling Co.:                            | Maryland                                 | d Environn                              | nental Service          | EDD To:  |  | Locus Focus      | (matthew.g       | jills@ch2m        | .com)         | Loca   | ation o   | f Site:              | BALTI                | MORE    | IORE, MD  |           |                    | Sam                  | pling         |                |  | Alaine and a straight of the   | Lab ID  | LLI   |
| Cli               | ent Contact: (r                        | name, co                                 | ., addres                               | ss)                     | Sampler:   | D. Griffith  | h, M. Kennedy,   | . L. Vu, M. I    | Morris, J. Je     | ett           |  |           |                      |                      | Т       |           | Fille     |                    | T                    |               |                | Site ID                                  | BALTIMORE                      |   |   |
| Chr<br>101        | istopher French<br>Columbia Road N     | Mever 3                                  |   |                         | PO #   | 4500108  | 077              |                  |                   |               | Preser   | rvative   | 3                    | 5                    | 土       |           |           |                    |                      |               | $\square$      |  |                                | Lab Job #                                       |   |
| Mor               | rristown, NJ 07962                     | 2  |   |                         | Analysis i   | Consulta   | int              | +                | 5<br>CH2M         |               |  |           |                      |                      |         |           |           | 7                  |                      |               |                |  |                                | Authorized User:                                | Honeywell                                     |
| FIC               | liminary Data 10                       | mailinew                                 | .gillis@ch/                             | 2m.com                  |  |  |                  |                  |                   |               | 133  | le 2      |                      | anide                |         |           |           |                    |                      |               |                |  |                                | Text & Excel File Drive                         | Excel & Text File                             |
| Sirin<br>/AG      | nple Receipt<br>knowledgement T        | <u>mannew</u><br>To                      | .gillis@cnz                             | 2m.com                  |  |  |                  |                  |                   |               |  | amp       | ε                    | al C                 |         |           |           |                    |                      |               |                |  |                                |   | Officier                                      |
| Har               | d Copy To                              | Christina                                | Jensen                                  |                         | Fr   | Full Report TAT:   |                  |                  | 28                |               | e/Gra  | ed S      | romiu                | 2 Tot                |         |           |           |                    |                      |               |                |  |                                |   |   |
| Invo              | 0106-10;                               | Christopr                                | her French                              |                         |  | T  |                  |                  |                   |               | osite  | Filter    | 0 Chi                | 0/901                |         |           |           |                    |                      |               |                |  |                                |   | ~   |
|                   |  | Sam                                      | ple Identif                             | ication                 | Sample<br>Date                                     | Sample<br>Time   | Sample<br>Type   | Sample<br>Matrix | Sample<br>Purpose | # of<br>Cont. | Comp   | letd      | SW601                | sW901<br>auto)       |         |           |           |                    |                      |               |                |  |                                | Copyright AESI: Version<br>8.0 Unauthorized use |   |
|                   | Location ID                            | Start<br>Depth<br>(ft)                   | End<br>Depth<br>(ft)                    | Field Sample ID         |  |  |                  |                  |                   | 4             | Units  |           | mq                   | qdo                  |         |           | -         | +                  |                      |               |                |  |                                | Sampling Method                                 | Lab Sample                                    |
| 1                 | OP7                                    | 6.55                                     | 6.75                                    | 30905-GW-OP7-042016     | 4/20/2016  | 10.24  | GW-GWS           | WATER            | REG               | 1             | orab   | Y         | X                    |                      | -       |           | +         |                    |                      |               |                |  |                                | DiedDump  | Humbers                                       |
| 2                 | OP11                                   | 11.22                                    | 18.82                                   | 30905-GW-OP11-042016    | 4/20/2016  | 0943   | GW-GWS           | WATER            | REG               | 1             | arab   | Y         | x                    |                      |         | -         | +         | +                  |                      |               |                | -  |                                | Diadrump  |   |
| 3                 | OP5                                    | 606                                      | 6.26                                    | 30905-GW-OP5-042016     | 4/20/2016  | 105%   | GW-GWS           | WATER            | REG               | 1             | grab   |           | X                    |                      | -       |           |           | +-+                |                      | <del> </del>  |                |  |                                | BladPump  |   |
| 4                 | OP2                                    | 10.50                                    | 11.03                                   | 30905-GW-OP2-042016     | 4/20/2016  | 1201   | GW-GWS           | WATER            | REG               | 2             | grab   |           | T <sub>x</sub>       |                      |         |           | +         | +                  |                      |               |                | -  |                                | BladPump  |   |
| 5                 | OP3                                    | 1321                                     | 13.30                                   | 30905-GW-OP3-042016     | 4/20/2016  | 1258   | GW-GWS           | WATER            | REG               | 2             | grab   |           | Î                    | $\hat{\mathbf{v}}$   | +       |           | +         | ++                 | <b> </b>             |               |                | -  |                                | BiadPump  |   |
| 6                 | OP4                                    | 9.39                                     | 9.32                                    | 30905-GW-OP4-042016     | 4/20/2016  | 14.22  | GW-GWS           | WATER            | PEG               | 1             | grab   |           | Ŷ                    |                      |         |           | +         | +                  |                      |               | ·              |  | 7                              | BladPump  |   |
| 7                 | OP9                                    | 6.48                                     | 6.49                                    | 30905-GW-OP9-042016     | 4/20/2016  | 1521   | GW-GWS           | WATED            | DEC               |               | grab   |           |                      |                      |         |           | +         | +                  |                      |               |                |  | <u>`</u>                       | BladPump  |   |
| 8                 | NWM-27                                 | 6.75                                     | 78.90                                   | 30905-GW-NWM27-042016   | 4/20/2016  | 1645   | GW-GWS           | WATER            | PEG               |               | grab   |           | Ê                    |                      |         |           | +         | $\left  \right $   |                      | $\rightarrow$ |                | -+-                                      |                                | BladPump  |   |
| 9                 | OP5 DUP                                |  | -                                       | 30905-GWD1-042016       | 4/20/2016  | 1059   | GW-GWS           | WATER            | ED ED             |               | grab   |           | $\widehat{}$         |                      |         |           |           | +                  |                      |               | -              |  |                                | BladPump  |   |
| 10                | OP2 DUP                                |  |   | 30905-GWD2-042016       | 4/20/2016  | 1202   | GW GW/S          | WATED            |                   |               | grab   |           | $\cap$               |                      | +       |           | +         | +                  |                      | -+            | -+-            | +  |                                | BladPump  |   |
| 11                | FIELDQC                                | 'max                                     | - ee                                    | 30905-GW-FB1-042016     | 4/20/2016  | 1305   |                  | WATER            |                   |               | grab   | r<br>V    |                      | $\frac{1}{\sqrt{2}}$ |         | +         |           | ┝─┤                |                      |               |                |  |                                | BladPump  |   |
| 12                | FIELDQC                                | 74.94                                    | amor <sup>ay.</sup>                     | 30905-GW-RB1-042016     | 4/20/2016  | 1312   | BLKWATER         | WATER            | EB                | 2             | grab   | Y         | x                    | x                    |         | +         | -         | $\left  - \right $ | <del> </del>         | -             |                | -  |                                |   |   |
| Relir             | nauished by                            |  |   |                         | 1  |  | Possived by      |                  |                   |               |  |           |                      |                      |         |           |           | II.                |                      | L.            |                |  |                                |   |   |
|                   | ······································ |  | -                                       | Date/Time               |  |  |                  |                  |                   |               |  |           | oto/Tin              | Compai               | ny (    | CUM       | hup       | Condi              | tion                 |               |                |  | Jstody S                       | eals Intact                                     |   |
| <u>/</u><br>Relir | nquished by                            | L  | ana | 4/20/16 5:25<br>Company | inn  |  | Received by      | 2                |                   |               |  |           |                      | Compo                | - 41    | Seef 16   | 524       |                    |                      | <i></i>       |                |  |                                |   |   |
| m                 | 2 Gra                                  | ~  |   | Date/Time               | Hall. d  | 920  | -AV              | m.               |                   |               | 41   | ∕) Dí     | ate/Tim              |                      | S A     |           |           | Coole              | r Tem                | <u>р.</u>     |                |  | Istody Se                      | als Intact                                      |   |
| Dros              | soniativosi (Othor                     | ri Encolfulu                             |   |                         | <del>4(4)(116: 0</del>                             | 110  | 0 (none); 1 (4 D | reg C); 2 (H(    | Cl pH<2); 3 (i    | HNO3 pl       | H<2); 4  | (H2SO     | <u>/ (</u><br>4 pH<2 | 2); 5 (NaC           | )H pH>  | >12); 6 ( | NaOH,     | Zn Acel            | tate); 7             | (H2SC         | )4 (pH<        | 2), 4 D                                  | eg C)); 8                      | (HCI pH<2); 9 (HCI 4 De                         | ag C); 10 (HNO3                               |
| matanas           | ervatives, (other,                     | , specity):                              |   |                         | Concession of States of States of States of States | and the state of t | (pH<2), 4Deg C   | ); 11 (4C Ne     | 3OH (pH>12)       | Asco          | rbic Acid  | d); 12 (/ | 4C H25               | 3O4 (pH<             | 2) & N  | la2S2O3   | 3); 13 (Z | 'n Aceta           | ate); sp             | ) (specir     | al instru      | (ictions                                 | )                              |   | <i>o ,,</i> , , , , , , , , , , , , , , , , , |

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4/21/16 1615 BHP59 Page 23 of 235 Page 17 of 19

Appendix B-3 Field Report—April 2016

# **BALTIMORE INNER HARBOR**

# GROUNDWATER WELL MONITORING

April 20, 2016





## **METER CALIBRATION LOG**



## **FIELD NOTES**

| BIH G             | W WELL                     | SAMPLIN   | G          |          | 4            | 1/20/201        | 6        |
|-------------------|----------------------------|-----------|------------|----------|--------------|-----------------|----------|
| TOUGLA            | SGUFFIT                    | 1 MEGAN   | KENNEDY    | MAURAM   | ORRIS JIN    | A TETT 1        | ITAN VA  |
|                   |                            | /         |            |          | /            |                 |          |
| WELL C            | 5P-11 309                  | 05-GW-0PI | 1.042616   | WEATHER  | CONDITION    | C .             |          |
| V                 |                            |           |            | SUNN     | Naim bre     | ezy . 70°       | SPEN     |
| ARRIVAL           | TIME: 91                   | 0         |            |          |              |                 | P.P.I    |
| FINISH            | TIME: 9:                   | 53        |            |          |              |                 |          |
|                   |                            | 5 2 3 3   |            |          |              |                 |          |
| WELL              | DIAMETOR                   | <u> </u>  |            |          | <u>1 3 7</u> |                 |          |
| BEGINI            | NING HZC                   | LEVEL     | 17.2.2 PT  |          |              |                 | <u> </u> |
| ENDIN             | 6 H20                      | LEVEL : 1 | 8.82 FT    |          |              |                 |          |
|                   |                            |           | 9-112      |          |              |                 |          |
| SAMPU             | E COLLECT                  | TON TIME  | 1.40       |          |              |                 |          |
| TIME              | TOMP.                      | PH        | COND       | D.O.     | TURE.        | ORP             | WATER    |
| (HRS)             | (°C)                       | (UNITS)   | (ms/cm     | (My/L)   | (NTU)        | (MV)            | (FI      |
| 9:31              | (5.72                      | 6.04      | 360        | 6.73     | 13.9         | 104             | 17.2     |
| 9:33              | 15,52                      | 6-07      | 4.52       | 5 67     | 87           | 72              | 17.5     |
| 9:35              | 15.46                      | 6.09      | 4.90       | 4.99     | 93           | 57              | 17.51    |
| 9:37              | 15.49                      | 6.11      | 5.01       | 4,43     | 9.2          | 47              | 17.55    |
| 9:39              | 15.34                      | 6.10      | 5,04       | 4.14     | 10.4         | 44              | 17.57    |
| 9:41              | 15,50                      | 6.11      | 5.06       | 3.98     | 4.9          | 41              | 17.59    |
| ~                 |                            |           |            |          |              |                 | 1 1      |
|                   |                            |           |            |          |              |                 |          |
|                   |                            |           |            |          |              |                 |          |
|                   |                            |           |            |          |              |                 | N A      |
| 0 41 4<br>1 11 12 |                            |           |            |          |              |                 | 1 1      |
| Market I.         |                            |           |            |          |              |                 |          |
| 4 2 1             | 1 I. I.                    |           | CN         |          | 1 4 5        |                 | ed i     |
|                   |                            |           | Die        |          |              |                 |          |
|                   |                            |           |            |          | 1 2 1        |                 |          |
|                   |                            |           |            |          |              |                 | A MA     |
|                   |                            |           |            |          |              |                 |          |
|                   |                            |           |            |          |              |                 | 1 1      |
|                   |                            | 1 1       |            | 1 2 3    | N            |                 | 1 1      |
|                   |                            |           |            |          | · · · ·      |                 |          |
|                   | 1) (4 4<br>4) 7 8<br>2 6 8 |           | X   X   I) |          | 1 (1 (<br>   |                 |          |
|                   |                            |           |            |          | <u> </u>     |                 |          |
|                   |                            |           |            |          |              |                 |          |
| the second second |                            |           |            |          |              |                 | 1        |
|                   |                            |           | Ritein     | he Rain. |              | Scale: 1 square |          |

U.

| BiH             | 6W SAMI    | LING           |               |                 | 4/20/20,    | 16                    |              |
|-----------------|------------|----------------|---------------|-----------------|-------------|-----------------------|--------------|
|                 |            |                |               |                 |             |                       |              |
| DG. MK.         | MM. JJ     | , LV           |               | WEATHE          | 2 CONDITION | is:                   |              |
|                 | i lini     |                |               | SUWUY           | 70 , BREE   | 24                    |              |
| WELL: OF        | 2-7 3      | 0905-GW-       | 0P7-0420      | 016             |             |                       |              |
|                 |            |                |               |                 |             |                       |              |
| ARRIVAL         | TIME : 10: | 03             |               |                 |             |                       |              |
| TINISH T        | ME: 10:    | 33             |               | 1 1             |             |                       |              |
| 1 (1012-1)      |            |                |               |                 |             |                       |              |
| WELL DIA        | METER !    | 4"             |               |                 |             |                       |              |
| TEGINNIN        | 6- HARES   | 40 LEVE        | 1 6.55        | ET              |             |                       |              |
| ENDING-         | THATE +    | 1.0 LEARE      | L. 6.75       | FT              |             |                       |              |
|                 |            |                |               |                 |             |                       |              |
| SAMPLE (        | COLLECTION | THE: 10        | 24            |                 |             |                       |              |
|                 |            | L              | Carlo         |                 |             | MPP                   | WATER        |
| TIME            | TEMP       | PTI            | CONP          | P.0,            | (URB        | (m)                   | (ET)         |
| (TIRS)          | (°C)       | (UNITS)        | (MS/CM)       | (Mg/L)          | $(v_1v)$    |                       | 100          |
| 10:12           | 14.07      | 1.04           | 9.52          | 7.13            | 19          | - 4                   | 6.61         |
| 10:19           | 15.11      | 7.07           | 10.5          | 7.07            | o.c.        | - 27                  | 1.19         |
| 10.16           | 13.60      | 196            | 10.1          | 792             | 0.0         | +57                   | 6.70         |
| 10:18           | 15.66      | 0:18           | 11.0          | 6.85            | 02          | -66                   | (: 72        |
| 0:20            | 13.56      | 10.01          | 171           | 6 61            | 0.0         | -71                   | 6.10         |
| 10:22           | 15.58      | 2.90           | 161           |                 |             |                       | 0-10         |
|                 |            |                |               |                 | 1 1 1       |                       |              |
|                 |            |                |               |                 | 2 2 4       |                       |              |
|                 |            | 3 1 1          |               |                 |             |                       | 4 4 1        |
|                 |            |                |               |                 |             | 8 4 4                 |              |
|                 |            |                |               |                 |             |                       |              |
|                 |            |                | 1 3 3         |                 |             |                       |              |
|                 |            |                |               |                 |             | a 2 4                 |              |
| 1 1.1           |            |                | N.V.          | $\mathcal{O}_i$ |             |                       |              |
|                 |            |                |               |                 |             |                       |              |
|                 |            |                |               |                 | 11          | 1                     |              |
|                 | 1 18 40    |                |               |                 |             | 1 1 1 2               | 1 1 1<br>1 1 |
|                 |            |                |               |                 |             | 1 1 2                 |              |
|                 |            |                |               |                 |             |                       |              |
|                 |            |                |               | 1 1             | N           |                       |              |
|                 | 1 1 1      |                |               |                 |             | <u>2 3 7</u><br>0 x x |              |
|                 |            |                |               |                 |             | 0 1 1                 |              |
|                 |            |                |               |                 |             |                       |              |
|                 | 2 8 8      | 1 <u>1</u> 1 1 | 1 1 1         |                 |             |                       | 1 1 1        |
| Scale: 1 source |            |                | ( <b>•</b> )) | 5               |             |                       |              |

|   | BIH         | GW SA    | MPLANG        |             |           | 4/2      | 0/2016          | :             |
|---|-------------|----------|---------------|-------------|-----------|----------|-----------------|---------------|
|   | TI          |          |               |             |           | 1        |                 | a - 1 - 1 - 1 |
|   | DEII        | MK, MM   | , JT, LV      |             | 2 2 1 2   | WATHE    | A CONDITION     | us:           |
|   |             |          | in the second |             |           | Sunn     | BREELY          | 705           |
| _ | WELL        | 045 5    | 10402-GW-0    | P5-042019 € | 30905-GW  | DI042016 | 110000          | TO 400 1.1.1  |
|   | ADDINIO     | the      | 10:20         | MICOMIUM)   |           |          | NOIS            | TUSING        |
| - | FIRE VAL    | TAKE     | 0-06          |             |           |          | 10              | The LENG      |
|   | CANDU 70151 | IME      | 1011          |             |           |          |                 |               |
|   | WEILD       | AMETER   | 4"            |             |           |          |                 |               |
|   | BEGINN      | INF THAT | EH.GI         | EVEL: (     | 06        |          | 2 2 1 1         |               |
|   | ENDIN       | 6 MARE   | TOU           | ever lo     | 26        |          |                 | 3 4 1 1       |
|   |             |          | 120           |             |           |          |                 |               |
|   | SAMPLE      | COLLECT  | ION TIME .    | 10:58       | Dup: 1059 |          |                 |               |
|   |             |          |               |             |           |          |                 |               |
|   | TIME        | TEMP     | PH            | COND.       | D.0.      | TURB     | ORP             | WATCR         |
|   | (tirs)      | (00)     | (UNITS)       | (MS/CM)     | (Mg/L)    | (NTU)    | (MV)            | (FT)          |
| - | D. 10:44    | 18.79    | 8.02          | 815         | 636       | 1.0      | 37              | 6.11          |
| - | 10 51       | 16:28    | 8:15          | 19,1        | 1.04      | 1.2      | 26              | 6.16          |
| - | 10.55       | 15.04    | 168           | 14 3        | 695       | 0.5      | 23              | 6.20          |
| - | 10.35       | 14 88    | 743           | 19.6        | 663       | 02       | 22              | 625           |
| - | 10 31       | 1.1.00   | 1.73          | 10 1        | 6.50      | 0,8      | dl              | 630           |
|   | 1           |          |               | 1 1- 1      | 1 11 1    |          |                 |               |
|   |             |          |               |             |           | 1 4 1    |                 |               |
|   |             |          |               |             |           | 4 9 Y    |                 |               |
|   |             |          | 1 1 2         |             |           |          |                 |               |
|   |             |          |               | t († 1      |           |          |                 |               |
| _ |             |          |               |             |           |          |                 |               |
| _ |             |          |               |             |           |          |                 |               |
|   |             |          |               |             |           |          |                 | 1 1 1         |
|   |             |          |               | DIT         |           |          |                 |               |
| - |             |          |               | X.V         | 1         | 1 1 1    |                 |               |
|   |             |          |               |             |           |          | <u> </u>        | <u> </u>      |
|   | 1 1. 1. 1   |          |               |             |           |          |                 |               |
|   |             |          |               |             |           |          |                 |               |
|   |             |          |               |             |           |          |                 |               |
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|   |             |          |               |             |           | 1        |                 |               |
| 1 |             |          |               |             |           |          |                 |               |
| L | 1           |          |               |             |           |          |                 |               |
|   |             | ×        |               | Rite in shi | e Rain.   |          | Scale: 1 square |               |

