



## Memorandum

To: Darlene Stringer, MDEQ  
Matt Gamble, MDEQ

Ref. No.: 017360-T08Y15

From: Jeni Quigley/Earl Batenburg/83/Pwl. *JMQ for EB*

Date: February 8, 2016

CC: Dave Favero, RACER Trust

Re: **Fall 2015 Semi-Annual Groundwater Monitoring Report  
Former Grand Rapids Metal Plant  
Wyoming, Michigan**

GHD Services Inc. (GHD) on behalf of Revitalizing Auto Communities Environmental Response (RACER) Trust, conducted groundwater monitoring activities at the former Grand Rapids Metal Plant property located at 300 36<sup>th</sup> Street SW in Wyoming, Michigan (Site). The samples were collected during the field event conducted between October 19, 2015 and October 29, 2015. Sampling was completed in accordance with the methodology described in the 2005 Groundwater Monitoring Work Plan submitted on April 12, 2005 to the Michigan Department of Environmental Quality (MDEQ) and verbally approved on April 28, 2005. Modifications to the aforementioned Work Plan were proposed in a memorandum submitted to the MDEQ on June 3, 2014. The proposed changes included a reduction in the number of monitoring locations and sample analysis parameters. The MDEQ approved the proposed modifications on August 24, 2014. This memorandum (Memorandum) has been prepared to present the results of the Fall 2015 Semi-Annual Groundwater Monitoring activities.

### 1. Fall 2015 Monitoring Activities

The scope of work (SOW) for the semi-annual groundwater monitoring program conducted at the Site includes: the collection and analysis of groundwater/surface water samples for Target Compound List (TCL) volatile organic compounds (VOCs) from monitoring wells and culvert locations; the collection and analysis of groundwater samples for TCL semi-volatile organic compounds (SVOCs) from monitoring wells 85-6, MW44-12, MW45-12, MW46-12, MW50-12, MW51-12, and MW52-12; the collection and analysis of groundwater samples for Site-specific Target Analyte List (TAL) metals from monitoring wells MW59-14 and MW60-14; the measurement of static groundwater levels in all monitoring wells; and the monitoring for the potential presence and measurement of light non-aqueous phase liquid (LNAPL) levels, if present, in select Site monitoring wells 85-6, MW44-12, MW45-12, MW46-12, MW50-12, MW51-12, and MW52-12. Historically, groundwater samples were collected from MW27-11 and analyzed for TCL VOCs and Site-specific TAL metals; however, MW27-11 was located in an area where remedial excavation occurred during June 2015 and the well was abandoned prior to commencing excavation activities.

A total of 46 groundwater samples, including quality assurance/quality control (QA/QC) samples, were collected from 40 monitoring wells. A total of three surface water samples were collected from culvert locations C-1, C-2 and C-3. All samples were collected between October 20, 2015 and October 29, 2015 for analysis of TCL VOCs, TCL SVOCs, and/or TAL metals. Table 1 presents a summary of the samples collected during the Fall 2015 Semi-Annual sampling event.

Dedicated ¼-inch diameter polyethylene tubing is utilized in each of the wells to be sampled. The bottom intake of the tubing was set in the middle of the screened interval for each of the wells. All wells were purged with a peristaltic pump using low-flow purge (LFP) techniques. Wells were purged between 100 and 200 milliliters (mL) per minute with continuous monitoring to confirm less than 0.3 feet of drawdown of the water level. Groundwater quality measurements were recorded in consecutive timed intervals using an YSI® water quality meter and HACH® turbidity meter. Groundwater quality parameters included pH, specific conductivity, temperature, dissolved oxygen (DO), oxidation-reduction potential (ORP), and turbidity. Upon stabilization of field measured water quality parameters, based on three consecutive similar readings, groundwater samples were collected. Groundwater quality measurements are presented in Table 2.

Water samples collected from Cole Drain at the culvert locations C-1, C-2 and C-3 were collected using a new disposable polyethylene sampling bottle at each location.

## 2. Groundwater Elevations and LNAPL

Prior to groundwater sample collection, static water levels were measured and recorded for the monitoring wells. Well caps were unlocked and removed allowing the water levels in the wells to stabilize. Static water levels and LNAPL levels, if present, were measured relative to the top of each riser. Table 3 presents static water levels for October 19, 2015. Figure 1 presents the approximate groundwater flow direction for October 19, 2015.

No measurable thickness of LNAPL was detected in monitoring wells 85-6, MW44-12, MW45-12, MW46-12, MW50-12, MW51-12, or MW52-12. Sheen has historically been observed in monitoring wells in this area; however, no sheen was observed in any of the monitoring wells during this event.

## 3. Analytical Results

Analytical results for groundwater samples were evaluated against the Generic Residential and Non-Residential Cleanup Criteria and Screening Levels established in Part 7 of Administrative Rules, effective December 30, 2013, pursuant to Part 201, Environmental Remediation, 1994 PA 451, as amended. Analytical results for groundwater compared to the aforementioned criteria are presented in Table 4. Analytical results for surface water samples collected are presented in Table 5. Figure 2 presents a summary of groundwater samples analyzed for TAL metals from the last six monitoring events. Figure 3 presents a summary of groundwater samples analyzed for TCL VOCs and TCL SVOCs from the last six monitoring events. Analytical results for groundwater samples are generally consistent with concentrations and constituents identified during previous monitoring events.

A QA/QC data validation was conducted on the analytical laboratory data. Copies of analytical laboratory data and data validation memorandum summarizing the results of the data validation are presented in Attachment A and Attachment B, respectively. Estimated concentrations are identified in the tables of the

memorandum which include qualifications due to contamination in the laboratory method blank, outlying matrix spike/matrix spike duplicate percent recovery and relative percent difference, and analyte concentrations in the trip blanks. Based on the review of the data validation memorandum, the data produced by ALS-MI were found to exhibit acceptable levels of accuracy and precision and may be used with the qualifications noted in the tables in the data validation memoranda. Data was qualified for chromium and copper for the groundwater sample collected from MW60-14 due to detection of these analytes in the method blank. Data was qualified for multiple VOCs for the groundwater sample collected from 87-13 due to outlying matrix spike/matrix spike duplicate results. Data was rejected for 3,3'-Dichlorobenzidine and qualified for several VOCs for the groundwater sample collected from MW44-12 due to outlying matrix spike/matrix spike duplicate results. The outlying matrix spike/matrix spike duplicate analysis results were caused by an improper spiking procedure performed by the laboratory analyst. Additional details regarding the qualified data is presented in the data validation memorandum included in Attachment B. Data was qualified for chloroform in the samples collected from MW8-04, 87-8, and MW11D-04 due to detection of this analyte in the trip blank. The analytes requiring qualification due to the issues identified above are not considered groundwater contaminants of concern at the Site; therefore, the data qualifications do not affect the conclusions presented in this report.

Cis-1,2-dichloroethene was detected in the surface water sample collected at culvert C-2.

Cis-1,2-dichloroethene, tetrachloroethene (PCE), and vinyl chloride were detected in the surface water sample collected at culvert C-3. The contaminants were detected at concentrations consistent with historical monitoring events. As a screening tool, the results of the surface water samples were compared to the Rule 57 Water Quality Values. The concentration of vinyl chloride in the sample collected from C-3 exceeds the Human Cancer Value (HCV) "drink" for a surface water utilized as a drinking water source; however, Cole Drain is not protected as a drinking water source.

#### 4. Conclusions and Recommendations

The analytical results for the groundwater and surface water samples were consistent with previously conducted monitoring events. The concentrations of trichloroethene (TCE) in the area of the former degreaser release (near MW37-12) have reduced slightly indicating the stabilization of the recent increasing trend related to slab removal in 2011 and 2012. The concentrations of PCE, and associated degradation products, in wells located along and near the upgradient, eastern property boundary continue their increasing trend. This indicates that the upgradient off-Site plume is continuing to migrate onto the Site. Concentrations of TCE in on-Site and off-Site monitoring wells downgradient of the former degreaser release area continue to show stable or decreasing trends.

The Spring 2016 Semi-Annual monitoring event will be conducted consistent with the currently approved monitoring program. A No Further Action Report is currently being developed for the Site, including a Post-Closure Monitoring Plan. Any recommendations for changes to the currently approved monitoring program will be presented for MDEQ consideration in the Post-Closure Monitoring Plan.

Please contact David Favero at 734.879.9525 or Jeni Quigley at 269.685.5181 with any questions regarding this Memorandum or the enclosed information.

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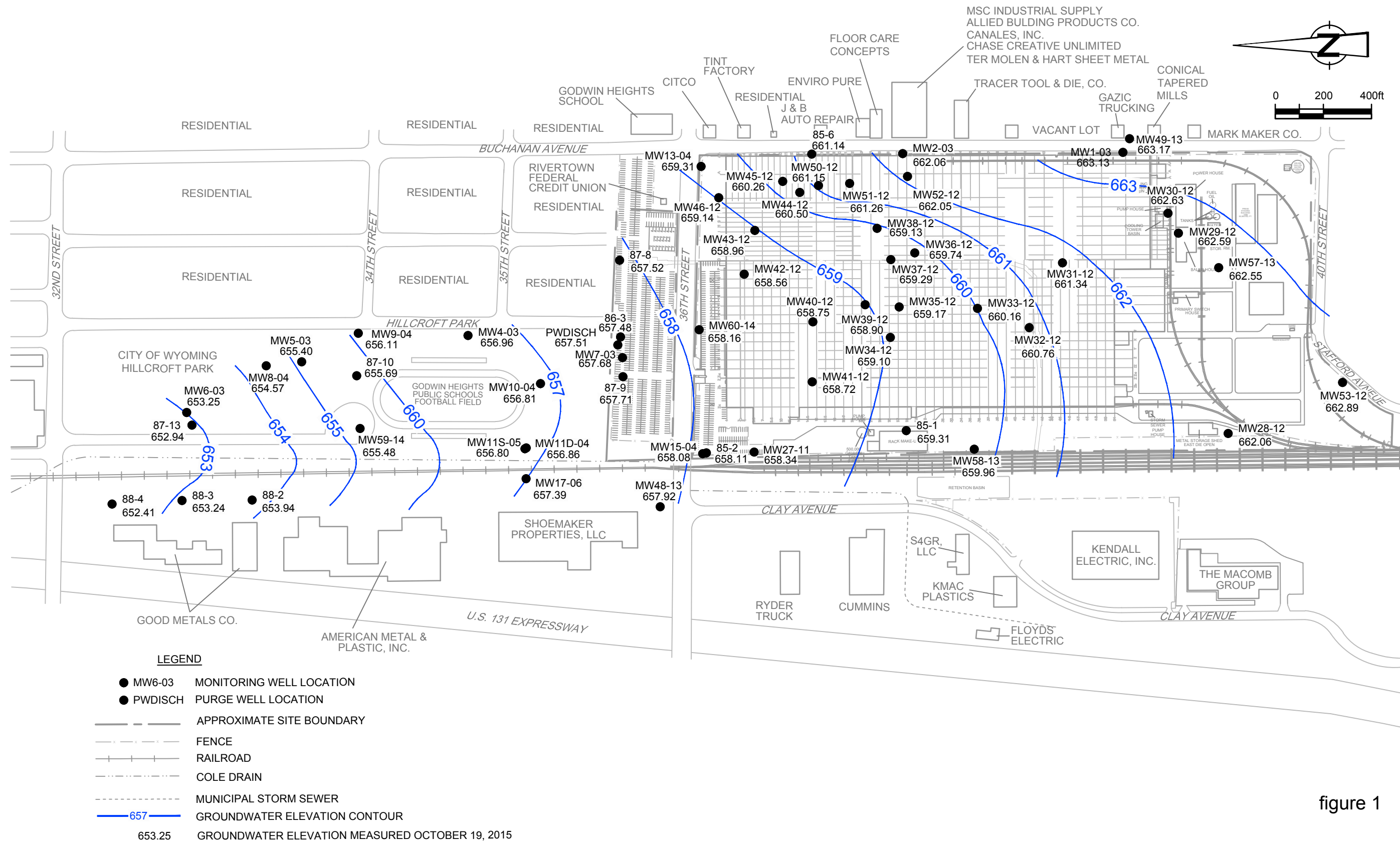


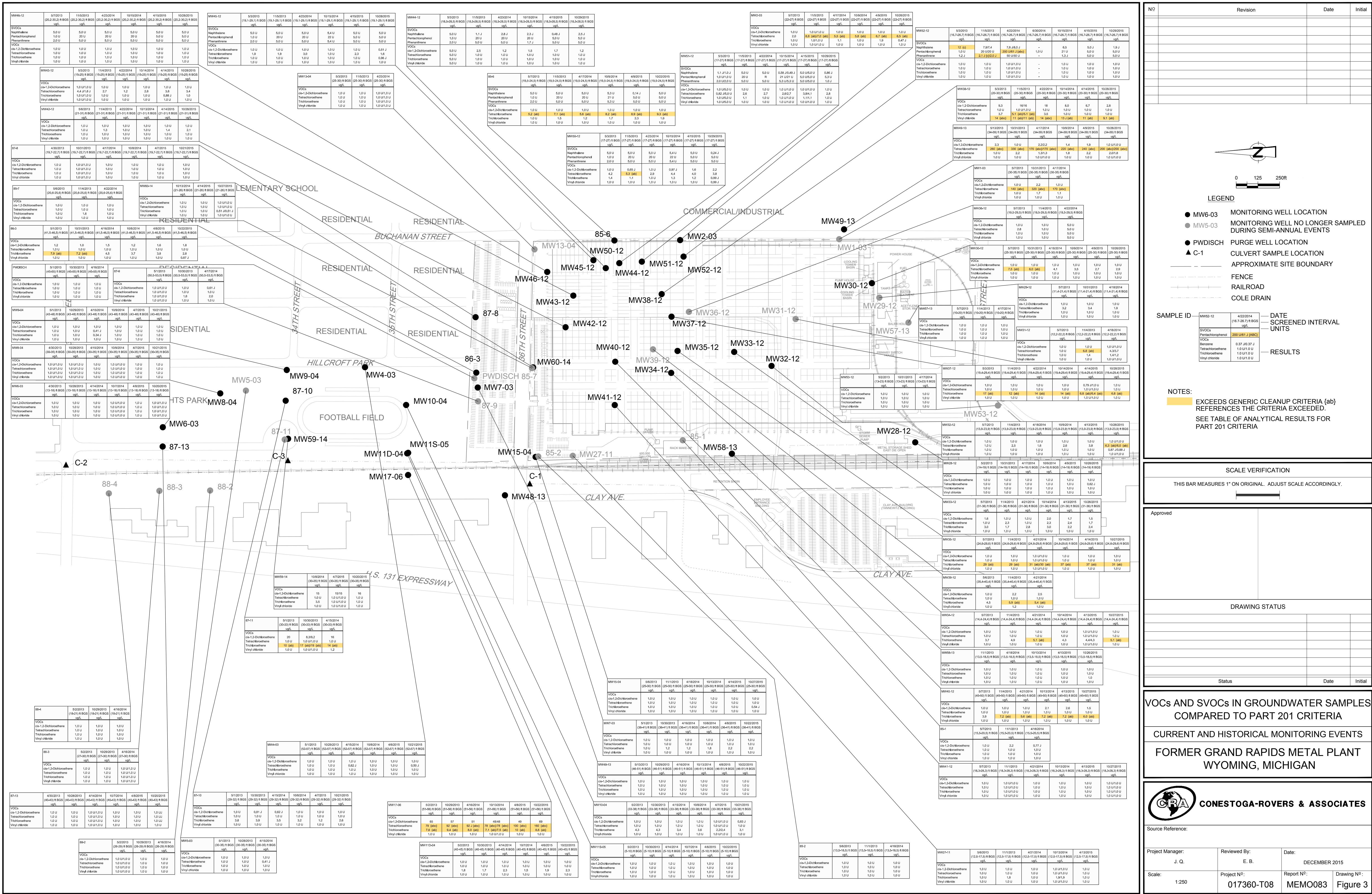
figure 1

GROUNDWATER CONTOURS - OCTOBER 2015  
SEMI-ANNUAL GROUNDWATER MONITORING  
FORMER GRAND RAPIDS METAL PLANT  
Wyoming, Michigan











**Sample Summary**  
**Fall 2015 Semi-Annual Groundwater Monitoring Event**  
**Former Grand Rapids Metal Plant**  
**Wyoming, Michigan**

| <u>Sample Date</u> | <u>Sample Identification</u> | <u>Sample Location</u> | <u>Matrix</u> | <u>Sample Depth</u><br><u>(ft bgs)</u> |         | <u>QC Sample</u>           | <u>Analysis</u> |
|--------------------|------------------------------|------------------------|---------------|----------------------------------------|---------|----------------------------|-----------------|
| 10/20/2015         | WG-017360-102015-MR-001      | MW6-03                 | Groundwater   | 13                                     | to 18   | Duplicate (-001)<br>MS/MSD | VOCs            |
| 10/20/2015         | WG-017360-102015-MR-002      | MW6-03                 | Groundwater   | 13                                     | to 18   |                            | VOCs            |
| 10/20/2015         | WG-017360-102015-MR-003      | 87-13                  | Groundwater   | 40                                     | to 43   |                            | VOCs            |
| 10/20/2015         | SW-017360-102015-MR-004      | C-3                    | Surface Water | -                                      | to -    |                            | VOCs            |
| 10/20/2015         | WG-017360-102015-MR-005      | MW59-14                | Groundwater   | 30                                     | to 35   |                            | VOCs, Metals    |
| 10/20/2015         | SW-017360-102015-MR-006      | C-2                    | Surface Water | -                                      | to -    |                            | VOCs            |
| 10/20/2015         | SW-017360-102015-MR-007      | C-1                    | Surface Water | -                                      | to -    |                            | VOCs            |
| 10/21/2015         | WG-017360-102115-MR-008      | 87-10                  | Groundwater   | 29                                     | to 32   |                            | VOCs            |
| 10/21/2015         | WG-017360-102115-MR-009      | MW8-04                 | Groundwater   | 30                                     | to 35   |                            | VOCs            |
| 10/21/2015         | WG-017360-102115-MR-010      | MW9-04                 | Groundwater   | 43                                     | to 48   |                            | VOCs            |
| 10/21/2015         | WG-017360-102115-MR-011      | MW4-03                 | Groundwater   | 52                                     | to 57   |                            | VOCs            |
| 10/21/2015         | WG-017360-102115-MR-012      | MW10-04                | Groundwater   | 33                                     | to 38   |                            | VOCs            |
| 10/21/2015         | WG-017360-102115-MR-013      | 87-8                   | Groundwater   | 19.7                                   | to 22.7 |                            | VOCs            |
| 10/22/2015         | WG-017360-102215-MR-014      | MW11S-05               | Groundwater   | 5                                      | to 10   |                            | VOCs            |
| 10/22/2015         | WG-017360-102215-MR-015      | MW11D-04               | Groundwater   | 40                                     | to 45   |                            | VOCs            |
| 10/22/2015         | WG-017360-102215-MR-016      | 86-3                   | Groundwater   | 41.5                                   | to 46.5 |                            | VOCs            |
| 10/22/2015         | WG-017360-102215-MR-017      | MW7-03                 | Groundwater   | 36                                     | to 41   |                            | VOCs            |
| 10/22/2015         | WG-017360-102215-MR-018      | MW48-13                | Groundwater   | 46                                     | to 51   |                            | VOCs            |
| 10/22/2015         | WG-017360-102215-MR-019      | MW17-06                | Groundwater   | 51                                     | to 56   |                            | VOCs            |
| 10/22/2015         | WG-017360-102215-MR-020      | 85-6                   | Groundwater   | 19.5                                   | to 24.5 |                            | VOCs, SVOCs     |
| 10/22/2015         | TB-017360-102215-MR-021      | Trip Blank             | Groundwater   | -                                      | to -    |                            | VOCs            |
| 10/26/2015         | WG-017360-102615-MR-022      | MW49-13                | Groundwater   | 34                                     | to 39   | Duplicate (-022)           | VOCs            |
| 10/26/2015         | WG-017360-102615-MR-023      | MW49-13                | Groundwater   | 34                                     | to 39   |                            | VOCs            |
| 10/26/2015         | WG-017360-102615-MR-024      | MW2-03                 | Groundwater   | 22                                     | to 27   |                            | VOCs            |
| 10/26/2015         | WG-017360-102615-MR-025      | MW30-12                | Groundwater   | 25                                     | to 30   |                            | VOCs            |
| 10/26/2015         | WG-017360-102615-MR-026      | MW28-12                | Groundwater   | 14                                     | to 19   |                            | VOCs            |
| 10/26/2015         | WG-017360-102615-MR-027      | MW58-13                | Groundwater   | 13.5                                   | to 18.5 |                            | VOCs            |
| 10/26/2015         | WG-017360-102615-MR-028      | MW33-12                | Groundwater   | 31                                     | to 36   |                            | VOCs            |
| 10/26/2015         | WG-017360-102615-MR-029      | MW32-12                | Groundwater   | 13.9                                   | to 23.9 |                            | VOCs            |
| 10/26/2015         | WG-017360-102615-MR-030      | MW32-12                | Groundwater   | 13.9                                   | to 23.9 | Duplicate (-028)           | VOCs            |
| 10/27/2015         | WG-017360-102715-MR-031      | MW15-04                | Groundwater   | 25                                     | to 30   |                            | VOCs            |
| 10/27/2015         | WG-017360-102715-MR-032      | MW60-14                | Groundwater   | 21                                     | to 26   | Duplicate (-033)           | VOCs, Metals    |
| 10/27/2015         | WG-017360-102715-MR-033      | MW60-14                | Groundwater   | 21                                     | to 26   |                            | VOCs, Metals    |
| 10/27/2015         | WG-017360-102715-MR-034      | MW40-12                | Groundwater   | 45                                     | to 50   |                            | VOCs            |
| 10/27/2015         | WG-017360-102715-MR-035      | MW41-12                | Groundwater   | 18.3                                   | to 28.3 |                            | VOCs            |
| 10/27/2015         | WG-017360-102715-MR-037      | MW34-12                | Groundwater   | 14.4                                   | to 24.4 |                            | VOCs            |
| 10/27/2015         | WG-017360-102715-MR-038      | MW35-12                | Groundwater   | 24.6                                   | to 29.6 | MS/MSD                     | VOCs            |
| 10/28/2015         | WG-017360-102815-MR-039      | MW42-12                | Groundwater   | 21                                     | to 31   |                            | VOCs            |
| 10/28/2015         | WG-017360-102815-MR-040      | MW37-12                | Groundwater   | 19.4                                   | to 29.4 |                            | VOCs            |
| 10/28/2015         | WG-017360-102815-MR-041      | MW38-12                | Groundwater   | 20                                     | to 30   |                            | VOCs            |
| 10/28/2015         | WG-017360-102815-MR-042      | MW46-12                | Groundwater   | 20.2                                   | to 30.2 |                            | VOCs, SVOCs     |
| 10/28/2015         | WG-017360-102815-MR-043      | MW43-12                | Groundwater   | 15                                     | to 25   |                            | VOCs            |
| 10/28/2015         | WG-017360-102815-MR-044      | MW45-12                | Groundwater   | 19.1                                   | to 29.1 |                            | VOCs, SVOCs     |
| 10/29/2015         | WG-017360-102915-MR-045      | MW44-12                | Groundwater   | 18.5                                   | to 28.5 | MS/MSD                     | VOCs, SVOCs     |
| 10/29/2015         | WG-017360-102915-MR-046      | MW50-12                | Groundwater   | 17                                     | to 27   |                            | VOCs, SVOCs     |
| 10/29/2015         | WG-017360-102915-MR-047      | MW51-12                | Groundwater   | 17                                     | to 27   |                            | VOCs, SVOCs     |
| 10/29/2015         | WG-017360-102915-MR-048      | MW52-12                | Groundwater   | 16.7                                   | to 26.7 |                            | VOCs, SVOCs     |
| 10/29/2015         | WG-017360-102915-MR-049      | Trip Blank             | Groundwater   | -                                      | to -    |                            | VOCs            |

## Notes:

VOCs - Target Compound List Volatile Organic Compounds

SVOCs - Target Compound List Semi-Volatile Organic Compounds

Metals - Antimony, Arsenic, Barium, Beryllium, Cadmium, total Chromium, Cobalt, Copper,  
Lead, Manganese, Mercury, Nickel, Selenium, Silver, Thallium, Vanadium, Zinc

QC - Quality Control

MS/MSD - Matrix Spike /Matrix Spike Duplicate

Table 2

**Groundwater Quality Parameters**  
**Fall 2015 Semi-Annual Groundwater Monitoring Event**  
**Former Grand Rapids Metal Plant**  
**Wyoming, Michigan**

| <i>Monitoring<br/>Well<br/>Location</i> | <i>Date</i> | <i>Time<br/>(hours:minutes)</i> | <i>Purge<br/>Rate<br/>(mL/per min.)</i> | <i>Water<br/>Level<br/>(ft. BTOR)</i> | <i>Temperature<br/>(°C)</i> | <i>Conductivity<br/>(mS/cm)</i> | <i>Turbidity<br/>(NTU)</i> | <i>DO<br/>(mg/L)</i> | <i>pH<br/>(Units)</i> | <i>ORP<br/>(mv)</i> |
|-----------------------------------------|-------------|---------------------------------|-----------------------------------------|---------------------------------------|-----------------------------|---------------------------------|----------------------------|----------------------|-----------------------|---------------------|
| 85-6                                    | 10/22/2015  | 16:42                           | 120                                     | 18.52                                 | 16.27                       | 1.293                           | 3.45                       | 2.32                 | 7.29                  | 42.4                |
|                                         |             | 16:47                           | 120                                     | 18.52                                 | 16.52                       | 1.297                           | 2.97                       | 2.31                 | 7.22                  | 46.7                |
|                                         |             | 16:52                           | 120                                     | 18.52                                 | 16.44                       | 1.295                           | 2.41                       | 2.39                 | 7.28                  | 44.4                |
| 86-3                                    | 10/22/2015  | 12:38                           | 120                                     | 19.65                                 | 18.01                       | 1.307                           | 1.32                       | 0.12                 | 7.17                  | 79.0                |
|                                         |             | 12:43                           | 120                                     | 19.65                                 | 18.02                       | 1.306                           | 1.11                       | 0.11                 | 7.16                  | 78.8                |
|                                         |             | 12:48                           | 120                                     | 19.65                                 | 17.99                       | 1.304                           | 1.30                       | 0.10                 | 7.17                  | 79.7                |
| 87-8                                    | 10/21/2015  | 16:09                           | 120                                     | 19.30                                 | 16.76                       | 1.453                           | 1.04                       | 1.51                 | 7.13                  | 92.3                |
|                                         |             | 16:14                           | 120                                     | 19.30                                 | 16.78                       | 1.455                           | 0.99                       | 1.50                 | 7.14                  | 88.4                |
|                                         |             | 16:19                           | 120                                     | 19.30                                 | 16.51                       | 1.455                           | 0.90                       | 1.58                 | 7.20                  | 83.2                |
| 87-10                                   | 10/21/2015  | 10:29                           | 120                                     | 12.20                                 | 15.94                       | 1.501                           | 4.28                       | 0.29                 | 7.53                  | -40.0               |
|                                         |             | 10:34                           | 120                                     | 12.20                                 | 15.95                       | 1.499                           | 4.01                       | 0.27                 | 7.50                  | -43.7               |
|                                         |             | 10:39                           | 120                                     | 12.20                                 | 15.96                       | 1.494                           | 3.23                       | 0.27                 | 7.49                  | -45.5               |
| 87-13                                   | 10/20/2015  | 11:15                           | 200                                     | 10.65                                 | 14.84                       | 1.253                           | 1.84                       | 1.80                 | 7.12                  | -37.5               |
|                                         |             | 11:20                           | 200                                     | 10.65                                 | 14.93                       | 1.253                           | 1.51                       | 1.75                 | 7.11                  | -37.4               |
|                                         |             | 11:25                           | 200                                     | 10.65                                 | 14.97                       | 1.252                           | 1.22                       | 1.83                 | 7.11                  | -40.0               |
| MW2-03                                  | 10/26/2015  | 10:59                           | 110                                     | 18.68                                 | 14.47                       | 1.536                           | 1.93                       | 4.43                 | 7.38                  | 101.4               |
|                                         |             | 11:04                           | 110                                     | 18.68                                 | 14.61                       | 1.536                           | 1.91                       | 4.33                 | 7.40                  | 99.7                |
|                                         |             | 11:09                           | 110                                     | 18.68                                 | 14.84                       | 1.535                           | 1.79                       | 4.50                 | 7.43                  | 95.4                |
| MW4-03                                  | 10/21/2015  | 14:29                           | 150                                     | 22.64                                 | 14.95                       | 1.236                           | 2.08                       | 0.27                 | 7.43                  | 7.3                 |
|                                         |             | 14:34                           | 150                                     | 22.64                                 | 14.96                       | 1.235                           | 1.84                       | 0.28                 | 7.43                  | 9.3                 |
|                                         |             | 14:39                           | 150                                     | 22.64                                 | 14.93                       | 1.235                           | 1.11                       | 0.27                 | 7.41                  | 10.9                |
| MW6-03                                  | 10/20/2015  | 10:08                           | 180                                     | 12.16                                 | 13.39                       | 1.190                           | 2.00                       | 5.05                 | 7.09                  | 6.0                 |
|                                         |             | 10:13                           | 180                                     | 12.16                                 | 13.44                       | 1.184                           | 1.64                       | 4.83                 | 7.10                  | 5.0                 |
|                                         |             | 10:18                           | 180                                     | 12.16                                 | 13.48                       | 1.180                           | 1.57                       | 4.88                 | 7.11                  | 4.5                 |

Table 2

**Groundwater Quality Parameters**  
**Fall 2015 Semi-Annual Groundwater Monitoring Event**  
**Former Grand Rapids Metal Plant**  
**Wyoming, Michigan**

| <i>Monitoring<br/>Well<br/>Location</i> | <i>Date</i> | <i>Time<br/>(hours:minutes)</i> | <i>Purge<br/>Rate<br/>(mL/per min.)</i> | <i>Water<br/>Level<br/>(ft. BTOR)</i> | <i>Temperature<br/>(°C)</i> | <i>Conductivity<br/>(mS/cm)</i> | <i>Turbidity<br/>(NTU)</i> | <i>DO<br/>(mg/L)</i> | <i>pH<br/>(Units)</i> | <i>ORP<br/>(mv)</i> |
|-----------------------------------------|-------------|---------------------------------|-----------------------------------------|---------------------------------------|-----------------------------|---------------------------------|----------------------------|----------------------|-----------------------|---------------------|
| MW7-03                                  | 10/22/2015  | 13:28                           | 120                                     | 17.12                                 | 16.19                       | 1.514                           | 0.80                       | 0.06                 | 7.67                  | 24.6                |
|                                         |             | 13:33                           | 120                                     | 17.12                                 | 16.12                       | 1.511                           | 0.71                       | 0.05                 | 7.67                  | 18.3                |
|                                         |             | 13:38                           | 120                                     | 17.12                                 | 16.07                       | 1.510                           | 0.53                       | 0.07                 | 7.65                  | 16.1                |
| MW8-04                                  | 10/21/2015  | 11:31                           | 140                                     | 19.40                                 | 13.56                       | 1.227                           | 1.48                       | 4.52                 | 7.19                  | -11.5               |
|                                         |             | 11:36                           | 140                                     | 19.40                                 | 13.63                       | 1.228                           | 1.19                       | 4.50                 | 7.18                  | -16.0               |
|                                         |             | 11:41                           | 140                                     | 19.40                                 | 13.69                       | 1.228                           | 1.30                       | 4.60                 | 7.16                  | -18.4               |
| MW9-04                                  | 10/21/2015  | 12:54                           | 150                                     | 22.15                                 | 14.25                       | 1.226                           | 1.00                       | 0.11                 | 7.91                  | 9.6                 |
|                                         |             | 12:59                           | 150                                     | 22.15                                 | 14.23                       | 1.226                           | 0.74                       | 0.10                 | 7.92                  | 7.8                 |
|                                         |             | 13:04                           | 150                                     | 22.15                                 | 14.24                       | 1.226                           | 0.88                       | 0.13                 | 7.97                  | 1.0                 |
| MW10-04                                 | 10/21/2015  | 15:05                           | 120                                     | 9.45                                  | 16.43                       | 1.612                           | 1.79                       | 0.04                 | 7.34                  | 124.6               |
|                                         |             | 15:10                           | 120                                     | 9.45                                  | 16.39                       | 1.619                           | 1.68                       | 0.05                 | 7.29                  | 119.0               |
|                                         |             | 15:15                           | 120                                     | 9.45                                  | 16.18                       | 1.617                           | 1.05                       | 0.03                 | 7.31                  | 116.1               |
| MW11S-05                                | 10/22/2015  | 10:21                           | 120                                     | 6.80                                  | 17.10                       | 1.499                           | 0.98                       | 0.60                 | 6.70                  | -126.7              |
|                                         |             | 10:26                           | 120                                     | 6.80                                  | 17.10                       | 1.503                           | 0.91                       | 0.63                 | 6.72                  | -130.3              |
|                                         |             | 10:31                           | 120                                     | 6.80                                  | 17.07                       | 1.506                           | 0.72                       | 0.60                 | 6.73                  | -135.9              |
| MW11D-04                                | 10/22/2015  | 10:45                           | 130                                     | 6.41                                  | 15.10                       | 1.337                           | 1.38                       | 0.37                 | 7.25                  | 53.2                |
|                                         |             | 10:50                           | 130                                     | 6.41                                  | 15.19                       | 1.335                           | 1.21                       | 0.35                 | 7.25                  | 55.2                |
|                                         |             | 10:55                           | 130                                     | 6.41                                  | 15.18                       | 1.336                           | 1.15                       | 0.36                 | 7.25                  | 59.3                |
| MW15-04                                 | 10/27/2015  | 10:49                           | 120                                     | 13.68                                 | 14.20                       | 1.550                           | 1.21                       | 0.38                 | 7.72                  | -46.8               |
|                                         |             | 10:54                           | 120                                     | 13.68                                 | 14.23                       | 1.551                           | 1.08                       | 0.41                 | 7.78                  | -48.6               |
|                                         |             | 10:59                           | 120                                     | 13.68                                 | 14.24                       | 1.550                           | 1.02                       | 0.42                 | 7.77                  | -49.3               |
| MW17-06                                 | 10/22/2015  | 15:46                           | 110                                     | 7.33                                  | 14.82                       | 2.206                           | 2.99                       | 0.20                 | 7.34                  | 31.5                |
|                                         |             | 15:51                           | 110                                     | 7.33                                  | 14.92                       | 2.202                           | 2.38                       | 0.19                 | 7.34                  | 25.5                |
|                                         |             | 15:56                           | 110                                     | 7.33                                  | 14.88                       | 2.203                           | 2.00                       | 0.18                 | 7.37                  | 25.6                |



**Groundwater Quality Parameters  
Fall 2015 Semi-Annual Groundwater Monitoring Event  
Former Grand Rapids Metal Plant  
Wyoming, Michigan**

| <i>Monitoring<br/>Well<br/>Location</i> | <i>Date</i> | <i>Time<br/>(hours:minutes)</i> | <i>Purge<br/>Rate<br/>(mL/per min.)</i> | <i>Water<br/>Level<br/>(ft. BTOR)</i> | <i>Temperature<br/>(°C)</i> | <i>Conductivity<br/>(mS/cm)</i> | <i>Turbidity<br/>(NTU)</i> | <i>DO<br/>(mg/L)</i> | <i>pH<br/>(Units)</i> | <i>ORP<br/>(mv)</i> |
|-----------------------------------------|-------------|---------------------------------|-----------------------------------------|---------------------------------------|-----------------------------|---------------------------------|----------------------------|----------------------|-----------------------|---------------------|
| MW28-12                                 | 10/26/2015  | 14:08                           | 100                                     | 14.53                                 | 17.41                       | 0.979                           | 0.72                       | 6.02                 | 7.40                  | 70.8                |
|                                         |             | 14:13                           | 100                                     | 14.53                                 | 17.44                       | 0.980                           | 0.59                       | 5.88                 | 7.38                  | 70.3                |
|                                         |             | 14:18                           | 100                                     | 14.53                                 | 17.35                       | 0.980                           | 0.68                       | 5.83                 | 7.32                  | 71.9                |
| MW30-12                                 | 10/26/2015  | 13:05                           | 110                                     | 14.10                                 | 15.22                       | 1.164                           | 2.64                       | 4.17                 | 7.02                  | 99.1                |
|                                         |             | 13:10                           | 110                                     | 14.10                                 | 15.23                       | 1.165                           | 2.70                       | 4.08                 | 7.00                  | 97.3                |
|                                         |             | 13:15                           | 110                                     | 14.10                                 | 15.22                       | 1.167                           | 2.58                       | 4.09                 | 7.02                  | 98.4                |
| MW32-12                                 | 10/26/2015  | 16:49                           | 100                                     | 15.10                                 | 15.76                       | 0.573                           | 0.68                       | 2.10                 | 7.83                  | -57.8               |
|                                         |             | 16:54                           | 100                                     | 15.10                                 | 15.73                       | 0.573                           | 0.61                       | 2.08                 | 7.83                  | -53.4               |
|                                         |             | 16:59                           | 100                                     | 15.10                                 | 15.75                       | 0.574                           | 0.58                       | 2.05                 | 7.83                  | -52.1               |
| MW33-12                                 | 10/26/2015  | 16:15                           | 120                                     | 18.61                                 | 16.15                       | 1.103                           | 1.94                       | 0.09                 | 8.81                  | -143.7              |
|                                         |             | 16:20                           | 120                                     | 18.61                                 | 16.09                       | 1.106                           | 1.72                       | 0.09                 | 8.87                  | -147.8              |
|                                         |             | 16:25                           | 120                                     | 18.61                                 | 16.05                       | 1.105                           | 1.83                       | 0.09                 | 8.87                  | -148.9              |
| MW34-12                                 | 10/27/2015  | 14:58                           | 120                                     | 15.53                                 | 15.47                       | 0.596                           | 2.68                       | 7.08                 | 7.46                  | -8.7                |
|                                         |             | 15:03                           | 120                                     | 15.53                                 | 15.45                       | 0.594                           | 2.31                       | 7.05                 | 7.43                  | -0.8                |
|                                         |             | 15:08                           | 120                                     | 15.53                                 | 15.61                       | 0.594                           | 2.14                       | 7.00                 | 7.45                  | -1.5                |
| MW35-12                                 | 10/27/2015  | 15:55                           | 130                                     | 17.95                                 | 15.44                       | 0.799                           | 1.21                       | 4.12                 | 7.97                  | -32.9               |
|                                         |             | 16:00                           | 130                                     | 17.95                                 | 15.49                       | 0.798                           | 1.00                       | 4.02                 | 7.97                  | -33.0               |
|                                         |             | 16:05                           | 130                                     | 17.95                                 | 15.39                       | 0.797                           | 0.92                       | 4.07                 | 7.96                  | -32.4               |
| MW37-12                                 | 10/28/2015  | 11:32                           | 120                                     | 21.05                                 | 15.18                       | 1.150                           | 0.81                       | 1.11                 | 8.06                  | -49.4               |
|                                         |             | 11:37                           | 120                                     | 21.05                                 | 15.31                       | 1.148                           | 0.80                       | 1.12                 | 8.02                  | -49.0               |
|                                         |             | 11:42                           | 120                                     | 21.05                                 | 15.26                       | 1.150                           | 0.67                       | 1.14                 | 8.02                  | -49.2               |
| MW38-12                                 | 10/28/2015  | 12:45                           | 120                                     | 21.41                                 | 14.86                       | 1.615                           | 1.78                       | 0.33                 | 8.01                  | -120.5              |
|                                         |             | 12:50                           | 120                                     | 21.41                                 | 14.81                       | 1.614                           | 1.60                       | 0.33                 | 8.02                  | -121.9              |
|                                         |             | 12:55                           | 120                                     | 21.41                                 | 14.78                       | 1.615                           | 1.51                       | 0.34                 | 8.02                  | -123.6              |

Table 2

**Groundwater Quality Parameters  
Fall 2015 Semi-Annual Groundwater Monitoring Event  
Former Grand Rapids Metal Plant  
Wyoming, Michigan**

| <i>Monitoring<br/>Well<br/>Location</i> | <i>Date</i> | <i>Time<br/>(hours:minutes)</i> | <i>Purge<br/>Rate<br/>(mL/per min.)</i> | <i>Water<br/>Level<br/>(ft. BTOR)</i> | <i>Temperature<br/>(°C)</i> | <i>Conductivity<br/>(mS/cm)</i> | <i>Turbidity<br/>(NTU)</i> | <i>DO<br/>(mg/L)</i> | <i>pH<br/>(Units)</i> | <i>ORP<br/>(mv)</i> |
|-----------------------------------------|-------------|---------------------------------|-----------------------------------------|---------------------------------------|-----------------------------|---------------------------------|----------------------------|----------------------|-----------------------|---------------------|
| MW40-12                                 | 10/27/2015  | 12:48                           | 130                                     | 22.60                                 | 15.68                       | 1.136                           | 0.86                       | 0.17                 | 8.05                  | -76.1               |
|                                         |             | 12:53                           | 130                                     | 22.60                                 | 15.73                       | 1.138                           | 0.98                       | 0.17                 | 8.07                  | -80.6               |
|                                         |             | 12:58                           | 130                                     | 22.60                                 | 15.79                       | 1.140                           | 0.96                       | 0.17                 | 8.10                  | -83.0               |
| MW41-12                                 | 10/27/2015  | 15:47                           | 120                                     | 19.21                                 | 14.46                       | 1.424                           | 1.57                       | 0.20                 | 7.49                  | -55.9               |
|                                         |             | 15:52                           | 120                                     | 19.21                                 | 14.55                       | 1.428                           | 1.48                       | 0.20                 | 7.48                  | -56.9               |
|                                         |             | 15:57                           | 120                                     | 19.21                                 | 14.55                       | 1.429                           | 1.56                       | 0.21                 | 7.49                  | -57.8               |
| MW42-12                                 | 10/28/2015  | 10:47                           | 130                                     | 22.40                                 | 14.68                       | 1.162                           | 1.63                       | 1.43                 | 7.73                  | -29.1               |
|                                         |             | 10:52                           | 130                                     | 22.40                                 | 14.68                       | 1.163                           | 1.48                       | 1.47                 | 7.74                  | -30.3               |
|                                         |             | 10:57                           | 130                                     | 22.40                                 | 14.68                       | 1.164                           | 0.99                       | 1.35                 | 7.73                  | -30.7               |
| MW43-12                                 | 10/28/2015  | 14:47                           | 110                                     | 16.80                                 | 14.74                       | 1.372                           | 0.70                       | 0.17                 | 7.55                  | -35.4               |
|                                         |             | 14:52                           | 110                                     | 16.80                                 | 14.74                       | 1.372                           | 0.55                       | 0.17                 | 7.55                  | -35.8               |
|                                         |             | 14:57                           | 110                                     | 16.80                                 | 14.74                       | 1.372                           | 0.45                       | 0.17                 | 7.54                  | -37.3               |
| MW44-12                                 | 10/29/2015  | 11:18                           | 110                                     | 19.35                                 | 12.25                       | 0.818                           | 4.91                       | 0.13                 | 9.55                  | -141.3              |
|                                         |             | 11:23                           | 110                                     | 19.35                                 | 12.39                       | 0.818                           | 4.31                       | 0.14                 | 9.55                  | -149.9              |
|                                         |             | 11:28                           | 110                                     | 19.35                                 | 12.49                       | 0.821                           | 3.89                       | 0.11                 | 9.62                  | -150.2              |
| MW45-12                                 | 10/28/2015  | 16:06                           | 120                                     | 18.78                                 | 14.73                       | 1.342                           | 2.04                       | 0.11                 | 9.77                  | -98.6               |
|                                         |             | 16:11                           | 120                                     | 18.78                                 | 14.64                       | 1.342                           | 1.89                       | 0.10                 | 9.75                  | -99.7               |
|                                         |             | 16:16                           | 120                                     | 18.78                                 | 14.58                       | 1.342                           | 1.50                       | 0.11                 | 9.77                  | -100.7              |
| MW46-12                                 | 10/28/2012  | 13:53                           | 100                                     | 21.20                                 | 14.19                       | 1.398                           | 0.81                       | 6.46                 | 7.39                  | 3.4                 |
|                                         |             | 13:58                           | 100                                     | 21.20                                 | 14.23                       | 1.397                           | 0.70                       | 6.49                 | 7.38                  | 4.7                 |
|                                         |             | 14:03                           | 100                                     | 21.20                                 | 14.22                       | 1.398                           | 0.55                       | 6.49                 | 7.38                  | 4.8                 |
| MW48-13                                 | 10/22/2015  | 14:49                           | 120                                     | 13.25                                 | 15.71                       | 1.879                           | 0.89                       | 0.19                 | 7.80                  | 4.4                 |
|                                         |             | 14:49                           | 120                                     | 13.25                                 | 15.86                       | 1.878                           | 0.95                       | 0.17                 | 7.80                  | 1.8                 |
|                                         |             | 14:49                           | 120                                     | 13.25                                 | 15.71                       | 1.875                           | 0.92                       | 0.16                 | 7.77                  | 1.1                 |

**Groundwater Quality Parameters  
Fall 2015 Semi-Annual Groundwater Monitoring Event  
Former Grand Rapids Metal Plant  
Wyoming, Michigan**

| <i>Monitoring<br/>Well<br/>Location</i> | <i>Date</i> | <i>Time<br/>(hours:minutes)</i> | <i>Purge<br/>Rate<br/>(mL/per min.)</i> | <i>Water<br/>Level<br/>(ft. BTOR)</i> | <i>Temperature<br/>(°C)</i> | <i>Conductivity<br/>(mS/cm)</i> | <i>Turbidity<br/>(NTU)</i> | <i>DO<br/>(mg/L)</i> | <i>pH<br/>(Units)</i> | <i>ORP<br/>(mv)</i> |
|-----------------------------------------|-------------|---------------------------------|-----------------------------------------|---------------------------------------|-----------------------------|---------------------------------|----------------------------|----------------------|-----------------------|---------------------|
| MW49-13                                 | 10/26/2015  | 11:33                           | 120                                     | 15.73                                 | 14.57                       | 1.081                           | 0.91                       | 2.78                 | 7.61                  | 47.8                |
|                                         |             | 11:38                           | 120                                     | 15.73                                 | 14.60                       | 1.080                           | 0.78                       | 2.79                 | 7.60                  | 40.1                |
|                                         |             | 11:43                           | 120                                     | 15.73                                 | 14.52                       | 1.077                           | 0.48                       | 2.82                 | 7.62                  | 40.9                |
| MW50-12                                 | 10/29/2015  | 13:22                           | 120                                     | 19.15                                 | 12.86                       | 1.318                           | 5.74                       | 0.14                 | 9.47                  | -69.4               |
|                                         |             | 13:27                           | 120                                     | 19.15                                 | 12.87                       | 1.315                           | 5.20                       | 0.13                 | 9.53                  | -73.3               |
|                                         |             | 13:32                           | 120                                     | 19.15                                 | 12.91                       | 1.311                           | 4.58                       | 0.13                 | 9.55                  | -78.0               |
| MW51-12                                 | 10/29/2015  | 14:56                           | 130                                     | 19.40                                 | 13.05                       | 1.055                           | 6.02                       | 0.09                 | 10.49                 | -90.0               |
|                                         |             | 15:01                           | 130                                     | 19.40                                 | 13.18                       | 1.059                           | 5.32                       | 0.07                 | 10.51                 | -93.3               |
|                                         |             | 15:06                           | 130                                     | 19.40                                 | 13.19                       | 1.063                           | 4.59                       | 0.04                 | 10.54                 | -97.6               |
| MW52-12                                 | 10/29/2015  | 16:18                           | 120                                     | 17.90                                 | 14.00                       | 1.401                           | 5.88                       | 0.05                 | 9.90                  | -120.7              |
|                                         |             | 16:23                           | 120                                     | 17.90                                 | 13.93                       | 1.397                           | 5.34                       | 0.03                 | 9.94                  | -120.3              |
|                                         |             | 16:28                           | 120                                     | 17.90                                 | 13.90                       | 1.398                           | 4.87                       | 0.03                 | 9.94                  | -122.5              |
| MW58-13                                 | 10/26/2015  | 15:08                           | 110                                     | 15.33                                 | 16.39                       | 0.593                           | 1.09                       | 6.47                 | 6.47                  | 124.0               |
|                                         |             | 15:13                           | 110                                     | 15.33                                 | 16.40                       | 0.589                           | 1.05                       | 6.40                 | 6.44                  | 128.3               |
|                                         |             | 15:18                           | 110                                     | 15.33                                 | 16.42                       | 0.588                           | 0.98                       | 6.45                 | 6.41                  | 126.1               |
| MW59-14                                 | 10/20/2015  | 13:00                           | 170                                     | 11.08                                 | 16.77                       | 1.620                           | 1.09                       | 0.05                 | 7.33                  | -140.20             |
|                                         |             | 13:05                           | 170                                     | 11.08                                 | 16.78                       | 1.622                           | 0.96                       | 0.04                 | 7.35                  | -143.00             |
|                                         |             | 13:10                           | 170                                     | 11.08                                 | 16.81                       | 1.624                           | 0.84                       | 0.03                 | 7.36                  | -145.30             |
| MW60-14                                 | 10/27/2015  | 11:33                           | 110                                     | 19.51                                 | 15.01                       | 1.159                           | 1.34                       | 2.73                 | 7.75                  | -19.8               |
|                                         |             | 11:38                           | 110                                     | 19.51                                 | 15.03                       | 1.160                           | 1.10                       | 2.78                 | 7.77                  | -21.3               |
|                                         |             | 11:43                           | 110                                     | 19.51                                 | 15.06                       | 1.160                           | 1.01                       | 2.68                 | 7.80                  | -23.4               |

## Notes:

ft. BTOR - feet below top of riser

DO - dissolved oxygen

ORP - oxidation-reduction potential



**Groundwater Elevation Data**  
**Fall 2015 Semi-Annual Groundwater Monitoring Event**  
**Former Grand Rapids Metal Plant**  
**Wyoming, Michigan**

| <u>Location</u> | <u>LNAPL Thickness (ft.)</u> | <u>Groundwater Elevation</u> <sup>(2)</sup> | <u>Depth Below Top of Riser (ft.)</u> |
|-----------------|------------------------------|---------------------------------------------|---------------------------------------|
| 85-1            |                              | 659.31                                      | 15.72                                 |
| 85-2            |                              | 658.11                                      | 13.52                                 |
| 85-6            | (1)                          | 661.14                                      | 18.45                                 |
| 86-3            |                              | 657.48                                      | 18.32                                 |
| 87-8            |                              | 657.52                                      | 19.26                                 |
| 87-9            |                              | 657.71                                      | 15.42                                 |
| 88-2            |                              | 653.94                                      | 11.86                                 |
| 88-3            |                              | 653.24                                      | 11.12                                 |
| 88-4            |                              | 652.41                                      | 8.79                                  |
| 87-10           |                              | 655.69                                      | 12.07                                 |
| 87-13           |                              | 652.94                                      | 10.63                                 |
| MW1-03          |                              | 663.13                                      | 15.55                                 |
| MW2-03          |                              | 662.06                                      | 18.54                                 |
| MW4-03          |                              | 656.96                                      | 22.16                                 |
| MW5-03          |                              | 655.40                                      | 20.42                                 |
| MW6-03          |                              | 653.25                                      | 12.14                                 |
| MW7-03          |                              | 657.68                                      | 17.11                                 |
| MW8-04          |                              | 654.57                                      | 19.75                                 |
| MW9-04          |                              | 656.11                                      | 22.18                                 |
| MW10-04         |                              | 656.81                                      | 9.48                                  |
| MW11D-04        |                              | 656.86                                      | 6.41                                  |
| MW11S-05        |                              | 656.80                                      | 6.78                                  |
| MW13-04         |                              | 659.31                                      | 18.95                                 |
| MW15-04         |                              | 658.08                                      | 13.61                                 |
| MW17-06         |                              | 657.39                                      | 7.32                                  |
| MW28-12         |                              | 662.06                                      | 14.48                                 |
| MW29-12         |                              | 662.59                                      | 13.1                                  |
| MW30-12         |                              | 662.63                                      | 14.03                                 |
| MW31-12         |                              | 661.34                                      | 14.08                                 |
| MW32-12         |                              | 660.76                                      | 15.01                                 |
| MW33-12         |                              | 660.16                                      | 18.55                                 |
| MW34-12         |                              | 659.10                                      | 15.48                                 |
| MW35-12         |                              | 659.17                                      | 17.89                                 |
| MW36-12         |                              | 659.74                                      | 20.25                                 |
| MW37-12         |                              | 659.29                                      | 21.01                                 |
| MW38-12         |                              | 659.13                                      | 21.38                                 |
| MW39-12         |                              | 658.90                                      | 20.28                                 |
| MW40-12         |                              | 658.75                                      | 22.51                                 |
| MW41-12         |                              | 658.72                                      | 19.15                                 |
| MW42-12         |                              | 658.56                                      | 22.38                                 |
| MW43-12         |                              | 658.96                                      | 16.76                                 |
| MW44-12         | (1)                          | 660.50                                      | 18.99                                 |
| MW45-12         | (1)                          | 660.26                                      | 18.57                                 |
| MW46-12         | (1)                          | 659.14                                      | 21.11                                 |
| MW48-13         |                              | 657.92                                      | 13.18                                 |
| MW49-13         |                              | 663.17                                      | 15.61                                 |
| MW50-12         | (1)                          | 661.15                                      | 18.96                                 |
| MW51-12         | (1)                          | 661.26                                      | 19.18                                 |
| MW52-12         | (1)                          | 662.05                                      | 17.64                                 |
| MW53-12         |                              | 662.89                                      | 14.35                                 |
| MW57-13         |                              | 662.55                                      | 14.93                                 |
| MW58-13         |                              | 659.96                                      | 15.27                                 |
| MW59-14         |                              | 655.48                                      | 11.07                                 |
| MW60-14         |                              | 658.16                                      | 19.47                                 |
| PWDISCH         |                              | 657.51                                      | 20.28                                 |

**Notes:**

<sup>(1)</sup> No measurable LNAPL or sheen was identified in the wells.

<sup>(2)</sup> Groundwater elevations measured in feet above mean sea level.

**Groundwater Sample Analytical Results  
Fall 2015 Semi-Annual Groundwater Event  
Former Grand Rapids Metal Plant  
Wyoming, Michigan**

| MDEQ Generic Groundwater Cleanup Criteria: Residential and Non-Residential <sup>(1)</sup> |                            |                                |                                                    |                                                                 |                                                                     |                  |                                               |                                         |                                             |  |
|-------------------------------------------------------------------------------------------|----------------------------|--------------------------------|----------------------------------------------------|-----------------------------------------------------------------|---------------------------------------------------------------------|------------------|-----------------------------------------------|-----------------------------------------|---------------------------------------------|--|
|                                                                                           | Residential Drinking Water | Non-Residential Drinking Water | Groundwater Surface Water Interface <sup>(2)</sup> | Residential Groundwater Volatilization to Indoor Air Inhalation | Non-Residential Groundwater Volatilization to Indoor Air Inhalation | Water Solubility | Flammability and Explosivity Screening Levels | Residential Health-Based Drinking Water | Non-Residential Health-Based Drinking Water |  |
|                                                                                           | a                          | b                              | c                                                  | d                                                               | e                                                                   | f                | g                                             | h                                       | i                                           |  |
| Units                                                                                     |                            |                                |                                                    |                                                                 |                                                                     |                  |                                               |                                         |                                             |  |
| Volatile Organic Compounds (VOCs)                                                         |                            |                                |                                                    |                                                                 |                                                                     |                  |                                               |                                         |                                             |  |
| 1,1,1-Trichloroethane                                                                     | ug/L 200                   | 200                            | 89                                                 | 660000                                                          | 1300000                                                             | 1330000          | ID                                            | NA                                      | NA                                          |  |
| 1,1,2,2-Tetrachloroethane                                                                 | ug/L 8.5                   | 35                             | 78                                                 | 12000                                                           | 77000                                                               | 2970000          | ID                                            | NA                                      | NA                                          |  |
| 1,1,2-Trichloroethane                                                                     | ug/L 5                     | 5                              | 330                                                | 17000                                                           | 110000                                                              | 4420000          | NA                                            | NA                                      | NA                                          |  |
| 1,1-Dichloroethane                                                                        | ug/L 880                   | 2500                           | 740                                                | 1000000                                                         | 2300000                                                             | 5060000          | 380000                                        | NA                                      | NA                                          |  |
| 1,1-Dichloroethene                                                                        | ug/L 7                     | 7                              | 130                                                | 200                                                             | 1300                                                                | 2250000          | 97000                                         | NA                                      | NA                                          |  |
| 1,2,4-Trichlorobenzene                                                                    | ug/L 70                    | 70                             | 99                                                 | 300000                                                          | 300000                                                              | 300000           | NA                                            | NA                                      | NA                                          |  |
| 1,2-Dibromo-3-chloropropane (DBCP)                                                        | ug/L 0.2                   | 0.2                            | NA                                                 | 220                                                             | 1200                                                                | 1230             | NA                                            | NA                                      | NA                                          |  |
| 1,2-Dibromoethane <sup>(3)</sup>                                                          | ug/L 0.05                  | 0.05                           | 5.7                                                | 2400                                                            | 15000                                                               | 4200000          | ID                                            | NA                                      | NA                                          |  |
| 1,2-Dichlorobenzene                                                                       | ug/L 600                   | 600                            | 13                                                 | 160000                                                          | 160000                                                              | 156000           | NA                                            | NA                                      | NA                                          |  |
| 1,2-Dichloroethane                                                                        | ug/L 5                     | 5                              | 360                                                | 9600                                                            | 59000                                                               | 8520000          | 2500000                                       | NA                                      | NA                                          |  |
| 1,2-Dichloropropane                                                                       | ug/L 5                     | 5                              | 230                                                | 16000                                                           | 36000                                                               | 2800000          | 550000                                        | NA                                      | NA                                          |  |
| 1,3-Dichlorobenzene                                                                       | ug/L 6.6                   | 19                             | 28                                                 | 18000                                                           | 41000                                                               | 111000           | ID                                            | NA                                      | NA                                          |  |
| 1,4-Dichlorobenzene                                                                       | ug/L 75                    | 75                             | 17                                                 | 16000                                                           | 74000                                                               | 73800            | NA                                            | NA                                      | NA                                          |  |
| 2-Butanone <sup>(4)</sup>                                                                 | ug/L 13000                 | 38000                          | 2200                                               | 240000000                                                       | 240000000                                                           | 240000000        | ID                                            | NA                                      | NA                                          |  |
| 2-Hexanone                                                                                | ug/L 1000                  | 2900                           | ID                                                 | 4200000                                                         | 8700000                                                             | 16000000         | NA                                            | NA                                      | NA                                          |  |
| 4-Methyl-2-pentanone <sup>(5)</sup>                                                       | ug/L 1800                  | 5200                           | ID                                                 | 20000000                                                        | 20000000                                                            | 20000000         | ID                                            | NA                                      | NA                                          |  |
| Acetone                                                                                   | ug/L 730                   | 2100                           | 1700                                               | 1000000000                                                      | 1000000000                                                          | 1000000000       | 15000000                                      | NA                                      | NA                                          |  |
| Benzene                                                                                   | ug/L 5                     | 5                              | 200                                                | 5600                                                            | 35000                                                               | 1750000          | 68000                                         | NA                                      | NA                                          |  |
| Bromodichloromethane                                                                      | ug/L 80                    | 80                             | ID                                                 | 4800                                                            | 37000                                                               | 6740000          | ID                                            | NA                                      | NA                                          |  |
| Bromoform                                                                                 | ug/L 80                    | 80                             | ID                                                 | 4700000                                                         | 3100000                                                             | 3100000          | ID                                            | NA                                      | NA                                          |  |
| Bromomethane (Methyl bromide)                                                             | ug/L 10                    | 29                             | 35                                                 | 4000                                                            | 9000                                                                | 14500000         | ID                                            | NA                                      | NA                                          |  |
| Carbon disulfide                                                                          | ug/L 800                   | 2300                           | ID                                                 | 250000                                                          | 550000                                                              | 1190000          | 13000                                         | NA                                      | NA                                          |  |
| Carbon tetrachloride                                                                      | ug/L 5                     | 5                              | 45                                                 | 370                                                             | 2400                                                                | 793000           | ID                                            | NA                                      | NA                                          |  |
| Chlorobenzene                                                                             | ug/L 100                   | 100                            | 25                                                 | 210000                                                          | 470000                                                              | 472000           | 160000                                        | NA                                      | NA                                          |  |
| Chloroethane                                                                              | ug/L 430                   | 1700                           | 1100                                               | 5700000                                                         | 5700000                                                             | 5740000          | 110000                                        | NA                                      | NA                                          |  |
| Chloroform (Trichloromethane)                                                             | ug/L 80                    | 80                             | 350                                                | 28000                                                           | 180000                                                              | 7920000          | ID                                            | NA                                      | NA                                          |  |
| Chloromethane (Methyl chloride)                                                           | ug/L 260                   | 1100                           | ID                                                 | 8600                                                            | 45000                                                               | 6340000          | 36000                                         | NA                                      | NA                                          |  |
| cis-1,2-Dichloroethene                                                                    | ug/L 70                    | 70                             | 620                                                | 93000                                                           | 210000                                                              | 3500000          | 530000                                        | NA                                      | NA                                          |  |
| cis-1,3-Dichloropropene                                                                   | ug/L NA                    | NA                             | NA                                                 | NA                                                              | NA                                                                  | NA               | NA                                            | NA                                      | NA                                          |  |
| Cyclohexane                                                                               | ug/L NA                    | NA                             | NA                                                 | NA                                                              | NA                                                                  | NA               | NA                                            | NA                                      | NA                                          |  |
| Dibromochloromethane                                                                      | ug/L 80                    | 80                             | ID                                                 | 14000                                                           | 110000                                                              | 2600000          | ID                                            | NA                                      | NA                                          |  |
| Dichlorodifluoromethane (CFC-12)                                                          | ug/L 1700                  | 4800                           | ID                                                 | 220000                                                          | 300000                                                              | 300000           | ID                                            | NA                                      | NA                                          |  |
| Ethylbenzene                                                                              | ug/L 74                    | 74                             | 18                                                 | 110000                                                          | 170000                                                              | 169000           | 43000                                         | 700                                     | 700                                         |  |
| Isopropyl benzene                                                                         | ug/L 800                   | 2300                           | 28                                                 | 56000                                                           | 56000                                                               | 56000            | 29000                                         | NA                                      | NA                                          |  |
| Methyl acetate                                                                            | ug/L NA                    | NA                             | NA                                                 | NA                                                              | NA                                                                  | NA               | NA                                            | NA                                      | NA                                          |  |
| Methyl cyclohexane                                                                        | ug/L NA                    | NA                             | NA                                                 | NA                                                              | NA                                                                  | NA               | NA                                            | NA                                      | NA                                          |  |
| Methyl tert butyl ether (MTBE)                                                            | ug/L 40                    | 40                             | 7100                                               | 47000000                                                        | 47000000                                                            | 46800000         | ID                                            | 240                                     | 690                                         |  |
| Methylene chloride                                                                        | ug/L 5                     | 5                              | 1500                                               | 220000                                                          | 1400000                                                             | 17000000         | ID                                            | NA                                      | NA                                          |  |
| Styrene                                                                                   | ug/L 100                   | 100                            | 80                                                 | 170000                                                          | 310000                                                              | 310000           | 140000                                        | NA                                      | NA                                          |  |
| Tetrachloroethene                                                                         | ug/L 5                     | 5                              | 60                                                 | 25000                                                           | 170000                                                              | 200000           | ID                                            | NA                                      | NA                                          |  |
| Toluene                                                                                   | ug/L 790                   | 790                            | 270                                                | 530000                                                          | 530000                                                              | 526000           | 61000                                         | 1000                                    | 1000                                        |  |
| trans-1,2-Dichloroethene                                                                  | ug/L 100                   | 100                            | 1500                                               | 85000                                                           | 200000                                                              | 6300000          | 230000                                        | NA                                      | NA                                          |  |
| trans-1,3-Dichloropropene                                                                 | ug/L NA                    | NA                             | NA                                                 | NA                                                              | NA                                                                  | NA               | NA                                            | NA                                      | NA                                          |  |