| $\begin{array}{c c c c c c c c c c c c c c c c c c c $   | RIH LI          | N SAMPL                               | ING       | 2          |            | 4/20/201     | 6              |                                       |
|--|-----------------|---------------------------------------|-----------|------------|------------|--------------|----------------|---------------------------------------|
| $\begin{array}{c c c c c c c c c c c c c c c c c c c $   | 511 00          |                                       | 1.1.1.1   | 1411       |            | 4 1 1 1      |                | 70000                                 |
| $\begin{array}{ c c c c c c c c c c c c c c c c c c c$   | DG, MK, O       | MM, JJ,                               | LV        |            | WG         | ATT-TER CONT | DITIONS: SUNNY | ). 105(P=)                            |
| $\begin{array}{c c c c c c c c c c c c c c c c c c c $   |                 |                                       |           |            | (NOTE = TL | BING 10-1    | 2 Trescorte    |                                       |
| $\begin{array}{c c c c c c c c c c c c c c c c c c c $   | WELL: (         | OP-2 3                                | 0905-GW-( | )PJ.042016 | 2 2 30405  | -0-W12-2-04  |                |                                       |
| APE IVAL THE: 11:40 $Gere = POSH = Hinter of a second point of a second p$ |                 | DUP (CY4.                             | NIDE)     |            | Product al | The local    | in particip    | INNE                                  |
| Finish The : 12:0<br>Well DIAMETE : 6"<br>BEGNANNOG H2 LEVEL: 10.50 FT<br>GUDING H2D LEVEL: 10.03 PT<br>GUDING H2D LEVEL: 10.03 PT<br>GUDING H2D LEVEL: 10.03 PT<br>GUDING H2D LEVEL: 10.00 D.O. 7008 02P LEVEL<br>(MRS) (°C) (UNITS) (NS/CM) (Mg/L) (NTD) (MV) (FT)<br>(1:51 1867 7.80 (0.82 7.53 2.7 57 11.02<br>11:55 17.75 (5.50 6.72 1.7 57 11.02<br>11:55 17.75 (5.50 6.77 6.7 6.7 6.7 6.7 1.7 1.7 11.02<br>11:55 17.75 (5.50 6.77 5.50 0.4 1.00<br>11:57 17.29 6.32 6.74 5.50 0.4 1.21 11.00<br>11:57 17.29 6.28 6.74 5.50 0.4 1.21 11.00<br>11:57 17.29 6.29 6.74 5.50 0.4 1.21 11.00<br>11:57 1.20 6.20 6.74 5.50 0.4 1.21 11.00<br>11:57 1.20 6.20 6.74 5.50 0.4 1.21 11.00<br>11:57 1.20 6.20 6.20 6.20 6.20 6.20 6.20 6.20 6  | ARRIVAL         | THE: 1                                | .90       |            | NOTES      | PUMPING      | us convis pr   |                                       |
| WELL DIAMETER : 6"   TEGUNUNG- H26 LEVEL : 10.50 FF   GUDING H20 LEVEL : 11.03 FF   SAMPLE COLLECTION THRE: 1201 200 (20.2)   TWE TEDR H   HS COLLECTION THRE: 1201 (20.2)   INTER TEDR H   (HRS) (COL (UNTS) (MSLM) (MgLL) (MTD) (MV) (PT)   (HS) (COL (UNTS) (MSLM) (MgLL) (MTD) (MV) (PT)   (H:53 18.18   11:55 17.75   (SO COLD COL (SO COLD   11:57 17.45   (G.32 C.74   (H:50 C.28   (H:74 G.28   (H:75 C.15   (H:74 G.28   (H:75 G.28   (H:57 H.00   (H:57 H.00   (H:57 H.00   (H:57 H.01   (H:57 H.02   (H:57 H.01 </td <td>FWISH TI</td> <td>ME: 12:</td> <td>6</td> <td></td> <td></td> <td></td> <td></td> <td>1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1</td>  | FWISH TI        | ME: 12:                               | 6         |            |            |              |                | 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 |
| $\begin{array}{ c c c c c c c c c c c c c c c c c c c$   |                 |                                       | 60        |            |            |              |                |                                       |
| ILCO LEVEL: ILC3 PT   GUDING H2D LEVEL: ILC3 PT   SAM PLE COLLECTION TIME: 1/2/0/ DOP 12/02   TIME: TEOR PH COND D.O. TURB OPP USAR   (MRS) (PC) (WHTS) (MS/LM) (Mg/L) (WTD) (MV) (PT)   (MRS) (PC) (WHTS) (MS/LM) (Mg/L) (WTD) (MV) (PT)   (MRS) (PC) (WHTS) (MS/LM) (Mg/L) (WTD) (MV) (PT)   (ILST IS CONTON TIME: 1/2/2   (MRS) (PC) (WHTS) (MS/LM) (Mg/L) (WTD) (MV) (PT)   (ILST IS CONTON TO   | WELL DI         | AMETER .                              | I FARE "  | 10.50 F    | T          |              |                |                                       |
| SAMPLE COLLECTION TIME: $ 2:0 $ DOP $ 2:02 $ TIME TEOR PH COND D.O. TRES ORP WHTELE   (HRS) (°C) (WHTS) (MS/LM) (Mg/L) (MTD) (MV) (PT)   (11:51 18.67 7.80 ( $_{0.82}$ 7.33 2.7 57 (LO2)   (11:53 13.18 DEFENDING ( $_{0.82}$ 7.67 1.7 74 (LO2)   (11:55 (7.75 (.50 6.77 C.(X 0.9 101 11.00   (11:57 17.45 6.322 6.74 5.50 0.4 12.1 11.00   (11:57 17.29 6.28 6.74 5.50 0.4 12.1 11.00   (11:57 17.29 6.29 6.74 5.50 0.4 12.1 11.00   (11:59 17.29 6.29 6.74 5.50 0.4 12.1 11.00   (11:59 17.29 6.29 0.1 10.1 10.1 10.1 10.1   (11:59 17.29 10.2 10.1 10.  | DEGINNI,        | HAN                                   | FVEL !    | 11.03 FT   |            |              |                |                                       |
| $\begin{array}{ c c c c c c c c c c c c c c c c c c c$   | SAMPLE          | COLLEC                                | JUN JUM   | E: 12:01   | DUP        | 12:02        |                | 111017720                             |
| (HR) (c) (DNHTS) (ms/ch) (Mg/L) (NTD) (MV) (ET)   (1'51) 1867 7.80 (a.82 9.33 2.7 5.7 11.02   (1'53) 18.18 FreeDIP (a.76 7.67 1.7 74 11.02   (1'53) 18.18 FreeDIP (a.76 7.67 1.7 74 11.02   (1'53) 17.75 (a.50 6.77 (a.93 (a.22 11.3 11.00   (1'57) 17.45 (a.32 (a.74 5.50 0.44 12.1 11.00   (1'59) 17.29 (a.28 (a.74 5.50 0.44 12.1 10.04   (a.16) 10.05 10.05 10.05 10.05 10.05 10.05 10.05  | TIME            | TEMP.                                 | pt        | COND.      | D.0.       | TURIS        | OPP            | LEVEL                                 |
| $\begin{array}{c ccccccccccccccccccccccccccccccccccc$  | (MRS)           | (°C)                                  | (UNHS)    | (ms/cm)    | (Mg/L)     | (NTU)        | (MV)           | (PT)                                  |
| 11:55 13.18 19.101 6.76 1.61 1.1 1.0 11.00   11:55 (7.75 6.50 6.77 6.68 0.2 11.3 11.00   11:57 (7.45 6.32 6.76 6.03 0.2 11.3 11.00   11:57 (7.45 6.32 6.76 6.03 0.2 11.3 11.00   11:59 17.29 6.23 6.74 5.50 0.4 12.1 11.00   11:59 17.29 6.23 6.74 5.50 0.4 12.1 11.00   11:59 17.29 6.23 6.74 5.50 0.4 12.1 11.00   11:59 17.29 6.23 6.74 5.50 0.4 12.1 11.00   11:59 17.20 17.5 17.5 17.5 17.5 17.5 17.5 17.5 17.5   11:59 17.5 17.5 17.5 17.5 17.5 17.5 17.5 17.5 17.5 17.5 17.5 17.5 17.5 17.5 17.5 17.5 17.5  | 11:51           | 18.67                                 | 7.80      | 6.82       | 7.33       | 2.7          | 57             | 11.02                                 |
| $\begin{array}{c ccccccccccccccccccccccccccccccccccc$  | 1:53            | 18.18                                 | DO7007.09 | 6.76       | 161        | 1.1          | 1001           | 11 AM                                 |
| $\begin{array}{c ccccccccccccccccccccccccccccccccccc$  | 11:55           | 17.75                                 | 6.50      | 6.77       | 6.68       | 0.7          | 113            | 11.00                                 |
|  | 11:57           | 17.45                                 | 6.32      | 6.76       | 6.05       | 0.4          | 121            | 11.00                                 |
|  | 11:59           | 17,29                                 | 6.28      | 6.17       | 0.00       |              |                |                                       |
|  |                 |                                       |           |            |            | 2 4 1        |                | 1 1 1                                 |
|  |                 |                                       |           |            |            | - 52.0       |                |                                       |
|  |                 |                                       |           |            |            |              |                |                                       |
|  |                 |                                       |           | 1 1 1      |            |              |                | 1                                     |
|  |                 |                                       |           |            |            |              |                |                                       |
|  |                 | 1                                     |           |            |            |              | V.             |                                       |
|  |                 |                                       |           |            | 1 4 1      |              |                |                                       |
|  |                 |                                       |           | hor        |            |              | 1 1            |                                       |
|  |                 |                                       | 1 I I N   | TV.U       |            |              |                |                                       |
|  |                 |                                       |           |            |            |              |                |                                       |
|  |                 |                                       |           |            |            |              |                |                                       |
|  |                 |                                       |           | 1          |            |              | 3 1 1          |                                       |
|  |                 |                                       | <u> </u>  |            |            |              |                |                                       |
|  |                 |                                       |           |            |            | N 10 1       |                |                                       |
|  |                 |                                       |           |            |            |              |                |                                       |
|  | 1 2 4           |                                       |           |            |            |              |                |                                       |
| Scale: 1 courses   |                 |                                       |           |            |            |              |                |                                       |
| Scale: 1 courses   |                 |                                       |           |            |            |              |                |                                       |
| Scale: 1 courses   |                 | 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 |           | 5 2 1      |            | 18 1         |                |                                       |
| Scale: 1 courses   |                 |                                       |           |            |            |              |                |                                       |
|  | Scale: 1 pourse |                                       | 1         |            |            |              |                | L .                                   |

| BIH        | GW SA1   | MPLING      |            |  | 4/20        | 12016           |            |
|------------|----------|-------------|------------|--|-------------|-----------------|------------|
|            |          |             |            |  |             |                 |            |
| DG MK      | , MM, TT | ,LV         |            |  | WEATH       | The CONDIT      | ions:      |
| IN FIL O   | P-3 50   | 105 GIN- OF | 23-042016. | 30905-6-01-                              | FBI 0420110 | E 2000 CM       | (F)        |
| alle       |          |             |            |  | re viavie,  | 50105.000       | KD/-040010 |
| ATTRIVAL . | TIME : 1 | 2:35        |            |  | RB 1        | 3-12            |            |
| FINISH -   | nne : ta | 206 13      | :30        |  | FB 13       | :05             |            |
|            |          | C 11        |            |  |             |                 |            |
| WELL DIA   | METER    | 6           | 13 21      |  |             |                 |            |
| EUDINA     | NG M2C   | LEVEL       | 13.30      | ю 296 р. к.<br>т. ст. 7 т.<br>р. 56 в ф. |             |                 |            |
| CAMPLE     | CONFOR   | ON THE      | : 12:58    |  |             |                 |            |
| TIME       | TEMP     | ₽Ħ          | COND.      | D.G.                                     | TURE        | ORP             | WATER      |
| (HRS)      | (°C)     | (ZTINU)     | (ms/cm)    | (mg/L)                                   | (NTU)       | (MV)            | (FT)       |
| 12:50      | 20.84    | 6.68        | 7.98       | 5.62                                     | 34.0        | 1125            | 13.30      |
| 12.52      | 19.45    | 607         | 8.00       | 4.55                                     | 0.0         | 167             | 13.30      |
| ja:54      | 18.54    | 5.86        | 7.94       | 5.58                                     | 0.0         | 199             | 13.32      |
| 12.56      | 18.39    | 5.83        | 1.95       | 5 21                                     | 0.0         | a10             | 13.32      |
|            | 1 1 1    |             |            |  |             |                 |            |
|            |          | 2 3 3       |            |  |             |                 | 1 1-1      |
|            |          |             |            |  |             |                 |            |
|            |          |             |            |  |             |                 |            |
|            |          |             |            | 71 8 4                                   |             |                 |            |
| - <u> </u> |          |             | ST         | 3 3 5                                    |             |                 | 2 2 4      |
|            |          |             | PDO        |  |             | 112             |            |
|            |          | <u> </u>    |            |  |             |                 |            |
|            |          |             |            |  |             |                 |            |
|            |          | 1           |            |  |             |                 |            |
|            |          | 2 si a      | -          |  |             |                 |            |
|            |          |             |            |  |             | 1.1.0           |            |
|            |          |             |            |  |             |                 |            |
|            |          |             |            |  |             |                 |            |
|            |          |             |            |  |             |                 |            |
|            |          |             |            |  |             |                 |            |
|            |          |             |            |  |             |                 |            |
|            |          |             |            |  |             |                 |            |
|            |          |             |            |  |             |                 |            |
|            |          |             | 8 4 5      | 5 5 8                                    |             |                 |            |
|            | *        |             | Rite in 2  | the Rain.                                |             | Scale: 1 square | =          |

| BIH GW                  | SAMPLING     |           |           |         | 4/20/20        | 016       |             |
|-------------------------|--------------|-----------|-----------|---------|----------------|-----------|-------------|
| DG, MK, M               | MJJ, L       | /         |           | w       | SUNNU          | 70°5(F)   |             |
| WELL: O                 | P-4 30       | 905-GW    | -0P4-042( | 316     |                |           |             |
| ARRIVAL .               | TIME : F     | ST 13: 3  | 35        | * Pleas | <u>e see n</u> | ote beloi | U           |
| FINISH                  | TMEE !!!     | 1:31      |           | 1 1 1   |                |           |             |
| UTU DU                  | AARTON       | 6.11      |           |         |                |           |             |
| REHNNING                | - the IEA    | VEL: 9,30 | 1         |         | 1 1 4          |           |             |
| ENDING IF               | 120 LEVEL    | 9.3       | 2         |         |                |           |             |
|                         |              |           | 14.22     |         |                |           |             |
| SAMPLE                  | COLLECTION   | U TIME .  | TIXCX     |         |                |           | MATIS       |
| TIME                    | TOMP         | PH        | COND.     | D.O.    | TURB.          | ORP       | LEVEL       |
| (HES)                   | (°C)         | (UNITS)   | (MS/CM)   | (Mg/L)  | (NTU)          | (MV)      | (H)<br>9 20 |
| 13:49                   | 20:43        | 6.32      | 3.70      | 9.16    | 15             | 198       | 922         |
| 13:51                   | 18.90        | 6.39      | 1.33      | 7.11    | 00             | 189       | 922         |
| 13:53                   | 18.43        | 6.53      | 0.52      | 646     | 0.0            | 180       | 9.32        |
| 13:55                   | 17.99        | 6.78      | 0.25      | 6.11    | 0.0            | 119       | 932         |
| 13,57                   | 17.77        | 6.99      | 0:13      | 5.05    |                | 101       |             |
| * Stopper               | d due to     | Flow is   | Sales     | 5.28    | 00             | 15/2      | 9.32        |
| 14:08                   | 18.70        | 1.50      | 0.012     | 277     | 20             | 230       | 932         |
| 19:10                   | 18.16        | 576       | 2.10      | 2.11    | A 7            | 236       | 932         |
| 14:12                   | 18 14        | 211       | 500       | 238     | 1.2            | 240       | 9:32        |
| 14:14                   | 18.14        | 219       | 0.84      | 2.22    | 68             | 253       | 9.32        |
| 14.10                   | 1100         | 5 10      | 713       | 2.10    | 110            | 258       | 9:32        |
| 14:18                   | 11.97        | 681       | 7 69      | 2.06    | 10.0           | 262       | 9:32        |
| 14.20                   | 1.1.76       | -) 01     | 1,01      | - a.or  |                |           |             |
|                         |              |           |           |         |                |           | 1 1 1       |
|                         | 1            |           |           |         |                |           |             |
| 1 2 1<br>1 2 1<br>1 2 1 |              |           |           | 1 1 1   |                |           |             |
|                         |              |           | TH.       | M       |                |           |             |
|                         |              | 4 6 4 6 4 |           |         |                |           |             |
|                         |              |           |           |         |                |           |             |
|                         |              |           |           |         |                |           |             |
|                         |              |           | 1 1       |         |                |           | ~           |
|                         |              |           | 1         |         |                |           |             |
|                         | \$ \$ 5<br>1 |           |           |         |                | 1 2 3     | 1           |
|                         |              |           |           |         |                |           |             |
| Scale: 1 square         |              |           |           |         |                | 1         |             |

| -   | BIH G    | W SAMPU.  | NG             | a ar 14 ar | 4) (4) (4) - 4                | 41           | 20/2016                                 |                                   |
|-----|----------|-----------|----------------|------------|-------------------------------|--------------|---|-----------------------------------|
|     | DG-, MK  | , MM, S   | F, W           |            |                               | WEATH        | EZ CONDIT                               | ons:                              |
|     |          |           |                |            |                               | <pre></pre>  | Suma 70                                 | s/F)                              |
| _   | WELL :   | OP-9      | 30905 - GU     | U-0P9-042  | 2016                          |              | ming pio                                |                                   |
| -   | 100      |           |                |            |                               |              | 4 4 8 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 | X X (4) 4<br>X - X - 4            |
| -   | FERIVIEL | TIME . 15 | 102            |            | × 1                           |              |   |                                   |
| -   | FINISH   | TIME      | . 61           |            |                               |              |   |                                   |
|     | WELL DI  | MINETER : | 4"             | 1.00       |                               |              |   |                                   |
| -   | BEGINNI. | NG H20    | LEVEL:         | 6.48       |                               |              |   | 4 4 4 4<br>1 1 1 1 1 1<br>4 4 4 8 |
| -   | GUDING   | 1720 LEVE | <u>Lo lo</u> . | 49         |                               |              |   |                                   |
|     | SAMPE    | COLLECTIO | NTIME :        | 15:21      |                               |              |   |                                   |
|     |          |           |                |            |                               |              |   |                                   |
|     | TIME     | TEMP      | PH             | COND.      | D.O.                          | TURB         | ORP                                     | WATER<br>LEVEL                    |
| -   | (HRS)    | (°C)      | (UNITS)        | (ms/cm)    | (mg/L)                        | (NTU)        | (mV)                                    | (FT)                              |
| _   | 15:09    | 17.41     | 6.56           | 17.2       | 6.26                          | 5,1          | 229                                     | 6.50                              |
|     | 15:11    | 16.57     | 6.46           | 19.2       | 4.45                          | 41           | 236                                     | 6.50                              |
|     | 13,13    | 15,96     | 6.40           | 26.3       | 3.71                          | 4.8          | 243                                     | <b>6.</b> 51                      |
|     | 15:15    | 15.62     | 6.38           | 21.2       | 3-10                          | 4.2          | 249                                     | 6.50                              |
| _   | 15:17    | 15.38     | 6.37           | 21.5       | 2.75                          | 3.2          | 256                                     | 6.49                              |
| _   | 15:19    | 15,51     | 6.37           | 21.6       | 2.58                          | 2.6          | 260                                     | 6.49                              |
| _   |          |           |                |            |                               |              | <u> </u>                                |                                   |
| _   |          |           |                |            | 1 1 2                         |              | 5 W/ 8                                  |                                   |
| -   |          |           |                |            | 2 D (4)<br>8 N (4)<br>4 N (4) |              |   |                                   |
| _   |          | 1         |                |            |                               | 2 (4) (4<br> |   |                                   |
| _   |          |           |                |            |                               |              | 1 1 1                                   | 211                               |
| -   |          |           |                |            |                               |              | 1 1 1                                   |                                   |
| -   |          |           |                | 12.5       |                               |              |   |                                   |
| -   |          |           |                |            | 1 1 1                         |              |   | 3 <u>5</u> <u>5</u>               |
| -   |          |           |                |            |                               |              |   | 2 3 5 K                           |
| -   |          |           |                |            |                               |              |   |                                   |
| -   |          |           |                |            |                               |              |   |                                   |
| -   |          |           |                |            | 1                             |              |   |                                   |
| -   |          |           |                |            |                               |              |   |                                   |
| 2 - |          |           |                |            |                               |              |   |                                   |
| -   |          |           |                |            |                               |              |   |                                   |
| -   |          |           |                |            |                               |              |   |                                   |
| -   |          |           |                |            |                               |              |   |                                   |
|     |          |           |                |            |                               |              |   |                                   |
| -   |          |           |                |            | 2 1 1                         |              |   | 1                                 |
| 1   |          |           |                | Rite in s  | he Rain.                      |              | Scale: 1 square                         |                                   |

| RH Hu           | ) SAMPUN    | 6-       |          |                  | 4/20/: | 2016    |       |
|-----------------|-------------|----------|----------|------------------|--------|---------|-------|
| 9.00            |             |          | 1 1 1 1  | 1111             | sunny  | 70°3(F) |       |
| DE, MK, 1       | MM, JJ, L   | V        |          |                  |        |         |       |
|                 |             |          |          | i i i i i i      | 12.01  |         |       |
| NELL:           | NUM 27      | 30       | 905-GW-N | JWMa7-0          | 92016  |         |       |
|                 |             |          |          |                  |        |         |       |
| ARRIVAL 7       | TIME: 16    | 28       |          |                  |        | 1 1 1   |       |
| FINISH T        | INE: 11     | .00      |          |                  |        |         |       |
|                 |             | 21       |          |                  |        |         |       |
| WELL \$1        | AMETERS     |          | 15       |                  |        | V A A   |       |
| BEGINNIN        | 6-H20       | LEVEL: ( | C/UN     |                  |        | 5 5 5   |       |
| ENDING          | HZO L       | EVEL :/  | 8.40     | d 1 1 d          |        |         |       |
| CANOIE          | PailFATTA   | Thes 16  | :45      |                  |        |         |       |
| SAMPLE (        | OLLEUM      |          |          |                  |        |         |       |
| TIME            | TEMP        | PH       | COND.    | D.O,             | TURB   | ORP     | (BAEL |
| (HRS)           | $(\circ c)$ | (UNITS)  | (MS/CM)  | (mg/4)           | (NTU)  | (mV)    | (FT)  |
| 16:40           | 16.53       | 10:91    | 22.9     | 9.22             | 501    | 130     | 78.40 |
| 16:42           | 16:16       | 11.13    | 230      | 8,24             | 69.8   | 98      | 78.40 |
| 16:44           | 15,93       | 11.19    | 23.1     | 7.53             | 1000   | 76      | 18,40 |
| * TOOK          | SAMPLE DL   | E TO WAY | TR LEVEL | DIRAWDOW         | N*     |         |       |
|                 |             |          | 12 1 3 4 |                  |        |         |       |
|                 |             |          |          |                  | 1 1 1  |         |       |
|                 |             |          |          | T 1 1<br>X 10 31 |        |         |       |
|                 |             | 2.4.4    |          |                  |        | 4 1 4   |       |
|                 |             |          |          |                  |        |         |       |
| 1 1 1           | 1 1 4       |          |          |                  |        | 2 2 3   |       |
|                 |             |          | IN       | /                |        |         |       |
|                 |             |          | N        | 5                |        |         |       |
|                 |             |          | 1 T      |                  |        |         |       |
|                 | 1 1 4       |          |          |                  |        |         |       |
|                 |             |          | 1 2 1    |                  |        |         |       |
|                 |             |          |          |                  |        |         |       |
| 8 0             |             |          |          |                  |        |         |       |
|                 |             |          |          |                  |        |         |       |
|                 |             |          | 1 1 3    |                  |        |         |       |
|                 |             |          |          |                  |        |         |       |
|                 |             |          |          |                  |        |         |       |
|                 |             | 4 1 1    |          |                  | 1      |         |       |
|                 |             |          |          |                  |        |         |       |
|                 | 2 15 1      |          | 1 1 1    |                  |        | 1 1 2   |       |
| Scale: 1 square | =           |          |          | 1.<br>           |        |         |       |

## **CHAIN of CUSTODY**

| Lancaster Lab                                | pratories                     |                          |                |            |                                | Ĩ                              |                               |               |                           |                      |                        |                | l                         |  |  | AES! Ref:  | 42479 47375           |
|--|-------------------------------|--------------------------|----------------|------------|--------------------------------|--------------------------------|-------------------------------|---------------|---------------------------|----------------------|------------------------|----------------|---------------------------|--|--|--|-----------------------|
| 2425 New Hottand Pi.<br>Lancaster, PA 17605- | ke<br>2425                    |                          |                | 5<br>F     | eywe                           |                                | Chain                         | of cus        | stody                     | / Anal               | ysis R                 | equest         |                           |  |  | COC#   | 30905-122915-<br>01   |
| (717) 656-2300                               |                               |                          | Privileged     | d & Confid | ential                         | z                              |                               |               | ite Nam                   | ia                   | Baltimo                | e              |                           | Dhaco.                                 |  | Lab Proj # (SDG)   |                       |
| Sampling Co.:                                | Maryland Env                  | rironmental Service      | EDD To:        |            | Locus Focu                     | s(matthew.g                    | jilis@ch2m.c                  | (mo           | ocation                   | of Site:             | BALTIM                 | ORE, MD        |                           | Samping<br>Program                     |  | Lab ID   | ΓΠ                    |
| Client Contact: (n                           | ame, co., ad                  | dress)                   | Sampler:       | D. Grif    | fith, M. Kenned                | v, L. Vu, M. I                 | Morris, J. Jet                | F             |                           | L                    |                        |                | E                         |  |  | Site ID  | BALTIMORE             |
| Christopher French                           |                               |                          | #04            | 45001      | 38077                          |                                |                               | 6             | reservativ                | ه<br>۱               | 5                      |                |                           |  |  | Lab Job #  |                       |
| 101 Columbia Road M                          | eyer 3                        |                          | Analysis       | s Turnarou | nd Time (TAT)                  |                                | 5                             |               | -                         |                      |                        |                |                           |  |  | Authorized User:   | Honeywell             |
| Morristown, NJ 07962                         |                               |                          |                | Consu      | tant                           |                                | CH2M                          | Π             |                           |                      | e                      |                |                           |  |  |  |                       |
| Preliminary Data To                          | matthew gillis                | <u>@ch2m.com</u>         |                |            |                                |                                |                               |               | Υð                        |                      | apiue                  | _              |                           |  |  | Text & Excel File Driv   | e Excel & Text File   |
| Sample Receipt<br>Acknowledgement T          | matthew gillis                | <u>@ch2m com</u>         |                |            |                                |                                |                               | Γ             | la me                     | u<br>dum             | syO le                 |                |                           |  |  |  | Order                 |
| Hard Copy To                                 | Christina Jens                | sen                      |                | Full Repo  | rt TAT:                        |                                | 28                            | T             | erð\<br>S ba              | nimo                 | toT S                  |                |                           |  |  |  |                       |
| Invoice To:                                  | Christopher F                 | rench                    |                |            |                                |                                |                               | Τ             | osite<br>ostiene          | осры                 | 106/                   |                |                           |  | _  |  | <                     |
|  | Sample Id                     | lentification            | Sample<br>Date | Samp       | le Sample<br>Type              | Sample<br>Matrix               | Sample<br>Purpose             | # of<br>Cont. | odmo0                     | 0109/05              | ojne)<br>0106MS        |                |                           |  |  | Copyright AESI: Version<br>8.0 Unauthorited use<br>serietiv prohibited | 9                     |
| Location ID                                  | Start E<br>Depth De<br>(ft) ( | th Field Sample ID (t)   |                |            |                                |                                |                               |               | nits                      | udd                  | ) qdo                  |                |                           |  |  | Sampling Metho<br>(code)   | Lab Sample<br>Numbers |
| 1 OP7  | 6.55 6                        | 75 30905-GW-OP7-042016   | 4/20/201       | 6 10.3'    | f GW-GWS                       | WATER                          | REG                           | -             | trab Y                    | ×                    | 1                      |                |                           |  |  | BladPump   |                       |
| 2 OP11                                       | il ad is                      | 3 30905-GW-OP11-04201    | \$ 4/20/201    | 6 094      | 3 GW-GWS                       | WATER                          | REG                           | -             | irab Y                    | ×                    |                        |                |                           |  |  | BladPump   |                       |
| 3 OP5  | 6 06 6                        | . 36 30905-GW-OP5-042016 | 4/20/201       | 6 i05      | S GW-GWS                       | WATER                          | REG                           | -             | jrab Y                    | ×                    |                        |                |                           |  |  | BladPump   | -                     |
| 4 OP2  | 10.50 11                      | 1.03 30905-GW-OP2-042016 | 4/20/201       | 6 120      | GW-GWS                         | WATER                          | REG                           | 2             | jrab Y                    | ×                    | ×                      |                |                           |  |  | BladPump   |                       |
| 5 OP3  | 1321 13                       | .30 30905-GW-OP3-042016  | 4/20/201       | 6 125      | B GW-GWS                       | WATER                          | REG                           | 2 6           | prab Y                    | ×                    | ×                      |                |                           |  |  | BladPump   |                       |
| 6 OP4  | 9.39 9.                       | 33 30905-GW-OP4-042016   | 4/20/201       | 6 142      | CW-GWS                         | WATER                          | REG                           | -             | jrab Y                    | ×                    |                        |                |                           |  |  | BladPump   |                       |
| 7 OP9  | 6,48 6.                       | 49 30905-GW-OP9-042016   | 4/20/201       | 6 15J      | GW-GWS                         | WATER                          | REG                           | -             | Irab Y                    | ×                    |                        |                |                           |  |  | BladPump   |                       |
| 8 NWM-27                                     | 6.75 25                       | 3.40 30905-GW-NWM27-0420 | 16 4/20/201    | 6 164      | GW-GWS                         | WATER                          | REG                           | -             | Irab Y                    | ×                    |                        |                |                           |  |  | BladPump   |                       |
| 9 OP5 DUP                                    | 3                             | - 30905-GWD1-042016      | 4/20/201       | 6 105      | g GW-GWS                       | WATER                          | đ                             | -             | Irab Y                    | ×                    |                        |                |                           |  |  | BladPump   |                       |
| 10 OP2 DUP                                   | 1                             | - 30905-GWD2-042016      | 4/20/201       | 6 120      | D GW-GWS                       | WATER                          | Ð                             | -             | jrab Y                    | _                    | ×                      |                |                           |  |  | BladPump   |                       |
| 11 FIELDQC                                   | 1                             | . 30905-GW-FB1-042016    | 4/20/201       | 6 i30!     | 5 BLKWATE                      | R WATER                        | Æ                             | 2             | jrab Y                    | ×                    | ×                      |                |                           |  |  | ~  |                       |
| 12 FIELDQC                                   | •                             | 30905-GW-RB1-042016      | 4/20/201       | 6 1316     | BLKWATE                        | R WATER                        | EB                            | 2             | jrab Y                    | ×                    | ×                      |                |                           |  |  |  |                       |
| Relinquished by                              |                               | MES Com                  | pany           |            | Received b                     |                                |                               |               |                           |                      | Compa                  | N CLA          | N Co                      | ndition                                | Custoo                                   | ly Seals Irtact  |                       |
|  | e<br>N                        | 4/20//pate/Time          | 0.0            |            | Ň                              |                                |                               |               |                           | Date/Tii             | ne                     | 41-111         | 22                        | oler Temp.                             |  |  |                       |
| Relinquished by                              |                               | Com                      | bany           |            | Received b                     |                                |                               |               |                           |                      | Compa                  | ny in          | Ŭ                         | ndition                                | Custoc                                   | ly Seals Irtact  |                       |
|  |                               | Date/Time                |                |            |                                |                                |                               |               |                           | Date/Til             | ne                     |                | ŏ                         | oler Temp.                             |  |  |                       |
| Preservatives: (Other                        | ; Specify):                   |                          |                |            | 0 (none); 1 (4<br>(pH<2), 4De( | H Deg C); 2 (H<br>C); 11 (4C h | HCI pH<2); 3 (<br>VaOH (pH>12 | HNO3 pH-      | <2); 4 (H2<br>ic Acid): 1 | SO4 pH<<br>12 (4C H2 | 2); 5 (NaC<br>SO4 (pH- | 0H pH>12); 6 ( | NaOH, Zn.<br>3): 13 (Zn.4 | Acetate); 7 (H2S(<br>cetate): sp (spec | O4 (pH<2), 4 Deg C<br>alal instructions) | )); 8 (HCI pH<2); 9 (HCI 4   | Deg C); 10 (HNO3      |

Appendix C Drainage Layer Sampling Program Data
Appendix C-1 Raw Laboratory Data—April 2016





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 Environmental 2425 New Holland Pike Lancaster, PA 17601 Honeywell International, Inc. 115 Tabor Road Morris Plains NJ 07950

Report Date: May 06, 2016

#### **Project: Baltimore Inner Harbor, MD**

Submittal Date: 04/26/2016 Group Number: 1654389 SDG: BHP58 PO Number: 4400025014 State of Sample Origin: MD

| Client Sample Description      |
|--------------------------------|
| 30905_DLF_1_042516 Grab Water  |
| 30905_DL_1_042516 Grab Water   |
| 30905_DLF_2_042516 Grab Water  |
| 30905_DL_2_042516 Grab Water   |
| 30905_DLF_3_042516 Grab Water  |
| 30905_DL_3_042516 Grab Water   |
| 30905_DLF_4_042516 Grab Water  |
| 30905_DL_4_042516 Grab Water   |
| 30905_DLF_4A_042516 Grab Water |
| 30905_DL_4A_042516 Grab Water  |
| 30905_DLDF_042516 Grab Water   |
| 30905_DLD_042516 Grab Water    |
| 30905_FBF_1_042516 Grab Water  |
| 30905_EBF_1_042516 Grab Water  |
| 30905_FB_1_042516 Grab Water   |
| 30905 EB 1 042516 Grab Water   |

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

Regulatory agencies do not accredit laboratories for all methods, analytes, and matrices. Our scopes of accreditation can be viewed at <u>http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/</u>.

| Electronic Copy To | CH2M Hill, Inc.               |
|--------------------|-------------------------------|
| Electronic Copy To | Honeywell International, Inc. |
| Electronic Copy To | Honeywell                     |
| Electronic Copy To | CH2M Hill, Inc.               |
| Electronic Copy To | CH2M Hill                     |
|                    |                               |

Attn: Bernice Kidd Attn: Honeywell HTS Attn: Katherine Beach Attn: Robert Steele Attn: Matt Gillis





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Respectfully Submitted,

Lay Yown

Kay Hower Manager

(510) 672-3979



# **Analysis Report**

LL Sample # WW 8351438

LL Group # 1654389

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

#### Sample Description: 30905\_DLF\_1\_042516 Grab Water Baltimore Inner Harbor

#### Project Name: Baltimore Inner Harbor, MD

Collected: 04/25/2016 12:05 by DG

Submitted: 04/26/2016 16:43 Reported: 05/06/2016 01:42 Account # 10651 Honeywell International, Inc. 115 Tabor Road

Morris Plains NJ 07950

#### 58B01 SDG#: BHP58-01

| CAT<br>No.             | Analysis Name                     |                          | CAS Number              | Result              | Method<br>Detection Limit* | Limit of<br>Quantitation | Dilution<br>Factor |
|------------------------|-----------------------------------|--------------------------|-------------------------|---------------------|----------------------------|--------------------------|--------------------|
| <b>Metals</b><br>07051 | Dissolved<br>Chromium             | SW-846                   | 6010B<br>7440-47-3      | <b>ug/l</b><br>N.D. | <b>ug/1</b><br>2.0         | <b>ug/l</b><br>10.0      | 1                  |
| Wet Ch<br>08255        | <b>emistry</b><br>Total Cyanide ( | <b>SW-846</b><br>(water) | <b>9012A</b><br>57-12-5 | <b>ug/l</b><br>N.D. | <b>ug/l</b><br>5.0         | <b>ug/l</b><br>10        | 1                  |

#### 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<br>No. | Analysis Name         |            | Method |       | Trial# | Batch#       | Analysis<br>Date and Ti | me    | Analyst         | Dilution<br>Factor |
|------------|-----------------------|------------|--------|-------|--------|--------------|-------------------------|-------|-----------------|--------------------|
| 07051      | Chromium              |            | SW-846 | 6010B | 2      | 161201848006 | 05/03/2016              | 08:48 | Joanne M Gates  | 1                  |
| 01848      | ICP-WW, 3005A (<br>U3 | tot rec) - | SW-846 | 3005A | 1      | 161201848006 | 05/02/2016              | 07:08 | James L Mertz   | 1                  |
| 08255      | Total Cyanide (       | water)     | SW-846 | 9012A | 1      | 16119117101A | 04/29/2016              | 11:42 | Brianna A White | 1                  |
| 08256      | Cyanide Water         |            | SW-846 | 9012A | 1      | 16119117101A | 04/28/2016              | 10:55 | Nancy J Shoop   | 1                  |



# **Analysis Report**

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

| Sample Description: 30905_DL_1_042516 Grab Water<br>Baltimore Inner Harbor | LL Sample # WW 8351439<br>LL Group # 1654389<br>Account # 10651 |
|--|---|
| Project Name: Baltimore Inner Harbor, MD                                   |   |
| Collected: 04/25/2016 12:05 by DG  | Honeywell International, Inc.                                   |
| Submitted: 04/26/2016 16:43  | 115 Tabor Road<br>Morris Plains NJ 07950                        |

58B02 SDG#: BHP58-02

Reported: 05/06/2016 01:42

| CAT<br>No.             | Analysis Name |        | CAS Number                | Result       | Method<br>Detection Limit* | Limit of<br>Quantitation | Dilution<br>Factor |
|------------------------|---------------|--------|---------------------------|--------------|----------------------------|--------------------------|--------------------|
| <b>Metals</b><br>07051 | Chromium      | SW-846 | <b>6010B</b><br>7440-47-3 | ug/l<br>30.1 | <b>ug/l</b><br>2.0         | <b>ug/l</b><br>10.0      | 1                  |

#### Sample Comments

| Laboratory Sample Analysis Record |                             |              |        |              |                         |       |                |                    |
|-----------------------------------|-----------------------------|--------------|--------|--------------|-------------------------|-------|----------------|--------------------|
| CAT<br>No.                        | Analysis Name               | Method       | Trial# | Batch#       | Analysis<br>Date and Ti | me    | Analyst        | Dilution<br>Factor |
| 07051                             | Chromium                    | SW-846 6010B | 2      | 161201848006 | 05/03/2016              | 09:09 | Joanne M Gates | 1                  |
| 01040                             | 102 - WW, SOUSA (LOC 100) - | 5W 040 5005A | 1      | 101201040000 | 03/02/2010              | 07.00 | balles i Merez | 1                  |



# **Analysis Report**

LL Sample # WW 8351440

LL Group # 1654389

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

#### Sample Description: 30905\_DLF\_2\_042516 Grab Water Baltimore Inner Harbor

#### Project Name: Baltimore Inner Harbor, MD

Collected: 04/25/2016 11:15 by DG

Submitted: 04/26/2016 16:43 Reported: 05/06/2016 01:42 Account # 10651 Honeywell International, Inc. 115 Tabor Road

Morris Plains NJ 07950

58B03 SDG#: BHP58-03

| CAT<br>No.             | Analysis Name                         |               | CAS Number              | Result              | Method<br>Detection Limit* | Limit of<br>Quantitation | Dilution<br>Factor |
|------------------------|---------------------------------------|---------------|-------------------------|---------------------|----------------------------|--------------------------|--------------------|
| <b>Metals</b><br>07051 | <b>Dissolved</b><br>Chromium          | SW-846        | 6010B<br>7440-47-3      | <b>ug/l</b><br>N.D. | <b>ug/1</b><br>2.0         | <b>ug/l</b><br>10.0      | 1                  |
| Wet Ch<br>08255        | <b>emistry</b><br>Total Cyanide (wate | <b>SW-846</b> | <b>9012A</b><br>57-12-5 | <b>ug/l</b><br>N.D. | <b>ug/1</b><br>5.0         | <b>ug/l</b><br>10        | 1                  |

#### 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<br>No. | Analysis Name       |             | Method |       | Trial# | Batch#       | Analysis<br>Date and Ti | me    | Analyst         | Dilution<br>Factor |
|------------|---------------------|-------------|--------|-------|--------|--------------|-------------------------|-------|-----------------|--------------------|
| 07051      | Chromium            |             | SW-846 | 6010B | 2      | 161201848006 | 05/03/2016              | 09:12 | Joanne M Gates  | 1                  |
| 01848      | ICP-WW, 3005A<br>U3 | (tot rec) - | SW-846 | 3005A | 1      | 161201848006 | 05/02/2016              | 07:08 | James L Mertz   | 1                  |
| 08255      | Total Cyanide       | (water)     | SW-846 | 9012A | 1      | 16119117101A | 04/29/2016              | 11:44 | Brianna A White | 1                  |
| 08256      | Cyanide Water       |             | SW-846 | 9012A | 1      | 16119117101A | 04/28/2016              | 10:55 | Nancy J Shoop   | 1                  |



# **Analysis Report**

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

| Sample Description: 30905_DL_2_042516 Grab Wa<br>Baltimore Inner Harbor | ter LL Sample # WW 8351441<br>LL Group # 1654389<br>Account # 10651 |
|---|---|
| Project Name: Baltimore Inner Harbor, MD                                |   |
| Collected: 04/25/2016 11:15 by DG                                       | Honeywell International, Inc.                                       |
| Submitted: 04/26/2016 16:43   | 115 Tabor Road<br>Morris Plains NJ 07950                            |

58B04 SDG#: BHP58-04

Reported: 05/06/2016 01:42

| CAT<br>No. | Analysis Name |        | CAS Number | Result | Method<br>Detection Limit* | Limit of<br>Quantitation | Dilution<br>Factor |
|------------|---------------|--------|------------|--------|----------------------------|--------------------------|--------------------|
| Metals     | Chromium      | SW-846 | 6010B      | ug/l   | <b>ug/l</b>                | <b>ug/l</b>              | 1                  |
| 07051      | Chromium      |        | 7440-47-3  | 43.9   | 2.0                        | 10.0                     | 1                  |

#### Sample Comments

| Laboratory Sample Analysis Record |                             |              |        |              |                         |       |                |                    |
|-----------------------------------|-----------------------------|--------------|--------|--------------|-------------------------|-------|----------------|--------------------|
| CAT<br>No.                        | Analysis Name               | Method       | Trial# | Batch#       | Analysis<br>Date and Ti | me    | Analyst        | Dilution<br>Factor |
| 07051                             | Chromium                    | SW-846 6010B | 2      | 161201848006 | 05/03/2016              | 09:22 | Joanne M Gates | 1                  |
| 01040                             | 102 - WW, SOUSA (LOC 100) - | 5W 040 5005A | ±      | 101201040000 | 03/02/2010              | 07.00 | balles i Merez | 1                  |



# **Analysis Report**

Account

LL Sample # WW 8351442

# 10651

LL Group # 1654389

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

#### Sample Description: 30905\_DLF\_3\_042516 Grab Water Baltimore Inner Harbor

#### Project Name: Baltimore Inner Harbor, MD

Collected: 04/25/2016 10:45 by DG

Submitted: 04/26/2016 16:43 Reported: 05/06/2016 01:42

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

#### 58B05 SDG#: BHP58-05

| CAT<br>No.             | Analysis Name                         |                     | CAS Number              | Result              | Method<br>Detection Limit* | Limit of<br>Quantitation | Dilution<br>Factor |
|------------------------|---------------------------------------|---------------------|-------------------------|---------------------|----------------------------|--------------------------|--------------------|
| <b>Metals</b><br>07051 | <b>Dissolved</b><br>Chromium          | SW-846              | 6010B<br>7440-47-3      | <b>ug/l</b><br>N.D. | <b>ug/1</b><br>2.0         | <b>ug/l</b><br>10.0      | 1                  |
| Wet Ch<br>08255        | <b>emistry</b><br>Total Cyanide (wate | <b>SW-846</b><br>r) | <b>9012A</b><br>57-12-5 | <b>ug/1</b><br>N.D. | <b>ug/1</b><br>5.0         | <b>ug/1</b><br>10        | 1                  |

#### 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<br>No. | Analysis Name              |       | Method |       | Trial# | Batch#       | Analysis<br>Date and Ti | me    | Analyst         | Dilution<br>Factor |
|------------|----------------------------|-------|--------|-------|--------|--------------|-------------------------|-------|-----------------|--------------------|
| 07051      | Chromium                   |       | SW-846 | 6010B | 2      | 161201848006 | 05/03/2016              | 09:25 | Joanne M Gates  | 1                  |
| 01848      | ICP-WW, 3005A (tot r<br>U3 | ec) - | SW-846 | 3005A | 1      | 161201848006 | 05/02/2016              | 07:08 | James L Mertz   | 1                  |
| 08255      | Total Cyanide (water       | )     | SW-846 | 9012A | 1      | 16119117101A | 04/29/2016              | 11:46 | Brianna A White | 1                  |
| 08256      | Cyanide Water              |       | SW-846 | 9012A | 1      | 16119117101A | 04/28/2016              | 10:55 | Nancy J Shoop   | 1                  |



# **Analysis Report**

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

### Sample Description: 30905\_DL\_3\_042516 Grab Water Baltimore Inner Harbor LL Sample # WW 8351443 LL Group # 1654389 Account # 10651 Project Name: Baltimore Inner Harbor, MD Collected: 04/25/2016 10:45 by DG Honeywell International, Inc. 115 Tabor Road

Reported: 05/06/2016 01:42 58B06 SDG#: BHP58-06

Submitted: 04/26/2016 16:43

| CAT<br>No. | Analysis Name |        | CAS Number | Result |   | Method<br>Detection Limit* | Limit of<br>Quantitation | Dilution<br>Factor |
|------------|---------------|--------|------------|--------|---|----------------------------|--------------------------|--------------------|
| Metals     | l             | SW-846 | 6010B      | ug/l   |   | ug/l                       | ug/l                     |                    |
| 07051      | Chromium      |        | 7440-47-3  | 4.8    | J | 2.0                        | 10.0                     | 1                  |

Morris Plains NJ 07950

#### Sample Comments

|                | Laboratory Sample Analysis Record     |                              |        |                              |                           |                |                                 |                    |  |  |
|----------------|---------------------------------------|------------------------------|--------|------------------------------|---------------------------|----------------|---------------------------------|--------------------|--|--|
| CAT<br>No.     | Analysis Name                         | Method                       | Trial# | Batch#                       | Analysis<br>Date and Time | e              | Analyst                         | Dilution<br>Factor |  |  |
| 07051<br>01848 | Chromium<br>ICP-WW, 3005A (tot rec) - | SW-846 6010B<br>SW-846 3005A | 2<br>1 | 161201848006<br>161201848006 | 05/03/2016<br>05/02/2016  | 09:29<br>07:08 | Joanne M Gates<br>James L Mertz | 1<br>1             |  |  |
|                | 113                                   |                              |        |                              | ,,                        |                |                                 |                    |  |  |



# **Analysis Report**

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

#### Sample Description: 30905\_DLF\_4\_042516 Grab Water Baltimore Inner Harbor

#### Project Name: Baltimore Inner Harbor, MD

Collected: 04/25/2016 08:42 by DG

Submitted: 04/26/2016 16:43 Reported: 05/06/2016 01:42 LL Group # 1654389 Account # 10651 Honeywell International, Inc.

LL Sample # WW 8351444

58B07 SDG#: BHP58-07

| CAT<br>No.             | Analysis Name                         |               | CAS Number                | Result              | Method<br>Detection Limit* | Limit of<br>Quantitation | Dilution<br>Factor |
|------------------------|---------------------------------------|---------------|---------------------------|---------------------|----------------------------|--------------------------|--------------------|
| <b>Metals</b><br>07051 | Dissolved<br>Chromium                 | SW-846        | <b>6010B</b><br>7440-47-3 | ug/l<br>15.6        | <b>ug/1</b><br>2.0         | <b>ug/l</b><br>10.0      | 1                  |
| Wet Ch<br>08255        | <b>emistry</b><br>Total Cyanide (wate | <b>SW-846</b> | <b>9012A</b><br>57-12-5   | <b>ug/l</b><br>N.D. | <b>ug/1</b><br>5.0         | <b>ug/l</b><br>10        | 1                  |

115 Tabor Road

Morris Plains NJ 07950

#### 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<br>No. | Analysis Name                 | :    | Method |       | Trial# | Batch#       | Analysis<br>Date and Ti | me    | Analyst         | Dilution<br>Factor |
|------------|-------------------------------|------|--------|-------|--------|--------------|-------------------------|-------|-----------------|--------------------|
| 07051      | Chromium                      |      | SW-846 | 6010B | 2      | 161201848006 | 05/03/2016              | 09:33 | Joanne M Gates  | 1                  |
| 01848      | ICP-WW, 3005A (tot re<br>U3   | c) - | SW-846 | 3005A | 1      | 161201848006 | 05/02/2016              | 07:08 | James L Mertz   | 1                  |
| 08255      | Total Cyanide (water)         |      | SW-846 | 9012A | 1      | 16124117101A | 05/05/2016              | 13:20 | Brianna A White | 1                  |
| 08256      | Cyanide Water<br>Distillation |      | SW-846 | 9012A | 1      | 16124117101A | 05/03/2016              | 09:15 | Nancy J Shoop   | 1                  |



# **Analysis Report**

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

| Sample Description: 30905_DL_4_042516 Grab Water<br>Baltimore Inner Harbor | LL Sample # WW 8351445<br>LL Group # 1654389<br>Account # 10651 |
|--|---|
| Project Name: Baltimore Inner Harbor, MD                                   |   |
| Collected: 04/25/2016 08:42 by DG  | Honeywell International, Inc.                                   |
| Submitted: 04/26/2016 16:43  | 115 Tabor Road<br>Morris Plains NJ 07950                        |

58B08 SDG#: BHP58-08

Reported: 05/06/2016 01:42

| CAT<br>No.             | Analysis Name |        | CAS Number         | Result       | Method<br>Detection Limit* | Limit of<br>Quantitation | Dilution<br>Factor |
|------------------------|---------------|--------|--------------------|--------------|----------------------------|--------------------------|--------------------|
| <b>Metals</b><br>07051 | Chromium      | SW-846 | 6010B<br>7440-47-3 | ug/l<br>16.9 | <b>ug/l</b><br>2.0         | <b>ug/l</b><br>10.0      | 1                  |

#### 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<br>No.     | Analysis Name                         | Method                       | Trial# | Batch#                       | Analysis<br>Date and Tim | ne             | Analyst                         | Dilution<br>Factor |  |  |
| 07051<br>01848 | Chromium<br>ICP-WW, 3005A (tot rec) - | SW-846 6010B<br>SW-846 3005A | 2<br>1 | 161201848006<br>161201848006 | 05/03/2016<br>05/02/2016 | 09:36<br>07:08 | Joanne M Gates<br>James L Mertz | 1<br>1             |  |  |
|                | 113                                   |                              |        |                              | 00/02/2010               | 07.00          |                                 |                    |  |  |

\*=This limit was used in the evaluation of the final result



# **Analysis Report**

LL Sample # WW 8351446

LL Group # 1654389

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

#### Sample Description: 30905\_DLF\_4A\_042516 Grab Water Baltimore Inner Harbor

#### Project Name: Baltimore Inner Harbor, MD

Collected: 04/25/2016 09:50 by DG

Submitted: 04/26/2016 16:43 Reported: 05/06/2016 01:42 Account # 10651 Honeywell International, Inc. 115 Tabor Road