**Groundwater Sample Analytical Results  
Fall 2015 Semi-Annual Groundwater Event  
Former Grand Rapids Metal Plant  
Wyoming, Michigan**

| <b>MDEQ Generic Groundwater Cleanup Criteria: Residential and Non-Residential <sup>(4)</sup></b> |                               |                                   |                                                          |                                                                       |                                                                           |                     |                                                     |                                               |                                                   |       |
|--------------------------------------------------------------------------------------------------|-------------------------------|-----------------------------------|----------------------------------------------------------|-----------------------------------------------------------------------|---------------------------------------------------------------------------|---------------------|-----------------------------------------------------|-----------------------------------------------|---------------------------------------------------|-------|
|                                                                                                  | Residential<br>Drinking Water | Non-Residential<br>Drinking Water | Groundwater<br>Surface Water<br>Interface <sup>(2)</sup> | Residential Groundwater<br>Volatilization to<br>Indoor Air Inhalation | Non-Residential Groundwater<br>Volatilization to<br>Indoor Air Inhalation | Water<br>Solubility | Flammability and<br>Explosivity<br>Screening Levels | Residential<br>Health-Based<br>Drinking Water | Non-Residential<br>Health-Based<br>Drinking Water |       |
|                                                                                                  | a                             | b                                 | c                                                        | d                                                                     | e                                                                         | f                   | g                                                   | h                                             | i                                                 |       |
| <b>Units</b>                                                                                     |                               |                                   |                                                          |                                                                       |                                                                           |                     |                                                     |                                               |                                                   |       |
| <b>VOCs (continued)</b>                                                                          |                               |                                   |                                                          |                                                                       |                                                                           |                     |                                                     |                                               |                                                   |       |
| Trichloroethene                                                                                  | ug/L                          | 5                                 | 5                                                        | 200                                                                   | 2200                                                                      | 4900                | 1100000                                             | ID                                            | NA                                                | NA    |
| Trichlorofluoromethane (CFC-11)                                                                  | ug/L                          | 2600                              | 7300                                                     | NA                                                                    | 1100000                                                                   | 1100000             | 1100000                                             | ID                                            | NA                                                | NA    |
| Trifluorotrichloroethane (CFC-113)                                                               | ug/L                          | 170000                            | 170000                                                   | 32                                                                    | 170000                                                                    | 170000              | 170000                                              | ID                                            | NA                                                | NA    |
| Vinyl chloride                                                                                   | ug/L                          | 2                                 | 2                                                        | 13                                                                    | 1100                                                                      | 13000               | 2760000                                             | 33000                                         | NA                                                | NA    |
| Xylenes (total)                                                                                  | ug/L                          | 280                               | 280                                                      | 41                                                                    | 190000                                                                    | 190000              | 186000                                              | 70000                                         | 10000                                             | 10000 |
| <b>Semi-Volatile Organic Compounds (SVOCs)</b>                                                   |                               |                                   |                                                          |                                                                       |                                                                           |                     |                                                     |                                               |                                                   |       |
| 2,2'-Oxybis(1-chloropropane) <sup>(6)</sup>                                                      | ug/L                          | NA                                | NA                                                       | NA                                                                    | NA                                                                        | NA                  | NA                                                  | NA                                            | NA                                                | NA    |
| 2,4,5-Trichlorophenol                                                                            | ug/L                          | 730                               | 2100                                                     | NA                                                                    | NLV                                                                       | NLV                 | 1200000                                             | ID                                            | NA                                                | NA    |
| 2,4,6-Trichlorophenol                                                                            | ug/L                          | 120                               | 470                                                      | 5                                                                     | NLV                                                                       | NLV                 | 800000                                              | ID                                            | NA                                                | NA    |
| 2,4-Dichlorophenol                                                                               | ug/L                          | 73                                | 210                                                      | 11                                                                    | NLV                                                                       | NLV                 | 4500000                                             | ID                                            | NA                                                | NA    |
| 2,4-Dimethylphenol                                                                               | ug/L                          | 370                               | 1000                                                     | 380                                                                   | NLV                                                                       | NLV                 | 7870000                                             | ID                                            | NA                                                | NA    |
| 2,4-Dinitrophenol                                                                                | ug/L                          | NA                                | NA                                                       | NA                                                                    | NA                                                                        | NA                  | NA                                                  | NA                                            | NA                                                | NA    |
| 2,4-Dinitrotoluene                                                                               | ug/L                          | 7.7                               | 32                                                       | NA                                                                    | NLV                                                                       | NLV                 | 270000                                              | ID                                            | NA                                                | NA    |
| 2,6-Dinitrotoluene                                                                               | ug/L                          | NA                                | NA                                                       | NA                                                                    | NA                                                                        | NA                  | NA                                                  | NA                                            | NA                                                | NA    |
| 2-Chloronaphthalene                                                                              | ug/L                          | 1800                              | 5200                                                     | NA                                                                    | ID                                                                        | ID                  | 6740                                                | ID                                            | NA                                                | NA    |
| 2-Chlorophenol                                                                                   | ug/L                          | 45                                | 130                                                      | 18                                                                    | ID                                                                        | ID                  | 22000000                                            | ID                                            | NA                                                | NA    |
| 2-Methylnaphthalene                                                                              | ug/L                          | 260                               | 750                                                      | 19                                                                    | 25000                                                                     | 25000               | 24600                                               | ID                                            | NA                                                | NA    |
| 2-Methylphenol                                                                                   | ug/L                          | 370                               | 1000                                                     | 30                                                                    | NLV                                                                       | NLV                 | 28000000                                            | NA                                            | NA                                                | NA    |
| 2-Nitroaniline                                                                                   | ug/L                          | NA                                | NA                                                       | NA                                                                    | NA                                                                        | NA                  | NA                                                  | NA                                            | NA                                                | NA    |
| 2-Nitrophenol                                                                                    | ug/L                          | 20                                | 58                                                       | ID                                                                    | NLV                                                                       | NLV                 | 2500000                                             | ID                                            | NA                                                | NA    |
| 3&4-Methylphenol                                                                                 | ug/L                          | 370                               | 1000                                                     | 30                                                                    | NLV                                                                       | NLV                 | 28000000                                            | NA                                            | NA                                                | NA    |
| 3,3'-Dichlorobenzidine                                                                           | ug/L                          | 1.1                               | 4.3                                                      | 0.3                                                                   | NLV                                                                       | NLV                 | 3110                                                | ID                                            | NA                                                | NA    |
| 3-Nitroaniline                                                                                   | ug/L                          | NA                                | NA                                                       | NA                                                                    | NA                                                                        | NA                  | NA                                                  | NA                                            | NA                                                | NA    |
| 4,6-Dinitro-2-methylphenol                                                                       | ug/L                          | 20                                | 20                                                       | NA                                                                    | NLV                                                                       | NLV                 | 200000                                              | ID                                            | NA                                                | NA    |
| 4-Bromophenyl phenyl ether                                                                       | ug/L                          | NA                                | NA                                                       | NA                                                                    | NA                                                                        | NA                  | NA                                                  | NA                                            | NA                                                | NA    |
| 4-Chloro-3-methylphenol                                                                          | ug/L                          | 150                               | 420                                                      | 7.4                                                                   | NLV                                                                       | NLV                 | 3900000                                             | ID                                            | NA                                                | NA    |
| 4-Chloroaniline                                                                                  | ug/L                          | NA                                | NA                                                       | NA                                                                    | NA                                                                        | NA                  | NA                                                  | NA                                            | NA                                                | NA    |
| 4-Chlorophenyl phenyl ether                                                                      | ug/L                          | NA                                | NA                                                       | NA                                                                    | NA                                                                        | NA                  | NA                                                  | NA                                            | NA                                                | NA    |
| 4-Nitroaniline                                                                                   | ug/L                          | NA                                | NA                                                       | NA                                                                    | NA                                                                        | NA                  | NA                                                  | NA                                            | NA                                                | NA    |
| 4-Nitrophenol                                                                                    | ug/L                          | NA                                | NA                                                       | NA                                                                    | NA                                                                        | NA                  | NA                                                  | NA                                            | NA                                                | NA    |
| Acenaphthene                                                                                     | ug/L                          | 1300                              | 3800                                                     | 38                                                                    | 4200                                                                      | 4200                | 4240                                                | ID                                            | NA                                                | NA    |
| Acenaphthylene                                                                                   | ug/L                          | 52                                | 150                                                      | ID                                                                    | 3900                                                                      | 3900                | 3930                                                | ID                                            | NA                                                | NA    |
| Acetophenone                                                                                     | ug/L                          | 1500                              | 4400                                                     | NA                                                                    | 6100000                                                                   | 6100000             | 6100000                                             | ID                                            | NA                                                | NA    |
| Anthracene                                                                                       | ug/L                          | 43                                | 43                                                       | ID                                                                    | 43                                                                        | 43                  | 43.4                                                | ID                                            | NA                                                | NA    |
| Atrazine                                                                                         | ug/L                          | 3                                 | 3                                                        | 7.3                                                                   | NLV                                                                       | NLV                 | 70000                                               | ID                                            | NA                                                | NA    |
| Benzaldehyde                                                                                     | ug/L                          | NA                                | NA                                                       | NA                                                                    | NA                                                                        | NA                  | NA                                                  | NA                                            | NA                                                | NA    |
| Benzo(a)anthracene                                                                               | ug/L                          | 2.1                               | 8.5                                                      | ID                                                                    | NLV                                                                       | NLV                 | 9.4                                                 | ID                                            | NA                                                | NA    |
| Benzo(a)pyrene                                                                                   | ug/L                          | 5                                 | 5                                                        | ID                                                                    | NLV                                                                       | NLV                 | 1.62                                                | ID                                            | NA                                                | NA    |
| Benzo(b)fluoranthene                                                                             | ug/L                          | 1.5                               | 1.5                                                      | ID                                                                    | ID                                                                        | ID                  | 1.5                                                 | ID                                            | NA                                                | NA    |
| Benzo(g,h,i)perylene                                                                             | ug/L                          | 1                                 | 1                                                        | NA                                                                    | NLV                                                                       | NLV                 | 0.26                                                | ID                                            | NA                                                | NA    |
| Benzo(k)fluoranthene                                                                             | ug/L                          | 1                                 | 1                                                        | NA                                                                    | NLV                                                                       | NLV                 | 0.8                                                 | ID                                            | NA                                                | NA    |
| Biphenyl (1,1-Biphenyl)                                                                          | ug/L                          | NA                                | NA                                                       | NA                                                                    | NA                                                                        | NA                  | NA                                                  | NA                                            | NA                                                | NA    |

**Groundwater Sample Analytical Results  
Fall 2015 Semi-Annual Groundwater Event  
Former Grand Rapids Metal Plant  
Wyoming, Michigan**

| <b><i>MDEQ Generic Groundwater Cleanup Criteria: Residential and Non-Residential</i></b> <sup>(4)</sup> |                               |                                   |                                                          |                                                                       |                                                                           |                     |                                                     |                                               |                                                   |      |
|---------------------------------------------------------------------------------------------------------|-------------------------------|-----------------------------------|----------------------------------------------------------|-----------------------------------------------------------------------|---------------------------------------------------------------------------|---------------------|-----------------------------------------------------|-----------------------------------------------|---------------------------------------------------|------|
|                                                                                                         | Residential<br>Drinking Water | Non-Residential<br>Drinking Water | Groundwater<br>Surface Water<br>Interface <sup>(2)</sup> | Residential Groundwater<br>Volatilization to<br>Indoor Air Inhalation | Non-Residential Groundwater<br>Volatilization to<br>Indoor Air Inhalation | Water<br>Solubility | Flammability and<br>Explosivity<br>Screening Levels | Residential<br>Health-Based<br>Drinking Water | Non-Residential<br>Health-Based<br>Drinking Water |      |
|                                                                                                         | a                             | b                                 | c                                                        | d                                                                     | e                                                                         | f                   | g                                                   | h                                             | i                                                 |      |
| <b>Units</b>                                                                                            |                               |                                   |                                                          |                                                                       |                                                                           |                     |                                                     |                                               |                                                   |      |
| <b>SVOCs (continued)</b>                                                                                |                               |                                   |                                                          |                                                                       |                                                                           |                     |                                                     |                                               |                                                   |      |
| bis(2-Chloroethoxy)methane                                                                              | ug/L                          | NA                                | NA                                                       | NA                                                                    | NA                                                                        | NA                  | NA                                                  | NA                                            | NA                                                |      |
| bis(2-Chloroethyl)ether                                                                                 | ug/L                          | 2                                 | 8.3                                                      | 1                                                                     | 38000                                                                     | 210000              | 17200000                                            | 17000000                                      | NA                                                | NA   |
| bis(2-Ethylhexyl)phthalate (DEHP)                                                                       | ug/L                          | 6                                 | 6                                                        | 25                                                                    | NLV                                                                       | NLV                 | 340                                                 | NA                                            | NA                                                | NA   |
| Butyl benzylphthalate (BBP)                                                                             | ug/L                          | 1200                              | 2700                                                     | 67                                                                    | NLV                                                                       | NLV                 | 2690                                                | ID                                            | NA                                                | NA   |
| Caprolactam                                                                                             | ug/L                          | 5800                              | 17000                                                    | NA                                                                    | NLV                                                                       | NLV                 | 5250000000                                          | NA                                            | NA                                                | NA   |
| Carbazole                                                                                               | ug/L                          | 85                                | 350                                                      | 10                                                                    | NLV                                                                       | NLV                 | 7480                                                | ID                                            | NA                                                | NA   |
| Chrysene                                                                                                | ug/L                          | 1.6                               | 1.6                                                      | ID                                                                    | ID                                                                        | ID                  | 1.6                                                 | ID                                            | NA                                                | NA   |
| Dibenz(a,h)anthracene                                                                                   | ug/L                          | 2                                 | 2                                                        | ID                                                                    | NLV                                                                       | NLV                 | 2.49                                                | ID                                            | NA                                                | NA   |
| Dibenzofuran                                                                                            | ug/L                          | ID                                | ID                                                       | 4                                                                     | 10000                                                                     | 10000               | 10000                                               | ID                                            | NA                                                | NA   |
| Diethyl phthalate                                                                                       | ug/L                          | 5500                              | 16000                                                    | 110                                                                   | NLV                                                                       | NLV                 | 1080000                                             | NA                                            | NA                                                | NA   |
| Dimethyl phthalate                                                                                      | ug/L                          | 73000                             | 210000                                                   | NA                                                                    | NLV                                                                       | NLV                 | 4190000                                             | NA                                            | NA                                                | NA   |
| Di-n-butylphthalate (DBP)                                                                               | ug/L                          | 880                               | 2500                                                     | 9.7                                                                   | NLV                                                                       | NLV                 | 11200                                               | NA                                            | NA                                                | NA   |
| Di-n-octyl phthalate (DnOP)                                                                             | ug/L                          | 130                               | 380                                                      | ID                                                                    | NLV                                                                       | NLV                 | 3000                                                | ID                                            | NA                                                | NA   |
| Fluoranthene                                                                                            | ug/L                          | 210                               | 210                                                      | 1.6                                                                   | 210                                                                       | 210                 | 206                                                 | ID                                            | NA                                                | NA   |
| Fluorene                                                                                                | ug/L                          | 880                               | 2000                                                     | 12                                                                    | 2000                                                                      | 2000                | 1980                                                | ID                                            | NA                                                | NA   |
| Hexachlorobenzene                                                                                       | ug/L                          | 1                                 | 1                                                        | 0.2                                                                   | 440                                                                       | 3000                | 6200                                                | ID                                            | NA                                                | NA   |
| Hexachlorobutadiene                                                                                     | ug/L                          | 15                                | 42                                                       | 0.053                                                                 | 1600                                                                      | 3200                | 3230                                                | ID                                            | NA                                                | NA   |
| Hexachlorocyclopentadiene                                                                               | ug/L                          | 50                                | 50                                                       | ID                                                                    | 130                                                                       | 420                 | 1800                                                | ID                                            | NA                                                | NA   |
| Hexachloroethane                                                                                        | ug/L                          | 7.3                               | 21                                                       | 6.7                                                                   | 27000                                                                     | 50000               | 50000                                               | ID                                            | NA                                                | NA   |
| Indeno(1,2,3-cd)pyrene                                                                                  | ug/L                          | 2                                 | 2                                                        | ID                                                                    | NLV                                                                       | NLV                 | 0.022                                               | ID                                            | NA                                                | NA   |
| Isophorone                                                                                              | ug/L                          | 770                               | 3100                                                     | 1300                                                                  | NLV                                                                       | NLV                 | 12000000                                            | NA                                            | NA                                                | NA   |
| Naphthalene                                                                                             | ug/L                          | 520                               | 1500                                                     | 11                                                                    | 31000                                                                     | 31000               | 31000                                               | NA                                            | NA                                                | NA   |
| Nitrobenzene                                                                                            | ug/L                          | 3.4                               | 9.6                                                      | 180                                                                   | 280000                                                                    | 550000              | 2090000                                             | NA                                            | NA                                                | NA   |
| N-Nitrosodi-n-propylamine                                                                               | ug/L                          | 5                                 | 5                                                        | NA                                                                    | NLV                                                                       | NLV                 | 9890000                                             | ID                                            | NA                                                | NA   |
| N-Nitrosodiphenylamine                                                                                  | ug/L                          | 270                               | 1100                                                     | NA                                                                    | NLV                                                                       | NLV                 | 35100                                               | ID                                            | NA                                                | NA   |
| Pentachlorophenol                                                                                       | ug/L                          | 1                                 | 1                                                        | 2.8                                                                   | NLV                                                                       | NLV                 | 1850000                                             | ID                                            | NA                                                | NA   |
| Phenanthrene                                                                                            | ug/L                          | 52                                | 150                                                      | 2                                                                     | 1000                                                                      | 1000                | 1000                                                | ID                                            | NA                                                | NA   |
| Phenol                                                                                                  | ug/L                          | 4400                              | 13000                                                    | 450                                                                   | NLV                                                                       | NLV                 | 82800000                                            | NA                                            | NA                                                | NA   |
| Pyrene                                                                                                  | ug/L                          | 140                               | 140                                                      | ID                                                                    | 140                                                                       | 140                 | 135                                                 | ID                                            | NA                                                | NA   |
| <b>Metals</b>                                                                                           |                               |                                   |                                                          |                                                                       |                                                                           |                     |                                                     |                                               |                                                   |      |
| Antimony                                                                                                | ug/L                          | 6                                 | 6                                                        | 130                                                                   | NLV                                                                       | NLV                 | NA                                                  | ID                                            | NA                                                | NA   |
| Arsenic                                                                                                 | ug/L                          | 10                                | 10                                                       | 10                                                                    | NLV                                                                       | NLV                 | NA                                                  | ID                                            | NA                                                | NA   |
| Barium                                                                                                  | ug/L                          | 2000                              | 2000                                                     | 1600                                                                  | NLV                                                                       | NLV                 | NA                                                  | ID                                            | NA                                                | NA   |
| Beryllium                                                                                               | ug/L                          | 4                                 | 4                                                        | 54                                                                    | NLV                                                                       | NLV                 | NA                                                  | ID                                            | NA                                                | NA   |
| Cadmium                                                                                                 | ug/L                          | 5                                 | 5                                                        | 5.6                                                                   | NLV                                                                       | NLV                 | NA                                                  | ID                                            | NA                                                | NA   |
| Chromium                                                                                                | ug/L                          | 100                               | 100                                                      | 11                                                                    | NLV                                                                       | NLV                 | NA                                                  | ID                                            | NA                                                | NA   |
| Cobalt                                                                                                  | ug/L                          | 40                                | 100                                                      | 100                                                                   | NLV                                                                       | NLV                 | NA                                                  | ID                                            | NA                                                | NA   |
| Copper                                                                                                  | ug/L                          | 1000                              | 1000                                                     | 26                                                                    | NLV                                                                       | NLV                 | NA                                                  | ID                                            | 1400                                              | 4000 |
| Iron                                                                                                    | ug/L                          | 300                               | 300                                                      | NA                                                                    | NLV                                                                       | NLV                 | NA                                                  | ID                                            | 2000                                              | 5600 |
| Lead                                                                                                    | ug/L                          | 4                                 | 4                                                        | 54                                                                    | NLV                                                                       | NLV                 | NA                                                  | ID                                            | NA                                                | NA   |
| Manganese                                                                                               | ug/L                          | 50                                | 50                                                       | 5800                                                                  | NLV                                                                       | NLV                 | NA                                                  | ID                                            | 860                                               | 2500 |



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|--------------------|-------------------------------------------------------------------------------------------|-----------------------------------|----------------------------------------------------------|-----------------------------------------------------------------------|---------------------------------------------------------------------------|---------------------|-----------------------------------------------------|-----------------------------------------------|---------------------------------------------------|--|
|                    | Residential<br>Drinking Water                                                             | Non-Residential<br>Drinking Water | Groundwater<br>Surface Water<br>Interface <sup>(2)</sup> | Residential Groundwater<br>Volatilization to<br>Indoor Air Inhalation | Non-Residential Groundwater<br>Volatilization to<br>Indoor Air Inhalation | Water<br>Solubility | Flammability and<br>Explosivity<br>Screening Levels | Residential<br>Health-Based<br>Drinking Water | Non-Residential<br>Health-Based<br>Drinking Water |  |
|                    | a                                                                                         | b                                 | c                                                        | d                                                                     | e                                                                         | f                   | g                                                   | h                                             | i                                                 |  |
|                    | Units                                                                                     |                                   |                                                          |                                                                       |                                                                           |                     |                                                     |                                               |                                                   |  |
| Metals (continued) |                                                                                           |                                   |                                                          |                                                                       |                                                                           |                     |                                                     |                                               |                                                   |  |
| Mercury            | ug/L                                                                                      | 2                                 | 2                                                        | 0.0013                                                                | 56                                                                        | 56                  | ID                                                  | NA                                            | NA                                                |  |
| Molybdenum         | ug/L                                                                                      | 73                                | 210                                                      | 3200                                                                  | NLV                                                                       | NLV                 | NA                                                  | NA                                            | NA                                                |  |
| Nickel             | ug/L                                                                                      | 100                               | 100                                                      | 150                                                                   | NLV                                                                       | NLV                 | NA                                                  | NA                                            | NA                                                |  |
| Selenium           | ug/L                                                                                      | 50                                | 50                                                       | 5                                                                     | NLV                                                                       | NLV                 | NA                                                  | NA                                            | NA                                                |  |
| Silver             | ug/L                                                                                      | 34                                | 98                                                       | 0.2                                                                   | NLV                                                                       | NLV                 | NA                                                  | NA                                            | NA                                                |  |
| Thallium           | ug/L                                                                                      | 2                                 | 2                                                        | 3.7                                                                   | NLV                                                                       | NLV                 | NA                                                  | NA                                            | NA                                                |  |
| Vanadium           | ug/L                                                                                      | 4.5                               | 62                                                       | 27                                                                    | NLV                                                                       | NLV                 | NA                                                  | NA                                            | NA                                                |  |
| Zinc               | ug/L                                                                                      | 2400                              | 5000                                                     | 340                                                                   | NLV                                                                       | NLV                 | NA                                                  | NA                                            | NA                                                |  |

## Notes:

<sup>(1)</sup> Cleanup Criteria Requirements for Response Activity, Administrative Rules R299.1 to R299.50 effective December 30, 2013, pursuant to Part 201 of 1994 PA 451 as amended.

<sup>(2)</sup> Carbonate Hardness of 344 mg/L was used to calculate Groundwater Surface Water Interface Criteria.

<sup>(3)</sup> 1,2-Dibromoethane also known as ethylene dibromide

<sup>(4)</sup> 2-butanone also known as methyl ethyl ketone (MEK)

<sup>(5)</sup> 4-methyl-2-pentanone also known as methyl isobutyl ketone (MIBK)

<sup>(6)</sup> 2,2'-oxybis(1-chloropropane) also known as bis(2-chloroisopropyl) ether

U - Not detected at the associated reporting limit.

J - Estimated concentration.

UJ - Not detected; associated reporting limit is estimated.

-- Parameter was not analyzed.

ID - Insufficient data to develop criterion.

NA - A criterion or value is not available or, in the case of background and CAS numbers, not applicable.

NLL - Hazardous substance is not likely to leach under most soil conditions.

NLV - Hazardous substance is not likely to volatilize under most conditions.

  - Exceeds Generic Cleanup Criteria. Superscript letter notes the criterion exceeded.

**Groundwater Sample Analytical Results  
Fall 2015 Semi-Annual Groundwater Event  
Former Grand Rapids Metal Plant  
Wyoming, Michigan**

| <b>Sample Location:</b>                  | <b>87-13</b>            | <b>MW59-14</b>          | <b>MW6-03</b>           | <b>MW6-03</b>           | <b>87-10</b>            | <b>87-8</b>             |
|------------------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| <b>Sample Identification:</b>            | WG-017360-102015-MR-003 | WG-017360-102015-MR-005 | WG-017360-102015-MR-001 | WG-017360-102015-MR-002 | WG-017360-102115-MR-008 | WG-017360-102115-MR-013 |
| <b>Sample Date:</b>                      | 10/20/2015              | 10/20/2015              | 10/20/2015              | 10/20/2015              | 10/21/2015              | 10/21/2015              |
| <b>Sample Type:</b>                      |                         |                         |                         | Duplicate               |                         |                         |
| <b>Segment Depth:</b>                    | (40-43) ft BGS          | (30-35) ft BGS          | (13-18) ft BGS          | (13-18) ft BGS          | (29-32) ft BGS          | (19.7-22.7) ft BGS      |
| <b>Units</b>                             |                         |                         |                         |                         |                         |                         |
| <b>Volatile Organic Compounds (VOCs)</b> |                         |                         |                         |                         |                         |                         |
| 1,1,1-Trichloroethane                    | ug/L                    | 1.0 UJ                  | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,1,2,2-Tetrachloroethane                | ug/L                    | 1.0 UJ                  | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,1,2-Trichloroethane                    | ug/L                    | 1.0 UJ                  | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,1-Dichloroethane                       | ug/L                    | 1.0 UJ                  | 0.64 J                  | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,1-Dichloroethene                       | ug/L                    | 1.0 UJ                  | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,2,4-Trichlorobenzene                   | ug/L                    | 5.0 UJ                  | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| 1,2-Dibromo-3-chloropropane (DBCP)       | ug/L                    | 1.0 UJ                  | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,2-Dibromoethane <sup>(3)</sup>         | ug/L                    | 1.0 UJ                  | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,2-Dichlorobenzene                      | ug/L                    | 1.0 UJ                  | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,2-Dichloroethane                       | ug/L                    | 1.0 UJ                  | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,2-Dichloropropane                      | ug/L                    | 1.0 UJ                  | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,3-Dichlorobenzene                      | ug/L                    | 1.0 UJ                  | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,4-Dichlorobenzene                      | ug/L                    | 1.0 UJ                  | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 2-Butanone <sup>(4)</sup>                | ug/L                    | 25 UJ                   | 25 U                    | 25 U                    | 25 U                    | 25 U                    |
| 2-Hexanone                               | ug/L                    | 50 UJ                   | 50 U                    | 50 U                    | 50 U                    | 50 U                    |
| 4-Methyl-2-pentanone <sup>(5)</sup>      | ug/L                    | 50 UJ                   | 50 U                    | 50 U                    | 50 U                    | 50 U                    |
| Acetone                                  | ug/L                    | 50 UJ                   | 50 U                    | 50 U                    | 50 U                    | 50 U                    |
| Benzene                                  | ug/L                    | 1.0 UJ                  | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Bromodichloromethane                     | ug/L                    | 1.0 UJ                  | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Bromoform                                | ug/L                    | 1.0 UJ                  | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Bromomethane (Methyl bromide)            | ug/L                    | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| Carbon disulfide                         | ug/L                    | 5.0 UJ                  | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| Carbon tetrachloride                     | ug/L                    | 1.0 UJ                  | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Chlorobenzene                            | ug/L                    | 1.0 UJ                  | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Chloroethane                             | ug/L                    | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| Chloroform (Trichloromethane)            | ug/L                    | 1.0 UJ                  | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Chloromethane (Methyl chloride)          | ug/L                    | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| cis-1,2-Dichloroethene                   | ug/L                    | 1.0 UJ                  | 16                      | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| cis-1,3-Dichloropropene                  | ug/L                    | 1.0 UJ                  | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Cyclohexane                              | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Dibromochloromethane                     | ug/L                    | 5.0 UJ                  | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| Dichlorodifluoromethane (CFC-12)         | ug/L                    | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| Ethylbenzene                             | ug/L                    | 1.0 UJ                  | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Isopropyl benzene                        | ug/L                    | 5.0 UJ                  | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| Methyl acetate                           | ug/L                    | 10 U                    | 10 U                    | 10 U                    | 10 U                    | 10 U                    |
| Methyl cyclohexane                       | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Methyl tert butyl ether (MTBE)           | ug/L                    | 5.0 UJ                  | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| Methylene chloride                       | ug/L                    | 5.0 UJ                  | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| Styrene                                  | ug/L                    | 1.0 UJ                  | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Tetrachloroethene                        | ug/L                    | 1.0 UJ                  | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Toluene                                  | ug/L                    | 1.0 UJ                  | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| trans-1,2-Dichloroethene                 | ug/L                    | 1.0 UJ                  | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| trans-1,3-Dichloropropene                | ug/L                    | 1.0 UJ                  | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |

Groundwater Sample Analytical Results  
Fall 2015 Semi-Annual Groundwater Event  
Former Grand Rapids Metal Plant  
Wyoming, Michigan

|                               |                                |                                |                                |                                |                                |                                |
|-------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| <b>Sample Location:</b>       | <b>87-13</b>                   | <b>MW59-14</b>                 | <b>MW6-03</b>                  | <b>MW6-03</b>                  | <b>87-10</b>                   | <b>87-8</b>                    |
| <b>Sample Identification:</b> | <b>WG-017360-102015-MR-003</b> | <b>WG-017360-102015-MR-005</b> | <b>WG-017360-102015-MR-001</b> | <b>WG-017360-102015-MR-002</b> | <b>WG-017360-102115-MR-008</b> | <b>WG-017360-102115-MR-013</b> |
| <b>Sample Date:</b>           | <b>10/20/2015</b>              | <b>10/20/2015</b>              | <b>10/20/2015</b>              | <b>10/20/2015</b>              | <b>10/21/2015</b>              | <b>10/21/2015</b>              |
| <b>Sample Type:</b>           |                                |                                |                                | <b>Duplicate</b>               |                                |                                |
| <b>Segment Depth:</b>         | <b>(40-43) ft BGS</b>          | <b>(30-35) ft BGS</b>          | <b>(13-18) ft BGS</b>          | <b>(13-18) ft BGS</b>          | <b>(29-32) ft BGS</b>          | <b>(19.7-22.7) ft BGS</b>      |

|                                    |      | Units  |       |       |       |       |       |
|------------------------------------|------|--------|-------|-------|-------|-------|-------|
| VOCs (continued)                   |      |        |       |       |       |       |       |
| Trichloroethene                    | ug/L | 1.0 UJ | 1.0 U | 1.0 U | 1.0 U | 2.6   | 1.0 U |
| Trichlorofluoromethane (CFC-11)    | ug/L | 1.0 UJ | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U |
| Trifluorotrichloroethane (CFC-113) | ug/L | 1.0 U  | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U |
| Vinyl chloride                     | ug/L | 1.0 U  | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U |
| Xylenes (total)                    | ug/L | 3.0 UJ | 3.0 U | 3.0 U | 3.0 U | 3.0 U | 3.0 U |

**Semi-Volatile Organic Compounds (SVOCs)**

|                                             |      |    |    |    |    |    |
|---------------------------------------------|------|----|----|----|----|----|
| 2,2'-Oxybis(1-chloropropane) <sup>(6)</sup> | ug/L | -- | -- | -- | -- | -- |
| 2,4,5-Trichlorophenol                       | ug/L | -- | -- | -- | -- | -- |
| 2,4,6-Trichlorophenol                       | ug/L | -- | -- | -- | -- | -- |
| 2,4-Dichlorophenol                          | ug/L | -- | -- | -- | -- | -- |
| 2,4-Dimethylphenol                          | ug/L | -- | -- | -- | -- | -- |
| 2,4-Dinitrophenol                           | ug/L | -- | -- | -- | -- | -- |
| 2,4-Dinitrotoluene                          | ug/L | -- | -- | -- | -- | -- |
| 2,6-Dinitrotoluene                          | ug/L | -- | -- | -- | -- | -- |
| 2-Chloronaphthalene                         | ug/L | -- | -- | -- | -- | -- |
| 2-Chlorophenol                              | ug/L | -- | -- | -- | -- | -- |
| 2-Methylnaphthalene                         | ug/L | -- | -- | -- | -- | -- |
| 2-Methylphenol                              | ug/L | -- | -- | -- | -- | -- |
| 2-Nitroaniline                              | ug/L | -- | -- | -- | -- | -- |
| 2-Nitrophenol                               | ug/L | -- | -- | -- | -- | -- |
| 3&4-Methylphenol                            | ug/L | -- | -- | -- | -- | -- |
| 3,3'-Dichlorobenzidine                      | ug/L | -- | -- | -- | -- | -- |
| 3-Nitroaniline                              | ug/L | -- | -- | -- | -- | -- |
| 4,6-Dinitro-2-methylphenol                  | ug/L | -- | -- | -- | -- | -- |
| 4-Bromophenyl phenyl ether                  | ug/L | -- | -- | -- | -- | -- |
| 4-Chloro-3-methylphenol                     | ug/L | -- | -- | -- | -- | -- |
| 4-Chloroaniline                             | ug/L | -- | -- | -- | -- | -- |
| 4-Chlorophenyl phenyl ether                 | ug/L | -- | -- | -- | -- | -- |
| 4-Nitroaniline                              | ug/L | -- | -- | -- | -- | -- |
| 4-Nitrophenol                               | ug/L | -- | -- | -- | -- | -- |
| Acenaphthene                                | ug/L | -- | -- | -- | -- | -- |
| Acenaphthylene                              | ug/L | -- | -- | -- | -- | -- |
| Acetophenone                                | ug/L | -- | -- | -- | -- | -- |
| Anthracene                                  | ug/L | -- | -- | -- | -- | -- |
| Atrazine                                    | ug/L | -- | -- | -- | -- | -- |
| Benzaldehyde                                | ug/L | -- | -- | -- | -- | -- |
| Benzo(a)anthracene                          | ug/L | -- | -- | -- | -- | -- |
| Benzo(a)pyrene                              | ug/L | -- | -- | -- | -- | -- |
| Benzo(b)fluoranthene                        | ug/L | -- | -- | -- | -- | -- |
| Benzo(g,h,i)perylene                        | ug/L | -- | -- | -- | -- | -- |
| Benzo(k)fluoranthene                        | ug/L | -- | -- | -- | -- | -- |
| Biphenyl (1,1-Biphenyl)                     | ug/L | -- | -- | -- | -- | -- |

Table 4

Groundwater Sample Analytical Results  
Fall 2015 Semi-Annual Groundwater Event  
Former Grand Rapids Metal Plant  
Wyoming, Michigan

|                               |                                |                                |                                |                                |                                |                                |
|-------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| <b>Sample Location:</b>       | <b>87-13</b>                   | <b>MW59-14</b>                 | <b>MW6-03</b>                  | <b>MW6-03</b>                  | <b>87-10</b>                   | <b>87-8</b>                    |
| <b>Sample Identification:</b> | <b>WG-017360-102015-MR-003</b> | <b>WG-017360-102015-MR-005</b> | <b>WG-017360-102015-MR-001</b> | <b>WG-017360-102015-MR-002</b> | <b>WG-017360-102115-MR-008</b> | <b>WG-017360-102115-MR-013</b> |
| <b>Sample Date:</b>           | <b>10/20/2015</b>              | <b>10/20/2015</b>              | <b>10/20/2015</b>              | <b>10/20/2015</b>              | <b>10/21/2015</b>              | <b>10/21/2015</b>              |
| <b>Sample Type:</b>           |                                |                                |                                | <b>Duplicate</b>               |                                |                                |
| <b>Segment Depth:</b>         | <b>(40-43) ft BGS</b>          | <b>(30-35) ft BGS</b>          | <b>(13-18) ft BGS</b>          | <b>(13-18) ft BGS</b>          | <b>(29-32) ft BGS</b>          | <b>(19.7-22.7) ft BGS</b>      |

|                                   |              |    |    |    |    |    |
|-----------------------------------|--------------|----|----|----|----|----|
| <b>SVOCs (continued)</b>          | <b>Units</b> |    |    |    |    |    |
| bis(2-Chloroethoxy)methane        | ug/L         | -- | -- | -- | -- | -- |
| bis(2-Chloroethyl)ether           | ug/L         | -- | -- | -- | -- | -- |
| bis(2-Ethylhexyl)phthalate (DEHP) | ug/L         | -- | -- | -- | -- | -- |
| Butyl benzylphthalate (BBP)       | ug/L         | -- | -- | -- | -- | -- |
| Caprolactam                       | ug/L         | -- | -- | -- | -- | -- |
| Carbazole                         | ug/L         | -- | -- | -- | -- | -- |
| Chrysene                          | ug/L         | -- | -- | -- | -- | -- |
| Dibenz(a,h)anthracene             | ug/L         | -- | -- | -- | -- | -- |
| Dibenzofuran                      | ug/L         | -- | -- | -- | -- | -- |
| Diethyl phthalate                 | ug/L         | -- | -- | -- | -- | -- |
| Dimethyl phthalate                | ug/L         | -- | -- | -- | -- | -- |
| Di-n-butylphthalate (DBP)         | ug/L         | -- | -- | -- | -- | -- |
| Di-n-octyl phthalate (DnOP)       | ug/L         | -- | -- | -- | -- | -- |
| Fluoranthene                      | ug/L         | -- | -- | -- | -- | -- |
| Fluorene                          | ug/L         | -- | -- | -- | -- | -- |
| Hexachlorobenzene                 | ug/L         | -- | -- | -- | -- | -- |
| Hexachlorobutadiene               | ug/L         | -- | -- | -- | -- | -- |
| Hexachlorocyclopentadiene         | ug/L         | -- | -- | -- | -- | -- |
| Hexachloroethane                  | ug/L         | -- | -- | -- | -- | -- |
| Indeno(1,2,3-cd)pyrene            | ug/L         | -- | -- | -- | -- | -- |
| Isophorone                        | ug/L         | -- | -- | -- | -- | -- |
| Naphthalene                       | ug/L         | -- | -- | -- | -- | -- |
| Nitrobenzene                      | ug/L         | -- | -- | -- | -- | -- |
| N-Nitrosodi-n-propylamine         | ug/L         | -- | -- | -- | -- | -- |
| N-Nitrosodiphenylamine            | ug/L         | -- | -- | -- | -- | -- |
| Pentachlorophenol                 | ug/L         | -- | -- | -- | -- | -- |
| Phenanthrene                      | ug/L         | -- | -- | -- | -- | -- |
| Phenol                            | ug/L         | -- | -- | -- | -- | -- |
| Pyrene                            | ug/L         | -- | -- | -- | -- | -- |

**Metals**

|           |      |    |                   |    |    |    |
|-----------|------|----|-------------------|----|----|----|
| Antimony  | ug/L | -- | 2 U               | -- | -- | -- |
| Arsenic   | ug/L | -- | 1.8 J             | -- | -- | -- |
| Barium    | ug/L | -- | 100               | -- | -- | -- |
| Beryllium | ug/L | -- | 1 U               | -- | -- | -- |
| Cadmium   | ug/L | -- | 1 U               | -- | -- | -- |
| Chromium  | ug/L | -- | 10 U              | -- | -- | -- |
| Cobalt    | ug/L | -- | 0.32 J            | -- | -- | -- |
| Copper    | ug/L | -- | 0.94 J            | -- | -- | -- |
| Iron      | ug/L | -- | 400 <sup>ab</sup> | -- | -- | -- |
| Lead      | ug/L | -- | 0.28 J            | -- | -- | -- |
| Manganese | ug/L | -- | 38 J              | -- | -- | -- |

Table 4

Groundwater Sample Analytical Results  
Fall 2015 Semi-Annual Groundwater Event  
Former Grand Rapids Metal Plant  
Wyoming, Michigan

|                               |                                |                                |                                |                                |                                |                                |
|-------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| <b>Sample Location:</b>       | <b>87-13</b>                   | <b>MW59-14</b>                 | <b>MW6-03</b>                  | <b>MW6-03</b>                  | <b>87-10</b>                   | <b>87-8</b>                    |
| <b>Sample Identification:</b> | <b>WG-017360-102015-MR-003</b> | <b>WG-017360-102015-MR-005</b> | <b>WG-017360-102015-MR-001</b> | <b>WG-017360-102015-MR-002</b> | <b>WG-017360-102115-MR-008</b> | <b>WG-017360-102115-MR-013</b> |
| <b>Sample Date:</b>           | <b>10/20/2015</b>              | <b>10/20/2015</b>              | <b>10/20/2015</b>              | <b>10/20/2015</b>              | <b>10/21/2015</b>              | <b>10/21/2015</b>              |
| <b>Sample Type:</b>           |                                |                                |                                | <b>Duplicate</b>               |                                |                                |
| <b>Segment Depth:</b>         | <b>(40-43) ft BGS</b>          | <b>(30-35) ft BGS</b>          | <b>(13-18) ft BGS</b>          | <b>(13-18) ft BGS</b>          | <b>(29-32) ft BGS</b>          | <b>(19.7-22.7) ft BGS</b>      |

|                           |              |    |        |    |    |    |
|---------------------------|--------------|----|--------|----|----|----|
|                           | <b>Units</b> |    |        |    |    |    |
| <b>Metals (continued)</b> |              |    |        |    |    |    |
| Mercury                   | ug/L         | -- | 0.2 U  | -- | -- | -- |
| Molybdenum                | ug/L         | -- | 0.72 J | -- | -- | -- |
| Nickel                    | ug/L         | -- | 2.7 J  | -- | -- | -- |
| Selenium                  | ug/L         | -- | 5 U    | -- | -- | -- |
| Silver                    | ug/L         | -- | 0.2 U  | -- | -- | -- |
| Thallium                  | ug/L         | -- | 2 U    | -- | -- | -- |
| Vanadium                  | ug/L         | -- | 4 U    | -- | -- | -- |
| Zinc                      | ug/L         | -- | 2.6 J  | -- | -- | -- |



Table 4

**Groundwater Sample Analytical Results**  
**Fall 2015 Semi-Annual Groundwater Event**  
**Former Grand Rapids Metal Plant**  
**Wyoming, Michigan**

| Sample Location:                    | MW10-04                 | MW4-03                  | MW8-04                  | MW9-04                  | 85-6                    | 86-3                    |
|-------------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Sample Identification:              | WG-017360-102115-MR-012 | WG-017360-102115-MR-011 | WG-017360-102115-MR-009 | WG-017360-102115-MR-010 | WG-017360-102215-MR-020 | WG-017360-102215-MR-016 |
| Sample Date:                        | 10/21/2015              | 10/21/2015              | 10/21/2015              | 10/21/2015              | 10/22/2015              | 10/22/2015              |
| Sample Type:                        |                         |                         |                         |                         |                         |                         |
| Segment Depth:                      | (33-38) ft BGS          | (52-57) ft BGS          | (30-35) ft BGS          | (43-48) ft BGS          | (19.5-24.5) ft BGS      | (41.5-46.5) ft BGS      |
|                                     | Units                   |                         |                         |                         |                         |                         |
| Volatile Organic Compounds (VOCs)   |                         |                         |                         |                         |                         |                         |
| 1,1,1-Trichloroethane               | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,1,2,2-Tetrachloroethane           | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,1,2-Trichloroethane               | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,1-Dichloroethane                  | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,1-Dichloroethene                  | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,2,4-Trichlorobenzene              | ug/L                    | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| 1,2-Dibromo-3-chloropropane (DBCP)  | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,2-Dibromoethane <sup>(3)</sup>    | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,2-Dichlorobenzene                 | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,2-Dichloroethane                  | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,2-Dichloropropane                 | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,3-Dichlorobenzene                 | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,4-Dichlorobenzene                 | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 2-Butanone <sup>(4)</sup>           | ug/L                    | 25 U                    | 25 U                    | 25 U                    | 25 U                    | 25 U                    |
| 2-Hexanone                          | ug/L                    | 50 U                    | 50 U                    | 50 U                    | 50 U                    | 50 U                    |
| 4-Methyl-2-pentanone <sup>(5)</sup> | ug/L                    | 50 U                    | 50 U                    | 50 U                    | 50 U                    | 50 U                    |
| Acetone                             | ug/L                    | 50 U                    | 50 U                    | 50 U                    | 50 U                    | 50 U                    |
| Benzene                             | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Bromodichloromethane                | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Bromoform                           | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Bromomethane (Methyl bromide)       | ug/L                    | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| Carbon disulfide                    | ug/L                    | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| Carbon tetrachloride                | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Chlorobenzene                       | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Chloroethane                        | ug/L                    | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| Chloroform (Trichloromethane)       | ug/L                    | 1.0 U                   | 1.0 U                   | 2.1 U                   | 1.0 U                   | 1.0 U                   |
| Chloromethane (Methyl chloride)     | ug/L                    | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| cis-1,2-Dichloroethene              | ug/L                    | 0.83 J                  | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.8                     |
| cis-1,3-Dichloropropene             | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Cyclohexane                         | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Dibromochloromethane                | ug/L                    | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| Dichlorodifluoromethane (CFC-12)    | ug/L                    | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| Ethylbenzene                        | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Isopropyl benzene                   | ug/L                    | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| Methyl acetate                      | ug/L                    | 10 U                    | 10 U                    | 10 U                    | 10 U                    | 10 U                    |
| Methyl cyclohexane                  | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Methyl tert butyl ether (MTBE)      | ug/L                    | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| Methylene chloride                  | ug/L                    | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| Styrene                             | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Tetrachloroethene                   | ug/L                    | 1.0 U                   | 0.50 J                  | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Toluene                             | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| trans-1,2-Dichloroethene            | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| trans-1,3-Dichloropropene           | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |

**Groundwater Sample Analytical Results**  
**Fall 2015 Semi-Annual Groundwater Event**  
**Former Grand Rapids Metal Plant**  
**Wyoming, Michigan**

|                               |                                |                                |                                |                                |                                |                                |
|-------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| <b>Sample Location:</b>       | <b>MW10-04</b>                 | <b>MW4-03</b>                  | <b>MW8-04</b>                  | <b>MW9-04</b>                  | <b>85-6</b>                    | <b>86-3</b>                    |
| <b>Sample Identification:</b> | <b>WG-017360-102115-MR-012</b> | <b>WG-017360-102115-MR-011</b> | <b>WG-017360-102115-MR-009</b> | <b>WG-017360-102115-MR-010</b> | <b>WG-017360-102215-MR-020</b> | <b>WG-017360-102215-MR-016</b> |
| <b>Sample Date:</b>           | <b>10/21/2015</b>              | <b>10/21/2015</b>              | <b>10/21/2015</b>              | <b>10/21/2015</b>              | <b>10/22/2015</b>              | <b>10/22/2015</b>              |
| <b>Sample Type:</b>           |                                |                                |                                |                                |                                |                                |
| <b>Segment Depth:</b>         | <b>(33-38) ft BGS</b>          | <b>(52-57) ft BGS</b>          | <b>(30-35) ft BGS</b>          | <b>(43-48) ft BGS</b>          | <b>(19.5-24.5) ft BGS</b>      | <b>(41.5-46.5) ft BGS</b>      |

|                                    |      | Units |       |       |       |        |
|------------------------------------|------|-------|-------|-------|-------|--------|
| VOCs (continued)                   |      |       |       |       |       |        |
| Trichloroethene                    | ug/L | 3.1   | 1.0 U | 1.0 U | 1.0 U | 2.8    |
| Trichlorofluoromethane (CFC-11)    | ug/L | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U  |
| Trifluorotrichloroethane (CFC-113) | ug/L | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U  |
| Vinyl chloride                     | ug/L | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 0.87 J |
| Xylenes (total)                    | ug/L | 3.0 U | 3.0 U | 3.0 U | 3.0 U | 3.0 U  |

**Semi-Volatile Organic Compounds (SVOCs)**

|                                             |      |    |    |    |       |    |
|---------------------------------------------|------|----|----|----|-------|----|
| 2,2'-Oxybis(1-chloropropane) <sup>(6)</sup> | ug/L | -- | -- | -- | 5.0 U | -- |
| 2,4,5-Trichlorophenol                       | ug/L | -- | -- | -- | 5.0 U | -- |
| 2,4,6-Trichlorophenol                       | ug/L | -- | -- | -- | 5.0 U | -- |
| 2,4-Dichlorophenol                          | ug/L | -- | -- | -- | 5.0 U | -- |
| 2,4-Dimethylphenol                          | ug/L | -- | -- | -- | 5.0 U | -- |
| 2,4-Dinitrophenol                           | ug/L | -- | -- | -- | 5.0 U | -- |
| 2,4-Dinitrotoluene                          | ug/L | -- | -- | -- | 5.0 U | -- |
| 2,6-Dinitrotoluene                          | ug/L | -- | -- | -- | 5.0 U | -- |
| 2-Chloronaphthalene                         | ug/L | -- | -- | -- | 5.0 U | -- |
| 2-Chlorophenol                              | ug/L | -- | -- | -- | 5.0 U | -- |
| 2-Methylnaphthalene                         | ug/L | -- | -- | -- | 5.0 U | -- |
| 2-Methylphenol                              | ug/L | -- | -- | -- | 5.0 U | -- |
| 2-Nitroaniline                              | ug/L | -- | -- | -- | 5.0 U | -- |
| 2-Nitrophenol                               | ug/L | -- | -- | -- | 5.0 U | -- |
| 3&4-Methylphenol                            | ug/L | -- | -- | -- | 5.0 U | -- |
| 3,3'-Dichlorobenzidine                      | ug/L | -- | -- | -- | 5.0 U | -- |
| 3-Nitroaniline                              | ug/L | -- | -- | -- | 5.0 U | -- |
| 4,6-Dinitro-2-methylphenol                  | ug/L | -- | -- | -- | 5.0 U | -- |
| 4-Bromophenyl phenyl ether                  | ug/L | -- | -- | -- | 5.0 U | -- |
| 4-Chloro-3-methylphenol                     | ug/L | -- | -- | -- | 5.0 U | -- |
| 4-Chloroaniline                             | ug/L | -- | -- | -- | 5.0 U | -- |
| 4-Chlorophenyl phenyl ether                 | ug/L | -- | -- | -- | 5.0 U | -- |
| 4-Nitroaniline                              | ug/L | -- | -- | -- | 5.0 U | -- |
| 4-Nitrophenol                               | ug/L | -- | -- | -- | 5.0 U | -- |
| Acenaphthene                                | ug/L | -- | -- | -- | 5.0 U | -- |
| Acenaphthylene                              | ug/L | -- | -- | -- | 5.0 U | -- |
| Acetophenone                                | ug/L | -- | -- | -- | 1.0 U | -- |
| Anthracene                                  | ug/L | -- | -- | -- | 5.0 U | -- |
| Atrazine                                    | ug/L | -- | -- | -- | 1.0 U | -- |
| Benzaldehyde                                | ug/L | -- | -- | -- | 1.0 U | -- |
| Benzo(a)anthracene                          | ug/L | -- | -- | -- | 5.0 U | -- |
| Benzo(a)pyrene                              | ug/L | -- | -- | -- | 5.0 U | -- |
| Benzo(b)fluoranthene                        | ug/L | -- | -- | -- | 5.0 U | -- |
| Benzo(g,h,i)perylene                        | ug/L | -- | -- | -- | 5.0 U | -- |
| Benzo(k)fluoranthene                        | ug/L | -- | -- | -- | 5.0 U | -- |
| Biphenyl (1,1-Biphenyl)                     | ug/L | -- | -- | -- | 5.0 U | -- |

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Wyoming, Michigan

|                               |                                |                                |                                |                                |                                |                                |
|-------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| <b>Sample Location:</b>       | <b>MW10-04</b>                 | <b>MW4-03</b>                  | <b>MW8-04</b>                  | <b>MW9-04</b>                  | <b>85-6</b>                    | <b>86-3</b>                    |
| <b>Sample Identification:</b> | <b>WG-017360-102115-MR-012</b> | <b>WG-017360-102115-MR-011</b> | <b>WG-017360-102115-MR-009</b> | <b>WG-017360-102115-MR-010</b> | <b>WG-017360-102215-MR-020</b> | <b>WG-017360-102215-MR-016</b> |
| <b>Sample Date:</b>           | <b>10/21/2015</b>              | <b>10/21/2015</b>              | <b>10/21/2015</b>              | <b>10/21/2015</b>              | <b>10/22/2015</b>              | <b>10/22/2015</b>              |
| <b>Sample Type:</b>           |                                |                                |                                |                                |                                |                                |
| <b>Segment Depth:</b>         | <b>(33-38) ft BGS</b>          | <b>(52-57) ft BGS</b>          | <b>(30-35) ft BGS</b>          | <b>(43-48) ft BGS</b>          | <b>(19.5-24.5) ft BGS</b>      | <b>(41.5-46.5) ft BGS</b>      |

|                                   |      | <i>Units</i> |    |    |    |       |    |
|-----------------------------------|------|--------------|----|----|----|-------|----|
| <b>SVOCs (continued)</b>          |      |              |    |    |    |       |    |
| bis(2-Chloroethoxy)methane        | ug/L | --           | -- | -- | -- | 5.0 U | -- |
| bis(2-Chloroethyl)ether           | ug/L | --           | -- | -- | -- | 5.0 U | -- |
| bis(2-Ethylhexyl)phthalate (DEHP) | ug/L | --           | -- | -- | -- | 1.5 J | -- |
| Butyl benzylphthalate (BBP)       | ug/L | --           | -- | -- | -- | 5.0 U | -- |
| Caprolactam                       | ug/L | --           | -- | -- | -- | 10 U  | -- |
| Carbazole                         | ug/L | --           | -- | -- | -- | 5.0 U | -- |
| Chrysene                          | ug/L | --           | -- | -- | -- | 5.0 U | -- |
| Dibenz(a,h)anthracene             | ug/L | --           | -- | -- | -- | 5.0 U | -- |
| Dibenzofuran                      | ug/L | --           | -- | -- | -- | 5.0 U | -- |
| Diethyl phthalate                 | ug/L | --           | -- | -- | -- | 5.0 U | -- |
| Dimethyl phthalate                | ug/L | --           | -- | -- | -- | 5.0 U | -- |
| Di-n-butylphthalate (DBP)         | ug/L | --           | -- | -- | -- | 5.0 U | -- |
| Di-n-octyl phthalate (DnOP)       | ug/L | --           | -- | -- | -- | 5.0 U | -- |
| Fluoranthene                      | ug/L | --           | -- | -- | -- | 5.0 U | -- |
| Fluorene                          | ug/L | --           | -- | -- | -- | 5.0 U | -- |
| Hexachlorobenzene                 | ug/L | --           | -- | -- | -- | 5.0 U | -- |
| Hexachlorobutadiene               | ug/L | --           | -- | -- | -- | 5.0 U | -- |
| Hexachlorocyclopentadiene         | ug/L | --           | -- | -- | -- | 5.0 U | -- |
| Hexachloroethane                  | ug/L | --           | -- | -- | -- | 5.0 U | -- |
| Indeno(1,2,3-cd)pyrene            | ug/L | --           | -- | -- | -- | 5.0 U | -- |
| Isophorone                        | ug/L | --           | -- | -- | -- | 5.0 U | -- |
| Naphthalene                       | ug/L | --           | -- | -- | -- | 5.0 U | -- |
| Nitrobenzene                      | ug/L | --           | -- | -- | -- | 5.0 U | -- |
| N-Nitrosodi-n-propylamine         | ug/L | --           | -- | -- | -- | 5.0 U | -- |
| N-Nitrosodiphenylamine            | ug/L | --           | -- | -- | -- | 5.0 U | -- |
| Pentachlorophenol                 | ug/L | --           | -- | -- | -- | 5.0 U | -- |
| Phenanthrene                      | ug/L | --           | -- | -- | -- | 5.0 U | -- |
| Phenol                            | ug/L | --           | -- | -- | -- | 5.0 U | -- |
| Pyrene                            | ug/L | --           | -- | -- | -- | 5.0 U | -- |

**Metals**

|           |      |    |    |    |    |    |    |
|-----------|------|----|----|----|----|----|----|
| Antimony  | ug/L | -- | -- | -- | -- | -- | -- |
| Arsenic   | ug/L | -- | -- | -- | -- | -- | -- |
| Barium    | ug/L | -- | -- | -- | -- | -- | -- |
| Beryllium | ug/L | -- | -- | -- | -- | -- | -- |
| Cadmium   | ug/L | -- | -- | -- | -- | -- | -- |
| Chromium  | ug/L | -- | -- | -- | -- | -- | -- |
| Cobalt    | ug/L | -- | -- | -- | -- | -- | -- |
| Copper    | ug/L | -- | -- | -- | -- | -- | -- |
| Iron      | ug/L | -- | -- | -- | -- | -- | -- |
| Lead      | ug/L | -- | -- | -- | -- | -- | -- |
| Manganese | ug/L | -- | -- | -- | -- | -- | -- |

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Fall 2015 Semi-Annual Groundwater Event  
Former Grand Rapids Metal Plant  
Wyoming, Michigan

|                               |                         |                         |                         |                         |                         |                         |
|-------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| <b>Sample Location:</b>       | <b>MW10-04</b>          | <b>MW4-03</b>           | <b>MW8-04</b>           | <b>MW9-04</b>           | <b>85-6</b>             | <b>86-3</b>             |
| <b>Sample Identification:</b> | WG-017360-102115-MR-012 | WG-017360-102115-MR-011 | WG-017360-102115-MR-009 | WG-017360-102115-MR-010 | WG-017360-102215-MR-020 | WG-017360-102215-MR-016 |
| <b>Sample Date:</b>           | 10/21/2015              | 10/21/2015              | 10/21/2015              | 10/21/2015              | 10/22/2015              | 10/22/2015              |
| <b>Sample Type:</b>           |                         |                         |                         |                         |                         |                         |
| <b>Segment Depth:</b>         | (33-38) ft BGS          | (52-57) ft BGS          | (30-35) ft BGS          | (43-48) ft BGS          | (19.5-24.5) ft BGS      | (41.5-46.5) ft BGS      |

**Units****Metals (continued)**

|            |      |    |    |    |    |    |
|------------|------|----|----|----|----|----|
| Mercury    | ug/L | -- | -- | -- | -- | -- |
| Molybdenum | ug/L | -- | -- | -- | -- | -- |
| Nickel     | ug/L | -- | -- | -- | -- | -- |
| Selenium   | ug/L | -- | -- | -- | -- | -- |
| Silver     | ug/L | -- | -- | -- | -- | -- |
| Thallium   | ug/L | -- | -- | -- | -- | -- |
| Vanadium   | ug/L | -- | -- | -- | -- | -- |
| Zinc       | ug/L | -- | -- | -- | -- | -- |

Groundwater Sample Analytical Results  
Fall 2015 Semi-Annual Groundwater Event  
Former Grand Rapids Metal Plant  
Wyoming, Michigan

| Sample Location:                    | MW11D-04                | MW11S-05                | MW17-06                 | MW48-13                 | MW7-03                  | MW2-03                  |
|-------------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Sample Identification:              | WG-017360-102215-MR-015 | WG-017360-102215-MR-014 | WG-017360-102215-MR-019 | WG-017360-102215-MR-018 | WG-017360-102215-MR-017 | WG-017360-102615-MR-024 |
| Sample Date:                        | 10/22/2015              | 10/22/2015              | 10/22/2015              | 10/22/2015              | 10/22/2015              | 10/26/2015              |
| Sample Type:                        |                         |                         |                         |                         |                         |                         |
| Segment Depth:                      | (40-45) ft BGS          | (5-10) ft BGS           | (51-56) ft BGS          | (46-51) ft BGS          | (36-41) ft BGS          | (22-27) ft BGS          |
| Units                               |                         |                         |                         |                         |                         |                         |
| Volatile Organic Compounds (VOCs)   |                         |                         |                         |                         |                         |                         |
| 1,1,1-Trichloroethane               | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,1,2,2-Tetrachloroethane           | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,1,2-Trichloroethane               | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,1-Dichloroethane                  | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,1-Dichloroethene                  | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,2,4-Trichlorobenzene              | ug/L                    | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| 1,2-Dibromo-3-chloropropane (DBCP)  | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,2-Dibromoethane <sup>(3)</sup>    | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,2-Dichlorobenzene                 | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,2-Dichloroethane                  | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,2-Dichloropropane                 | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,3-Dichlorobenzene                 | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,4-Dichlorobenzene                 | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 2-Butanone <sup>(4)</sup>           | ug/L                    | 25 U                    | 25 U                    | 25 U                    | 25 U                    | 25 U                    |
| 2-Hexanone                          | ug/L                    | 50 U                    | 50 U                    | 50 U                    | 50 U                    | 50 U                    |
| 4-Methyl-2-pentanone <sup>(5)</sup> | ug/L                    | 50 U                    | 50 U                    | 50 U                    | 50 U                    | 50 U                    |
| Acetone                             | ug/L                    | 50 U                    | 50 U                    | 50 U                    | 50 U                    | 50 U                    |
| Benzene                             | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Bromodichloromethane                | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Bromoform                           | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Bromomethane (Methyl bromide)       | ug/L                    | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| Carbon disulfide                    | ug/L                    | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| Carbon tetrachloride                | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Chlorobenzene                       | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Chloroethane                        | ug/L                    | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| Chloroform (Trichloromethane)       | ug/L                    | 1.2 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 0.41 J                  |
| Chloromethane (Methyl chloride)     | ug/L                    | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| cis-1,2-Dichloroethene              | ug/L                    | 1.0 U                   | 1.0 U                   | 69                      | 1.0 U                   | 1.0 U                   |
| cis-1,3-Dichloropropene             | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Cyclohexane                         | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Dibromochloromethane                | ug/L                    | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| Dichlorodifluoromethane (CFC-12)    | ug/L                    | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| Ethylbenzene                        | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Isopropyl benzene                   | ug/L                    | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| Methyl acetate                      | ug/L                    | 10 U                    | 10 U                    | 10 U                    | 10 U                    | 10 U                    |
| Methyl cyclohexane                  | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Methyl tert butyl ether (MTBE)      | ug/L                    | 5.0 U                   | 5.0 U                   | 0.63 J                  | 5.0 U                   | 5.0 U                   |
| Methylene chloride                  | ug/L                    | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| Styrene                             | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Tetrachloroethene                   | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 6.5 <sup>ab</sup>       |
| Toluene                             | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| trans-1,2-Dichloroethene            | ug/L                    | 1.0 U                   | 1.0 U                   | 2.2                     | 1.0 U                   | 1.0 U                   |
| trans-1,3-Dichloropropene           | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |

Groundwater Sample Analytical Results  
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| Sample Location:                            | MW11D-04                | MW11S-05                | MW17-06                 | MW48-13                 | MW7-03                  | MW2-03                  |        |
|---------------------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|--------|
| Sample Identification:                      | WG-017360-102215-MR-015 | WG-017360-102215-MR-014 | WG-017360-102215-MR-019 | WG-017360-102215-MR-018 | WG-017360-102215-MR-017 | WG-017360-102615-MR-024 |        |
| Sample Date:                                | 10/22/2015              | 10/22/2015              | 10/22/2015              | 10/22/2015              | 10/22/2015              | 10/26/2015              |        |
| Sample Type:                                |                         |                         |                         |                         |                         |                         |        |
| Segment Depth:                              | (40-45) ft BGS          | (5-10) ft BGS           | (51-56) ft BGS          | (46-51) ft BGS          | (36-41) ft BGS          | (22-27) ft BGS          |        |
|                                             | Units                   |                         |                         |                         |                         |                         |        |
| VOCs (continued)                            |                         |                         |                         |                         |                         |                         |        |
| Trichloroethene                             | ug/L                    | 2.3                     | 1.0 U                   | 8.6 <sup>ab</sup>       | 1.0 U                   | 2.2                     | 0.47 J |
| Trichlorofluoromethane (CFC-11)             | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U  |
| Trifluorotrichloroethane (CFC-113)          | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U  |
| Vinyl chloride                              | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U  |
| Xylenes (total)                             | ug/L                    | 3.0 U                   | 3.0 U                   | 3.0 U                   | 3.0 U                   | 3.0 U                   | 3.0 U  |
| Semi-Volatile Organic Compounds (SVOCs)     |                         |                         |                         |                         |                         |                         |        |
| 2,2'-Oxybis(1-chloropropane) <sup>(6)</sup> | ug/L                    | --                      | --                      | --                      | --                      | --                      | --     |
| 2,4,5-Trichlorophenol                       | ug/L                    | --                      | --                      | --                      | --                      | --                      | --     |
| 2,4,6-Trichlorophenol                       | ug/L                    | --                      | --                      | --                      | --                      | --                      | --     |
| 2,4-Dichlorophenol                          | ug/L                    | --                      | --                      | --                      | --                      | --                      | --     |
| 2,4-Dimethylphenol                          | ug/L                    | --                      | --                      | --                      | --                      | --                      | --     |
| 2,4-Dinitrophenol                           | ug/L                    | --                      | --                      | --                      | --                      | --                      | --     |
| 2,4-Dinitrotoluene                          | ug/L                    | --                      | --                      | --                      | --                      | --                      | --     |
| 2,6-Dinitrotoluene                          | ug/L                    | --                      | --                      | --                      | --                      | --                      | --     |
| 2-Chloronaphthalene                         | ug/L                    | --                      | --                      | --                      | --                      | --                      | --     |
| 2-Chlorophenol                              | ug/L                    | --                      | --                      | --                      | --                      | --                      | --     |
| 2-Methylnaphthalene                         | ug/L                    | --                      | --                      | --                      | --                      | --                      | --     |
| 2-Methylphenol                              | ug/L                    | --                      | --                      | --                      | --                      | --                      | --     |
| 2-Nitroaniline                              | ug/L                    | --                      | --                      | --                      | --                      | --                      | --     |
| 2-Nitrophenol                               | ug/L                    | --                      | --                      | --                      | --                      | --                      | --     |
| 3&4-Methylphenol                            | ug/L                    | --                      | --                      | --                      | --                      | --                      | --     |
| 3,3'-Dichlorobenzidine                      | ug/L                    | --                      | --                      | --                      | --                      | --                      | --     |
| 3-Nitroaniline                              | ug/L                    | --                      | --                      | --                      | --                      | --                      | --     |
| 4,6-Dinitro-2-methylphenol                  | ug/L                    | --                      | --                      | --                      | --                      | --                      | --     |
| 4-Bromophenyl phenyl ether                  | ug/L                    | --                      | --                      | --                      | --                      | --                      | --     |
| 4-Chloro-3-methylphenol                     | ug/L                    | --                      | --                      | --                      | --                      | --                      | --     |
| 4-Chloroaniline                             | ug/L                    | --                      | --                      | --                      | --                      | --                      | --     |
| 4-Chlorophenyl phenyl ether                 | ug/L                    | --                      | --                      | --                      | --                      | --                      | --     |
| 4-Nitroaniline                              | ug/L                    | --                      | --                      | --                      | --                      | --                      | --     |
| 4-Nitrophenol                               | ug/L                    | --                      | --                      | --                      | --                      | --                      | --     |
| Acenaphthene                                | ug/L                    | --                      | --                      | --                      | --                      | --                      | --     |
| Acenaphthylene                              | ug/L                    | --                      | --                      | --                      | --                      | --                      | --     |
| Acetophenone                                | ug/L                    | --                      | --                      | --                      | --                      | --                      | --     |
| Anthracene                                  | ug/L                    | --                      | --                      | --                      | --                      | --                      | --     |
| Atrazine                                    | ug/L                    | --                      | --                      | --                      | --                      | --                      | --     |
| Benzaldehyde                                | ug/L                    | --                      | --                      | --                      | --                      | --                      | --     |
| Benzo(a)anthracene                          | ug/L                    | --                      | --                      | --                      | --                      | --                      | --     |
| Benzo(a)pyrene                              | ug/L                    | --                      | --                      | --                      | --                      | --                      | --     |
| Benzo(b)fluoranthene                        | ug/L                    | --                      | --                      | --                      | --                      | --                      | --     |
| Benzo(g,h,i)perylene                        | ug/L                    | --                      | --                      | --                      | --                      | --                      | --     |
| Benzo(k)fluoranthene                        | ug/L                    | --                      | --                      | --                      | --                      | --                      | --     |
| Biphenyl (1,1-Biphenyl)                     | ug/L                    | --                      | --                      | --                      | --                      | --                      | --     |