Morris Plains NJ 07950

58B09 SDG#: BHP58-09

| CAT<br>No.             | Analysis Name                          |               | CAS Number              | Result              | Method<br>Detection Limit* | Limit of<br>Quantitation | Dilution<br>Factor |
|------------------------|--|---------------|-------------------------|---------------------|----------------------------|--------------------------|--------------------|
| <b>Metals</b><br>07051 | Dissolved<br>Chromium                  | SW-846        | 6010B<br>7440-47-3      | ug/l<br>23.7        | <b>ug/l</b><br>2.0         | <b>ug/l</b><br>10.0      | 1                  |
| Wet Ch<br>08255        | <b>emistry</b><br>Total Cyanide (wate: | <b>SW-846</b> | <b>9012A</b><br>57-12-5 | <b>ug/l</b><br>N.D. | <b>ug/l</b><br>5.0         | <b>ug/l</b><br>10        | 1                  |

#### 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<br>No. | Analysis Name                   | Method       | Trial# | Batch#       | Analysis<br>Date and Ti | me    | Analyst         | Dilution<br>Factor |
|------------|---------------------------------|--------------|--------|--------------|-------------------------|-------|-----------------|--------------------|
| 07051      | Chromium                        | SW-846 6010B | 2      | 161201848006 | 05/03/2016              | 09:40 | Joanne M Gates  | 1                  |
| 01848      | ICP-WW, 3005A (tot rec) -<br>U3 | SW-846 3005A | 1      | 161201848006 | 05/02/2016              | 07:08 | James L Mertz   | 1                  |
| 08255      | Total Cyanide (water)           | SW-846 9012A | 1      | 16124117101A | 05/05/2016              | 13:22 | Brianna A White | 1                  |
| 08256      | Cyanide Water<br>Distillation   | SW-846 9012A | 1      | 16124117101A | 05/03/2016              | 09:15 | Nancy J Shoop   | 1                  |



# **Analysis Report**

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

| Sample Description: 30905_DL_4A_042516 Grab Water<br>Baltimore Inner Harbor | LL Sample # WW 8351447<br>LL Group # 1654389<br>Account # 10651 |
|---|---|
| Project Name: Baltimore Inner Harbor, MD                                    |   |
| Collected: 04/25/2016 09:50 by DG   | Honeywell International, Inc.<br>115 Tabor Road                 |
| Submitted: 04/26/2016 16:43   | Morris Plains NJ 07950  |
| Reported: 05/06/2016 01:42  |   |

#### 58B10 SDG#: BHP58-10

| CAT<br>No.             | Analysis Name |        | CAS Number                | Result       | Method<br>Detection Limit* | Limit of<br>Quantitation | Dilution<br>Factor |
|------------------------|---------------|--------|---------------------------|--------------|----------------------------|--------------------------|--------------------|
| <b>Metals</b><br>07051 | Chromium      | SW-846 | <b>6010B</b><br>7440-47-3 | ug/l<br>45.8 | <b>ug/l</b><br>2.0         | <b>ug/l</b><br>10.0      | 1                  |

#### Sample Comments

|                | Laboratory Sample Analysis Record |                                |        |                              |                         |                |                                 |                    |
|----------------|-----------------------------------|--------------------------------|--------|------------------------------|-------------------------|----------------|---------------------------------|--------------------|
| CAT<br>No.     | Analysis Name                     | Method                         | Trial# | Batch#                       | Analysis<br>Date and Ti | me             | Analyst                         | Dilution<br>Factor |
| 07051<br>01848 | Chromium                          | SW-846 6010B<br>- SW-846 3005A | 2<br>1 | 161201848006<br>161201848006 | 05/03/2016              | 09:43<br>07:08 | Joanne M Gates<br>James L Mertz | 1                  |
| 01010          | U3                                |                                | -      | 101201010000                 | 05/02/2010              | 07.00          |                                 | -                  |



# **Analysis Report**

Account

LL Sample # WW 8351448

# 10651

LL Group # 1654389

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

#### Sample Description: 30905\_DLDF\_042516 Grab Water Baltimore Inner Harbor

#### Project Name: Baltimore Inner Harbor, MD

Collected: 04/25/2016 11:20 by DG

Submitted: 04/26/2016 16:43 Reported: 05/06/2016 01:42

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

#### 58B11 SDG#: BHP58-11FD

| CAT<br>No.             | Analysis Name                          |               | CAS Number              | Result              | Method<br>Detection Limit* | Limit of<br>Quantitation | Dilution<br>Factor |
|------------------------|--|---------------|-------------------------|---------------------|----------------------------|--------------------------|--------------------|
| <b>Metals</b><br>07051 | Dissolved<br>Chromium                  | SW-846        | 6010B<br>7440-47-3      | <b>ug/l</b><br>N.D. | <b>ug/l</b><br>2.0         | <b>ug/l</b><br>10.0      | 1                  |
| Wet Ch<br>08255        | <b>emistry</b><br>Total Cyanide (water | <b>SW-846</b> | <b>9012A</b><br>57-12-5 | <b>ug/l</b><br>N.D. | <b>ug/l</b><br>5.0         | <b>ug/l</b><br>10        | 1                  |

#### 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<br>No. | Analysis Name         |            | Method |       | Trial# | Batch#       | Analysis<br>Date and Ti | me    | Analyst         | Dilution<br>Factor |
|------------|-----------------------|------------|--------|-------|--------|--------------|-------------------------|-------|-----------------|--------------------|
| 07051      | Chromium              |            | SW-846 | 6010B | 1      | 161231848003 | 05/03/2016              | 20:46 | Suzanne M Will  | 1                  |
| 01848      | ICP-WW, 3005A (<br>U3 | tot rec) - | SW-846 | 3005A | 1      | 161231848003 | 05/03/2016              | 07:48 | James L Mertz   | 1                  |
| 08255      | Total Cyanide (       | water)     | SW-846 | 9012A | 1      | 16124117101A | 05/05/2016              | 13:24 | Brianna A White | 1                  |
| 08256      | Cyanide Water         |            | SW-846 | 9012A | 1      | 16124117101A | 05/03/2016              | 09:15 | Nancy J Shoop   | 1                  |



# **Analysis Report**

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

| Sample Description: 30905_DLD_042516 Grab Water<br>Baltimore Inner Harbor | LL Sample # WW 8351449<br>LL Group # 1654389<br>Account # 10651 |
|---|---|
| Project Name: Baltimore Inner Harbor, MD                                  |   |
| Collected: 04/25/2016 11:20 by DG   | Honeywell International, Inc.<br>115 Tabor Road                 |
| Submitted: 04/26/2016 16:43   | Morris Plains NJ 07950  |
| Reported: 05/06/2016 01:42  |   |

#### 58B12 SDG#: BHP58-12FD

| CAT<br>No.             | Analysis Name |        | CAS Number         | Result       | Method<br>Detection Limit* | Limit of<br>Quantitation | Dilution<br>Factor |
|------------------------|---------------|--------|--------------------|--------------|----------------------------|--------------------------|--------------------|
| <b>Metals</b><br>07051 | Chromium      | SW-846 | 6010B<br>7440-47-3 | ug/1<br>20.6 | <b>ug/l</b><br>2.0         | <b>ug/l</b><br>10.0      | 1                  |

#### Sample Comments

|            | Laboratory Sample Analysis Record |                |        |              |                          |       |                |                    |
|------------|-----------------------------------|----------------|--------|--------------|--------------------------|-------|----------------|--------------------|
| CAT<br>No. | Analysis Name                     | Method         | Trial# | Batch#       | Analysis<br>Date and Tim | me    | Analyst        | Dilution<br>Factor |
| 07051      | Chromium                          | SW-846 6010B   | 1      | 161231848003 | 05/03/2016               | 20:56 | Suzanne M Will | 1                  |
| 01848      | U3                                | - SW-846 3005A | Ţ      | 161231848003 | 05/03/2016               | 07:48 | James L Mertz  | T                  |



# **Analysis Report**

LL Sample # WW 8351450

LL Group # 1654389

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

#### Sample Description: 30905\_FBF\_1\_042516 Grab Water Baltimore Inner Harbor

#### Project Name: Baltimore Inner Harbor, MD

Collected: 04/25/2016 08:54 by DG

Submitted: 04/26/2016 16:43 Reported: 05/06/2016 01:42

### Account # 10651 Honeywell International, Inc.

#### 58B13 SDG#: BHP58-13FB

| CAT<br>No.             | Analysis Name                         |               | CAS Number              | Result              | Method<br>Detection Limit* | Limit of<br>Quantitation | Dilution<br>Factor |
|------------------------|---------------------------------------|---------------|-------------------------|---------------------|----------------------------|--------------------------|--------------------|
| <b>Metals</b><br>07051 | <b>Dissolved</b><br>Chromium          | SW-846        | 6010B<br>7440-47-3      | <b>ug/l</b><br>N.D. | <b>ug/1</b><br>2.0         | <b>ug/l</b><br>10.0      | 1                  |
| Wet Ch<br>08255        | <b>emistry</b><br>Total Cyanide (wate | <b>SW-846</b> | <b>9012A</b><br>57-12-5 | <b>ug/l</b><br>N.D. | <b>ug/l</b><br>5.0         | <b>ug/l</b><br>10        | 1                  |

115 Tabor Road

Morris Plains NJ 07950

#### 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<br>No. | Analysis Name               | Me      | ethod |       | Trial# | Batch#       | Analysis<br>Date and Ti | me    | Analyst         | Dilution<br>Factor |
|------------|-----------------------------|---------|-------|-------|--------|--------------|-------------------------|-------|-----------------|--------------------|
| 07051      | Chromium                    | SI      | W-846 | 6010B | 1      | 161231848003 | 05/03/2016              | 20:59 | Suzanne M Will  | 1                  |
| 01848      | ICP-WW, 3005A (tot re<br>U3 | c) - SI | W-846 | 3005A | 1      | 161231848003 | 05/03/2016              | 07:48 | James L Mertz   | 1                  |
| 08255      | Total Cyanide (water)       | SI      | W-846 | 9012A | 1      | 16124117101A | 05/05/2016              | 13:26 | Brianna A White | 1                  |
| 08256      | Cyanide Water               | SI      | W-846 | 9012A | 1      | 16124117101A | 05/03/2016              | 09:15 | Nancy J Shoop   | 1                  |



# **Analysis Report**

LL Sample # WW 8351451

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

#### Sample Description: 30905\_EBF\_1\_042516 Grab Water Baltimore Inner Harbor

#### Project Name: Baltimore Inner Harbor, MD

Collected: 04/25/2016 10:10 by DG

Submitted: 04/26/2016 16:43 Reported: 05/06/2016 01:42

### LL Group # 1654389 Account # 10651 Honeywell International, Inc.

58B14 SDG#: BHP58-14EB

| CAT<br>No.             | Analysis Name                         |               | CAS Number                | Result              | Method<br>Detection Limit* | Limit of<br>Quantitation | Dilution<br>Factor |
|------------------------|---------------------------------------|---------------|---------------------------|---------------------|----------------------------|--------------------------|--------------------|
| <b>Metals</b><br>07051 | Dissolved<br>Chromium                 | SW-846        | <b>6010B</b><br>7440-47-3 | <b>ug/l</b><br>N.D. | <b>ug/1</b><br>2.0         | <b>ug/l</b><br>10.0      | 1                  |
| Wet Ch<br>08255        | <b>emistry</b><br>Total Cyanide (wate | <b>SW-846</b> | <b>9012A</b><br>57-12-5   | <b>ug/l</b><br>N.D. | <b>ug/l</b><br>5.0         | <b>ug/l</b><br>10        | 1                  |

115 Tabor Road

Morris Plains NJ 07950

#### 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<br>No. | Analysis Name                 |        | Method |       | Trial# | Batch#       | Analysis<br>Date and Ti | me    | Analyst         | Dilution<br>Factor |
|------------|-------------------------------|--------|--------|-------|--------|--------------|-------------------------|-------|-----------------|--------------------|
| 07051      | Chromium                      |        | SW-846 | 6010B | 1      | 161231848003 | 05/03/2016              | 21:02 | Suzanne M Will  | 1                  |
| 01848      | ICP-WW, 3005A (tot<br>U3      | rec) - | SW-846 | 3005A | 1      | 161231848003 | 05/03/2016              | 07:48 | James L Mertz   | 1                  |
| 08255      | Total Cyanide (wate           | r)     | SW-846 | 9012A | 1      | 16124117101A | 05/05/2016              | 13:28 | Brianna A White | 1                  |
| 08256      | Cyanide Water<br>Distillation |        | SW-846 | 9012A | 1      | 16124117101A | 05/03/2016              | 09:15 | Nancy J Shoop   | 1                  |



# **Analysis Report**

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

| Sample Description: 30905_FB_1_042516 Grab Water<br>Baltimore Inner Harbor | LL Sample # WW 8351452<br>LL Group # 1654389<br>Account # 10651 |
|--|---|
| Project Name: Baltimore Inner Harbor, MD                                   |   |
| Collected: 04/25/2016 08:54 by DG  | Honeywell International, Inc.                                   |
| Submitted: 04/26/2016 16:43  | 115 Tabor Road<br>Morris Plains NJ 07950                        |

58B15 SDG#: BHP58-15FB

Reported: 05/06/2016 01:42

| CAT<br>No. | Analysis Name |        | CAS Number | Result | Method<br>Detection Limit* | Limit of<br>Quantitation | Dilution<br>Factor |
|------------|---------------|--------|------------|--------|----------------------------|--------------------------|--------------------|
| Metals     | <b>6</b>      | SW-846 | 6010B      | ug/l   | ug/1                       | <b>ug/l</b>              | 1                  |
| 07051      | CHEOMERUM     |        | /440-4/-3  | N.D.   | 2.0                        | 10.0                     | T                  |

#### Sample Comments

|            |                                 | Labora         | atory Sa | ample Analys: | is Record                 |                   |                    |
|------------|---------------------------------|----------------|----------|---------------|---------------------------|-------------------|--------------------|
| CAT<br>No. | Analysis Name                   | Method         | Trial#   | Batch#        | Analysis<br>Date and Time | Analyst           | Dilution<br>Factor |
| 07051      | Chromium                        | SW-846 6010B   | 1        | 161231848003  | 05/03/2016 21:            | 05 Suzanne M Will | 1                  |
| 01848      | ICP-WW, 3005A (tot rec) -<br>U3 | - SW-846 3005A | 1        | 161231848003  | 05/03/2016 07:            | 48 James L Mertz  | 1                  |



# **Analysis Report**

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

| Sample Description: 30905_EB_1_042516 Grab Water<br>Baltimore Inner Harbor | LL Sample # WW 8351453<br>LL Group # 1654389<br>Account # 10651 |
|--|---|
| Project Name: Baltimore Inner Harbor, MD                                   |   |
| Collected: 04/25/2016 10:10 by DG  | Honeywell International, Inc.                                   |
| Submitted: 04/26/2016 16:43  | 115 Tabor Road<br>Morris Plains NJ 07950                        |

58B16 SDG#: BHP58-16EB

Reported: 05/06/2016 01:42

| CAT<br>No. | Analysis Name |        | CAS Number | Result | Method<br>Detection Limit* | Limit of<br>Quantitation | Dilution<br>Factor |
|------------|---------------|--------|------------|--------|----------------------------|--------------------------|--------------------|
| Metals     | Chromium      | SW-846 | 6010B      | ug/l   | ug/1                       | <b>ug/l</b>              | 1                  |
| 07051      | CIIIOIIIIUII  |        | /440-4/-3  | N.D.   | 2.0                        | 10.0                     | T                  |

#### Sample Comments

|            |                               | Labor          | atory Sa | ample Analys: | is Record                 |                |                    |
|------------|-------------------------------|----------------|----------|---------------|---------------------------|----------------|--------------------|
| CAT<br>No. | Analysis Name                 | Method         | Trial#   | Batch#        | Analysis<br>Date and Time | Analyst        | Dilution<br>Factor |
| 07051      | Chromium                      | SW-846 6010B   | 1        | 161231848003  | 05/03/2016 21:08          | Suzanne M Will | 1                  |
| 01848      | ICP-WW, 3005A (tot rec)<br>U3 | - SW-846 3005A | 1        | 161231848003  | 05/03/2016 07:48          | James L Mertz  | 1                  |



**Analysis Report** 

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#### Quality Control Summary

Client Name: Honeywell International, Inc. Reported: 05/06/2016 01:42 Group Number: 1654389

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.

#### Method Blank

| Analysis Name                          | Result                            | MDL**                  | LOQ                   |
|--|-----------------------------------|------------------------|-----------------------|
|  | ug/l                              | ug/l                   | ug/l                  |
| Batch number: 161201848006             | Sample number(s):                 | 8351438-8351447        | 10.0                  |
| Chromium                               | N.D.                              | 2.0                    |                       |
| Batch number: 161231848003<br>Chromium | <pre>Sample number(s): N.D.</pre> | 8351448-8351453<br>2.0 | 10.0                  |
| Batch number: 16119117101A             | <pre>Sample number(s): N.D.</pre> | 8351438,8351440,83     | 51442                 |
| Total Cyanide (water)                  |                                   | 5.0                    | 10                    |
| Batch number: 16124117101A             | <pre>Sample number(s): N.D.</pre> | 8351444,8351446,83     | 51448,8351450-8351451 |
| Total Cyanide (water)                  |                                   | 5.0                    | 10                    |

#### LCS/LCSD

| Analysis Name |              | LCS Spike<br>Added<br>ug/l | LCS<br>Conc<br>ug/l | LCSD Spike<br>Added<br>ug/l | LCSD<br>Conc<br>ug/l | LCS<br>%REC | LCSD<br>%REC | LCS/LCSD<br>Limits | RPD | RPD<br>Max |
|---------------|--------------|----------------------------|---------------------|-----------------------------|----------------------|-------------|--------------|--------------------|-----|------------|
| Batch number: | 161201848006 | Sample number(s            | s): 8351438         | 8-8351447                   |                      |             |              |                    |     |            |
| Chromium      |              | 200                        | 196.16              |                             |                      | 98          |              | 80-120             |     |            |
| Batch number: | 161231848003 | Sample number(s            | 3): 8351448         | 8-8351453                   |                      |             |              |                    |     |            |
| Chromium      |              | 200                        | 205.89              |                             |                      | 103         |              | 80-120             |     |            |
|               |              | ug/l                       | ug/l                | ug/l                        | ug/l                 |             |              |                    |     |            |
| Batch number: | 16119117101A | Sample number(s            | s): 8351438         | 3,8351440,8351              | 442                  |             |              |                    |     |            |
| Total Cyanide | (water)      | 200                        | 204.7               |                             |                      | 102         |              | 90-110             |     |            |
| Batch number: | 16124117101A | Sample number(s            | s): 8351444         | 4,8351446,8351              | 448,835145           | 0-835145    | 51           |                    |     |            |
| Total Cyanide | (water)      | 200                        | 194.5               |                             |                      | 97          |              | 90-110             |     |            |

#### MS/MSD

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

| Analysis Name |              | Unspiked<br>Conc<br>ug/l | MS Spike<br>Added<br>ug/l | MS<br>Conc<br>ug/l | MSD Spike<br>Added<br>ug/l | MSD<br>Conc<br>ug/l | MS<br>%Rec | MSD<br>%Rec | MS/MSD<br>Limits | RPD | RPD<br>Max |
|---------------|--------------|--------------------------|---------------------------|--------------------|----------------------------|---------------------|------------|-------------|------------------|-----|------------|
| Batch number: | 161201848006 | Sample numb              | er(s): 8351               | 438-8353           | 1447 UNSPK: 8              | 3351438             |            |             |                  |     |            |

\*- 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.

P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.



**Analysis Report** 

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

#### Quality Control Summary

Client Name: Honeywell International, Inc. Reported: 05/06/2016 01:42 Group Number: 1654389

#### MS/MSD

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

| Analysis Name                  |                         | Unspiked<br>Conc<br>ug/l | MS Spike<br>Added<br>ug/l | MS<br>Conc<br>ug/l | MSD Spike<br>Added<br>ug/l | MSD<br>Conc<br>ug/l | MS<br>%Rec      | MSD<br>%Rec | MS/MSD<br>Limits | RPD | RPD<br>Max |
|--------------------------------|-------------------------|--------------------------|---------------------------|--------------------|----------------------------|---------------------|-----------------|-------------|------------------|-----|------------|
| Chromium                       |                         | N.D.                     | 200                       | 195.83             | 200                        | 195.61              | 98              | 98          | 75-125           | 0   | 20         |
| Batch number:<br>Chromium      | 161231848003            | Sample numbe<br>2.04     | er(s): 8351<br>200        | 448-8351<br>199.76 | 453 UNSPK: 200             | P351736<br>201.9    | 99              | 100         | 75-125           | 1   | 20         |
|                                |                         | ug/l                     | ug/l                      | ug/l               | ug/l                       | ug/l                |                 |             |                  |     |            |
| Batch number:<br>Total Cyanide | 16119117101A<br>(water) | Sample numbe<br>N.D.     | er(s): 8351<br>200        | 438,8351<br>206.2  | 440,8351442                | UNSPK: P            | 338734<br>103   |             | 72-114           |     |            |
| Batch number:<br>Total Cyanide | 16124117101A<br>(water) | Sample numbe<br>N.D.     | er(s): 8351<br>200        | .444,8351<br>186   | 446,8351448                | ,8351450-           | 8351451 t<br>93 | JNSPK: P    | 351566<br>72-114 |     |            |

#### Laboratory Duplicate

Background (BKG) = the sample used in conjunction with the duplicate

| Analysis Name                                       | BKG Conc                  | DUP Conc                     | DUP RPD             | DUP RPD Max          |         |
|---|---------------------------|------------------------------|---------------------|----------------------|---------|
|   | ug/l                      | ug/l                         |                     |                      |         |
| Batch number: 161201848006<br>Chromium              | Sample number(s):<br>N.D. | 8351438-8351447 BKG:<br>N.D. | 8351438<br>0 (1)    | 20                   |         |
| Batch number: 161231848003<br>Chromium              | Sample number(s):<br>2.04 | 8351448-8351453 BKG:<br>2.11 | P351736<br>3 (1)    | 20                   |         |
|   | ug/l                      | ug/l                         |                     |                      |         |
| Batch number: 16119117101A<br>Total Cyanide (water) | Sample number(s):<br>N.D. | 8351438,8351440,8351<br>N.D. | 442 BKG: P<br>0 (1) | 2338734<br>20        |         |
| Batch number: 16124117101A<br>Total Cyanide (water) | Sample number(s): N.D.    | 8351444,8351446,8351<br>N.D. | 448,835145<br>0 (1) | 0-8351451 BKG:<br>20 | P351566 |

\*- 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.