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|                               |                                |                                |                                |                                |                                |                                |
|-------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| <b>Sample Location:</b>       | <b>MW11D-04</b>                | <b>MW11S-05</b>                | <b>MW17-06</b>                 | <b>MW48-13</b>                 | <b>MW7-03</b>                  | <b>MW2-03</b>                  |
| <b>Sample Identification:</b> | <b>WG-017360-102215-MR-015</b> | <b>WG-017360-102215-MR-014</b> | <b>WG-017360-102215-MR-019</b> | <b>WG-017360-102215-MR-018</b> | <b>WG-017360-102215-MR-017</b> | <b>WG-017360-102615-MR-024</b> |
| <b>Sample Date:</b>           | <b>10/22/2015</b>              | <b>10/22/2015</b>              | <b>10/22/2015</b>              | <b>10/22/2015</b>              | <b>10/22/2015</b>              | <b>10/26/2015</b>              |
| <b>Sample Type:</b>           |                                |                                |                                |                                |                                |                                |
| <b>Segment Depth:</b>         | <b>(40-45) ft BGS</b>          | <b>(5-10) ft BGS</b>           | <b>(51-56) ft BGS</b>          | <b>(46-51) ft BGS</b>          | <b>(36-41) ft BGS</b>          | <b>(22-27) ft BGS</b>          |

|                                   |              |    |    |    |    |    |
|-----------------------------------|--------------|----|----|----|----|----|
| <b>SVOCs (continued)</b>          | <b>Units</b> |    |    |    |    |    |
| bis(2-Chloroethoxy)methane        | ug/L         | -- | -- | -- | -- | -- |
| bis(2-Chloroethyl)ether           | ug/L         | -- | -- | -- | -- | -- |
| bis(2-Ethylhexyl)phthalate (DEHP) | ug/L         | -- | -- | -- | -- | -- |
| Butyl benzylphthalate (BBP)       | ug/L         | -- | -- | -- | -- | -- |
| Caprolactam                       | ug/L         | -- | -- | -- | -- | -- |
| Carbazole                         | ug/L         | -- | -- | -- | -- | -- |
| Chrysene                          | ug/L         | -- | -- | -- | -- | -- |
| Dibenz(a,h)anthracene             | ug/L         | -- | -- | -- | -- | -- |
| Dibenzofuran                      | ug/L         | -- | -- | -- | -- | -- |
| Diethyl phthalate                 | ug/L         | -- | -- | -- | -- | -- |
| Dimethyl phthalate                | ug/L         | -- | -- | -- | -- | -- |
| Di-n-butylphthalate (DBP)         | ug/L         | -- | -- | -- | -- | -- |
| Di-n-octyl phthalate (DnOP)       | ug/L         | -- | -- | -- | -- | -- |
| Fluoranthene                      | ug/L         | -- | -- | -- | -- | -- |
| Fluorene                          | ug/L         | -- | -- | -- | -- | -- |
| Hexachlorobenzene                 | ug/L         | -- | -- | -- | -- | -- |
| Hexachlorobutadiene               | ug/L         | -- | -- | -- | -- | -- |
| Hexachlorocyclopentadiene         | ug/L         | -- | -- | -- | -- | -- |
| Hexachloroethane                  | ug/L         | -- | -- | -- | -- | -- |
| Indeno(1,2,3-cd)pyrene            | ug/L         | -- | -- | -- | -- | -- |
| Isophorone                        | ug/L         | -- | -- | -- | -- | -- |
| Naphthalene                       | ug/L         | -- | -- | -- | -- | -- |
| Nitrobenzene                      | ug/L         | -- | -- | -- | -- | -- |
| N-Nitrosodi-n-propylamine         | ug/L         | -- | -- | -- | -- | -- |
| N-Nitrosodiphenylamine            | ug/L         | -- | -- | -- | -- | -- |
| Pentachlorophenol                 | ug/L         | -- | -- | -- | -- | -- |
| Phenanthrene                      | ug/L         | -- | -- | -- | -- | -- |
| Phenol                            | ug/L         | -- | -- | -- | -- | -- |
| Pyrene                            | ug/L         | -- | -- | -- | -- | -- |

**Metals**

|           |      |    |    |    |    |    |
|-----------|------|----|----|----|----|----|
| Antimony  | ug/L | -- | -- | -- | -- | -- |
| Arsenic   | ug/L | -- | -- | -- | -- | -- |
| Barium    | ug/L | -- | -- | -- | -- | -- |
| Beryllium | ug/L | -- | -- | -- | -- | -- |
| Cadmium   | ug/L | -- | -- | -- | -- | -- |
| Chromium  | ug/L | -- | -- | -- | -- | -- |
| Cobalt    | ug/L | -- | -- | -- | -- | -- |
| Copper    | ug/L | -- | -- | -- | -- | -- |
| Iron      | ug/L | -- | -- | -- | -- | -- |
| Lead      | ug/L | -- | -- | -- | -- | -- |
| Manganese | ug/L | -- | -- | -- | -- | -- |

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Wyoming, Michigan

|                               |                                |                                |                                |                                |                                |                                |
|-------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| <b>Sample Location:</b>       | <b>MW11D-04</b>                | <b>MW11S-05</b>                | <b>MW17-06</b>                 | <b>MW48-13</b>                 | <b>MW7-03</b>                  | <b>MW2-03</b>                  |
| <b>Sample Identification:</b> | <b>WG-017360-102215-MR-015</b> | <b>WG-017360-102215-MR-014</b> | <b>WG-017360-102215-MR-019</b> | <b>WG-017360-102215-MR-018</b> | <b>WG-017360-102215-MR-017</b> | <b>WG-017360-102615-MR-024</b> |
| <b>Sample Date:</b>           | <b>10/22/2015</b>              | <b>10/22/2015</b>              | <b>10/22/2015</b>              | <b>10/22/2015</b>              | <b>10/22/2015</b>              | <b>10/26/2015</b>              |
| <b>Sample Type:</b>           |                                |                                |                                |                                |                                |                                |
| <b>Segment Depth:</b>         | <b>(40-45) ft BGS</b>          | <b>(5-10) ft BGS</b>           | <b>(51-56) ft BGS</b>          | <b>(46-51) ft BGS</b>          | <b>(36-41) ft BGS</b>          | <b>(22-27) ft BGS</b>          |

|                           |              |    |    |    |    |    |
|---------------------------|--------------|----|----|----|----|----|
|                           | <b>Units</b> |    |    |    |    |    |
| <b>Metals (continued)</b> |              |    |    |    |    |    |
| Mercury                   | ug/L         | -- | -- | -- | -- | -- |
| Molybdenum                | ug/L         | -- | -- | -- | -- | -- |
| Nickel                    | ug/L         | -- | -- | -- | -- | -- |
| Selenium                  | ug/L         | -- | -- | -- | -- | -- |
| Silver                    | ug/L         | -- | -- | -- | -- | -- |
| Thallium                  | ug/L         | -- | -- | -- | -- | -- |
| Vanadium                  | ug/L         | -- | -- | -- | -- | -- |
| Zinc                      | ug/L         | -- | -- | -- | -- | -- |

**Groundwater Sample Analytical Results**  
**Fall 2015 Semi-Annual Groundwater Event**  
**Former Grand Rapids Metal Plant**  
**Wyoming, Michigan**

| <b>Sample Location:</b>                  | <b>MW28-12</b>          | <b>MW30-12</b>          | <b>MW32-12</b>          | <b>MW32-12</b>          | <b>MW33-12</b>          | <b>MW49-13</b>          |
|------------------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| <b>Sample Identification:</b>            | WG-017360-102615-MR-026 | WG-017360-102615-MR-025 | WG-017360-102615-MR-029 | WG-017360-102615-MR-030 | WG-017360-102615-MR-028 | WG-017360-102615-MR-022 |
| <b>Sample Date:</b>                      | 10/26/2015              | 10/26/2015              | 10/26/2015              | 10/26/2015              | 10/26/2015              | 10/26/2015              |
| <b>Sample Type:</b>                      |                         |                         |                         | Duplicate               |                         |                         |
| <b>Segment Depth:</b>                    | (14-19) ft BGS          | (25-30) ft BGS          | (13.9-23.9) ft BGS      | (13.9-23.9) ft BGS      | (31-36) ft BGS          | (34-39) ft BGS          |
| <b>Units</b>                             |                         |                         |                         |                         |                         |                         |
| <b>Volatile Organic Compounds (VOCs)</b> |                         |                         |                         |                         |                         |                         |
| 1,1,1-Trichloroethane                    | ug/L 1.0 U              | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,1,2,2-Tetrachloroethane                | ug/L 1.0 U              | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,1,2-Trichloroethane                    | ug/L 1.0 U              | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,1-Dichloroethane                       | ug/L 1.0 U              | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,1-Dichloroethene                       | ug/L 1.0 U              | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,2,4-Trichlorobenzene                   | ug/L 5.0 U              | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| 1,2-Dibromo-3-chloropropane (DBCP)       | ug/L 1.0 U              | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,2-Dibromoethane <sup>(3)</sup>         | ug/L 1.0 U              | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,2-Dichlorobenzene                      | ug/L 1.0 U              | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,2-Dichloroethane                       | ug/L 1.0 U              | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,2-Dichloropropane                      | ug/L 1.0 U              | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,3-Dichlorobenzene                      | ug/L 1.0 U              | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,4-Dichlorobenzene                      | ug/L 1.0 U              | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 2-Butanone <sup>(4)</sup>                | ug/L 25 U               | 25 U                    | 25 U                    | 25 U                    | 25 U                    | 25 U                    |
| 2-Hexanone                               | ug/L 50 U               | 50 U                    | 50 U                    | 50 U                    | 50 U                    | 50 U                    |
| 4-Methyl-2-pentanone <sup>(5)</sup>      | ug/L 50 U               | 50 U                    | 50 U                    | 50 U                    | 50 U                    | 50 U                    |
| Acetone                                  | ug/L 50 U               | 50 U                    | 50 U                    | 50 U                    | 50 U                    | 50 U                    |
| Benzene                                  | ug/L 1.0 U              | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Bromodichloromethane                     | ug/L 1.0 U              | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Bromoform                                | ug/L 1.0 U              | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Bromomethane (Methyl bromide)            | ug/L 5.0 U              | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| Carbon disulfide                         | ug/L 5.0 U              | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| Carbon tetrachloride                     | ug/L 1.0 U              | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Chlorobenzene                            | ug/L 1.0 U              | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Chloroethane                             | ug/L 5.0 U              | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| Chloroform (Trichloromethane)            | ug/L 4.6                | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Chloromethane (Methyl chloride)          | ug/L 5.0 U              | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| cis-1,2-Dichloroethene                   | ug/L 1.0 U              | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.5                     | 1.0 U                   |
| cis-1,3-Dichloropropene                  | ug/L 1.0 U              | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Cyclohexane                              | ug/L 1.0 U              | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Dibromochloromethane                     | ug/L 5.0 U              | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| Dichlorodifluoromethane (CFC-12)         | ug/L 5.0 U              | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| Ethylbenzene                             | ug/L 1.0 U              | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Isopropyl benzene                        | ug/L 5.0 U              | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| Methyl acetate                           | ug/L 10 U               | 10 U                    | 10 U                    | 10 U                    | 10 U                    | 10 U                    |
| Methyl cyclohexane                       | ug/L 1.0 U              | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Methyl tert butyl ether (MTBE)           | ug/L 5.0 U              | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| Methylene chloride                       | ug/L 5.0 U              | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| Styrene                                  | ug/L 1.0 U              | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Tetrachloroethene                        | ug/L 0.62 J             | 2.9                     | 6.0 <sup>ab</sup>       | 6.3 <sup>ab</sup>       | 1.7                     | 200 <sup>abc</sup>      |
| Toluene                                  | ug/L 1.0 U              | 0.32 J                  | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| trans-1,2-Dichloroethene                 | ug/L 1.0 U              | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| trans-1,3-Dichloropropene                | ug/L 1.0 U              | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |

Groundwater Sample Analytical Results  
Fall 2015 Semi-Annual Groundwater Event  
Former Grand Rapids Metal Plant  
Wyoming, Michigan

| Sample Location:                               | MW28-12                 | MW30-12                 | MW32-12                 | MW32-12                 | MW33-12                 | MW49-13                 |
|------------------------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Sample Identification:                         | WG-017360-102615-MR-026 | WG-017360-102615-MR-025 | WG-017360-102615-MR-029 | WG-017360-102615-MR-030 | WG-017360-102615-MR-028 | WG-017360-102615-MR-022 |
| Sample Date:                                   | 10/26/2015              | 10/26/2015              | 10/26/2015              | 10/26/2015              | 10/26/2015              | 10/26/2015              |
| Sample Type:                                   |                         |                         |                         | Duplicate               |                         |                         |
| Segment Depth:                                 | (14-19) ft BGS          | (25-30) ft BGS          | (13.9-23.9) ft BGS      | (13.9-23.9) ft BGS      | (31-36) ft BGS          | (34-39) ft BGS          |
| Units                                          |                         |                         |                         |                         |                         |                         |
| <b>VOCs (continued)</b>                        |                         |                         |                         |                         |                         |                         |
| Trichloroethene                                | ug/L                    | 1.0 U                   | 1.0 U                   | 0.87 J                  | 0.88 J                  | 2.4                     |
| Trichlorofluoromethane (CFC-11)                | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Trifluorotrichloroethane (CFC-113)             | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Vinyl chloride                                 | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Xylenes (total)                                | ug/L                    | 3.0 U                   | 3.0 U                   | 3.0 U                   | 3.0 U                   | 3.0 U                   |
| <b>Semi-Volatile Organic Compounds (SVOCs)</b> |                         |                         |                         |                         |                         |                         |
| 2,2'-Oxybis(1-chloropropane) <sup>(6)</sup>    | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| 2,4,5-Trichlorophenol                          | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| 2,4,6-Trichlorophenol                          | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| 2,4-Dichlorophenol                             | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| 2,4-Dimethylphenol                             | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| 2,4-Dinitrophenol                              | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| 2,4-Dinitrotoluene                             | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| 2,6-Dinitrotoluene                             | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| 2-Chloronaphthalene                            | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| 2-Chlorophenol                                 | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| 2-Methylnaphthalene                            | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| 2-Methylphenol                                 | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| 2-Nitroaniline                                 | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| 2-Nitrophenol                                  | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| 3&4-Methylphenol                               | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| 3,3'-Dichlorobenzidine                         | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| 3-Nitroaniline                                 | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| 4,6-Dinitro-2-methylphenol                     | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| 4-Bromophenyl phenyl ether                     | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| 4-Chloro-3-methylphenol                        | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| 4-Chloroaniline                                | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| 4-Chlorophenyl phenyl ether                    | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| 4-Nitroaniline                                 | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| 4-Nitrophenol                                  | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| Acenaphthene                                   | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| Acenaphthylene                                 | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| Acetophenone                                   | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| Anthracene                                     | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| Atrazine                                       | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| Benzaldehyde                                   | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| Benzo(a)anthracene                             | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| Benzo(a)pyrene                                 | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| Benzo(b)fluoranthene                           | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| Benzo(g,h,i)perylene                           | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| Benzo(k)fluoranthene                           | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| Biphenyl (1,1-Biphenyl)                        | ug/L                    | --                      | --                      | --                      | --                      | --                      |

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Wyoming, Michigan

| Sample Location:                  | MW28-12                 | MW30-12                 | MW32-12                 | MW32-12                 | MW33-12                 | MW49-13                 |
|-----------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Sample Identification:            | WG-017360-102615-MR-026 | WG-017360-102615-MR-025 | WG-017360-102615-MR-029 | WG-017360-102615-MR-030 | WG-017360-102615-MR-028 | WG-017360-102615-MR-022 |
| Sample Date:                      | 10/26/2015              | 10/26/2015              | 10/26/2015              | 10/26/2015              | 10/26/2015              | 10/26/2015              |
| Sample Type:                      |                         |                         |                         | Duplicate               |                         |                         |
| Segment Depth:                    | (14-19) ft BGS          | (25-30) ft BGS          | (13.9-23.9) ft BGS      | (13.9-23.9) ft BGS      | (31-36) ft BGS          | (34-39) ft BGS          |
| <b>SVOCs (continued)</b>          |                         |                         |                         |                         |                         |                         |
|                                   | <i>Units</i>            |                         |                         |                         |                         |                         |
| bis(2-Chloroethoxy)methane        | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| bis(2-Chloroethyl)ether           | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| bis(2-Ethylhexyl)phthalate (DEHP) | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| Butyl benzylphthalate (BBP)       | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| Caprolactam                       | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| Carbazole                         | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| Chrysene                          | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| Dibenz(a,h)anthracene             | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| Dibenzofuran                      | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| Diethyl phthalate                 | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| Dimethyl phthalate                | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| Di-n-butylphthalate (DBP)         | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| Di-n-octyl phthalate (DnOP)       | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| Fluoranthene                      | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| Fluorene                          | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| Hexachlorobenzene                 | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| Hexachlorobutadiene               | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| Hexachlorocyclopentadiene         | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| Hexachloroethane                  | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| Indeno(1,2,3-cd)pyrene            | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| Isophorone                        | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| Naphthalene                       | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| Nitrobenzene                      | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| N-Nitrosodi-n-propylamine         | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| N-Nitrosodiphenylamine            | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| Pentachlorophenol                 | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| Phenanthrene                      | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| Phenol                            | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| Pyrene                            | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| <b>Metals</b>                     |                         |                         |                         |                         |                         |                         |
| Antimony                          | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| Arsenic                           | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| Barium                            | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| Beryllium                         | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| Cadmium                           | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| Chromium                          | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| Cobalt                            | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| Copper                            | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| Iron                              | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| Lead                              | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| Manganese                         | ug/L                    | --                      | --                      | --                      | --                      | --                      |

Groundwater Sample Analytical Results  
Fall 2015 Semi-Annual Groundwater Event  
Former Grand Rapids Metal Plant  
Wyoming, Michigan

|                               |                                |                                |                                |                                |                                |                                |
|-------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| <b>Sample Location:</b>       | <b>MW28-12</b>                 | <b>MW30-12</b>                 | <b>MW32-12</b>                 | <b>MW32-12</b>                 | <b>MW33-12</b>                 | <b>MW49-13</b>                 |
| <b>Sample Identification:</b> | <b>WG-017360-102615-MR-026</b> | <b>WG-017360-102615-MR-025</b> | <b>WG-017360-102615-MR-029</b> | <b>WG-017360-102615-MR-030</b> | <b>WG-017360-102615-MR-028</b> | <b>WG-017360-102615-MR-022</b> |
| <b>Sample Date:</b>           | <b>10/26/2015</b>              | <b>10/26/2015</b>              | <b>10/26/2015</b>              | <b>10/26/2015</b>              | <b>10/26/2015</b>              | <b>10/26/2015</b>              |
| <b>Sample Type:</b>           |                                |                                |                                | <b>Duplicate</b>               |                                |                                |
| <b>Segment Depth:</b>         | <b>(14-19) ft BGS</b>          | <b>(25-30) ft BGS</b>          | <b>(13.9-23.9) ft BGS</b>      | <b>(13.9-23.9) ft BGS</b>      | <b>(31-36) ft BGS</b>          | <b>(34-39) ft BGS</b>          |

**Units****Metals (continued)**

|            |      |    |    |    |    |    |
|------------|------|----|----|----|----|----|
| Mercury    | ug/L | -- | -- | -- | -- | -- |
| Molybdenum | ug/L | -- | -- | -- | -- | -- |
| Nickel     | ug/L | -- | -- | -- | -- | -- |
| Selenium   | ug/L | -- | -- | -- | -- | -- |
| Silver     | ug/L | -- | -- | -- | -- | -- |
| Thallium   | ug/L | -- | -- | -- | -- | -- |
| Vanadium   | ug/L | -- | -- | -- | -- | -- |
| Zinc       | ug/L | -- | -- | -- | -- | -- |

**Groundwater Sample Analytical Results**  
**Fall 2015 Semi-Annual Groundwater Event**  
**Former Grand Rapids Metal Plant**  
**Wyoming, Michigan**

|                                     |                         |                         |                         |                         |                         |                         |
|-------------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Sample Location:                    | MW49-13                 | MW58-13                 | MW15-04                 | MW34-12                 | MW35-12                 | MW40-12                 |
| Sample Identification:              | WG-017360-102615-MR-023 | WG-017360-102615-MR-027 | WG-017360-102715-MR-031 | WG-017360-102715-MR-037 | WG-017360-102715-MR-038 | WG-017360-102715-MR-034 |
| Sample Date:                        | 10/26/2015              | 10/26/2015              | 10/27/2015              | 10/27/2015              | 10/27/2015              | 10/27/2015              |
| Sample Type:                        |                         |                         |                         |                         |                         |                         |
| Segment Depth:                      | (34-39) ft BGS          | (13.5-18.5) ft BGS      | (25-30) ft BGS          | (14.4-24.4) ft BGS      | (24.6-29.6) ft BGS      | (45-50) ft BGS          |
|                                     | Units                   |                         |                         |                         |                         |                         |
| Volatile Organic Compounds (VOCs)   |                         |                         |                         |                         |                         |                         |
| 1,1,1-Trichloroethane               | ug/L                    | 1.0 U                   | 1.0 U                   | 1.4                     | 1.0 U                   | 1.0 U                   |
| 1,1,2,2-Tetrachloroethane           | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,1,2-Trichloroethane               | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,1-Dichloroethane                  | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,1-Dichloroethene                  | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,2,4-Trichlorobenzene              | ug/L                    | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| 1,2-Dibromo-3-chloropropane (DBCP)  | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,2-Dibromoethane <sup>(3)</sup>    | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,2-Dichlorobenzene                 | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,2-Dichloroethane                  | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,2-Dichloropropane                 | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,3-Dichlorobenzene                 | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,4-Dichlorobenzene                 | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 2-Butanone <sup>(4)</sup>           | ug/L                    | 25 U                    | 25 U                    | 25 U                    | 25 U                    | 25 U                    |
| 2-Hexanone                          | ug/L                    | 50 U                    | 50 U                    | 50 U                    | 50 U                    | 50 U                    |
| 4-Methyl-2-pentanone <sup>(5)</sup> | ug/L                    | 50 U                    | 50 U                    | 50 U                    | 50 U                    | 50 U                    |
| Acetone                             | ug/L                    | 50 U                    | 50 U                    | 50 U                    | 50 U                    | 50 U                    |
| Benzene                             | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Bromodichloromethane                | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Bromoform                           | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Bromomethane (Methyl bromide)       | ug/L                    | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| Carbon disulfide                    | ug/L                    | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| Carbon tetrachloride                | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Chlorobenzene                       | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Chloroethane                        | ug/L                    | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| Chloroform (Trichloromethane)       | ug/L                    | 1.0 U                   | 1.0 U                   | 1.1                     | 1.0 U                   | 1.0 U                   |
| Chloromethane (Methyl chloride)     | ug/L                    | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| cis-1,2-Dichloroethene              | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.5                     |
| cis-1,3-Dichloropropene             | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Cyclohexane                         | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Dibromochloromethane                | ug/L                    | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| Dichlorodifluoromethane (CFC-12)    | ug/L                    | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| Ethylbenzene                        | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Isopropyl benzene                   | ug/L                    | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| Methyl acetate                      | ug/L                    | 10 U                    | 10 U                    | 10 U                    | 10 U                    | 10 U                    |
| Methyl cyclohexane                  | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Methyl tert butyl ether (MTBE)      | ug/L                    | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| Methylene chloride                  | ug/L                    | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| Styrene                             | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Tetrachloroethene                   | ug/L                    | 200 <sup>abc</sup>      | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Toluene                             | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| trans-1,2-Dichloroethene            | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| trans-1,3-Dichloropropene           | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |

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Fall 2015 Semi-Annual Groundwater Event  
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Wyoming, Michigan

|                               |                                |                                |                                |                                |                                |                                |
|-------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| <b>Sample Location:</b>       | <b>MW49-13</b>                 | <b>MW58-13</b>                 | <b>MW15-04</b>                 | <b>MW34-12</b>                 | <b>MW35-12</b>                 | <b>MW40-12</b>                 |
| <b>Sample Identification:</b> | <b>WG-017360-102615-MR-023</b> | <b>WG-017360-102615-MR-027</b> | <b>WG-017360-102715-MR-031</b> | <b>WG-017360-102715-MR-037</b> | <b>WG-017360-102715-MR-038</b> | <b>WG-017360-102715-MR-034</b> |
| <b>Sample Date:</b>           | <b>10/26/2015</b>              | <b>10/26/2015</b>              | <b>10/27/2015</b>              | <b>10/27/2015</b>              | <b>10/27/2015</b>              | <b>10/27/2015</b>              |
| <b>Sample Type:</b>           |                                |                                |                                |                                |                                |                                |
| <b>Segment Depth:</b>         | <b>(34-39) ft BGS</b>          | <b>(13.5-18.5) ft BGS</b>      | <b>(25-30) ft BGS</b>          | <b>(14.4-24.4) ft BGS</b>      | <b>(24.6-29.6) ft BGS</b>      | <b>(45-50) ft BGS</b>          |

|                                    |              |       |       |        |                   |                  |
|------------------------------------|--------------|-------|-------|--------|-------------------|------------------|
| <b>VOCs (continued)</b>            | <b>Units</b> |       |       |        |                   |                  |
| Trichloroethene                    | ug/L         | 2.0   | 1.0   | 0.54 J | 5.1 <sup>ab</sup> | 31 <sup>ab</sup> |
| Trichlorofluoromethane (CFC-11)    | ug/L         | 1.0 U | 1.0 U | 1.0 U  | 1.0 U             | 1.0 U            |
| Trifluorotrichloroethane (CFC-113) | ug/L         | 1.0 U | 1.0 U | 1.0 U  | 1.0 U             | 1.0 U            |
| Vinyl chloride                     | ug/L         | 1.0 U | 1.0 U | 1.0 U  | 1.0 U             | 1.0 U            |
| Xylenes (total)                    | ug/L         | 3.0 U | 3.0 U | 3.0 U  | 3.0 U             | 3.0 U            |

**Semi-Volatile Organic Compounds (SVOCs)**

|                                             |      |    |    |    |    |    |
|---------------------------------------------|------|----|----|----|----|----|
| 2,2'-Oxybis(1-chloropropane) <sup>(6)</sup> | ug/L | -- | -- | -- | -- | -- |
| 2,4,5-Trichlorophenol                       | ug/L | -- | -- | -- | -- | -- |
| 2,4,6-Trichlorophenol                       | ug/L | -- | -- | -- | -- | -- |
| 2,4-Dichlorophenol                          | ug/L | -- | -- | -- | -- | -- |
| 2,4-Dimethylphenol                          | ug/L | -- | -- | -- | -- | -- |
| 2,4-Dinitrophenol                           | ug/L | -- | -- | -- | -- | -- |
| 2,4-Dinitrotoluene                          | ug/L | -- | -- | -- | -- | -- |
| 2,6-Dinitrotoluene                          | ug/L | -- | -- | -- | -- | -- |
| 2-Chloronaphthalene                         | ug/L | -- | -- | -- | -- | -- |
| 2-Chlorophenol                              | ug/L | -- | -- | -- | -- | -- |
| 2-Methylnaphthalene                         | ug/L | -- | -- | -- | -- | -- |
| 2-Methylphenol                              | ug/L | -- | -- | -- | -- | -- |
| 2-Nitroaniline                              | ug/L | -- | -- | -- | -- | -- |
| 2-Nitrophenol                               | ug/L | -- | -- | -- | -- | -- |
| 3&4-Methylphenol                            | ug/L | -- | -- | -- | -- | -- |
| 3,3'-Dichlorobenzidine                      | ug/L | -- | -- | -- | -- | -- |
| 3-Nitroaniline                              | ug/L | -- | -- | -- | -- | -- |
| 4,6-Dinitro-2-methylphenol                  | ug/L | -- | -- | -- | -- | -- |
| 4-Bromophenyl phenyl ether                  | ug/L | -- | -- | -- | -- | -- |
| 4-Chloro-3-methylphenol                     | ug/L | -- | -- | -- | -- | -- |
| 4-Chloroaniline                             | ug/L | -- | -- | -- | -- | -- |
| 4-Chlorophenyl phenyl ether                 | ug/L | -- | -- | -- | -- | -- |
| 4-Nitroaniline                              | ug/L | -- | -- | -- | -- | -- |
| 4-Nitrophenol                               | ug/L | -- | -- | -- | -- | -- |
| Acenaphthene                                | ug/L | -- | -- | -- | -- | -- |
| Acenaphthylene                              | ug/L | -- | -- | -- | -- | -- |
| Acetophenone                                | ug/L | -- | -- | -- | -- | -- |
| Anthracene                                  | ug/L | -- | -- | -- | -- | -- |
| Atrazine                                    | ug/L | -- | -- | -- | -- | -- |
| Benzaldehyde                                | ug/L | -- | -- | -- | -- | -- |
| Benzo(a)anthracene                          | ug/L | -- | -- | -- | -- | -- |
| Benzo(a)pyrene                              | ug/L | -- | -- | -- | -- | -- |
| Benzo(b)fluoranthene                        | ug/L | -- | -- | -- | -- | -- |
| Benzo(g,h,i)perylene                        | ug/L | -- | -- | -- | -- | -- |
| Benzo(k)fluoranthene                        | ug/L | -- | -- | -- | -- | -- |
| Biphenyl (1,1-Biphenyl)                     | ug/L | -- | -- | -- | -- | -- |



Groundwater Sample Analytical Results  
Fall 2015 Semi-Annual Groundwater Event  
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Wyoming, Michigan

|                               |                                |                                |                                |                                |                                |                                |
|-------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| <b>Sample Location:</b>       | <b>MW49-13</b>                 | <b>MW58-13</b>                 | <b>MW15-04</b>                 | <b>MW34-12</b>                 | <b>MW35-12</b>                 | <b>MW40-12</b>                 |
| <b>Sample Identification:</b> | <b>WG-017360-102615-MR-023</b> | <b>WG-017360-102615-MR-027</b> | <b>WG-017360-102715-MR-031</b> | <b>WG-017360-102715-MR-037</b> | <b>WG-017360-102715-MR-038</b> | <b>WG-017360-102715-MR-034</b> |
| <b>Sample Date:</b>           | <b>10/26/2015</b>              | <b>10/26/2015</b>              | <b>10/27/2015</b>              | <b>10/27/2015</b>              | <b>10/27/2015</b>              | <b>10/27/2015</b>              |
| <b>Sample Type:</b>           |                                |                                |                                |                                |                                |                                |
| <b>Segment Depth:</b>         | <b>(34-39) ft BGS</b>          | <b>(13.5-18.5) ft BGS</b>      | <b>(25-30) ft BGS</b>          | <b>(14.4-24.4) ft BGS</b>      | <b>(24.6-29.6) ft BGS</b>      | <b>(45-50) ft BGS</b>          |

|                                   |              |    |    |    |    |    |
|-----------------------------------|--------------|----|----|----|----|----|
| <b>SVOCs (continued)</b>          | <b>Units</b> |    |    |    |    |    |
| bis(2-Chloroethoxy)methane        | ug/L         | -- | -- | -- | -- | -- |
| bis(2-Chloroethyl)ether           | ug/L         | -- | -- | -- | -- | -- |
| bis(2-Ethylhexyl)phthalate (DEHP) | ug/L         | -- | -- | -- | -- | -- |
| Butyl benzylphthalate (BBP)       | ug/L         | -- | -- | -- | -- | -- |
| Caprolactam                       | ug/L         | -- | -- | -- | -- | -- |
| Carbazole                         | ug/L         | -- | -- | -- | -- | -- |
| Chrysene                          | ug/L         | -- | -- | -- | -- | -- |
| Dibenz(a,h)anthracene             | ug/L         | -- | -- | -- | -- | -- |
| Dibenzofuran                      | ug/L         | -- | -- | -- | -- | -- |
| Diethyl phthalate                 | ug/L         | -- | -- | -- | -- | -- |
| Dimethyl phthalate                | ug/L         | -- | -- | -- | -- | -- |
| Di-n-butylphthalate (DBP)         | ug/L         | -- | -- | -- | -- | -- |
| Di-n-octyl phthalate (DnOP)       | ug/L         | -- | -- | -- | -- | -- |
| Fluoranthene                      | ug/L         | -- | -- | -- | -- | -- |
| Fluorene                          | ug/L         | -- | -- | -- | -- | -- |
| Hexachlorobenzene                 | ug/L         | -- | -- | -- | -- | -- |
| Hexachlorobutadiene               | ug/L         | -- | -- | -- | -- | -- |
| Hexachlorocyclopentadiene         | ug/L         | -- | -- | -- | -- | -- |
| Hexachloroethane                  | ug/L         | -- | -- | -- | -- | -- |
| Indeno(1,2,3-cd)pyrene            | ug/L         | -- | -- | -- | -- | -- |
| Isophorone                        | ug/L         | -- | -- | -- | -- | -- |
| Naphthalene                       | ug/L         | -- | -- | -- | -- | -- |
| Nitrobenzene                      | ug/L         | -- | -- | -- | -- | -- |
| N-Nitrosodi-n-propylamine         | ug/L         | -- | -- | -- | -- | -- |
| N-Nitrosodiphenylamine            | ug/L         | -- | -- | -- | -- | -- |
| Pentachlorophenol                 | ug/L         | -- | -- | -- | -- | -- |
| Phenanthrene                      | ug/L         | -- | -- | -- | -- | -- |
| Phenol                            | ug/L         | -- | -- | -- | -- | -- |
| Pyrene                            | ug/L         | -- | -- | -- | -- | -- |

**Metals**

|           |      |    |    |    |    |    |
|-----------|------|----|----|----|----|----|
| Antimony  | ug/L | -- | -- | -- | -- | -- |
| Arsenic   | ug/L | -- | -- | -- | -- | -- |
| Barium    | ug/L | -- | -- | -- | -- | -- |
| Beryllium | ug/L | -- | -- | -- | -- | -- |
| Cadmium   | ug/L | -- | -- | -- | -- | -- |
| Chromium  | ug/L | -- | -- | -- | -- | -- |
| Cobalt    | ug/L | -- | -- | -- | -- | -- |
| Copper    | ug/L | -- | -- | -- | -- | -- |
| Iron      | ug/L | -- | -- | -- | -- | -- |
| Lead      | ug/L | -- | -- | -- | -- | -- |
| Manganese | ug/L | -- | -- | -- | -- | -- |

Groundwater Sample Analytical Results  
Fall 2015 Semi-Annual Groundwater Event  
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Wyoming, Michigan

|                               |                                |                                |                                |                                |                                |                                |
|-------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| <b>Sample Location:</b>       | <b>MW49-13</b>                 | <b>MW58-13</b>                 | <b>MW15-04</b>                 | <b>MW34-12</b>                 | <b>MW35-12</b>                 | <b>MW40-12</b>                 |
| <b>Sample Identification:</b> | <b>WG-017360-102615-MR-023</b> | <b>WG-017360-102615-MR-027</b> | <b>WG-017360-102715-MR-031</b> | <b>WG-017360-102715-MR-037</b> | <b>WG-017360-102715-MR-038</b> | <b>WG-017360-102715-MR-034</b> |
| <b>Sample Date:</b>           | <b>10/26/2015</b>              | <b>10/26/2015</b>              | <b>10/27/2015</b>              | <b>10/27/2015</b>              | <b>10/27/2015</b>              | <b>10/27/2015</b>              |
| <b>Sample Type:</b>           |                                |                                |                                |                                |                                |                                |
| <b>Segment Depth:</b>         | <b>(34-39) ft BGS</b>          | <b>(13.5-18.5) ft BGS</b>      | <b>(25-30) ft BGS</b>          | <b>(14.4-24.4) ft BGS</b>      | <b>(24.6-29.6) ft BGS</b>      | <b>(45-50) ft BGS</b>          |

|                           |              |    |    |    |    |    |
|---------------------------|--------------|----|----|----|----|----|
|                           | <b>Units</b> |    |    |    |    |    |
| <b>Metals (continued)</b> |              |    |    |    |    |    |
| Mercury                   | ug/L         | -- | -- | -- | -- | -- |
| Molybdenum                | ug/L         | -- | -- | -- | -- | -- |
| Nickel                    | ug/L         | -- | -- | -- | -- | -- |
| Selenium                  | ug/L         | -- | -- | -- | -- | -- |
| Silver                    | ug/L         | -- | -- | -- | -- | -- |
| Thallium                  | ug/L         | -- | -- | -- | -- | -- |
| Vanadium                  | ug/L         | -- | -- | -- | -- | -- |
| Zinc                      | ug/L         | -- | -- | -- | -- | -- |

**Groundwater Sample Analytical Results  
Fall 2015 Semi-Annual Groundwater Event  
Former Grand Rapids Metal Plant  
Wyoming, Michigan**

|                               |                                |                                |                                |                                |                                |                                |
|-------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| <b>Sample Location:</b>       | <b>MW41-12</b>                 | <b>MW41-12</b>                 | <b>MW60-14</b>                 | <b>MW60-14</b>                 | <b>MW37-12</b>                 | <b>MW38-12</b>                 |
| <b>Sample Identification:</b> | <b>WG-017360-102715-MR-035</b> | <b>WG-017360-102715-MR-036</b> | <b>WG-017360-102715-MR-032</b> | <b>WG-017360-102715-MR-033</b> | <b>WG-017360-102815-MR-040</b> | <b>WG-017360-102815-MR-041</b> |
| <b>Sample Date:</b>           | <b>10/27/2015</b>              | <b>10/27/2015</b>              | <b>10/27/2015</b>              | <b>10/27/2015</b>              | <b>10/28/2015</b>              | <b>10/28/2015</b>              |
| <b>Sample Type:</b>           |                                | <b>Duplicate</b>               |                                | <b>Duplicate</b>               |                                |                                |
| <b>Segment Depth:</b>         | <b>(18.3-28.3) ft BGS</b>      | <b>(18.3-28.3) ft BGS</b>      | <b>(21-26) ft BGS</b>          | <b>(21-26) ft BGS</b>          | <b>(19.4-29.4) ft BGS</b>      | <b>(20-30) ft BGS</b>          |

|                                     | Units |       |       |       |       |        |
|-------------------------------------|-------|-------|-------|-------|-------|--------|
| Volatile Organic Compounds (VOCs)   |       |       |       |       |       |        |
| 1,1,1-Trichloroethane               | ug/L  | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U  |
| 1,1,2,2-Tetrachloroethane           | ug/L  | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U  |
| 1,1,2-Trichloroethane               | ug/L  | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U  |
| 1,1-Dichloroethane                  | ug/L  | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U  |
| 1,1-Dichloroethene                  | ug/L  | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U  |
| 1,2,4-Trichlorobenzene              | ug/L  | 5.0 U | 5.0 U | 5.0 U | 5.0 U | 5.0 U  |
| 1,2-Dibromo-3-chloropropane (DBCP)  | ug/L  | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U  |
| 1,2-Dibromoethane <sup>(3)</sup>    | ug/L  | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U  |
| 1,2-Dichlorobenzene                 | ug/L  | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U  |
| 1,2-Dichloroethane                  | ug/L  | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U  |
| 1,2-Dichloropropane                 | ug/L  | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U  |
| 1,3-Dichlorobenzene                 | ug/L  | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U  |
| 1,4-Dichlorobenzene                 | ug/L  | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U  |
| 2-Butanone <sup>(4)</sup>           | ug/L  | 25 U  | 25 U  | 25 U  | 25 U  | 25 U   |
| 2-Hexanone                          | ug/L  | 50 U  | 50 U  | 50 U  | 50 U  | 50 U   |
| 4-Methyl-2-pentanone <sup>(5)</sup> | ug/L  | 50 U  | 50 U  | 50 U  | 50 U  | 50 U   |
| Acetone                             | ug/L  | 50 U  | 50 U  | 50 U  | 50 U  | 50 U   |
| Benzene                             | ug/L  | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 0.41 J |
| Bromodichloromethane                | ug/L  | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U  |
| Bromoform                           | ug/L  | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U  |
| Bromomethane (Methyl bromide)       | ug/L  | 5.0 U | 5.0 U | 5.0 U | 5.0 U | 5.0 U  |
| Carbon disulfide                    | ug/L  | 5.0 U | 5.0 U | 5.0 U | 5.0 U | 5.0 U  |
| Carbon tetrachloride                | ug/L  | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U  |
| Chlorobenzene                       | ug/L  | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U  |
| Chloroethane                        | ug/L  | 5.0 U | 5.0 U | 5.0 U | 5.0 U | 5.0 U  |
| Chloroform (Trichloromethane)       | ug/L  | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U  |
| Chloromethane (Methyl chloride)     | ug/L  | 5.0 U | 5.0 U | 5.0 U | 5.0 U | 5.0 U  |
| cis-1,2-Dichloroethene              | ug/L  | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 2.8    |
| cis-1,3-Dichloropropene             | ug/L  | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U  |
| Cyclohexane                         | ug/L  | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U  |
| Dibromochloromethane                | ug/L  | 5.0 U | 5.0 U | 5.0 U | 5.0 U | 5.0 U  |
| Dichlorodifluoromethane (CFC-12)    | ug/L  | 5.0 U | 5.0 U | 5.0 U | 5.0 U | 5.0 U  |
| Ethylbenzene                        | ug/L  | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U  |
| Isopropyl benzene                   | ug/L  | 5.0 U | 5.0 U | 5.0 U | 5.0 U | 5.0 U  |
| Methyl acetate                      | ug/L  | 10 U  | 10 U  | 10 U  | 10 U  | 10 U   |
| Methyl cyclohexane                  | ug/L  | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U  |
| Methyl tert butyl ether (MTBE)      | ug/L  | 5.0 U | 5.0 U | 5.0 U | 5.0 U | 5.0 U  |
| Methylene chloride                  | ug/L  | 5.0 U | 5.0 U | 5.0 U | 5.0 U | 5.0 U  |
| Styrene                             | ug/L  | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U  |
| Tetrachloroethene                   | ug/L  | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U  |
| Toluene                             | ug/L  | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U  |
| trans-1,2-Dichloroethene            | ug/L  | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U  |
| trans-1,3-Dichloropropene           | ug/L  | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U  |

**Groundwater Sample Analytical Results**  
**Fall 2015 Semi-Annual Groundwater Event**  
**Former Grand Rapids Metal Plant**  
**Wyoming, Michigan**

| <b>Sample Location:</b>                        | <b>MW41-12</b>          | <b>MW41-12</b>          | <b>MW60-14</b>          | <b>MW60-14</b>          | <b>MW37-12</b>          | <b>MW38-12</b>          |
|------------------------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| <b>Sample Identification:</b>                  | WG-017360-102715-MR-035 | WG-017360-102715-MR-036 | WG-017360-102715-MR-032 | WG-017360-102715-MR-033 | WG-017360-102815-MR-040 | WG-017360-102815-MR-041 |
| <b>Sample Date:</b>                            | 10/27/2015              | 10/27/2015              | 10/27/2015              | 10/27/2015              | 10/28/2015              | 10/28/2015              |
| <b>Sample Type:</b>                            |                         | Duplicate               |                         | Duplicate               |                         |                         |
| <b>Segment Depth:</b>                          | (18.3-28.3) ft BGS      | (18.3-28.3) ft BGS      | (21-26) ft BGS          | (21-26) ft BGS          | (19.4-29.4) ft BGS      | (20-30) ft BGS          |
| <b>VOCs (continued)</b>                        |                         |                         |                         |                         |                         |                         |
|                                                | <b>Units</b>            |                         |                         |                         |                         |                         |
| Trichloroethene                                | ug/L                    | 1.0 U                   | 1.0 U                   | 0.51 J                  | 0.51 J                  | 6.8 <sup>ab</sup>       |
| Trichlorofluoromethane (CFC-11)                | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Trifluorotrichloroethane (CFC-113)             | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Vinyl chloride                                 | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 9.1 <sup>ab</sup>       |
| Xylenes (total)                                | ug/L                    | 3.0 U                   | 3.0 U                   | 3.0 U                   | 3.0 U                   | 3.0 U                   |
| <b>Semi-Volatile Organic Compounds (SVOCs)</b> |                         |                         |                         |                         |                         |                         |
| 2,2'-Oxybis(1-chloropropane) <sup>(6)</sup>    | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| 2,4,5-Trichlorophenol                          | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| 2,4,6-Trichlorophenol                          | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| 2,4-Dichlorophenol                             | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| 2,4-Dimethylphenol                             | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| 2,4-Dinitrophenol                              | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| 2,4-Dinitrotoluene                             | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| 2,6-Dinitrotoluene                             | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| 2-Chloronaphthalene                            | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| 2-Chlorophenol                                 | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| 2-Methylnaphthalene                            | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| 2-Methylphenol                                 | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| 2-Nitroaniline                                 | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| 2-Nitrophenol                                  | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| 3&4-Methylphenol                               | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| 3,3'-Dichlorobenzidine                         | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| 3-Nitroaniline                                 | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| 4,6-Dinitro-2-methylphenol                     | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| 4-Bromophenyl phenyl ether                     | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| 4-Chloro-3-methylphenol                        | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| 4-Chloroaniline                                | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| 4-Chlorophenyl phenyl ether                    | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| 4-Nitroaniline                                 | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| 4-Nitrophenol                                  | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| Acenaphthene                                   | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| Acenaphthylene                                 | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| Acetophenone                                   | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| Anthracene                                     | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| Atrazine                                       | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| Benzaldehyde                                   | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| Benzo(a)anthracene                             | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| Benzo(a)pyrene                                 | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| Benzo(b)fluoranthene                           | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| Benzo(g,h,i)perylene                           | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| Benzo(k)fluoranthene                           | ug/L                    | --                      | --                      | --                      | --                      | --                      |
| Biphenyl (1,1-Biphenyl)                        | ug/L                    | --                      | --                      | --                      | --                      | --                      |

Groundwater Sample Analytical Results  
Fall 2015 Semi-Annual Groundwater Event  
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Wyoming, Michigan

|                               |                                |                                |                                |                                |                                |                                |
|-------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| <b>Sample Location:</b>       | <b>MW41-12</b>                 | <b>MW41-12</b>                 | <b>MW60-14</b>                 | <b>MW60-14</b>                 | <b>MW37-12</b>                 | <b>MW38-12</b>                 |
| <b>Sample Identification:</b> | <b>WG-017360-102715-MR-035</b> | <b>WG-017360-102715-MR-036</b> | <b>WG-017360-102715-MR-032</b> | <b>WG-017360-102715-MR-033</b> | <b>WG-017360-102815-MR-040</b> | <b>WG-017360-102815-MR-041</b> |
| <b>Sample Date:</b>           | <b>10/27/2015</b>              | <b>10/27/2015</b>              | <b>10/27/2015</b>              | <b>10/27/2015</b>              | <b>10/28/2015</b>              | <b>10/28/2015</b>              |
| <b>Sample Type:</b>           |                                | <b>Duplicate</b>               |                                | <b>Duplicate</b>               |                                |                                |
| <b>Segment Depth:</b>         | <b>(18.3-28.3) ft BGS</b>      | <b>(18.3-28.3) ft BGS</b>      | <b>(21-26) ft BGS</b>          | <b>(21-26) ft BGS</b>          | <b>(19.4-29.4) ft BGS</b>      | <b>(20-30) ft BGS</b>          |

|                                   |              |    |    |    |    |    |
|-----------------------------------|--------------|----|----|----|----|----|
| <b>SVOCs (continued)</b>          | <b>Units</b> |    |    |    |    |    |
| bis(2-Chloroethoxy)methane        | ug/L         | -- | -- | -- | -- | -- |
| bis(2-Chloroethyl)ether           | ug/L         | -- | -- | -- | -- | -- |
| bis(2-Ethylhexyl)phthalate (DEHP) | ug/L         | -- | -- | -- | -- | -- |
| Butyl benzylphthalate (BBP)       | ug/L         | -- | -- | -- | -- | -- |
| Caprolactam                       | ug/L         | -- | -- | -- | -- | -- |
| Carbazole                         | ug/L         | -- | -- | -- | -- | -- |
| Chrysene                          | ug/L         | -- | -- | -- | -- | -- |
| Dibenz(a,h)anthracene             | ug/L         | -- | -- | -- | -- | -- |
| Dibenzofuran                      | ug/L         | -- | -- | -- | -- | -- |
| Diethyl phthalate                 | ug/L         | -- | -- | -- | -- | -- |
| Dimethyl phthalate                | ug/L         | -- | -- | -- | -- | -- |
| Di-n-butylphthalate (DBP)         | ug/L         | -- | -- | -- | -- | -- |
| Di-n-octyl phthalate (DnOP)       | ug/L         | -- | -- | -- | -- | -- |
| Fluoranthene                      | ug/L         | -- | -- | -- | -- | -- |
| Fluorene                          | ug/L         | -- | -- | -- | -- | -- |
| Hexachlorobenzene                 | ug/L         | -- | -- | -- | -- | -- |
| Hexachlorobutadiene               | ug/L         | -- | -- | -- | -- | -- |
| Hexachlorocyclopentadiene         | ug/L         | -- | -- | -- | -- | -- |
| Hexachloroethane                  | ug/L         | -- | -- | -- | -- | -- |
| Indeno(1,2,3-cd)pyrene            | ug/L         | -- | -- | -- | -- | -- |
| Isophorone                        | ug/L         | -- | -- | -- | -- | -- |
| Naphthalene                       | ug/L         | -- | -- | -- | -- | -- |
| Nitrobenzene                      | ug/L         | -- | -- | -- | -- | -- |
| N-Nitrosodi-n-propylamine         | ug/L         | -- | -- | -- | -- | -- |
| N-Nitrosodiphenylamine            | ug/L         | -- | -- | -- | -- | -- |
| Pentachlorophenol                 | ug/L         | -- | -- | -- | -- | -- |
| Phenanthrene                      | ug/L         | -- | -- | -- | -- | -- |
| Phenol                            | ug/L         | -- | -- | -- | -- | -- |
| Pyrene                            | ug/L         | -- | -- | -- | -- | -- |

**Metals**

|           |      |    |    |        |       |    |    |
|-----------|------|----|----|--------|-------|----|----|
| Antimony  | ug/L | -- | -- | 0.12 J | 0.1 J | -- | -- |
| Arsenic   | ug/L | -- | -- | 5 U    | 5 U   | -- | -- |
| Barium    | ug/L | -- | -- | 23 J   | 23 J  | -- | -- |
| Beryllium | ug/L | -- | -- | 1 U    | 1 U   | -- | -- |
| Cadmium   | ug/L | -- | -- | 1 U    | 1 U   | -- | -- |
| Chromium  | ug/L | -- | -- | 10 U   | 10 U  | -- | -- |
| Cobalt    | ug/L | -- | -- | 2.6 J  | 2.7 J | -- | -- |
| Copper    | ug/L | -- | -- | 4 U    | 4 U   | -- | -- |
| Iron      | ug/L | -- | -- | 27 J   | 24 J  | -- | -- |
| Lead      | ug/L | -- | -- | 0.31 J | 3 U   | -- | -- |
| Manganese | ug/L | -- | -- | 2.3 J  | 2.1 J | -- | -- |

Groundwater Sample Analytical Results  
Fall 2015 Semi-Annual Groundwater Event  
Former Grand Rapids Metal Plant  
Wyoming, Michigan

|                               |                         |                         |                         |                         |                         |                         |
|-------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| <b>Sample Location:</b>       | <b>MW41-12</b>          | <b>MW41-12</b>          | <b>MW60-14</b>          | <b>MW60-14</b>          | <b>MW37-12</b>          | <b>MW38-12</b>          |
| <b>Sample Identification:</b> | WG-017360-102715-MR-035 | WG-017360-102715-MR-036 | WG-017360-102715-MR-032 | WG-017360-102715-MR-033 | WG-017360-102815-MR-040 | WG-017360-102815-MR-041 |
| <b>Sample Date:</b>           | 10/27/2015              | 10/27/2015              | 10/27/2015              | 10/27/2015              | 10/28/2015              | 10/28/2015              |
| <b>Sample Type:</b>           |                         | Duplicate               |                         | Duplicate               |                         |                         |
| <b>Segment Depth:</b>         | (18.3-28.3) ft BGS      | (18.3-28.3) ft BGS      | (21-26) ft BGS          | (21-26) ft BGS          | (19.4-29.4) ft BGS      | (20-30) ft BGS          |

|                           |              |    |    |        |        |    |
|---------------------------|--------------|----|----|--------|--------|----|
|                           | <b>Units</b> |    |    |        |        |    |
| <b>Metals (continued)</b> |              |    |    |        |        |    |
| Mercury                   | ug/L         | -- | -- | 0.2 U  | 0.2 U  | -- |
| Molybdenum                | ug/L         | -- | -- | 3.3 J  | 3.2 J  | -- |
| Nickel                    | ug/L         | -- | -- | 2.8 J  | 2.9 J  | -- |
| Selenium                  | ug/L         | -- | -- | 5 U    | 5 U    | -- |
| Silver                    | ug/L         | -- | -- | 0.2 U  | 0.2 U  | -- |
| Thallium                  | ug/L         | -- | -- | 2 U    | 2 U    | -- |
| Vanadium                  | ug/L         | -- | -- | 0.53 J | 0.59 J | -- |
| Zinc                      | ug/L         | -- | -- | 5.2 J  | 50 U   | -- |

**Groundwater Sample Analytical Results  
Fall 2015 Semi-Annual Groundwater Event  
Former Grand Rapids Metal Plant  
Wyoming, Michigan**

| Sample Location:                    | MW42-12                 | MW43-12                 | MW45-12                 | MW46-12                 | MW44-12                 | MW50-12                 |
|-------------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Sample Identification:              | WG-017360-102815-MR-039 | WG-017360-102815-MR-043 | WG-017360-102815-MR-044 | WG-017360-102815-MR-042 | WG-017360-102915-MR-045 | WG-017360-102915-MR-046 |
| Sample Date:                        | 10/28/2015              | 10/28/2015              | 10/28/2015              | 10/28/2015              | 10/29/2015              | 10/29/2015              |
| Sample Type:                        |                         |                         |                         |                         |                         |                         |
| Segment Depth:                      | (21-31) ft BGS          | (15-25) ft BGS          | (19.1-29.1) ft BGS      | (20.2-30.2) ft BGS      | (18.5-28.5) ft BGS      | (17-27) ft BGS          |
|                                     | Units                   |                         |                         |                         |                         |                         |
| Volatile Organic Compounds (VOCs)   |                         |                         |                         |                         |                         |                         |
| 1,1,1-Trichloroethane               | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,1,2,2-Tetrachloroethane           | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,1,2-Trichloroethane               | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,1-Dichloroethane                  | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,1-Dichloroethene                  | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,2,4-Trichlorobenzene              | ug/L                    | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| 1,2-Dibromo-3-chloropropane (DBCP)  | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,2-Dibromoethane <sup>(3)</sup>    | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,2-Dichlorobenzene                 | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.5                     | 1.0 U                   |
| 1,2-Dichloroethane                  | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,2-Dichloropropane                 | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,3-Dichlorobenzene                 | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,4-Dichlorobenzene                 | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 2-Butanone <sup>(4)</sup>           | ug/L                    | 25 U                    | 25 U                    | 25 U                    | 25 U                    | 25 U                    |
| 2-Hexanone                          | ug/L                    | 50 U                    | 50 U                    | 50 U                    | 50 U                    | 50 U                    |
| 4-Methyl-2-pentanone <sup>(5)</sup> | ug/L                    | 50 U                    | 50 U                    | 50 U                    | 2.2 J                   | 50 U                    |
| Acetone                             | ug/L                    | 50 U                    | 50 U                    | 50 U                    | 50 U                    | 50 U                    |
| Benzene                             | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Bromodichloromethane                | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Bromoform                           | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Bromomethane (Methyl bromide)       | ug/L                    | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| Carbon disulfide                    | ug/L                    | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| Carbon tetrachloride                | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Chlorobenzene                       | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Chloroethane                        | ug/L                    | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| Chloroform (Trichloromethane)       | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.9                     |
| Chloromethane (Methyl chloride)     | ug/L                    | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| cis-1,2-Dichloroethene              | ug/L                    | 1.0 U                   | 1.0 U                   | 0.51 J                  | 1.2                     | 2.2                     |
| cis-1,3-Dichloropropene             | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Cyclohexane                         | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Dibromochloromethane                | ug/L                    | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| Dichlorodifluoromethane (CFC-12)    | ug/L                    | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| Ethylbenzene                        | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 2.5 J                   | 1.0 U                   |
| Isopropyl benzene                   | ug/L                    | 5.0 U                   | 5.0 U                   | 5.0 U                   | 2.8 J                   | 5.0 U                   |
| Methyl acetate                      | ug/L                    | 10 U                    | 10 U                    | 10 U                    | 10 U                    | 10 U                    |
| Methyl cyclohexane                  | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Methyl tert butyl ether (MTBE)      | ug/L                    | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| Methylene chloride                  | ug/L                    | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| Styrene                             | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 UJ                  | 1.0 U                   |
| Tetrachloroethene                   | ug/L                    | 2.1                     | 3.4                     | 1.6                     | 1.0 U                   | 3.8                     |
| Toluene                             | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| trans-1,2-Dichloroethene            | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| trans-1,3-Dichloropropene           | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 UJ                  | 1.0 U                   |

**Groundwater Sample Analytical Results  
Fall 2015 Semi-Annual Groundwater Event  
Former Grand Rapids Metal Plant  
Wyoming, Michigan**

| Sample Location:                            | MW42-12                 | MW43-12                 | MW45-12                 | MW46-12                 | MW44-12                 | MW50-12                 |
|---------------------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Sample Identification:                      | WG-017360-102815-MR-039 | WG-017360-102815-MR-043 | WG-017360-102815-MR-044 | WG-017360-102815-MR-042 | WG-017360-102915-MR-045 | WG-017360-102915-MR-046 |
| Sample Date:                                | 10/28/2015              | 10/28/2015              | 10/28/2015              | 10/28/2015              | 10/29/2015              | 10/29/2015              |
| Sample Type:                                |                         |                         |                         |                         |                         |                         |
| Segment Depth:                              | (21-31) ft BGS          | (15-25) ft BGS          | (19.1-29.1) ft BGS      | (20.2-30.2) ft BGS      | (18.5-28.5) ft BGS      | (17-27) ft BGS          |
|                                             | Units                   |                         |                         |                         |                         |                         |
| VOCs (continued)                            |                         |                         |                         |                         |                         |                         |
| Trichloroethene                             | ug/L                    | 1.0 U                   |                         | 0.96 J                  | 1.0 U                   | 1.0 U                   |
| Trichlorofluoromethane (CFC-11)             | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Trifluorotrichloroethane (CFC-113)          | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Vinyl chloride                              | ug/L                    | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 0.99 J                  |
| Xylenes (total)                             | ug/L                    | 3.0 U                   | 3.0 U                   | 3.0 U                   | 3.0 U                   | 8.7                     |
|                                             |                         |                         |                         |                         |                         | 2.0 J                   |
| Semi-Volatile Organic Compounds (SVOCs)     |                         |                         |                         |                         |                         |                         |
| 2,2'-Oxybis(1-chloropropane) <sup>(6)</sup> | ug/L                    | --                      | --                      | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| 2,4,5-Trichlorophenol                       | ug/L                    | --                      | --                      | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| 2,4,6-Trichlorophenol                       | ug/L                    | --                      | --                      | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| 2,4-Dichlorophenol                          | ug/L                    | --                      | --                      | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| 2,4-Dimethylphenol                          | ug/L                    | --                      | --                      | 0.41 J                  | 5.0 U                   | 3.8 J                   |
| 2,4-Dinitrophenol                           | ug/L                    | --                      | --                      | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| 2,4-Dinitrotoluene                          | ug/L                    | --                      | --                      | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| 2,6-Dinitrotoluene                          | ug/L                    | --                      | --                      | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| 2-Chloronaphthalene                         | ug/L                    | --                      | --                      | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| 2-Chlorophenol                              | ug/L                    | --                      | --                      | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| 2-Methylnaphthalene                         | ug/L                    | --                      | --                      | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| 2-Methylphenol                              | ug/L                    | --                      | --                      | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| 2-Nitroaniline                              | ug/L                    | --                      | --                      | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| 2-Nitrophenol                               | ug/L                    | --                      | --                      | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| 3&4-Methylphenol                            | ug/L                    | --                      | --                      | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| 3,3'-Dichlorobenzidine                      | ug/L                    | --                      | --                      | 5.0 U                   | 5.0 U                   | R                       |
| 3-Nitroaniline                              | ug/L                    | --                      | --                      | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| 4,6-Dinitro-2-methylphenol                  | ug/L                    | --                      | --                      | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| 4-Bromophenyl phenyl ether                  | ug/L                    | --                      | --                      | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| 4-Chloro-3-methylphenol                     | ug/L                    | --                      | --                      | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| 4-Chloroaniline                             | ug/L                    | --                      | --                      | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| 4-Chlorophenyl phenyl ether                 | ug/L                    | --                      | --                      | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| 4-Nitroaniline                              | ug/L                    | --                      | --                      | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| 4-Nitrophenol                               | ug/L                    | --                      | --                      | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| Acenaphthene                                | ug/L                    | --                      | --                      | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| Acenaphthylene                              | ug/L                    | --                      | --                      | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| Acetophenone                                | ug/L                    | --                      | --                      | 0.62 J                  | 1.0 U                   | 1.0 U                   |
| Anthracene                                  | ug/L                    | --                      | --                      | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| Atrazine                                    | ug/L                    | --                      | --                      | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Benzaldehyde                                | ug/L                    | --                      | --                      | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Benzo(a)anthracene                          | ug/L                    | --                      | --                      | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| Benzo(a)pyrene                              | ug/L                    | --                      | --                      | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| Benzo(b)fluoranthene                        | ug/L                    | --                      | --                      | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| Benzo(g,h,i)perylene                        | ug/L                    | --                      | --                      | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| Benzo(k)fluoranthene                        | ug/L                    | --                      | --                      | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| Biphenyl (1,1-Biphenyl)                     | ug/L                    | --                      | --                      | 5.0 U                   | 5.0 U                   | 5.0 U                   |



**Groundwater Sample Analytical Results  
Fall 2015 Semi-Annual Groundwater Event  
Former Grand Rapids Metal Plant  
Wyoming, Michigan**

|                               |                                |                                |                                |                                |                                |                                |
|-------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| <b>Sample Location:</b>       | <b>MW42-12</b>                 | <b>MW43-12</b>                 | <b>MW45-12</b>                 | <b>MW46-12</b>                 | <b>MW44-12</b>                 | <b>MW50-12</b>                 |
| <b>Sample Identification:</b> | <b>WG-017360-102815-MR-039</b> | <b>WG-017360-102815-MR-043</b> | <b>WG-017360-102815-MR-044</b> | <b>WG-017360-102815-MR-042</b> | <b>WG-017360-102915-MR-045</b> | <b>WG-017360-102915-MR-046</b> |
| <b>Sample Date:</b>           | <b>10/28/2015</b>              | <b>10/28/2015</b>              | <b>10/28/2015</b>              | <b>10/28/2015</b>              | <b>10/29/2015</b>              | <b>10/29/2015</b>              |
| <b>Sample Type:</b>           |                                |                                |                                |                                |                                |                                |
| <b>Segment Depth:</b>         | <b>(21-31) ft BGS</b>          | <b>(15-25) ft BGS</b>          | <b>(19.1-29.1) ft BGS</b>      | <b>(20.2-30.2) ft BGS</b>      | <b>(18.5-28.5) ft BGS</b>      | <b>(17-27) ft BGS</b>          |

| SVOCs (continued)                 | Units |    |    |       |       |       |        |
|-----------------------------------|-------|----|----|-------|-------|-------|--------|
| bis(2-Chloroethoxy)methane        | ug/L  | -- | -- | 5.0 U | 5.0 U | 5.0 U | 5.0 U  |
| bis(2-Chloroethyl)ether           | ug/L  | -- | -- | 5.0 U | 5.0 U | 5.0 U | 5.0 U  |
| bis(2-Ethylhexyl)phthalate (DEHP) | ug/L  | -- | -- | 5.0 U | 5.0 U | 5.0 U | 5.0 U  |
| Butyl benzylphthalate (BBP)       | ug/L  | -- | -- | 5.0 U | 5.0 U | 5.0 U | 5.0 U  |
| Caprolactam                       | ug/L  | -- | -- | 10 U  | 10 U  | 10 U  | 10 U   |
| Carbazole                         | ug/L  | -- | -- | 5.0 U | 5.0 U | 5.0 U | 5.0 U  |
| Chrysene                          | ug/L  | -- | -- | 5.0 U | 5.0 U | 5.0 U | 5.0 U  |
| Dibenz(a,h)anthracene             | ug/L  | -- | -- | 5.0 U | 5.0 U | 5.0 U | 5.0 U  |
| Dibenzofuran                      | ug/L  | -- | -- | 5.0 U | 5.0 U | 5.0 U | 5.0 U  |
| Diethyl phthalate                 | ug/L  | -- | -- | 5.0 U | 5.0 U | 5.0 U | 5.0 U  |
| Dimethyl phthalate                | ug/L  | -- | -- | 5.0 U | 5.0 U | 5.0 U | 5.0 U  |
| Di-n-butylphthalate (DBP)         | ug/L  | -- | -- | 5.0 U | 5.0 U | 5.0 U | 5.0 U  |
| Di-n-octyl phthalate (DnOP)       | ug/L  | -- | -- | 5.0 U | 5.0 U | 5.0 U | 5.0 U  |
| Fluoranthene                      | ug/L  | -- | -- | 5.0 U | 5.0 U | 5.0 U | 5.0 U  |
| Fluorene                          | ug/L  | -- | -- | 5.0 U | 5.0 U | 5.0 U | 5.0 U  |
| Hexachlorobenzene                 | ug/L  | -- | -- | 5.0 U | 5.0 U | 5.0 U | 5.0 U  |
| Hexachlorobutadiene               | ug/L  | -- | -- | 5.0 U | 5.0 U | 5.0 U | 5.0 U  |
| Hexachlorocyclopentadiene         | ug/L  | -- | -- | 5.0 U | 5.0 U | 5.0 U | 5.0 U  |
| Hexachloroethane                  | ug/L  | -- | -- | 5.0 U | 5.0 U | 5.0 U | 5.0 U  |
| Indeno(1,2,3-cd)pyrene            | ug/L  | -- | -- | 5.0 U | 5.0 U | 5.0 U | 5.0 U  |
| Isophorone                        | ug/L  | -- | -- | 5.0 U | 5.0 U | 5.0 U | 5.0 U  |
| Naphthalene                       | ug/L  | -- | -- | 5.0 U | 5.0 U | 2.5 J | 0.24 J |
| Nitrobenzene                      | ug/L  | -- | -- | 5.0 U | 5.0 U | 5.0 U | 5.0 U  |
| N-Nitrosodi-n-propylamine         | ug/L  | -- | -- | 5.0 U | 5.0 U | 5.0 U | 5.0 U  |
| N-Nitrosodiphenylamine            | ug/L  | -- | -- | 5.0 U | 5.0 U | 5.0 U | 5.0 U  |
| Pentachlorophenol                 | ug/L  | -- | -- | 5.0 U | 5.0 U | 5.0 U | 5.0 U  |
| Phenanthrene                      | ug/L  | -- | -- | 5.0 U | 5.0 U | 5.0 U | 5.0 U  |
| Phenol                            | ug/L  | -- | -- | 5.0 U | 5.0 U | 5.0 U | 5.0 U  |
| Pyrene                            | ug/L  | -- | -- | 5.0 U | 5.0 U | 5.0 U | 5.0 U  |