P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

# 16651/1654389/8351438-53

| Lancaster   | Labor         | atorie               | s                        |  |                | 1          |                                    | W 61         |               |         |                    | ********    |          |                  |          | () Constantine  |        |        |              |          |              |        |        |                |          | AESI Ref:                                       | 42485.46959   |
|---|---------------|----------------------|--------------------------|--|----------------|------------|------------------------------------|--------------|---------------|---------|--------------------|-------------|----------|------------------|----------|-----------------|--------|--------|--------------|----------|--------------|--------|--------|----------------|----------|---|---|
| 2425 New Holla<br>Lancaster, PA 1                         | nd Pike       | 25                   |                          |  |                | ION        | <b>eywe</b>                        |              | Chain         | Of C    | usto               | dy /        | Ana      | lysis            | Rec      | lues            | t      |        |              |          |              |        |        |                |          | COC#  | 30905-040815-<br>01   |
| (717) 656-2300  |               |                      |                          |  | Privileged &   | & Confiden | tial                               | N            | 1             |         | Site               | Namo        | •        | Balti            | more     |                 |        |        |              | Bha      |              | Τ      |        | ik di Baharong |          | Lab Proj # (SDG):                               |   |
| Sampling Co   | .: h          | Maryland             | l Environn               | nental Service                                     | EDD To:        | ·          | Locus Focus                        | EIM          |               |         | Loca               | tion o      | f Site:  | BAL              | TIMOF    | RE, MC          | )      |        |              | Sam      | piing<br>ram | +      |        |                |          | Lab ID  | LLI   |
| Client Conta  | ct: (nar      | ne, co.              | , addres                 | is)  | Sampler:       | Douge      | aciffith 1                         | Lein V.      | I. A.Po       | nahel   | il                 |             |          |                  |          |                 |        |        |              |          | Γ            | _      | Т      | Т              | Т        | Site ID   | BALTIMORE   |
| Christopher Frer  | ich           |                      |                          |  | PO #           | 44000250   | 014                                | A. V V V     |               |         | Prese              | rvative     | 3        | 5                |          | 1200            | X 500  | 939 (  | 1999<br>1997 | 1.573    |              |        |        | N 25           | ्रविषय   | Lab Job #                                       |   |
| Morris Plains N   | 107050        |                      |                          |  | Analysis T     | urnaround  | Time (TAT):                        |              | 14            |         |                    |             |          |                  |          |                 |        |        |              |          |              |        |        | 1              | 1        | Authorized User:                                | Honeywell   |
| Preliminary Dat<br>Sample Receipt                         | a To <u>n</u> | natthew.<br>natthew. | aillis@ch2<br>aillis@ch2 | m.com  |                | Consulta   | nt                                 |              | CH2M          |         | - <br>-            | nple ?      |          | Cyanide          |          |                 |        |        |              |          |              |        |        |                |          | Text & Excel File Drive                         | Excel & Text File<br>Order  |
| Hard Copy To  | anaion        | Aatt Gillis          | 5                        |  | 9              |            |                                    | l            |               |         | - ab               | San         | ir.      | otal             |          |                 |        |        |              |          | ĺ            |        |        |                |          |   |   |
| Invoice To:   |               | Christoph            | er French                | LID-04004  | Fi             | ull Report | TAT:                               |              | 28            |         | [e/G               | red         | hrom     | 0127             |          |                 |        |        |              |          |              |        |        |                |          |   |   |
|   | <u> </u>      | Samn                 | le Identifi              | cation   | Sample         | Sample     | Sample                             | Sample       | Sample        | # of    | omposit            | ield Filte  | W6010 CI | M9010/90<br>uto) |          |                 |        |        |              |          |              |        |        |                |          | Copyright AESI: Version<br>8.0 Unaulhorized use | Ô   |
|   |               | Start                | End                      |  | Puto           |            | 1,1,60                             | Madrix       | Tupose        | Cont.   |                    | <u>  u.</u> |          | S @              |          |                 |        | 1.23   | •<br>        | 1.50,525 |              |        |        | 4 1010         | -        | strictly prohibited.                            | <u> </u>  |
| Location II   | <u> </u>      | Depth<br>(ft)        | Depth<br>(ft)            | Field Sample ID                                    |                |            |                                    |              |               |         | Units              |             | ng/L     | ng/L             | 29<br>20 |                 |        |        |              |          |              |        |        |                |          | Sampling Method<br>(code)                       | Lab Sample<br>Numbers   |
| 1 SSMP  |               | 1.52                 | 4.60                     | 30905_DLF_1_042516                                 | 4/25/2016      | 12:05      | W-SW                               | WATER        | REG           | 2       | grab               | Y           | x        | x                |          |                 |        |        |              |          |              |        |        |                |          |   |   |
| 2 SSMP  | 1             | 1.52                 | 4.00                     | 30905_DL_1_042516                                  | 4/25/2016      | 12.05      | w-sw                               | WATER        | REG           | 1       | grab               | N           | x        |                  |          |                 |        |        |              |          |              |        |        |                |          |   |   |
| 3 SSMP  | 2 4           | 1.67                 | 4.45                     | 30905_DLF_2_042516                                 | 4/25/2016      | 11:15      | w-sw                               | WATER        | REG           | 2       | grab               | Y           | x        | x                |          |                 |        |        |              |          |              |        |        |                |          |   |   |
| 4 SSMP2   | 2 (           | 4.167                | 4.95                     | 30905_DL_2_042516                                  | 4/25/2016      | 11:15      | W-SW                               | WATER        | REG           | 1       | grab               | N           | x        |                  |          |                 |        |        |              |          |              |        |        |                | 1        |   |   |
| 5 SSMP3   | 3 12          | .50                  | 2.35                     | 30905_DLF_3_042516                                 | 4/25/2016      | 10:45      | w-sw                               | WATER        | REG           | 2       | arab               |             | x        | x                |          |                 |        |        |              |          |              |        |        |                |          |   |   |
| 6 SSMP3   | 3 2           | 250                  | 255                      | 30905_DL_3_042516                                  | 4/25/2016      | 10:45      | W-SW                               | WATER        | REG           | 1       | grab               | N           | x        |                  |          |                 |        |        |              |          |              |        |        |                | <u> </u> |   |   |
| 7 SSMP4   | 1 7           | 2.89                 | 7.87                     | 30905_DLF_4_042516                                 | 4/25/2016      | 8.42       | w-sw                               | WATER        | REG           | 2       | grab               | Y           | x        | x                |          |                 |        |        |              |          |              |        |        |                |          |   |   |
| 8 SSMP4   | 1             | 7.89                 | 7.87                     | 30905_DL_4_042516                                  | 4/25/2016      | 8:42       | W-SW                               | WATER        | REG           | 1       | grab               | N           | x        |                  |          |                 |        |        |              |          |              |        |        |                |          |   |   |
| 9 SSMP4.  | A 5           | 7.39                 | 7.29                     | 30905_DLF_4A_042516                                | 4/25/2016      | 9:50       | w-sw                               | WATER        | REG           | 2       | grab               | Y           | x        | х                |          |                 |        |        |              |          |              |        |        |                |          |   |   |
| 10 SSMP4  | A 7           | -34                  | 7.29                     | 30905_DL_4A_042516                                 | 4/25/2016      | 9:50       | w-sw                               | WATER        | REG           | 1       | grab               | N           | х        |                  |          |                 |        |        |              |          |              |        |        |                |          |   |   |
| 11 SSMP2  | 4             | 67                   | 4.95                     | 30905_DLDF_042516                                  | 4/25/2016      | 11:20      | W-SW                               | WATER        | FD            | 2       | grab               | Y           | x        | x                |          |                 |        |        |              |          |              |        |        |                |          |   |   |
| 12 SSMP2  | 4             | 1.107                | 4.95                     | 30905_DLD_042516                                   | 4/25/2016      | 11:20      | W-SW                               | WATER        | FD            | 1       | grab               | N           | х        |                  |          |                 |        |        |              |          |              |        |        |                |          |   |   |
| Relinguished by   |               |                      |                          | Company  | /              |            | Received by                        |              |               |         |                    |             |          | Com              | nanul    |                 | 0.1    | 1 10   | `ondi        | tion     |              | r      |        | Cust           | ody C.   |   |   |
| 0   | 1             | 2                    |                          | Date/Time  | MES            |            | A.                                 | 7            | 1. 0          |         |                    |             | ata/Tir  |                  | pany     | 04              | 1,5V   | 9      |              |          |              |        |        | Cusi           |          | sals intact                                     |   |
| Relinquished by   | art           | an                   | fiel                     | Company  | 4/25/10        | 12:50      | MA                                 | LA           | NS            | 2       |                    |             |          | Com              | l        | 1/25            | lvj. I | 24     |              | len      | ρ.           |        |        | Quet           |          | - to Internet                                   |   |
| MA  | Gir           | L-L-                 | -                        | Date/Time  | VIII VIII VIII | >          | 1Dth                               | l.           |               |         | cilizi             | lun D       | ate/Tir  | ne<br>Li Z       |          |                 |        |        | Coole        | Tem      | p.           |        |        | Cusi           | Juy Se   | Jais Intact                                     |   |
| Preservatives: (C   | Other: Sr     | ecifv):              | ſ                        |  |                |            | 0 (none); 1 (4 D<br>(nH<2), 4Dec C | eg C); 2 (H0 | Cl pH<2); 3 ( | (HNO3 p | H<2); 4<br>H<2); 4 | (H2SC       | 04 pH<   | 2); 5 (N         | aOH p    | H>12);<br>Na291 | 6 (Na  | OH, Zr | n Ace        | tate); 7 | ' (H29       | SO4 (p | oH<2), | 4 Deg          | C)); 8   | (HCl pH<2); 9 (HCl 4 De                         | g C); 10 (HNO3  |
| 100 e november and an |               |                      |                          | ански сурад на | 1              | Relin      | yo ished                           | l Bj         | Ø             | ł       | 4/2                | 6/1         | 6 (0     | » / a            | 4        | 3               |        |        |              |          | . (340       |        | Judi   |                |          |   | Na in a constant a cons |

Page 21 of 24 Patrs 4126/16 1643

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| La<br>242<br>Lan | ncaster Lab<br>New Holland P<br>aster, PA 17605 | oratorie<br>ike<br>-2425  | S                  |   |                         | one            | eywel                              |                              | Chain  | Of C               | usto                | dy / A              | Anal             | ysis                 | Req               | uest                |                  |                     |                    |                 |                    |                     |                 | dentan kena men | AESI Ref:<br>COC#   | 42485.47071<br>30905-40815-0           |
|------------------|---|---------------------------|--------------------|---|-------------------------|----------------|------------------------------------|------------------------------|--|--------------------|---------------------|---------------------|------------------|----------------------|-------------------|---------------------|------------------|---------------------|--------------------|-----------------|--------------------|---------------------|-----------------|-----------------|---|--|
|                  | 656-2300  |                           |                    |   | Privileged 8            | Confiden       | tial                               | N                            |  | -                  | Site N              | lame:               |                  | Baltir               | nore              |                     |                  |                     | Pha                | nse:            | Τ                  |                     |                 |                 | Lab Proj # (SDG):   | (##################################### |
| Sar              | pling Co.:                                      | Maryland                  | l Environm         | ental Service                                     | EDD To:                 |                | Locus Focus                        | EIM                          | and and a second se |                    | Locat               | ion of              | Site:            | BALT                 | MOR               | E, MD               |                  |                     | Sar<br>Pro         | npiing<br>aram  |                    |                     |                 |                 | Lab ID  | Li Li                                  |
| Clie             | nt Contact: (                                   | name, co.                 | , addres           | s)  | Sampler:                | Dougt          | riffith Lie                        | where A                      | mondo  |                    | 1                   |                     |                  |                      | 1                 | T                   | Т                | T                   | +                  | T               | +                  | Ī                   | Τ               | Γ               | Site ID   | BALTIMORE                              |
| Chri             | topher French                                   |                           |                    |   | PO#                     | 44000250       | )14                                |                              | Pervice  | free               | Preser              | vative              | 3                | 5                    | 0                 | 993 (               |                  | ् रह                | 1 223              | 8 395           | 3 443 C            | ্ৰ মহ               |                 | 1985            | Lab Job #   |  |
| 115<br>Mor       | abor Rd<br>s Plains N I 079                     | 50                        |                    |   | Analysis T              | urnaround      | Time (TAT):                        |                              | 14   |                    |                     |                     |                  |                      |                   |                     |                  |                     |                    |                 |                    |                     | 1               |                 | Authorized User:  | Honeywell                              |
| 120              | minary Data To                                  | matthew.                  | <u> gillis@ch2</u> | <u>m.com</u>                                      |                         | Consulta       | <u></u>                            |                              | CH2M   |                    |                     |                     |                  | de<br>de             |                   |                     |                  |                     |                    |                 |                    |                     |                 |                 |   | Excel & Text File                      |
| Sam              | ole Receipt                                     | matthew.                  | gillis@ch2         | <u>n.com</u>                                      |                         |                |                                    |                              |  |                    |                     | ple '               |                  | Syani                |                   |                     |                  |                     |                    |                 |                    |                     |                 |                 | Text & Excel File Drive   | Order                                  |
| Ack              | owledgement T                                   | 0                         |                    |   |                         |                |                                    |                              |  |                    | gp                  | Sam                 | Ę                | otal (               |                   |                     |                  |                     |                    |                 |                    |                     |                 |                 |   |  |
| inan             | Copy To   | Matt Gills                | s<br><u>Andrea</u> |   | Fu                      | II Report      | TAT:                               |                              | 28   |                    | e/Gr                | red                 | Iromi            | 12 T                 | 1                 |                     |                  |                     |                    | Í               |                    |                     |                 |                 |   |  |
|                  | ce to:  | Christopr                 | er French          | in an 1855 an | _                       |                | Т                                  |                              | r · · · · · · · ·  | 1                  | osit                | Filte               | IO CF            | 06/0                 |                   |                     |                  |                     |                    |                 |                    |                     |                 |                 |   | $\wedge$                               |
|                  |   | Samp                      | le Identific       | cation  | Sample<br>Date          | Sample<br>Time | Sample<br>Type                     | Sample<br>Matrix             | Sample<br>Purpose  | # of<br>Cont.      | Comp                | Field               | SW60             | SW901<br>(auto)      |                   |                     |                  |                     |                    |                 |                    |                     |                 |                 | Copyright AESI: Version<br>8.0 Unauthorized use<br>strictly prohibited. |  |
|                  | Location ID                                     | Depth<br>(ft)             | Depth<br>(ft)      | Field Sample ID                                   | 10.50                   |                |                                    |                              |  |                    | Units               |                     | ug/L             | ng/L                 |                   |                     |                  |                     |                    |                 |                    |                     |                 |                 | Sampling Method<br>(code)   | Lab Sample<br>Numbers                  |
| 1                | FIELD QC  | -                         |                    | 30905_FBF_1_042516                                | 4/25/2016               | 8:54           | BLKWATER                           | WATER                        | FB   | 2                  | grab                | γ                   | х                | x                    |                   |                     |                  |                     |                    |                 |                    |                     |                 |                 |   |  |
| 2                | FIELD QC  |                           |                    | 30905 EBF 1 042516                                | 4/25/2016               | 10:10          | BIKWATER                           | WATER                        | FB   | 2                  | areb                | v                   | x                | x                    |                   |                     | -                | 1                   |                    | 1               |                    | 1                   |                 |                 |   |  |
| 2                |   | -                         | ~                  |   | 4/05/2010               | CIGU           | BURNNER                            |                              | 20   |                    | grab                |                     |                  |                      |                   |                     |                  | +                   | +                  | -               |                    |                     |                 |                 |   |  |
| <u> </u>         | TILLDQO   |                           |                    | 30905_FB_1_042516                                 | 4/25/2016               | 0.51           | BLKWATER                           | WATER                        | FB   | 1                  | grab                | N                   | X                |                      |                   |                     |                  |                     |                    |                 |                    |                     |                 |                 |   |  |
| 4                | FIELDQC   | -                         |                    | 30905_EB_1_042516                                 | 4/25/2016               | 10:10          | BLKWATER                           | WATER                        | EB   | 1                  | grab                | N                   | X                |                      |                   |                     |                  |                     |                    | ļ               |                    | ļ                   |                 |                 |   |  |
| 5                |   |                           |                    |   |                         |                |                                    |                              |  |                    |                     |                     |                  |                      |                   |                     |                  |                     |                    |                 |                    |                     |                 |                 |   |  |
| 6                |   |                           |                    |   |                         |                |                                    |                              |  |                    |                     |                     |                  |                      |                   |                     |                  |                     |                    |                 |                    |                     |                 |                 |   |  |
| 7                |   |                           |                    |   |                         |                |                                    |                              |  |                    |                     |                     |                  |                      |                   |                     |                  |                     |                    |                 | 1                  |                     |                 |                 |   |  |
|                  |   |                           |                    |   |                         |                |                                    |                              | -  |                    |                     |                     |                  |                      |                   |                     |                  |                     |                    | 1               |                    |                     |                 |                 |   |  |
| -                |   |                           |                    |   |                         |                |                                    |                              |  |                    |                     |                     |                  |                      |                   |                     |                  | _                   |                    |                 |                    |                     |                 |                 |   |  |
| 9                |   |                           |                    |   |                         |                |                                    |                              |  |                    |                     |                     |                  |                      |                   |                     |                  | _                   |                    |                 |                    |                     |                 |                 |   |  |
| 10               |   |                           |                    |   |                         |                |                                    |                              |  |                    |                     |                     |                  |                      | _                 |                     |                  |                     |                    |                 | ļ                  |                     |                 |                 |   |  |
| -11-             |   |                           |                    |   |                         |                |                                    |                              |  |                    |                     |                     |                  |                      |                   |                     |                  |                     |                    | -               |                    |                     |                 |                 |   |  |
| 12               |   |                           |                    |   |                         |                |                                    |                              |  |                    |                     |                     |                  |                      |                   |                     |                  |                     |                    |                 |                    |                     |                 |                 |   |  |
|                  |   |                           |                    |   |                         |                |                                    |                              |  |                    |                     |                     |                  |                      | l                 | l                   |                  |                     |                    | 1               |                    | L                   | . 1             | I               | ······  |  |
| Relin            | uished by                                       |                           |                    | Compan  | MES                     |                | Received by                        |                              |  |                    |                     |                     |                  | Comp                 | bany              | CW?                 | LM               | Con                 | dition             |                 |                    |                     | Custo           | dy Se           | als Intact  |  |
| Û                | nundi   | Pent                      | hell               | Date/Time   | 4/25/10                 | 12:50          | MDo                                | 7                            |  |                    |                     | Da                  | te/Tim           | ie                   | 4                 | التدا               | 6 124            |                     | er Ter             | np.             |                    |                     |                 |                 |   |  |
| Relin            | uished by                                       |                           | )                  | Compan  | v cuar                  | ĩ              | Received by                        |                              |  |                    |                     |                     |                  | Comp                 | any               | - 4 19              | ×                | Con                 | dition             |                 |                    |                     | Custo           | dy Se           | als Intact  |  |
| iN               | AN  | 67                        |                    | Date/Time   | 4/2/16                  | 042            | WHA                                | 17                           |  |                    | 4/361               | 16 Da               | te/Tim<br>10斗    | 3                    |                   |                     |                  | Coo                 | er Ter             | np.             |                    |                     |                 | _               |   |  |
| Pres             | rvatives: (Other                                | ; Specify):               | ľ                  |   | , <u>An ann an Anna</u> |                | 0 (none); 1 (4 D<br>(pH<2), 4Deg C | eg C); 2 (H0<br>); 11 (4C Na | 0 pH<2); 3 (<br>0H_(pH>12)   | HNO3 p<br>) & Asco | H<2); 4<br>rbic Aci | (H2SO)<br>d); 12 (4 | 4 pH<2<br>4C H28 | 2); 5 (Na<br>604 (pl | aOH pl<br>- <2) & | -l>12); €<br>Na2S20 | (NaO⊦<br>⊃3); 13 | l, Zn Ac<br>(Zn Aci | etate);<br>etate); | 7 (H2<br>sp (sp | SO4 (p<br>ecial in | H<2), 4<br>structio | 4 Deg (<br>ons) | C)); 8 (        | HCI pH<2); 9 (HCI 4 D   | eg C); 10 (HNO3                        |
| (                |   | ale and the second second |                    |   | h / .                   |                |                                    | TVI                          | 11   | illa               | 1.                  | 0                   | 11               | ر ا                  |                   |                     |                  |                     |                    |                 |                    |                     |                 |                 |   |  |

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Lancaster Laboratories Environmental

### Sample Administration Receipt Documentation Log

Doc Log ID:

144304

Group Number(s): 1654389

Client: <u>Honeywell</u>

DT121

1

| Delivery Method: <u>ELL</u>       | <u>E Courier</u>     | Arrival Timestamp:     | <u>04/26/2016 16</u> | :43             |
|-----------------------------------|----------------------|------------------------|----------------------|-----------------|
| Number of Packages: <u>1</u>      |                      | Number of Projects:    | 1                    |                 |
| State/Province of Origin: MD      |                      |                        |                      |                 |
|                                   | Arrival Cond         | lition Summary         |                      |                 |
| Shipping Container Sealed:        | Yes                  | Sample IDs on COC n    | natch Containers:    | Yes             |
| Custody Seal Present:             | No                   | Sample Date/Times m    | atch COC:            | Yes             |
| Samples Chilled:                  | Yes                  | VOA Vial Headspace     | ≥ 6mm:               | N/A             |
| Paperwork Enclosed:               | Yes                  | Total Trip Blank Qty:  |                      | 0               |
| Samples Intact:                   | Yes                  | Air Quality Samples P  | resent:              | No              |
| Missing Samples:                  | No                   |                        |                      |                 |
| Extra Samples:                    | No                   |                        |                      |                 |
| Discrepancy in Container Qty on 0 | COC: No              |                        |                      |                 |
| Unpacked by Patrick Engle (3472   | ) at 18:36 on 04/26/ | /2016                  |                      |                 |
|                                   | Samples              | Chilled Details        |                      |                 |
| hermometer Types: DT = Dig        | ital (Temp. Bottle)  | IR = Infrared (Surface | Temp) All Tem        | peratures in °C |

Wet

Y

Loose/Bag

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DT

0.4

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Lancaster Laboratories Environmental

### **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  | Ē   | degrees Fahrenheit   |
| meq                 | milliequivalents   | lb.   | pound(s)   |
| g                   | gram(s)  | kg  | kilogram(s)  |
| μġ                  | microgram(s)   | mg  | milligram(s)   |
| mĹ                  | milliliter(s)  | Ľ   | liter(s)   |
| m3                  | cubic meter(s)   | μL  | microliter(s)  |
|                     |  | pg/L  | picogram/liter   |
| <                   | less than  |   |  |
| >                   | greater than   |   |  |
| ppm                 | parts per million - One ppm is equivalent to one<br>aqueous liquids, ppm is usually taken to be equivery close to a kilogram. For gases or vapors, | e milligram per k<br>uivalent to millig<br>one ppm is equ | kilogram (mg/kg) or one gram per million grams. For<br>rams per liter (mg/l), because one liter of water has a weight<br>ivalent to one microliter per liter of gas. |
| ppb                 | parts per billion  |   |  |
| Dry weight<br>basis | Results printed under this heading have been a concentration to approximate the value present  | adjusted for moi<br>t in a similar sar                    | sture content. This increases the analyte weight nple without moisture. All other results are reported on an   |

Laboratory Data Qualifiers:

- B Analyte detected in the blank
- C Result confirmed by reanalysis

as-received basis.

E - Concentration exceeds the calibration range

J (or G, I, X) - estimated value  $\geq$  the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)

P - Concentration difference between the primary and confirmation column >40%. The lower result is reported.

U - Analyte was not detected at the value indicated

V - Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference...