**Metals**

|           |      |    |    |    |    |    |
|-----------|------|----|----|----|----|----|
| Antimony  | ug/L | -- | -- | -- | -- | -- |
| Arsenic   | ug/L | -- | -- | -- | -- | -- |
| Barium    | ug/L | -- | -- | -- | -- | -- |
| Beryllium | ug/L | -- | -- | -- | -- | -- |
| Cadmium   | ug/L | -- | -- | -- | -- | -- |
| Chromium  | ug/L | -- | -- | -- | -- | -- |
| Cobalt    | ug/L | -- | -- | -- | -- | -- |
| Copper    | ug/L | -- | -- | -- | -- | -- |
| Iron      | ug/L | -- | -- | -- | -- | -- |
| Lead      | ug/L | -- | -- | -- | -- | -- |
| Manganese | ug/L | -- | -- | -- | -- | -- |

Groundwater Sample Analytical Results  
Fall 2015 Semi-Annual Groundwater Event  
Former Grand Rapids Metal Plant  
Wyoming, Michigan

|                               |                         |                         |                         |                         |                         |                         |
|-------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| <b>Sample Location:</b>       | <b>MW42-12</b>          | <b>MW43-12</b>          | <b>MW45-12</b>          | <b>MW46-12</b>          | <b>MW44-12</b>          | <b>MW50-12</b>          |
| <b>Sample Identification:</b> | WG-017360-102815-MR-039 | WG-017360-102815-MR-043 | WG-017360-102815-MR-044 | WG-017360-102815-MR-042 | WG-017360-102915-MR-045 | WG-017360-102915-MR-046 |
| <b>Sample Date:</b>           | 10/28/2015              | 10/28/2015              | 10/28/2015              | 10/28/2015              | 10/29/2015              | 10/29/2015              |
| <b>Sample Type:</b>           |                         |                         |                         |                         |                         |                         |
| <b>Segment Depth:</b>         | (21-31) ft BGS          | (15-25) ft BGS          | (19.1-29.1) ft BGS      | (20.2-30.2) ft BGS      | (18.5-28.5) ft BGS      | (17-27) ft BGS          |

|                           |              |    |    |    |    |    |
|---------------------------|--------------|----|----|----|----|----|
|                           | <b>Units</b> |    |    |    |    |    |
| <b>Metals (continued)</b> |              |    |    |    |    |    |
| Mercury                   | ug/L         | -- | -- | -- | -- | -- |
| Molybdenum                | ug/L         | -- | -- | -- | -- | -- |
| Nickel                    | ug/L         | -- | -- | -- | -- | -- |
| Selenium                  | ug/L         | -- | -- | -- | -- | -- |
| Silver                    | ug/L         | -- | -- | -- | -- | -- |
| Thallium                  | ug/L         | -- | -- | -- | -- | -- |
| Vanadium                  | ug/L         | -- | -- | -- | -- | -- |
| Zinc                      | ug/L         | -- | -- | -- | -- | -- |

Groundwater Sample Analytical Results  
Fall 2015 Semi-Annual Groundwater Event  
Former Grand Rapids Metal Plant  
Wyoming, Michigan

**Sample Location:** MW51-12  
**Sample Identification:** WG-017360-102915-MR-047  
**Sample Date:** 10/29/2015  
**Sample Type:**  
**Segment Depth:** (17-27) ft BGS

|                                     | Units |       |
|-------------------------------------|-------|-------|
| Volatile Organic Compounds (VOCs)   |       |       |
| 1,1,1-Trichloroethane               | ug/L  | 1.0 U |
| 1,1,2,2-Tetrachloroethane           | ug/L  | 1.0 U |
| 1,1,2-Trichloroethane               | ug/L  | 1.0 U |
| 1,1-Dichloroethane                  | ug/L  | 1.0 U |
| 1,1-Dichloroethene                  | ug/L  | 1.0 U |
| 1,2,4-Trichlorobenzene              | ug/L  | 5.0 U |
| 1,2-Dibromo-3-chloropropane (DBCP)  | ug/L  | 1.0 U |
| 1,2-Dibromoethane <sup>(3)</sup>    | ug/L  | 1.0 U |
| 1,2-Dichlorobenzene                 | ug/L  | 1.0 U |
| 1,2-Dichloroethane                  | ug/L  | 1.0 U |
| 1,2-Dichloropropane                 | ug/L  | 1.0 U |
| 1,3-Dichlorobenzene                 | ug/L  | 1.0 U |
| 1,4-Dichlorobenzene                 | ug/L  | 1.0 U |
| 2-Butanone <sup>(4)</sup>           | ug/L  | 2.6 J |
| 2-Hexanone                          | ug/L  | 50 U  |
| 4-Methyl-2-pentanone <sup>(5)</sup> | ug/L  | 50 U  |
| Acetone                             | ug/L  | 11 J  |
| Benzene                             | ug/L  | 1.0 U |
| Bromodichloromethane                | ug/L  | 1.0 U |
| Bromoform                           | ug/L  | 1.0 U |
| Bromomethane (Methyl bromide)       | ug/L  | 5.0 U |
| Carbon disulfide                    | ug/L  | 5.0 U |
| Carbon tetrachloride                | ug/L  | 1.0 U |
| Chlorobenzene                       | ug/L  | 1.0 U |
| Chloroethane                        | ug/L  | 5.0 U |
| Chloroform (Trichloromethane)       | ug/L  | 1.0 U |
| Chloromethane (Methyl chloride)     | ug/L  | 5.0 U |
| cis-1,2-Dichloroethene              | ug/L  | 1.0 U |
| cis-1,3-Dichloropropene             | ug/L  | 1.0 U |
| Cyclohexane                         | ug/L  | 1.0 U |
| Dibromochloromethane                | ug/L  | 5.0 U |
| Dichlorodifluoromethane (CFC-12)    | ug/L  | 5.0 U |
| Ethylbenzene                        | ug/L  | 1.0 U |
| Isopropyl benzene                   | ug/L  | 5.0 U |
| Methyl acetate                      | ug/L  | 10 U  |
| Methyl cyclohexane                  | ug/L  | 1.0 U |
| Methyl tert butyl ether (MTBE)      | ug/L  | 5.0 U |
| Methylene chloride                  | ug/L  | 5.0 U |
| Styrene                             | ug/L  | 1.0 U |
| Tetrachloroethene                   | ug/L  | 2.8   |
| Toluene                             | ug/L  | 1.0 U |
| trans-1,2-Dichloroethene            | ug/L  | 1.0 U |
| trans-1,3-Dichloropropene           | ug/L  | 1.0 U |

Groundwater Sample Analytical Results  
Fall 2015 Semi-Annual Groundwater Event  
Former Grand Rapids Metal Plant  
Wyoming, Michigan

**Sample Location:** MW51-12  
**Sample Identification:** WG-017360-102915-MR-047  
**Sample Date:** 10/29/2015  
**Sample Type:**  
**Segment Depth:** (17-27) ft BGS

|                                    | <i>Units</i> |       |
|------------------------------------|--------------|-------|
| <b>VOCs (continued)</b>            |              |       |
| Trichloroethene                    | ug/L         | 1.0 U |
| Trichlorofluoromethane (CFC-11)    | ug/L         | 1.0 U |
| Trifluorotrichloroethane (CFC-113) | ug/L         | 1.0 U |
| Vinyl chloride                     | ug/L         | 1.0 U |
| Xylenes (total)                    | ug/L         | 1.5 J |

**Semi-Volatile Organic Compounds (SVOCs)**

|                                             |      |        |
|---------------------------------------------|------|--------|
| 2,2'-Oxybis(1-chloropropane) <sup>(6)</sup> | ug/L | 5.3 U  |
| 2,4,5-Trichlorophenol                       | ug/L | 5.3 U  |
| 2,4,6-Trichlorophenol                       | ug/L | 5.3 U  |
| 2,4-Dichlorophenol                          | ug/L | 5.3 U  |
| 2,4-Dimethylphenol                          | ug/L | 0.71 J |
| 2,4-Dinitrophenol                           | ug/L | 5.3 U  |
| 2,4-Dinitrotoluene                          | ug/L | 5.3 U  |
| 2,6-Dinitrotoluene                          | ug/L | 5.3 U  |
| 2-Chloronaphthalene                         | ug/L | 5.3 U  |
| 2-Chlorophenol                              | ug/L | 5.3 U  |
| 2-Methylnaphthalene                         | ug/L | 0.26 J |
| 2-Methylphenol                              | ug/L | 5.3 U  |
| 2-Nitroaniline                              | ug/L | 5.3 U  |
| 2-Nitrophenol                               | ug/L | 5.3 U  |
| 3&4-Methylphenol                            | ug/L | 0.63 J |
| 3,3'-Dichlorobenzidine                      | ug/L | 5.3 U  |
| 3-Nitroaniline                              | ug/L | 5.3 U  |
| 4,6-Dinitro-2-methylphenol                  | ug/L | 5.3 U  |
| 4-Bromophenyl phenyl ether                  | ug/L | 5.3 U  |
| 4-Chloro-3-methylphenol                     | ug/L | 5.3 U  |
| 4-Chloroaniline                             | ug/L | 5.3 U  |
| 4-Chlorophenyl phenyl ether                 | ug/L | 5.3 U  |
| 4-Nitroaniline                              | ug/L | 5.3 U  |
| 4-Nitrophenol                               | ug/L | 5.3 U  |
| Acenaphthene                                | ug/L | 0.38 J |
| Acenaphthylene                              | ug/L | 5.3 U  |
| Acetophenone                                | ug/L | 1.1 U  |
| Anthracene                                  | ug/L | 0.37 J |
| Atrazine                                    | ug/L | 1.1 U  |
| Benzaldehyde                                | ug/L | 1.1 U  |
| Benzo(a)anthracene                          | ug/L | 5.3 U  |
| Benzo(a)pyrene                              | ug/L | 5.3 U  |
| Benzo(b)fluoranthene                        | ug/L | 5.3 U  |
| Benzo(g,h,i)perylene                        | ug/L | 5.3 U  |
| Benzo(k)fluoranthene                        | ug/L | 5.3 U  |
| Biphenyl (1,1-Biphenyl)                     | ug/L | 5.3 U  |

Groundwater Sample Analytical Results  
Fall 2015 Semi-Annual Groundwater Event  
Former Grand Rapids Metal Plant  
Wyoming, Michigan

**Sample Location:** MW51-12  
**Sample Identification:** WG-017360-102915-MR-047  
**Sample Date:** 10/29/2015  
**Sample Type:**  
**Segment Depth:** (17-27) ft BGS

|                                   | Units |        |
|-----------------------------------|-------|--------|
| SVOCs (continued)                 |       |        |
| bis(2-Chloroethoxy)methane        | ug/L  | 5.3 U  |
| bis(2-Chloroethyl)ether           | ug/L  | 5.3 U  |
| bis(2-Ethylhexyl)phthalate (DEHP) | ug/L  | 5.3 U  |
| Butyl benzylphthalate (BBP)       | ug/L  | 5.3 U  |
| Caprolactam                       | ug/L  | 11 U   |
| Carbazole                         | ug/L  | 0.78 J |
| Chrysene                          | ug/L  | 5.3 U  |
| Dibenz(a,h)anthracene             | ug/L  | 5.3 U  |
| Dibenzofuran                      | ug/L  | 5.3 U  |
| Diethyl phthalate                 | ug/L  | 5.3 U  |
| Dimethyl phthalate                | ug/L  | 5.3 U  |
| Di-n-butylphthalate (DBP)         | ug/L  | 5.3 U  |
| Di-n-octyl phthalate (DnOP)       | ug/L  | 5.3 U  |
| Fluoranthene                      | ug/L  | 0.40 J |
| Fluorene                          | ug/L  | 0.46 J |
| Hexachlorobenzene                 | ug/L  | 5.3 U  |
| Hexachlorobutadiene               | ug/L  | 5.3 U  |
| Hexachlorocyclopentadiene         | ug/L  | 5.3 U  |
| Hexachloroethane                  | ug/L  | 5.3 U  |
| Indeno(1,2,3-cd)pyrene            | ug/L  | 5.3 U  |
| Isophorone                        | ug/L  | 5.3 U  |
| Naphthalene                       | ug/L  | 0.86 J |
| Nitrobenzene                      | ug/L  | 5.3 U  |
| N-Nitrosodi-n-propylamine         | ug/L  | 5.3 U  |
| N-Nitrosodiphenylamine            | ug/L  | 5.3 U  |
| Pentachlorophenol                 | ug/L  | 5.3 U  |
| Phenanthrene                      | ug/L  | 1.0 J  |
| Phenol                            | ug/L  | 1.3 J  |
| Pyrene                            | ug/L  | 0.22 J |

**Metals**

|           |      |    |
|-----------|------|----|
| Antimony  | ug/L | -- |
| Arsenic   | ug/L | -- |
| Barium    | ug/L | -- |
| Beryllium | ug/L | -- |
| Cadmium   | ug/L | -- |
| Chromium  | ug/L | -- |
| Cobalt    | ug/L | -- |
| Copper    | ug/L | -- |
| Iron      | ug/L | -- |
| Lead      | ug/L | -- |
| Manganese | ug/L | -- |

Groundwater Sample Analytical Results  
Fall 2015 Semi-Annual Groundwater Event  
Former Grand Rapids Metal Plant  
Wyoming, Michigan

**Sample Location:** MW51-12  
**Sample Identification:** WG-017360-102915-MR-047  
**Sample Date:** 10/29/2015  
**Sample Type:**  
**Segment Depth:** (17-27) ft BGS

|                           | Units   |
|---------------------------|---------|
| <b>Metals (continued)</b> |         |
| Mercury                   | ug/L -- |
| Molybdenum                | ug/L -- |
| Nickel                    | ug/L -- |
| Selenium                  | ug/L -- |
| Silver                    | ug/L -- |
| Thallium                  | ug/L -- |
| Vanadium                  | ug/L -- |
| Zinc                      | ug/L -- |

**Surface Water Sample Analytical Results  
Fall 2015 Semi-Annual Groundwater Event  
Former Grand Rapids Metal Plant  
Wyoming, Michigan**

|                               |                                |                                |                                |
|-------------------------------|--------------------------------|--------------------------------|--------------------------------|
| <b>Sample Location:</b>       | <b>C-1</b>                     | <b>C-2</b>                     | <b>C-3</b>                     |
| <b>Sample Identification:</b> | <b>SW-017360-102015-MR-007</b> | <b>SW-017360-102015-MR-006</b> | <b>SW-017360-102015-MR-004</b> |
| <b>Sample Date:</b>           | <b>10/20/2015</b>              | <b>10/20/2015</b>              | <b>10/20/2015</b>              |

|                                          |      | <i>Units</i> |        |        |
|------------------------------------------|------|--------------|--------|--------|
| <i>Volatile Organic Compounds (VOCs)</i> |      |              |        |        |
| 1,1,1-Trichloroethane                    | ug/L | 1.0 U        | 1.0 U  | 1.0 U  |
| 1,1,2,2-Tetrachloroethane                | ug/L | 1.0 U        | 1.0 U  | 1.0 U  |
| 1,1,2-Trichloroethane                    | ug/L | 1.0 U        | 1.0 U  | 1.0 U  |
| 1,1-Dichloroethane                       | ug/L | 1.0 U        | 1.0 U  | 1.0 U  |
| 1,1-Dichloroethene                       | ug/L | 1.0 U        | 1.0 U  | 1.0 U  |
| 1,2,4-Trichlorobenzene                   | ug/L | 5.0 U        | 5.0 U  | 5.0 U  |
| 1,2-Dibromo-3-chloropropane (DBCP)       | ug/L | 1.0 U        | 1.0 U  | 1.0 U  |
| 1,2-Dibromoethane <sup>(1)</sup>         | ug/L | 1.0 U        | 1.0 U  | 1.0 U  |
| 1,2-Dichlorobenzene                      | ug/L | 1.0 U        | 1.0 U  | 1.0 U  |
| 1,2-Dichloroethane                       | ug/L | 1.0 U        | 1.0 U  | 1.0 U  |
| 1,2-Dichloropropane                      | ug/L | 1.0 U        | 1.0 U  | 1.0 U  |
| 1,3-Dichlorobenzene                      | ug/L | 1.0 U        | 1.0 U  | 1.0 U  |
| 1,4-Dichlorobenzene                      | ug/L | 1.0 U        | 1.0 U  | 1.0 U  |
| 2-Butanone <sup>(2)</sup>                | ug/L | 25 U         | 25 U   | 25 U   |
| 2-Hexanone                               | ug/L | 50 U         | 50 U   | 50 U   |
| 4-Methyl-2-pentanone <sup>(3)</sup>      | ug/L | 50 U         | 50 U   | 50 U   |
| Acetone                                  | ug/L | 50 U         | 50 U   | 50 U   |
| Benzene                                  | ug/L | 1.0 U        | 1.0 U  | 1.0 U  |
| Bromodichloromethane                     | ug/L | 1.0 U        | 1.0 U  | 1.0 U  |
| Bromoform                                | ug/L | 1.0 U        | 1.0 U  | 1.0 U  |
| Bromomethane (Methyl bromide)            | ug/L | 5.0 U        | 5.0 U  | 5.0 U  |
| Carbon disulfide                         | ug/L | 5.0 U        | 5.0 U  | 5.0 U  |
| Carbon tetrachloride                     | ug/L | 1.0 U        | 1.0 U  | 1.0 U  |
| Chlorobenzene                            | ug/L | 1.0 U        | 1.0 U  | 1.0 U  |
| Chloroethane                             | ug/L | 5.0 U        | 5.0 U  | 5.0 U  |
| Chloroform (Trichloromethane)            | ug/L | 0.63 J       | 1.0 U  | 1.0 U  |
| Chloromethane (Methyl chloride)          | ug/L | 5.0 U        | 5.0 U  | 5.0 U  |
| cis-1,2-Dichloroethene                   | ug/L | 1.0 U        | 0.87 J | 1.2    |
| cis-1,3-Dichloropropene                  | ug/L | 1.0 U        | 1.0 U  | 1.0 U  |
| Cyclohexane                              | ug/L | 1.0 U        | 1.0 U  | 1.0 U  |
| Dibromochloromethane                     | ug/L | 5.0 U        | 5.0 U  | 5.0 U  |
| Dichlorodifluoromethane (CFC-12)         | ug/L | 5.0 U        | 5.0 U  | 5.0 U  |
| Ethylbenzene                             | ug/L | 1.0 U        | 1.0 U  | 1.0 U  |
| Isopropyl benzene                        | ug/L | 5.0 U        | 5.0 U  | 5.0 U  |
| Methyl acetate                           | ug/L | 10 U         | 10 U   | 10 U   |
| Methyl cyclohexane                       | ug/L | 1.0 U        | 1.0 U  | 1.0 U  |
| Methyl tert butyl ether (MTBE)           | ug/L | 5.0 U        | 5.0 U  | 5.0 U  |
| Methylene chloride                       | ug/L | 5.0 U        | 5.0 U  | 5.0 U  |
| Styrene                                  | ug/L | 1.0 U        | 1.0 U  | 1.0 U  |
| Tetrachloroethene                        | ug/L | 1.0 U        | 1.0 U  | 2.5    |
| Toluene                                  | ug/L | 1.0 U        | 1.0 U  | 1.0 U  |
| trans-1,2-Dichloroethene                 | ug/L | 1.0 U        | 1.0 U  | 1.0 U  |
| trans-1,3-Dichloropropene                | ug/L | 1.0 U        | 1.0 U  | 1.0 U  |
| Trichloroethene                          | ug/L | 1.0 U        | 1.0 U  | 1.0 U  |
| Trichlorofluoromethane (CFC-11)          | ug/L | 1.0 U        | 1.0 U  | 1.0 U  |
| Trifluorotrichloroethane (CFC-113)       | ug/L | 1.0 U        | 1.0 U  | 1.0 U  |
| Vinyl chloride                           | ug/L | 1.0 U        | 1.0 U  | 0.86 J |
| Xylenes (total)                          | ug/L | 3.0 U        | 3.0 U  | 3.0 U  |

## Notes:

<sup>(1)</sup> 1,2-Dibromoethane also known as ethylene dibromide<sup>(2)</sup> 2-butanone also known as methyl ethyl ketone (MEK)<sup>(3)</sup> 4-methyl-2-pentanone also known as methyl isobutyl ketone (MIBK)

U - Not detected at the associated reporting limit.

J - Estimated concentration.

UJ - Not detected; associated reporting limit is estimated.

## Attachments



# Attachment A

## Analytical Laboratory Reports



11-Nov-2015

Rawa Fleisher  
GHD Services Inc.  
14496 Sheldon Road  
Suite 200  
Plymouth, MI 48170

Re: **Former GRMP (17360)**

Work Order: **15101851**

Dear Rawa,

ALS Environmental received 28 samples on 30-Oct-2015 08:55 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

Sample results are compliant with NELAP standard requirements and QC results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 125.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

*Chad Whelton*

Electronically approved by: Chad Whelton

Chad Whelton  
Project Manager



Certificate No: MN 532786

### Report of Laboratory Analysis

ADDRESS 3352 128th Avenue Holland, Michigan 49424-9263 | PHONE (616) 399-6070 | FAX (616) 399-6185

ALS GROUP USA, CORP Part of the ALS Laboratory Group A Campbell Brothers Limited Company

Environmental 

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RIGHT SOLUTIONS RIGHT PARTNER

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Work Order:** 15101851

**Work Order Sample Summary**

| <u>Lab Samp ID</u> | <u>Client Sample ID</u> | <u>Matrix</u> | <u>Tag Number</u> | <u>Collection Date</u> | <u>Date Received</u> | <u>Hold</u>              |
|--------------------|-------------------------|---------------|-------------------|------------------------|----------------------|--------------------------|
| 15101851-01        | WG-017360-102615-MR-022 | Water         |                   | 10/26/2015 11:38       | 10/30/2015 08:55     | <input type="checkbox"/> |
| 15101851-02        | WG-017360-102615-MR-023 | Water         |                   | 10/26/2015 11:50       | 10/30/2015 08:55     | <input type="checkbox"/> |
| 15101851-03        | WG-017360-102615-MR-024 | Water         |                   | 10/26/2015 11:09       | 10/30/2015 08:55     | <input type="checkbox"/> |
| 15101851-04        | WG-017360-102615-MR-025 | Water         |                   | 10/26/2015 13:15       | 10/30/2015 08:55     | <input type="checkbox"/> |
| 15101851-05        | WG-017360-102615-MR-026 | Water         |                   | 10/26/2015 14:18       | 10/30/2015 08:55     | <input type="checkbox"/> |
| 15101851-06        | WG-017360-102615-MR-027 | Water         |                   | 10/26/2015 15:18       | 10/30/2015 08:55     | <input type="checkbox"/> |
| 15101851-07        | WG-017360-102615-MR-028 | Water         |                   | 10/26/2015 16:25       | 10/30/2015 08:55     | <input type="checkbox"/> |
| 15101851-08        | WG-017360-102615-MR-029 | Water         |                   | 10/26/2015 16:59       | 10/30/2015 08:55     | <input type="checkbox"/> |
| 15101851-09        | WG-017360-102615-MR-030 | Water         |                   | 10/26/2015 17:10       | 10/30/2015 08:55     | <input type="checkbox"/> |
| 15101851-10        | WG-017360-102715-MR-031 | Water         |                   | 10/27/2015 10:59       | 10/30/2015 08:55     | <input type="checkbox"/> |
| 15101851-11        | WG-017360-102715-MR-032 | Water         |                   | 10/27/2015 11:43       | 10/30/2015 08:55     | <input type="checkbox"/> |
| 15101851-12        | WG-017360-102715-MR-033 | Water         |                   | 10/27/2015 12:00       | 10/30/2015 08:55     | <input type="checkbox"/> |
| 15101851-13        | WG-017360-102715-MR-034 | Water         |                   | 10/27/2015 12:58       | 10/30/2015 08:55     | <input type="checkbox"/> |
| 15101851-14        | WG-017360-102715-MR-035 | Water         |                   | 10/27/2015 13:57       | 10/30/2015 08:55     | <input type="checkbox"/> |
| 15101851-15        | WG-017360-102715-MR-036 | Water         |                   | 10/27/2015 14:15       | 10/30/2015 08:55     | <input type="checkbox"/> |
| 15101851-16        | WG-017360-102715-MR-037 | Water         |                   | 10/27/2015 15:08       | 10/30/2015 08:55     | <input type="checkbox"/> |
| 15101851-17        | WG-017360-102715-MR-038 | Water         |                   | 10/27/2015 16:05       | 10/30/2015 08:55     | <input type="checkbox"/> |
| 15101851-18        | WG-017360-102815-MR-039 | Water         |                   | 10/28/2015 10:57       | 10/30/2015 08:55     | <input type="checkbox"/> |
| 15101851-19        | WG-017360-102815-MR-040 | Water         |                   | 10/28/2015 11:42       | 10/30/2015 08:55     | <input type="checkbox"/> |
| 15101851-20        | WG-017360-102815-MR-041 | Water         |                   | 10/28/2015 12:55       | 10/30/2015 08:55     | <input type="checkbox"/> |
| 15101851-21        | WG-017360-102815-MR-042 | Water         |                   | 10/28/2015 14:03       | 10/30/2015 08:55     | <input type="checkbox"/> |
| 15101851-22        | WG-017360-102815-MR-043 | Water         |                   | 10/28/2015 14:57       | 10/30/2015 08:55     | <input type="checkbox"/> |
| 15101851-23        | WG-017360-102815-MR-044 | Water         |                   | 10/28/2015 16:16       | 10/30/2015 08:55     | <input type="checkbox"/> |
| 15101851-24        | WG-017360-102915-MR-045 | Water         |                   | 10/29/2015 11:28       | 10/30/2015 08:55     | <input type="checkbox"/> |
| 15101851-25        | WG-017360-102915-MR-046 | Water         |                   | 10/29/2015 13:32       | 10/30/2015 08:55     | <input type="checkbox"/> |
| 15101851-26        | WG-017360-102915-MR-047 | Water         |                   | 10/29/2015 15:06       | 10/30/2015 08:55     | <input type="checkbox"/> |
| 15101851-27        | WG-017360-102915-MR-048 | Water         |                   | 10/29/2015 16:28       | 10/30/2015 08:55     | <input type="checkbox"/> |
| 15101851-28        | TB-017360-102915-MR-049 | Water         |                   | 10/29/2015             | 10/30/2015 08:55     | <input type="checkbox"/> |

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**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Work Order:** 15101851

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**Case Narrative**

Batch 78279, Method SVO\_8270\_W, Sample SLCSW1-78279: The LCS recovery was above the upper control limit for Atrazine. All the sample results in the batch were non-detect. No qualification is required.

Batch 78279, Method SVO\_8270\_W, Sample 15101851-24B MS/MSD: The MS and MSD recoveries were outside of the control limits for multiple compounds. The corresponding results in the parent sample may be biased accordingly.

Batch R175624, Method VOC\_8260\_W, Sample 15101851-24A MS/MSD: The MS and MSD recoveries were below the lower control limits for Ethylbenzene, Styrene and trans-1,3-Dichloropropene. The corresponding results in the parent sample may be biased low.

Batch R175624, Method VOC\_8260\_W, Sample 15101851-24A MSD: The MSD recovery was below the lower control limit for Methyl tert-butyl ether. However, the MS recovery and the RPD between the MS and MSD were within control limits. No qualification is required.

Batch R175624, Method VOC\_8260\_W, Sample 15101851-24A MSD: The RPD between the MS and MSD was outside the control limit for Bromomethane. The corresponding result in the parent sample should be considered estimated.

Batch R175886, Method VOC\_8260\_W, Sample VLCSW2-151110: The LCS recovery was above the upper control limit 1,2-Dibromoethane. All the sample results in the batch were non-detect. No qualification is required.

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**WorkOrder:** 15101851

## **QUALIFIERS, ACRONYMS, UNITS**

| <b><u>Qualifier</u></b> | <b><u>Description</u></b>                                                                                                                               |
|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| *                       | Value exceeds Regulatory Limit                                                                                                                          |
| a                       | Not accredited                                                                                                                                          |
| B                       | Analyte detected in the associated Method Blank above the Reporting Limit                                                                               |
| E                       | Value above quantitation range                                                                                                                          |
| H                       | Analyzed outside of Holding Time                                                                                                                        |
| J                       | Analyte is present at an estimated concentration between the MDL and Report Limit                                                                       |
| n                       | Not offered for accreditation                                                                                                                           |
| ND                      | Not Detected at the Reporting Limit                                                                                                                     |
| O                       | Sample amount is > 4 times amount spiked                                                                                                                |
| P                       | Dual Column results percent difference > 40%                                                                                                            |
| R                       | RPD above laboratory control limit                                                                                                                      |
| S                       | Spike Recovery outside laboratory control limits                                                                                                        |
| U                       | Analyzed but not detected above the MDL                                                                                                                 |
| X                       | Analyte was detected in the Method Blank between the MDL and PQL, sample results may exhibit background or reagent contamination at the observed level. |

| <b><u>Acronym</u></b> | <b><u>Description</u></b>           |
|-----------------------|-------------------------------------|
| DUP                   | Method Duplicate                    |
| LCS                   | Laboratory Control Sample           |
| LCSD                  | Laboratory Control Sample Duplicate |
| LOD                   | Limit of Detection (see MDL)        |
| LOQ                   | Limit of Quantitation (see PQL)     |
| MBLK                  | Method Blank                        |
| MDL                   | Method Detection Limit              |
| MS                    | Matrix Spike                        |
| MSD                   | Matrix Spike Duplicate              |
| PQL                   | Practical Quantitation Limit        |
| RPD                   | Relative Percent Difference         |
| TDL                   | Target Detection Limit              |
| TNTC                  | Too Numerous To Count               |
| A                     | APHA Standard Methods               |
| D                     | ASTM                                |
| E                     | EPA                                 |
| SW                    | SW-846 Update III                   |

| <b><u>Units Reported</u></b> | <b><u>Description</u></b> |
|------------------------------|---------------------------|
| µg/L                         | Micrograms per Liter      |
| mg/L                         | Milligrams per Liter      |

# ALS Group USA, Corp

Date: 11-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102615-MR-022  
**Collection Date:** 10/26/2015 11:38 AM

**Work Order:** 15101851  
**Lab ID:** 15101851-01  
**Matrix:** WATER

| Analyses                          | Result | Qual | MDL             | Report Limit | Units | Dilution Factor | Date Analyzed   |
|-----------------------------------|--------|------|-----------------|--------------|-------|-----------------|-----------------|
| <b>VOLATILE ORGANIC COMPOUNDS</b> |        |      | Method: SW8260B |              |       | Analyst: LSY    |                 |
| 1,1,1-Trichloroethane             | U      |      | 0.19            | 1.0          | µg/L  | 1               | 11/7/2015 06:03 |
| 1,1,2,2-Tetrachloroethane         | U      |      | 0.34            | 1.0          | µg/L  | 1               | 11/7/2015 06:03 |
| 1,1,2-Trichloroethane             | U      |      | 0.25            | 1.0          | µg/L  | 1               | 11/7/2015 06:03 |
| 1,1,2-Trichlorotrifluoroethane    | U      |      | 0.47            | 1.0          | µg/L  | 1               | 11/7/2015 06:03 |
| 1,1-Dichloroethane                | U      |      | 0.21            | 1.0          | µg/L  | 1               | 11/7/2015 06:03 |
| 1,1-Dichloroethene                | U      |      | 0.24            | 1.0          | µg/L  | 1               | 11/7/2015 06:03 |
| 1,2,4-Trichlorobenzene            | U      |      | 0.19            | 5.0          | µg/L  | 1               | 11/7/2015 06:03 |
| 1,2-Dibromo-3-chloropropane       | U      |      | 0.42            | 1.0          | µg/L  | 1               | 11/7/2015 06:03 |
| 1,2-Dibromoethane                 | U      |      | 0.34            | 1.0          | µg/L  | 1               | 11/7/2015 06:03 |
| 1,2-Dichlorobenzene               | U      |      | 0.22            | 1.0          | µg/L  | 1               | 11/7/2015 06:03 |
| 1,2-Dichloroethane                | U      |      | 0.26            | 1.0          | µg/L  | 1               | 11/7/2015 06:03 |
| 1,2-Dichloropropane               | U      |      | 0.26            | 1.0          | µg/L  | 1               | 11/7/2015 06:03 |
| 1,3-Dichlorobenzene               | U      |      | 0.21            | 1.0          | µg/L  | 1               | 11/7/2015 06:03 |
| 1,4-Dichlorobenzene               | U      |      | 0.20            | 1.0          | µg/L  | 1               | 11/7/2015 06:03 |
| 2-Butanone                        | U      |      | 0.87            | 25           | µg/L  | 1               | 11/7/2015 06:03 |
| 2-Hexanone                        | U      |      | 0.15            | 50           | µg/L  | 1               | 11/7/2015 06:03 |
| 4-Methyl-2-pentanone              | U      |      | 0.15            | 50           | µg/L  | 1               | 11/7/2015 06:03 |
| Acetone                           | U      |      | 3.1             | 50           | µg/L  | 1               | 11/7/2015 06:03 |
| Benzene                           | U      |      | 0.25            | 1.0          | µg/L  | 1               | 11/7/2015 06:03 |
| Bromodichloromethane              | U      |      | 0.16            | 1.0          | µg/L  | 1               | 11/7/2015 06:03 |
| Bromoform                         | U      |      | 0.099           | 1.0          | µg/L  | 1               | 11/7/2015 06:03 |
| Bromomethane                      | U      |      | 1.0             | 5.0          | µg/L  | 1               | 11/7/2015 06:03 |
| Carbon disulfide                  | U      |      | 0.26            | 5.0          | µg/L  | 1               | 11/7/2015 06:03 |
| Carbon tetrachloride              | U      |      | 0.14            | 1.0          | µg/L  | 1               | 11/7/2015 06:03 |
| Chlorobenzene                     | U      |      | 0.19            | 1.0          | µg/L  | 1               | 11/7/2015 06:03 |
| Chloroethane                      | U      |      | 0.21            | 5.0          | µg/L  | 1               | 11/7/2015 06:03 |
| Chloroform                        | U      |      | 0.25            | 1.0          | µg/L  | 1               | 11/7/2015 06:03 |
| Chloromethane                     | U      |      | 0.25            | 5.0          | µg/L  | 1               | 11/7/2015 06:03 |
| cis-1,2-Dichloroethene            | U      |      | 0.25            | 1.0          | µg/L  | 1               | 11/7/2015 06:03 |
| cis-1,3-Dichloropropene           | U      |      | 0.24            | 1.0          | µg/L  | 1               | 11/7/2015 06:03 |
| Cyclohexane                       | U      |      | 0.31            | 1.0          | µg/L  | 1               | 11/7/2015 06:03 |
| Dibromochloromethane              | U      |      | 0.17            | 5.0          | µg/L  | 1               | 11/7/2015 06:03 |
| Dichlorodifluoromethane           | U      |      | 0.41            | 5.0          | µg/L  | 1               | 11/7/2015 06:03 |
| Ethylbenzene                      | U      |      | 0.22            | 1.0          | µg/L  | 1               | 11/7/2015 06:03 |
| Isopropylbenzene                  | U      |      | 0.25            | 5.0          | µg/L  | 1               | 11/7/2015 06:03 |
| Methyl acetate                    | U      |      | 0.62            | 10           | µg/L  | 1               | 11/7/2015 06:03 |
| Methyl tert-butyl ether           | U      |      | 0.12            | 5.0          | µg/L  | 1               | 11/7/2015 06:03 |
| Methylcyclohexane                 | U      |      | 0.32            | 1.0          | µg/L  | 1               | 11/7/2015 06:03 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 11-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102615-MR-022  
**Collection Date:** 10/26/2015 11:38 AM

**Work Order:** 15101851  
**Lab ID:** 15101851-01  
**Matrix:** WATER

| Analyses                    | Result     | Qual | MDL         | Report Limit | Units       | Dilution Factor | Date Analyzed   |
|-----------------------------|------------|------|-------------|--------------|-------------|-----------------|-----------------|
| Methylene chloride          | U          |      | 0.64        | 5.0          | µg/L        | 1               | 11/7/2015 06:03 |
| Styrene                     | U          |      | 0.18        | 1.0          | µg/L        | 1               | 11/7/2015 06:03 |
| <b>Tetrachloroethene</b>    | <b>200</b> |      | <b>1.2</b>  | <b>5.0</b>   | <b>µg/L</b> | 5               | 11/9/2015 12:07 |
| Toluene                     | U          |      | 0.20        | 1.0          | µg/L        | 1               | 11/7/2015 06:03 |
| trans-1,2-Dichloroethene    | U          |      | 0.29        | 1.0          | µg/L        | 1               | 11/7/2015 06:03 |
| trans-1,3-Dichloropropene   | U          |      | 0.19        | 1.0          | µg/L        | 1               | 11/7/2015 06:03 |
| <b>Trichloroethene</b>      | <b>1.8</b> |      | <b>0.34</b> | <b>1.0</b>   | <b>µg/L</b> | 1               | 11/7/2015 06:03 |
| Trichlorofluoromethane      | U          |      | 0.39        | 1.0          | µg/L        | 1               | 11/7/2015 06:03 |
| Vinyl chloride              | U          |      | 0.19        | 1.0          | µg/L        | 1               | 11/7/2015 06:03 |
| Xylenes, Total              | U          |      | 0.62        | 3.0          | µg/L        | 1               | 11/7/2015 06:03 |
| Surr: 1,2-Dichloroethane-d4 | 95.8       |      |             | 75-120       | %REC        | 1               | 11/7/2015 06:03 |
| Surr: 1,2-Dichloroethane-d4 | 98.3       |      |             | 75-120       | %REC        | 5               | 11/9/2015 12:07 |
| Surr: 4-Bromofluorobenzene  | 98.0       |      |             | 80-110       | %REC        | 1               | 11/7/2015 06:03 |
| Surr: 4-Bromofluorobenzene  | 93.0       |      |             | 80-110       | %REC        | 5               | 11/9/2015 12:07 |
| Surr: Dibromofluoromethane  | 98.8       |      |             | 85-115       | %REC        | 1               | 11/7/2015 06:03 |
| Surr: Dibromofluoromethane  | 101        |      |             | 85-115       | %REC        | 5               | 11/9/2015 12:07 |
| Surr: Toluene-d8            | 98.8       |      |             | 85-110       | %REC        | 1               | 11/7/2015 06:03 |
| Surr: Toluene-d8            | 97.2       |      |             | 85-110       | %REC        | 5               | 11/9/2015 12:07 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 11-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102615-MR-023  
**Collection Date:** 10/26/2015 11:50 AM

**Work Order:** 15101851  
**Lab ID:** 15101851-02  
**Matrix:** WATER

| Analyses                          | Result | Qual | MDL             | Report Limit | Units | Dilution Factor | Date Analyzed   |
|-----------------------------------|--------|------|-----------------|--------------|-------|-----------------|-----------------|
| <b>VOLATILE ORGANIC COMPOUNDS</b> |        |      | Method: SW8260B |              |       | Analyst: LSY    |                 |
| 1,1,1-Trichloroethane             | U      |      | 0.19            | 1.0          | µg/L  | 1               | 11/7/2015 06:28 |
| 1,1,2,2-Tetrachloroethane         | U      |      | 0.34            | 1.0          | µg/L  | 1               | 11/7/2015 06:28 |
| 1,1,2-Trichloroethane             | U      |      | 0.25            | 1.0          | µg/L  | 1               | 11/7/2015 06:28 |
| 1,1,2-Trichlorotrifluoroethane    | U      |      | 0.47            | 1.0          | µg/L  | 1               | 11/7/2015 06:28 |
| 1,1-Dichloroethane                | U      |      | 0.21            | 1.0          | µg/L  | 1               | 11/7/2015 06:28 |
| 1,1-Dichloroethene                | U      |      | 0.24            | 1.0          | µg/L  | 1               | 11/7/2015 06:28 |
| 1,2,4-Trichlorobenzene            | U      |      | 0.19            | 5.0          | µg/L  | 1               | 11/7/2015 06:28 |
| 1,2-Dibromo-3-chloropropane       | U      |      | 0.42            | 1.0          | µg/L  | 1               | 11/7/2015 06:28 |
| 1,2-Dibromoethane                 | U      |      | 0.34            | 1.0          | µg/L  | 1               | 11/7/2015 06:28 |
| 1,2-Dichlorobenzene               | U      |      | 0.22            | 1.0          | µg/L  | 1               | 11/7/2015 06:28 |
| 1,2-Dichloroethane                | U      |      | 0.26            | 1.0          | µg/L  | 1               | 11/7/2015 06:28 |
| 1,2-Dichloropropane               | U      |      | 0.26            | 1.0          | µg/L  | 1               | 11/7/2015 06:28 |
| 1,3-Dichlorobenzene               | U      |      | 0.21            | 1.0          | µg/L  | 1               | 11/7/2015 06:28 |
| 1,4-Dichlorobenzene               | U      |      | 0.20            | 1.0          | µg/L  | 1               | 11/7/2015 06:28 |
| 2-Butanone                        | U      |      | 0.87            | 25           | µg/L  | 1               | 11/7/2015 06:28 |
| 2-Hexanone                        | U      |      | 0.15            | 50           | µg/L  | 1               | 11/7/2015 06:28 |
| 4-Methyl-2-pentanone              | U      |      | 0.15            | 50           | µg/L  | 1               | 11/7/2015 06:28 |
| Acetone                           | U      |      | 3.1             | 50           | µg/L  | 1               | 11/7/2015 06:28 |
| Benzene                           | U      |      | 0.25            | 1.0          | µg/L  | 1               | 11/7/2015 06:28 |
| Bromodichloromethane              | U      |      | 0.16            | 1.0          | µg/L  | 1               | 11/7/2015 06:28 |
| Bromoform                         | U      |      | 0.099           | 1.0          | µg/L  | 1               | 11/7/2015 06:28 |
| Bromomethane                      | U      |      | 1.0             | 5.0          | µg/L  | 1               | 11/7/2015 06:28 |
| Carbon disulfide                  | U      |      | 0.26            | 5.0          | µg/L  | 1               | 11/7/2015 06:28 |
| Carbon tetrachloride              | U      |      | 0.14            | 1.0          | µg/L  | 1               | 11/7/2015 06:28 |
| Chlorobenzene                     | U      |      | 0.19            | 1.0          | µg/L  | 1               | 11/7/2015 06:28 |
| Chloroethane                      | U      |      | 0.21            | 5.0          | µg/L  | 1               | 11/7/2015 06:28 |
| Chloroform                        | U      |      | 0.25            | 1.0          | µg/L  | 1               | 11/7/2015 06:28 |
| Chloromethane                     | U      |      | 0.25            | 5.0          | µg/L  | 1               | 11/7/2015 06:28 |
| cis-1,2-Dichloroethene            | U      |      | 0.25            | 1.0          | µg/L  | 1               | 11/7/2015 06:28 |
| cis-1,3-Dichloropropene           | U      |      | 0.24            | 1.0          | µg/L  | 1               | 11/7/2015 06:28 |
| Cyclohexane                       | U      |      | 0.31            | 1.0          | µg/L  | 1               | 11/7/2015 06:28 |
| Dibromochloromethane              | U      |      | 0.17            | 5.0          | µg/L  | 1               | 11/7/2015 06:28 |
| Dichlorodifluoromethane           | U      |      | 0.41            | 5.0          | µg/L  | 1               | 11/7/2015 06:28 |
| Ethylbenzene                      | U      |      | 0.22            | 1.0          | µg/L  | 1               | 11/7/2015 06:28 |
| Isopropylbenzene                  | U      |      | 0.25            | 5.0          | µg/L  | 1               | 11/7/2015 06:28 |
| Methyl acetate                    | U      |      | 0.62            | 10           | µg/L  | 1               | 11/7/2015 06:28 |
| Methyl tert-butyl ether           | U      |      | 0.12            | 5.0          | µg/L  | 1               | 11/7/2015 06:28 |
| Methylcyclohexane                 | U      |      | 0.32            | 1.0          | µg/L  | 1               | 11/7/2015 06:28 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.



# ALS Group USA, Corp

Date: 11-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102615-MR-023  
**Collection Date:** 10/26/2015 11:50 AM

**Work Order:** 15101851  
**Lab ID:** 15101851-02  
**Matrix:** WATER

| Analyses                    | Result     | Qual | MDL         | Report Limit | Units       | Dilution Factor | Date Analyzed   |
|-----------------------------|------------|------|-------------|--------------|-------------|-----------------|-----------------|
| Methylene chloride          | U          |      | 0.64        | 5.0          | µg/L        | 1               | 11/7/2015 06:28 |
| Styrene                     | U          |      | 0.18        | 1.0          | µg/L        | 1               | 11/7/2015 06:28 |
| <b>Tetrachloroethene</b>    | <b>200</b> |      | <b>1.2</b>  | <b>5.0</b>   | <b>µg/L</b> | 5               | 11/8/2015 23:43 |
| Toluene                     | U          |      | 0.20        | 1.0          | µg/L        | 1               | 11/7/2015 06:28 |
| trans-1,2-Dichloroethene    | U          |      | 0.29        | 1.0          | µg/L        | 1               | 11/7/2015 06:28 |
| trans-1,3-Dichloropropene   | U          |      | 0.19        | 1.0          | µg/L        | 1               | 11/7/2015 06:28 |
| <b>Trichloroethene</b>      | <b>2.0</b> |      | <b>0.34</b> | <b>1.0</b>   | <b>µg/L</b> | 1               | 11/7/2015 06:28 |
| Trichlorofluoromethane      | U          |      | 0.39        | 1.0          | µg/L        | 1               | 11/7/2015 06:28 |
| Vinyl chloride              | U          |      | 0.19        | 1.0          | µg/L        | 1               | 11/7/2015 06:28 |
| Xylenes, Total              | U          |      | 0.62        | 3.0          | µg/L        | 1               | 11/7/2015 06:28 |
| Surr: 1,2-Dichloroethane-d4 | 97.8       |      |             | 75-120       | %REC        | 1               | 11/7/2015 06:28 |
| Surr: 1,2-Dichloroethane-d4 | 99.0       |      |             | 75-120       | %REC        | 5               | 11/8/2015 23:43 |
| Surr: 4-Bromofluorobenzene  | 97.0       |      |             | 80-110       | %REC        | 1               | 11/7/2015 06:28 |
| Surr: 4-Bromofluorobenzene  | 97.6       |      |             | 80-110       | %REC        | 5               | 11/8/2015 23:43 |
| Surr: Dibromofluoromethane  | 101        |      |             | 85-115       | %REC        | 1               | 11/7/2015 06:28 |
| Surr: Dibromofluoromethane  | 99.6       |      |             | 85-115       | %REC        | 5               | 11/8/2015 23:43 |
| Surr: Toluene-d8            | 98.8       |      |             | 85-110       | %REC        | 1               | 11/7/2015 06:28 |
| Surr: Toluene-d8            | 97.0       |      |             | 85-110       | %REC        | 5               | 11/8/2015 23:43 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 11-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102615-MR-024  
**Collection Date:** 10/26/2015 11:09 AM

**Work Order:** 15101851  
**Lab ID:** 15101851-03  
**Matrix:** WATER

| Analyses                          | Result      | Qual     | MDL             | Report Limit | Units       | Dilution Factor | Date Analyzed   |
|-----------------------------------|-------------|----------|-----------------|--------------|-------------|-----------------|-----------------|
| <b>VOLATILE ORGANIC COMPOUNDS</b> |             |          | Method: SW8260B |              |             | Analyst: LSY    |                 |
| 1,1,1-Trichloroethane             | U           |          | 0.19            | 1.0          | µg/L        | 1               | 11/7/2015 06:52 |
| 1,1,2,2-Tetrachloroethane         | U           |          | 0.34            | 1.0          | µg/L        | 1               | 11/7/2015 06:52 |
| 1,1,2-Trichloroethane             | U           |          | 0.25            | 1.0          | µg/L        | 1               | 11/7/2015 06:52 |
| 1,1,2-Trichlorotrifluoroethane    | U           |          | 0.47            | 1.0          | µg/L        | 1               | 11/7/2015 06:52 |
| 1,1-Dichloroethane                | U           |          | 0.21            | 1.0          | µg/L        | 1               | 11/7/2015 06:52 |
| 1,1-Dichloroethene                | U           |          | 0.24            | 1.0          | µg/L        | 1               | 11/7/2015 06:52 |
| 1,2,4-Trichlorobenzene            | U           |          | 0.19            | 5.0          | µg/L        | 1               | 11/7/2015 06:52 |
| 1,2-Dibromo-3-chloropropane       | U           |          | 0.42            | 1.0          | µg/L        | 1               | 11/7/2015 06:52 |
| 1,2-Dibromoethane                 | U           |          | 0.34            | 1.0          | µg/L        | 1               | 11/7/2015 06:52 |
| 1,2-Dichlorobenzene               | U           |          | 0.22            | 1.0          | µg/L        | 1               | 11/7/2015 06:52 |
| 1,2-Dichloroethane                | U           |          | 0.26            | 1.0          | µg/L        | 1               | 11/7/2015 06:52 |
| 1,2-Dichloropropane               | U           |          | 0.26            | 1.0          | µg/L        | 1               | 11/7/2015 06:52 |
| 1,3-Dichlorobenzene               | U           |          | 0.21            | 1.0          | µg/L        | 1               | 11/7/2015 06:52 |
| 1,4-Dichlorobenzene               | U           |          | 0.20            | 1.0          | µg/L        | 1               | 11/7/2015 06:52 |
| 2-Butanone                        | U           |          | 0.87            | 25           | µg/L        | 1               | 11/7/2015 06:52 |
| 2-Hexanone                        | U           |          | 0.15            | 50           | µg/L        | 1               | 11/7/2015 06:52 |
| 4-Methyl-2-pentanone              | U           |          | 0.15            | 50           | µg/L        | 1               | 11/7/2015 06:52 |
| Acetone                           | U           |          | 3.1             | 50           | µg/L        | 1               | 11/7/2015 06:52 |
| Benzene                           | U           |          | 0.25            | 1.0          | µg/L        | 1               | 11/7/2015 06:52 |
| Bromodichloromethane              | U           |          | 0.16            | 1.0          | µg/L        | 1               | 11/7/2015 06:52 |
| Bromoform                         | U           |          | 0.099           | 1.0          | µg/L        | 1               | 11/7/2015 06:52 |
| Bromomethane                      | U           |          | 1.0             | 5.0          | µg/L        | 1               | 11/7/2015 06:52 |
| Carbon disulfide                  | U           |          | 0.26            | 5.0          | µg/L        | 1               | 11/7/2015 06:52 |
| Carbon tetrachloride              | U           |          | 0.14            | 1.0          | µg/L        | 1               | 11/7/2015 06:52 |
| Chlorobenzene                     | U           |          | 0.19            | 1.0          | µg/L        | 1               | 11/7/2015 06:52 |
| Chloroethane                      | U           |          | 0.21            | 5.0          | µg/L        | 1               | 11/7/2015 06:52 |
| <b>Chloroform</b>                 | <b>0.41</b> | <b>J</b> | <b>0.25</b>     | <b>1.0</b>   | <b>µg/L</b> | 1               | 11/7/2015 06:52 |
| Chloromethane                     | U           |          | 0.25            | 5.0          | µg/L        | 1               | 11/7/2015 06:52 |
| cis-1,2-Dichloroethene            | U           |          | 0.25            | 1.0          | µg/L        | 1               | 11/7/2015 06:52 |
| cis-1,3-Dichloropropene           | U           |          | 0.24            | 1.0          | µg/L        | 1               | 11/7/2015 06:52 |
| Cyclohexane                       | U           |          | 0.31            | 1.0          | µg/L        | 1               | 11/7/2015 06:52 |
| Dibromochloromethane              | U           |          | 0.17            | 5.0          | µg/L        | 1               | 11/7/2015 06:52 |
| Dichlorodifluoromethane           | U           |          | 0.41            | 5.0          | µg/L        | 1               | 11/7/2015 06:52 |
| Ethylbenzene                      | U           |          | 0.22            | 1.0          | µg/L        | 1               | 11/7/2015 06:52 |
| Isopropylbenzene                  | U           |          | 0.25            | 5.0          | µg/L        | 1               | 11/7/2015 06:52 |
| Methyl acetate                    | U           |          | 0.62            | 10           | µg/L        | 1               | 11/7/2015 06:52 |
| Methyl tert-butyl ether           | U           |          | 0.12            | 5.0          | µg/L        | 1               | 11/7/2015 06:52 |
| Methylcyclohexane                 | U           |          | 0.32            | 1.0          | µg/L        | 1               | 11/7/2015 06:52 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 11-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102615-MR-024  
**Collection Date:** 10/26/2015 11:09 AM

**Work Order:** 15101851  
**Lab ID:** 15101851-03  
**Matrix:** WATER

| Analyses                    | Result      | Qual | MDL         | Report Limit | Units       | Dilution Factor | Date Analyzed   |
|-----------------------------|-------------|------|-------------|--------------|-------------|-----------------|-----------------|
| Methylene chloride          | U           |      | 0.64        | 5.0          | µg/L        | 1               | 11/7/2015 06:52 |
| Styrene                     | U           |      | 0.18        | 1.0          | µg/L        | 1               | 11/7/2015 06:52 |
| <b>Tetrachloroethene</b>    | <b>6.5</b>  |      | <b>0.25</b> | <b>1.0</b>   | <b>µg/L</b> | 1               | 11/7/2015 06:52 |
| Toluene                     | U           |      | 0.20        | 1.0          | µg/L        | 1               | 11/7/2015 06:52 |
| trans-1,2-Dichloroethene    | U           |      | 0.29        | 1.0          | µg/L        | 1               | 11/7/2015 06:52 |
| trans-1,3-Dichloropropene   | U           |      | 0.19        | 1.0          | µg/L        | 1               | 11/7/2015 06:52 |
| <b>Trichloroethene</b>      | <b>0.47</b> | J    | <b>0.34</b> | <b>1.0</b>   | <b>µg/L</b> | 1               | 11/7/2015 06:52 |
| Trichlorofluoromethane      | U           |      | 0.39        | 1.0          | µg/L        | 1               | 11/7/2015 06:52 |
| Vinyl chloride              | U           |      | 0.19        | 1.0          | µg/L        | 1               | 11/7/2015 06:52 |
| Xylenes, Total              | U           |      | 0.62        | 3.0          | µg/L        | 1               | 11/7/2015 06:52 |
| Surr: 1,2-Dichloroethane-d4 | 96.8        |      |             | 75-120       | %REC        | 1               | 11/7/2015 06:52 |
| Surr: 4-Bromofluorobenzene  | 100         |      |             | 80-110       | %REC        | 1               | 11/7/2015 06:52 |
| Surr: Dibromofluoromethane  | 98.9        |      |             | 85-115       | %REC        | 1               | 11/7/2015 06:52 |
| Surr: Toluene-d8            | 101         |      |             | 85-110       | %REC        | 1               | 11/7/2015 06:52 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 11-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102615-MR-025  
**Collection Date:** 10/26/2015 01:15 PM

**Work Order:** 15101851  
**Lab ID:** 15101851-04  
**Matrix:** WATER

| Analyses                          | Result | Qual | MDL             | Report Limit | Units | Dilution Factor | Date Analyzed   |
|-----------------------------------|--------|------|-----------------|--------------|-------|-----------------|-----------------|
| <b>VOLATILE ORGANIC COMPOUNDS</b> |        |      | Method: SW8260B |              |       | Analyst: LSY    |                 |
| 1,1,1-Trichloroethane             | U      |      | 0.19            | 1.0          | µg/L  | 1               | 11/7/2015 07:17 |
| 1,1,2,2-Tetrachloroethane         | U      |      | 0.34            | 1.0          | µg/L  | 1               | 11/7/2015 07:17 |
| 1,1,2-Trichloroethane             | U      |      | 0.25            | 1.0          | µg/L  | 1               | 11/7/2015 07:17 |
| 1,1,2-Trichlorotrifluoroethane    | U      |      | 0.47            | 1.0          | µg/L  | 1               | 11/7/2015 07:17 |
| 1,1-Dichloroethane                | U      |      | 0.21            | 1.0          | µg/L  | 1               | 11/7/2015 07:17 |
| 1,1-Dichloroethene                | U      |      | 0.24            | 1.0          | µg/L  | 1               | 11/7/2015 07:17 |
| 1,2,4-Trichlorobenzene            | U      |      | 0.19            | 5.0          | µg/L  | 1               | 11/7/2015 07:17 |
| 1,2-Dibromo-3-chloropropane       | U      |      | 0.42            | 1.0          | µg/L  | 1               | 11/7/2015 07:17 |
| 1,2-Dibromoethane                 | U      |      | 0.34            | 1.0          | µg/L  | 1               | 11/7/2015 07:17 |
| 1,2-Dichlorobenzene               | U      |      | 0.22            | 1.0          | µg/L  | 1               | 11/7/2015 07:17 |
| 1,2-Dichloroethane                | U      |      | 0.26            | 1.0          | µg/L  | 1               | 11/7/2015 07:17 |
| 1,2-Dichloropropane               | U      |      | 0.26            | 1.0          | µg/L  | 1               | 11/7/2015 07:17 |
| 1,3-Dichlorobenzene               | U      |      | 0.21            | 1.0          | µg/L  | 1               | 11/7/2015 07:17 |
| 1,4-Dichlorobenzene               | U      |      | 0.20            | 1.0          | µg/L  | 1               | 11/7/2015 07:17 |
| 2-Butanone                        | U      |      | 0.87            | 25           | µg/L  | 1               | 11/7/2015 07:17 |
| 2-Hexanone                        | U      |      | 0.15            | 50           | µg/L  | 1               | 11/7/2015 07:17 |
| 4-Methyl-2-pentanone              | U      |      | 0.15            | 50           | µg/L  | 1               | 11/7/2015 07:17 |
| Acetone                           | U      |      | 3.1             | 50           | µg/L  | 1               | 11/7/2015 07:17 |
| Benzene                           | U      |      | 0.25            | 1.0          | µg/L  | 1               | 11/7/2015 07:17 |
| Bromodichloromethane              | U      |      | 0.16            | 1.0          | µg/L  | 1               | 11/7/2015 07:17 |
| Bromoform                         | U      |      | 0.099           | 1.0          | µg/L  | 1               | 11/7/2015 07:17 |
| Bromomethane                      | U      |      | 1.0             | 5.0          | µg/L  | 1               | 11/7/2015 07:17 |
| Carbon disulfide                  | U      |      | 0.26            | 5.0          | µg/L  | 1               | 11/7/2015 07:17 |
| Carbon tetrachloride              | U      |      | 0.14            | 1.0          | µg/L  | 1               | 11/7/2015 07:17 |
| Chlorobenzene                     | U      |      | 0.19            | 1.0          | µg/L  | 1               | 11/7/2015 07:17 |
| Chloroethane                      | U      |      | 0.21            | 5.0          | µg/L  | 1               | 11/7/2015 07:17 |
| Chloroform                        | U      |      | 0.25            | 1.0          | µg/L  | 1               | 11/7/2015 07:17 |
| Chloromethane                     | U      |      | 0.25            | 5.0          | µg/L  | 1               | 11/7/2015 07:17 |
| cis-1,2-Dichloroethene            | U      |      | 0.25            | 1.0          | µg/L  | 1               | 11/7/2015 07:17 |
| cis-1,3-Dichloropropene           | U      |      | 0.24            | 1.0          | µg/L  | 1               | 11/7/2015 07:17 |
| Cyclohexane                       | U      |      | 0.31            | 1.0          | µg/L  | 1               | 11/7/2015 07:17 |
| Dibromochloromethane              | U      |      | 0.17            | 5.0          | µg/L  | 1               | 11/7/2015 07:17 |
| Dichlorodifluoromethane           | U      |      | 0.41            | 5.0          | µg/L  | 1               | 11/7/2015 07:17 |
| Ethylbenzene                      | U      |      | 0.22            | 1.0          | µg/L  | 1               | 11/7/2015 07:17 |
| Isopropylbenzene                  | U      |      | 0.25            | 5.0          | µg/L  | 1               | 11/7/2015 07:17 |
| Methyl acetate                    | U      |      | 0.62            | 10           | µg/L  | 1               | 11/7/2015 07:17 |
| Methyl tert-butyl ether           | U      |      | 0.12            | 5.0          | µg/L  | 1               | 11/7/2015 07:17 |
| Methylcyclohexane                 | U      |      | 0.32            | 1.0          | µg/L  | 1               | 11/7/2015 07:17 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 11-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102615-MR-025  
**Collection Date:** 10/26/2015 01:15 PM

**Work Order:** 15101851  
**Lab ID:** 15101851-04  
**Matrix:** WATER

| Analyses                    | Result      | Qual | MDL         | Report Limit | Units       | Dilution Factor | Date Analyzed   |
|-----------------------------|-------------|------|-------------|--------------|-------------|-----------------|-----------------|
| Methylene chloride          | U           |      | 0.64        | 5.0          | µg/L        | 1               | 11/7/2015 07:17 |
| Styrene                     | U           |      | 0.18        | 1.0          | µg/L        | 1               | 11/7/2015 07:17 |
| <b>Tetrachloroethene</b>    | <b>2.9</b>  |      | <b>0.25</b> | <b>1.0</b>   | <b>µg/L</b> | 1               | 11/7/2015 07:17 |
| <b>Toluene</b>              | <b>0.32</b> | J    | <b>0.20</b> | <b>1.0</b>   | <b>µg/L</b> | 1               | 11/7/2015 07:17 |
| trans-1,2-Dichloroethene    | U           |      | 0.29        | 1.0          | µg/L        | 1               | 11/7/2015 07:17 |
| trans-1,3-Dichloropropene   | U           |      | 0.19        | 1.0          | µg/L        | 1               | 11/7/2015 07:17 |
| Trichloroethene             | U           |      | 0.34        | 1.0          | µg/L        | 1               | 11/7/2015 07:17 |
| Trichlorofluoromethane      | U           |      | 0.39        | 1.0          | µg/L        | 1               | 11/7/2015 07:17 |
| Vinyl chloride              | U           |      | 0.19        | 1.0          | µg/L        | 1               | 11/7/2015 07:17 |
| Xylenes, Total              | U           |      | 0.62        | 3.0          | µg/L        | 1               | 11/7/2015 07:17 |
| Surr: 1,2-Dichloroethane-d4 | 98.0        |      |             | 75-120       | %REC        | 1               | 11/7/2015 07:17 |
| Surr: 4-Bromofluorobenzene  | 95.1        |      |             | 80-110       | %REC        | 1               | 11/7/2015 07:17 |
| Surr: Dibromofluoromethane  | 99.8        |      |             | 85-115       | %REC        | 1               | 11/7/2015 07:17 |
| Surr: Toluene-d8            | 98.2        |      |             | 85-110       | %REC        | 1               | 11/7/2015 07:17 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 11-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102615-MR-026  
**Collection Date:** 10/26/2015 02:18 PM

**Work Order:** 15101851  
**Lab ID:** 15101851-05  
**Matrix:** WATER

| Analyses                          | Result     | Qual | MDL             | Report Limit | Units       | Dilution Factor | Date Analyzed   |
|-----------------------------------|------------|------|-----------------|--------------|-------------|-----------------|-----------------|
| <b>VOLATILE ORGANIC COMPOUNDS</b> |            |      | Method: SW8260B |              |             | Analyst: LSY    |                 |
| 1,1,1-Trichloroethane             | U          |      | 0.19            | 1.0          | µg/L        | 1               | 11/7/2015 07:42 |
| 1,1,2,2-Tetrachloroethane         | U          |      | 0.34            | 1.0          | µg/L        | 1               | 11/7/2015 07:42 |
| 1,1,2-Trichloroethane             | U          |      | 0.25            | 1.0          | µg/L        | 1               | 11/7/2015 07:42 |
| 1,1,2-Trichlorotrifluoroethane    | U          |      | 0.47            | 1.0          | µg/L        | 1               | 11/7/2015 07:42 |
| 1,1-Dichloroethane                | U          |      | 0.21            | 1.0          | µg/L        | 1               | 11/7/2015 07:42 |
| 1,1-Dichloroethene                | U          |      | 0.24            | 1.0          | µg/L        | 1               | 11/7/2015 07:42 |
| 1,2,4-Trichlorobenzene            | U          |      | 0.19            | 5.0          | µg/L        | 1               | 11/7/2015 07:42 |
| 1,2-Dibromo-3-chloropropane       | U          |      | 0.42            | 1.0          | µg/L        | 1               | 11/7/2015 07:42 |
| 1,2-Dibromoethane                 | U          |      | 0.34            | 1.0          | µg/L        | 1               | 11/7/2015 07:42 |
| 1,2-Dichlorobenzene               | U          |      | 0.22            | 1.0          | µg/L        | 1               | 11/7/2015 07:42 |
| 1,2-Dichloroethane                | U          |      | 0.26            | 1.0          | µg/L        | 1               | 11/7/2015 07:42 |
| 1,2-Dichloropropane               | U          |      | 0.26            | 1.0          | µg/L        | 1               | 11/7/2015 07:42 |
| 1,3-Dichlorobenzene               | U          |      | 0.21            | 1.0          | µg/L        | 1               | 11/7/2015 07:42 |
| 1,4-Dichlorobenzene               | U          |      | 0.20            | 1.0          | µg/L        | 1               | 11/7/2015 07:42 |
| 2-Butanone                        | U          |      | 0.87            | 25           | µg/L        | 1               | 11/7/2015 07:42 |
| 2-Hexanone                        | U          |      | 0.15            | 50           | µg/L        | 1               | 11/7/2015 07:42 |
| 4-Methyl-2-pentanone              | U          |      | 0.15            | 50           | µg/L        | 1               | 11/7/2015 07:42 |
| Acetone                           | U          |      | 3.1             | 50           | µg/L        | 1               | 11/7/2015 07:42 |
| Benzene                           | U          |      | 0.25            | 1.0          | µg/L        | 1               | 11/7/2015 07:42 |
| Bromodichloromethane              | U          |      | 0.16            | 1.0          | µg/L        | 1               | 11/7/2015 07:42 |
| Bromoform                         | U          |      | 0.099           | 1.0          | µg/L        | 1               | 11/7/2015 07:42 |
| Bromomethane                      | U          |      | 1.0             | 5.0          | µg/L        | 1               | 11/7/2015 07:42 |
| Carbon disulfide                  | U          |      | 0.26            | 5.0          | µg/L        | 1               | 11/7/2015 07:42 |
| Carbon tetrachloride              | U          |      | 0.14            | 1.0          | µg/L        | 1               | 11/7/2015 07:42 |
| Chlorobenzene                     | U          |      | 0.19            | 1.0          | µg/L        | 1               | 11/7/2015 07:42 |
| Chloroethane                      | U          |      | 0.21            | 5.0          | µg/L        | 1               | 11/7/2015 07:42 |
| <b>Chloroform</b>                 | <b>4.6</b> |      | <b>0.25</b>     | <b>1.0</b>   | <b>µg/L</b> | 1               | 11/7/2015 07:42 |
| Chloromethane                     | U          |      | 0.25            | 5.0          | µg/L        | 1               | 11/7/2015 07:42 |
| cis-1,2-Dichloroethene            | U          |      | 0.25            | 1.0          | µg/L        | 1               | 11/7/2015 07:42 |
| cis-1,3-Dichloropropene           | U          |      | 0.24            | 1.0          | µg/L        | 1               | 11/7/2015 07:42 |
| Cyclohexane                       | U          |      | 0.31            | 1.0          | µg/L        | 1               | 11/7/2015 07:42 |
| Dibromochloromethane              | U          |      | 0.17            | 5.0          | µg/L        | 1               | 11/7/2015 07:42 |
| Dichlorodifluoromethane           | U          |      | 0.41            | 5.0          | µg/L        | 1               | 11/7/2015 07:42 |
| Ethylbenzene                      | U          |      | 0.22            | 1.0          | µg/L        | 1               | 11/7/2015 07:42 |
| Isopropylbenzene                  | U          |      | 0.25            | 5.0          | µg/L        | 1               | 11/7/2015 07:42 |
| Methyl acetate                    | U          |      | 0.62            | 10           | µg/L        | 1               | 11/7/2015 07:42 |
| Methyl tert-butyl ether           | U          |      | 0.12            | 5.0          | µg/L        | 1               | 11/7/2015 07:42 |
| Methylcyclohexane                 | U          |      | 0.32            | 1.0          | µg/L        | 1               | 11/7/2015 07:42 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 11-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102615-MR-026  
**Collection Date:** 10/26/2015 02:18 PM

**Work Order:** 15101851  
**Lab ID:** 15101851-05  
**Matrix:** WATER

| Analyses                    | Result      | Qual     | MDL         | Report Limit | Units       | Dilution Factor | Date Analyzed   |
|-----------------------------|-------------|----------|-------------|--------------|-------------|-----------------|-----------------|
| Methylene chloride          | U           |          | 0.64        | 5.0          | µg/L        | 1               | 11/7/2015 07:42 |
| Styrene                     | U           |          | 0.18        | 1.0          | µg/L        | 1               | 11/7/2015 07:42 |
| <b>Tetrachloroethene</b>    | <b>0.62</b> | <b>J</b> | <b>0.25</b> | <b>1.0</b>   | <b>µg/L</b> | 1               | 11/7/2015 07:42 |
| Toluene                     | U           |          | 0.20        | 1.0          | µg/L        | 1               | 11/7/2015 07:42 |
| trans-1,2-Dichloroethene    | U           |          | 0.29        | 1.0          | µg/L        | 1               | 11/7/2015 07:42 |
| trans-1,3-Dichloropropene   | U           |          | 0.19        | 1.0          | µg/L        | 1               | 11/7/2015 07:42 |
| Trichloroethene             | U           |          | 0.34        | 1.0          | µg/L        | 1               | 11/7/2015 07:42 |
| Trichlorofluoromethane      | U           |          | 0.39        | 1.0          | µg/L        | 1               | 11/7/2015 07:42 |
| Vinyl chloride              | U           |          | 0.19        | 1.0          | µg/L        | 1               | 11/7/2015 07:42 |
| Xylenes, Total              | U           |          | 0.62        | 3.0          | µg/L        | 1               | 11/7/2015 07:42 |
| Surr: 1,2-Dichloroethane-d4 | 97.3        |          |             | 75-120       | %REC        | 1               | 11/7/2015 07:42 |
| Surr: 4-Bromofluorobenzene  | 96.4        |          |             | 80-110       | %REC        | 1               | 11/7/2015 07:42 |
| Surr: Dibromofluoromethane  | 103         |          |             | 85-115       | %REC        | 1               | 11/7/2015 07:42 |
| Surr: Toluene-d8            | 97.8        |          |             | 85-110       | %REC        | 1               | 11/7/2015 07:42 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 11-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102615-MR-027  
**Collection Date:** 10/26/2015 03:18 PM

**Work Order:** 15101851  
**Lab ID:** 15101851-06  
**Matrix:** WATER

| Analyses                          | Result | Qual | MDL             | Report Limit | Units | Dilution Factor | Date Analyzed   |
|-----------------------------------|--------|------|-----------------|--------------|-------|-----------------|-----------------|
| <b>VOLATILE ORGANIC COMPOUNDS</b> |        |      | Method: SW8260B |              |       | Analyst: LSY    |                 |
| 1,1,1-Trichloroethane             | U      |      | 0.19            | 1.0          | µg/L  | 1               | 11/7/2015 08:07 |
| 1,1,2,2-Tetrachloroethane         | U      |      | 0.34            | 1.0          | µg/L  | 1               | 11/7/2015 08:07 |
| 1,1,2-Trichloroethane             | U      |      | 0.25            | 1.0          | µg/L  | 1               | 11/7/2015 08:07 |
| 1,1,2-Trichlorotrifluoroethane    | U      |      | 0.47            | 1.0          | µg/L  | 1               | 11/7/2015 08:07 |
| 1,1-Dichloroethane                | U      |      | 0.21            | 1.0          | µg/L  | 1               | 11/7/2015 08:07 |
| 1,1-Dichloroethene                | U      |      | 0.24            | 1.0          | µg/L  | 1               | 11/7/2015 08:07 |
| 1,2,4-Trichlorobenzene            | U      |      | 0.19            | 5.0          | µg/L  | 1               | 11/7/2015 08:07 |
| 1,2-Dibromo-3-chloropropane       | U      |      | 0.42            | 1.0          | µg/L  | 1               | 11/7/2015 08:07 |
| 1,2-Dibromoethane                 | U      |      | 0.34            | 1.0          | µg/L  | 1               | 11/7/2015 08:07 |
| 1,2-Dichlorobenzene               | U      |      | 0.22            | 1.0          | µg/L  | 1               | 11/7/2015 08:07 |
| 1,2-Dichloroethane                | U      |      | 0.26            | 1.0          | µg/L  | 1               | 11/7/2015 08:07 |
| 1,2-Dichloropropane               | U      |      | 0.26            | 1.0          | µg/L  | 1               | 11/7/2015 08:07 |
| 1,3-Dichlorobenzene               | U      |      | 0.21            | 1.0          | µg/L  | 1               | 11/7/2015 08:07 |
| 1,4-Dichlorobenzene               | U      |      | 0.20            | 1.0          | µg/L  | 1               | 11/7/2015 08:07 |
| 2-Butanone                        | U      |      | 0.87            | 25           | µg/L  | 1               | 11/7/2015 08:07 |
| 2-Hexanone                        | U      |      | 0.15            | 50           | µg/L  | 1               | 11/7/2015 08:07 |
| 4-Methyl-2-pentanone              | U      |      | 0.15            | 50           | µg/L  | 1               | 11/7/2015 08:07 |
| Acetone                           | U      |      | 3.1             | 50           | µg/L  | 1               | 11/7/2015 08:07 |
| Benzene                           | U      |      | 0.25            | 1.0          | µg/L  | 1               | 11/7/2015 08:07 |
| Bromodichloromethane              | U      |      | 0.16            | 1.0          | µg/L  | 1               | 11/7/2015 08:07 |
| Bromoform                         | U      |      | 0.099           | 1.0          | µg/L  | 1               | 11/7/2015 08:07 |
| Bromomethane                      | U      |      | 1.0             | 5.0          | µg/L  | 1               | 11/7/2015 08:07 |
| Carbon disulfide                  | U      |      | 0.26            | 5.0          | µg/L  | 1               | 11/7/2015 08:07 |
| Carbon tetrachloride              | U      |      | 0.14            | 1.0          | µg/L  | 1               | 11/7/2015 08:07 |
| Chlorobenzene                     | U      |      | 0.19            | 1.0          | µg/L  | 1               | 11/7/2015 08:07 |
| Chloroethane                      | U      |      | 0.21            | 5.0          | µg/L  | 1               | 11/7/2015 08:07 |
| Chloroform                        | U      |      | 0.25            | 1.0          | µg/L  | 1               | 11/7/2015 08:07 |
| Chloromethane                     | U      |      | 0.25            | 5.0          | µg/L  | 1               | 11/7/2015 08:07 |
| cis-1,2-Dichloroethene            | U      |      | 0.25            | 1.0          | µg/L  | 1               | 11/7/2015 08:07 |
| cis-1,3-Dichloropropene           | U      |      | 0.24            | 1.0          | µg/L  | 1               | 11/7/2015 08:07 |
| Cyclohexane                       | U      |      | 0.31            | 1.0          | µg/L  | 1               | 11/7/2015 08:07 |
| Dibromochloromethane              | U      |      | 0.17            | 5.0          | µg/L  | 1               | 11/7/2015 08:07 |
| Dichlorodifluoromethane           | U      |      | 0.41            | 5.0          | µg/L  | 1               | 11/7/2015 08:07 |
| Ethylbenzene                      | U      |      | 0.22            | 1.0          | µg/L  | 1               | 11/7/2015 08:07 |
| Isopropylbenzene                  | U      |      | 0.25            | 5.0          | µg/L  | 1               | 11/7/2015 08:07 |
| Methyl acetate                    | U      |      | 0.62            | 10           | µg/L  | 1               | 11/7/2015 08:07 |
| Methyl tert-butyl ether           | U      |      | 0.12            | 5.0          | µg/L  | 1               | 11/7/2015 08:07 |
| Methylcyclohexane                 | U      |      | 0.32            | 1.0          | µg/L  | 1               | 11/7/2015 08:07 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.



# ALS Group USA, Corp

Date: 11-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102615-MR-027  
**Collection Date:** 10/26/2015 03:18 PM

**Work Order:** 15101851  
**Lab ID:** 15101851-06  
**Matrix:** WATER

| Analyses                    | Result     | Qual | MDL         | Report Limit | Units       | Dilution Factor | Date Analyzed   |
|-----------------------------|------------|------|-------------|--------------|-------------|-----------------|-----------------|
| Methylene chloride          | U          |      | 0.64        | 5.0          | µg/L        | 1               | 11/7/2015 08:07 |
| Styrene                     | U          |      | 0.18        | 1.0          | µg/L        | 1               | 11/7/2015 08:07 |
| Tetrachloroethene           | U          |      | 0.25        | 1.0          | µg/L        | 1               | 11/7/2015 08:07 |
| Toluene                     | U          |      | 0.20        | 1.0          | µg/L        | 1               | 11/7/2015 08:07 |
| trans-1,2-Dichloroethene    | U          |      | 0.29        | 1.0          | µg/L        | 1               | 11/7/2015 08:07 |
| trans-1,3-Dichloropropene   | U          |      | 0.19        | 1.0          | µg/L        | 1               | 11/7/2015 08:07 |
| <b>Trichloroethene</b>      | <b>1.0</b> |      | <b>0.34</b> | <b>1.0</b>   | <b>µg/L</b> | 1               | 11/7/2015 08:07 |
| Trichlorofluoromethane      | U          |      | 0.39        | 1.0          | µg/L        | 1               | 11/7/2015 08:07 |
| Vinyl chloride              | U          |      | 0.19        | 1.0          | µg/L        | 1               | 11/7/2015 08:07 |
| Xylenes, Total              | U          |      | 0.62        | 3.0          | µg/L        | 1               | 11/7/2015 08:07 |
| Surr: 1,2-Dichloroethane-d4 | 96.8       |      |             | 75-120       | %REC        | 1               | 11/7/2015 08:07 |
| Surr: 4-Bromofluorobenzene  | 98.7       |      |             | 80-110       | %REC        | 1               | 11/7/2015 08:07 |
| Surr: Dibromofluoromethane  | 101        |      |             | 85-115       | %REC        | 1               | 11/7/2015 08:07 |
| Surr: Toluene-d8            | 99.2       |      |             | 85-110       | %REC        | 1               | 11/7/2015 08:07 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 11-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102615-MR-028  
**Collection Date:** 10/26/2015 04:25 PM

**Work Order:** 15101851  
**Lab ID:** 15101851-07  
**Matrix:** WATER

| Analyses                          | Result     | Qual | MDL             | Report Limit | Units       | Dilution Factor | Date Analyzed   |
|-----------------------------------|------------|------|-----------------|--------------|-------------|-----------------|-----------------|
| <b>VOLATILE ORGANIC COMPOUNDS</b> |            |      | Method: SW8260B |              |             | Analyst: LSY    |                 |
| 1,1,1-Trichloroethane             | U          |      | 0.19            | 1.0          | µg/L        | 1               | 11/7/2015 08:32 |
| 1,1,2,2-Tetrachloroethane         | U          |      | 0.34            | 1.0          | µg/L        | 1               | 11/7/2015 08:32 |
| 1,1,2-Trichloroethane             | U          |      | 0.25            | 1.0          | µg/L        | 1               | 11/7/2015 08:32 |
| 1,1,2-Trichlorotrifluoroethane    | U          |      | 0.47            | 1.0          | µg/L        | 1               | 11/7/2015 08:32 |
| 1,1-Dichloroethane                | U          |      | 0.21            | 1.0          | µg/L        | 1               | 11/7/2015 08:32 |
| 1,1-Dichloroethene                | U          |      | 0.24            | 1.0          | µg/L        | 1               | 11/7/2015 08:32 |
| 1,2,4-Trichlorobenzene            | U          |      | 0.19            | 5.0          | µg/L        | 1               | 11/7/2015 08:32 |
| 1,2-Dibromo-3-chloropropane       | U          |      | 0.42            | 1.0          | µg/L        | 1               | 11/7/2015 08:32 |
| 1,2-Dibromoethane                 | U          |      | 0.34            | 1.0          | µg/L        | 1               | 11/7/2015 08:32 |
| 1,2-Dichlorobenzene               | U          |      | 0.22            | 1.0          | µg/L        | 1               | 11/7/2015 08:32 |
| 1,2-Dichloroethane                | U          |      | 0.26            | 1.0          | µg/L        | 1               | 11/7/2015 08:32 |
| 1,2-Dichloropropane               | U          |      | 0.26            | 1.0          | µg/L        | 1               | 11/7/2015 08:32 |
| 1,3-Dichlorobenzene               | U          |      | 0.21            | 1.0          | µg/L        | 1               | 11/7/2015 08:32 |
| 1,4-Dichlorobenzene               | U          |      | 0.20            | 1.0          | µg/L        | 1               | 11/7/2015 08:32 |
| 2-Butanone                        | U          |      | 0.87            | 25           | µg/L        | 1               | 11/7/2015 08:32 |
| 2-Hexanone                        | U          |      | 0.15            | 50           | µg/L        | 1               | 11/7/2015 08:32 |
| 4-Methyl-2-pentanone              | U          |      | 0.15            | 50           | µg/L        | 1               | 11/7/2015 08:32 |
| Acetone                           | U          |      | 3.1             | 50           | µg/L        | 1               | 11/7/2015 08:32 |
| Benzene                           | U          |      | 0.25            | 1.0          | µg/L        | 1               | 11/7/2015 08:32 |
| Bromodichloromethane              | U          |      | 0.16            | 1.0          | µg/L        | 1               | 11/7/2015 08:32 |
| Bromoform                         | U          |      | 0.099           | 1.0          | µg/L        | 1               | 11/7/2015 08:32 |
| Bromomethane                      | U          |      | 1.0             | 5.0          | µg/L        | 1               | 11/7/2015 08:32 |
| Carbon disulfide                  | U          |      | 0.26            | 5.0          | µg/L        | 1               | 11/7/2015 08:32 |
| Carbon tetrachloride              | U          |      | 0.14            | 1.0          | µg/L        | 1               | 11/7/2015 08:32 |
| Chlorobenzene                     | U          |      | 0.19            | 1.0          | µg/L        | 1               | 11/7/2015 08:32 |
| Chloroethane                      | U          |      | 0.21            | 5.0          | µg/L        | 1               | 11/7/2015 08:32 |
| Chloroform                        | U          |      | 0.25            | 1.0          | µg/L        | 1               | 11/7/2015 08:32 |
| Chloromethane                     | U          |      | 0.25            | 5.0          | µg/L        | 1               | 11/7/2015 08:32 |
| <b>cis-1,2-Dichloroethene</b>     | <b>1.5</b> |      | <b>0.25</b>     | <b>1.0</b>   | <b>µg/L</b> | 1               | 11/7/2015 08:32 |
| cis-1,3-Dichloropropene           | U          |      | 0.24            | 1.0          | µg/L        | 1               | 11/7/2015 08:32 |
| Cyclohexane                       | U          |      | 0.31            | 1.0          | µg/L        | 1               | 11/7/2015 08:32 |
| Dibromochloromethane              | U          |      | 0.17            | 5.0          | µg/L        | 1               | 11/7/2015 08:32 |
| Dichlorodifluoromethane           | U          |      | 0.41            | 5.0          | µg/L        | 1               | 11/7/2015 08:32 |
| Ethylbenzene                      | U          |      | 0.22            | 1.0          | µg/L        | 1               | 11/7/2015 08:32 |
| Isopropylbenzene                  | U          |      | 0.25            | 5.0          | µg/L        | 1               | 11/7/2015 08:32 |
| Methyl acetate                    | U          |      | 0.62            | 10           | µg/L        | 1               | 11/7/2015 08:32 |
| Methyl tert-butyl ether           | U          |      | 0.12            | 5.0          | µg/L        | 1               | 11/7/2015 08:32 |
| Methylcyclohexane                 | U          |      | 0.32            | 1.0          | µg/L        | 1               | 11/7/2015 08:32 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 11-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102615-MR-028  
**Collection Date:** 10/26/2015 04:25 PM

**Work Order:** 15101851  
**Lab ID:** 15101851-07  
**Matrix:** WATER

| Analyses                    | Result     | Qual | MDL         | Report Limit | Units       | Dilution Factor | Date Analyzed   |
|-----------------------------|------------|------|-------------|--------------|-------------|-----------------|-----------------|
| Methylene chloride          | U          |      | 0.64        | 5.0          | µg/L        | 1               | 11/7/2015 08:32 |
| Styrene                     | U          |      | 0.18        | 1.0          | µg/L        | 1               | 11/7/2015 08:32 |
| <b>Tetrachloroethene</b>    | <b>1.7</b> |      | <b>0.25</b> | <b>1.0</b>   | <b>µg/L</b> | 1               | 11/7/2015 08:32 |
| Toluene                     | U          |      | 0.20        | 1.0          | µg/L        | 1               | 11/7/2015 08:32 |
| trans-1,2-Dichloroethene    | U          |      | 0.29        | 1.0          | µg/L        | 1               | 11/7/2015 08:32 |
| trans-1,3-Dichloropropene   | U          |      | 0.19        | 1.0          | µg/L        | 1               | 11/7/2015 08:32 |
| <b>Trichloroethene</b>      | <b>2.4</b> |      | <b>0.34</b> | <b>1.0</b>   | <b>µg/L</b> | 1               | 11/7/2015 08:32 |
| Trichlorofluoromethane      | U          |      | 0.39        | 1.0          | µg/L        | 1               | 11/7/2015 08:32 |
| Vinyl chloride              | U          |      | 0.19        | 1.0          | µg/L        | 1               | 11/7/2015 08:32 |
| Xylenes, Total              | U          |      | 0.62        | 3.0          | µg/L        | 1               | 11/7/2015 08:32 |
| Surr: 1,2-Dichloroethane-d4 | 96.8       |      |             | 75-120       | %REC        | 1               | 11/7/2015 08:32 |
| Surr: 4-Bromofluorobenzene  | 96.9       |      |             | 80-110       | %REC        | 1               | 11/7/2015 08:32 |
| Surr: Dibromofluoromethane  | 103        |      |             | 85-115       | %REC        | 1               | 11/7/2015 08:32 |
| Surr: Toluene-d8            | 100        |      |             | 85-110       | %REC        | 1               | 11/7/2015 08:32 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 11-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102615-MR-029  
**Collection Date:** 10/26/2015 04:59 PM

**Work Order:** 15101851  
**Lab ID:** 15101851-08  
**Matrix:** WATER

| Analyses                          | Result | Qual | MDL             | Report Limit | Units | Dilution Factor | Date Analyzed   |
|-----------------------------------|--------|------|-----------------|--------------|-------|-----------------|-----------------|
| <b>VOLATILE ORGANIC COMPOUNDS</b> |        |      | Method: SW8260B |              |       | Analyst: LSY    |                 |
| 1,1,1-Trichloroethane             | U      |      | 0.19            | 1.0          | µg/L  | 1               | 11/7/2015 08:57 |
| 1,1,2,2-Tetrachloroethane         | U      |      | 0.34            | 1.0          | µg/L  | 1               | 11/7/2015 08:57 |
| 1,1,2-Trichloroethane             | U      |      | 0.25            | 1.0          | µg/L  | 1               | 11/7/2015 08:57 |
| 1,1,2-Trichlorotrifluoroethane    | U      |      | 0.47            | 1.0          | µg/L  | 1               | 11/7/2015 08:57 |
| 1,1-Dichloroethane                | U      |      | 0.21            | 1.0          | µg/L  | 1               | 11/7/2015 08:57 |
| 1,1-Dichloroethene                | U      |      | 0.24            | 1.0          | µg/L  | 1               | 11/7/2015 08:57 |
| 1,2,4-Trichlorobenzene            | U      |      | 0.19            | 5.0          | µg/L  | 1               | 11/7/2015 08:57 |
| 1,2-Dibromo-3-chloropropane       | U      |      | 0.42            | 1.0          | µg/L  | 1               | 11/7/2015 08:57 |
| 1,2-Dibromoethane                 | U      |      | 0.34            | 1.0          | µg/L  | 1               | 11/7/2015 08:57 |
| 1,2-Dichlorobenzene               | U      |      | 0.22            | 1.0          | µg/L  | 1               | 11/7/2015 08:57 |
| 1,2-Dichloroethane                | U      |      | 0.26            | 1.0          | µg/L  | 1               | 11/7/2015 08:57 |
| 1,2-Dichloropropane               | U      |      | 0.26            | 1.0          | µg/L  | 1               | 11/7/2015 08:57 |
| 1,3-Dichlorobenzene               | U      |      | 0.21            | 1.0          | µg/L  | 1               | 11/7/2015 08:57 |
| 1,4-Dichlorobenzene               | U      |      | 0.20            | 1.0          | µg/L  | 1               | 11/7/2015 08:57 |
| 2-Butanone                        | U      |      | 0.87            | 25           | µg/L  | 1               | 11/7/2015 08:57 |
| 2-Hexanone                        | U      |      | 0.15            | 50           | µg/L  | 1               | 11/7/2015 08:57 |
| 4-Methyl-2-pentanone              | U      |      | 0.15            | 50           | µg/L  | 1               | 11/7/2015 08:57 |
| Acetone                           | U      |      | 3.1             | 50           | µg/L  | 1               | 11/7/2015 08:57 |
| Benzene                           | U      |      | 0.25            | 1.0          | µg/L  | 1               | 11/7/2015 08:57 |
| Bromodichloromethane              | U      |      | 0.16            | 1.0          | µg/L  | 1               | 11/7/2015 08:57 |
| Bromoform                         | U      |      | 0.099           | 1.0          | µg/L  | 1               | 11/7/2015 08:57 |
| Bromomethane                      | U      |      | 1.0             | 5.0          | µg/L  | 1               | 11/7/2015 08:57 |
| Carbon disulfide                  | U      |      | 0.26            | 5.0          | µg/L  | 1               | 11/7/2015 08:57 |
| Carbon tetrachloride              | U      |      | 0.14            | 1.0          | µg/L  | 1               | 11/7/2015 08:57 |
| Chlorobenzene                     | U      |      | 0.19            | 1.0          | µg/L  | 1               | 11/7/2015 08:57 |
| Chloroethane                      | U      |      | 0.21            | 5.0          | µg/L  | 1               | 11/7/2015 08:57 |
| Chloroform                        | U      |      | 0.25            | 1.0          | µg/L  | 1               | 11/7/2015 08:57 |
| Chloromethane                     | U      |      | 0.25            | 5.0          | µg/L  | 1               | 11/7/2015 08:57 |
| cis-1,2-Dichloroethene            | U      |      | 0.25            | 1.0          | µg/L  | 1               | 11/7/2015 08:57 |
| cis-1,3-Dichloropropene           | U      |      | 0.24            | 1.0          | µg/L  | 1               | 11/7/2015 08:57 |
| Cyclohexane                       | U      |      | 0.31            | 1.0          | µg/L  | 1               | 11/7/2015 08:57 |
| Dibromochloromethane              | U      |      | 0.17            | 5.0          | µg/L  | 1               | 11/7/2015 08:57 |
| Dichlorodifluoromethane           | U      |      | 0.41            | 5.0          | µg/L  | 1               | 11/7/2015 08:57 |
| Ethylbenzene                      | U      |      | 0.22            | 1.0          | µg/L  | 1               | 11/7/2015 08:57 |
| Isopropylbenzene                  | U      |      | 0.25            | 5.0          | µg/L  | 1               | 11/7/2015 08:57 |
| Methyl acetate                    | U      |      | 0.62            | 10           | µg/L  | 1               | 11/7/2015 08:57 |
| Methyl tert-butyl ether           | U      |      | 0.12            | 5.0          | µg/L  | 1               | 11/7/2015 08:57 |
| Methylcyclohexane                 | U      |      | 0.32            | 1.0          | µg/L  | 1               | 11/7/2015 08:57 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 11-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102615-MR-029  
**Collection Date:** 10/26/2015 04:59 PM

**Work Order:** 15101851  
**Lab ID:** 15101851-08  
**Matrix:** WATER

| Analyses                    | Result      | Qual | MDL         | Report Limit | Units       | Dilution Factor | Date Analyzed   |
|-----------------------------|-------------|------|-------------|--------------|-------------|-----------------|-----------------|
| Methylene chloride          | U           |      | 0.64        | 5.0          | µg/L        | 1               | 11/7/2015 08:57 |
| Styrene                     | U           |      | 0.18        | 1.0          | µg/L        | 1               | 11/7/2015 08:57 |
| <b>Tetrachloroethene</b>    | <b>6.0</b>  |      | <b>0.25</b> | <b>1.0</b>   | <b>µg/L</b> | 1               | 11/7/2015 08:57 |
| Toluene                     | U           |      | 0.20        | 1.0          | µg/L        | 1               | 11/7/2015 08:57 |
| trans-1,2-Dichloroethene    | U           |      | 0.29        | 1.0          | µg/L        | 1               | 11/7/2015 08:57 |
| trans-1,3-Dichloropropene   | U           |      | 0.19        | 1.0          | µg/L        | 1               | 11/7/2015 08:57 |
| <b>Trichloroethene</b>      | <b>0.87</b> | J    | <b>0.34</b> | <b>1.0</b>   | <b>µg/L</b> | 1               | 11/7/2015 08:57 |
| Trichlorofluoromethane      | U           |      | 0.39        | 1.0          | µg/L        | 1               | 11/7/2015 08:57 |
| Vinyl chloride              | U           |      | 0.19        | 1.0          | µg/L        | 1               | 11/7/2015 08:57 |
| Xylenes, Total              | U           |      | 0.62        | 3.0          | µg/L        | 1               | 11/7/2015 08:57 |
| Surr: 1,2-Dichloroethane-d4 | 99.4        |      |             | 75-120       | %REC        | 1               | 11/7/2015 08:57 |
| Surr: 4-Bromofluorobenzene  | 97.6        |      |             | 80-110       | %REC        | 1               | 11/7/2015 08:57 |
| Surr: Dibromofluoromethane  | 101         |      |             | 85-115       | %REC        | 1               | 11/7/2015 08:57 |
| Surr: Toluene-d8            | 99.8        |      |             | 85-110       | %REC        | 1               | 11/7/2015 08:57 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 11-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102615-MR-030  
**Collection Date:** 10/26/2015 05:10 PM

**Work Order:** 15101851  
**Lab ID:** 15101851-09  
**Matrix:** WATER

| Analyses                          | Result | Qual | MDL             | Report Limit | Units | Dilution Factor | Date Analyzed   |
|-----------------------------------|--------|------|-----------------|--------------|-------|-----------------|-----------------|
| <b>VOLATILE ORGANIC COMPOUNDS</b> |        |      | Method: SW8260B |              |       | Analyst: LSY    |                 |
| 1,1,1-Trichloroethane             | U      |      | 0.19            | 1.0          | µg/L  | 1               | 11/7/2015 09:21 |
| 1,1,2,2-Tetrachloroethane         | U      |      | 0.34            | 1.0          | µg/L  | 1               | 11/7/2015 09:21 |
| 1,1,2-Trichloroethane             | U      |      | 0.25            | 1.0          | µg/L  | 1               | 11/7/2015 09:21 |
| 1,1,2-Trichlorotrifluoroethane    | U      |      | 0.47            | 1.0          | µg/L  | 1               | 11/7/2015 09:21 |
| 1,1-Dichloroethane                | U      |      | 0.21            | 1.0          | µg/L  | 1               | 11/7/2015 09:21 |
| 1,1-Dichloroethene                | U      |      | 0.24            | 1.0          | µg/L  | 1               | 11/7/2015 09:21 |
| 1,2,4-Trichlorobenzene            | U      |      | 0.19            | 5.0          | µg/L  | 1               | 11/7/2015 09:21 |
| 1,2-Dibromo-3-chloropropane       | U      |      | 0.42            | 1.0          | µg/L  | 1               | 11/7/2015 09:21 |
| 1,2-Dibromoethane                 | U      |      | 0.34            | 1.0          | µg/L  | 1               | 11/7/2015 09:21 |
| 1,2-Dichlorobenzene               | U      |      | 0.22            | 1.0          | µg/L  | 1               | 11/7/2015 09:21 |
| 1,2-Dichloroethane                | U      |      | 0.26            | 1.0          | µg/L  | 1               | 11/7/2015 09:21 |
| 1,2-Dichloropropane               | U      |      | 0.26            | 1.0          | µg/L  | 1               | 11/7/2015 09:21 |
| 1,3-Dichlorobenzene               | U      |      | 0.21            | 1.0          | µg/L  | 1               | 11/7/2015 09:21 |
| 1,4-Dichlorobenzene               | U      |      | 0.20            | 1.0          | µg/L  | 1               | 11/7/2015 09:21 |
| 2-Butanone                        | U      |      | 0.87            | 25           | µg/L  | 1               | 11/7/2015 09:21 |
| 2-Hexanone                        | U      |      | 0.15            | 50           | µg/L  | 1               | 11/7/2015 09:21 |
| 4-Methyl-2-pentanone              | U      |      | 0.15            | 50           | µg/L  | 1               | 11/7/2015 09:21 |
| Acetone                           | U      |      | 3.1             | 50           | µg/L  | 1               | 11/7/2015 09:21 |
| Benzene                           | U      |      | 0.25            | 1.0          | µg/L  | 1               | 11/7/2015 09:21 |
| Bromodichloromethane              | U      |      | 0.16            | 1.0          | µg/L  | 1               | 11/7/2015 09:21 |
| Bromoform                         | U      |      | 0.099           | 1.0          | µg/L  | 1               | 11/7/2015 09:21 |
| Bromomethane                      | U      |      | 1.0             | 5.0          | µg/L  | 1               | 11/7/2015 09:21 |
| Carbon disulfide                  | U      |      | 0.26            | 5.0          | µg/L  | 1               | 11/7/2015 09:21 |
| Carbon tetrachloride              | U      |      | 0.14            | 1.0          | µg/L  | 1               | 11/7/2015 09:21 |
| Chlorobenzene                     | U      |      | 0.19            | 1.0          | µg/L  | 1               | 11/7/2015 09:21 |
| Chloroethane                      | U      |      | 0.21            | 5.0          | µg/L  | 1               | 11/7/2015 09:21 |
| Chloroform                        | U      |      | 0.25            | 1.0          | µg/L  | 1               | 11/7/2015 09:21 |
| Chloromethane                     | U      |      | 0.25            | 5.0          | µg/L  | 1               | 11/7/2015 09:21 |
| cis-1,2-Dichloroethene            | U      |      | 0.25            | 1.0          | µg/L  | 1               | 11/7/2015 09:21 |
| cis-1,3-Dichloropropene           | U      |      | 0.24            | 1.0          | µg/L  | 1               | 11/7/2015 09:21 |
| Cyclohexane                       | U      |      | 0.31            | 1.0          | µg/L  | 1               | 11/7/2015 09:21 |
| Dibromochloromethane              | U      |      | 0.17            | 5.0          | µg/L  | 1               | 11/7/2015 09:21 |
| Dichlorodifluoromethane           | U      |      | 0.41            | 5.0          | µg/L  | 1               | 11/7/2015 09:21 |
| Ethylbenzene                      | U      |      | 0.22            | 1.0          | µg/L  | 1               | 11/7/2015 09:21 |
| Isopropylbenzene                  | U      |      | 0.25            | 5.0          | µg/L  | 1               | 11/7/2015 09:21 |
| Methyl acetate                    | U      |      | 0.62            | 10           | µg/L  | 1               | 11/7/2015 09:21 |
| Methyl tert-butyl ether           | U      |      | 0.12            | 5.0          | µg/L  | 1               | 11/7/2015 09:21 |
| Methylcyclohexane                 | U      |      | 0.32            | 1.0          | µg/L  | 1               | 11/7/2015 09:21 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 11-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102615-MR-030  
**Collection Date:** 10/26/2015 05:10 PM

**Work Order:** 15101851  
**Lab ID:** 15101851-09  
**Matrix:** WATER

| Analyses                    | Result      | Qual | MDL         | Report Limit | Units       | Dilution Factor | Date Analyzed   |
|-----------------------------|-------------|------|-------------|--------------|-------------|-----------------|-----------------|
| Methylene chloride          | U           |      | 0.64        | 5.0          | µg/L        | 1               | 11/7/2015 09:21 |
| Styrene                     | U           |      | 0.18        | 1.0          | µg/L        | 1               | 11/7/2015 09:21 |
| <b>Tetrachloroethene</b>    | <b>6.3</b>  |      | <b>0.25</b> | <b>1.0</b>   | <b>µg/L</b> | 1               | 11/7/2015 09:21 |
| Toluene                     | U           |      | 0.20        | 1.0          | µg/L        | 1               | 11/7/2015 09:21 |
| trans-1,2-Dichloroethene    | U           |      | 0.29        | 1.0          | µg/L        | 1               | 11/7/2015 09:21 |
| trans-1,3-Dichloropropene   | U           |      | 0.19        | 1.0          | µg/L        | 1               | 11/7/2015 09:21 |
| <b>Trichloroethene</b>      | <b>0.88</b> | J    | <b>0.34</b> | <b>1.0</b>   | <b>µg/L</b> | 1               | 11/7/2015 09:21 |
| Trichlorofluoromethane      | U           |      | 0.39        | 1.0          | µg/L        | 1               | 11/7/2015 09:21 |
| Vinyl chloride              | U           |      | 0.19        | 1.0          | µg/L        | 1               | 11/7/2015 09:21 |
| Xylenes, Total              | U           |      | 0.62        | 3.0          | µg/L        | 1               | 11/7/2015 09:21 |
| Surr: 1,2-Dichloroethane-d4 | 96.0        |      |             | 75-120       | %REC        | 1               | 11/7/2015 09:21 |
| Surr: 4-Bromofluorobenzene  | 101         |      |             | 80-110       | %REC        | 1               | 11/7/2015 09:21 |
| Surr: Dibromofluoromethane  | 101         |      |             | 85-115       | %REC        | 1               | 11/7/2015 09:21 |
| Surr: Toluene-d8            | 101         |      |             | 85-110       | %REC        | 1               | 11/7/2015 09:21 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 11-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102715-MR-031  
**Collection Date:** 10/27/2015 10:59 AM

**Work Order:** 15101851  
**Lab ID:** 15101851-10  
**Matrix:** WATER

| Analyses                          | Result     | Qual | MDL             | Report Limit | Units       | Dilution Factor | Date Analyzed   |
|-----------------------------------|------------|------|-----------------|--------------|-------------|-----------------|-----------------|
| <b>VOLATILE ORGANIC COMPOUNDS</b> |            |      | Method: SW8260B |              |             | Analyst: LSY    |                 |
| 1,1,1-Trichloroethane             | 1.4        |      | 0.19            | 1.0          | µg/L        | 1               | 11/7/2015 09:46 |
| 1,1,2,2-Tetrachloroethane         | U          |      | 0.34            | 1.0          | µg/L        | 1               | 11/7/2015 09:46 |
| 1,1,2-Trichloroethane             | U          |      | 0.25            | 1.0          | µg/L        | 1               | 11/7/2015 09:46 |
| 1,1,2-Trichlorotrifluoroethane    | U          |      | 0.47            | 1.0          | µg/L        | 1               | 11/7/2015 09:46 |
| 1,1-Dichloroethane                | U          |      | 0.21            | 1.0          | µg/L        | 1               | 11/7/2015 09:46 |
| 1,1-Dichloroethene                | U          |      | 0.24            | 1.0          | µg/L        | 1               | 11/7/2015 09:46 |
| 1,2,4-Trichlorobenzene            | U          |      | 0.19            | 5.0          | µg/L        | 1               | 11/7/2015 09:46 |
| 1,2-Dibromo-3-chloropropane       | U          |      | 0.42            | 1.0          | µg/L        | 1               | 11/7/2015 09:46 |
| 1,2-Dibromoethane                 | U          |      | 0.34            | 1.0          | µg/L        | 1               | 11/7/2015 09:46 |
| 1,2-Dichlorobenzene               | U          |      | 0.22            | 1.0          | µg/L        | 1               | 11/7/2015 09:46 |
| 1,2-Dichloroethane                | U          |      | 0.26            | 1.0          | µg/L        | 1               | 11/7/2015 09:46 |
| 1,2-Dichloropropane               | U          |      | 0.26            | 1.0          | µg/L        | 1               | 11/7/2015 09:46 |
| 1,3-Dichlorobenzene               | U          |      | 0.21            | 1.0          | µg/L        | 1               | 11/7/2015 09:46 |
| 1,4-Dichlorobenzene               | U          |      | 0.20            | 1.0          | µg/L        | 1               | 11/7/2015 09:46 |
| 2-Butanone                        | U          |      | 0.87            | 25           | µg/L        | 1               | 11/7/2015 09:46 |
| 2-Hexanone                        | U          |      | 0.15            | 50           | µg/L        | 1               | 11/7/2015 09:46 |
| 4-Methyl-2-pentanone              | U          |      | 0.15            | 50           | µg/L        | 1               | 11/7/2015 09:46 |
| Acetone                           | U          |      | 3.1             | 50           | µg/L        | 1               | 11/7/2015 09:46 |
| Benzene                           | U          |      | 0.25            | 1.0          | µg/L        | 1               | 11/7/2015 09:46 |
| Bromodichloromethane              | U          |      | 0.16            | 1.0          | µg/L        | 1               | 11/7/2015 09:46 |
| Bromoform                         | U          |      | 0.099           | 1.0          | µg/L        | 1               | 11/7/2015 09:46 |
| Bromomethane                      | U          |      | 1.0             | 5.0          | µg/L        | 1               | 11/7/2015 09:46 |
| Carbon disulfide                  | U          |      | 0.26            | 5.0          | µg/L        | 1               | 11/7/2015 09:46 |
| Carbon tetrachloride              | U          |      | 0.14            | 1.0          | µg/L        | 1               | 11/7/2015 09:46 |
| Chlorobenzene                     | U          |      | 0.19            | 1.0          | µg/L        | 1               | 11/7/2015 09:46 |
| Chloroethane                      | U          |      | 0.21            | 5.0          | µg/L        | 1               | 11/7/2015 09:46 |
| <b>Chloroform</b>                 | <b>1.1</b> |      | <b>0.25</b>     | <b>1.0</b>   | <b>µg/L</b> | 1               | 11/7/2015 09:46 |
| Chloromethane                     | U          |      | 0.25            | 5.0          | µg/L        | 1               | 11/7/2015 09:46 |
| cis-1,2-Dichloroethene            | U          |      | 0.25            | 1.0          | µg/L        | 1               | 11/7/2015 09:46 |
| cis-1,3-Dichloropropene           | U          |      | 0.24            | 1.0          | µg/L        | 1               | 11/7/2015 09:46 |
| Cyclohexane                       | U          |      | 0.31            | 1.0          | µg/L        | 1               | 11/7/2015 09:46 |
| Dibromochloromethane              | U          |      | 0.17            | 5.0          | µg/L        | 1               | 11/7/2015 09:46 |
| Dichlorodifluoromethane           | U          |      | 0.41            | 5.0          | µg/L        | 1               | 11/7/2015 09:46 |
| Ethylbenzene                      | U          |      | 0.22            | 1.0          | µg/L        | 1               | 11/7/2015 09:46 |
| Isopropylbenzene                  | U          |      | 0.25            | 5.0          | µg/L        | 1               | 11/7/2015 09:46 |
| Methyl acetate                    | U          |      | 0.62            | 10           | µg/L        | 1               | 11/7/2015 09:46 |
| Methyl tert-butyl ether           | U          |      | 0.12            | 5.0          | µg/L        | 1               | 11/7/2015 09:46 |
| Methylcyclohexane                 | U          |      | 0.32            | 1.0          | µg/L        | 1               | 11/7/2015 09:46 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.



# ALS Group USA, Corp

Date: 11-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102715-MR-031  
**Collection Date:** 10/27/2015 10:59 AM

**Work Order:** 15101851  
**Lab ID:** 15101851-10  
**Matrix:** WATER

| Analyses                    | Result      | Qual     | MDL         | Report Limit | Units       | Dilution Factor | Date Analyzed          |
|-----------------------------|-------------|----------|-------------|--------------|-------------|-----------------|------------------------|
| Methylene chloride          | U           |          | 0.64        | 5.0          | µg/L        | 1               | 11/7/2015 09:46        |
| Styrene                     | U           |          | 0.18        | 1.0          | µg/L        | 1               | 11/7/2015 09:46        |
| Tetrachloroethene           | U           |          | 0.25        | 1.0          | µg/L        | 1               | 11/7/2015 09:46        |
| Toluene                     | U           |          | 0.20        | 1.0          | µg/L        | 1               | 11/7/2015 09:46        |
| trans-1,2-Dichloroethene    | U           |          | 0.29        | 1.0          | µg/L        | 1               | 11/7/2015 09:46        |
| trans-1,3-Dichloropropene   | U           |          | 0.19        | 1.0          | µg/L        | 1               | 11/7/2015 09:46        |
| <b>Trichloroethene</b>      | <b>0.54</b> | <b>J</b> | <b>0.34</b> | <b>1.0</b>   | <b>µg/L</b> | <b>1</b>        | <b>11/7/2015 09:46</b> |
| Trichlorofluoromethane      | U           |          | 0.39        | 1.0          | µg/L        | 1               | 11/7/2015 09:46        |
| Vinyl chloride              | U           |          | 0.19        | 1.0          | µg/L        | 1               | 11/7/2015 09:46        |
| Xylenes, Total              | U           |          | 0.62        | 3.0          | µg/L        | 1               | 11/7/2015 09:46        |
| Surr: 1,2-Dichloroethane-d4 | 101         |          |             | 75-120       | %REC        | 1               | 11/7/2015 09:46        |
| Surr: 4-Bromofluorobenzene  | 98.8        |          |             | 80-110       | %REC        | 1               | 11/7/2015 09:46        |
| Surr: Dibromofluoromethane  | 101         |          |             | 85-115       | %REC        | 1               | 11/7/2015 09:46        |
| Surr: Toluene-d8            | 100         |          |             | 85-110       | %REC        | 1               | 11/7/2015 09:46        |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 11-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102715-MR-032  
**Collection Date:** 10/27/2015 11:43 AM

**Work Order:** 15101851  
**Lab ID:** 15101851-11  
**Matrix:** WATER

| Analyses                          | Result  | Qual | MDL             | Report Limit | Units | Dilution Factor         | Date Analyzed   |
|-----------------------------------|---------|------|-----------------|--------------|-------|-------------------------|-----------------|
| <b>MERCURY BY CVAA</b>            |         |      |                 |              |       |                         |                 |
|                                   |         |      | Method: SW7470A |              |       | Prep: SW7470 / 11/2/15  | Analyst: LR     |
| Mercury                           | U       |      | 0.000018        | 0.00020      | mg/L  | 1                       | 11/2/2015 18:10 |
| <b>METALS BY ICP-MS</b>           |         |      |                 |              |       |                         |                 |
|                                   |         |      | Method: SW6020A |              |       | Prep: SW3005A / 11/4/15 | Analyst: RH     |
| Antimony                          | 0.00012 | J    | 0.00010         | 0.0020       | mg/L  | 1                       | 11/5/2015 02:18 |
| Arsenic                           | U       |      | 0.00070         | 0.0050       | mg/L  | 1                       | 11/5/2015 02:18 |
| Barium                            | 0.023   | J    | 0.00020         | 0.10         | mg/L  | 1                       | 11/5/2015 02:18 |
| Beryllium                         | U       |      | 0.00020         | 0.0010       | mg/L  | 1                       | 11/5/2015 02:18 |
| Cadmium                           | U       |      | 0.00010         | 0.0010       | mg/L  | 1                       | 11/5/2015 02:18 |
| Chromium                          | 0.0023  | J    | 0.00010         | 0.010        | mg/L  | 1                       | 11/5/2015 02:18 |
| Cobalt                            | 0.0026  | J    | 0.00020         | 0.020        | mg/L  | 1                       | 11/5/2015 02:18 |
| Copper                            | 0.0026  | J    | 0.00020         | 0.0040       | mg/L  | 1                       | 11/5/2015 02:18 |
| Iron                              | 0.027   | J    | 0.010           | 0.20         | mg/L  | 1                       | 11/5/2015 02:18 |
| Lead                              | 0.00031 | J    | 0.00010         | 0.0030       | mg/L  | 1                       | 11/5/2015 02:18 |
| Manganese                         | 0.0023  | J    | 0.00020         | 0.050        | mg/L  | 1                       | 11/5/2015 02:18 |
| Molybdenum                        | 0.0033  | J    | 0.00020         | 0.050        | mg/L  | 1                       | 11/5/2015 02:18 |
| Nickel                            | 0.0028  | J    | 0.00040         | 0.020        | mg/L  | 1                       | 11/5/2015 02:18 |
| Selenium                          | U       |      | 0.0010          | 0.0050       | mg/L  | 1                       | 11/5/2015 02:18 |
| Silver                            | U       |      | 0.00010         | 0.00020      | mg/L  | 1                       | 11/5/2015 02:18 |
| Thallium                          | U       |      | 0.00040         | 0.0020       | mg/L  | 1                       | 11/5/2015 02:18 |
| Vanadium                          | 0.00053 | J    | 0.00040         | 0.0040       | mg/L  | 1                       | 11/5/2015 02:18 |
| Zinc                              | 0.0052  | J    | 0.0024          | 0.050        | mg/L  | 1                       | 11/5/2015 02:18 |
| <b>VOLATILE ORGANIC COMPOUNDS</b> |         |      |                 |              |       |                         |                 |
|                                   |         |      | Method: SW8260B |              |       |                         | Analyst: LSY    |
| 1,1,1-Trichloroethane             | U       |      | 0.19            | 1.0          | µg/L  | 1                       | 11/7/2015 10:11 |
| 1,1,2,2-Tetrachloroethane         | U       |      | 0.34            | 1.0          | µg/L  | 1                       | 11/7/2015 10:11 |
| 1,1,2-Trichloroethane             | U       |      | 0.25            | 1.0          | µg/L  | 1                       | 11/7/2015 10:11 |
| 1,1,2-Trichlorotrifluoroethane    | U       |      | 0.47            | 1.0          | µg/L  | 1                       | 11/7/2015 10:11 |
| 1,1-Dichloroethane                | U       |      | 0.21            | 1.0          | µg/L  | 1                       | 11/7/2015 10:11 |
| 1,1-Dichloroethene                | U       |      | 0.24            | 1.0          | µg/L  | 1                       | 11/7/2015 10:11 |
| 1,2,4-Trichlorobenzene            | U       |      | 0.19            | 5.0          | µg/L  | 1                       | 11/7/2015 10:11 |
| 1,2-Dibromo-3-chloropropane       | U       |      | 0.42            | 1.0          | µg/L  | 1                       | 11/7/2015 10:11 |
| 1,2-Dibromoethane                 | U       |      | 0.34            | 1.0          | µg/L  | 1                       | 11/7/2015 10:11 |
| 1,2-Dichlorobenzene               | U       |      | 0.22            | 1.0          | µg/L  | 1                       | 11/7/2015 10:11 |
| 1,2-Dichloroethane                | U       |      | 0.26            | 1.0          | µg/L  | 1                       | 11/7/2015 10:11 |
| 1,2-Dichloropropane               | U       |      | 0.26            | 1.0          | µg/L  | 1                       | 11/7/2015 10:11 |
| 1,3-Dichlorobenzene               | U       |      | 0.21            | 1.0          | µg/L  | 1                       | 11/7/2015 10:11 |
| 1,4-Dichlorobenzene               | U       |      | 0.20            | 1.0          | µg/L  | 1                       | 11/7/2015 10:11 |
| 2-Butanone                        | U       |      | 0.87            | 25           | µg/L  | 1                       | 11/7/2015 10:11 |
| 2-Hexanone                        | U       |      | 0.15            | 50           | µg/L  | 1                       | 11/7/2015 10:11 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 11-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102715-MR-032  
**Collection Date:** 10/27/2015 11:43 AM

**Work Order:** 15101851  
**Lab ID:** 15101851-11  
**Matrix:** WATER

| Analyses                    | Result      | Qual     | MDL         | Report Limit | Units       | Dilution Factor | Date Analyzed          |
|-----------------------------|-------------|----------|-------------|--------------|-------------|-----------------|------------------------|
| 4-Methyl-2-pentanone        | U           |          | 0.15        | 50           | µg/L        | 1               | 11/7/2015 10:11        |
| Acetone                     | U           |          | 3.1         | 50           | µg/L        | 1               | 11/7/2015 10:11        |
| Benzene                     | U           |          | 0.25        | 1.0          | µg/L        | 1               | 11/7/2015 10:11        |
| Bromodichloromethane        | U           |          | 0.16        | 1.0          | µg/L        | 1               | 11/7/2015 10:11        |
| Bromoform                   | U           |          | 0.099       | 1.0          | µg/L        | 1               | 11/7/2015 10:11        |
| Bromomethane                | U           |          | 1.0         | 5.0          | µg/L        | 1               | 11/7/2015 10:11        |
| Carbon disulfide            | U           |          | 0.26        | 5.0          | µg/L        | 1               | 11/7/2015 10:11        |
| Carbon tetrachloride        | U           |          | 0.14        | 1.0          | µg/L        | 1               | 11/7/2015 10:11        |
| Chlorobenzene               | U           |          | 0.19        | 1.0          | µg/L        | 1               | 11/7/2015 10:11        |
| Chloroethane                | U           |          | 0.21        | 5.0          | µg/L        | 1               | 11/7/2015 10:11        |
| Chloroform                  | U           |          | 0.25        | 1.0          | µg/L        | 1               | 11/7/2015 10:11        |
| Chloromethane               | U           |          | 0.25        | 5.0          | µg/L        | 1               | 11/7/2015 10:11        |
| cis-1,2-Dichloroethene      | U           |          | 0.25        | 1.0          | µg/L        | 1               | 11/7/2015 10:11        |
| cis-1,3-Dichloropropene     | U           |          | 0.24        | 1.0          | µg/L        | 1               | 11/7/2015 10:11        |
| Cyclohexane                 | U           |          | 0.31        | 1.0          | µg/L        | 1               | 11/7/2015 10:11        |
| Dibromochloromethane        | U           |          | 0.17        | 5.0          | µg/L        | 1               | 11/7/2015 10:11        |
| Dichlorodifluoromethane     | U           |          | 0.41        | 5.0          | µg/L        | 1               | 11/7/2015 10:11        |
| Ethylbenzene                | U           |          | 0.22        | 1.0          | µg/L        | 1               | 11/7/2015 10:11        |
| Isopropylbenzene            | U           |          | 0.25        | 5.0          | µg/L        | 1               | 11/7/2015 10:11        |
| Methyl acetate              | U           |          | 0.62        | 10           | µg/L        | 1               | 11/7/2015 10:11        |
| Methyl tert-butyl ether     | U           |          | 0.12        | 5.0          | µg/L        | 1               | 11/7/2015 10:11        |
| Methylcyclohexane           | U           |          | 0.32        | 1.0          | µg/L        | 1               | 11/7/2015 10:11        |
| Methylene chloride          | U           |          | 0.64        | 5.0          | µg/L        | 1               | 11/7/2015 10:11        |
| Styrene                     | U           |          | 0.18        | 1.0          | µg/L        | 1               | 11/7/2015 10:11        |
| Tetrachloroethene           | U           |          | 0.25        | 1.0          | µg/L        | 1               | 11/7/2015 10:11        |
| Toluene                     | U           |          | 0.20        | 1.0          | µg/L        | 1               | 11/7/2015 10:11        |
| trans-1,2-Dichloroethene    | U           |          | 0.29        | 1.0          | µg/L        | 1               | 11/7/2015 10:11        |
| trans-1,3-Dichloropropene   | U           |          | 0.19        | 1.0          | µg/L        | 1               | 11/7/2015 10:11        |
| <b>Trichloroethene</b>      | <b>0.51</b> | <b>J</b> | <b>0.34</b> | <b>1.0</b>   | <b>µg/L</b> | <b>1</b>        | <b>11/7/2015 10:11</b> |
| Trichlorofluoromethane      | U           |          | 0.39        | 1.0          | µg/L        | 1               | 11/7/2015 10:11        |
| Vinyl chloride              | U           |          | 0.19        | 1.0          | µg/L        | 1               | 11/7/2015 10:11        |
| Xylenes, Total              | U           |          | 0.62        | 3.0          | µg/L        | 1               | 11/7/2015 10:11        |
| Surr: 1,2-Dichloroethane-d4 | 98.5        |          |             | 75-120       | %REC        | 1               | 11/7/2015 10:11        |
| Surr: 4-Bromofluorobenzene  | 96.4        |          |             | 80-110       | %REC        | 1               | 11/7/2015 10:11        |
| Surr: Dibromofluoromethane  | 101         |          |             | 85-115       | %REC        | 1               | 11/7/2015 10:11        |
| Surr: Toluene-d8            | 97.0        |          |             | 85-110       | %REC        | 1               | 11/7/2015 10:11        |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 11-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102715-MR-033  
**Collection Date:** 10/27/2015 12:00 PM

**Work Order:** 15101851  
**Lab ID:** 15101851-12  
**Matrix:** WATER

| Analyses                          | Result  | Qual | MDL             | Report Limit | Units | Dilution Factor         | Date Analyzed   |
|-----------------------------------|---------|------|-----------------|--------------|-------|-------------------------|-----------------|
| <b>MERCURY BY CVAA</b>            |         |      |                 |              |       |                         |                 |
|                                   |         |      | Method: SW7470A |              |       | Prep: SW7470 / 11/2/15  | Analyst: LR     |
| Mercury                           | U       |      | 0.000018        | 0.00020      | mg/L  | 1                       | 11/2/2015 18:13 |
| <b>METALS BY ICP-MS</b>           |         |      |                 |              |       |                         |                 |
|                                   |         |      | Method: SW6020A |              |       | Prep: SW3005A / 11/4/15 | Analyst: RH     |
| Antimony                          | 0.00010 | J    | 0.00010         | 0.0020       | mg/L  | 1                       | 11/5/2015 02:24 |
| Arsenic                           | U       |      | 0.00070         | 0.0050       | mg/L  | 1                       | 11/5/2015 02:24 |
| Barium                            | 0.023   | J    | 0.00020         | 0.10         | mg/L  | 1                       | 11/5/2015 02:24 |
| Beryllium                         | U       |      | 0.00020         | 0.0010       | mg/L  | 1                       | 11/5/2015 02:24 |
| Cadmium                           | U       |      | 0.00010         | 0.0010       | mg/L  | 1                       | 11/5/2015 02:24 |
| Chromium                          | 0.0025  | J    | 0.00010         | 0.010        | mg/L  | 1                       | 11/5/2015 02:24 |
| Cobalt                            | 0.0027  | J    | 0.00020         | 0.020        | mg/L  | 1                       | 11/5/2015 02:24 |
| Copper                            | 0.0024  | J    | 0.00020         | 0.0040       | mg/L  | 1                       | 11/5/2015 02:24 |
| Iron                              | 0.024   | J    | 0.010           | 0.20         | mg/L  | 1                       | 11/5/2015 02:24 |
| Lead                              | U       |      | 0.00010         | 0.0030       | mg/L  | 1                       | 11/5/2015 02:24 |
| Manganese                         | 0.0021  | J    | 0.00020         | 0.050        | mg/L  | 1                       | 11/5/2015 02:24 |
| Molybdenum                        | 0.0032  | J    | 0.00020         | 0.050        | mg/L  | 1                       | 11/5/2015 02:24 |
| Nickel                            | 0.0029  | J    | 0.00040         | 0.020        | mg/L  | 1                       | 11/5/2015 02:24 |
| Selenium                          | U       |      | 0.0010          | 0.0050       | mg/L  | 1                       | 11/5/2015 02:24 |
| Silver                            | U       |      | 0.00010         | 0.00020      | mg/L  | 1                       | 11/5/2015 02:24 |
| Thallium                          | U       |      | 0.00040         | 0.0020       | mg/L  | 1                       | 11/5/2015 02:24 |
| Vanadium                          | 0.00059 | J    | 0.00040         | 0.0040       | mg/L  | 1                       | 11/5/2015 02:24 |
| Zinc                              | U       |      | 0.0024          | 0.050        | mg/L  | 1                       | 11/5/2015 02:24 |
| <b>VOLATILE ORGANIC COMPOUNDS</b> |         |      |                 |              |       |                         |                 |
|                                   |         |      | Method: SW8260B |              |       |                         | Analyst: LSY    |
| 1,1,1-Trichloroethane             | U       |      | 0.19            | 1.0          | µg/L  | 1                       | 11/7/2015 10:36 |
| 1,1,2,2-Tetrachloroethane         | U       |      | 0.34            | 1.0          | µg/L  | 1                       | 11/7/2015 10:36 |
| 1,1,2-Trichloroethane             | U       |      | 0.25            | 1.0          | µg/L  | 1                       | 11/7/2015 10:36 |
| 1,1,2-Trichlorotrifluoroethane    | U       |      | 0.47            | 1.0          | µg/L  | 1                       | 11/7/2015 10:36 |
| 1,1-Dichloroethane                | U       |      | 0.21            | 1.0          | µg/L  | 1                       | 11/7/2015 10:36 |
| 1,1-Dichloroethene                | U       |      | 0.24            | 1.0          | µg/L  | 1                       | 11/7/2015 10:36 |
| 1,2,4-Trichlorobenzene            | U       |      | 0.19            | 5.0          | µg/L  | 1                       | 11/7/2015 10:36 |
| 1,2-Dibromo-3-chloropropane       | U       |      | 0.42            | 1.0          | µg/L  | 1                       | 11/7/2015 10:36 |
| 1,2-Dibromoethane                 | U       |      | 0.34            | 1.0          | µg/L  | 1                       | 11/7/2015 10:36 |
| 1,2-Dichlorobenzene               | U       |      | 0.22            | 1.0          | µg/L  | 1                       | 11/7/2015 10:36 |
| 1,2-Dichloroethane                | U       |      | 0.26            | 1.0          | µg/L  | 1                       | 11/7/2015 10:36 |
| 1,2-Dichloropropane               | U       |      | 0.26            | 1.0          | µg/L  | 1                       | 11/7/2015 10:36 |
| 1,3-Dichlorobenzene               | U       |      | 0.21            | 1.0          | µg/L  | 1                       | 11/7/2015 10:36 |
| 1,4-Dichlorobenzene               | U       |      | 0.20            | 1.0          | µg/L  | 1                       | 11/7/2015 10:36 |
| 2-Butanone                        | U       |      | 0.87            | 25           | µg/L  | 1                       | 11/7/2015 10:36 |
| 2-Hexanone                        | U       |      | 0.15            | 50           | µg/L  | 1                       | 11/7/2015 10:36 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 11-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102715-MR-033  
**Collection Date:** 10/27/2015 12:00 PM

**Work Order:** 15101851  
**Lab ID:** 15101851-12  
**Matrix:** WATER

| Analyses                    | Result      | Qual     | MDL         | Report Limit | Units       | Dilution Factor | Date Analyzed   |
|-----------------------------|-------------|----------|-------------|--------------|-------------|-----------------|-----------------|
| 4-Methyl-2-pentanone        | U           |          | 0.15        | 50           | µg/L        | 1               | 11/7/2015 10:36 |
| Acetone                     | U           |          | 3.1         | 50           | µg/L        | 1               | 11/7/2015 10:36 |
| Benzene                     | U           |          | 0.25        | 1.0          | µg/L        | 1               | 11/7/2015 10:36 |
| Bromodichloromethane        | U           |          | 0.16        | 1.0          | µg/L        | 1               | 11/7/2015 10:36 |
| Bromoform                   | U           |          | 0.099       | 1.0          | µg/L        | 1               | 11/7/2015 10:36 |
| Bromomethane                | U           |          | 1.0         | 5.0          | µg/L        | 1               | 11/7/2015 10:36 |
| Carbon disulfide            | U           |          | 0.26        | 5.0          | µg/L        | 1               | 11/7/2015 10:36 |
| Carbon tetrachloride        | U           |          | 0.14        | 1.0          | µg/L        | 1               | 11/7/2015 10:36 |
| Chlorobenzene               | U           |          | 0.19        | 1.0          | µg/L        | 1               | 11/7/2015 10:36 |
| Chloroethane                | U           |          | 0.21        | 5.0          | µg/L        | 1               | 11/7/2015 10:36 |
| Chloroform                  | U           |          | 0.25        | 1.0          | µg/L        | 1               | 11/7/2015 10:36 |
| Chloromethane               | U           |          | 0.25        | 5.0          | µg/L        | 1               | 11/7/2015 10:36 |
| cis-1,2-Dichloroethene      | U           |          | 0.25        | 1.0          | µg/L        | 1               | 11/7/2015 10:36 |
| cis-1,3-Dichloropropene     | U           |          | 0.24        | 1.0          | µg/L        | 1               | 11/7/2015 10:36 |
| Cyclohexane                 | U           |          | 0.31        | 1.0          | µg/L        | 1               | 11/7/2015 10:36 |
| Dibromochloromethane        | U           |          | 0.17        | 5.0          | µg/L        | 1               | 11/7/2015 10:36 |
| Dichlorodifluoromethane     | U           |          | 0.41        | 5.0          | µg/L        | 1               | 11/7/2015 10:36 |
| Ethylbenzene                | U           |          | 0.22        | 1.0          | µg/L        | 1               | 11/7/2015 10:36 |
| Isopropylbenzene            | U           |          | 0.25        | 5.0          | µg/L        | 1               | 11/7/2015 10:36 |
| Methyl acetate              | U           |          | 0.62        | 10           | µg/L        | 1               | 11/7/2015 10:36 |
| Methyl tert-butyl ether     | U           |          | 0.12        | 5.0          | µg/L        | 1               | 11/7/2015 10:36 |
| Methylcyclohexane           | U           |          | 0.32        | 1.0          | µg/L        | 1               | 11/7/2015 10:36 |
| Methylene chloride          | U           |          | 0.64        | 5.0          | µg/L        | 1               | 11/7/2015 10:36 |
| Styrene                     | U           |          | 0.18        | 1.0          | µg/L        | 1               | 11/7/2015 10:36 |
| Tetrachloroethene           | U           |          | 0.25        | 1.0          | µg/L        | 1               | 11/7/2015 10:36 |
| Toluene                     | U           |          | 0.20        | 1.0          | µg/L        | 1               | 11/7/2015 10:36 |
| trans-1,2-Dichloroethene    | U           |          | 0.29        | 1.0          | µg/L        | 1               | 11/7/2015 10:36 |
| trans-1,3-Dichloropropene   | U           |          | 0.19        | 1.0          | µg/L        | 1               | 11/7/2015 10:36 |
| <b>Trichloroethene</b>      | <b>0.51</b> | <b>J</b> | <b>0.34</b> | <b>1.0</b>   | <b>µg/L</b> | 1               | 11/7/2015 10:36 |
| Trichlorofluoromethane      | U           |          | 0.39        | 1.0          | µg/L        | 1               | 11/7/2015 10:36 |
| Vinyl chloride              | U           |          | 0.19        | 1.0          | µg/L        | 1               | 11/7/2015 10:36 |
| Xylenes, Total              | U           |          | 0.62        | 3.0          | µg/L        | 1               | 11/7/2015 10:36 |
| Surr: 1,2-Dichloroethane-d4 | 98.3        |          |             | 75-120       | %REC        | 1               | 11/7/2015 10:36 |
| Surr: 4-Bromofluorobenzene  | 98.1        |          |             | 80-110       | %REC        | 1               | 11/7/2015 10:36 |
| Surr: Dibromofluoromethane  | 100         |          |             | 85-115       | %REC        | 1               | 11/7/2015 10:36 |
| Surr: Toluene-d8            | 99.6        |          |             | 85-110       | %REC        | 1               | 11/7/2015 10:36 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 11-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102715-MR-034  
**Collection Date:** 10/27/2015 12:58 PM