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods. Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

### Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) 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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Appendix C-2 Chain-of-Custody Records—April 2016

# 10651/1654389/8351438-53

|           | ancaster Lal      | boratorie    | es          |                       |                | NI             | Southern and the second se |                  |                   | -             |                     |         |                        |                |                  | Maidamaanaa      |                |                 | de constant de la con |          | irefendasian | decode of Second e |        |       |          | AESI Ref:  | 42485.46959                |
|-----------|-------------------|--------------|-------------|-----------------------|----------------|----------------|--|------------------|-------------------|---------------|---------------------|---------|------------------------|----------------|------------------|------------------|----------------|-----------------|---|----------|--------------|--------------------|--------|-------|----------|--|----------------------------|
| 24:       | 25 New Holland I  | Pike         |             |                       |                | lone           | <b>wwe</b>   |                  | Chain             | of C          | usto                | dy /    | Ana                    | lysis          | Req              | ues              | t              |                 |   |          |              |                    |        |       |          | COC#   | 30905-040815-              |
| L.a       | ncaster, PA 1760  | 5-2425       |             |                       |                |                |  |                  |                   |               |                     |         |                        | -              |                  |                  |                |                 |   |          |              |                    |        |       |          |  | 01                         |
| (71       | 17) 656-2300      | •            |             |                       | Privileged &   | & Confiden     | tial   | N                |                   |               | Site                | Name    | :                      | Balti          | more             |                  |                |                 | F   | hase     |              |                    |        |       |          | Lab Proj # (SDG):  |                            |
| Sa        | ampling Co.:      | Marylan      | d Environr  | mental Service        | EDD To:        |                | Locus Focus  | EIM              | -                 |               | Loca                | tion o  | f Site:                | BALT           | TIMOR            | E, ME            |                |                 | S   | ampi     | ing<br>Im    |                    |        |       |          | Lab ID   | LLI                        |
| CI        | ient Contact:     | (name, co    | ., addre    | ss)                   | Sampler:       | Downle         | riffin 1   | in M             | I A Pai           | in ho         | 1                   |         | 1                      |                |                  | -                |                | Т               | Ť   | T        | _            |                    |        |       |          | Site ID  | BALTIMORE                  |
| <u>Ch</u> | ristopher French  |              |             |                       | PO #           | 44000250       | )14  | A. WI VI         | 17 .10            | VILLIE        | Prese               | rvative | 3                      | 5              |                  | 93               | 1999)<br>1997) |                 |   | 5788 C   | 1993         | 1922               | -0305  |       | 2023     | Lab Job #  |                            |
| 115       | 5 Tabor Rd        | 050          |             |                       | Analysis 1     | urnaround      | Time (TAT):  |                  | 14                |               |                     |         |                        |                |                  |                  |                |                 |   |          |              | _                  |        |       |          | Authorized User:   | Honeywell                  |
| GIG       | aliminary Data To | o mailhew    | .gillis@ch  | 2m.com                |                | Consultar      | nt   |                  | CH2M              |               |                     |         |                        | a              |                  |                  |                |                 |   |          |              |                    |        |       |          |  |                            |
| Sa        | mple Receipt      | matthew      | .gillis@ch  | 2 <u>m.com</u>        |                |                |  |                  |                   |               |                     | ple ?   |                        | yanid          |                  |                  |                |                 |   |          |              |                    |        |       |          | Text & Excel File Drive  | Excel & Text File<br>Order |
| <u>40</u> | knowledgement     | To           |             |                       |                |                |  |                  |                   |               | - e                 | Sam     | Ę                      | otal (         |                  |                  |                |                 |   |          |              |                    |        |       |          |  |                            |
| ria       | rd Copy 10        | Matt Gill    | 15<br>      | Dadimona 160-04004    | Fi             | Il Report 1    | AT:  |                  | 28                |               | Gra                 | ed      | romi                   | 12 Tc          |                  |                  |                |                 |   |          |              |                    |        |       |          |  |                            |
| niv.      | oice to:          | Christop     | ner Frenci  |                       |                |                |  |                  | r                 | - <u>1</u>    | osite               | ilter   | ь<br>С                 | 06/0           |                  |                  |                |                 |   |          |              |                    |        |       |          |  | $\wedge$                   |
|           |                   | Sam          | ple Identif | fication              | Sample<br>Date | Sample<br>Time | Sample<br>Type   | Sample<br>Matrix | Sample<br>Purpose | # of<br>Cont. | Compe               | Field F | SW601                  | SW901<br>auto) |                  |                  |                |                 |   |          |              |                    |        |       |          | Copyright AESI: Version<br>8.0 Unauthorized use<br>strictly prohibited |                            |
|           | Location ID       | Start        | End         |                       |                |                |  |                  |                   |               |                     |         |                        |                |                  |                  |                |                 |   | 8        |              |                    |        |       |          |  |                            |
|           | Location ID       | (ft)         | (ft)        | Field Sample ID       |                |                |  |                  |                   |               | Units               |         | 1g/L                   | 1/6r           | N                |                  |                |                 |   |          |              |                    |        |       |          | Sampling Method<br>(code)  | Lab Sample<br>Numbers      |
| 1         | SSMP1             | 4.52         | 4.60        | 30905_DLF_1_042516    | 4/25/2016      | 12:05          | w-sw   | WATER            | REG               | 2             | grab                | Y       | X                      | x              |                  |                  |                |                 |   |          |              |                    |        |       |          |  |                            |
| 2         | SSMP1             | 4.52         | 4.00        | 30905 DL 1 042516     | 4/25/2016      | 12.05          | W-SW   | WATER            | REG               | 1             | arab                | N       | X                      |                |                  |                  |                |                 |   |          |              |                    |        |       |          |  |                            |
| 3         | SSMP2             | 4.67         | 4.95        | 30905 DLF 2 042516    | 4/25/2016      | 11:15          | W-SW   | WATER            | REG               | 2             | grab                |         | 1 x                    | x              |                  |                  |                |                 |   |          |              |                    |        |       |          |  |                            |
| 4         | SSMP2             | 4.67         | 4.95        | 30905_DL_2_042516     | 4/25/2016      | 11:15          | W-SW   | WATER            | REG               | 1             | grab                | N       | x                      |                |                  |                  |                |                 |   |          |              |                    |        |       |          |  | ······                     |
| 5         | SSMP3             | 2.50         | 235         | 30905_DLF_3_042516    | 4/25/2016      | 10:45          | W-SW   | WATER            | REG               | 2             | grab                | Y       | x                      | x              |                  |                  |                |                 |   |          |              |                    |        |       |          |  |                            |
| 6         | SSMP3             | 2.50         | 255         | 30905_DL_3_042516     | 4/25/2016      | 10:45          | W-SW   | WATER            | REG               | 1             | grab                | N       | x                      |                |                  |                  |                |                 |   |          |              |                    |        |       |          |  |                            |
| 7         | SSMP4             | 7.89         | 7.87        | 30905_DLF_4_042516    | 4/25/2016      | 8.42           | W-SW   | WATER            | REG               | 2             | grab                | Y       | x                      | x              |                  |                  |                |                 |   |          |              |                    |        |       |          |  |                            |
| 8         | SSMP4             | 7.89         | 7.87        | 30905_DL_4_042516     | 4/25/2016      | 8:42           | W-SW   | WATER            | REG               | 1             | grab                | N       | x                      |                |                  |                  |                |                 |   |          |              |                    |        |       |          |  |                            |
| 9         | SSMP4A            | 7.31         | 7.21        | 30905_DLF_4A_042516   | 4/25/2016      | 9:50           | W-SW   | WATER            | REG               | 2             | grab                | Y       | x                      | x              |                  |                  |                |                 |   |          |              |                    |        |       |          |  |                            |
| 10        | SSMP4A            | 7.34         | 7.29        | 30905_DL_4A_042516    | 4/25/2016      | 9:50           | W-SW   | WATER            | REG               | 1             | grab                | N       | x                      |                |                  |                  |                |                 |   |          |              |                    |        |       |          |  |                            |
| 11        | SSMP2             | 4.67         | 4.95        | 30905_DLDF_042516     | 4/25/2016      | 11:20          | W-SW   | WATER            | FD                | 2             | grab                | Y       | x                      | x              |                  |                  |                |                 |   |          |              |                    |        |       |          |  |                            |
| 12        | SSMP2             | 4.67         | 4.95        | 30905_DLD_042516      | 4/25/2016      | 11:20          | W-SW   | WATER            | FD                | 1             | grab                | N       | х                      |                |                  |                  |                |                 |   |          |              |                    |        |       |          |  |                            |
| Reli      | nquished by       |              |             | Company               | MES            |                | Received by  |                  |                   |               |                     |         |                        | Comp           | bany             | r A              | 21             | h IC            | onditio   | n        |              |                    |        | Custo | dy Se    | als Intact   |                            |
| $\Box$    | mand              | Par          | hal         | Date/Time             | 4/25/16        | 12:450         | Man  |                  | No                | )             |                     | D       | ate/Tir                | ne             |                  | ila:             | ha V           | 24:9            | oler 1  | emp.     |              |                    |        |       |          | L  |                            |
| Reli      | nquished by       |              | 0           | Company               | CUN            | n.             | Received by  |                  |                   | <u> </u>      |                     |         |                        | Comp           | bany             | μm               | 146            |                 | onditio   | n        |              |                    |        | Custo | dy Se    | als Intact   |                            |
| N         | NA (              | 3, Villes    | ¢.          | Date/Time<br>4)201110 | VOL!           | 2              | KLA  | e                |                   |               | 4/361               | 100     | ate/Tir<br><i>i' b</i> | ne<br>4Z       | /                |                  |                | C               | oler T  | emp.     |              |                    |        |       |          |  |                            |
| Pres      | servatives: (Othe | r; Specify); |             |                       |                |                | 0 (none); 1 (4 D<br>(pH<2), 4Dea C   | eg C); 2 (Ho     | CI pH<2); 3 (     | (HNO3 p       | H<2); 4<br>rbic Aci | (H2SC   | 04 pH<<br>(4C H2       | 2); 5 (N       | aOH pl<br>H<2) & | -1>12);<br>Na2S2 | 6 (Na(         | DH, Zn<br>3 (Zn | Acetat  | e); 7 (l | H2SC         | 14 (pH             | <2), 4 | Dag C | C)); 8 ( | HCI pH<2); 9 (HCI 4 De   | g C); 10 (HNO3             |
|           |                   |              |             |                       |                | Relin          | quisted  | 1 31             | A                 | lik           | 4/3                 | 6/1     | 60                     | e /6           | <i>,4</i>        | 3                |                | `,,             |   | No.      |              |                    |        |       |          | dada aan oo cataa cataa mad ya syaqaya ya da                           |                            |

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Pats 4126/16 1643

# 10651 | 1654389 | 8351438-53

| Lan<br>2425 | ncaster Lab<br>New Holland Pi          | oratoria<br>ike | )S                |                    |                | n              | AMA                                |                              | Chain                     | Of C               | usto                 | dv /             | Ana              | lvsis               | Re            | rues             | t                   |                  |                |                    |              |                    |                   |                 |          | AESI Ref:<br>COC#                               | 42485.47071<br>30905-40815- |
|-------------|--|-----------------|-------------------|--------------------|----------------|----------------|------------------------------------|------------------------------|---------------------------|--------------------|----------------------|------------------|------------------|---------------------|---------------|------------------|---------------------|------------------|----------------|--------------------|--------------|--------------------|-------------------|-----------------|----------|---|-----------------------------|
| Lanc        | aster, PA 17605                        | -2425           |                   |                    |                |                |                                    |                              |                           |                    |                      |                  |                  | .,                  |               | 1                | •                   |                  |                |                    |              |                    |                   |                 |          |   |                             |
| (717)       | 656-2300                               |                 |                   |                    | Privileged 8   | Confiden       | tial                               | N                            |                           |                    | Site                 | Name             |                  | Balt                | imore         |                  |                     |                  |                | Phas               | ۵.           | Τ                  |                   |                 |          | Lab Proj # (SDG):                               |                             |
| Sam         | pling Co.:                             | Marylan         | d Environr        | mental Service     | EDD To:        |                | Locus Focus                        | EIM                          |                           |                    | Loca                 | tion o           | f Site:          | BAL                 | тімо          | RE, MI           | >                   |                  |                | Samp<br>Progr      | nng<br>ram   | -                  |                   |                 |          | Lab ID  | LLI                         |
| Clie        | nt Contact: (I                         | name, co        | ., addres         | ss)                | Sampler:       | Dought         | Miffith Li                         | and a                        | Amendo                    |                    |                      |                  | T                |                     |               |                  |                     |                  |                | Ť                  |              | +                  | Τ                 | Τ               | Γ        | Site ID   | BALTIMOR                    |
| Chris       | topher French                          |                 |                   |                    | PO#            | 44000250       | 014                                |                              | Pierce                    | Fel                | Prese                | rvative          | 3                | 5                   | 0             |                  | 59.54 S             |                  | 1992           |                    | 323          |                    | 110               | 14.50           | 1.58     | Lab Job #                                       |                             |
| 115 T       | abor Rd                                | 50              |                   |                    | Analysis T     | urnaround      | Time (TAT):                        |                              | 14                        |                    |                      |                  |                  |                     | 1             |                  |                     |                  |                |                    |              | <b></b>            |                   |                 |          | Authorized User:                                | Honeywell                   |
| Hall        | minary Data To                         | matthew         | aillis@ch         | <u>2m.com</u>      |                | Consulta       | nt                                 |                              | CH2M                      |                    | -                    |                  |                  | e                   |               |                  |                     |                  |                |                    |              |                    |                   |                 |          |   | Excel & Text E              |
| Samı        | ole Receipt                            | matthew         | aillis@ch         | 2m.com             |                |                |                                    |                              |                           |                    | -                    | ole 3            |                  | yani                |               |                  |                     |                  |                |                    |              |                    |                   |                 |          | Text & Excel File Drive                         | Order                       |
| Ackn        | owledgement T                          | 0               | in the option     | etineenit          |                |                |                                    |                              |                           |                    | ٩                    | amp              | E                | tal<br>C            |               |                  |                     |                  |                |                    |              |                    |                   |                 |          |   |                             |
| Hard        | Сору То                                | Matt Gill       | is<br>No Oliver ( | D-//               | Fu             | II Report      | TAT:                               |                              | 28                        |                    | Gra                  | Sbe              | omiu             | 2 To                |               |                  |                     |                  |                |                    |              |                    |                   |                 |          |   |                             |
| nvoi        | ce To:                                 | Christop        | her Frenci        | h                  |                |                |                                    |                              |                           |                    | site                 | lter             | Ч.               | /901                |               |                  |                     |                  |                |                    |              |                    |                   |                 |          |   | ٨                           |
|             |  | Sami            | ole Identif       | fication           | Sample<br>Date | Sample<br>Time | Sample<br>Type                     | Sample<br>Matrix             | Sample                    | # of               | odmo                 | ield Fi          | W6010            | W9010<br>auto)      |               |                  |                     |                  |                |                    |              |                    |                   |                 |          | Copyright AESI; Version<br>8.0 Unauthorized use |                             |
|             |  | Start           | End               |                    |                |                |                                    |                              |                           |                    | Ī                    | 1 11-            | 0                | 0.0                 |               |                  |                     |                  |                |                    | 533          |                    |                   |                 |          | stactly promoted,                               |                             |
|             | Location ID                            | Depth<br>(ft)   | Depth<br>(ft)     | Field Sample ID    |                |                |                                    |                              |                           |                    | Units                |                  | ng/L             | -l/gu               |               |                  |                     |                  |                |                    |              |                    |                   |                 |          | Sampling Method<br>(code)                       | Lab Sample<br>Numbers       |
| 1           | FIELD QC                               | -               |                   | 30905_FBF_1_042516 | 4/25/2016      | 8:54           | BLKWATER                           | WATER                        | FB                        | 2                  | grab                 | Y                | x                | x                   |               |                  |                     |                  |                |                    |              |                    |                   |                 |          |   |                             |
| 2           | FIELD QC                               |                 |                   | 30905_EBF_1_042516 | 4/25/2016      | 10:10          | BLKWATER                           | WATER                        | EB                        | 2                  | grab                 | Y                | x                | х                   |               |                  |                     |                  |                |                    |              |                    |                   |                 |          |   |                             |
| 3           | FIELDQC                                |                 | -                 | 30905_FB_1_042516  | 4/25/2016      | 8:54           | BLKWATER                           | WATER                        | FB                        | 1                  | grab                 | N                | x                |                     |               |                  |                     |                  |                |                    |              |                    |                   |                 |          |   |                             |
| 4           | FIELDQC                                |                 |                   | 30905_EB_1_042516  | 4/25/2016      | 10:10          | BLKWATER                           | WATER                        | EB                        | 1                  | grab                 | N                | x                |                     |               |                  |                     |                  |                |                    |              |                    |                   |                 |          |   |                             |
| 5           |  |                 |                   |                    |                |                |                                    |                              |                           |                    |                      |                  |                  |                     |               |                  |                     |                  |                |                    |              |                    |                   |                 |          |   |                             |
| 6           |  |                 |                   |                    |                |                |                                    |                              |                           |                    |                      |                  |                  |                     |               |                  |                     |                  |                |                    |              |                    |                   |                 |          |   |                             |
| 7           |  |                 |                   |                    |                |                |                                    |                              |                           |                    |                      |                  |                  |                     |               |                  |                     |                  |                |                    |              |                    |                   |                 |          |   |                             |
| 8           |  |                 |                   |                    |                |                |                                    |                              |                           |                    |                      |                  |                  |                     |               |                  |                     |                  |                |                    |              |                    |                   |                 |          |   |                             |
| 9           |  |                 |                   |                    |                |                |                                    |                              |                           |                    |                      |                  |                  |                     |               |                  |                     |                  |                |                    |              |                    |                   |                 |          |   |                             |
| 10          |  |                 |                   |                    |                |                |                                    |                              |                           |                    |                      |                  |                  |                     |               |                  |                     |                  |                |                    |              |                    |                   |                 |          |   |                             |
| 11          | AND TO BE PERFORMENTS TO PPOP V 1940-1 |                 |                   |                    |                |                |                                    |                              |                           |                    |                      |                  |                  |                     |               |                  |                     |                  |                |                    |              |                    |                   |                 |          |   |                             |
| 12          |  |                 |                   |                    |                |                |                                    |                              |                           |                    |                      |                  |                  |                     |               |                  |                     |                  |                |                    |              |                    |                   |                 |          |   |                             |
|             |  |                 | I                 | I                  |                | L              |                                    | L                            | 1                         | I                  | I                    | I                | 1                |                     | 1             |                  |                     | [                |                | l                  |              |                    | I                 | []              | 1        | I   |                             |
| {elinq      | luished by                             |                 |                   | Company            | MES            |                | Received by                        |                              |                           |                    |                      |                  |                  | Corr                | npany         | CH               | NN                  | ) [C             | onditi         | on                 |              |                    |                   | Custo           | dy Se    | als Intact                                      |                             |
| U           | nunde                                  | Pent            | fiel              | Date/Time          | 4/25/12        | 12:50          | Mar                                | ~                            |                           |                    |                      | D                | ate/Ti           | me                  |               | 1125             | 14,10               | KE C             | ooler          | Temp               | ).           |                    |                   |                 |          |   |                             |
| Relinq      | uished by                              | (               | )                 | Company            | CUDA           | r              | Received by                        | ,                            |                           |                    |                      |                  |                  | Corr                | npany         |                  | 1.942               | С                | onditi         | on                 |              |                    |                   | Custo           | dy Se    | als Intact                                      |                             |
| N           | LAN                                    | 67              | •                 | Date/Time          | 4/2/16         | 1042           | KLAA                               | R                            |                           |                    | 4/30                 | <u>/16 D</u>     | ate/Ti           | me<br>42-           |               |                  |                     | С                | ooler          | Temp               | ).           |                    |                   |                 |          |   |                             |
| rese        | rvatives: (Other                       | ; Specify):     |                   |                    |                |                | 0 (none); 1 (4 E<br>(pH<2), 4Deg C | Deg C); 2 (H<br>C); 11 (4C N | CI pH<2); 3<br>aOH (pH>12 | (HNO3 p<br>) & Asc | oH<2); 4<br>orbic Ac | (H2S0<br>id); 12 | 04 pH<<br>(4C H2 | 2); 5 (1<br>2SO4 (p | vaOH<br>oH<2) | oH>12)<br>& Na2S | ; 6 (Nat<br>2O3); 1 | OH, Zn<br>13 (Zn | Aceta<br>Aceta | ate); 7<br>te); sp | (H2S<br>(spe | 604 (p<br>cial in: | H<2),<br>structio | 4 Deg (<br>ins) | C)); 8 ( | HCI pH<2); 9 (HCI 4 De                          | g C); 10 (HNO3              |
|             |  |                 |                   |                    | Ď (            |                | I A A                              |                              | AB                        | 4/2                | 6/10                 | ; (A             | 164              | Z                   |               |                  |                     |                  |                |                    |              |                    |                   |                 |          |   |                             |
|             |  |                 |                   |                    | Kell           | ngun           | nia 121                            | RH                           | A.                        | 11 00              | -/14                 |                  | 1~1              | )                   |               |                  | $\wedge$            | 1 11             |                | . /                |              | ,                  |                   |                 |          |   |                             |
|             |  |                 |                   |                    |                | χ              | V                                  | ~                            |                           |                    |                      |                  |                  |                     |               | V                |                     | 1Ľ               |                | $\omega$           | 20           | 11                 | 1                 | LE              | 2        |   |                             |