**Work Order:** 15101851  
**Lab ID:** 15101851-13  
**Matrix:** WATER

| Analyses                          | Result     | Qual | MDL             | Report Limit | Units       | Dilution Factor | Date Analyzed   |
|-----------------------------------|------------|------|-----------------|--------------|-------------|-----------------|-----------------|
| <b>VOLATILE ORGANIC COMPOUNDS</b> |            |      | Method: SW8260B |              |             | Analyst: LSY    |                 |
| 1,1,1-Trichloroethane             | U          |      | 0.19            | 1.0          | µg/L        | 1               | 11/7/2015 11:01 |
| 1,1,2,2-Tetrachloroethane         | U          |      | 0.34            | 1.0          | µg/L        | 1               | 11/7/2015 11:01 |
| 1,1,2-Trichloroethane             | U          |      | 0.25            | 1.0          | µg/L        | 1               | 11/7/2015 11:01 |
| 1,1,2-Trichlorotrifluoroethane    | U          |      | 0.47            | 1.0          | µg/L        | 1               | 11/7/2015 11:01 |
| 1,1-Dichloroethane                | U          |      | 0.21            | 1.0          | µg/L        | 1               | 11/7/2015 11:01 |
| 1,1-Dichloroethene                | U          |      | 0.24            | 1.0          | µg/L        | 1               | 11/7/2015 11:01 |
| 1,2,4-Trichlorobenzene            | U          |      | 0.19            | 5.0          | µg/L        | 1               | 11/7/2015 11:01 |
| 1,2-Dibromo-3-chloropropane       | U          |      | 0.42            | 1.0          | µg/L        | 1               | 11/7/2015 11:01 |
| 1,2-Dibromoethane                 | U          |      | 0.34            | 1.0          | µg/L        | 1               | 11/7/2015 11:01 |
| 1,2-Dichlorobenzene               | U          |      | 0.22            | 1.0          | µg/L        | 1               | 11/7/2015 11:01 |
| 1,2-Dichloroethane                | U          |      | 0.26            | 1.0          | µg/L        | 1               | 11/7/2015 11:01 |
| 1,2-Dichloropropane               | U          |      | 0.26            | 1.0          | µg/L        | 1               | 11/7/2015 11:01 |
| 1,3-Dichlorobenzene               | U          |      | 0.21            | 1.0          | µg/L        | 1               | 11/7/2015 11:01 |
| 1,4-Dichlorobenzene               | U          |      | 0.20            | 1.0          | µg/L        | 1               | 11/7/2015 11:01 |
| 2-Butanone                        | U          |      | 0.87            | 25           | µg/L        | 1               | 11/7/2015 11:01 |
| 2-Hexanone                        | U          |      | 0.15            | 50           | µg/L        | 1               | 11/7/2015 11:01 |
| 4-Methyl-2-pentanone              | U          |      | 0.15            | 50           | µg/L        | 1               | 11/7/2015 11:01 |
| Acetone                           | U          |      | 3.1             | 50           | µg/L        | 1               | 11/7/2015 11:01 |
| Benzene                           | U          |      | 0.25            | 1.0          | µg/L        | 1               | 11/7/2015 11:01 |
| Bromodichloromethane              | U          |      | 0.16            | 1.0          | µg/L        | 1               | 11/7/2015 11:01 |
| Bromoform                         | U          |      | 0.099           | 1.0          | µg/L        | 1               | 11/7/2015 11:01 |
| Bromomethane                      | U          |      | 1.0             | 5.0          | µg/L        | 1               | 11/7/2015 11:01 |
| Carbon disulfide                  | U          |      | 0.26            | 5.0          | µg/L        | 1               | 11/7/2015 11:01 |
| Carbon tetrachloride              | U          |      | 0.14            | 1.0          | µg/L        | 1               | 11/7/2015 11:01 |
| Chlorobenzene                     | U          |      | 0.19            | 1.0          | µg/L        | 1               | 11/7/2015 11:01 |
| Chloroethane                      | U          |      | 0.21            | 5.0          | µg/L        | 1               | 11/7/2015 11:01 |
| Chloroform                        | U          |      | 0.25            | 1.0          | µg/L        | 1               | 11/7/2015 11:01 |
| Chloromethane                     | U          |      | 0.25            | 5.0          | µg/L        | 1               | 11/7/2015 11:01 |
| <b>cis-1,2-Dichloroethene</b>     | <b>1.5</b> |      | <b>0.25</b>     | <b>1.0</b>   | <b>µg/L</b> | 1               | 11/7/2015 11:01 |
| cis-1,3-Dichloropropene           | U          |      | 0.24            | 1.0          | µg/L        | 1               | 11/7/2015 11:01 |
| Cyclohexane                       | U          |      | 0.31            | 1.0          | µg/L        | 1               | 11/7/2015 11:01 |
| Dibromochloromethane              | U          |      | 0.17            | 5.0          | µg/L        | 1               | 11/7/2015 11:01 |
| Dichlorodifluoromethane           | U          |      | 0.41            | 5.0          | µg/L        | 1               | 11/7/2015 11:01 |
| Ethylbenzene                      | U          |      | 0.22            | 1.0          | µg/L        | 1               | 11/7/2015 11:01 |
| Isopropylbenzene                  | U          |      | 0.25            | 5.0          | µg/L        | 1               | 11/7/2015 11:01 |
| Methyl acetate                    | U          |      | 0.62            | 10           | µg/L        | 1               | 11/7/2015 11:01 |
| Methyl tert-butyl ether           | U          |      | 0.12            | 5.0          | µg/L        | 1               | 11/7/2015 11:01 |
| Methylcyclohexane                 | U          |      | 0.32            | 1.0          | µg/L        | 1               | 11/7/2015 11:01 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 11-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102715-MR-034  
**Collection Date:** 10/27/2015 12:58 PM

**Work Order:** 15101851  
**Lab ID:** 15101851-13  
**Matrix:** WATER

| Analyses                    | Result     | Qual | MDL         | Report Limit | Units       | Dilution Factor | Date Analyzed   |
|-----------------------------|------------|------|-------------|--------------|-------------|-----------------|-----------------|
| Methylene chloride          | U          |      | 0.64        | 5.0          | µg/L        | 1               | 11/7/2015 11:01 |
| Styrene                     | U          |      | 0.18        | 1.0          | µg/L        | 1               | 11/7/2015 11:01 |
| Tetrachloroethene           | U          |      | 0.25        | 1.0          | µg/L        | 1               | 11/7/2015 11:01 |
| Toluene                     | U          |      | 0.20        | 1.0          | µg/L        | 1               | 11/7/2015 11:01 |
| trans-1,2-Dichloroethene    | U          |      | 0.29        | 1.0          | µg/L        | 1               | 11/7/2015 11:01 |
| trans-1,3-Dichloropropene   | U          |      | 0.19        | 1.0          | µg/L        | 1               | 11/7/2015 11:01 |
| <b>Trichloroethene</b>      | <b>6.0</b> |      | <b>0.34</b> | <b>1.0</b>   | <b>µg/L</b> | 1               | 11/7/2015 11:01 |
| Trichlorofluoromethane      | U          |      | 0.39        | 1.0          | µg/L        | 1               | 11/7/2015 11:01 |
| Vinyl chloride              | U          |      | 0.19        | 1.0          | µg/L        | 1               | 11/7/2015 11:01 |
| Xylenes, Total              | U          |      | 0.62        | 3.0          | µg/L        | 1               | 11/7/2015 11:01 |
| Surr: 1,2-Dichloroethane-d4 | 97.7       |      |             | 75-120       | %REC        | 1               | 11/7/2015 11:01 |
| Surr: 4-Bromofluorobenzene  | 97.4       |      |             | 80-110       | %REC        | 1               | 11/7/2015 11:01 |
| Surr: Dibromofluoromethane  | 101        |      |             | 85-115       | %REC        | 1               | 11/7/2015 11:01 |
| Surr: Toluene-d8            | 97.6       |      |             | 85-110       | %REC        | 1               | 11/7/2015 11:01 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 11-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102715-MR-035  
**Collection Date:** 10/27/2015 01:57 PM

**Work Order:** 15101851  
**Lab ID:** 15101851-14  
**Matrix:** WATER

| Analyses                          | Result | Qual | MDL             | Report Limit | Units | Dilution Factor | Date Analyzed   |
|-----------------------------------|--------|------|-----------------|--------------|-------|-----------------|-----------------|
| <b>VOLATILE ORGANIC COMPOUNDS</b> |        |      | Method: SW8260B |              |       | Analyst: LSY    |                 |
| 1,1,1-Trichloroethane             | U      |      | 0.19            | 1.0          | µg/L  | 1               | 11/7/2015 11:25 |
| 1,1,2,2-Tetrachloroethane         | U      |      | 0.34            | 1.0          | µg/L  | 1               | 11/7/2015 11:25 |
| 1,1,2-Trichloroethane             | U      |      | 0.25            | 1.0          | µg/L  | 1               | 11/7/2015 11:25 |
| 1,1,2-Trichlorotrifluoroethane    | U      |      | 0.47            | 1.0          | µg/L  | 1               | 11/7/2015 11:25 |
| 1,1-Dichloroethane                | U      |      | 0.21            | 1.0          | µg/L  | 1               | 11/7/2015 11:25 |
| 1,1-Dichloroethene                | U      |      | 0.24            | 1.0          | µg/L  | 1               | 11/7/2015 11:25 |
| 1,2,4-Trichlorobenzene            | U      |      | 0.19            | 5.0          | µg/L  | 1               | 11/7/2015 11:25 |
| 1,2-Dibromo-3-chloropropane       | U      |      | 0.42            | 1.0          | µg/L  | 1               | 11/7/2015 11:25 |
| 1,2-Dibromoethane                 | U      |      | 0.34            | 1.0          | µg/L  | 1               | 11/7/2015 11:25 |
| 1,2-Dichlorobenzene               | U      |      | 0.22            | 1.0          | µg/L  | 1               | 11/7/2015 11:25 |
| 1,2-Dichloroethane                | U      |      | 0.26            | 1.0          | µg/L  | 1               | 11/7/2015 11:25 |
| 1,2-Dichloropropane               | U      |      | 0.26            | 1.0          | µg/L  | 1               | 11/7/2015 11:25 |
| 1,3-Dichlorobenzene               | U      |      | 0.21            | 1.0          | µg/L  | 1               | 11/7/2015 11:25 |
| 1,4-Dichlorobenzene               | U      |      | 0.20            | 1.0          | µg/L  | 1               | 11/7/2015 11:25 |
| 2-Butanone                        | U      |      | 0.87            | 25           | µg/L  | 1               | 11/7/2015 11:25 |
| 2-Hexanone                        | U      |      | 0.15            | 50           | µg/L  | 1               | 11/7/2015 11:25 |
| 4-Methyl-2-pentanone              | U      |      | 0.15            | 50           | µg/L  | 1               | 11/7/2015 11:25 |
| Acetone                           | U      |      | 3.1             | 50           | µg/L  | 1               | 11/7/2015 11:25 |
| Benzene                           | U      |      | 0.25            | 1.0          | µg/L  | 1               | 11/7/2015 11:25 |
| Bromodichloromethane              | U      |      | 0.16            | 1.0          | µg/L  | 1               | 11/7/2015 11:25 |
| Bromoform                         | U      |      | 0.099           | 1.0          | µg/L  | 1               | 11/7/2015 11:25 |
| Bromomethane                      | U      |      | 1.0             | 5.0          | µg/L  | 1               | 11/7/2015 11:25 |
| Carbon disulfide                  | U      |      | 0.26            | 5.0          | µg/L  | 1               | 11/7/2015 11:25 |
| Carbon tetrachloride              | U      |      | 0.14            | 1.0          | µg/L  | 1               | 11/7/2015 11:25 |
| Chlorobenzene                     | U      |      | 0.19            | 1.0          | µg/L  | 1               | 11/7/2015 11:25 |
| Chloroethane                      | U      |      | 0.21            | 5.0          | µg/L  | 1               | 11/7/2015 11:25 |
| Chloroform                        | U      |      | 0.25            | 1.0          | µg/L  | 1               | 11/7/2015 11:25 |
| Chloromethane                     | U      |      | 0.25            | 5.0          | µg/L  | 1               | 11/7/2015 11:25 |
| cis-1,2-Dichloroethene            | U      |      | 0.25            | 1.0          | µg/L  | 1               | 11/7/2015 11:25 |
| cis-1,3-Dichloropropene           | U      |      | 0.24            | 1.0          | µg/L  | 1               | 11/7/2015 11:25 |
| Cyclohexane                       | U      |      | 0.31            | 1.0          | µg/L  | 1               | 11/7/2015 11:25 |
| Dibromochloromethane              | U      |      | 0.17            | 5.0          | µg/L  | 1               | 11/7/2015 11:25 |
| Dichlorodifluoromethane           | U      |      | 0.41            | 5.0          | µg/L  | 1               | 11/7/2015 11:25 |
| Ethylbenzene                      | U      |      | 0.22            | 1.0          | µg/L  | 1               | 11/7/2015 11:25 |
| Isopropylbenzene                  | U      |      | 0.25            | 5.0          | µg/L  | 1               | 11/7/2015 11:25 |
| Methyl acetate                    | U      |      | 0.62            | 10           | µg/L  | 1               | 11/7/2015 11:25 |
| Methyl tert-butyl ether           | U      |      | 0.12            | 5.0          | µg/L  | 1               | 11/7/2015 11:25 |
| Methylcyclohexane                 | U      |      | 0.32            | 1.0          | µg/L  | 1               | 11/7/2015 11:25 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.



# ALS Group USA, Corp

Date: 11-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102715-MR-035  
**Collection Date:** 10/27/2015 01:57 PM

**Work Order:** 15101851  
**Lab ID:** 15101851-14  
**Matrix:** WATER

| Analyses                    | Result | Qual | MDL  | Report Limit | Units | Dilution Factor | Date Analyzed   |
|-----------------------------|--------|------|------|--------------|-------|-----------------|-----------------|
| Methylene chloride          | U      |      | 0.64 | 5.0          | µg/L  | 1               | 11/7/2015 11:25 |
| Styrene                     | U      |      | 0.18 | 1.0          | µg/L  | 1               | 11/7/2015 11:25 |
| Tetrachloroethene           | U      |      | 0.25 | 1.0          | µg/L  | 1               | 11/7/2015 11:25 |
| Toluene                     | U      |      | 0.20 | 1.0          | µg/L  | 1               | 11/7/2015 11:25 |
| trans-1,2-Dichloroethene    | U      |      | 0.29 | 1.0          | µg/L  | 1               | 11/7/2015 11:25 |
| trans-1,3-Dichloropropene   | U      |      | 0.19 | 1.0          | µg/L  | 1               | 11/7/2015 11:25 |
| Trichloroethene             | U      |      | 0.34 | 1.0          | µg/L  | 1               | 11/7/2015 11:25 |
| Trichlorofluoromethane      | U      |      | 0.39 | 1.0          | µg/L  | 1               | 11/7/2015 11:25 |
| Vinyl chloride              | U      |      | 0.19 | 1.0          | µg/L  | 1               | 11/7/2015 11:25 |
| Xylenes, Total              | U      |      | 0.62 | 3.0          | µg/L  | 1               | 11/7/2015 11:25 |
| Surr: 1,2-Dichloroethane-d4 | 98.8   |      |      | 75-120       | %REC  | 1               | 11/7/2015 11:25 |
| Surr: 4-Bromofluorobenzene  | 98.0   |      |      | 80-110       | %REC  | 1               | 11/7/2015 11:25 |
| Surr: Dibromofluoromethane  | 101    |      |      | 85-115       | %REC  | 1               | 11/7/2015 11:25 |
| Surr: Toluene-d8            | 99.2   |      |      | 85-110       | %REC  | 1               | 11/7/2015 11:25 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 11-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102715-MR-036  
**Collection Date:** 10/27/2015 02:15 PM

**Work Order:** 15101851  
**Lab ID:** 15101851-15  
**Matrix:** WATER

| Analyses                          | Result | Qual | MDL             | Report Limit | Units | Dilution Factor | Date Analyzed   |
|-----------------------------------|--------|------|-----------------|--------------|-------|-----------------|-----------------|
| <b>VOLATILE ORGANIC COMPOUNDS</b> |        |      | Method: SW8260B |              |       | Analyst: LSY    |                 |
| 1,1,1-Trichloroethane             | U      |      | 0.19            | 1.0          | µg/L  | 1               | 11/7/2015 11:50 |
| 1,1,2,2-Tetrachloroethane         | U      |      | 0.34            | 1.0          | µg/L  | 1               | 11/7/2015 11:50 |
| 1,1,2-Trichloroethane             | U      |      | 0.25            | 1.0          | µg/L  | 1               | 11/7/2015 11:50 |
| 1,1,2-Trichlorotrifluoroethane    | U      |      | 0.47            | 1.0          | µg/L  | 1               | 11/7/2015 11:50 |
| 1,1-Dichloroethane                | U      |      | 0.21            | 1.0          | µg/L  | 1               | 11/7/2015 11:50 |
| 1,1-Dichloroethene                | U      |      | 0.24            | 1.0          | µg/L  | 1               | 11/7/2015 11:50 |
| 1,2,4-Trichlorobenzene            | U      |      | 0.19            | 5.0          | µg/L  | 1               | 11/7/2015 11:50 |
| 1,2-Dibromo-3-chloropropane       | U      |      | 0.42            | 1.0          | µg/L  | 1               | 11/7/2015 11:50 |
| 1,2-Dibromoethane                 | U      |      | 0.34            | 1.0          | µg/L  | 1               | 11/7/2015 11:50 |
| 1,2-Dichlorobenzene               | U      |      | 0.22            | 1.0          | µg/L  | 1               | 11/7/2015 11:50 |
| 1,2-Dichloroethane                | U      |      | 0.26            | 1.0          | µg/L  | 1               | 11/7/2015 11:50 |
| 1,2-Dichloropropane               | U      |      | 0.26            | 1.0          | µg/L  | 1               | 11/7/2015 11:50 |
| 1,3-Dichlorobenzene               | U      |      | 0.21            | 1.0          | µg/L  | 1               | 11/7/2015 11:50 |
| 1,4-Dichlorobenzene               | U      |      | 0.20            | 1.0          | µg/L  | 1               | 11/7/2015 11:50 |
| 2-Butanone                        | U      |      | 0.87            | 25           | µg/L  | 1               | 11/7/2015 11:50 |
| 2-Hexanone                        | U      |      | 0.15            | 50           | µg/L  | 1               | 11/7/2015 11:50 |
| 4-Methyl-2-pentanone              | U      |      | 0.15            | 50           | µg/L  | 1               | 11/7/2015 11:50 |
| Acetone                           | U      |      | 3.1             | 50           | µg/L  | 1               | 11/7/2015 11:50 |
| Benzene                           | U      |      | 0.25            | 1.0          | µg/L  | 1               | 11/7/2015 11:50 |
| Bromodichloromethane              | U      |      | 0.16            | 1.0          | µg/L  | 1               | 11/7/2015 11:50 |
| Bromoform                         | U      |      | 0.099           | 1.0          | µg/L  | 1               | 11/7/2015 11:50 |
| Bromomethane                      | U      |      | 1.0             | 5.0          | µg/L  | 1               | 11/7/2015 11:50 |
| Carbon disulfide                  | U      |      | 0.26            | 5.0          | µg/L  | 1               | 11/7/2015 11:50 |
| Carbon tetrachloride              | U      |      | 0.14            | 1.0          | µg/L  | 1               | 11/7/2015 11:50 |
| Chlorobenzene                     | U      |      | 0.19            | 1.0          | µg/L  | 1               | 11/7/2015 11:50 |
| Chloroethane                      | U      |      | 0.21            | 5.0          | µg/L  | 1               | 11/7/2015 11:50 |
| Chloroform                        | U      |      | 0.25            | 1.0          | µg/L  | 1               | 11/7/2015 11:50 |
| Chloromethane                     | U      |      | 0.25            | 5.0          | µg/L  | 1               | 11/7/2015 11:50 |
| cis-1,2-Dichloroethene            | U      |      | 0.25            | 1.0          | µg/L  | 1               | 11/7/2015 11:50 |
| cis-1,3-Dichloropropene           | U      |      | 0.24            | 1.0          | µg/L  | 1               | 11/7/2015 11:50 |
| Cyclohexane                       | U      |      | 0.31            | 1.0          | µg/L  | 1               | 11/7/2015 11:50 |
| Dibromochloromethane              | U      |      | 0.17            | 5.0          | µg/L  | 1               | 11/7/2015 11:50 |
| Dichlorodifluoromethane           | U      |      | 0.41            | 5.0          | µg/L  | 1               | 11/7/2015 11:50 |
| Ethylbenzene                      | U      |      | 0.22            | 1.0          | µg/L  | 1               | 11/7/2015 11:50 |
| Isopropylbenzene                  | U      |      | 0.25            | 5.0          | µg/L  | 1               | 11/7/2015 11:50 |
| Methyl acetate                    | U      |      | 0.62            | 10           | µg/L  | 1               | 11/7/2015 11:50 |
| Methyl tert-butyl ether           | U      |      | 0.12            | 5.0          | µg/L  | 1               | 11/7/2015 11:50 |
| Methylcyclohexane                 | U      |      | 0.32            | 1.0          | µg/L  | 1               | 11/7/2015 11:50 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 11-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102715-MR-036  
**Collection Date:** 10/27/2015 02:15 PM

**Work Order:** 15101851  
**Lab ID:** 15101851-15  
**Matrix:** WATER

| Analyses                    | Result | Qual | MDL  | Report Limit | Units | Dilution Factor | Date Analyzed   |
|-----------------------------|--------|------|------|--------------|-------|-----------------|-----------------|
| Methylene chloride          | U      |      | 0.64 | 5.0          | µg/L  | 1               | 11/7/2015 11:50 |
| Styrene                     | U      |      | 0.18 | 1.0          | µg/L  | 1               | 11/7/2015 11:50 |
| Tetrachloroethene           | U      |      | 0.25 | 1.0          | µg/L  | 1               | 11/7/2015 11:50 |
| Toluene                     | U      |      | 0.20 | 1.0          | µg/L  | 1               | 11/7/2015 11:50 |
| trans-1,2-Dichloroethene    | U      |      | 0.29 | 1.0          | µg/L  | 1               | 11/7/2015 11:50 |
| trans-1,3-Dichloropropene   | U      |      | 0.19 | 1.0          | µg/L  | 1               | 11/7/2015 11:50 |
| Trichloroethene             | U      |      | 0.34 | 1.0          | µg/L  | 1               | 11/7/2015 11:50 |
| Trichlorofluoromethane      | U      |      | 0.39 | 1.0          | µg/L  | 1               | 11/7/2015 11:50 |
| Vinyl chloride              | U      |      | 0.19 | 1.0          | µg/L  | 1               | 11/7/2015 11:50 |
| Xylenes, Total              | U      |      | 0.62 | 3.0          | µg/L  | 1               | 11/7/2015 11:50 |
| Surr: 1,2-Dichloroethane-d4 | 98.6   |      |      | 75-120       | %REC  | 1               | 11/7/2015 11:50 |
| Surr: 4-Bromofluorobenzene  | 98.4   |      |      | 80-110       | %REC  | 1               | 11/7/2015 11:50 |
| Surr: Dibromofluoromethane  | 101    |      |      | 85-115       | %REC  | 1               | 11/7/2015 11:50 |
| Surr: Toluene-d8            | 99.0   |      |      | 85-110       | %REC  | 1               | 11/7/2015 11:50 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 11-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102715-MR-037  
**Collection Date:** 10/27/2015 03:08 PM

**Work Order:** 15101851  
**Lab ID:** 15101851-16  
**Matrix:** WATER

| Analyses                          | Result | Qual | MDL             | Report Limit | Units | Dilution Factor | Date Analyzed   |
|-----------------------------------|--------|------|-----------------|--------------|-------|-----------------|-----------------|
| <b>VOLATILE ORGANIC COMPOUNDS</b> |        |      | Method: SW8260B |              |       | Analyst: LSY    |                 |
| 1,1,1-Trichloroethane             | U      |      | 0.19            | 1.0          | µg/L  | 1               | 11/7/2015 12:15 |
| 1,1,2,2-Tetrachloroethane         | U      |      | 0.34            | 1.0          | µg/L  | 1               | 11/7/2015 12:15 |
| 1,1,2-Trichloroethane             | U      |      | 0.25            | 1.0          | µg/L  | 1               | 11/7/2015 12:15 |
| 1,1,2-Trichlorotrifluoroethane    | U      |      | 0.47            | 1.0          | µg/L  | 1               | 11/7/2015 12:15 |
| 1,1-Dichloroethane                | U      |      | 0.21            | 1.0          | µg/L  | 1               | 11/7/2015 12:15 |
| 1,1-Dichloroethene                | U      |      | 0.24            | 1.0          | µg/L  | 1               | 11/7/2015 12:15 |
| 1,2,4-Trichlorobenzene            | U      |      | 0.19            | 5.0          | µg/L  | 1               | 11/7/2015 12:15 |
| 1,2-Dibromo-3-chloropropane       | U      |      | 0.42            | 1.0          | µg/L  | 1               | 11/7/2015 12:15 |
| 1,2-Dibromoethane                 | U      |      | 0.34            | 1.0          | µg/L  | 1               | 11/7/2015 12:15 |
| 1,2-Dichlorobenzene               | U      |      | 0.22            | 1.0          | µg/L  | 1               | 11/7/2015 12:15 |
| 1,2-Dichloroethane                | U      |      | 0.26            | 1.0          | µg/L  | 1               | 11/7/2015 12:15 |
| 1,2-Dichloropropane               | U      |      | 0.26            | 1.0          | µg/L  | 1               | 11/7/2015 12:15 |
| 1,3-Dichlorobenzene               | U      |      | 0.21            | 1.0          | µg/L  | 1               | 11/7/2015 12:15 |
| 1,4-Dichlorobenzene               | U      |      | 0.20            | 1.0          | µg/L  | 1               | 11/7/2015 12:15 |
| 2-Butanone                        | U      |      | 0.87            | 25           | µg/L  | 1               | 11/7/2015 12:15 |
| 2-Hexanone                        | U      |      | 0.15            | 50           | µg/L  | 1               | 11/7/2015 12:15 |
| 4-Methyl-2-pentanone              | U      |      | 0.15            | 50           | µg/L  | 1               | 11/7/2015 12:15 |
| Acetone                           | U      |      | 3.1             | 50           | µg/L  | 1               | 11/7/2015 12:15 |
| Benzene                           | U      |      | 0.25            | 1.0          | µg/L  | 1               | 11/7/2015 12:15 |
| Bromodichloromethane              | U      |      | 0.16            | 1.0          | µg/L  | 1               | 11/7/2015 12:15 |
| Bromoform                         | U      |      | 0.099           | 1.0          | µg/L  | 1               | 11/7/2015 12:15 |
| Bromomethane                      | U      |      | 1.0             | 5.0          | µg/L  | 1               | 11/7/2015 12:15 |
| Carbon disulfide                  | U      |      | 0.26            | 5.0          | µg/L  | 1               | 11/7/2015 12:15 |
| Carbon tetrachloride              | U      |      | 0.14            | 1.0          | µg/L  | 1               | 11/7/2015 12:15 |
| Chlorobenzene                     | U      |      | 0.19            | 1.0          | µg/L  | 1               | 11/7/2015 12:15 |
| Chloroethane                      | U      |      | 0.21            | 5.0          | µg/L  | 1               | 11/7/2015 12:15 |
| Chloroform                        | U      |      | 0.25            | 1.0          | µg/L  | 1               | 11/7/2015 12:15 |
| Chloromethane                     | U      |      | 0.25            | 5.0          | µg/L  | 1               | 11/7/2015 12:15 |
| cis-1,2-Dichloroethene            | U      |      | 0.25            | 1.0          | µg/L  | 1               | 11/7/2015 12:15 |
| cis-1,3-Dichloropropene           | U      |      | 0.24            | 1.0          | µg/L  | 1               | 11/7/2015 12:15 |
| Cyclohexane                       | U      |      | 0.31            | 1.0          | µg/L  | 1               | 11/7/2015 12:15 |
| Dibromochloromethane              | U      |      | 0.17            | 5.0          | µg/L  | 1               | 11/7/2015 12:15 |
| Dichlorodifluoromethane           | U      |      | 0.41            | 5.0          | µg/L  | 1               | 11/7/2015 12:15 |
| Ethylbenzene                      | U      |      | 0.22            | 1.0          | µg/L  | 1               | 11/7/2015 12:15 |
| Isopropylbenzene                  | U      |      | 0.25            | 5.0          | µg/L  | 1               | 11/7/2015 12:15 |
| Methyl acetate                    | U      |      | 0.62            | 10           | µg/L  | 1               | 11/7/2015 12:15 |
| Methyl tert-butyl ether           | U      |      | 0.12            | 5.0          | µg/L  | 1               | 11/7/2015 12:15 |
| Methylcyclohexane                 | U      |      | 0.32            | 1.0          | µg/L  | 1               | 11/7/2015 12:15 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 11-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102715-MR-037  
**Collection Date:** 10/27/2015 03:08 PM

**Work Order:** 15101851  
**Lab ID:** 15101851-16  
**Matrix:** WATER

| Analyses                    | Result     | Qual | MDL         | Report Limit | Units       | Dilution Factor | Date Analyzed   |
|-----------------------------|------------|------|-------------|--------------|-------------|-----------------|-----------------|
| Methylene chloride          | U          |      | 0.64        | 5.0          | µg/L        | 1               | 11/7/2015 12:15 |
| Styrene                     | U          |      | 0.18        | 1.0          | µg/L        | 1               | 11/7/2015 12:15 |
| Tetrachloroethene           | U          |      | 0.25        | 1.0          | µg/L        | 1               | 11/7/2015 12:15 |
| Toluene                     | U          |      | 0.20        | 1.0          | µg/L        | 1               | 11/7/2015 12:15 |
| trans-1,2-Dichloroethene    | U          |      | 0.29        | 1.0          | µg/L        | 1               | 11/7/2015 12:15 |
| trans-1,3-Dichloropropene   | U          |      | 0.19        | 1.0          | µg/L        | 1               | 11/7/2015 12:15 |
| <b>Trichloroethene</b>      | <b>5.1</b> |      | <b>0.34</b> | <b>1.0</b>   | <b>µg/L</b> | 1               | 11/7/2015 12:15 |
| Trichlorofluoromethane      | U          |      | 0.39        | 1.0          | µg/L        | 1               | 11/7/2015 12:15 |
| Vinyl chloride              | U          |      | 0.19        | 1.0          | µg/L        | 1               | 11/7/2015 12:15 |
| Xylenes, Total              | U          |      | 0.62        | 3.0          | µg/L        | 1               | 11/7/2015 12:15 |
| Surr: 1,2-Dichloroethane-d4 | 99.0       |      |             | 75-120       | %REC        | 1               | 11/7/2015 12:15 |
| Surr: 4-Bromofluorobenzene  | 99.0       |      |             | 80-110       | %REC        | 1               | 11/7/2015 12:15 |
| Surr: Dibromofluoromethane  | 98.4       |      |             | 85-115       | %REC        | 1               | 11/7/2015 12:15 |
| Surr: Toluene-d8            | 97.6       |      |             | 85-110       | %REC        | 1               | 11/7/2015 12:15 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 11-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102715-MR-038  
**Collection Date:** 10/27/2015 04:05 PM

**Work Order:** 15101851  
**Lab ID:** 15101851-17  
**Matrix:** WATER

| Analyses                          | Result      | Qual     | MDL             | Report Limit | Units       | Dilution Factor | Date Analyzed   |
|-----------------------------------|-------------|----------|-----------------|--------------|-------------|-----------------|-----------------|
| <b>VOLATILE ORGANIC COMPOUNDS</b> |             |          | Method: SW8260B |              |             | Analyst: LSY    |                 |
| 1,1,1-Trichloroethane             | U           |          | 0.19            | 1.0          | µg/L        | 1               | 11/7/2015 12:40 |
| 1,1,2,2-Tetrachloroethane         | U           |          | 0.34            | 1.0          | µg/L        | 1               | 11/7/2015 12:40 |
| 1,1,2-Trichloroethane             | U           |          | 0.25            | 1.0          | µg/L        | 1               | 11/7/2015 12:40 |
| 1,1,2-Trichlorotrifluoroethane    | U           |          | 0.47            | 1.0          | µg/L        | 1               | 11/7/2015 12:40 |
| 1,1-Dichloroethane                | U           |          | 0.21            | 1.0          | µg/L        | 1               | 11/7/2015 12:40 |
| 1,1-Dichloroethene                | U           |          | 0.24            | 1.0          | µg/L        | 1               | 11/7/2015 12:40 |
| 1,2,4-Trichlorobenzene            | U           |          | 0.19            | 5.0          | µg/L        | 1               | 11/7/2015 12:40 |
| 1,2-Dibromo-3-chloropropane       | U           |          | 0.42            | 1.0          | µg/L        | 1               | 11/7/2015 12:40 |
| 1,2-Dibromoethane                 | U           |          | 0.34            | 1.0          | µg/L        | 1               | 11/7/2015 12:40 |
| 1,2-Dichlorobenzene               | U           |          | 0.22            | 1.0          | µg/L        | 1               | 11/7/2015 12:40 |
| 1,2-Dichloroethane                | U           |          | 0.26            | 1.0          | µg/L        | 1               | 11/7/2015 12:40 |
| 1,2-Dichloropropane               | U           |          | 0.26            | 1.0          | µg/L        | 1               | 11/7/2015 12:40 |
| 1,3-Dichlorobenzene               | U           |          | 0.21            | 1.0          | µg/L        | 1               | 11/7/2015 12:40 |
| 1,4-Dichlorobenzene               | U           |          | 0.20            | 1.0          | µg/L        | 1               | 11/7/2015 12:40 |
| 2-Butanone                        | U           |          | 0.87            | 25           | µg/L        | 1               | 11/7/2015 12:40 |
| 2-Hexanone                        | U           |          | 0.15            | 50           | µg/L        | 1               | 11/7/2015 12:40 |
| 4-Methyl-2-pentanone              | U           |          | 0.15            | 50           | µg/L        | 1               | 11/7/2015 12:40 |
| Acetone                           | U           |          | 3.1             | 50           | µg/L        | 1               | 11/7/2015 12:40 |
| Benzene                           | U           |          | 0.25            | 1.0          | µg/L        | 1               | 11/7/2015 12:40 |
| Bromodichloromethane              | U           |          | 0.16            | 1.0          | µg/L        | 1               | 11/7/2015 12:40 |
| Bromoform                         | U           |          | 0.099           | 1.0          | µg/L        | 1               | 11/7/2015 12:40 |
| Bromomethane                      | U           |          | 1.0             | 5.0          | µg/L        | 1               | 11/7/2015 12:40 |
| Carbon disulfide                  | U           |          | 0.26            | 5.0          | µg/L        | 1               | 11/7/2015 12:40 |
| Carbon tetrachloride              | U           |          | 0.14            | 1.0          | µg/L        | 1               | 11/7/2015 12:40 |
| Chlorobenzene                     | U           |          | 0.19            | 1.0          | µg/L        | 1               | 11/7/2015 12:40 |
| Chloroethane                      | U           |          | 0.21            | 5.0          | µg/L        | 1               | 11/7/2015 12:40 |
| <b>Chloroform</b>                 | <b>0.28</b> | <b>J</b> | <b>0.25</b>     | <b>1.0</b>   | <b>µg/L</b> | 1               | 11/7/2015 12:40 |
| Chloromethane                     | U           |          | 0.25            | 5.0          | µg/L        | 1               | 11/7/2015 12:40 |
| cis-1,2-Dichloroethene            | U           |          | 0.25            | 1.0          | µg/L        | 1               | 11/7/2015 12:40 |
| cis-1,3-Dichloropropene           | U           |          | 0.24            | 1.0          | µg/L        | 1               | 11/7/2015 12:40 |
| Cyclohexane                       | U           |          | 0.31            | 1.0          | µg/L        | 1               | 11/7/2015 12:40 |
| Dibromochloromethane              | U           |          | 0.17            | 5.0          | µg/L        | 1               | 11/7/2015 12:40 |
| Dichlorodifluoromethane           | U           |          | 0.41            | 5.0          | µg/L        | 1               | 11/7/2015 12:40 |
| Ethylbenzene                      | U           |          | 0.22            | 1.0          | µg/L        | 1               | 11/7/2015 12:40 |
| Isopropylbenzene                  | U           |          | 0.25            | 5.0          | µg/L        | 1               | 11/7/2015 12:40 |
| Methyl acetate                    | U           |          | 0.62            | 10           | µg/L        | 1               | 11/7/2015 12:40 |
| Methyl tert-butyl ether           | U           |          | 0.12            | 5.0          | µg/L        | 1               | 11/7/2015 12:40 |
| Methylcyclohexane                 | U           |          | 0.32            | 1.0          | µg/L        | 1               | 11/7/2015 12:40 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 11-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102715-MR-038  
**Collection Date:** 10/27/2015 04:05 PM

**Work Order:** 15101851  
**Lab ID:** 15101851-17  
**Matrix:** WATER

| Analyses                    | Result    | Qual | MDL         | Report Limit | Units       | Dilution Factor | Date Analyzed   |
|-----------------------------|-----------|------|-------------|--------------|-------------|-----------------|-----------------|
| Methylene chloride          | U         |      | 0.64        | 5.0          | µg/L        | 1               | 11/7/2015 12:40 |
| Styrene                     | U         |      | 0.18        | 1.0          | µg/L        | 1               | 11/7/2015 12:40 |
| Tetrachloroethene           | U         |      | 0.25        | 1.0          | µg/L        | 1               | 11/7/2015 12:40 |
| Toluene                     | U         |      | 0.20        | 1.0          | µg/L        | 1               | 11/7/2015 12:40 |
| trans-1,2-Dichloroethene    | U         |      | 0.29        | 1.0          | µg/L        | 1               | 11/7/2015 12:40 |
| trans-1,3-Dichloropropene   | U         |      | 0.19        | 1.0          | µg/L        | 1               | 11/7/2015 12:40 |
| <b>Trichloroethene</b>      | <b>31</b> |      | <b>0.34</b> | <b>1.0</b>   | <b>µg/L</b> | 1               | 11/7/2015 12:40 |
| Trichlorofluoromethane      | U         |      | 0.39        | 1.0          | µg/L        | 1               | 11/7/2015 12:40 |
| Vinyl chloride              | U         |      | 0.19        | 1.0          | µg/L        | 1               | 11/7/2015 12:40 |
| Xylenes, Total              | U         |      | 0.62        | 3.0          | µg/L        | 1               | 11/7/2015 12:40 |
| Surr: 1,2-Dichloroethane-d4 | 99.2      |      |             | 75-120       | %REC        | 1               | 11/7/2015 12:40 |
| Surr: 4-Bromofluorobenzene  | 97.8      |      |             | 80-110       | %REC        | 1               | 11/7/2015 12:40 |
| Surr: Dibromofluoromethane  | 101       |      |             | 85-115       | %REC        | 1               | 11/7/2015 12:40 |
| Surr: Toluene-d8            | 99.6      |      |             | 85-110       | %REC        | 1               | 11/7/2015 12:40 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 11-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102815-MR-039  
**Collection Date:** 10/28/2015 10:57 AM

**Work Order:** 15101851  
**Lab ID:** 15101851-18  
**Matrix:** WATER

| Analyses                          | Result | Qual | MDL             | Report Limit | Units | Dilution Factor | Date Analyzed   |
|-----------------------------------|--------|------|-----------------|--------------|-------|-----------------|-----------------|
| <b>VOLATILE ORGANIC COMPOUNDS</b> |        |      | Method: SW8260B |              |       | Analyst: LSY    |                 |
| 1,1,1-Trichloroethane             | U      |      | 0.19            | 1.0          | µg/L  | 1               | 11/7/2015 13:05 |
| 1,1,2,2-Tetrachloroethane         | U      |      | 0.34            | 1.0          | µg/L  | 1               | 11/7/2015 13:05 |
| 1,1,2-Trichloroethane             | U      |      | 0.25            | 1.0          | µg/L  | 1               | 11/7/2015 13:05 |
| 1,1,2-Trichlorotrifluoroethane    | U      |      | 0.47            | 1.0          | µg/L  | 1               | 11/7/2015 13:05 |
| 1,1-Dichloroethane                | U      |      | 0.21            | 1.0          | µg/L  | 1               | 11/7/2015 13:05 |
| 1,1-Dichloroethene                | U      |      | 0.24            | 1.0          | µg/L  | 1               | 11/7/2015 13:05 |
| 1,2,4-Trichlorobenzene            | U      |      | 0.19            | 5.0          | µg/L  | 1               | 11/7/2015 13:05 |
| 1,2-Dibromo-3-chloropropane       | U      |      | 0.42            | 1.0          | µg/L  | 1               | 11/7/2015 13:05 |
| 1,2-Dibromoethane                 | U      |      | 0.34            | 1.0          | µg/L  | 1               | 11/7/2015 13:05 |
| 1,2-Dichlorobenzene               | U      |      | 0.22            | 1.0          | µg/L  | 1               | 11/7/2015 13:05 |
| 1,2-Dichloroethane                | U      |      | 0.26            | 1.0          | µg/L  | 1               | 11/7/2015 13:05 |
| 1,2-Dichloropropane               | U      |      | 0.26            | 1.0          | µg/L  | 1               | 11/7/2015 13:05 |
| 1,3-Dichlorobenzene               | U      |      | 0.21            | 1.0          | µg/L  | 1               | 11/7/2015 13:05 |
| 1,4-Dichlorobenzene               | U      |      | 0.20            | 1.0          | µg/L  | 1               | 11/7/2015 13:05 |
| 2-Butanone                        | U      |      | 0.87            | 25           | µg/L  | 1               | 11/7/2015 13:05 |
| 2-Hexanone                        | U      |      | 0.15            | 50           | µg/L  | 1               | 11/7/2015 13:05 |
| 4-Methyl-2-pentanone              | U      |      | 0.15            | 50           | µg/L  | 1               | 11/7/2015 13:05 |
| Acetone                           | U      |      | 3.1             | 50           | µg/L  | 1               | 11/7/2015 13:05 |
| Benzene                           | U      |      | 0.25            | 1.0          | µg/L  | 1               | 11/7/2015 13:05 |
| Bromodichloromethane              | U      |      | 0.16            | 1.0          | µg/L  | 1               | 11/7/2015 13:05 |
| Bromoform                         | U      |      | 0.099           | 1.0          | µg/L  | 1               | 11/7/2015 13:05 |
| Bromomethane                      | U      |      | 1.0             | 5.0          | µg/L  | 1               | 11/7/2015 13:05 |
| Carbon disulfide                  | U      |      | 0.26            | 5.0          | µg/L  | 1               | 11/7/2015 13:05 |
| Carbon tetrachloride              | U      |      | 0.14            | 1.0          | µg/L  | 1               | 11/7/2015 13:05 |
| Chlorobenzene                     | U      |      | 0.19            | 1.0          | µg/L  | 1               | 11/7/2015 13:05 |
| Chloroethane                      | U      |      | 0.21            | 5.0          | µg/L  | 1               | 11/7/2015 13:05 |
| Chloroform                        | U      |      | 0.25            | 1.0          | µg/L  | 1               | 11/7/2015 13:05 |
| Chloromethane                     | U      |      | 0.25            | 5.0          | µg/L  | 1               | 11/7/2015 13:05 |
| cis-1,2-Dichloroethene            | U      |      | 0.25            | 1.0          | µg/L  | 1               | 11/7/2015 13:05 |
| cis-1,3-Dichloropropene           | U      |      | 0.24            | 1.0          | µg/L  | 1               | 11/7/2015 13:05 |
| Cyclohexane                       | U      |      | 0.31            | 1.0          | µg/L  | 1               | 11/7/2015 13:05 |
| Dibromochloromethane              | U      |      | 0.17            | 5.0          | µg/L  | 1               | 11/7/2015 13:05 |
| Dichlorodifluoromethane           | U      |      | 0.41            | 5.0          | µg/L  | 1               | 11/7/2015 13:05 |
| Ethylbenzene                      | U      |      | 0.22            | 1.0          | µg/L  | 1               | 11/7/2015 13:05 |
| Isopropylbenzene                  | U      |      | 0.25            | 5.0          | µg/L  | 1               | 11/7/2015 13:05 |
| Methyl acetate                    | U      |      | 0.62            | 10           | µg/L  | 1               | 11/7/2015 13:05 |
| Methyl tert-butyl ether           | U      |      | 0.12            | 5.0          | µg/L  | 1               | 11/7/2015 13:05 |
| Methylcyclohexane                 | U      |      | 0.32            | 1.0          | µg/L  | 1               | 11/7/2015 13:05 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.



# ALS Group USA, Corp

Date: 11-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102815-MR-039  
**Collection Date:** 10/28/2015 10:57 AM

**Work Order:** 15101851  
**Lab ID:** 15101851-18  
**Matrix:** WATER

| Analyses                    | Result     | Qual | MDL         | Report Limit | Units       | Dilution Factor | Date Analyzed   |
|-----------------------------|------------|------|-------------|--------------|-------------|-----------------|-----------------|
| Methylene chloride          | U          |      | 0.64        | 5.0          | µg/L        | 1               | 11/7/2015 13:05 |
| Styrene                     | U          |      | 0.18        | 1.0          | µg/L        | 1               | 11/7/2015 13:05 |
| <b>Tetrachloroethene</b>    | <b>2.1</b> |      | <b>0.25</b> | <b>1.0</b>   | <b>µg/L</b> | 1               | 11/7/2015 13:05 |
| Toluene                     | U          |      | 0.20        | 1.0          | µg/L        | 1               | 11/7/2015 13:05 |
| trans-1,2-Dichloroethene    | U          |      | 0.29        | 1.0          | µg/L        | 1               | 11/7/2015 13:05 |
| trans-1,3-Dichloropropene   | U          |      | 0.19        | 1.0          | µg/L        | 1               | 11/7/2015 13:05 |
| Trichloroethene             | U          |      | 0.34        | 1.0          | µg/L        | 1               | 11/7/2015 13:05 |
| Trichlorofluoromethane      | U          |      | 0.39        | 1.0          | µg/L        | 1               | 11/7/2015 13:05 |
| Vinyl chloride              | U          |      | 0.19        | 1.0          | µg/L        | 1               | 11/7/2015 13:05 |
| Xylenes, Total              | U          |      | 0.62        | 3.0          | µg/L        | 1               | 11/7/2015 13:05 |
| Surr: 1,2-Dichloroethane-d4 | 95.6       |      |             | 75-120       | %REC        | 1               | 11/7/2015 13:05 |
| Surr: 4-Bromofluorobenzene  | 98.6       |      |             | 80-110       | %REC        | 1               | 11/7/2015 13:05 |
| Surr: Dibromofluoromethane  | 102        |      |             | 85-115       | %REC        | 1               | 11/7/2015 13:05 |
| Surr: Toluene-d8            | 97.7       |      |             | 85-110       | %REC        | 1               | 11/7/2015 13:05 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 11-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102815-MR-040  
**Collection Date:** 10/28/2015 11:42 AM

**Work Order:** 15101851  
**Lab ID:** 15101851-19  
**Matrix:** WATER

| Analyses                          | Result | Qual | MDL             | Report Limit | Units | Dilution Factor | Date Analyzed   |
|-----------------------------------|--------|------|-----------------|--------------|-------|-----------------|-----------------|
| <b>VOLATILE ORGANIC COMPOUNDS</b> |        |      | Method: SW8260B |              |       | Analyst: LSY    |                 |
| 1,1,1-Trichloroethane             | U      |      | 0.19            | 1.0          | µg/L  | 1               | 11/7/2015 13:30 |
| 1,1,2,2-Tetrachloroethane         | U      |      | 0.34            | 1.0          | µg/L  | 1               | 11/7/2015 13:30 |
| 1,1,2-Trichloroethane             | U      |      | 0.25            | 1.0          | µg/L  | 1               | 11/7/2015 13:30 |
| 1,1,2-Trichlorotrifluoroethane    | U      |      | 0.47            | 1.0          | µg/L  | 1               | 11/7/2015 13:30 |
| 1,1-Dichloroethane                | U      |      | 0.21            | 1.0          | µg/L  | 1               | 11/7/2015 13:30 |
| 1,1-Dichloroethene                | U      |      | 0.24            | 1.0          | µg/L  | 1               | 11/7/2015 13:30 |
| 1,2,4-Trichlorobenzene            | U      |      | 0.19            | 5.0          | µg/L  | 1               | 11/7/2015 13:30 |
| 1,2-Dibromo-3-chloropropane       | U      |      | 0.42            | 1.0          | µg/L  | 1               | 11/7/2015 13:30 |
| 1,2-Dibromoethane                 | U      |      | 0.34            | 1.0          | µg/L  | 1               | 11/7/2015 13:30 |
| 1,2-Dichlorobenzene               | U      |      | 0.22            | 1.0          | µg/L  | 1               | 11/7/2015 13:30 |
| 1,2-Dichloroethane                | U      |      | 0.26            | 1.0          | µg/L  | 1               | 11/7/2015 13:30 |
| 1,2-Dichloropropane               | U      |      | 0.26            | 1.0          | µg/L  | 1               | 11/7/2015 13:30 |
| 1,3-Dichlorobenzene               | U      |      | 0.21            | 1.0          | µg/L  | 1               | 11/7/2015 13:30 |
| 1,4-Dichlorobenzene               | U      |      | 0.20            | 1.0          | µg/L  | 1               | 11/7/2015 13:30 |
| 2-Butanone                        | U      |      | 0.87            | 25           | µg/L  | 1               | 11/7/2015 13:30 |
| 2-Hexanone                        | U      |      | 0.15            | 50           | µg/L  | 1               | 11/7/2015 13:30 |
| 4-Methyl-2-pentanone              | U      |      | 0.15            | 50           | µg/L  | 1               | 11/7/2015 13:30 |
| Acetone                           | U      |      | 3.1             | 50           | µg/L  | 1               | 11/7/2015 13:30 |
| Benzene                           | U      |      | 0.25            | 1.0          | µg/L  | 1               | 11/7/2015 13:30 |
| Bromodichloromethane              | U      |      | 0.16            | 1.0          | µg/L  | 1               | 11/7/2015 13:30 |
| Bromoform                         | U      |      | 0.099           | 1.0          | µg/L  | 1               | 11/7/2015 13:30 |
| Bromomethane                      | U      |      | 1.0             | 5.0          | µg/L  | 1               | 11/7/2015 13:30 |
| Carbon disulfide                  | U      |      | 0.26            | 5.0          | µg/L  | 1               | 11/7/2015 13:30 |
| Carbon tetrachloride              | U      |      | 0.14            | 1.0          | µg/L  | 1               | 11/7/2015 13:30 |
| Chlorobenzene                     | U      |      | 0.19            | 1.0          | µg/L  | 1               | 11/7/2015 13:30 |
| Chloroethane                      | U      |      | 0.21            | 5.0          | µg/L  | 1               | 11/7/2015 13:30 |
| Chloroform                        | U      |      | 0.25            | 1.0          | µg/L  | 1               | 11/7/2015 13:30 |
| Chloromethane                     | U      |      | 0.25            | 5.0          | µg/L  | 1               | 11/7/2015 13:30 |
| cis-1,2-Dichloroethene            | U      |      | 0.25            | 1.0          | µg/L  | 1               | 11/7/2015 13:30 |
| cis-1,3-Dichloropropene           | U      |      | 0.24            | 1.0          | µg/L  | 1               | 11/7/2015 13:30 |
| Cyclohexane                       | U      |      | 0.31            | 1.0          | µg/L  | 1               | 11/7/2015 13:30 |
| Dibromochloromethane              | U      |      | 0.17            | 5.0          | µg/L  | 1               | 11/7/2015 13:30 |
| Dichlorodifluoromethane           | U      |      | 0.41            | 5.0          | µg/L  | 1               | 11/7/2015 13:30 |
| Ethylbenzene                      | U      |      | 0.22            | 1.0          | µg/L  | 1               | 11/7/2015 13:30 |
| Isopropylbenzene                  | U      |      | 0.25            | 5.0          | µg/L  | 1               | 11/7/2015 13:30 |
| Methyl acetate                    | U      |      | 0.62            | 10           | µg/L  | 1               | 11/7/2015 13:30 |
| Methyl tert-butyl ether           | U      |      | 0.12            | 5.0          | µg/L  | 1               | 11/7/2015 13:30 |
| Methylcyclohexane                 | U      |      | 0.32            | 1.0          | µg/L  | 1               | 11/7/2015 13:30 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 11-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102815-MR-040  
**Collection Date:** 10/28/2015 11:42 AM

**Work Order:** 15101851  
**Lab ID:** 15101851-19  
**Matrix:** WATER

| Analyses                    | Result     | Qual | MDL         | Report Limit | Units       | Dilution Factor | Date Analyzed   |
|-----------------------------|------------|------|-------------|--------------|-------------|-----------------|-----------------|
| Methylene chloride          | U          |      | 0.64        | 5.0          | µg/L        | 1               | 11/7/2015 13:30 |
| Styrene                     | U          |      | 0.18        | 1.0          | µg/L        | 1               | 11/7/2015 13:30 |
| Tetrachloroethene           | U          |      | 0.25        | 1.0          | µg/L        | 1               | 11/7/2015 13:30 |
| Toluene                     | U          |      | 0.20        | 1.0          | µg/L        | 1               | 11/7/2015 13:30 |
| trans-1,2-Dichloroethene    | U          |      | 0.29        | 1.0          | µg/L        | 1               | 11/7/2015 13:30 |
| trans-1,3-Dichloropropene   | U          |      | 0.19        | 1.0          | µg/L        | 1               | 11/7/2015 13:30 |
| <b>Trichloroethene</b>      | <b>6.8</b> |      | <b>0.34</b> | <b>1.0</b>   | <b>µg/L</b> | 1               | 11/7/2015 13:30 |
| Trichlorofluoromethane      | U          |      | 0.39        | 1.0          | µg/L        | 1               | 11/7/2015 13:30 |
| Vinyl chloride              | U          |      | 0.19        | 1.0          | µg/L        | 1               | 11/7/2015 13:30 |
| Xylenes, Total              | U          |      | 0.62        | 3.0          | µg/L        | 1               | 11/7/2015 13:30 |
| Surr: 1,2-Dichloroethane-d4 | 96.0       |      |             | 75-120       | %REC        | 1               | 11/7/2015 13:30 |
| Surr: 4-Bromofluorobenzene  | 97.9       |      |             | 80-110       | %REC        | 1               | 11/7/2015 13:30 |
| Surr: Dibromofluoromethane  | 99.2       |      |             | 85-115       | %REC        | 1               | 11/7/2015 13:30 |
| Surr: Toluene-d8            | 95.8       |      |             | 85-110       | %REC        | 1               | 11/7/2015 13:30 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 11-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102815-MR-041  
**Collection Date:** 10/28/2015 12:55 PM

**Work Order:** 15101851  
**Lab ID:** 15101851-20  
**Matrix:** WATER

| Analyses                          | Result      | Qual     | MDL             | Report Limit | Units       | Dilution Factor | Date Analyzed   |
|-----------------------------------|-------------|----------|-----------------|--------------|-------------|-----------------|-----------------|
| <b>VOLATILE ORGANIC COMPOUNDS</b> |             |          | Method: SW8260B |              |             | Analyst: LSY    |                 |
| 1,1,1-Trichloroethane             | U           |          | 0.19            | 1.0          | µg/L        | 1               | 11/7/2015 13:55 |
| 1,1,2,2-Tetrachloroethane         | U           |          | 0.34            | 1.0          | µg/L        | 1               | 11/7/2015 13:55 |
| 1,1,2-Trichloroethane             | U           |          | 0.25            | 1.0          | µg/L        | 1               | 11/7/2015 13:55 |
| 1,1,2-Trichlorotrifluoroethane    | U           |          | 0.47            | 1.0          | µg/L        | 1               | 11/7/2015 13:55 |
| 1,1-Dichloroethane                | U           |          | 0.21            | 1.0          | µg/L        | 1               | 11/7/2015 13:55 |
| 1,1-Dichloroethene                | U           |          | 0.24            | 1.0          | µg/L        | 1               | 11/7/2015 13:55 |
| 1,2,4-Trichlorobenzene            | U           |          | 0.19            | 5.0          | µg/L        | 1               | 11/7/2015 13:55 |
| 1,2-Dibromo-3-chloropropane       | U           |          | 0.42            | 1.0          | µg/L        | 1               | 11/7/2015 13:55 |
| 1,2-Dibromoethane                 | U           |          | 0.34            | 1.0          | µg/L        | 1               | 11/7/2015 13:55 |
| 1,2-Dichlorobenzene               | U           |          | 0.22            | 1.0          | µg/L        | 1               | 11/7/2015 13:55 |
| 1,2-Dichloroethane                | U           |          | 0.26            | 1.0          | µg/L        | 1               | 11/7/2015 13:55 |
| 1,2-Dichloropropane               | U           |          | 0.26            | 1.0          | µg/L        | 1               | 11/7/2015 13:55 |
| 1,3-Dichlorobenzene               | U           |          | 0.21            | 1.0          | µg/L        | 1               | 11/7/2015 13:55 |
| 1,4-Dichlorobenzene               | U           |          | 0.20            | 1.0          | µg/L        | 1               | 11/7/2015 13:55 |
| 2-Butanone                        | U           |          | 0.87            | 25           | µg/L        | 1               | 11/7/2015 13:55 |
| 2-Hexanone                        | U           |          | 0.15            | 50           | µg/L        | 1               | 11/7/2015 13:55 |
| 4-Methyl-2-pentanone              | U           |          | 0.15            | 50           | µg/L        | 1               | 11/7/2015 13:55 |
| Acetone                           | U           |          | 3.1             | 50           | µg/L        | 1               | 11/7/2015 13:55 |
| <b>Benzene</b>                    | <b>0.41</b> | <b>J</b> | <b>0.25</b>     | <b>1.0</b>   | <b>µg/L</b> | 1               | 11/7/2015 13:55 |
| Bromodichloromethane              | U           |          | 0.16            | 1.0          | µg/L        | 1               | 11/7/2015 13:55 |
| Bromoform                         | U           |          | 0.099           | 1.0          | µg/L        | 1               | 11/7/2015 13:55 |
| Bromomethane                      | U           |          | 1.0             | 5.0          | µg/L        | 1               | 11/7/2015 13:55 |
| Carbon disulfide                  | U           |          | 0.26            | 5.0          | µg/L        | 1               | 11/7/2015 13:55 |
| Carbon tetrachloride              | U           |          | 0.14            | 1.0          | µg/L        | 1               | 11/7/2015 13:55 |
| Chlorobenzene                     | U           |          | 0.19            | 1.0          | µg/L        | 1               | 11/7/2015 13:55 |
| Chloroethane                      | U           |          | 0.21            | 5.0          | µg/L        | 1               | 11/7/2015 13:55 |
| Chloroform                        | U           |          | 0.25            | 1.0          | µg/L        | 1               | 11/7/2015 13:55 |
| Chloromethane                     | U           |          | 0.25            | 5.0          | µg/L        | 1               | 11/7/2015 13:55 |
| <b>cis-1,2-Dichloroethene</b>     | <b>2.8</b>  |          | <b>0.25</b>     | <b>1.0</b>   | <b>µg/L</b> | 1               | 11/7/2015 13:55 |
| cis-1,3-Dichloropropene           | U           |          | 0.24            | 1.0          | µg/L        | 1               | 11/7/2015 13:55 |
| Cyclohexane                       | U           |          | 0.31            | 1.0          | µg/L        | 1               | 11/7/2015 13:55 |
| Dibromochloromethane              | U           |          | 0.17            | 5.0          | µg/L        | 1               | 11/7/2015 13:55 |
| Dichlorodifluoromethane           | U           |          | 0.41            | 5.0          | µg/L        | 1               | 11/7/2015 13:55 |
| Ethylbenzene                      | U           |          | 0.22            | 1.0          | µg/L        | 1               | 11/7/2015 13:55 |
| Isopropylbenzene                  | U           |          | 0.25            | 5.0          | µg/L        | 1               | 11/7/2015 13:55 |
| Methyl acetate                    | U           |          | 0.62            | 10           | µg/L        | 1               | 11/7/2015 13:55 |
| Methyl tert-butyl ether           | U           |          | 0.12            | 5.0          | µg/L        | 1               | 11/7/2015 13:55 |
| Methylcyclohexane                 | U           |          | 0.32            | 1.0          | µg/L        | 1               | 11/7/2015 13:55 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 11-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102815-MR-041  
**Collection Date:** 10/28/2015 12:55 PM

**Work Order:** 15101851  
**Lab ID:** 15101851-20  
**Matrix:** WATER

| Analyses                    | Result     | Qual | MDL         | Report Limit | Units       | Dilution Factor | Date Analyzed   |
|-----------------------------|------------|------|-------------|--------------|-------------|-----------------|-----------------|
| Methylene chloride          | U          |      | 0.64        | 5.0          | µg/L        | 1               | 11/7/2015 13:55 |
| Styrene                     | U          |      | 0.18        | 1.0          | µg/L        | 1               | 11/7/2015 13:55 |
| Tetrachloroethene           | U          |      | 0.25        | 1.0          | µg/L        | 1               | 11/7/2015 13:55 |
| Toluene                     | U          |      | 0.20        | 1.0          | µg/L        | 1               | 11/7/2015 13:55 |
| trans-1,2-Dichloroethene    | U          |      | 0.29        | 1.0          | µg/L        | 1               | 11/7/2015 13:55 |
| trans-1,3-Dichloropropene   | U          |      | 0.19        | 1.0          | µg/L        | 1               | 11/7/2015 13:55 |
| Trichloroethene             | U          |      | 0.34        | 1.0          | µg/L        | 1               | 11/7/2015 13:55 |
| Trichlorofluoromethane      | U          |      | 0.39        | 1.0          | µg/L        | 1               | 11/7/2015 13:55 |
| <b>Vinyl chloride</b>       | <b>9.1</b> |      | <b>0.19</b> | <b>1.0</b>   | <b>µg/L</b> | 1               | 11/7/2015 13:55 |
| Xylenes, Total              | U          |      | 0.62        | 3.0          | µg/L        | 1               | 11/7/2015 13:55 |
| Surr: 1,2-Dichloroethane-d4 | 98.4       |      |             | 75-120       | %REC        | 1               | 11/7/2015 13:55 |
| Surr: 4-Bromofluorobenzene  | 96.6       |      |             | 80-110       | %REC        | 1               | 11/7/2015 13:55 |
| Surr: Dibromofluoromethane  | 98.2       |      |             | 85-115       | %REC        | 1               | 11/7/2015 13:55 |
| Surr: Toluene-d8            | 97.6       |      |             | 85-110       | %REC        | 1               | 11/7/2015 13:55 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 11-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102815-MR-042  
**Collection Date:** 10/28/2015 02:03 PM

**Work Order:** 15101851  
**Lab ID:** 15101851-21  
**Matrix:** WATER

| Analyses                               | Result | Qual | MDL                        | Report Limit | Units                  | Dilution Factor | Date Analyzed      |
|----------------------------------------|--------|------|----------------------------|--------------|------------------------|-----------------|--------------------|
| <b>SEMI-VOLATILE ORGANIC COMPOUNDS</b> |        |      | Method: <b>SW846 8270D</b> |              | Prep: SW3510 / 11/2/15 |                 | Analyst: <b>RS</b> |
| 1,1'-Biphenyl                          | U      |      | 0.22                       | 5.0          | µg/L                   | 1               | 11/3/2015 15:05    |
| 2,4,5-Trichlorophenol                  | U      |      | 0.29                       | 5.0          | µg/L                   | 1               | 11/3/2015 15:05    |
| 2,4,6-Trichlorophenol                  | U      |      | 0.25                       | 5.0          | µg/L                   | 1               | 11/3/2015 15:05    |
| 2,4-Dichlorophenol                     | U      |      | 0.17                       | 5.0          | µg/L                   | 1               | 11/3/2015 15:05    |
| 2,4-Dimethylphenol                     | U      |      | 0.18                       | 5.0          | µg/L                   | 1               | 11/3/2015 15:05    |
| 2,4-Dinitrophenol                      | U      |      | 1.5                        | 5.0          | µg/L                   | 1               | 11/3/2015 15:05    |
| 2,4-Dinitrotoluene                     | U      |      | 0.14                       | 5.0          | µg/L                   | 1               | 11/3/2015 15:05    |
| 2,6-Dinitrotoluene                     | U      |      | 0.20                       | 5.0          | µg/L                   | 1               | 11/3/2015 15:05    |
| 2-Chloronaphthalene                    | U      |      | 0.030                      | 5.0          | µg/L                   | 1               | 11/3/2015 15:05    |
| 2-Chlorophenol                         | U      |      | 0.29                       | 5.0          | µg/L                   | 1               | 11/3/2015 15:05    |
| 2-Methylnaphthalene                    | U      |      | 0.099                      | 5.0          | µg/L                   | 1               | 11/3/2015 15:05    |
| 2-Methylphenol                         | U      |      | 0.14                       | 5.0          | µg/L                   | 1               | 11/3/2015 15:05    |
| 2-Nitroaniline                         | U      |      | 0.24                       | 5.0          | µg/L                   | 1               | 11/3/2015 15:05    |
| 2-Nitrophenol                          | U      |      | 0.27                       | 5.0          | µg/L                   | 1               | 11/3/2015 15:05    |
| 3&4-Methylphenol                       | U      |      | 0.24                       | 5.0          | µg/L                   | 1               | 11/3/2015 15:05    |
| 3,3'-Dichlorobenzidine                 | U      |      | 0.70                       | 5.0          | µg/L                   | 1               | 11/3/2015 15:05    |
| 3-Nitroaniline                         | U      |      | 0.24                       | 5.0          | µg/L                   | 1               | 11/3/2015 15:05    |
| 4,6-Dinitro-2-methylphenol             | U      |      | 0.12                       | 5.0          | µg/L                   | 1               | 11/3/2015 15:05    |
| 4-Bromophenyl phenyl ether             | U      |      | 0.29                       | 5.0          | µg/L                   | 1               | 11/3/2015 15:05    |
| 4-Chloro-3-methylphenol                | U      |      | 0.16                       | 5.0          | µg/L                   | 1               | 11/3/2015 15:05    |
| 4-Chloroaniline                        | U      |      | 0.22                       | 5.0          | µg/L                   | 1               | 11/3/2015 15:05    |
| 4-Chlorophenyl phenyl ether            | U      |      | 0.20                       | 5.0          | µg/L                   | 1               | 11/3/2015 15:05    |
| 4-Nitroaniline                         | U      |      | 0.13                       | 5.0          | µg/L                   | 1               | 11/3/2015 15:05    |
| 4-Nitrophenol                          | U      |      | 0.62                       | 5.0          | µg/L                   | 1               | 11/3/2015 15:05    |
| Acenaphthene                           | U      |      | 0.041                      | 5.0          | µg/L                   | 1               | 11/3/2015 15:05    |
| Acenaphthylene                         | U      |      | 0.039                      | 5.0          | µg/L                   | 1               | 11/3/2015 15:05    |
| Acetophenone                           | U      |      | 0.37                       | 1.0          | µg/L                   | 1               | 11/3/2015 15:05    |
| Anthracene                             | U      |      | 0.028                      | 5.0          | µg/L                   | 1               | 11/3/2015 15:05    |
| Atrazine                               | U      |      | 0.16                       | 1.0          | µg/L                   | 1               | 11/3/2015 15:05    |
| Benzaldehyde                           | U      |      | 0.25                       | 1.0          | µg/L                   | 1               | 11/3/2015 15:05    |
| Benzo(a)anthracene                     | U      |      | 0.072                      | 5.0          | µg/L                   | 1               | 11/3/2015 15:05    |
| Benzo(a)pyrene                         | U      |      | 0.036                      | 5.0          | µg/L                   | 1               | 11/3/2015 15:05    |
| Benzo(b)fluoranthene                   | U      |      | 0.043                      | 5.0          | µg/L                   | 1               | 11/3/2015 15:05    |
| Benzo(g,h,i)perylene                   | U      |      | 0.070                      | 5.0          | µg/L                   | 1               | 11/3/2015 15:05    |
| Benzo(k)fluoranthene                   | U      |      | 0.062                      | 5.0          | µg/L                   | 1               | 11/3/2015 15:05    |
| Bis(2-chloroethoxy)methane             | U      |      | 0.23                       | 5.0          | µg/L                   | 1               | 11/3/2015 15:05    |
| Bis(2-chloroethyl)ether                | U      |      | 0.16                       | 5.0          | µg/L                   | 1               | 11/3/2015 15:05    |
| Bis(2-chloroisopropyl)ether            | U      |      | 0.19                       | 5.0          | µg/L                   | 1               | 11/3/2015 15:05    |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 11-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102815-MR-042  
**Collection Date:** 10/28/2015 02:03 PM

**Work Order:** 15101851  
**Lab ID:** 15101851-21  
**Matrix:** WATER

| Analyses                          | Result | Qual | MDL             | Report Limit | Units | Dilution Factor | Date Analyzed   |
|-----------------------------------|--------|------|-----------------|--------------|-------|-----------------|-----------------|
| Bis(2-ethylhexyl)phthalate        | U      |      | 0.18            | 5.0          | µg/L  | 1               | 11/3/2015 15:05 |
| Butyl benzyl phthalate            | U      |      | 0.12            | 5.0          | µg/L  | 1               | 11/3/2015 15:05 |
| Caprolactam                       | U      |      | 0.96            | 10           | µg/L  | 1               | 11/3/2015 15:05 |
| Carbazole                         | U      |      | 0.12            | 5.0          | µg/L  | 1               | 11/3/2015 15:05 |
| Chrysene                          | U      |      | 0.042           | 5.0          | µg/L  | 1               | 11/3/2015 15:05 |
| Dibenzo(a,h)anthracene            | U      |      | 0.074           | 5.0          | µg/L  | 1               | 11/3/2015 15:05 |
| Dibenzofuran                      | U      |      | 0.23            | 5.0          | µg/L  | 1               | 11/3/2015 15:05 |
| Diethyl phthalate                 | U      |      | 0.17            | 5.0          | µg/L  | 1               | 11/3/2015 15:05 |
| Dimethyl phthalate                | U      |      | 0.15            | 5.0          | µg/L  | 1               | 11/3/2015 15:05 |
| Di-n-butyl phthalate              | U      |      | 0.15            | 5.0          | µg/L  | 1               | 11/3/2015 15:05 |
| Di-n-octyl phthalate              | U      |      | 0.15            | 5.0          | µg/L  | 1               | 11/3/2015 15:05 |
| Fluoranthene                      | U      |      | 0.047           | 5.0          | µg/L  | 1               | 11/3/2015 15:05 |
| Fluorene                          | U      |      | 0.036           | 5.0          | µg/L  | 1               | 11/3/2015 15:05 |
| Hexachlorobenzene                 | U      |      | 0.23            | 5.0          | µg/L  | 1               | 11/3/2015 15:05 |
| Hexachlorobutadiene               | U      |      | 0.37            | 5.0          | µg/L  | 1               | 11/3/2015 15:05 |
| Hexachlorocyclopentadiene         | U      |      | 0.18            | 5.0          | µg/L  | 1               | 11/3/2015 15:05 |
| Hexachloroethane                  | U      |      | 0.47            | 5.0          | µg/L  | 1               | 11/3/2015 15:05 |
| Indeno(1,2,3-cd)pyrene            | U      |      | 0.064           | 5.0          | µg/L  | 1               | 11/3/2015 15:05 |
| Isophorone                        | U      |      | 0.25            | 5.0          | µg/L  | 1               | 11/3/2015 15:05 |
| Naphthalene                       | U      |      | 0.050           | 5.0          | µg/L  | 1               | 11/3/2015 15:05 |
| Nitrobenzene                      | U      |      | 0.23            | 5.0          | µg/L  | 1               | 11/3/2015 15:05 |
| N-Nitrosodi-n-propylamine         | U      |      | 0.24            | 5.0          | µg/L  | 1               | 11/3/2015 15:05 |
| N-Nitrosodiphenylamine            | U      |      | 0.24            | 5.0          | µg/L  | 1               | 11/3/2015 15:05 |
| Pentachlorophenol                 | U      |      | 0.52            | 5.0          | µg/L  | 1               | 11/3/2015 15:05 |
| Phenanthrene                      | U      |      | 0.054           | 5.0          | µg/L  | 1               | 11/3/2015 15:05 |
| Phenol                            | U      |      | 0.13            | 5.0          | µg/L  | 1               | 11/3/2015 15:05 |
| Pyrene                            | U      |      | 0.069           | 5.0          | µg/L  | 1               | 11/3/2015 15:05 |
| Surr: 2,4,6-Tribromophenol        | 54.9   |      |                 | 38-115       | %REC  | 1               | 11/3/2015 15:05 |
| Surr: 2-Fluorobiphenyl            | 51.6   |      |                 | 32-100       | %REC  | 1               | 11/3/2015 15:05 |
| Surr: 2-Fluorophenol              | 28.8   |      |                 | 22-59        | %REC  | 1               | 11/3/2015 15:05 |
| Surr: 4-Terphenyl-d14             | 82.0   |      |                 | 23-112       | %REC  | 1               | 11/3/2015 15:05 |
| Surr: Nitrobenzene-d5             | 43.7   |      |                 | 31-93        | %REC  | 1               | 11/3/2015 15:05 |
| Surr: Phenol-d6                   | 16.4   |      |                 | 13-36        | %REC  | 1               | 11/3/2015 15:05 |
| <b>VOLATILE ORGANIC COMPOUNDS</b> |        |      | Method: SW8260B |              |       |                 | Analyst: LSY    |
| 1,1,1-Trichloroethane             | U      |      | 0.19            | 1.0          | µg/L  | 1               | 11/9/2015 18:40 |
| 1,1,2,2-Tetrachloroethane         | U      |      | 0.34            | 1.0          | µg/L  | 1               | 11/9/2015 18:40 |
| 1,1,2-Trichloroethane             | U      |      | 0.25            | 1.0          | µg/L  | 1               | 11/9/2015 18:40 |
| 1,1,2-Trichlorotrifluoroethane    | U      |      | 0.47            | 1.0          | µg/L  | 1               | 11/9/2015 18:40 |
| 1,1-Dichloroethane                | U      |      | 0.21            | 1.0          | µg/L  | 1               | 11/9/2015 18:40 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 11-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102815-MR-042  
**Collection Date:** 10/28/2015 02:03 PM

**Work Order:** 15101851  
**Lab ID:** 15101851-21  
**Matrix:** WATER

| Analyses                    | Result | Qual | MDL   | Report Limit | Units | Dilution Factor | Date Analyzed   |
|-----------------------------|--------|------|-------|--------------|-------|-----------------|-----------------|
| 1,1-Dichloroethene          | U      |      | 0.24  | 1.0          | µg/L  | 1               | 11/9/2015 18:40 |
| 1,2,4-Trichlorobenzene      | U      |      | 0.19  | 5.0          | µg/L  | 1               | 11/9/2015 18:40 |
| 1,2-Dibromo-3-chloropropane | U      |      | 0.42  | 1.0          | µg/L  | 1               | 11/9/2015 18:40 |
| 1,2-Dibromoethane           | U      |      | 0.34  | 1.0          | µg/L  | 1               | 11/9/2015 18:40 |
| 1,2-Dichlorobenzene         | U      |      | 0.22  | 1.0          | µg/L  | 1               | 11/9/2015 18:40 |
| 1,2-Dichloroethane          | U      |      | 0.26  | 1.0          | µg/L  | 1               | 11/9/2015 18:40 |
| 1,2-Dichloropropane         | U      |      | 0.26  | 1.0          | µg/L  | 1               | 11/9/2015 18:40 |
| 1,3-Dichlorobenzene         | U      |      | 0.21  | 1.0          | µg/L  | 1               | 11/9/2015 18:40 |
| 1,4-Dichlorobenzene         | U      |      | 0.20  | 1.0          | µg/L  | 1               | 11/9/2015 18:40 |
| 2-Butanone                  | U      |      | 0.87  | 25           | µg/L  | 1               | 11/9/2015 18:40 |
| 2-Hexanone                  | U      |      | 0.15  | 50           | µg/L  | 1               | 11/9/2015 18:40 |
| 4-Methyl-2-pentanone        | U      |      | 0.15  | 50           | µg/L  | 1               | 11/9/2015 18:40 |
| Acetone                     | U      |      | 3.1   | 50           | µg/L  | 1               | 11/9/2015 18:40 |
| Benzene                     | U      |      | 0.25  | 1.0          | µg/L  | 1               | 11/9/2015 18:40 |
| Bromodichloromethane        | U      |      | 0.16  | 1.0          | µg/L  | 1               | 11/9/2015 18:40 |
| Bromoform                   | U      |      | 0.099 | 1.0          | µg/L  | 1               | 11/9/2015 18:40 |
| Bromomethane                | U      |      | 1.0   | 5.0          | µg/L  | 1               | 11/9/2015 18:40 |
| Carbon disulfide            | U      |      | 0.26  | 5.0          | µg/L  | 1               | 11/9/2015 18:40 |
| Carbon tetrachloride        | U      |      | 0.14  | 1.0          | µg/L  | 1               | 11/9/2015 18:40 |
| Chlorobenzene               | U      |      | 0.19  | 1.0          | µg/L  | 1               | 11/9/2015 18:40 |
| Chloroethane                | U      |      | 0.21  | 5.0          | µg/L  | 1               | 11/9/2015 18:40 |
| Chloroform                  | U      |      | 0.25  | 1.0          | µg/L  | 1               | 11/9/2015 18:40 |
| Chloromethane               | U      |      | 0.25  | 5.0          | µg/L  | 1               | 11/9/2015 18:40 |
| cis-1,2-Dichloroethene      | U      |      | 0.25  | 1.0          | µg/L  | 1               | 11/9/2015 18:40 |
| cis-1,3-Dichloropropene     | U      |      | 0.24  | 1.0          | µg/L  | 1               | 11/9/2015 18:40 |
| Cyclohexane                 | U      |      | 0.31  | 1.0          | µg/L  | 1               | 11/9/2015 18:40 |
| Dibromochloromethane        | U      |      | 0.17  | 5.0          | µg/L  | 1               | 11/9/2015 18:40 |
| Dichlorodifluoromethane     | U      |      | 0.41  | 5.0          | µg/L  | 1               | 11/9/2015 18:40 |
| Ethylbenzene                | U      |      | 0.22  | 1.0          | µg/L  | 1               | 11/9/2015 18:40 |
| Isopropylbenzene            | U      |      | 0.25  | 5.0          | µg/L  | 1               | 11/9/2015 18:40 |
| Methyl acetate              | U      |      | 0.62  | 10           | µg/L  | 1               | 11/9/2015 18:40 |
| Methyl tert-butyl ether     | U      |      | 0.12  | 5.0          | µg/L  | 1               | 11/9/2015 18:40 |
| Methylcyclohexane           | U      |      | 0.32  | 1.0          | µg/L  | 1               | 11/9/2015 18:40 |
| Methylene chloride          | U      |      | 0.64  | 5.0          | µg/L  | 1               | 11/9/2015 18:40 |
| Styrene                     | U      |      | 0.18  | 1.0          | µg/L  | 1               | 11/9/2015 18:40 |
| Tetrachloroethene           | U      |      | 0.25  | 1.0          | µg/L  | 1               | 11/9/2015 18:40 |
| Toluene                     | U      |      | 0.20  | 1.0          | µg/L  | 1               | 11/9/2015 18:40 |
| trans-1,2-Dichloroethene    | U      |      | 0.29  | 1.0          | µg/L  | 1               | 11/9/2015 18:40 |
| trans-1,3-Dichloropropene   | U      |      | 0.19  | 1.0          | µg/L  | 1               | 11/9/2015 18:40 |
| Trichloroethene             | U      |      | 0.34  | 1.0          | µg/L  | 1               | 11/9/2015 18:40 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.



**ALS Group USA, Corp**

Date: 11-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102815-MR-042  
**Collection Date:** 10/28/2015 02:03 PM

**Work Order:** 15101851  
**Lab ID:** 15101851-21  
**Matrix:** WATER

| Analyses                    | Result | Qual | MDL  | Report Limit | Units | Dilution Factor | Date Analyzed   |
|-----------------------------|--------|------|------|--------------|-------|-----------------|-----------------|
| Trichlorofluoromethane      | U      |      | 0.39 | 1.0          | µg/L  | 1               | 11/9/2015 18:40 |
| Vinyl chloride              | U      |      | 0.19 | 1.0          | µg/L  | 1               | 11/9/2015 18:40 |
| Xylenes, Total              | U      |      | 0.62 | 3.0          | µg/L  | 1               | 11/9/2015 18:40 |
| Surr: 1,2-Dichloroethane-d4 | 99.0   |      |      | 75-120       | %REC  | 1               | 11/9/2015 18:40 |
| Surr: 4-Bromofluorobenzene  | 87.8   |      |      | 80-110       | %REC  | 1               | 11/9/2015 18:40 |
| Surr: Dibromofluoromethane  | 102    |      |      | 85-115       | %REC  | 1               | 11/9/2015 18:40 |
| Surr: Toluene-d8            | 98.9   |      |      | 85-110       | %REC  | 1               | 11/9/2015 18:40 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 11-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102815-MR-043  
**Collection Date:** 10/28/2015 02:57 PM

**Work Order:** 15101851  
**Lab ID:** 15101851-22  
**Matrix:** WATER

| Analyses                          | Result | Qual | MDL             | Report Limit | Units | Dilution Factor | Date Analyzed    |
|-----------------------------------|--------|------|-----------------|--------------|-------|-----------------|------------------|
| <b>VOLATILE ORGANIC COMPOUNDS</b> |        |      | Method: SW8260B |              |       | Analyst: AK     |                  |
| 1,1,1-Trichloroethane             | U      |      | 0.19            | 1.0          | µg/L  | 1               | 11/10/2015 20:53 |
| 1,1,2,2-Tetrachloroethane         | U      |      | 0.34            | 1.0          | µg/L  | 1               | 11/10/2015 20:53 |
| 1,1,2-Trichloroethane             | U      |      | 0.25            | 1.0          | µg/L  | 1               | 11/10/2015 20:53 |
| 1,1,2-Trichlorotrifluoroethane    | U      |      | 0.47            | 1.0          | µg/L  | 1               | 11/10/2015 20:53 |
| 1,1-Dichloroethane                | U      |      | 0.21            | 1.0          | µg/L  | 1               | 11/10/2015 20:53 |
| 1,1-Dichloroethene                | U      |      | 0.24            | 1.0          | µg/L  | 1               | 11/10/2015 20:53 |
| 1,2,4-Trichlorobenzene            | U      |      | 0.19            | 5.0          | µg/L  | 1               | 11/10/2015 20:53 |
| 1,2-Dibromo-3-chloropropane       | U      |      | 0.42            | 1.0          | µg/L  | 1               | 11/10/2015 20:53 |
| 1,2-Dibromoethane                 | U      |      | 0.34            | 1.0          | µg/L  | 1               | 11/10/2015 20:53 |
| 1,2-Dichlorobenzene               | U      |      | 0.22            | 1.0          | µg/L  | 1               | 11/10/2015 20:53 |
| 1,2-Dichloroethane                | U      |      | 0.26            | 1.0          | µg/L  | 1               | 11/10/2015 20:53 |
| 1,2-Dichloropropane               | U      |      | 0.26            | 1.0          | µg/L  | 1               | 11/10/2015 20:53 |
| 1,3-Dichlorobenzene               | U      |      | 0.21            | 1.0          | µg/L  | 1               | 11/10/2015 20:53 |
| 1,4-Dichlorobenzene               | U      |      | 0.20            | 1.0          | µg/L  | 1               | 11/10/2015 20:53 |
| 2-Butanone                        | U      |      | 0.87            | 25           | µg/L  | 1               | 11/10/2015 20:53 |
| 2-Hexanone                        | U      |      | 0.15            | 50           | µg/L  | 1               | 11/10/2015 20:53 |
| 4-Methyl-2-pentanone              | U      |      | 0.15            | 50           | µg/L  | 1               | 11/10/2015 20:53 |
| Acetone                           | U      |      | 3.1             | 50           | µg/L  | 1               | 11/10/2015 20:53 |
| Benzene                           | U      |      | 0.25            | 1.0          | µg/L  | 1               | 11/10/2015 20:53 |
| Bromodichloromethane              | U      |      | 0.16            | 1.0          | µg/L  | 1               | 11/10/2015 20:53 |
| Bromoform                         | U      |      | 0.099           | 1.0          | µg/L  | 1               | 11/10/2015 20:53 |
| Bromomethane                      | U      |      | 1.0             | 5.0          | µg/L  | 1               | 11/10/2015 20:53 |
| Carbon disulfide                  | U      |      | 0.26            | 5.0          | µg/L  | 1               | 11/10/2015 20:53 |
| Carbon tetrachloride              | U      |      | 0.14            | 1.0          | µg/L  | 1               | 11/10/2015 20:53 |
| Chlorobenzene                     | U      |      | 0.19            | 1.0          | µg/L  | 1               | 11/10/2015 20:53 |
| Chloroethane                      | U      |      | 0.21            | 5.0          | µg/L  | 1               | 11/10/2015 20:53 |
| Chloroform                        | U      |      | 0.25            | 1.0          | µg/L  | 1               | 11/10/2015 20:53 |
| Chloromethane                     | U      |      | 0.25            | 5.0          | µg/L  | 1               | 11/10/2015 20:53 |
| cis-1,2-Dichloroethene            | U      |      | 0.25            | 1.0          | µg/L  | 1               | 11/10/2015 20:53 |
| cis-1,3-Dichloropropene           | U      |      | 0.24            | 1.0          | µg/L  | 1               | 11/10/2015 20:53 |
| Cyclohexane                       | U      |      | 0.31            | 1.0          | µg/L  | 1               | 11/10/2015 20:53 |
| Dibromochloromethane              | U      |      | 0.17            | 5.0          | µg/L  | 1               | 11/10/2015 20:53 |
| Dichlorodifluoromethane           | U      |      | 0.41            | 5.0          | µg/L  | 1               | 11/10/2015 20:53 |
| Ethylbenzene                      | U      |      | 0.22            | 1.0          | µg/L  | 1               | 11/10/2015 20:53 |
| Isopropylbenzene                  | U      |      | 0.25            | 5.0          | µg/L  | 1               | 11/10/2015 20:53 |
| Methyl acetate                    | U      |      | 0.62            | 10           | µg/L  | 1               | 11/10/2015 20:53 |
| Methyl tert-butyl ether           | U      |      | 0.12            | 5.0          | µg/L  | 1               | 11/10/2015 20:53 |
| Methylcyclohexane                 | U      |      | 0.32            | 1.0          | µg/L  | 1               | 11/10/2015 20:53 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 11-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102815-MR-043  
**Collection Date:** 10/28/2015 02:57 PM

**Work Order:** 15101851  
**Lab ID:** 15101851-22  
**Matrix:** WATER

| Analyses                    | Result     | Qual | MDL         | Report Limit | Units       | Dilution Factor | Date Analyzed    |
|-----------------------------|------------|------|-------------|--------------|-------------|-----------------|------------------|
| Methylene chloride          | U          |      | 0.64        | 5.0          | µg/L        | 1               | 11/10/2015 20:53 |
| Styrene                     | U          |      | 0.18        | 1.0          | µg/L        | 1               | 11/10/2015 20:53 |
| <b>Tetrachloroethene</b>    | <b>3.4</b> |      | <b>0.25</b> | <b>1.0</b>   | <b>µg/L</b> | 1               | 11/10/2015 20:53 |
| Toluene                     | U          |      | 0.20        | 1.0          | µg/L        | 1               | 11/10/2015 20:53 |
| trans-1,2-Dichloroethene    | U          |      | 0.29        | 1.0          | µg/L        | 1               | 11/10/2015 20:53 |
| trans-1,3-Dichloropropene   | U          |      | 0.19        | 1.0          | µg/L        | 1               | 11/10/2015 20:53 |
| <b>Trichloroethene</b>      | <b>1.0</b> |      | <b>0.34</b> | <b>1.0</b>   | <b>µg/L</b> | 1               | 11/10/2015 20:53 |
| Trichlorofluoromethane      | U          |      | 0.39        | 1.0          | µg/L        | 1               | 11/10/2015 20:53 |
| Vinyl chloride              | U          |      | 0.19        | 1.0          | µg/L        | 1               | 11/10/2015 20:53 |
| Xylenes, Total              | U          |      | 0.62        | 3.0          | µg/L        | 1               | 11/10/2015 20:53 |
| Surr: 1,2-Dichloroethane-d4 | 102        |      |             | 75-120       | %REC        | 1               | 11/10/2015 20:53 |
| Surr: 4-Bromofluorobenzene  | 94.0       |      |             | 80-110       | %REC        | 1               | 11/10/2015 20:53 |
| Surr: Dibromofluoromethane  | 98.4       |      |             | 85-115       | %REC        | 1               | 11/10/2015 20:53 |
| Surr: Toluene-d8            | 97.8       |      |             | 85-110       | %REC        | 1               | 11/10/2015 20:53 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 11-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102815-MR-044  
**Collection Date:** 10/28/2015 04:16 PM

**Work Order:** 15101851  
**Lab ID:** 15101851-23  
**Matrix:** WATER

| Analyses                               | Result      | Qual     | MDL                        | Report Limit | Units                  | Dilution Factor | Date Analyzed      |
|----------------------------------------|-------------|----------|----------------------------|--------------|------------------------|-----------------|--------------------|
| <b>SEMI-VOLATILE ORGANIC COMPOUNDS</b> |             |          | Method: <b>SW846 8270D</b> |              | Prep: SW3510 / 11/2/15 |                 | Analyst: <b>RS</b> |
| 1,1'-Biphenyl                          | U           |          | 0.22                       | 5.0          | µg/L                   | 1               | 11/3/2015 15:32    |
| 2,4,5-Trichlorophenol                  | U           |          | 0.29                       | 5.0          | µg/L                   | 1               | 11/3/2015 15:32    |
| 2,4,6-Trichlorophenol                  | U           |          | 0.25                       | 5.0          | µg/L                   | 1               | 11/3/2015 15:32    |
| 2,4-Dichlorophenol                     | U           |          | 0.17                       | 5.0          | µg/L                   | 1               | 11/3/2015 15:32    |
| <b>2,4-Dimethylphenol</b>              | <b>0.41</b> | <b>J</b> | <b>0.18</b>                | <b>5.0</b>   | <b>µg/L</b>            | 1               | 11/3/2015 15:32    |
| 2,4-Dinitrophenol                      | U           |          | 1.5                        | 5.0          | µg/L                   | 1               | 11/3/2015 15:32    |
| 2,4-Dinitrotoluene                     | U           |          | 0.14                       | 5.0          | µg/L                   | 1               | 11/3/2015 15:32    |
| 2,6-Dinitrotoluene                     | U           |          | 0.20                       | 5.0          | µg/L                   | 1               | 11/3/2015 15:32    |
| 2-Chloronaphthalene                    | U           |          | 0.030                      | 5.0          | µg/L                   | 1               | 11/3/2015 15:32    |
| 2-Chlorophenol                         | U           |          | 0.29                       | 5.0          | µg/L                   | 1               | 11/3/2015 15:32    |
| 2-Methylnaphthalene                    | U           |          | 0.099                      | 5.0          | µg/L                   | 1               | 11/3/2015 15:32    |
| 2-Methylphenol                         | U           |          | 0.14                       | 5.0          | µg/L                   | 1               | 11/3/2015 15:32    |
| 2-Nitroaniline                         | U           |          | 0.24                       | 5.0          | µg/L                   | 1               | 11/3/2015 15:32    |
| 2-Nitrophenol                          | U           |          | 0.27                       | 5.0          | µg/L                   | 1               | 11/3/2015 15:32    |
| 3&4-Methylphenol                       | U           |          | 0.24                       | 5.0          | µg/L                   | 1               | 11/3/2015 15:32    |
| 3,3'-Dichlorobenzidine                 | U           |          | 0.70                       | 5.0          | µg/L                   | 1               | 11/3/2015 15:32    |
| 3-Nitroaniline                         | U           |          | 0.24                       | 5.0          | µg/L                   | 1               | 11/3/2015 15:32    |
| 4,6-Dinitro-2-methylphenol             | U           |          | 0.12                       | 5.0          | µg/L                   | 1               | 11/3/2015 15:32    |
| 4-Bromophenyl phenyl ether             | U           |          | 0.29                       | 5.0          | µg/L                   | 1               | 11/3/2015 15:32    |
| 4-Chloro-3-methylphenol                | U           |          | 0.16                       | 5.0          | µg/L                   | 1               | 11/3/2015 15:32    |
| 4-Chloroaniline                        | U           |          | 0.22                       | 5.0          | µg/L                   | 1               | 11/3/2015 15:32    |
| 4-Chlorophenyl phenyl ether            | U           |          | 0.20                       | 5.0          | µg/L                   | 1               | 11/3/2015 15:32    |
| 4-Nitroaniline                         | U           |          | 0.13                       | 5.0          | µg/L                   | 1               | 11/3/2015 15:32    |
| 4-Nitrophenol                          | U           |          | 0.62                       | 5.0          | µg/L                   | 1               | 11/3/2015 15:32    |
| Acenaphthene                           | U           |          | 0.041                      | 5.0          | µg/L                   | 1               | 11/3/2015 15:32    |
| Acenaphthylene                         | U           |          | 0.039                      | 5.0          | µg/L                   | 1               | 11/3/2015 15:32    |
| <b>Acetophenone</b>                    | <b>0.62</b> | <b>J</b> | <b>0.37</b>                | <b>1.0</b>   | <b>µg/L</b>            | 1               | 11/3/2015 15:32    |
| Anthracene                             | U           |          | 0.028                      | 5.0          | µg/L                   | 1               | 11/3/2015 15:32    |
| Atrazine                               | U           |          | 0.16                       | 1.0          | µg/L                   | 1               | 11/3/2015 15:32    |
| Benzaldehyde                           | U           |          | 0.25                       | 1.0          | µg/L                   | 1               | 11/3/2015 15:32    |
| Benzo(a)anthracene                     | U           |          | 0.072                      | 5.0          | µg/L                   | 1               | 11/3/2015 15:32    |
| Benzo(a)pyrene                         | U           |          | 0.036                      | 5.0          | µg/L                   | 1               | 11/3/2015 15:32    |
| Benzo(b)fluoranthene                   | U           |          | 0.043                      | 5.0          | µg/L                   | 1               | 11/3/2015 15:32    |
| Benzo(g,h,i)perylene                   | U           |          | 0.070                      | 5.0          | µg/L                   | 1               | 11/3/2015 15:32    |
| Benzo(k)fluoranthene                   | U           |          | 0.062                      | 5.0          | µg/L                   | 1               | 11/3/2015 15:32    |
| Bis(2-chloroethoxy)methane             | U           |          | 0.23                       | 5.0          | µg/L                   | 1               | 11/3/2015 15:32    |
| Bis(2-chloroethyl)ether                | U           |          | 0.16                       | 5.0          | µg/L                   | 1               | 11/3/2015 15:32    |
| Bis(2-chloroisopropyl)ether            | U           |          | 0.19                       | 5.0          | µg/L                   | 1               | 11/3/2015 15:32    |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 11-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102815-MR-044  
**Collection Date:** 10/28/2015 04:16 PM

**Work Order:** 15101851  
**Lab ID:** 15101851-23  
**Matrix:** WATER

| Analyses                          | Result | Qual | MDL             | Report Limit | Units | Dilution Factor | Date Analyzed   |
|-----------------------------------|--------|------|-----------------|--------------|-------|-----------------|-----------------|
| Bis(2-ethylhexyl)phthalate        | U      |      | 0.18            | 5.0          | µg/L  | 1               | 11/3/2015 15:32 |
| Butyl benzyl phthalate            | U      |      | 0.12            | 5.0          | µg/L  | 1               | 11/3/2015 15:32 |
| Caprolactam                       | U      |      | 0.96            | 10           | µg/L  | 1               | 11/3/2015 15:32 |
| Carbazole                         | U      |      | 0.12            | 5.0          | µg/L  | 1               | 11/3/2015 15:32 |
| Chrysene                          | U      |      | 0.042           | 5.0          | µg/L  | 1               | 11/3/2015 15:32 |
| Dibenzo(a,h)anthracene            | U      |      | 0.074           | 5.0          | µg/L  | 1               | 11/3/2015 15:32 |
| Dibenzofuran                      | U      |      | 0.23            | 5.0          | µg/L  | 1               | 11/3/2015 15:32 |
| Diethyl phthalate                 | U      |      | 0.17            | 5.0          | µg/L  | 1               | 11/3/2015 15:32 |
| Dimethyl phthalate                | U      |      | 0.15            | 5.0          | µg/L  | 1               | 11/3/2015 15:32 |
| Di-n-butyl phthalate              | U      |      | 0.15            | 5.0          | µg/L  | 1               | 11/3/2015 15:32 |
| Di-n-octyl phthalate              | U      |      | 0.15            | 5.0          | µg/L  | 1               | 11/3/2015 15:32 |
| Fluoranthene                      | U      |      | 0.047           | 5.0          | µg/L  | 1               | 11/3/2015 15:32 |
| Fluorene                          | U      |      | 0.036           | 5.0          | µg/L  | 1               | 11/3/2015 15:32 |
| Hexachlorobenzene                 | U      |      | 0.23            | 5.0          | µg/L  | 1               | 11/3/2015 15:32 |
| Hexachlorobutadiene               | U      |      | 0.37            | 5.0          | µg/L  | 1               | 11/3/2015 15:32 |
| Hexachlorocyclopentadiene         | U      |      | 0.18            | 5.0          | µg/L  | 1               | 11/3/2015 15:32 |
| Hexachloroethane                  | U      |      | 0.47            | 5.0          | µg/L  | 1               | 11/3/2015 15:32 |
| Indeno(1,2,3-cd)pyrene            | U      |      | 0.064           | 5.0          | µg/L  | 1               | 11/3/2015 15:32 |
| Isophorone                        | U      |      | 0.25            | 5.0          | µg/L  | 1               | 11/3/2015 15:32 |
| Naphthalene                       | U      |      | 0.050           | 5.0          | µg/L  | 1               | 11/3/2015 15:32 |
| Nitrobenzene                      | U      |      | 0.23            | 5.0          | µg/L  | 1               | 11/3/2015 15:32 |
| N-Nitrosodi-n-propylamine         | U      |      | 0.24            | 5.0          | µg/L  | 1               | 11/3/2015 15:32 |
| N-Nitrosodiphenylamine            | U      |      | 0.24            | 5.0          | µg/L  | 1               | 11/3/2015 15:32 |
| Pentachlorophenol                 | U      |      | 0.52            | 5.0          | µg/L  | 1               | 11/3/2015 15:32 |
| Phenanthrene                      | U      |      | 0.054           | 5.0          | µg/L  | 1               | 11/3/2015 15:32 |
| Phenol                            | U      |      | 0.13            | 5.0          | µg/L  | 1               | 11/3/2015 15:32 |
| Pyrene                            | U      |      | 0.069           | 5.0          | µg/L  | 1               | 11/3/2015 15:32 |
| Surr: 2,4,6-Tribromophenol        | 106    |      |                 | 38-115       | %REC  | 1               | 11/3/2015 15:32 |
| Surr: 2-Fluorobiphenyl            | 97.1   |      |                 | 32-100       | %REC  | 1               | 11/3/2015 15:32 |
| Surr: 2-Fluorophenol              | 52.2   |      |                 | 22-59        | %REC  | 1               | 11/3/2015 15:32 |
| Surr: 4-Terphenyl-d14             | 104    |      |                 | 23-112       | %REC  | 1               | 11/3/2015 15:32 |
| Surr: Nitrobenzene-d5             | 84.3   |      |                 | 31-93        | %REC  | 1               | 11/3/2015 15:32 |
| Surr: Phenol-d6                   | 31.7   |      |                 | 13-36        | %REC  | 1               | 11/3/2015 15:32 |
| <b>VOLATILE ORGANIC COMPOUNDS</b> |        |      | Method: SW8260B |              |       |                 | Analyst: WH     |
| 1,1,1-Trichloroethane             | U      |      | 0.19            | 1.0          | µg/L  | 1               | 11/7/2015 23:20 |
| 1,1,2,2-Tetrachloroethane         | U      |      | 0.34            | 1.0          | µg/L  | 1               | 11/7/2015 23:20 |
| 1,1,2-Trichloroethane             | U      |      | 0.25            | 1.0          | µg/L  | 1               | 11/7/2015 23:20 |
| 1,1,2-Trichlorotrifluoroethane    | U      |      | 0.47            | 1.0          | µg/L  | 1               | 11/7/2015 23:20 |
| 1,1-Dichloroethane                | U      |      | 0.21            | 1.0          | µg/L  | 1               | 11/7/2015 23:20 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 11-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102815-MR-044  
**Collection Date:** 10/28/2015 04:16 PM

**Work Order:** 15101851  
**Lab ID:** 15101851-23  
**Matrix:** WATER

| Analyses                      | Result      | Qual     | MDL         | Report Limit | Units       | Dilution Factor | Date Analyzed   |
|-------------------------------|-------------|----------|-------------|--------------|-------------|-----------------|-----------------|
| 1,1-Dichloroethene            | U           |          | 0.24        | 1.0          | µg/L        | 1               | 11/7/2015 23:20 |
| 1,2,4-Trichlorobenzene        | U           |          | 0.19        | 5.0          | µg/L        | 1               | 11/7/2015 23:20 |
| 1,2-Dibromo-3-chloropropane   | U           |          | 0.42        | 1.0          | µg/L        | 1               | 11/7/2015 23:20 |
| 1,2-Dibromoethane             | U           |          | 0.34        | 1.0          | µg/L        | 1               | 11/7/2015 23:20 |
| 1,2-Dichlorobenzene           | U           |          | 0.22        | 1.0          | µg/L        | 1               | 11/7/2015 23:20 |
| 1,2-Dichloroethane            | U           |          | 0.26        | 1.0          | µg/L        | 1               | 11/7/2015 23:20 |
| 1,2-Dichloropropane           | U           |          | 0.26        | 1.0          | µg/L        | 1               | 11/7/2015 23:20 |
| 1,3-Dichlorobenzene           | U           |          | 0.21        | 1.0          | µg/L        | 1               | 11/7/2015 23:20 |
| 1,4-Dichlorobenzene           | U           |          | 0.20        | 1.0          | µg/L        | 1               | 11/7/2015 23:20 |
| 2-Butanone                    | U           |          | 0.87        | 25           | µg/L        | 1               | 11/7/2015 23:20 |
| 2-Hexanone                    | U           |          | 0.15        | 50           | µg/L        | 1               | 11/7/2015 23:20 |
| 4-Methyl-2-pentanone          | U           |          | 0.15        | 50           | µg/L        | 1               | 11/7/2015 23:20 |
| Acetone                       | U           |          | 3.1         | 50           | µg/L        | 1               | 11/7/2015 23:20 |
| Benzene                       | U           |          | 0.25        | 1.0          | µg/L        | 1               | 11/7/2015 23:20 |
| Bromodichloromethane          | U           |          | 0.16        | 1.0          | µg/L        | 1               | 11/7/2015 23:20 |
| Bromoform                     | U           |          | 0.099       | 1.0          | µg/L        | 1               | 11/7/2015 23:20 |
| Bromomethane                  | U           |          | 1.0         | 5.0          | µg/L        | 1               | 11/7/2015 23:20 |
| Carbon disulfide              | U           |          | 0.26        | 5.0          | µg/L        | 1               | 11/7/2015 23:20 |
| Carbon tetrachloride          | U           |          | 0.14        | 1.0          | µg/L        | 1               | 11/7/2015 23:20 |
| Chlorobenzene                 | U           |          | 0.19        | 1.0          | µg/L        | 1               | 11/7/2015 23:20 |
| Chloroethane                  | U           |          | 0.21        | 5.0          | µg/L        | 1               | 11/7/2015 23:20 |
| Chloroform                    | U           |          | 0.25        | 1.0          | µg/L        | 1               | 11/7/2015 23:20 |
| Chloromethane                 | U           |          | 0.25        | 5.0          | µg/L        | 1               | 11/7/2015 23:20 |
| <b>cis-1,2-Dichloroethene</b> | <b>0.51</b> | <b>J</b> | <b>0.25</b> | <b>1.0</b>   | <b>µg/L</b> | 1               | 11/7/2015 23:20 |
| cis-1,3-Dichloropropene       | U           |          | 0.24        | 1.0          | µg/L        | 1               | 11/7/2015 23:20 |
| Cyclohexane                   | U           |          | 0.31        | 1.0          | µg/L        | 1               | 11/7/2015 23:20 |
| Dibromochloromethane          | U           |          | 0.17        | 5.0          | µg/L        | 1               | 11/7/2015 23:20 |
| Dichlorodifluoromethane       | U           |          | 0.41        | 5.0          | µg/L        | 1               | 11/7/2015 23:20 |
| Ethylbenzene                  | U           |          | 0.22        | 1.0          | µg/L        | 1               | 11/7/2015 23:20 |
| Isopropylbenzene              | U           |          | 0.25        | 5.0          | µg/L        | 1               | 11/7/2015 23:20 |
| Methyl acetate                | U           |          | 0.62        | 10           | µg/L        | 1               | 11/7/2015 23:20 |
| Methyl tert-butyl ether       | U           |          | 0.12        | 5.0          | µg/L        | 1               | 11/7/2015 23:20 |
| Methylcyclohexane             | U           |          | 0.32        | 1.0          | µg/L        | 1               | 11/7/2015 23:20 |
| Methylene chloride            | U           |          | 0.64        | 5.0          | µg/L        | 1               | 11/7/2015 23:20 |
| Styrene                       | U           |          | 0.18        | 1.0          | µg/L        | 1               | 11/7/2015 23:20 |
| <b>Tetrachloroethene</b>      | <b>1.6</b>  |          | <b>0.25</b> | <b>1.0</b>   | <b>µg/L</b> | 1               | 11/7/2015 23:20 |
| Toluene                       | U           |          | 0.20        | 1.0          | µg/L        | 1               | 11/7/2015 23:20 |
| trans-1,2-Dichloroethene      | U           |          | 0.29        | 1.0          | µg/L        | 1               | 11/7/2015 23:20 |
| trans-1,3-Dichloropropene     | U           |          | 0.19        | 1.0          | µg/L        | 1               | 11/7/2015 23:20 |
| <b>Trichloroethene</b>        | <b>0.96</b> | <b>J</b> | <b>0.34</b> | <b>1.0</b>   | <b>µg/L</b> | 1               | 11/7/2015 23:20 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

**ALS Group USA, Corp****Date:** 11-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102815-MR-044  
**Collection Date:** 10/28/2015 04:16 PM

**Work Order:** 15101851  
**Lab ID:** 15101851-23  
**Matrix:** WATER

| Analyses                    | Result | Qual | MDL  | Report Limit | Units | Dilution Factor | Date Analyzed   |
|-----------------------------|--------|------|------|--------------|-------|-----------------|-----------------|
| Trichlorofluoromethane      | U      |      | 0.39 | 1.0          | µg/L  | 1               | 11/7/2015 23:20 |
| Vinyl chloride              | U      |      | 0.19 | 1.0          | µg/L  | 1               | 11/7/2015 23:20 |
| Xylenes, Total              | U      |      | 0.62 | 3.0          | µg/L  | 1               | 11/7/2015 23:20 |
| Surr: 1,2-Dichloroethane-d4 | 95.6   |      |      | 75-120       | %REC  | 1               | 11/7/2015 23:20 |
| Surr: 4-Bromofluorobenzene  | 91.0   |      |      | 80-110       | %REC  | 1               | 11/7/2015 23:20 |
| Surr: Dibromofluoromethane  | 101    |      |      | 85-115       | %REC  | 1               | 11/7/2015 23:20 |
| Surr: Toluene-d8            | 97.4   |      |      | 85-110       | %REC  | 1               | 11/7/2015 23:20 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 11-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102915-MR-045  
**Collection Date:** 10/29/2015 11:28 AM

**Work Order:** 15101851  
**Lab ID:** 15101851-24  
**Matrix:** WATER

| Analyses                               | Result     | Qual     | MDL                        | Report Limit | Units                  | Dilution Factor | Date Analyzed      |
|----------------------------------------|------------|----------|----------------------------|--------------|------------------------|-----------------|--------------------|
| <b>SEMI-VOLATILE ORGANIC COMPOUNDS</b> |            |          | Method: <b>SW846 8270D</b> |              | Prep: SW3510 / 11/2/15 |                 | Analyst: <b>RS</b> |
| 1,1'-Biphenyl                          | U          |          | 0.22                       | 5.0          | µg/L                   | 1               | 11/3/2015 12:01    |
| 2,4,5-Trichlorophenol                  | U          |          | 0.29                       | 5.0          | µg/L                   | 1               | 11/3/2015 12:01    |
| 2,4,6-Trichlorophenol                  | U          |          | 0.25                       | 5.0          | µg/L                   | 1               | 11/3/2015 12:01    |
| 2,4-Dichlorophenol                     | U          |          | 0.17                       | 5.0          | µg/L                   | 1               | 11/3/2015 12:01    |
| <b>2,4-Dimethylphenol</b>              | <b>3.8</b> | <b>J</b> | <b>0.18</b>                | <b>5.0</b>   | <b>µg/L</b>            | 1               | 11/3/2015 12:01    |
| 2,4-Dinitrophenol                      | U          |          | 1.5                        | 5.0          | µg/L                   | 1               | 11/3/2015 12:01    |
| 2,4-Dinitrotoluene                     | U          |          | 0.14                       | 5.0          | µg/L                   | 1               | 11/3/2015 12:01    |
| 2,6-Dinitrotoluene                     | U          |          | 0.20                       | 5.0          | µg/L                   | 1               | 11/3/2015 12:01    |
| 2-Chloronaphthalene                    | U          |          | 0.030                      | 5.0          | µg/L                   | 1               | 11/3/2015 12:01    |
| 2-Chlorophenol                         | U          |          | 0.29                       | 5.0          | µg/L                   | 1               | 11/3/2015 12:01    |
| 2-Methylnaphthalene                    | U          |          | 0.099                      | 5.0          | µg/L                   | 1               | 11/3/2015 12:01    |
| 2-Methylphenol                         | U          |          | 0.14                       | 5.0          | µg/L                   | 1               | 11/3/2015 12:01    |
| 2-Nitroaniline                         | U          |          | 0.24                       | 5.0          | µg/L                   | 1               | 11/3/2015 12:01    |
| 2-Nitrophenol                          | U          |          | 0.27                       | 5.0          | µg/L                   | 1               | 11/3/2015 12:01    |
| 3&4-Methylphenol                       | U          |          | 0.24                       | 5.0          | µg/L                   | 1               | 11/3/2015 12:01    |
| 3,3'-Dichlorobenzidine                 | U          |          | 0.70                       | 5.0          | µg/L                   | 1               | 11/3/2015 12:01    |
| 3-Nitroaniline                         | U          |          | 0.24                       | 5.0          | µg/L                   | 1               | 11/3/2015 12:01    |
| 4,6-Dinitro-2-methylphenol             | U          |          | 0.12                       | 5.0          | µg/L                   | 1               | 11/3/2015 12:01    |
| 4-Bromophenyl phenyl ether             | U          |          | 0.29                       | 5.0          | µg/L                   | 1               | 11/3/2015 12:01    |
| 4-Chloro-3-methylphenol                | U          |          | 0.16                       | 5.0          | µg/L                   | 1               | 11/3/2015 12:01    |
| 4-Chloroaniline                        | U          |          | 0.22                       | 5.0          | µg/L                   | 1               | 11/3/2015 12:01    |
| 4-Chlorophenyl phenyl ether            | U          |          | 0.20                       | 5.0          | µg/L                   | 1               | 11/3/2015 12:01    |
| 4-Nitroaniline                         | U          |          | 0.13                       | 5.0          | µg/L                   | 1               | 11/3/2015 12:01    |
| 4-Nitrophenol                          | U          |          | 0.62                       | 5.0          | µg/L                   | 1               | 11/3/2015 12:01    |
| Acenaphthene                           | U          |          | 0.041                      | 5.0          | µg/L                   | 1               | 11/3/2015 12:01    |
| Acenaphthylene                         | U          |          | 0.039                      | 5.0          | µg/L                   | 1               | 11/3/2015 12:01    |
| Acetophenone                           | U          |          | 0.37                       | 1.0          | µg/L                   | 1               | 11/3/2015 12:01    |
| Anthracene                             | U          |          | 0.028                      | 5.0          | µg/L                   | 1               | 11/3/2015 12:01    |
| Atrazine                               | U          |          | 0.16                       | 1.0          | µg/L                   | 1               | 11/3/2015 12:01    |
| Benzaldehyde                           | U          |          | 0.25                       | 1.0          | µg/L                   | 1               | 11/3/2015 12:01    |
| Benzo(a)anthracene                     | U          |          | 0.072                      | 5.0          | µg/L                   | 1               | 11/3/2015 12:01    |
| Benzo(a)pyrene                         | U          |          | 0.036                      | 5.0          | µg/L                   | 1               | 11/3/2015 12:01    |
| Benzo(b)fluoranthene                   | U          |          | 0.043                      | 5.0          | µg/L                   | 1               | 11/3/2015 12:01    |
| Benzo(g,h,i)perylene                   | U          |          | 0.070                      | 5.0          | µg/L                   | 1               | 11/3/2015 12:01    |
| Benzo(k)fluoranthene                   | U          |          | 0.062                      | 5.0          | µg/L                   | 1               | 11/3/2015 12:01    |
| Bis(2-chloroethoxy)methane             | U          |          | 0.23                       | 5.0          | µg/L                   | 1               | 11/3/2015 12:01    |
| Bis(2-chloroethyl)ether                | U          |          | 0.16                       | 5.0          | µg/L                   | 1               | 11/3/2015 12:01    |
| Bis(2-chloroisopropyl)ether            | U          |          | 0.19                       | 5.0          | µg/L                   | 1               | 11/3/2015 12:01    |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.



# ALS Group USA, Corp

Date: 11-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102915-MR-045  
**Collection Date:** 10/29/2015 11:28 AM

**Work Order:** 15101851  
**Lab ID:** 15101851-24  
**Matrix:** WATER

| Analyses                          | Result     | Qual     | MDL                    | Report Limit | Units       | Dilution Factor | Date Analyzed          |
|-----------------------------------|------------|----------|------------------------|--------------|-------------|-----------------|------------------------|
| Bis(2-ethylhexyl)phthalate        | U          |          | 0.18                   | 5.0          | µg/L        | 1               | 11/3/2015 12:01        |
| Butyl benzyl phthalate            | U          |          | 0.12                   | 5.0          | µg/L        | 1               | 11/3/2015 12:01        |
| Caprolactam                       | U          |          | 0.96                   | 10           | µg/L        | 1               | 11/3/2015 12:01        |
| Carbazole                         | U          |          | 0.12                   | 5.0          | µg/L        | 1               | 11/3/2015 12:01        |
| Chrysene                          | U          |          | 0.042                  | 5.0          | µg/L        | 1               | 11/3/2015 12:01        |
| Dibenzo(a,h)anthracene            | U          |          | 0.074                  | 5.0          | µg/L        | 1               | 11/3/2015 12:01        |
| Dibenzofuran                      | U          |          | 0.23                   | 5.0          | µg/L        | 1               | 11/3/2015 12:01        |
| Diethyl phthalate                 | U          |          | 0.17                   | 5.0          | µg/L        | 1               | 11/3/2015 12:01        |
| Dimethyl phthalate                | U          |          | 0.15                   | 5.0          | µg/L        | 1               | 11/3/2015 12:01        |
| Di-n-butyl phthalate              | U          |          | 0.15                   | 5.0          | µg/L        | 1               | 11/3/2015 12:01        |
| Di-n-octyl phthalate              | U          |          | 0.15                   | 5.0          | µg/L        | 1               | 11/3/2015 12:01        |
| Fluoranthene                      | U          |          | 0.047                  | 5.0          | µg/L        | 1               | 11/3/2015 12:01        |
| Fluorene                          | U          |          | 0.036                  | 5.0          | µg/L        | 1               | 11/3/2015 12:01        |
| Hexachlorobenzene                 | U          |          | 0.23                   | 5.0          | µg/L        | 1               | 11/3/2015 12:01        |
| Hexachlorobutadiene               | U          |          | 0.37                   | 5.0          | µg/L        | 1               | 11/3/2015 12:01        |
| Hexachlorocyclopentadiene         | U          |          | 0.18                   | 5.0          | µg/L        | 1               | 11/3/2015 12:01        |
| Hexachloroethane                  | U          |          | 0.47                   | 5.0          | µg/L        | 1               | 11/3/2015 12:01        |
| Indeno(1,2,3-cd)pyrene            | U          |          | 0.064                  | 5.0          | µg/L        | 1               | 11/3/2015 12:01        |
| Isophorone                        | U          |          | 0.25                   | 5.0          | µg/L        | 1               | 11/3/2015 12:01        |
| <b>Naphthalene</b>                | <b>2.5</b> | <b>J</b> | <b>0.050</b>           | <b>5.0</b>   | <b>µg/L</b> | <b>1</b>        | <b>11/3/2015 12:01</b> |
| Nitrobenzene                      | U          |          | 0.23                   | 5.0          | µg/L        | 1               | 11/3/2015 12:01        |
| N-Nitrosodi-n-propylamine         | U          |          | 0.24                   | 5.0          | µg/L        | 1               | 11/3/2015 12:01        |
| N-Nitrosodiphenylamine            | U          |          | 0.24                   | 5.0          | µg/L        | 1               | 11/3/2015 12:01        |
| Pentachlorophenol                 | U          |          | 0.52                   | 5.0          | µg/L        | 1               | 11/3/2015 12:01        |
| Phenanthrene                      | U          |          | 0.054                  | 5.0          | µg/L        | 1               | 11/3/2015 12:01        |
| Phenol                            | U          |          | 0.13                   | 5.0          | µg/L        | 1               | 11/3/2015 12:01        |
| Pyrene                            | U          |          | 0.069                  | 5.0          | µg/L        | 1               | 11/3/2015 12:01        |
| Surr: 2,4,6-Tribromophenol        | 90.3       |          |                        | 38-115       | %REC        | 1               | 11/3/2015 12:01        |
| Surr: 2-Fluorobiphenyl            | 75.6       |          |                        | 32-100       | %REC        | 1               | 11/3/2015 12:01        |
| Surr: 2-Fluorophenol              | 46.4       |          |                        | 22-59        | %REC        | 1               | 11/3/2015 12:01        |
| Surr: 4-Terphenyl-d14             | 98.0       |          |                        | 23-112       | %REC        | 1               | 11/3/2015 12:01        |
| Surr: Nitrobenzene-d5             | 86.8       |          |                        | 31-93        | %REC        | 1               | 11/3/2015 12:01        |
| Surr: Phenol-d6                   | 30.0       |          |                        | 13-36        | %REC        | 1               | 11/3/2015 12:01        |
| <b>VOLATILE ORGANIC COMPOUNDS</b> |            |          | Method: <b>SW8260B</b> |              |             |                 | Analyst: <b>WH</b>     |
| 1,1,1-Trichloroethane             | U          |          | 0.19                   | 1.0          | µg/L        | 1               | 11/7/2015 22:54        |
| 1,1,2,2-Tetrachloroethane         | U          |          | 0.34                   | 1.0          | µg/L        | 1               | 11/7/2015 22:54        |
| 1,1,2-Trichloroethane             | U          |          | 0.25                   | 1.0          | µg/L        | 1               | 11/7/2015 22:54        |
| 1,1,2-Trichlorotrifluoroethane    | U          |          | 0.47                   | 1.0          | µg/L        | 1               | 11/7/2015 22:54        |
| 1,1-Dichloroethane                | U          |          | 0.21                   | 1.0          | µg/L        | 1               | 11/7/2015 22:54        |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 11-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102915-MR-045  
**Collection Date:** 10/29/2015 11:28 AM

**Work Order:** 15101851  
**Lab ID:** 15101851-24  
**Matrix:** WATER

| Analyses                      | Result     | Qual | MDL         | Report Limit | Units       | Dilution Factor | Date Analyzed   |
|-------------------------------|------------|------|-------------|--------------|-------------|-----------------|-----------------|
| 1,1-Dichloroethene            | U          |      | 0.24        | 1.0          | µg/L        | 1               | 11/7/2015 22:54 |
| 1,2,4-Trichlorobenzene        | U          |      | 0.19        | 5.0          | µg/L        | 1               | 11/7/2015 22:54 |
| 1,2-Dibromo-3-chloropropane   | U          |      | 0.42        | 1.0          | µg/L        | 1               | 11/7/2015 22:54 |
| 1,2-Dibromoethane             | U          |      | 0.34        | 1.0          | µg/L        | 1               | 11/7/2015 22:54 |
| <b>1,2-Dichlorobenzene</b>    | <b>1.5</b> |      | <b>0.22</b> | <b>1.0</b>   | <b>µg/L</b> | 1               | 11/7/2015 22:54 |
| 1,2-Dichloroethane            | U          |      | 0.26        | 1.0          | µg/L        | 1               | 11/7/2015 22:54 |
| 1,2-Dichloropropane           | U          |      | 0.26        | 1.0          | µg/L        | 1               | 11/7/2015 22:54 |
| 1,3-Dichlorobenzene           | U          |      | 0.21        | 1.0          | µg/L        | 1               | 11/7/2015 22:54 |
| 1,4-Dichlorobenzene           | U          |      | 0.20        | 1.0          | µg/L        | 1               | 11/7/2015 22:54 |
| 2-Butanone                    | U          |      | 0.87        | 25           | µg/L        | 1               | 11/7/2015 22:54 |
| 2-Hexanone                    | U          |      | 0.15        | 50           | µg/L        | 1               | 11/7/2015 22:54 |
| <b>4-Methyl-2-pentanone</b>   | <b>2.2</b> | J    | <b>0.15</b> | <b>50</b>    | <b>µg/L</b> | 1               | 11/7/2015 22:54 |
| Acetone                       | U          |      | 3.1         | 50           | µg/L        | 1               | 11/7/2015 22:54 |
| Benzene                       | U          |      | 0.25        | 1.0          | µg/L        | 1               | 11/7/2015 22:54 |
| Bromodichloromethane          | U          |      | 0.16        | 1.0          | µg/L        | 1               | 11/7/2015 22:54 |
| Bromoform                     | U          |      | 0.099       | 1.0          | µg/L        | 1               | 11/7/2015 22:54 |
| Bromomethane                  | U          |      | 1.0         | 5.0          | µg/L        | 1               | 11/7/2015 22:54 |
| Carbon disulfide              | U          |      | 0.26        | 5.0          | µg/L        | 1               | 11/7/2015 22:54 |
| Carbon tetrachloride          | U          |      | 0.14        | 1.0          | µg/L        | 1               | 11/7/2015 22:54 |
| Chlorobenzene                 | U          |      | 0.19        | 1.0          | µg/L        | 1               | 11/7/2015 22:54 |
| Chloroethane                  | U          |      | 0.21        | 5.0          | µg/L        | 1               | 11/7/2015 22:54 |
| Chloroform                    | U          |      | 0.25        | 1.0          | µg/L        | 1               | 11/7/2015 22:54 |
| Chloromethane                 | U          |      | 0.25        | 5.0          | µg/L        | 1               | 11/7/2015 22:54 |
| <b>cis-1,2-Dichloroethene</b> | <b>1.2</b> |      | <b>0.25</b> | <b>1.0</b>   | <b>µg/L</b> | 1               | 11/7/2015 22:54 |
| cis-1,3-Dichloropropene       | U          |      | 0.24        | 1.0          | µg/L        | 1               | 11/7/2015 22:54 |
| Cyclohexane                   | U          |      | 0.31        | 1.0          | µg/L        | 1               | 11/7/2015 22:54 |
| Dibromochloromethane          | U          |      | 0.17        | 5.0          | µg/L        | 1               | 11/7/2015 22:54 |
| Dichlorodifluoromethane       | U          |      | 0.41        | 5.0          | µg/L        | 1               | 11/7/2015 22:54 |
| <b>Ethylbenzene</b>           | <b>2.5</b> |      | <b>0.22</b> | <b>1.0</b>   | <b>µg/L</b> | 1               | 11/7/2015 22:54 |
| <b>Isopropylbenzene</b>       | <b>2.8</b> | J    | <b>0.25</b> | <b>5.0</b>   | <b>µg/L</b> | 1               | 11/7/2015 22:54 |
| Methyl acetate                | U          |      | 0.62        | 10           | µg/L        | 1               | 11/7/2015 22:54 |
| Methyl tert-butyl ether       | U          |      | 0.12        | 5.0          | µg/L        | 1               | 11/7/2015 22:54 |
| Methylcyclohexane             | U          |      | 0.32        | 1.0          | µg/L        | 1               | 11/7/2015 22:54 |
| Methylene chloride            | U          |      | 0.64        | 5.0          | µg/L        | 1               | 11/7/2015 22:54 |
| Styrene                       | U          |      | 0.18        | 1.0          | µg/L        | 1               | 11/7/2015 22:54 |
| Tetrachloroethene             | U          |      | 0.25        | 1.0          | µg/L        | 1               | 11/7/2015 22:54 |
| Toluene                       | U          |      | 0.20        | 1.0          | µg/L        | 1               | 11/7/2015 22:54 |
| trans-1,2-Dichloroethene      | U          |      | 0.29        | 1.0          | µg/L        | 1               | 11/7/2015 22:54 |
| trans-1,3-Dichloropropene     | U          |      | 0.19        | 1.0          | µg/L        | 1               | 11/7/2015 22:54 |
| Trichloroethene               | U          |      | 0.34        | 1.0          | µg/L        | 1               | 11/7/2015 22:54 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

**ALS Group USA, Corp**

Date: 11-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102915-MR-045  
**Collection Date:** 10/29/2015 11:28 AM

**Work Order:** 15101851  
**Lab ID:** 15101851-24  
**Matrix:** WATER

| Analyses                    | Result     | Qual | MDL         | Report Limit | Units       | Dilution Factor | Date Analyzed   |
|-----------------------------|------------|------|-------------|--------------|-------------|-----------------|-----------------|
| Trichlorofluoromethane      | U          |      | 0.39        | 1.0          | µg/L        | 1               | 11/7/2015 22:54 |
| Vinyl chloride              | U          |      | 0.19        | 1.0          | µg/L        | 1               | 11/7/2015 22:54 |
| <b>Xylenes, Total</b>       | <b>8.7</b> |      | <b>0.62</b> | <b>3.0</b>   | <b>µg/L</b> | 1               | 11/7/2015 22:54 |
| Surr: 1,2-Dichloroethane-d4 | 96.3       |      |             | 75-120       | %REC        | 1               | 11/7/2015 22:54 |
| Surr: 4-Bromofluorobenzene  | 97.4       |      |             | 80-110       | %REC        | 1               | 11/7/2015 22:54 |
| Surr: Dibromofluoromethane  | 101        |      |             | 85-115       | %REC        | 1               | 11/7/2015 22:54 |
| Surr: Toluene-d8            | 100        |      |             | 85-110       | %REC        | 1               | 11/7/2015 22:54 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 11-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102915-MR-046  
**Collection Date:** 10/29/2015 01:32 PM

**Work Order:** 15101851  
**Lab ID:** 15101851-25  
**Matrix:** WATER

| Analyses                               | Result | Qual | MDL                        | Report Limit | Units                  | Dilution Factor | Date Analyzed      |
|----------------------------------------|--------|------|----------------------------|--------------|------------------------|-----------------|--------------------|
| <b>SEMI-VOLATILE ORGANIC COMPOUNDS</b> |        |      | Method: <b>SW846 8270D</b> |              | Prep: SW3510 / 11/3/15 |                 | Analyst: <b>RM</b> |
| 1,1'-Biphenyl                          | U      |      | 0.22                       | 5.0          | µg/L                   | 1               | 11/6/2015 00:57    |
| 2,4,5-Trichlorophenol                  | U      |      | 0.29                       | 5.0          | µg/L                   | 1               | 11/6/2015 00:57    |
| 2,4,6-Trichlorophenol                  | U      |      | 0.25                       | 5.0          | µg/L                   | 1               | 11/6/2015 00:57    |
| 2,4-Dichlorophenol                     | U      |      | 0.17                       | 5.0          | µg/L                   | 1               | 11/6/2015 00:57    |
| 2,4-Dimethylphenol                     | U      |      | 0.18                       | 5.0          | µg/L                   | 1               | 11/6/2015 00:57    |
| 2,4-Dinitrophenol                      | U      |      | 1.5                        | 5.0          | µg/L                   | 1               | 11/6/2015 00:57    |
| 2,4-Dinitrotoluene                     | U      |      | 0.14                       | 5.0          | µg/L                   | 1               | 11/6/2015 00:57    |
| 2,6-Dinitrotoluene                     | U      |      | 0.20                       | 5.0          | µg/L                   | 1               | 11/6/2015 00:57    |
| 2-Chloronaphthalene                    | U      |      | 0.030                      | 5.0          | µg/L                   | 1               | 11/6/2015 00:57    |
| 2-Chlorophenol                         | U      |      | 0.29                       | 5.0          | µg/L                   | 1               | 11/6/2015 00:57    |
| 2-Methylnaphthalene                    | U      |      | 0.099                      | 5.0          | µg/L                   | 1               | 11/6/2015 00:57    |
| 2-Methylphenol                         | U      |      | 0.14                       | 5.0          | µg/L                   | 1               | 11/6/2015 00:57    |
| 2-Nitroaniline                         | U      |      | 0.24                       | 5.0          | µg/L                   | 1               | 11/6/2015 00:57    |
| 2-Nitrophenol                          | U      |      | 0.27                       | 5.0          | µg/L                   | 1               | 11/6/2015 00:57    |
| 3&4-Methylphenol                       | U      |      | 0.24                       | 5.0          | µg/L                   | 1               | 11/6/2015 00:57    |
| 3,3'-Dichlorobenzidine                 | U      |      | 0.70                       | 5.0          | µg/L                   | 1               | 11/6/2015 00:57    |
| 3-Nitroaniline                         | U      |      | 0.24                       | 5.0          | µg/L                   | 1               | 11/6/2015 00:57    |
| 4,6-Dinitro-2-methylphenol             | U      |      | 0.12                       | 5.0          | µg/L                   | 1               | 11/6/2015 00:57    |
| 4-Bromophenyl phenyl ether             | U      |      | 0.29                       | 5.0          | µg/L                   | 1               | 11/6/2015 00:57    |
| 4-Chloro-3-methylphenol                | U      |      | 0.16                       | 5.0          | µg/L                   | 1               | 11/6/2015 00:57    |
| 4-Chloroaniline                        | U      |      | 0.22                       | 5.0          | µg/L                   | 1               | 11/6/2015 00:57    |
| 4-Chlorophenyl phenyl ether            | U      |      | 0.20                       | 5.0          | µg/L                   | 1               | 11/6/2015 00:57    |
| 4-Nitroaniline                         | U      |      | 0.13                       | 5.0          | µg/L                   | 1               | 11/6/2015 00:57    |
| 4-Nitrophenol                          | U      |      | 0.62                       | 5.0          | µg/L                   | 1               | 11/6/2015 00:57    |
| Acenaphthene                           | U      |      | 0.041                      | 5.0          | µg/L                   | 1               | 11/6/2015 00:57    |
| Acenaphthylene                         | U      |      | 0.039                      | 5.0          | µg/L                   | 1               | 11/6/2015 00:57    |
| Acetophenone                           | U      |      | 0.37                       | 1.0          | µg/L                   | 1               | 11/6/2015 00:57    |
| Anthracene                             | U      |      | 0.028                      | 5.0          | µg/L                   | 1               | 11/6/2015 00:57    |
| Atrazine                               | U      |      | 0.16                       | 1.0          | µg/L                   | 1               | 11/6/2015 00:57    |
| Benzaldehyde                           | U      |      | 0.25                       | 1.0          | µg/L                   | 1               | 11/6/2015 00:57    |
| Benzo(a)anthracene                     | U      |      | 0.072                      | 5.0          | µg/L                   | 1               | 11/6/2015 00:57    |
| Benzo(a)pyrene                         | U      |      | 0.036                      | 5.0          | µg/L                   | 1               | 11/6/2015 00:57    |
| Benzo(b)fluoranthene                   | U      |      | 0.043                      | 5.0          | µg/L                   | 1               | 11/6/2015 00:57    |
| Benzo(g,h,i)perylene                   | U      |      | 0.070                      | 5.0          | µg/L                   | 1               | 11/6/2015 00:57    |
| Benzo(k)fluoranthene                   | U      |      | 0.062                      | 5.0          | µg/L                   | 1               | 11/6/2015 00:57    |
| Bis(2-chloroethoxy)methane             | U      |      | 0.23                       | 5.0          | µg/L                   | 1               | 11/6/2015 00:57    |
| Bis(2-chloroethyl)ether                | U      |      | 0.16                       | 5.0          | µg/L                   | 1               | 11/6/2015 00:57    |
| Bis(2-chloroisopropyl)ether            | U      |      | 0.19                       | 5.0          | µg/L                   | 1               | 11/6/2015 00:57    |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 11-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102915-MR-046  
**Collection Date:** 10/29/2015 01:32 PM