C1975

PMAS 4/26/16 1643

Appendix C-3 Field Report—April 2016

# BALTIMORE INNER HARBOR DRAINAGE LAYER MONITORING

April 25, 2016





### **METER CALIBRATION LOG**



# **FIELD NOTES**

| Developes Contracts Survey Attent markers MMWDA Potente<br>To's Attent markers MMWDA Potente<br>To's Attent markers MMWDA Potente<br>To's Attent markers MMWDA Potente<br>Same at the Sogno DL-1 Attent oyests<br>Same at the Sogno DL-1 Attent oyests<br>Same at the attent oyests<br>Same at the attent oyests<br>Same at the sogno DL-1 Attent oyests<br>Same at the sogno DL-2 Attent oyests<br>Same at the attent oyests<br>Same attent oyests<br>Same at the attent oyests<br>Same attent oyests<br>S                 | BITT DRAWAGE LAYIOR SAMPING        |         |      | 4/2   | 5/20    | 516 |                   |        |
|---|------------------------------------|---------|------|---|---------|-----|-------------------|--------|
| Acompted Calonality Structure<br>To's Calonality Structure<br>To's Calonality Structure<br>To's Calonality Structure<br>SAMPLE CALCENDA THE STORE USE<br>SAMPLE TO CALCE USE<br>SAMPLE TO CALCE USE<br>SAMPLE TO NOW<br>ORP: 111 MA<br>TORE: 170 NOW<br>ORP: 111 MA<br>TORE: 27.09°C<br>SAMPLE TO SAMPLE STORE USE<br>SAMPLE TO CALCENDE THE STORE USE<br>SAMPLE TO DE SAMPLE COMPANY OF STORE USE  |                                    | DOUGHA  | 5 (  | THI FEI                                       | 711     | ł   | ŝ                 | и<br>С |
| $705'$ $4100 \ VU$ SSMP 1       SAMPLE # 30905 DLE1. 40010 042576         SAMPLE # 30905 DLE1. 40010 042576         SAMPLE COLLECTION TIME         SEMMAND #10 LINE: 45576 4.50         prime the collection time:         SEMMAND #10 LINE: 45576 4.50         prime the collection time:         SEMMAND #10 LINE: 400'         prime the collection time:         SEMMAND #10 LINE: 400'         prime the collection time:         SAMPLE # 30905 DLF.2.40000         OLP:         SAMPLE # 30905 DLF.2.40000 042576         SAMPLE # 10 LINE: 4105         SCORP : 104 MSCMM         TARE : 272 ND         ORP : 15 MV         TRAP : 272 ND         ORP : 15 MV         TRAP : 272 ND         ORP : 105 MV         TRAP : 26147 °C         Sample # 30905 DLP = 042516         Sample # 30905 DLP = 042516 <th>ACATLOD CONDINONS; STOR SUNNY</th> <th>MAUN</th> <th>ANA</th> <th>ORRIS</th> <th>AMA</th> <th>NDA</th> <th>PE</th> <th>UAHE</th>   | ACATLOD CONDINONS; STOR SUNNY      | MAUN    | ANA  | ORRIS   | AMA     | NDA | PE                | UAHE   |
| $\frac{55MP}{30905.DLE.1.40005.042576}{30905.DLE.1.40005.042576}{30905.DL.1.40005.042576}$ $\frac{56MP6E}{2000000000000000000000000000000000000$  | 70's                               | LIEN    | VU   | <u>,                                     </u> | 5 1     |     |                   | 4      |
| $\frac{5 \text{SMP} 1}{\text{SAMPLE } # 30905 \text{ DLE-1. 4000 - 0425/6}}$ $\frac{30905 \text{ DL-1. 4000 - 0425/6}}{30905 \text{ DL-1. 4000 - 0425/6}}$ $\frac{5 \text{AMPLE COLLECTION THE : 4.60'}{\text{SEMPLE } 100 \text{ COLLECT: 4.60'}}$ $\frac{5 \text{AMPLE } 100 \text{ COLLECT: 4.60'}{\text{SEMPLE } 1.25 \text{ SOUL}}$ $\frac{5 \text{ COLL: 1. 96 \text{ MS/CW}}{1.25 \text{ COLL: 1. 96 \text{ MS/CW}}}$ $\frac{5 \text{ COLL: 1. 96 \text{ MS/CW}}{1.25 \text{ COLL: 1. 96 \text{ MS/CW}}}$ $\frac{5 \text{ SOMP } 2 \text{ SAMPLE } 110 \text{ SOUL}$ $\frac{5 \text{ SOMP } 2 \text{ SAMPLE } 110 \text{ SOUL}}{1.25 \text{ SOUL}}$ $\frac{5 \text{ SOMP } 2 \text{ SAMPLE } 100 \text{ SOUL} 2.40000 \text{ SOUL} 2.40000 \text{ SOUL} 2.40000 \text{ SOUL} 2.16000 \text{ SOUL} 2.40000 \text{ SOUL} 2.16000 \text{ SOUL} 2.160000 \text{ SOUL} 2.16000 \text{ SOUL} 2.16000 \text{ SOUL} 2.16000 \text{ SOUL} 2.160000 \text{ SOUL} 2.160000 \text{ SOUL} 2.160000 \text{ SOUL} 2.1600000 \text{ SOUL} 2.1000000000000000000000000000000000000$   |                                    |         |      |   |         | - 1 |                   | 2      |
| SAMPLE # 30905_DLF_1_40015_0425/6<br>30905_DL_1_40015_0425/6<br>SAMPLE COLLECTION THE:<br>SECONDARC #1,0 LENCE: 4.60'<br>pH: 7.50<br>D.O.: (6.25 m)L<br>S.C. CODD: 1.96 M5/LW<br>THER.' [70 NTV<br>OCP: 111 MV<br>TRUE: 27.09°C<br>SAMPLE # 30905_DL-2_40070 0425/6<br>30905_DL-2_40070 0425/6<br>SAMPLE #2 30905_DL-2_40070 0425/6<br>SAMPLE #2 0 LENCE: 4.67'<br>CODM: 4.0 LENCE: 4.67'<br>CODM: 1.54 M5/LM<br>TURE: 2.72 NTV<br>CORP: 18 MV<br>TEMP: 2647°C<br>SAMPLE # 30905_DLPF-0425/6<br>30905_DLDF-0425/6<br>COM: 4.0 COME 1.20<br>COM: 4.0005_DLPF-0425/6<br>COM: 4.0005_DLPF-0425/6<br>CODM: 4.0005_DLPF-0425/6<br>CODM: 4.0005_DLPF-0425/6<br>COM: 4.0005_DLPF-0425/6<br>COM: 4.0005_DLPF-0425/6<br>COM:                   | SSMPI                              |         | 3 8  | 2 <u>2</u>                                    | 10.1    | 1   | 1                 |        |
| SIMPLE # 30905_DLF_1_4000 0425/6<br>30905_DL_1_### 0425/6<br>SAMPLE CULICITION TIME:<br>SECONDING #20 LENCE: 4.60'<br>pt: 7.50<br>D.0. 625 with<br>SF. COND: 1.96 MS/LUM<br>THER: 170 NTV<br>OUP: 111 MV<br>TEMP: 27.09°C<br>SAMPLE # 30905_DLF_2_40005 0425/6<br>30905_DL_2_40005 0425/6<br>SAMPLE # 30905_DLF_2_40005 0425/6<br>SAMPLE # 30905_DLF_2_4005 0425/6<br>SAMPLE # 30905_DLF_2_4025/6<br>SAMPLE # 30905_DLF_4025/6<br>SAMPLE # 30905/6<br>SAMPLE # 300005/6<br>SAMPLE # 300005/6<br>SAMPLE # 300005/6<br>SAMPLE # 300005/6<br>SAMPLE # 300005/6<br>SAMPLE # 30   |                                    | 1 1 1   |      | 1 1   | 1 4     |     | 5                 | 1      |
| $\frac{30905-0L-1-4444-042516}{364000000000000000000000000000000000000$   | SAMPLE # 30905_DLF_1_ 40016-042516 |         |      |   |         |     | 1                 | ž.     |
| SAMPLE COLLECTION TIME:<br>BECOMMOND HILD LEARL: 455705 4500<br>PACAL TO BOTTOM: 455705 4500<br>PAL: 7.50<br>P.O.: 6.25 MIL<br>SC. COND.: 1.96 MS/CM<br>THER: 170 NTU<br>OOP: 111 MV<br>TEAP: 27.09°C<br>SSMP 2<br>SAMPLE TO SOULD ADDITION OF 2516<br>SAMPLE COLLECTION TIME: 1115<br>BECTIMENT TO TEAPE: 4055<br>BOTT TO BOTTOM: 440776 4955<br>DOMNIE HILD LEARL: 4.67<br>ENDINE HILD LEARL: 4.67<br>DOMNIE HILD LEARL<br>DOMNIE HILD LEARL<br>DOMNIE LIDE | 30905-DL-1-40010-042516            | S 4 1   | 5 8  | 4 4   |         |     | 12                |        |
| SAMPLE COLLECTION TIME:<br>BELINAND IL O LENCE : 4.500 4.52<br>ENDINE ILO LENCE : 4.60<br>pt : 7.50<br>D.O.: 6.25 MIL<br>S.F. COND.: [.96 MS/LUM<br>THER: ] TO NTV<br>OEP: III MN<br>TEMP: Z7.09°C<br>SAMPLE TO SONOS DL-2 40000 0425/6<br>SAMPLE COLLECTION TIME : [115<br>BELINANDE ILO LENCE : 41.67<br>BUDME ILO LENCE : 41.67<br>BUDME ILO LENCE : 41.67<br>BUDME ILO LENCE : 41.67<br>BUDME ILO LENCE : 495'<br>DOOM TO BOTTOM : 490 DL 495'<br>PL: 7.90<br>D.O.: 4.53 MJ/L<br>SECOND: [.64 MS/CM<br>THER. 272 NTV<br>ORP: 18 MN<br>TEMP: 2005 DUP - 0425/6<br>SSMP 2 - DUP - SAMPLE COLLECTION TIME II.20<br>SAMPLE # 30905 DUP - 0425/6<br>BUDME # 100 PP - 0425/6<br>BUDME # 10                         |                                    | 2 1 1   | 5 3  | 3 8   |         | 1   | 100<br>100<br>100 | 5      |
| general theory of the US2         ensite theory of the Spect 4.60°         ph : 7.50         D.O.: 6.25 mile         Sc. coup: 1.96 ms/cm         THER: 170 NTU         OCP: 111 mv         THER: 170 NTU         OCP: 2         SAMPLE # 30905 DL-2 44000 042516         SAMPLE COLLECTION THE ! 1115         BEDIMENDE HEO LANDE ! 1115         BEDIMENDE HEO LANDE ! 1115         BEDIMENDE HEO LANDE ! 115         BEDIME THEO LANDE ! 115         BEDIME HEO LANDE ! 115         BEDIMENDE HEO LANDE ! 115         BEDIME HEORE ! 100000         D.O.: 4:53 mg/L         SER 2 - DUP - Sample collection time 1:20         Sample HE 30905 _ DUDP - 042516         30905 _ DUD - 042516  | SAMPLE COLLECTION TIME ;           |         |      |   | 2 3     | į,  | 111               | 8      |
| CADENT THE CHART I 4.60'<br>PERMITE ROTTON: 4.55 DG. 4.60'<br>PH: 2.50<br>D.O.: 6.25 WILL<br>S.P. COND.: 1.96 MS/CM<br>THER: 170 NTV<br>OEP: 111 MV<br>TRAP: 27.09°C<br>SAMPLE # 30905 DLF. 2.40000 0425/6<br>30905 DL-2 40000 0425/6<br>SAMPLE COLLECTION TME: 1115<br>RECTINGENCE H.O. LEVEL: 4.65'<br>DEPTITE ROTTON: 4.4000 4.65'<br>DEPTITE ROTTON: 4.4000 4.65'<br>DEPTITE ROTTON: 4.4000 4.65'<br>DEPTITE ROTTON: 4.4000 4.95'<br>DEPTITE ROTTON: 4.4000 4.05'<br>DEPTITE ROTTON: 4.4000 4.0000 4.0000 4.0000 4.0000 4.0000 4.0000 4.0000 4.0000 4.0000 4.00000 4.0000 4.00000 4.00000 4.00000 4.00000 4.00000 4.00000 4.00000 4.00000 4.0000000 4.000000 4.00000000   | BEGINNING HO HAVEN 4550.5 4.52     | 6 8 4 5 |      | 2   | 7 1     | L.  | 14.               |        |
| $\begin{array}{c} p_{critic trop isotrom : 4 + 5 + 5 + 4 + 60^{\circ} \\ p_{H} : 7.50 \\ p_{O} : 6.25 \ will \\ sc coub : [.96 \ ms/cm \\ THER : [70 NTU \\ OCP : ] III mV \\ TRAP : 7.09 °C \\ \hline \\ 55.MP 2 \\ \hline \\ 55.MP 2 \\ \hline \\ 56.MP 2 \\ \hline \\ 56.MP . 2 \\ \hline \\ \\ \\ 56.MP . 2 \\ \hline \\ \\ \\ \\ 56.MP . 2 \\ \hline \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$   | ENDING the LEVEL ' 4.60'           |         |      | 1 5   |         |     |                   |        |
| $\begin{array}{c} H: 7.50 \\ S. 0.: 6.25  whither set of the mathematical set of the mat$   | DOCTI TO BOTTOM : 4-55 DG 4.60'    |         |      |   | ŝ i     | - î |                   |        |
| 5.0.: 6.25 with<br>SC. 6.25 with<br>SC. COND.: [.96 MS/CM<br>TURE.' [70 NTV<br>ORP: III MV<br>TRAP: Z7.09°C<br>SAMPLE # 30905_DIF.2_40000 0425/6<br>30905_DL-2_40000 0425/6<br>SAMPLE COLLECTION TME: IIIS<br>SCHMONGE H.O. LENCE: #TERE 4.67'<br>SOMPLE H.O. LENCE: 4.67'<br>SOMPLE H.O. LENCE: 4.67'<br>DEPTH TO ROTTOM: 440 DE 495'<br>pH: 7.90<br>D.O.: 4.53 mg/L<br>SE COMP.: 1.64 MS/CM<br>TURE - 272 NTV<br>ORP: 18 MV<br>TEMP: 25.47°C<br>SSMP 2 - DJP - SAMPLE COllection time 11:20<br>SAMPLE H. 30905_DLDF_042516<br>SOMPLE H. 30905_DLDF_042516   | M: 7.50                            |         |      |   | 2 3     | -   | 1                 |        |
| SC. COND.: 1.96 ms/cm<br>TURE: 170 NTV<br>ORP: 111 MV<br>TRAP: Z7.09°C<br>SAMPLE # 30905_DLF_2_40tts 0425/6<br>30905_DL_2_40tts 0425/6<br>SAMPLE COLLECTION TIME: 1115<br>RETAINUE to LEVEL: #TEDEL 4.67<br>GNDINE to LEVEL: 4.67<br>GNDINE to LEVEL: 4.67<br>GNDINE to LEVEL: 4.67<br>GNDINE to LEVEL: 4.67<br>D.0.: 4.53 mg/L<br>SE COND: 1.64 ms/cm<br>TURE: 272 NTV<br>ORP: 18 MV<br>TEMP: 26:47°C<br>Sample # 30905_DLP-0425/6<br>30905_DLD-0425/6<br>Band   | DO., 6.25 wyl-                     |         |      | 1 1   |         | 1   | 1                 |        |
| THER: 170 NTV<br>ORP: 111 MV<br>TRAMP: 27.09°C<br>SAMPLE # 30905 DLF 2 400000 0425/6<br>30905 DL 2 40000 0425/6<br>SAMPLE COLLECTION TIME: 1115<br>REMAINLY HILD INTE: 4000 4.67<br>CHOINE HILD INTE: 4000 4.67<br>CHOINE HILD INTE: 4000 4.67<br>CHOINE HILD INTE: 4000 4.67<br>CHOINE HILD INTE: 4000 4.67<br>DSOM TO ROTION: 4400 DL 495<br>DT: 7.90<br>D.O.: 4:53 mg/L<br>SP COND: 1.64 MS/CM<br>TURE 272 NTV<br>CRP: 18 MV<br>TCMP: 25:47°C<br>SSMP 2 - DUP - SAMPLE CONCENTING 11:20<br>SAMPLE # 30905 DUDF - 042516<br>30905 DUD - 042516  | SE COND : 1.96 ms/cm               |         | i s  |   | ê î     | ÷   |                   |        |
| $\begin{array}{c} O(P): & III (MV) \\ TEMP: Z7.09°C \\ \\ \hline \\ SSMP 2 \\ \hline \\ SAMPLE # 30905_DL-2_49675_042516 \\ \hline \\ 30905_DL-2_49675_042516 \\ \hline \\ \\ SAMPLE CPLECTION TME: III5 \\ BETMANNE H_0 : EVEL: #TODE 4.67' \\ \hline \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ $   | THER 170 NTV                       | 2 1 2   |      |   | 2 3     | - 2 | -                 |        |
| TEAR : Z7.09°C<br>SSMP 2<br>SAMPLE # 30905 DIF. 2 - 40000 0425/6<br>30905 DL 2 40000 0425/6<br>SAMPLE COLLECTION THE ! 1115<br>BETHNEINE H.O IEVEL : 410000 4.67'<br>GNDINE H.O IEVEL : 41000 4.67'<br>GNDINE H.O IEVEL : 41000 4.67'<br>DSPM TO BOTTOM : 4400 pL 495'<br>pH : 7.90<br>D.O.: 4:53 mg/L<br>SE COND : 1.64 MS/CM<br>TUES - 272 NT<br>ORP : 18 MV<br>TEAM : 25:47 °C<br>SSMP 2 - DUP - SAMPLE CONCENTING 11:20<br>SAMPLE H 30905 DUDP - 042516<br>30905 DUD - 042516   | ORP: 111 mV                        | 5 6 6   |      | 1 1   | 2.1     |     | 5                 | a.     |
| SSMP 2<br>SAMPLE # 30905 DIF. 2 - 40000 042516<br>30905 DL-2 - 40000 042516<br>SAMPLE COLLECTION THE : 1115<br>BEDINUE H, O LEVEL: # 5000 4.67<br>GNDINE H, O LEVEL: # 5000 4.67<br>GNDINE H, O LEVEL: 4.65<br>DEPTH TO BOTTOM: 4400 DE 495'<br>pH: 7.90<br>D.O.: 4.53 mg/L<br>SP. COND: 1.64 MS/CM<br>TURE 272 ND<br>ORP: 18 MV<br>TEMP: 25147 °C<br>Sample H 30905 DLDP - 042516<br>30905 DLD - 042516<br>BE MG   | TTMP: 27.09 °C                     |         |      |   | 5 3     |     | -                 |        |
| $\frac{55MP 2}{30905 \text{ DiF. 2 - 400000 OU2516}}$ $\frac{54MPLE \# 30905 \text{ DiF. 2 - 40000 OU2516}}{30905 \text{ DI- 2 - 40000 OU2516}}$ $\frac{54MPLE COLLECTION TME : 1115}{BETMWINDE H, 0 LENCL : #1055 H (.67)}$ $5000000000000000000000000000000000000$  |                                    |         |      | 1.1   | 1.1     |     | 1                 | -      |
| $\frac{55MP2}{30905 - DiF.2 - 400000000000000000000000000000000000$   |                                    | 4 8 8   |      | 8 N.  | 2 3     | 5   |                   | 14     |
| SAMPLE # 30905_DIF.2_40000 0425/6<br>30905_DL-2_40000 0425/6<br>SAMPLE COLLECTION TME: 1115<br>REDINNE H,O LENCL: # 60000 4.67'<br>GUDINE H,O LENCL: 4.67'<br>DEPTH TO ROTION: 4400 D.6 4.95'<br>pH: 7.90<br>D.0.: 4.53 mg/L<br>SF. COND: 1.64 MS/CM<br>TURE 272 NTU<br>ORP: 18 MV<br>TEMP: 26.47°C<br>SSMP 2 - DUP - SAMPLE COllection time 11:20<br>Sample # 30905_DUDP-0425/6<br>30905_DUD - 0425/6<br>SCALE 1 SULARE  | SSMP 2                             |         | 5    | 1 1   | 5 2     | - è | 1                 | -      |
| SAMPLE # 30905_DIF2_40000 042516<br>30905_DL-2_40000 042516<br>SAMPLE COLLECTION THE? 1115<br>RECHNNICH HID LEVEL: # 5556 4.67<br>GUDINE HID LEVEL: 4.635<br>DEPTH TO BOTTOM: 4900 DE 495'<br>pH: 7.90<br>D.O.: 4.53 mg/L<br>SE COND: 1.64 MS/CM<br>TURE 272 NTU<br>ORP: 18 MV<br>TEMP: 26.47°C<br>SSMP 2 - DUP - SAMPLE Collection time 11:20<br>SAMPLE # 30905_DUP - 042516<br>30905-DUD - 042516<br>SCALE 18000000   |                                    |         |      |   | 4       | - 2 | -                 |        |
| 30905_DL-2_44676 042516<br>SAMPLE COLLECTION TIME: 1115<br>RETINNING H, O LENEL: 45555 4.67<br>BUDING H, O LENEL: 495'<br>DEPTY TO BOTTOM: 440 pt 495'<br>pt: 7.90<br>D.O.: 4:53 mg/L<br>SE CEND: 1.64 MS/CM<br>TURE 272 NTU<br>ORP: 18 MV<br>TEMP: 26:47 °C<br>SSMP 2 - DUP - SAMPLE COllection time 11:20<br>SAMPLE H 30905_DUP - 042516<br>30905-DUD - 042516<br>BE TRUE   | SAMPLE # 30905_DLE2_40000 0425/16  | 2       |      |   | 1.4     |     | 4                 | -      |
| SAMPLE COLLECTION TIME: 1115<br>RETINGING TI, O LEVEL: 4,055 + 4.67<br>SUDING TI, O LEVEL: 4,95'<br>DEPTY TO BOTTOM: 4490 pt 495'<br>pt: 7.90<br>D.O.: 4,53 mg/L<br>SE. COND: 1.64 MS/CM<br>TURE: 272 NTU<br>ORP: 18 MU<br>TURE: 25147°C<br>SSMP 2 - DUP - SAMPLE CONCENTINE 11:20<br>SAMPLE # 30905 _ DUDF - 042516<br>30905 _ DUD - 042516<br>SCOLO 1 SULARE  | 30905 DL-2 445-6 042516            | 6       | 1 2  |   | (0,)    | 1   | 3                 |        |
| SAMPLE COLLECTION THE : 1115<br>REDINING H, O LEVEL: 4-5555 4.67<br>GNDINE H, O LEVEL: 4.95'<br>DOPTH TO BOTTOM: 4-40 DE 4.95'<br>PH: 7.90<br>D.O.: 4:53 mg/L<br>SF. COND: 1.04 MS/CM<br>TURE. 272 NTU<br>ORP: 18 MU<br>TEMP: 25:47 °C<br>Sample # 30905 DLDF-042516<br>30905 DLD - 042516<br>Scale: 1 Source -   |                                    |         | i x  |   | 1       | ÷.  | 1                 | 1      |
| RELINVING H, O LEVEL: 40530.6 4.67'         GUDING H, O LEVEL: 495'         DOPTH TO BOTTOM: 440 D.6 495'         DH: 7.90         D.O.; 4:53 mg/L         SC. COND: 1.64 MS/CM         TUER: 272 NTU         ORP: 18 mV         TEMP: 25:47°C         SSMP 2 - DUP - Sample collection time 11:20         Sample # 30905_DUD - 042516         Solo 5_DUD - 042516  | SAMPLE COLLECTION THE ! 1115       |         | 1.1  | 3 5   | 8 8     | ŝ   | 5                 |        |
| GUDINE H, O IEVEL: 4.95'<br>DESPTY TO BOTTION: 440 p.6 4.95'<br>pH: 7.90<br>D.O.: 4.53 mg/L<br>SE. COND: 1.64 MS/CM<br>TUER: 272 NTU<br>ORP: 18 mV<br>TEMP: 25147°C<br>SSMP 2 - DUP - Sample collection time 11:20<br>Sample # 30905 _ DUDF - 042516<br>Scale: 1 Source =   | RETUNNED HO I EVEL 4-6826 4.       | 67      |      | 1.1   |         | Ÿ.  | 2                 |        |
| DSPM TO BOTTOM: 440 D6 4.95'<br>pH: 7.90<br>D.O.; 4:53 mg/L<br>SP. COND: 1.64 MS/CM<br>TURE 272 NTU<br>ORP: 18 MV<br>TGMP: 25:47 °C<br>SSMP 2 - DUP - Sample collection time 11:20<br>Sample # 30905 _ DUDF - 042516<br>30905 _ DUD - 042516<br>Boy M.<br>Scale: 1 Same =   | 5001NE HO 1200 . 4.95'             |         |      |   |         |     |                   |        |
| 54: 7.90<br>D.O.: 4:53 mg/L<br>SE. COND: 1.64 MS/CM<br>TUER 272 NTU<br>ORP: 18 MV<br>TEMP: 25:47°C<br>SSMP 2 - DUP - Sample collection time 11:20<br>Sample # 30905_DLDF-042516<br>30905_DLD _ 042516<br>Bornel.<br>Scale: 1 Square =   | DOPTH TO BOTTOM: 4-90 D6 495'      |         |      | 1   |         |     | 10 m              | 3      |
| D.O.: 4:53 mg/L<br>SE. COND: 1.64 mS/CM<br>TURR: 272 NTU<br>ORP: 18 mV<br>TEMP: 25:47 °C<br>SSMP 2 - DUP - Sample collection time 11:20<br>Sample # 30905_DLDF-042516<br>30905_DLD - 042516<br>Scale: 1 source =  | DH: 7.90                           |         |      |   |         |     | 8                 |        |
| SF. COND. [.64 ms/cm<br>TURR. 272 NTU<br>ORP: 18 mV<br>TEMP: 25:47°C<br>SSMP 2 - DUP - Sample collection time 11:20<br>Sample # 30905_DUP - 042516<br>30905_DUD - 042516<br>Br. M.<br>Scale: 1 Salare =   | D.O.; 4:53 mg/L                    |         |      |   | 2 8     | 3   | 5                 | 2      |
| TURE 272 NTU<br>ORP: 18 MV<br>TEMP: 25:47°C<br>SSMP 2 - DUP - Sample collection time 11:20<br>Sample # 30905_DUP - 042516<br>30905_DUD - 042516<br>Burlow Scale: 1 Square =   | SE COND 1.64 MS/CM                 |         |      | 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1       |         | ÷   |                   | a<br>G |
| ORP: 18 mV<br>TEMP: 25:47 °C<br>SSMP 2 - DUP - Sample collection time 11:20<br>Sample # 30905_DLDF-042516<br>30905_DLD - 042516<br>Scale: 1 square =  | TURR 272 NTU                       |         | 1    |   | 1 1     |     | N.                |        |
| JSMP 2 - DUP     - Sample collection time 11:20       Sample # 30905_DUDF_042516       30905_DUD_042516   | ORP: 18 mJ                         |         |      |   |         | -   |                   | 1      |
| SSMP 2 - DUP - Sample collection time 11:20<br>Sample # 30905_DLDF_042516<br>30905_DLD_042516<br>Scale: 1 square =  | TEMP: 25:47 °C                     | i i i   |      |   |         | - î | - R               |        |
| SSMP 2 - DUP - Sample collection time 11:20<br>Sample # 30905_DLDF-042516<br>30905_DLD_042516<br>Scale: 1 source =  |                                    |         | 2    |   |         | 1   |                   |        |
| SSMP 2 - DUP - Sample collection time 11:20<br>Sample # 30905_DLDF_042516<br>30905_DLD_042516<br>Scale: 1 source =  |                                    | 8 8 2   | 6    | 1   | 8 8     | 2   | 5                 |        |
| Sample # 30905_DLDF-042516<br>30905_DLD-042516<br>Scale: 1 square =   | SSMP 2 - DUP - Sample collection   | time    | 11:2 | R   |         |     |                   | ž.     |
| 30905- DLD - 042516 Scale: 1 square =   | Sample # 30905_DLDF-0425           | 16      |      |   | 1.1     | 2   | 1.001             | -      |
| Ptr. J. P. Scale: 1 square =  | 30905- DLD - 104751                | 6       |      | 1 1   | 1 1     | į.  | 1                 | SP A   |
|   | De i D                             | ~       |      | Scale: 1                                      | ouare = | 1   | 9/0-              | Sca    |

| BIM PRANADE LAYER #4646 4/25/16 |
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| # 30905 11-3 042516             |
| 30905 DIF 3 047516              |
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| 1045                            |
| SAMPLE COLLECTION UME A 10 12   |
| BEGINNING HUU LEVEL 110 - 50    |
| ENDINE MILO LIDAN               |
| DEPTH TO BOTTOM T. 10           |
| 192my/r                         |
| D.0 $733$ matrix                |
| 7700 $7700$                     |
| 1000 - 9  mV                    |
| O(P) 1917°C                     |
| CAR 10.120                      |
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| SEMP 9                          |
| 20905 DIE 1412011 0425/16       |
| SAMPLE IF SOLOS_DE_TING_OUSE    |
| 50105-02-4-042516               |
| SAMPLE COLLECTION TIME S.TZ     |
| BEDINMNE HZO LEVEL TISTER       |
| ENDING MO LEVEL 1.81 FI         |
| DEPTH TO BOTTOM 7.61 FT         |
| pH (.41<br>978 1                |
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| RIH DRAWNE LAYER 4/6/16 4/25/16.   |                |
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| Af '   | 2              |
| SSMP 4A  |                |
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| SAMPLE # 30905 - DLF_ 4A_042515  | ŝ×.            |
| 30905 DL# 44_042515  | 2              |
| SAMPLE COLLECTION TIME 9.50  | 8              |
| BEGINNING +10 LEVEL 7.89 7.5 7.39'   | 22             |
| FNDING HO LOVEL 7.29'  |                |
| DEPTH TO BOTTOM FLOTTE D.G. 965'   |                |
| SH 799   |                |
| $DC_{1} = \frac{9.71}{100} \frac{mg/L}{100}$   | 4              |
| SP. CORD 5.41 ms/cm  |                |
| TURE 8.65 NTV  |                |
| OPP LOTINU   | 1              |
| -traip 5.88°C  |                |
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| 30905 FR 1 042516  | 2              |
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| SAMPLE COLLEGING TIME 1010   | 1              |
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| # j0905- FB'          | F-1-042516 |
| - SAMPLE - 30905 - FB | 0-1-042516 |
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| SAMPLE CONSERVAL TIME | 854        |
| 9594                  |            |
| DO 5.80 mg/L          |            |
| ED CORD D OllmS/cm    |            |
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| 2000 1771°C           |            |
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# **CHAIN of CUSTODY**

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|------------------------|------------------|---------------|---------------|---------------------|--------------|------------|------------------|--------------|----------------|--------|----------|-------------------|-------------|-------------|--------|----------|-------------------|---------|----------|---------|---------|------------|-----------|---|----------------------------|
| 24                     | 25 New Holland F | Pike          |               |                     |              | lon        | OWWO             |              | Chain          |        | lueto    | du /              | A.n.o       | lucio I     | 7      |          |                   |         |          |         |         |            |           | AESI Ref:                                     | 42485.46959                |
| La                     | ncaster, PA 1760 | 5-2425        |               |                     |              |            | Juc              |              | Unam           |        | u310     | uy I.             | Ana         | iysis r     | xeq    | uest     |                   |         |          |         |         |            |           | COC#  | 30905-040815-<br>01        |
| (71                    | 7) 656-2300      |               |               |                     | Privileged a | & Confider | ntial            | N            | 1              |        | -        |                   |             | Baltim      | ore    |          |                   |         | T        | - 1     |         | _          |           | Lab Proi # (SDG):                             |                            |
| Sa                     | impling Co.:     | Marylan       | d Environr    | mental Service      | EDD To:      |            | EIM              | Site Name:   |                |        | BALTI    |                   |             |             |        |          | Phase:<br>Samping |         |          |         | Lab ID  |            |           |   |                            |
| CI                     | ient Contact: (  | (name, co     | ., addre      | ss)                 | Sampler      | Douch      | bill mi          | A DAL        |                |        |          | Location of Site: |             |             |        |          |                   |         |          | ram     |         |            |           | City ID                                       |                            |
| Ch                     | ristopher French |               |               |                     | PO #         | 4400025    | 014              | uen V        | 1. F. (e)      | nene   | Proce    |                   | 3           | 5           | -      | -        | _                 | +       | -        |         | _       |            | -         | Site ID                                       | BALTIMORE                  |
| 115<br>Mo              | Tabor Rd         | 050           |               |                     | Analysis 7   | Turnaroun  | d Time (TAT):    |              | 14             |        |          |                   |             |             | -      |          | _                 | -       | -        |         | -       | _          | +-        | Lab Job #                                     | Honouwoil                  |
| Pre                    | liminary Data To | matthew       |               | 2m.com              |              | Consulta   | nt               |              | CH2M           |        | 1        |                   |             | a           |        |          |                   |         |          |         |         |            |           | Hadionzed User.                               | Honeywen                   |
| Sar                    | mple Receipt     | matthew       | u gillis@ch   | 2m.com              |              |            |                  |              | _              |        |          | le ?              |             | anid        |        |          |                   |         |          |         | - 6     |            |           | Text & Excel File Drive                       | Excel & Text File<br>Order |
| Acl                    | knowledgement    | То            |               |                     |              |            |                  |              |                |        |          | Ц                 | E           | at C)       |        |          |                   |         |          |         |         |            |           |   |                            |
| Hai                    | d Copy To        | Matt Gilli    | is<br>not     | Belling MD 04004    | Fi           | ull Report | 28               |              |                | (Gra   | S De     | omiu              | 2 Tot       |             |        |          |                   |         |          |         |         |            |           |   |                            |
|                        | Dice To:         | Christopi     | her French    | h                   |              |            |                  |              |                |        | site     | llter             | Chr         | /901        |        |          |                   |         |          |         |         |            |           |   |                            |
|                        |                  | Sam           | nie Identif   | Fination            | Sample       | Sample     | Sample           | Sample       | Sample         | # of   | du       | eld F             | 601         | (901<br>(b) |        |          |                   |         |          |         |         |            |           | Copyright AESI: Version                       |                            |
|                        |                  | Start         | End           |                     | Date         | Lime       | lype             | Matrix       | Purpose        | Cont.  | ő        | ü                 | ŝ           | SI (BU      | _      | _        | _                 | -       |          |         | _       |            |           | strictly prohibited.                          |                            |
|                        | Location ID      | Depth<br>(ft) | Depth<br>(ft) | Field Sample ID     |              |            |                  |              | 100            |        | Units    |                   | 1/6n        | 1)/Gr       |        |          |                   |         |          |         |         |            |           | Sampling Method                               | Lab Sample                 |
| 1                      | SSMP1            | 4.52          | 4.60          | 30905_DLF_1_042516  | 4/25/2016    | 12:05      | w-sw             | WATER        | REG            | 2      | grab     | Y                 | X           | x           |        |          |                   |         |          |         |         |            |           | (bouc)  | Humberg                    |
| 2                      | SSMP1            | 4.52          | 4.60          | 30905_DL_1_042516   | 4/25/2016    | 12.05      | w-sw             | WATER        | REG            | 1      | orab     | N                 | x           |             |        |          |                   | 1       |          |         |         | -          |           |   |                            |
| 3                      | SSMP2            | 4.67          | 4.95          | 30905_DLF_2_042516  | 4/25/2016    | 11:15      | W-SW             | WATER        | REG            | 2      | orah     | v                 | x           | x           |        |          |                   |         |          |         |         |            | -         |   |                            |
| 4                      | SSMP2            | 4.1.7         | 4.95          | 30905_DL_2_042516   | 4/25/2016    | 11:15      | w-sw             | WATER        | REG            | 1      | grab     | N                 | x           |             |        |          |                   | 1       |          |         | -       | +          | T         |   |                            |
| 5                      | SSMP3            | 2.50          | 2.35          | 30905_DLF_3_042516  | 4/25/2016    | 10:45      | w-sw             | WATER        | REG            | 2      | grab     | Y                 | x           | x           | +      |          | -                 | 1       |          |         | -       | -          |           |   |                            |
| 6                      | SSMP3            | 2.50          | 255           | 30905_DL_3_042516   | 4/25/2016    | 10:45      | w-sw             | WATER        | REG            | 1      | grab     | N                 | X           |             |        |          |                   |         |          |         | +       |            | 1         | <u>                                      </u> |                            |
| 7                      | SSMP4            | 7.89          | 7.87          | 30905_DLF_4_042516  | 4/25/2016    | 8-42       | W-SW             | WATER        | REG            | 2      | grab     | Y                 | x           | x           |        | +        |                   | +       |          |         | -       | +          |           |   |                            |
| 8                      | SSMP4            | 7.89          | 7.87          | 30905_DL_4_042516   | 4/25/2016    | 8:42       | W-SW             | WATER        | REG            | 1      | grab     | N                 | x           |             | +      |          | 1                 | 1       |          |         | -       | +          | 1         |   |                            |
| 9                      | SSMP4A           | 7.31          | 7.21          | 30905_DLF_4A_042516 | 4/25/2016    | 9:50       | W-SW             | WATER        | REG            | 2      | grab     | Y                 | x           | x           |        |          |                   |         |          |         |         | 1          | $\square$ |   |                            |
| 10                     | SSMP4A           | 7.39          | 7.29          | 30905_DL_4A_042516  | 4/25/2016    | 9:50       | W-SW             | WATER        | REG            | 1      | grab     | N                 | x           |             |        |          |                   |         |          |         |         |            |           |   |                            |
| 11                     | SSMP2            | 4.67          | 4.95          | 30905_DLDF_042516   | 4/25/2016    | 11:20      | W-SW             | WATER        | FD             | 2      | grab     | Y                 | x           | x           |        | -        |                   |         |          |         |         | -          | $\square$ |   |                            |
| 12                     | SSMP2            | 4.67          | 4.95          | 30905_DLD_042516    | 4/25/2016    | 11:20      | W-SW             | WATER        | FD             | 1      | grab     | N                 | x           |             |        |          |                   |         |          |         |         | 1          |           |   |                            |
| Relir                  | nquished by      |               |               | Company             | 4            | _          | Received by      |              |                | _      | _        |                   | _           | Compa       | mul    |          | 0.0               | Cond    | tion     | -       | _       | - I Curat  | L C       | Latest Latest                                 |                            |
| Our d. 2 - 0 Date/Time |                  | MES           | 27:00         | 40.0                | 0 100        |            |                  | Date/Time    |                |        |          | (iny (            | CALAVY Cond |             |        | er Temp  |                   |         | oay Se   |         |         |            |           |   |                            |
| Relin                  | iquished by      | rene          | Jun           | Company             | 9/25/16      | 12.50      | Received by      | 164          | IVS            | 2      |          |                   |             | Comer       | 4      | 261      | 1/2 123           | P       | i rem    |         |         |            |           |   |                            |
|                        |                  |               |               | Date/Time           |              |            | is derived by    |              | Date/Time      |        |          |                   | ny          | Cond        |        |          | r Tem             | 0.      | _        | Cust    | ody Se  | ais Intact |           |   |                            |
|                        |                  |               |               |                     |              |            | 0 (none); 1 (4 D | eg C); 2 (HC | Cl pH<2); 3 (i | HNO3 p | H<2); 4  | (H2SO             | )4 pH<:     | 2); 5 (NaC  | н рН   | 1>12); 6 | (NaOH.            | Zn Ace  | tate); 7 | (H2SO   | 4 (pH<2 | 2), 4 Dea  | (C)); B   | (HCI pH<2): 9 (HCI 4 De                       | eg C): 10 (HNO3            |
| res                    | ervauves: (Other | r; specify):  |               |                     |              |            | (pH<2), 4Deg C'  | ); 11 (4C Na | OH (pH>12)     | & Asco | rbic Aci | d); 12 (          | 4C H2       | SO4 (pH<    | 2) & 1 | Na2S2C   | 03); 13 (         | Zn Acet | ate); si | (specia | instru  | ctions)    |           | , _,,   | 5,, (,,,,00                |

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|  |                  | Samp          | le Identifica     | ation              | Date                                | Time       | Туре                               | Matrix                         | Purpose                                      | Cont     | · ů                  | Fie           | SW               | SW<br>(au            |                 |                  |                        |           |             |                |               |                       |         | strictly prohibited.      |                            |
|  | Location ID      | Depth<br>(ft) | Depth<br>(ft)     | Field Sample ID    |                                     |            |                                    | TU                             |  |          | Units                |               | ug/L             | -l/Bn                |                 |                  |                        |           |             |                |               |                       |         | Sampling Method<br>(code) | Lab Sample                 |
| 1  | FIELD QC         | -             | -                 | 30905_FBF_1_042516 | 4/25/2016                           | 8:54       | BLKWATER                           | WATER                          | FB   | 2        | grab                 | Y             | X                | X                    |                 | $\square$        |                        |           | T           |                |               |                       |         |                           |                            |
| 2  | FIELD QC         | -             | -                 | 30905_EBF_1_042516 | 4/25/2016                           | 10:10      | BIKWATER                           | WATER                          | FB   | 2        | grab                 |               | X                | X                    | H               | •                | $\square$              | -         | -           | +              |               |                       | -       | -                         |                            |
| 3  | FIELDQC          | - 1           | -                 | 30905 FB 1 042516  | 4/25/2016                           | 8.54       | PLKWATER                           | WATED                          |  |          | grac                 |               |                  | Ĥ                    | $\square$       | $\square$        | $\vdash$               |           | +           | +              | +             |                       | -       |                           |                            |
| 4  | FIELDQC          |               | -                 | 30905 EB 1 042516  | 4/25/2016                           | 10:10      |                                    |                                |  |          | grab                 | N             | Ê                | $\vdash$             | $\vdash$        | $\vdash$         | -+-                    | +         | +           | +              | -+-           |                       |         |                           |                            |
| 5  |                  | 1             |                   |                    | TRUCEVIC                            |            | DUNION                             | VVAILN                         |  |          | grau                 |               | <u> </u>         | +                    | $\vdash$        | $ \rightarrow $  | -+-                    |           | +           | +              |               |                       |         |                           |                            |
| -  |                  | ++            |                   |                    |                                     | <u> </u> ' | <u> </u> '                         |                                | <u> '</u>                                    | -        |                      | <u> </u> _'   | ₩                | $\vdash$             | $\vdash$        | $\mapsto$        | -+-                    |           | +-          | +              | $\rightarrow$ | $\rightarrow$         | +       |                           |                            |
| 6  |                  | +             | <b></b>           |                    | '                                   | <u> </u> ' | ·                                  |                                | <u> '</u>                                    | <u> </u> | <u>+</u> '           | ′             | <u>+'</u>        | 4                    | $\square$       |                  |                        |           | _           |                |               | _                     |         |                           |                            |
| 7  |                  |               |                   |                    | ļ'                                  | <u> </u> ' | <u> </u>                           | //                             | <u>                                     </u> |          |                      | $\square'$    | $\square$        |                      |                 |                  |                        |           |             |                |               |                       |         |                           |                            |
| 8  |                  |               |                   | /                  |                                     | <u> </u>   |                                    |                                | []   |          |                      | $\square'$    | (                |                      |                 |                  |                        |           |             |                |               |                       |         |                           |                            |
| 9  |                  |               |                   |                    |                                     |            | [ '                                |                                |  |          |                      |               | $\square$        |                      | $\square$       |                  |                        |           |             | $\square$      |               |                       |         |                           |                            |
| 10   |                  |               |                   |                    | 1                                   |            |                                    |                                |  |          | -                    | $\square$     | <b></b>          | $\square$            | $\square$       | $\square$        |                        |           | 1           | +              |               |                       | -       |                           |                            |
| 11   |                  |               |                   |                    |                                     |            |                                    |                                |  | -        | 1-1                  | $\vdash$      | $\vdash$         | $\vdash$             | $\vdash$        | -+               |                        |           | +-          | +              |               | +                     | +       |                           |                            |
| 10   |                  |               | <u> </u>          |                    | /                                   |            |                                    |                                | F  | -        | $\vdash$             | $\vdash$      | H                | $\vdash$             | $\vdash$        | -+               |                        |           | +           | +              | -             | +                     | +       |                           |                            |
| 12   |                  | 1 1           |                   | ]                  | L/                                  |            | L]                                 | []                             | L]   | <u> </u> |                      |               |                  |                      |                 |                  |                        |           |             |                |               | _                     |         |                           |                            |
| Reling                                       | juished by       |               | -                 | Company            | MES                                 |            | Received by                        |                                |  | Ť        |                      |               |                  | Con                  | npany           | 14               | am                     | Cor       | dition      |                |               | Cu                    | stody   | Seals Intact              | T                          |
| U  | munde            | Pent          | hel               | Date/Time          | 4/25/14                             | 17:50      | mo                                 | ~                              |  |          | -                    | D             | ate/Tir          | me                   | -               | lin              | In D                   | Coc       | ler Ter     | np.            |               | +                     |         |                           |                            |
| Relino                                       | juished by       | (             | 5                 | Company            | 100/10                              | E.J.       | Received by                        |                                |  |          | $\vdash$             |               |                  | Corr                 | npany           | 11.20            | 16 5                   | Cor       | dition      | -              |               | Cu                    | stody   | Seals Intact              |                            |
|  |                  |               |                   | Date/Time          |                                     |            |                                    |                                |  |          |                      | D             | ate/Tir          | me                   |                 |                  |                        | Coc       | ler Ter     | пр.            |               |                       |         | 10.00                     | L                          |
| Prese  | vatives: (Other: | ; Specify):   |                   |                    |                                     |            | 0 (none); 1 (4 E<br>(pH<2), 4Deg ( | )eg C); 2 (H(<br>2); 11 (4C N) | Cl pH<2); 3 (<br>aOH (pH>12                  | (HNO3 r  | )H<2); 4<br>orbic Ac | (H2SC         | )4 pH<<br>(4C H2 | <2); 5 (♪<br>2SO4 (≀ | NaOH (<br>pH<2) | pH>12)<br>& Na2{ | ); 6 (NaO<br>8203): 1' | H, Zn A   | cetate)     | 7 (H2S)        | O4 (pH<       | :2), 4 De<br>uctions) | eg C)); | 8 (HCl pH<2); 9 (HCl 4 [  | Deg C); 10 (HNO3           |

Appendix D Current Quarterly Validation Report

Appendix D-1 Quality Control Summary—Second Quarter 2016

## QUALITY CONTROL SUMMARY

This section is a summary of the quality control (QC) review results for samples collected on April 4, 2016, 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. One sample delivery group (SDG) was associated with this data set: BHP55. All field samples and associated QC samples were analyzed for dissolved chromium by SW-846 6010B.

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

Four field duplicate samples were collected during this sampling event and analyzed. Precision criteria were met.

#### LABORATORY REPLICATES

Two dissolved chromium replicates were analyzed during this sampling round. All acceptance criteria for precision were met.

#### LABORATORY BLANKS

Dissolved chromium was not detected in the calibration or laboratory method blanks. The acceptance criteria was met.

#### FIELD BLANKS

One field blank and two rinse blanks were collected during this sampling event. Chromium was not detected in the field blanks.

## MATRIX SPIKE/MATRIX SPIKE DUPLICATES

Two chromium MS/MSD sets were analyzed (batch data) during this sampling event. All acceptance criteria for precision were met.

## SAMPLE RECEIPT, HOLDING TIMES AND PRESERVATION

The samples were received slightly below the recommended temperature range of 4±2°C at 1.4 and 1.3 °C. Data were not qualified due to low temperatures. 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.

# QUALITY CONTROL SUMMARY

This section is a summary of the quality control (QC) review results for samples collected on April 4, 2016, 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. One sample delivery group (SDG) was associated with this data set: BHP56. All field samples and associated QC samples were analyzed for dissolved chromium by SW-846 6010B.

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

Four field duplicate samples were collected during this sampling event and analyzed. Precision criteria were met.

#### LABORATORY REPLICATES

Two dissolved chromium replicates were analyzed during this sampling round. All acceptance criteria for precision were met.

#### LABORATORY BLANKS

Dissolved chromium was not detected in the calibration or laboratory method blanks. The acceptance criteria was met.

#### FIELD BLANKS

One field blank and two rinse blanks were collected during this sampling event. Chromium was not detected in the field blanks.

#### MATRIX SPIKE/MATRIX SPIKE DUPLICATES

Two chromium MS/MSD sets were analyzed during this sampling event. All acceptance criteria for precision were met.

#### SAMPLE RECEIPT, HOLDING TIMES AND PRESERVATION

The samples were received slightly below the recommended temperature range of 4±2°C at 1.4 and 1.3 °C. Data were not qualified due to low temperatures. 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.

#### QUALITY CONTROL SUMMARY

This section is a summary of the quality control (QC) review results for samples collected on April 4, 2016, 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. One sample delivery group (SDG) was associated with this data set: BHP57. All field samples and associated QC samples were analyzed for dissolved chromium by SW-846 6010B.

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

Four field duplicate samples were collected during this sampling event and analyzed. Precision criteria were met.

## LABORATORY REPLICATES

Two dissolved chromium replicates were analyzed during this sampling round. All acceptance criteria for precision were met.

## LABORATORY BLANKS

Dissolved chromium was not detected in the calibration or laboratory method blanks. The acceptance criteria was met.

## FIELD BLANKS

One field blank and two rinse blanks were collected during this sampling event. Chromium was not detected in the field blanks.

## MATRIX SPIKE/MATRIX SPIKE DUPLICATES

Two chromium MS/MSD sets were analyzed during this sampling event. All acceptance criteria for precision were met.

# SAMPLE RECEIPT, HOLDING TIMES AND PRESERVATION

The samples were received slightly below the recommended temperature range of 4±2°C at 1.4 and 1.3 °C. Data were not qualified due to low temperatures. 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.

# QUALITY CONTROL SUMMARY

This section is a summary of the quality control (QC) review results for samples collected on April 25, 2016, 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. One sample delivery group (SDG) was associated with this data set: BHP58. All field samples and associated QC samples were analyzed for chromium by SW-846 6010B. Samples were also analyzed for cyanide by SW-846 9012.

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

Two chromium and one cyanide field duplicate samples were collected during this sampling event and analyzed. All acceptance criteria for precision were met.

#### LABORATORY REPLICATES

One chromium replicates were analyzed during this sampling round. Batch QC for the cyanide was not provided in the data package. All acceptance criteria for precision were.

#### LABORATORY BLANKS

Chromium and TOC were not detected in the calibration or laboratory method blanks. The acceptance criteria was met.

#### **FIELD BLANKS**

Two equipment rinsate blanks and two field blank sample were collected for chromium, and one each for cyanide during this sampling event. All blank results were acceptable.

#### MATRIX SPIKE/MATRIX SPIKE DUPLICATES

Two chromium MS/MSD sets were analyzed during this sampling event per matrix. All acceptance criteria for precision were met. The laboratory did not submit spike results for cyanide.

#### SAMPLE RECEIPT, HOLDING TIMES AND PRESERVATION

The samples were received below the recommended temperature of  $4\pm 2$  °C. There is no data qualification for lower temperatures. 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.

## QUALITY CONTROL SUMMARY

This section is a summary of the quality control (QC) review results for samples collected on April 20, 2016, 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. One sample delivery group (SDG) was associated with this data set: BHP59. All field samples and associated QC samples were analyzed for total chromium by SW-846 6010B. Samples 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

One chromium and one cyanide field duplicate sample were collected during this sampling event and analyzed. All acceptance criteria for precision were met.

# LABORATORY REPLICATES

One cyanide and one chromium laboratory replicate were analyzed during this sampling round. All acceptance criteria for precision were met.

## LABORATORY BLANKS

Chromium was detected at a low level in two calibration blanks, however data were not qualified since associated results are sufficiently elevated.

#### FIELD BLANKS

One equipment rinsate blank and one field blank sample were collected during this sampling event. Chromium was detected in the field blank at a concentration of 0.278 mg/L which was used to qualify data summarized in Table 1 below.

## MATRIX SPIKE/MATRIX SPIKE DUPLICATES

One chromium and one cyanide MS/MSD sets were analyzed during this sampling event. All acceptance criteria for precision were met.

# SAMPLE RECEIPT, HOLDING TIMES AND PRESERVATION

The samples were received slightly below the recommended temperature of 4±2°C at 1.7 °C. Samples were not qualified due to lower cooler temperatures. The pH of sample 30905\_GW-NWM27-042016 was received by the laboratory at a pH greater than 2, therefore, the laboratory added preservative to the sample to bring the sample within the acceptable pH range. 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-OP7-042016  | SW6010 | Chromium | 0.006  | ug/L  | U          | FBH    |
| 30905-GW-OP11-042016 | SW6010 | Chromium | 0.079  | ug/L  | U          | FBH    |