**Work Order:** 15101851  
**Lab ID:** 15101851-25  
**Matrix:** WATER

| Analyses                          | Result      | Qual     | MDL                    | Report Limit | Units       | Dilution Factor | Date Analyzed          |
|-----------------------------------|-------------|----------|------------------------|--------------|-------------|-----------------|------------------------|
| Bis(2-ethylhexyl)phthalate        | U           |          | 0.18                   | 5.0          | µg/L        | 1               | 11/6/2015 00:57        |
| Butyl benzyl phthalate            | U           |          | 0.12                   | 5.0          | µg/L        | 1               | 11/6/2015 00:57        |
| Caprolactam                       | U           |          | 0.96                   | 10           | µg/L        | 1               | 11/6/2015 00:57        |
| Carbazole                         | U           |          | 0.12                   | 5.0          | µg/L        | 1               | 11/6/2015 00:57        |
| Chrysene                          | U           |          | 0.042                  | 5.0          | µg/L        | 1               | 11/6/2015 00:57        |
| Dibenzo(a,h)anthracene            | U           |          | 0.074                  | 5.0          | µg/L        | 1               | 11/6/2015 00:57        |
| Dibenzofuran                      | U           |          | 0.23                   | 5.0          | µg/L        | 1               | 11/6/2015 00:57        |
| Diethyl phthalate                 | U           |          | 0.17                   | 5.0          | µg/L        | 1               | 11/6/2015 00:57        |
| Dimethyl phthalate                | U           |          | 0.15                   | 5.0          | µg/L        | 1               | 11/6/2015 00:57        |
| Di-n-butyl phthalate              | U           |          | 0.15                   | 5.0          | µg/L        | 1               | 11/6/2015 00:57        |
| Di-n-octyl phthalate              | U           |          | 0.15                   | 5.0          | µg/L        | 1               | 11/6/2015 00:57        |
| Fluoranthene                      | U           |          | 0.047                  | 5.0          | µg/L        | 1               | 11/6/2015 00:57        |
| Fluorene                          | U           |          | 0.036                  | 5.0          | µg/L        | 1               | 11/6/2015 00:57        |
| Hexachlorobenzene                 | U           |          | 0.23                   | 5.0          | µg/L        | 1               | 11/6/2015 00:57        |
| Hexachlorobutadiene               | U           |          | 0.37                   | 5.0          | µg/L        | 1               | 11/6/2015 00:57        |
| Hexachlorocyclopentadiene         | U           |          | 0.18                   | 5.0          | µg/L        | 1               | 11/6/2015 00:57        |
| Hexachloroethane                  | U           |          | 0.47                   | 5.0          | µg/L        | 1               | 11/6/2015 00:57        |
| Indeno(1,2,3-cd)pyrene            | U           |          | 0.064                  | 5.0          | µg/L        | 1               | 11/6/2015 00:57        |
| Isophorone                        | U           |          | 0.25                   | 5.0          | µg/L        | 1               | 11/6/2015 00:57        |
| <b>Naphthalene</b>                | <b>0.24</b> | <b>J</b> | <b>0.050</b>           | <b>5.0</b>   | <b>µg/L</b> | <b>1</b>        | <b>11/6/2015 00:57</b> |
| Nitrobenzene                      | U           |          | 0.23                   | 5.0          | µg/L        | 1               | 11/6/2015 00:57        |
| N-Nitrosodi-n-propylamine         | U           |          | 0.24                   | 5.0          | µg/L        | 1               | 11/6/2015 00:57        |
| N-Nitrosodiphenylamine            | U           |          | 0.24                   | 5.0          | µg/L        | 1               | 11/6/2015 00:57        |
| Pentachlorophenol                 | U           |          | 0.52                   | 5.0          | µg/L        | 1               | 11/6/2015 00:57        |
| Phenanthrene                      | U           |          | 0.054                  | 5.0          | µg/L        | 1               | 11/6/2015 00:57        |
| Phenol                            | U           |          | 0.13                   | 5.0          | µg/L        | 1               | 11/6/2015 00:57        |
| Pyrene                            | U           |          | 0.069                  | 5.0          | µg/L        | 1               | 11/6/2015 00:57        |
| Surr: 2,4,6-Tribromophenol        | 75.6        |          |                        | 38-115       | %REC        | 1               | 11/6/2015 00:57        |
| Surr: 2-Fluorobiphenyl            | 57.1        |          |                        | 32-100       | %REC        | 1               | 11/6/2015 00:57        |
| Surr: 2-Fluorophenol              | 27.9        |          |                        | 22-59        | %REC        | 1               | 11/6/2015 00:57        |
| Surr: 4-Terphenyl-d14             | 67.5        |          |                        | 23-112       | %REC        | 1               | 11/6/2015 00:57        |
| Surr: Nitrobenzene-d5             | 46.3        |          |                        | 31-93        | %REC        | 1               | 11/6/2015 00:57        |
| Surr: Phenol-d6                   | 20.7        |          |                        | 13-36        | %REC        | 1               | 11/6/2015 00:57        |
| <b>VOLATILE ORGANIC COMPOUNDS</b> |             |          | Method: <b>SW8260B</b> |              |             |                 | Analyst: <b>WH</b>     |
| 1,1,1-Trichloroethane             | U           |          | 0.19                   | 1.0          | µg/L        | 1               | 11/7/2015 22:29        |
| 1,1,2,2-Tetrachloroethane         | U           |          | 0.34                   | 1.0          | µg/L        | 1               | 11/7/2015 22:29        |
| 1,1,2-Trichloroethane             | U           |          | 0.25                   | 1.0          | µg/L        | 1               | 11/7/2015 22:29        |
| 1,1,2-Trichlorotrifluoroethane    | U           |          | 0.47                   | 1.0          | µg/L        | 1               | 11/7/2015 22:29        |
| 1,1-Dichloroethane                | U           |          | 0.21                   | 1.0          | µg/L        | 1               | 11/7/2015 22:29        |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 11-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102915-MR-046  
**Collection Date:** 10/29/2015 01:32 PM

**Work Order:** 15101851  
**Lab ID:** 15101851-25  
**Matrix:** WATER

| Analyses                      | Result      | Qual     | MDL         | Report Limit | Units       | Dilution Factor | Date Analyzed   |
|-------------------------------|-------------|----------|-------------|--------------|-------------|-----------------|-----------------|
| 1,1-Dichloroethene            | U           |          | 0.24        | 1.0          | µg/L        | 1               | 11/7/2015 22:29 |
| 1,2,4-Trichlorobenzene        | U           |          | 0.19        | 5.0          | µg/L        | 1               | 11/7/2015 22:29 |
| 1,2-Dibromo-3-chloropropane   | U           |          | 0.42        | 1.0          | µg/L        | 1               | 11/7/2015 22:29 |
| 1,2-Dibromoethane             | U           |          | 0.34        | 1.0          | µg/L        | 1               | 11/7/2015 22:29 |
| 1,2-Dichlorobenzene           | U           |          | 0.22        | 1.0          | µg/L        | 1               | 11/7/2015 22:29 |
| 1,2-Dichloroethane            | U           |          | 0.26        | 1.0          | µg/L        | 1               | 11/7/2015 22:29 |
| 1,2-Dichloropropane           | U           |          | 0.26        | 1.0          | µg/L        | 1               | 11/7/2015 22:29 |
| 1,3-Dichlorobenzene           | U           |          | 0.21        | 1.0          | µg/L        | 1               | 11/7/2015 22:29 |
| 1,4-Dichlorobenzene           | U           |          | 0.20        | 1.0          | µg/L        | 1               | 11/7/2015 22:29 |
| 2-Butanone                    | U           |          | 0.87        | 25           | µg/L        | 1               | 11/7/2015 22:29 |
| 2-Hexanone                    | U           |          | 0.15        | 50           | µg/L        | 1               | 11/7/2015 22:29 |
| 4-Methyl-2-pentanone          | U           |          | 0.15        | 50           | µg/L        | 1               | 11/7/2015 22:29 |
| Acetone                       | U           |          | 3.1         | 50           | µg/L        | 1               | 11/7/2015 22:29 |
| Benzene                       | U           |          | 0.25        | 1.0          | µg/L        | 1               | 11/7/2015 22:29 |
| Bromodichloromethane          | U           |          | 0.16        | 1.0          | µg/L        | 1               | 11/7/2015 22:29 |
| Bromoform                     | U           |          | 0.099       | 1.0          | µg/L        | 1               | 11/7/2015 22:29 |
| Bromomethane                  | U           |          | 1.0         | 5.0          | µg/L        | 1               | 11/7/2015 22:29 |
| Carbon disulfide              | U           |          | 0.26        | 5.0          | µg/L        | 1               | 11/7/2015 22:29 |
| Carbon tetrachloride          | U           |          | 0.14        | 1.0          | µg/L        | 1               | 11/7/2015 22:29 |
| Chlorobenzene                 | U           |          | 0.19        | 1.0          | µg/L        | 1               | 11/7/2015 22:29 |
| Chloroethane                  | U           |          | 0.21        | 5.0          | µg/L        | 1               | 11/7/2015 22:29 |
| <b>Chloroform</b>             | <b>1.9</b>  |          | <b>0.25</b> | <b>1.0</b>   | <b>µg/L</b> | 1               | 11/7/2015 22:29 |
| Chloromethane                 | U           |          | 0.25        | 5.0          | µg/L        | 1               | 11/7/2015 22:29 |
| <b>cis-1,2-Dichloroethene</b> | <b>2.2</b>  |          | <b>0.25</b> | <b>1.0</b>   | <b>µg/L</b> | 1               | 11/7/2015 22:29 |
| cis-1,3-Dichloropropene       | U           |          | 0.24        | 1.0          | µg/L        | 1               | 11/7/2015 22:29 |
| Cyclohexane                   | U           |          | 0.31        | 1.0          | µg/L        | 1               | 11/7/2015 22:29 |
| Dibromochloromethane          | U           |          | 0.17        | 5.0          | µg/L        | 1               | 11/7/2015 22:29 |
| Dichlorodifluoromethane       | U           |          | 0.41        | 5.0          | µg/L        | 1               | 11/7/2015 22:29 |
| Ethylbenzene                  | U           |          | 0.22        | 1.0          | µg/L        | 1               | 11/7/2015 22:29 |
| Isopropylbenzene              | U           |          | 0.25        | 5.0          | µg/L        | 1               | 11/7/2015 22:29 |
| Methyl acetate                | U           |          | 0.62        | 10           | µg/L        | 1               | 11/7/2015 22:29 |
| Methyl tert-butyl ether       | U           |          | 0.12        | 5.0          | µg/L        | 1               | 11/7/2015 22:29 |
| Methylcyclohexane             | U           |          | 0.32        | 1.0          | µg/L        | 1               | 11/7/2015 22:29 |
| Methylene chloride            | U           |          | 0.64        | 5.0          | µg/L        | 1               | 11/7/2015 22:29 |
| Styrene                       | U           |          | 0.18        | 1.0          | µg/L        | 1               | 11/7/2015 22:29 |
| <b>Tetrachloroethene</b>      | <b>3.8</b>  |          | <b>0.25</b> | <b>1.0</b>   | <b>µg/L</b> | 1               | 11/7/2015 22:29 |
| Toluene                       | U           |          | 0.20        | 1.0          | µg/L        | 1               | 11/7/2015 22:29 |
| trans-1,2-Dichloroethene      | U           |          | 0.29        | 1.0          | µg/L        | 1               | 11/7/2015 22:29 |
| trans-1,3-Dichloropropene     | U           |          | 0.19        | 1.0          | µg/L        | 1               | 11/7/2015 22:29 |
| <b>Trichloroethene</b>        | <b>0.99</b> | <b>J</b> | <b>0.34</b> | <b>1.0</b>   | <b>µg/L</b> | 1               | 11/7/2015 22:29 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

**ALS Group USA, Corp**

Date: 11-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102915-MR-046  
**Collection Date:** 10/29/2015 01:32 PM

**Work Order:** 15101851  
**Lab ID:** 15101851-25  
**Matrix:** WATER

| Analyses                    | Result      | Qual | MDL         | Report Limit | Units       | Dilution Factor | Date Analyzed   |
|-----------------------------|-------------|------|-------------|--------------|-------------|-----------------|-----------------|
| Trichlorofluoromethane      | U           |      | 0.39        | 1.0          | µg/L        | 1               | 11/7/2015 22:29 |
| <b>Vinyl chloride</b>       | <b>0.99</b> | J    | <b>0.19</b> | <b>1.0</b>   | <b>µg/L</b> | 1               | 11/7/2015 22:29 |
| <b>Xylenes, Total</b>       | <b>2.0</b>  | J    | <b>0.62</b> | <b>3.0</b>   | <b>µg/L</b> | 1               | 11/7/2015 22:29 |
| Surr: 1,2-Dichloroethane-d4 | 96.0        |      |             | 75-120       | %REC        | 1               | 11/7/2015 22:29 |
| Surr: 4-Bromofluorobenzene  | 95.4        |      |             | 80-110       | %REC        | 1               | 11/7/2015 22:29 |
| Surr: Dibromofluoromethane  | 101         |      |             | 85-115       | %REC        | 1               | 11/7/2015 22:29 |
| Surr: Toluene-d8            | 99.7        |      |             | 85-110       | %REC        | 1               | 11/7/2015 22:29 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 11-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102915-MR-047  
**Collection Date:** 10/29/2015 03:06 PM

**Work Order:** 15101851  
**Lab ID:** 15101851-26  
**Matrix:** WATER

| Analyses                               | Result      | Qual | MDL                        | Report Limit | Units                  | Dilution Factor | Date Analyzed      |
|----------------------------------------|-------------|------|----------------------------|--------------|------------------------|-----------------|--------------------|
| <b>SEMI-VOLATILE ORGANIC COMPOUNDS</b> |             |      | Method: <b>SW846 8270D</b> |              | Prep: SW3510 / 11/3/15 |                 | Analyst: <b>RM</b> |
| 1,1'-Biphenyl                          | U           |      | 0.23                       | 5.3          | µg/L                   | 1               | 11/6/2015 01:17    |
| 2,4,5-Trichlorophenol                  | U           |      | 0.31                       | 5.3          | µg/L                   | 1               | 11/6/2015 01:17    |
| 2,4,6-Trichlorophenol                  | U           |      | 0.26                       | 5.3          | µg/L                   | 1               | 11/6/2015 01:17    |
| 2,4-Dichlorophenol                     | U           |      | 0.18                       | 5.3          | µg/L                   | 1               | 11/6/2015 01:17    |
| <b>2,4-Dimethylphenol</b>              | <b>0.71</b> | J    | <b>0.19</b>                | <b>5.3</b>   | <b>µg/L</b>            | 1               | 11/6/2015 01:17    |
| 2,4-Dinitrophenol                      | U           |      | 1.6                        | 5.3          | µg/L                   | 1               | 11/6/2015 01:17    |
| 2,4-Dinitrotoluene                     | U           |      | 0.15                       | 5.3          | µg/L                   | 1               | 11/6/2015 01:17    |
| 2,6-Dinitrotoluene                     | U           |      | 0.21                       | 5.3          | µg/L                   | 1               | 11/6/2015 01:17    |
| 2-Chloronaphthalene                    | U           |      | 0.032                      | 5.3          | µg/L                   | 1               | 11/6/2015 01:17    |
| 2-Chlorophenol                         | U           |      | 0.31                       | 5.3          | µg/L                   | 1               | 11/6/2015 01:17    |
| <b>2-Methylnaphthalene</b>             | <b>0.26</b> | J    | <b>0.10</b>                | <b>5.3</b>   | <b>µg/L</b>            | 1               | 11/6/2015 01:17    |
| 2-Methylphenol                         | U           |      | 0.15                       | 5.3          | µg/L                   | 1               | 11/6/2015 01:17    |
| 2-Nitroaniline                         | U           |      | 0.25                       | 5.3          | µg/L                   | 1               | 11/6/2015 01:17    |
| 2-Nitrophenol                          | U           |      | 0.28                       | 5.3          | µg/L                   | 1               | 11/6/2015 01:17    |
| <b>3&amp;4-Methylphenol</b>            | <b>0.63</b> | J    | <b>0.25</b>                | <b>5.3</b>   | <b>µg/L</b>            | 1               | 11/6/2015 01:17    |
| 3,3'-Dichlorobenzidine                 | U           |      | 0.74                       | 5.3          | µg/L                   | 1               | 11/6/2015 01:17    |
| 3-Nitroaniline                         | U           |      | 0.25                       | 5.3          | µg/L                   | 1               | 11/6/2015 01:17    |
| 4,6-Dinitro-2-methylphenol             | U           |      | 0.13                       | 5.3          | µg/L                   | 1               | 11/6/2015 01:17    |
| 4-Bromophenyl phenyl ether             | U           |      | 0.31                       | 5.3          | µg/L                   | 1               | 11/6/2015 01:17    |
| 4-Chloro-3-methylphenol                | U           |      | 0.17                       | 5.3          | µg/L                   | 1               | 11/6/2015 01:17    |
| 4-Chloroaniline                        | U           |      | 0.23                       | 5.3          | µg/L                   | 1               | 11/6/2015 01:17    |
| 4-Chlorophenyl phenyl ether            | U           |      | 0.21                       | 5.3          | µg/L                   | 1               | 11/6/2015 01:17    |
| 4-Nitroaniline                         | U           |      | 0.14                       | 5.3          | µg/L                   | 1               | 11/6/2015 01:17    |
| 4-Nitrophenol                          | U           |      | 0.65                       | 5.3          | µg/L                   | 1               | 11/6/2015 01:17    |
| <b>Acenaphthene</b>                    | <b>0.38</b> | J    | <b>0.043</b>               | <b>5.3</b>   | <b>µg/L</b>            | 1               | 11/6/2015 01:17    |
| Acenaphthylene                         | U           |      | 0.041                      | 5.3          | µg/L                   | 1               | 11/6/2015 01:17    |
| Acetophenone                           | U           |      | 0.39                       | 1.1          | µg/L                   | 1               | 11/6/2015 01:17    |
| <b>Anthracene</b>                      | <b>0.37</b> | J    | <b>0.029</b>               | <b>5.3</b>   | <b>µg/L</b>            | 1               | 11/6/2015 01:17    |
| Atrazine                               | U           |      | 0.17                       | 1.1          | µg/L                   | 1               | 11/6/2015 01:17    |
| Benzaldehyde                           | U           |      | 0.26                       | 1.1          | µg/L                   | 1               | 11/6/2015 01:17    |
| Benzo(a)anthracene                     | U           |      | 0.076                      | 5.3          | µg/L                   | 1               | 11/6/2015 01:17    |
| Benzo(a)pyrene                         | U           |      | 0.038                      | 5.3          | µg/L                   | 1               | 11/6/2015 01:17    |
| Benzo(b)fluoranthene                   | U           |      | 0.045                      | 5.3          | µg/L                   | 1               | 11/6/2015 01:17    |
| Benzo(g,h,i)perylene                   | U           |      | 0.074                      | 5.3          | µg/L                   | 1               | 11/6/2015 01:17    |
| Benzo(k)fluoranthene                   | U           |      | 0.065                      | 5.3          | µg/L                   | 1               | 11/6/2015 01:17    |
| Bis(2-chloroethoxy)methane             | U           |      | 0.24                       | 5.3          | µg/L                   | 1               | 11/6/2015 01:17    |
| Bis(2-chloroethyl)ether                | U           |      | 0.17                       | 5.3          | µg/L                   | 1               | 11/6/2015 01:17    |
| Bis(2-chloroisopropyl)ether            | U           |      | 0.20                       | 5.3          | µg/L                   | 1               | 11/6/2015 01:17    |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.



# ALS Group USA, Corp

Date: 11-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102915-MR-047  
**Collection Date:** 10/29/2015 03:06 PM

**Work Order:** 15101851  
**Lab ID:** 15101851-26  
**Matrix:** WATER

| Analyses                   | Result      | Qual | MDL          | Report Limit | Units       | Dilution Factor | Date Analyzed   |
|----------------------------|-------------|------|--------------|--------------|-------------|-----------------|-----------------|
| Bis(2-ethylhexyl)phthalate | U           |      | 0.19         | 5.3          | µg/L        | 1               | 11/6/2015 01:17 |
| Butyl benzyl phthalate     | U           |      | 0.13         | 5.3          | µg/L        | 1               | 11/6/2015 01:17 |
| Caprolactam                | U           |      | 1.0          | 11           | µg/L        | 1               | 11/6/2015 01:17 |
| <b>Carbazole</b>           | <b>0.78</b> | J    | <b>0.13</b>  | <b>5.3</b>   | <b>µg/L</b> | 1               | 11/6/2015 01:17 |
| Chrysene                   | U           |      | 0.044        | 5.3          | µg/L        | 1               | 11/6/2015 01:17 |
| Dibenzo(a,h)anthracene     | U           |      | 0.078        | 5.3          | µg/L        | 1               | 11/6/2015 01:17 |
| Dibenzofuran               | U           |      | 0.24         | 5.3          | µg/L        | 1               | 11/6/2015 01:17 |
| Diethyl phthalate          | U           |      | 0.18         | 5.3          | µg/L        | 1               | 11/6/2015 01:17 |
| Dimethyl phthalate         | U           |      | 0.16         | 5.3          | µg/L        | 1               | 11/6/2015 01:17 |
| Di-n-butyl phthalate       | U           |      | 0.16         | 5.3          | µg/L        | 1               | 11/6/2015 01:17 |
| Di-n-octyl phthalate       | U           |      | 0.16         | 5.3          | µg/L        | 1               | 11/6/2015 01:17 |
| <b>Fluoranthene</b>        | <b>0.40</b> | J    | <b>0.049</b> | <b>5.3</b>   | <b>µg/L</b> | 1               | 11/6/2015 01:17 |
| <b>Fluorene</b>            | <b>0.46</b> | J    | <b>0.038</b> | <b>5.3</b>   | <b>µg/L</b> | 1               | 11/6/2015 01:17 |
| Hexachlorobenzene          | U           |      | 0.24         | 5.3          | µg/L        | 1               | 11/6/2015 01:17 |
| Hexachlorobutadiene        | U           |      | 0.39         | 5.3          | µg/L        | 1               | 11/6/2015 01:17 |
| Hexachlorocyclopentadiene  | U           |      | 0.19         | 5.3          | µg/L        | 1               | 11/6/2015 01:17 |
| Hexachloroethane           | U           |      | 0.49         | 5.3          | µg/L        | 1               | 11/6/2015 01:17 |
| Indeno(1,2,3-cd)pyrene     | U           |      | 0.067        | 5.3          | µg/L        | 1               | 11/6/2015 01:17 |
| Isophorone                 | U           |      | 0.26         | 5.3          | µg/L        | 1               | 11/6/2015 01:17 |
| <b>Naphthalene</b>         | <b>0.86</b> | J    | <b>0.053</b> | <b>5.3</b>   | <b>µg/L</b> | 1               | 11/6/2015 01:17 |
| Nitrobenzene               | U           |      | 0.24         | 5.3          | µg/L        | 1               | 11/6/2015 01:17 |
| N-Nitrosodi-n-propylamine  | U           |      | 0.25         | 5.3          | µg/L        | 1               | 11/6/2015 01:17 |
| N-Nitrosodiphenylamine     | U           |      | 0.25         | 5.3          | µg/L        | 1               | 11/6/2015 01:17 |
| Pentachlorophenol          | U           |      | 0.55         | 5.3          | µg/L        | 1               | 11/6/2015 01:17 |
| <b>Phenanthrene</b>        | <b>1.0</b>  | J    | <b>0.057</b> | <b>5.3</b>   | <b>µg/L</b> | 1               | 11/6/2015 01:17 |
| <b>Phenol</b>              | <b>1.3</b>  | J    | <b>0.14</b>  | <b>5.3</b>   | <b>µg/L</b> | 1               | 11/6/2015 01:17 |
| <b>Pyrene</b>              | <b>0.22</b> | J    | <b>0.073</b> | <b>5.3</b>   | <b>µg/L</b> | 1               | 11/6/2015 01:17 |
| Surr: 2,4,6-Tribromophenol | 76.5        |      |              | 38-115       | %REC        | 1               | 11/6/2015 01:17 |
| Surr: 2-Fluorobiphenyl     | 59.7        |      |              | 32-100       | %REC        | 1               | 11/6/2015 01:17 |
| Surr: 2-Fluorophenol       | 28.9        |      |              | 22-59        | %REC        | 1               | 11/6/2015 01:17 |
| Surr: 4-Terphenyl-d14      | 69.5        |      |              | 23-112       | %REC        | 1               | 11/6/2015 01:17 |
| Surr: Nitrobenzene-d5      | 46.9        |      |              | 31-93        | %REC        | 1               | 11/6/2015 01:17 |
| Surr: Phenol-d6            | 21.2        |      |              | 13-36        | %REC        | 1               | 11/6/2015 01:17 |

## VOLATILE ORGANIC COMPOUNDS

Method: SW8260B

Analyst: WH

|                                |   |  |      |     |      |   |                 |
|--------------------------------|---|--|------|-----|------|---|-----------------|
| 1,1,1-Trichloroethane          | U |  | 0.19 | 1.0 | µg/L | 1 | 11/7/2015 22:03 |
| 1,1,2,2-Tetrachloroethane      | U |  | 0.34 | 1.0 | µg/L | 1 | 11/7/2015 22:03 |
| 1,1,2-Trichloroethane          | U |  | 0.25 | 1.0 | µg/L | 1 | 11/7/2015 22:03 |
| 1,1,2-Trichlorotrifluoroethane | U |  | 0.47 | 1.0 | µg/L | 1 | 11/7/2015 22:03 |
| 1,1-Dichloroethane             | U |  | 0.21 | 1.0 | µg/L | 1 | 11/7/2015 22:03 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 11-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102915-MR-047  
**Collection Date:** 10/29/2015 03:06 PM

**Work Order:** 15101851  
**Lab ID:** 15101851-26  
**Matrix:** WATER

| Analyses                    | Result     | Qual     | MDL         | Report Limit | Units       | Dilution Factor | Date Analyzed   |
|-----------------------------|------------|----------|-------------|--------------|-------------|-----------------|-----------------|
| 1,1-Dichloroethene          | U          |          | 0.24        | 1.0          | µg/L        | 1               | 11/7/2015 22:03 |
| 1,2,4-Trichlorobenzene      | U          |          | 0.19        | 5.0          | µg/L        | 1               | 11/7/2015 22:03 |
| 1,2-Dibromo-3-chloropropane | U          |          | 0.42        | 1.0          | µg/L        | 1               | 11/7/2015 22:03 |
| 1,2-Dibromoethane           | U          |          | 0.34        | 1.0          | µg/L        | 1               | 11/7/2015 22:03 |
| 1,2-Dichlorobenzene         | U          |          | 0.22        | 1.0          | µg/L        | 1               | 11/7/2015 22:03 |
| 1,2-Dichloroethane          | U          |          | 0.26        | 1.0          | µg/L        | 1               | 11/7/2015 22:03 |
| 1,2-Dichloropropane         | U          |          | 0.26        | 1.0          | µg/L        | 1               | 11/7/2015 22:03 |
| 1,3-Dichlorobenzene         | U          |          | 0.21        | 1.0          | µg/L        | 1               | 11/7/2015 22:03 |
| 1,4-Dichlorobenzene         | U          |          | 0.20        | 1.0          | µg/L        | 1               | 11/7/2015 22:03 |
| <b>2-Butanone</b>           | <b>2.6</b> | <b>J</b> | <b>0.87</b> | <b>25</b>    | <b>µg/L</b> | 1               | 11/7/2015 22:03 |
| 2-Hexanone                  | U          |          | 0.15        | 50           | µg/L        | 1               | 11/7/2015 22:03 |
| 4-Methyl-2-pentanone        | U          |          | 0.15        | 50           | µg/L        | 1               | 11/7/2015 22:03 |
| <b>Acetone</b>              | <b>11</b>  | <b>J</b> | <b>3.1</b>  | <b>50</b>    | <b>µg/L</b> | 1               | 11/7/2015 22:03 |
| Benzene                     | U          |          | 0.25        | 1.0          | µg/L        | 1               | 11/7/2015 22:03 |
| Bromodichloromethane        | U          |          | 0.16        | 1.0          | µg/L        | 1               | 11/7/2015 22:03 |
| Bromoform                   | U          |          | 0.099       | 1.0          | µg/L        | 1               | 11/7/2015 22:03 |
| Bromomethane                | U          |          | 1.0         | 5.0          | µg/L        | 1               | 11/7/2015 22:03 |
| Carbon disulfide            | U          |          | 0.26        | 5.0          | µg/L        | 1               | 11/7/2015 22:03 |
| Carbon tetrachloride        | U          |          | 0.14        | 1.0          | µg/L        | 1               | 11/7/2015 22:03 |
| Chlorobenzene               | U          |          | 0.19        | 1.0          | µg/L        | 1               | 11/7/2015 22:03 |
| Chloroethane                | U          |          | 0.21        | 5.0          | µg/L        | 1               | 11/7/2015 22:03 |
| Chloroform                  | U          |          | 0.25        | 1.0          | µg/L        | 1               | 11/7/2015 22:03 |
| Chloromethane               | U          |          | 0.25        | 5.0          | µg/L        | 1               | 11/7/2015 22:03 |
| cis-1,2-Dichloroethene      | U          |          | 0.25        | 1.0          | µg/L        | 1               | 11/7/2015 22:03 |
| cis-1,3-Dichloropropene     | U          |          | 0.24        | 1.0          | µg/L        | 1               | 11/7/2015 22:03 |
| Cyclohexane                 | U          |          | 0.31        | 1.0          | µg/L        | 1               | 11/7/2015 22:03 |
| Dibromochloromethane        | U          |          | 0.17        | 5.0          | µg/L        | 1               | 11/7/2015 22:03 |
| Dichlorodifluoromethane     | U          |          | 0.41        | 5.0          | µg/L        | 1               | 11/7/2015 22:03 |
| Ethylbenzene                | U          |          | 0.22        | 1.0          | µg/L        | 1               | 11/7/2015 22:03 |
| Isopropylbenzene            | U          |          | 0.25        | 5.0          | µg/L        | 1               | 11/7/2015 22:03 |
| Methyl acetate              | U          |          | 0.62        | 10           | µg/L        | 1               | 11/7/2015 22:03 |
| Methyl tert-butyl ether     | U          |          | 0.12        | 5.0          | µg/L        | 1               | 11/7/2015 22:03 |
| Methylcyclohexane           | U          |          | 0.32        | 1.0          | µg/L        | 1               | 11/7/2015 22:03 |
| Methylene chloride          | U          |          | 0.64        | 5.0          | µg/L        | 1               | 11/7/2015 22:03 |
| Styrene                     | U          |          | 0.18        | 1.0          | µg/L        | 1               | 11/7/2015 22:03 |
| <b>Tetrachloroethene</b>    | <b>2.8</b> |          | <b>0.25</b> | <b>1.0</b>   | <b>µg/L</b> | 1               | 11/7/2015 22:03 |
| Toluene                     | U          |          | 0.20        | 1.0          | µg/L        | 1               | 11/7/2015 22:03 |
| trans-1,2-Dichloroethene    | U          |          | 0.29        | 1.0          | µg/L        | 1               | 11/7/2015 22:03 |
| trans-1,3-Dichloropropene   | U          |          | 0.19        | 1.0          | µg/L        | 1               | 11/7/2015 22:03 |
| Trichloroethene             | U          |          | 0.34        | 1.0          | µg/L        | 1               | 11/7/2015 22:03 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

**ALS Group USA, Corp**

Date: 11-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102915-MR-047  
**Collection Date:** 10/29/2015 03:06 PM

**Work Order:** 15101851  
**Lab ID:** 15101851-26  
**Matrix:** WATER

| Analyses                    | Result     | Qual     | MDL         | Report Limit | Units       | Dilution Factor | Date Analyzed          |
|-----------------------------|------------|----------|-------------|--------------|-------------|-----------------|------------------------|
| Trichlorofluoromethane      | U          |          | 0.39        | 1.0          | µg/L        | 1               | 11/7/2015 22:03        |
| Vinyl chloride              | U          |          | 0.19        | 1.0          | µg/L        | 1               | 11/7/2015 22:03        |
| <b>Xylenes, Total</b>       | <b>1.5</b> | <b>J</b> | <b>0.62</b> | <b>3.0</b>   | <b>µg/L</b> | <b>1</b>        | <b>11/7/2015 22:03</b> |
| Surr: 1,2-Dichloroethane-d4 | 98.7       |          |             | 75-120       | %REC        | 1               | 11/7/2015 22:03        |
| Surr: 4-Bromofluorobenzene  | 96.2       |          |             | 80-110       | %REC        | 1               | 11/7/2015 22:03        |
| Surr: Dibromofluoromethane  | 105        |          |             | 85-115       | %REC        | 1               | 11/7/2015 22:03        |
| Surr: Toluene-d8            | 98.8       |          |             | 85-110       | %REC        | 1               | 11/7/2015 22:03        |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 11-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102915-MR-048  
**Collection Date:** 10/29/2015 04:28 PM

**Work Order:** 15101851  
**Lab ID:** 15101851-27  
**Matrix:** WATER

| Analyses                               | Result      | Qual     | MDL                        | Report Limit | Units                  | Dilution Factor | Date Analyzed      |
|----------------------------------------|-------------|----------|----------------------------|--------------|------------------------|-----------------|--------------------|
| <b>SEMI-VOLATILE ORGANIC COMPOUNDS</b> |             |          | Method: <b>SW846 8270D</b> |              | Prep: SW3510 / 11/3/15 |                 | Analyst: <b>RM</b> |
| 1,1'-Biphenyl                          | U           |          | 0.22                       | 5.0          | µg/L                   | 1               | 11/6/2015 01:36    |
| 2,4,5-Trichlorophenol                  | U           |          | 0.29                       | 5.0          | µg/L                   | 1               | 11/6/2015 01:36    |
| 2,4,6-Trichlorophenol                  | U           |          | 0.25                       | 5.0          | µg/L                   | 1               | 11/6/2015 01:36    |
| 2,4-Dichlorophenol                     | U           |          | 0.17                       | 5.0          | µg/L                   | 1               | 11/6/2015 01:36    |
| <b>2,4-Dimethylphenol</b>              | <b>1.3</b>  | <b>J</b> | <b>0.18</b>                | <b>5.0</b>   | <b>µg/L</b>            | 1               | 11/6/2015 01:36    |
| 2,4-Dinitrophenol                      | U           |          | 1.5                        | 5.0          | µg/L                   | 1               | 11/6/2015 01:36    |
| 2,4-Dinitrotoluene                     | U           |          | 0.14                       | 5.0          | µg/L                   | 1               | 11/6/2015 01:36    |
| 2,6-Dinitrotoluene                     | U           |          | 0.20                       | 5.0          | µg/L                   | 1               | 11/6/2015 01:36    |
| 2-Chloronaphthalene                    | U           |          | 0.030                      | 5.0          | µg/L                   | 1               | 11/6/2015 01:36    |
| 2-Chlorophenol                         | U           |          | 0.29                       | 5.0          | µg/L                   | 1               | 11/6/2015 01:36    |
| 2-Methylnaphthalene                    | U           |          | 0.099                      | 5.0          | µg/L                   | 1               | 11/6/2015 01:36    |
| 2-Methylphenol                         | U           |          | 0.14                       | 5.0          | µg/L                   | 1               | 11/6/2015 01:36    |
| 2-Nitroaniline                         | U           |          | 0.24                       | 5.0          | µg/L                   | 1               | 11/6/2015 01:36    |
| 2-Nitrophenol                          | U           |          | 0.27                       | 5.0          | µg/L                   | 1               | 11/6/2015 01:36    |
| 3&4-Methylphenol                       | U           |          | 0.24                       | 5.0          | µg/L                   | 1               | 11/6/2015 01:36    |
| 3,3'-Dichlorobenzidine                 | U           |          | 0.70                       | 5.0          | µg/L                   | 1               | 11/6/2015 01:36    |
| 3-Nitroaniline                         | U           |          | 0.24                       | 5.0          | µg/L                   | 1               | 11/6/2015 01:36    |
| 4,6-Dinitro-2-methylphenol             | U           |          | 0.12                       | 5.0          | µg/L                   | 1               | 11/6/2015 01:36    |
| 4-Bromophenyl phenyl ether             | U           |          | 0.29                       | 5.0          | µg/L                   | 1               | 11/6/2015 01:36    |
| 4-Chloro-3-methylphenol                | U           |          | 0.16                       | 5.0          | µg/L                   | 1               | 11/6/2015 01:36    |
| 4-Chloroaniline                        | U           |          | 0.22                       | 5.0          | µg/L                   | 1               | 11/6/2015 01:36    |
| 4-Chlorophenyl phenyl ether            | U           |          | 0.20                       | 5.0          | µg/L                   | 1               | 11/6/2015 01:36    |
| 4-Nitroaniline                         | U           |          | 0.13                       | 5.0          | µg/L                   | 1               | 11/6/2015 01:36    |
| 4-Nitrophenol                          | U           |          | 0.62                       | 5.0          | µg/L                   | 1               | 11/6/2015 01:36    |
| <b>Acenaphthene</b>                    | <b>0.94</b> | <b>J</b> | <b>0.041</b>               | <b>5.0</b>   | <b>µg/L</b>            | 1               | 11/6/2015 01:36    |
| Acenaphthylene                         | U           |          | 0.039                      | 5.0          | µg/L                   | 1               | 11/6/2015 01:36    |
| Acetophenone                           | U           |          | 0.37                       | 1.0          | µg/L                   | 1               | 11/6/2015 01:36    |
| Anthracene                             | U           |          | 0.028                      | 5.0          | µg/L                   | 1               | 11/6/2015 01:36    |
| Atrazine                               | U           |          | 0.16                       | 1.0          | µg/L                   | 1               | 11/6/2015 01:36    |
| Benzaldehyde                           | U           |          | 0.25                       | 1.0          | µg/L                   | 1               | 11/6/2015 01:36    |
| Benzo(a)anthracene                     | U           |          | 0.072                      | 5.0          | µg/L                   | 1               | 11/6/2015 01:36    |
| Benzo(a)pyrene                         | U           |          | 0.036                      | 5.0          | µg/L                   | 1               | 11/6/2015 01:36    |
| Benzo(b)fluoranthene                   | U           |          | 0.043                      | 5.0          | µg/L                   | 1               | 11/6/2015 01:36    |
| Benzo(g,h,i)perylene                   | U           |          | 0.070                      | 5.0          | µg/L                   | 1               | 11/6/2015 01:36    |
| Benzo(k)fluoranthene                   | U           |          | 0.062                      | 5.0          | µg/L                   | 1               | 11/6/2015 01:36    |
| Bis(2-chloroethoxy)methane             | U           |          | 0.23                       | 5.0          | µg/L                   | 1               | 11/6/2015 01:36    |
| Bis(2-chloroethyl)ether                | U           |          | 0.16                       | 5.0          | µg/L                   | 1               | 11/6/2015 01:36    |
| Bis(2-chloroisopropyl)ether            | U           |          | 0.19                       | 5.0          | µg/L                   | 1               | 11/6/2015 01:36    |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 11-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102915-MR-048  
**Collection Date:** 10/29/2015 04:28 PM

**Work Order:** 15101851  
**Lab ID:** 15101851-27  
**Matrix:** WATER

| Analyses                          | Result      | Qual     | MDL             | Report Limit | Units       | Dilution Factor | Date Analyzed          |
|-----------------------------------|-------------|----------|-----------------|--------------|-------------|-----------------|------------------------|
| Bis(2-ethylhexyl)phthalate        | U           |          | 0.18            | 5.0          | µg/L        | 1               | 11/6/2015 01:36        |
| Butyl benzyl phthalate            | U           |          | 0.12            | 5.0          | µg/L        | 1               | 11/6/2015 01:36        |
| Caprolactam                       | U           |          | 0.96            | 10           | µg/L        | 1               | 11/6/2015 01:36        |
| <b>Carbazole</b>                  | <b>1.9</b>  | <b>J</b> | <b>0.12</b>     | <b>5.0</b>   | <b>µg/L</b> | <b>1</b>        | <b>11/6/2015 01:36</b> |
| Chrysene                          | U           |          | 0.042           | 5.0          | µg/L        | 1               | 11/6/2015 01:36        |
| Dibenzo(a,h)anthracene            | U           |          | 0.074           | 5.0          | µg/L        | 1               | 11/6/2015 01:36        |
| <b>Dibenzofuran</b>               | <b>0.70</b> | <b>J</b> | <b>0.23</b>     | <b>5.0</b>   | <b>µg/L</b> | <b>1</b>        | <b>11/6/2015 01:36</b> |
| Diethyl phthalate                 | U           |          | 0.17            | 5.0          | µg/L        | 1               | 11/6/2015 01:36        |
| Dimethyl phthalate                | U           |          | 0.15            | 5.0          | µg/L        | 1               | 11/6/2015 01:36        |
| Di-n-butyl phthalate              | U           |          | 0.15            | 5.0          | µg/L        | 1               | 11/6/2015 01:36        |
| Di-n-octyl phthalate              | U           |          | 0.15            | 5.0          | µg/L        | 1               | 11/6/2015 01:36        |
| Fluoranthene                      | U           |          | 0.047           | 5.0          | µg/L        | 1               | 11/6/2015 01:36        |
| <b>Fluorene</b>                   | <b>1.9</b>  | <b>J</b> | <b>0.036</b>    | <b>5.0</b>   | <b>µg/L</b> | <b>1</b>        | <b>11/6/2015 01:36</b> |
| Hexachlorobenzene                 | U           |          | 0.23            | 5.0          | µg/L        | 1               | 11/6/2015 01:36        |
| Hexachlorobutadiene               | U           |          | 0.37            | 5.0          | µg/L        | 1               | 11/6/2015 01:36        |
| Hexachlorocyclopentadiene         | U           |          | 0.18            | 5.0          | µg/L        | 1               | 11/6/2015 01:36        |
| Hexachloroethane                  | U           |          | 0.47            | 5.0          | µg/L        | 1               | 11/6/2015 01:36        |
| Indeno(1,2,3-cd)pyrene            | U           |          | 0.064           | 5.0          | µg/L        | 1               | 11/6/2015 01:36        |
| Isophorone                        | U           |          | 0.25            | 5.0          | µg/L        | 1               | 11/6/2015 01:36        |
| <b>Naphthalene</b>                | <b>1.9</b>  | <b>J</b> | <b>0.050</b>    | <b>5.0</b>   | <b>µg/L</b> | <b>1</b>        | <b>11/6/2015 01:36</b> |
| Nitrobenzene                      | U           |          | 0.23            | 5.0          | µg/L        | 1               | 11/6/2015 01:36        |
| N-Nitrosodi-n-propylamine         | U           |          | 0.24            | 5.0          | µg/L        | 1               | 11/6/2015 01:36        |
| N-Nitrosodiphenylamine            | U           |          | 0.24            | 5.0          | µg/L        | 1               | 11/6/2015 01:36        |
| Pentachlorophenol                 | U           |          | 0.52            | 5.0          | µg/L        | 1               | 11/6/2015 01:36        |
| Phenanthrene                      | U           |          | 0.054           | 5.0          | µg/L        | 1               | 11/6/2015 01:36        |
| Phenol                            | U           |          | 0.13            | 5.0          | µg/L        | 1               | 11/6/2015 01:36        |
| Pyrene                            | U           |          | 0.069           | 5.0          | µg/L        | 1               | 11/6/2015 01:36        |
| Surr: 2,4,6-Tribromophenol        | 76.7        |          |                 | 38-115       | %REC        | 1               | 11/6/2015 01:36        |
| Surr: 2-Fluorobiphenyl            | 60.7        |          |                 | 32-100       | %REC        | 1               | 11/6/2015 01:36        |
| Surr: 2-Fluorophenol              | 31.5        |          |                 | 22-59        | %REC        | 1               | 11/6/2015 01:36        |
| Surr: 4-Terphenyl-d14             | 66.2        |          |                 | 23-112       | %REC        | 1               | 11/6/2015 01:36        |
| Surr: Nitrobenzene-d5             | 55.6        |          |                 | 31-93        | %REC        | 1               | 11/6/2015 01:36        |
| Surr: Phenol-d6                   | 23.1        |          |                 | 13-36        | %REC        | 1               | 11/6/2015 01:36        |
| <b>VOLATILE ORGANIC COMPOUNDS</b> |             |          | Method: SW8260B |              |             |                 | Analyst: WH            |
| 1,1,1-Trichloroethane             | U           |          | 0.19            | 1.0          | µg/L        | 1               | 11/7/2015 21:37        |
| 1,1,2,2-Tetrachloroethane         | U           |          | 0.34            | 1.0          | µg/L        | 1               | 11/7/2015 21:37        |
| 1,1,2-Trichloroethane             | U           |          | 0.25            | 1.0          | µg/L        | 1               | 11/7/2015 21:37        |
| 1,1,2-Trichlorotrifluoroethane    | U           |          | 0.47            | 1.0          | µg/L        | 1               | 11/7/2015 21:37        |
| 1,1-Dichloroethane                | U           |          | 0.21            | 1.0          | µg/L        | 1               | 11/7/2015 21:37        |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 11-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102915-MR-048  
**Collection Date:** 10/29/2015 04:28 PM

**Work Order:** 15101851  
**Lab ID:** 15101851-27  
**Matrix:** WATER

| Analyses                    | Result     | Qual | MDL         | Report Limit | Units       | Dilution Factor | Date Analyzed   |
|-----------------------------|------------|------|-------------|--------------|-------------|-----------------|-----------------|
| 1,1-Dichloroethene          | U          |      | 0.24        | 1.0          | µg/L        | 1               | 11/7/2015 21:37 |
| 1,2,4-Trichlorobenzene      | U          |      | 0.19        | 5.0          | µg/L        | 1               | 11/7/2015 21:37 |
| 1,2-Dibromo-3-chloropropane | U          |      | 0.42        | 1.0          | µg/L        | 1               | 11/7/2015 21:37 |
| 1,2-Dibromoethane           | U          |      | 0.34        | 1.0          | µg/L        | 1               | 11/7/2015 21:37 |
| 1,2-Dichlorobenzene         | U          |      | 0.22        | 1.0          | µg/L        | 1               | 11/7/2015 21:37 |
| 1,2-Dichloroethane          | U          |      | 0.26        | 1.0          | µg/L        | 1               | 11/7/2015 21:37 |
| 1,2-Dichloropropane         | U          |      | 0.26        | 1.0          | µg/L        | 1               | 11/7/2015 21:37 |
| 1,3-Dichlorobenzene         | U          |      | 0.21        | 1.0          | µg/L        | 1               | 11/7/2015 21:37 |
| 1,4-Dichlorobenzene         | U          |      | 0.20        | 1.0          | µg/L        | 1               | 11/7/2015 21:37 |
| 2-Butanone                  | U          |      | 0.87        | 25           | µg/L        | 1               | 11/7/2015 21:37 |
| 2-Hexanone                  | U          |      | 0.15        | 50           | µg/L        | 1               | 11/7/2015 21:37 |
| 4-Methyl-2-pentanone        | U          |      | 0.15        | 50           | µg/L        | 1               | 11/7/2015 21:37 |
| Acetone                     | U          |      | 3.1         | 50           | µg/L        | 1               | 11/7/2015 21:37 |
| Benzene                     | U          |      | 0.25        | 1.0          | µg/L        | 1               | 11/7/2015 21:37 |
| Bromodichloromethane        | U          |      | 0.16        | 1.0          | µg/L        | 1               | 11/7/2015 21:37 |
| Bromoform                   | U          |      | 0.099       | 1.0          | µg/L        | 1               | 11/7/2015 21:37 |
| Bromomethane                | U          |      | 1.0         | 5.0          | µg/L        | 1               | 11/7/2015 21:37 |
| Carbon disulfide            | U          |      | 0.26        | 5.0          | µg/L        | 1               | 11/7/2015 21:37 |
| Carbon tetrachloride        | U          |      | 0.14        | 1.0          | µg/L        | 1               | 11/7/2015 21:37 |
| Chlorobenzene               | U          |      | 0.19        | 1.0          | µg/L        | 1               | 11/7/2015 21:37 |
| Chloroethane                | U          |      | 0.21        | 5.0          | µg/L        | 1               | 11/7/2015 21:37 |
| Chloroform                  | U          |      | 0.25        | 1.0          | µg/L        | 1               | 11/7/2015 21:37 |
| Chloromethane               | U          |      | 0.25        | 5.0          | µg/L        | 1               | 11/7/2015 21:37 |
| cis-1,2-Dichloroethene      | U          |      | 0.25        | 1.0          | µg/L        | 1               | 11/7/2015 21:37 |
| cis-1,3-Dichloropropene     | U          |      | 0.24        | 1.0          | µg/L        | 1               | 11/7/2015 21:37 |
| Cyclohexane                 | U          |      | 0.31        | 1.0          | µg/L        | 1               | 11/7/2015 21:37 |
| Dibromochloromethane        | U          |      | 0.17        | 5.0          | µg/L        | 1               | 11/7/2015 21:37 |
| Dichlorodifluoromethane     | U          |      | 0.41        | 5.0          | µg/L        | 1               | 11/7/2015 21:37 |
| <b>Ethylbenzene</b>         | <b>3.3</b> |      | <b>0.22</b> | <b>1.0</b>   | <b>µg/L</b> | 1               | 11/7/2015 21:37 |
| <b>Isopropylbenzene</b>     | <b>3.4</b> | J    | <b>0.25</b> | <b>5.0</b>   | <b>µg/L</b> | 1               | 11/7/2015 21:37 |
| Methyl acetate              | U          |      | 0.62        | 10           | µg/L        | 1               | 11/7/2015 21:37 |
| Methyl tert-butyl ether     | U          |      | 0.12        | 5.0          | µg/L        | 1               | 11/7/2015 21:37 |
| Methylcyclohexane           | U          |      | 0.32        | 1.0          | µg/L        | 1               | 11/7/2015 21:37 |
| Methylene chloride          | U          |      | 0.64        | 5.0          | µg/L        | 1               | 11/7/2015 21:37 |
| Styrene                     | U          |      | 0.18        | 1.0          | µg/L        | 1               | 11/7/2015 21:37 |
| Tetrachloroethene           | U          |      | 0.25        | 1.0          | µg/L        | 1               | 11/7/2015 21:37 |
| Toluene                     | U          |      | 0.20        | 1.0          | µg/L        | 1               | 11/7/2015 21:37 |
| trans-1,2-Dichloroethene    | U          |      | 0.29        | 1.0          | µg/L        | 1               | 11/7/2015 21:37 |
| trans-1,3-Dichloropropene   | U          |      | 0.19        | 1.0          | µg/L        | 1               | 11/7/2015 21:37 |
| Trichloroethene             | U          |      | 0.34        | 1.0          | µg/L        | 1               | 11/7/2015 21:37 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

**ALS Group USA, Corp**

Date: 11-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102915-MR-048  
**Collection Date:** 10/29/2015 04:28 PM

**Work Order:** 15101851  
**Lab ID:** 15101851-27  
**Matrix:** WATER

| Analyses                    | Result     | Qual | MDL         | Report Limit | Units       | Dilution Factor | Date Analyzed   |
|-----------------------------|------------|------|-------------|--------------|-------------|-----------------|-----------------|
| Trichlorofluoromethane      | U          |      | 0.39        | 1.0          | µg/L        | 1               | 11/7/2015 21:37 |
| Vinyl chloride              | U          |      | 0.19        | 1.0          | µg/L        | 1               | 11/7/2015 21:37 |
| <b>Xylenes, Total</b>       | <b>5.9</b> |      | <b>0.62</b> | <b>3.0</b>   | <b>µg/L</b> | 1               | 11/7/2015 21:37 |
| Surr: 1,2-Dichloroethane-d4 | 96.4       |      |             | 75-120       | %REC        | 1               | 11/7/2015 21:37 |
| Surr: 4-Bromofluorobenzene  | 100        |      |             | 80-110       | %REC        | 1               | 11/7/2015 21:37 |
| Surr: Dibromofluoromethane  | 87.6       |      |             | 85-115       | %REC        | 1               | 11/7/2015 21:37 |
| Surr: Toluene-d8            | 105        |      |             | 85-110       | %REC        | 1               | 11/7/2015 21:37 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 11-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** TB-017360-102915-MR-049  
**Collection Date:** 10/29/2015

**Work Order:** 15101851  
**Lab ID:** 15101851-28  
**Matrix:** WATER

| Analyses                          | Result | Qual | MDL             | Report Limit | Units | Dilution Factor | Date Analyzed   |
|-----------------------------------|--------|------|-----------------|--------------|-------|-----------------|-----------------|
| <b>VOLATILE ORGANIC COMPOUNDS</b> |        |      | Method: SW8260B |              |       | Analyst: WH     |                 |
| 1,1,1-Trichloroethane             | U      |      | 0.19            | 1.0          | µg/L  | 1               | 11/7/2015 21:12 |
| 1,1,2,2-Tetrachloroethane         | U      |      | 0.34            | 1.0          | µg/L  | 1               | 11/7/2015 21:12 |
| 1,1,2-Trichloroethane             | U      |      | 0.25            | 1.0          | µg/L  | 1               | 11/7/2015 21:12 |
| 1,1,2-Trichlorotrifluoroethane    | U      |      | 0.47            | 1.0          | µg/L  | 1               | 11/7/2015 21:12 |
| 1,1-Dichloroethane                | U      |      | 0.21            | 1.0          | µg/L  | 1               | 11/7/2015 21:12 |
| 1,1-Dichloroethene                | U      |      | 0.24            | 1.0          | µg/L  | 1               | 11/7/2015 21:12 |
| 1,2,4-Trichlorobenzene            | U      |      | 0.19            | 5.0          | µg/L  | 1               | 11/7/2015 21:12 |
| 1,2-Dibromo-3-chloropropane       | U      |      | 0.42            | 1.0          | µg/L  | 1               | 11/7/2015 21:12 |
| 1,2-Dibromoethane                 | U      |      | 0.34            | 1.0          | µg/L  | 1               | 11/7/2015 21:12 |
| 1,2-Dichlorobenzene               | U      |      | 0.22            | 1.0          | µg/L  | 1               | 11/7/2015 21:12 |
| 1,2-Dichloroethane                | U      |      | 0.26            | 1.0          | µg/L  | 1               | 11/7/2015 21:12 |
| 1,2-Dichloropropane               | U      |      | 0.26            | 1.0          | µg/L  | 1               | 11/7/2015 21:12 |
| 1,3-Dichlorobenzene               | U      |      | 0.21            | 1.0          | µg/L  | 1               | 11/7/2015 21:12 |
| 1,4-Dichlorobenzene               | U      |      | 0.20            | 1.0          | µg/L  | 1               | 11/7/2015 21:12 |
| 2-Butanone                        | U      |      | 0.87            | 25           | µg/L  | 1               | 11/7/2015 21:12 |
| 2-Hexanone                        | U      |      | 0.15            | 50           | µg/L  | 1               | 11/7/2015 21:12 |
| 4-Methyl-2-pentanone              | U      |      | 0.15            | 50           | µg/L  | 1               | 11/7/2015 21:12 |
| Acetone                           | U      |      | 3.1             | 50           | µg/L  | 1               | 11/7/2015 21:12 |
| Benzene                           | U      |      | 0.25            | 1.0          | µg/L  | 1               | 11/7/2015 21:12 |
| Bromodichloromethane              | U      |      | 0.16            | 1.0          | µg/L  | 1               | 11/7/2015 21:12 |
| Bromoform                         | U      |      | 0.099           | 1.0          | µg/L  | 1               | 11/7/2015 21:12 |
| Bromomethane                      | U      |      | 1.0             | 5.0          | µg/L  | 1               | 11/7/2015 21:12 |
| Carbon disulfide                  | U      |      | 0.26            | 5.0          | µg/L  | 1               | 11/7/2015 21:12 |
| Carbon tetrachloride              | U      |      | 0.14            | 1.0          | µg/L  | 1               | 11/7/2015 21:12 |
| Chlorobenzene                     | U      |      | 0.19            | 1.0          | µg/L  | 1               | 11/7/2015 21:12 |
| Chloroethane                      | U      |      | 0.21            | 5.0          | µg/L  | 1               | 11/7/2015 21:12 |
| Chloroform                        | U      |      | 0.25            | 1.0          | µg/L  | 1               | 11/7/2015 21:12 |
| Chloromethane                     | U      |      | 0.25            | 5.0          | µg/L  | 1               | 11/7/2015 21:12 |
| cis-1,2-Dichloroethene            | U      |      | 0.25            | 1.0          | µg/L  | 1               | 11/7/2015 21:12 |
| cis-1,3-Dichloropropene           | U      |      | 0.24            | 1.0          | µg/L  | 1               | 11/7/2015 21:12 |
| Cyclohexane                       | U      |      | 0.31            | 1.0          | µg/L  | 1               | 11/7/2015 21:12 |
| Dibromochloromethane              | U      |      | 0.17            | 5.0          | µg/L  | 1               | 11/7/2015 21:12 |
| Dichlorodifluoromethane           | U      |      | 0.41            | 5.0          | µg/L  | 1               | 11/7/2015 21:12 |
| Ethylbenzene                      | U      |      | 0.22            | 1.0          | µg/L  | 1               | 11/7/2015 21:12 |
| Isopropylbenzene                  | U      |      | 0.25            | 5.0          | µg/L  | 1               | 11/7/2015 21:12 |
| Methyl acetate                    | U      |      | 0.62            | 10           | µg/L  | 1               | 11/7/2015 21:12 |
| Methyl tert-butyl ether           | U      |      | 0.12            | 5.0          | µg/L  | 1               | 11/7/2015 21:12 |
| Methylcyclohexane                 | U      |      | 0.32            | 1.0          | µg/L  | 1               | 11/7/2015 21:12 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.



**ALS Group USA, Corp**

Date: 11-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** TB-017360-102915-MR-049  
**Collection Date:** 10/29/2015

**Work Order:** 15101851  
**Lab ID:** 15101851-28  
**Matrix:** WATER

| Analyses                    | Result | Qual | MDL  | Report Limit | Units | Dilution Factor | Date Analyzed   |
|-----------------------------|--------|------|------|--------------|-------|-----------------|-----------------|
| Methylene chloride          | U      |      | 0.64 | 5.0          | µg/L  | 1               | 11/7/2015 21:12 |
| Styrene                     | U      |      | 0.18 | 1.0          | µg/L  | 1               | 11/7/2015 21:12 |
| Tetrachloroethene           | U      |      | 0.25 | 1.0          | µg/L  | 1               | 11/7/2015 21:12 |
| Toluene                     | U      |      | 0.20 | 1.0          | µg/L  | 1               | 11/7/2015 21:12 |
| trans-1,2-Dichloroethene    | U      |      | 0.29 | 1.0          | µg/L  | 1               | 11/7/2015 21:12 |
| trans-1,3-Dichloropropene   | U      |      | 0.19 | 1.0          | µg/L  | 1               | 11/7/2015 21:12 |
| Trichloroethene             | U      |      | 0.34 | 1.0          | µg/L  | 1               | 11/7/2015 21:12 |
| Trichlorofluoromethane      | U      |      | 0.39 | 1.0          | µg/L  | 1               | 11/7/2015 21:12 |
| Vinyl chloride              | U      |      | 0.19 | 1.0          | µg/L  | 1               | 11/7/2015 21:12 |
| Xylenes, Total              | U      |      | 0.62 | 3.0          | µg/L  | 1               | 11/7/2015 21:12 |
| Surr: 1,2-Dichloroethane-d4 | 96.3   |      |      | 75-120       | %REC  | 1               | 11/7/2015 21:12 |
| Surr: 4-Bromofluorobenzene  | 91.0   |      |      | 80-110       | %REC  | 1               | 11/7/2015 21:12 |
| Surr: Dibromofluoromethane  | 99.1   |      |      | 85-115       | %REC  | 1               | 11/7/2015 21:12 |
| Surr: Toluene-d8            | 99.2   |      |      | 85-110       | %REC  | 1               | 11/7/2015 21:12 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

Client: GHD Services Inc.

Work Order: 15101851

Project: Former GRMP (17360)

# QC BATCH REPORT

Batch ID: 78233

Instrument ID HG1

Method: SW7470A

|             |        |                                    |         |               |      |                       |               |                                          |           |              |
|-------------|--------|------------------------------------|---------|---------------|------|-----------------------|---------------|------------------------------------------|-----------|--------------|
| <b>MBLK</b> |        | Sample ID: <b>MBLK-78233-78233</b> |         |               |      | Units: <b>mg/L</b>    |               | Analysis Date: <b>11/2/2015 03:52 PM</b> |           |              |
| Client ID:  |        | Run ID: <b>HG1_151102A</b>         |         |               |      | SeqNo: <b>3542962</b> |               | Prep Date: <b>11/2/2015</b>              |           | DF: <b>1</b> |
| Analyte     | Result | PQL                                | SPK Val | SPK Ref Value | %REC | Control Limit         | RPD Ref Value | %RPD                                     | RPD Limit | Qual         |

Mercury U 0.00020

|            |        |                                   |         |               |      |                       |               |                                          |           |              |
|------------|--------|-----------------------------------|---------|---------------|------|-----------------------|---------------|------------------------------------------|-----------|--------------|
| <b>LCS</b> |        | Sample ID: <b>LCS-78233-78233</b> |         |               |      | Units: <b>mg/L</b>    |               | Analysis Date: <b>11/2/2015 03:54 PM</b> |           |              |
| Client ID: |        | Run ID: <b>HG1_151102A</b>        |         |               |      | SeqNo: <b>3542963</b> |               | Prep Date: <b>11/2/2015</b>              |           | DF: <b>1</b> |
| Analyte    | Result | PQL                               | SPK Val | SPK Ref Value | %REC | Control Limit         | RPD Ref Value | %RPD                                     | RPD Limit | Qual         |

Mercury 0.00199 0.00020 0.002 0 99.5 80-120 0

|            |        |                                  |         |               |      |                       |               |                                          |           |              |
|------------|--------|----------------------------------|---------|---------------|------|-----------------------|---------------|------------------------------------------|-----------|--------------|
| <b>MS</b>  |        | Sample ID: <b>15101135-10AMS</b> |         |               |      | Units: <b>mg/L</b>    |               | Analysis Date: <b>11/2/2015 03:59 PM</b> |           |              |
| Client ID: |        | Run ID: <b>HG1_151102A</b>       |         |               |      | SeqNo: <b>3542965</b> |               | Prep Date: <b>11/2/2015</b>              |           | DF: <b>1</b> |
| Analyte    | Result | PQL                              | SPK Val | SPK Ref Value | %REC | Control Limit         | RPD Ref Value | %RPD                                     | RPD Limit | Qual         |

Mercury 0.0196 0.0020 0.02 0.00003 97.8 75-125 0

|            |        |                                  |         |               |      |                       |               |                                          |           |              |
|------------|--------|----------------------------------|---------|---------------|------|-----------------------|---------------|------------------------------------------|-----------|--------------|
| <b>MS</b>  |        | Sample ID: <b>15101876-01AMS</b> |         |               |      | Units: <b>mg/L</b>    |               | Analysis Date: <b>11/2/2015 06:18 PM</b> |           |              |
| Client ID: |        | Run ID: <b>HG1_151102A</b>       |         |               |      | SeqNo: <b>3543597</b> |               | Prep Date: <b>11/2/2015</b>              |           | DF: <b>1</b> |
| Analyte    | Result | PQL                              | SPK Val | SPK Ref Value | %REC | Control Limit         | RPD Ref Value | %RPD                                     | RPD Limit | Qual         |

Mercury 0.00186 0.00020 0.002 0.000006 92.7 75-125 0

|            |        |                                   |         |               |      |                       |               |                                          |           |              |
|------------|--------|-----------------------------------|---------|---------------|------|-----------------------|---------------|------------------------------------------|-----------|--------------|
| <b>MSD</b> |        | Sample ID: <b>15101135-10AMSD</b> |         |               |      | Units: <b>mg/L</b>    |               | Analysis Date: <b>11/2/2015 04:01 PM</b> |           |              |
| Client ID: |        | Run ID: <b>HG1_151102A</b>        |         |               |      | SeqNo: <b>3542966</b> |               | Prep Date: <b>11/2/2015</b>              |           | DF: <b>1</b> |
| Analyte    | Result | PQL                               | SPK Val | SPK Ref Value | %REC | Control Limit         | RPD Ref Value | %RPD                                     | RPD Limit | Qual         |

Mercury 0.0194 0.0020 0.02 0.00003 96.8 75-125 0.0196 1.03 20

|            |        |                                   |         |               |      |                       |               |                                          |           |              |
|------------|--------|-----------------------------------|---------|---------------|------|-----------------------|---------------|------------------------------------------|-----------|--------------|
| <b>MSD</b> |        | Sample ID: <b>15101876-01AMSD</b> |         |               |      | Units: <b>mg/L</b>    |               | Analysis Date: <b>11/2/2015 06:20 PM</b> |           |              |
| Client ID: |        | Run ID: <b>HG1_151102A</b>        |         |               |      | SeqNo: <b>3543598</b> |               | Prep Date: <b>11/2/2015</b>              |           | DF: <b>1</b> |
| Analyte    | Result | PQL                               | SPK Val | SPK Ref Value | %REC | Control Limit         | RPD Ref Value | %RPD                                     | RPD Limit | Qual         |

Mercury 0.00193 0.00020 0.002 0.000006 96.2 75-125 0.00186 3.69 20

The following samples were analyzed in this batch:

|              |              |
|--------------|--------------|
| 15101851-11B | 15101851-12B |
|--------------|--------------|

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** GHD Services Inc.  
**Work Order:** 15101851  
**Project:** Former GRMP (17360)

## QC BATCH REPORT

Batch ID: **78402** Instrument ID **ICPMS2** Method: **SW6020A**

| MBLK       |           | Sample ID: <b>MBLK-78402-78402</b> |         |               |      | Units: <b>mg/L</b>    |               | Analysis Date: <b>11/5/2015 02:08 AM</b> |           |              |
|------------|-----------|------------------------------------|---------|---------------|------|-----------------------|---------------|------------------------------------------|-----------|--------------|
| Client ID: |           | Run ID: <b>ICPMS2_151104A</b>      |         |               |      | SeqNo: <b>3549247</b> |               | Prep Date: <b>11/4/2015</b>              |           | DF: <b>1</b> |
| Analyte    | Result    | PQL                                | SPK Val | SPK Ref Value | %REC | Control Limit         | RPD Ref Value | %RPD                                     | RPD Limit | Qual         |
| Antimony   | U         | 0.0050                             |         |               |      |                       |               |                                          |           |              |
| Arsenic    | U         | 0.0050                             |         |               |      |                       |               |                                          |           |              |
| Barium     | U         | 0.0050                             |         |               |      |                       |               |                                          |           |              |
| Beryllium  | U         | 0.0020                             |         |               |      |                       |               |                                          |           |              |
| Cadmium    | U         | 0.0020                             |         |               |      |                       |               |                                          |           |              |
| Chromium   | 0.0005603 | 0.0050                             |         |               |      |                       |               |                                          |           | J            |
| Cobalt     | U         | 0.0050                             |         |               |      |                       |               |                                          |           |              |
| Copper     | 0.0005517 | 0.0050                             |         |               |      |                       |               |                                          |           | J            |
| Iron       | U         | 0.080                              |         |               |      |                       |               |                                          |           |              |
| Lead       | U         | 0.0050                             |         |               |      |                       |               |                                          |           |              |
| Manganese  | U         | 0.0050                             |         |               |      |                       |               |                                          |           |              |
| Molybdenum | U         | 0.0050                             |         |               |      |                       |               |                                          |           |              |
| Nickel     | U         | 0.0050                             |         |               |      |                       |               |                                          |           |              |
| Selenium   | U         | 0.0050                             |         |               |      |                       |               |                                          |           |              |
| Silver     | U         | 0.0050                             |         |               |      |                       |               |                                          |           |              |
| Thallium   | U         | 0.0050                             |         |               |      |                       |               |                                          |           |              |
| Vanadium   | U         | 0.0050                             |         |               |      |                       |               |                                          |           |              |
| Zinc       | U         | 0.010                              |         |               |      |                       |               |                                          |           |              |

| LCS        |         | Sample ID: <b>LCS-78402-78402</b> |         |               |      | Units: <b>mg/L</b>    |               | Analysis Date: <b>11/5/2015 02:13 AM</b> |           |              |
|------------|---------|-----------------------------------|---------|---------------|------|-----------------------|---------------|------------------------------------------|-----------|--------------|
| Client ID: |         | Run ID: <b>ICPMS2_151104A</b>     |         |               |      | SeqNo: <b>3549248</b> |               | Prep Date: <b>11/4/2015</b>              |           | DF: <b>1</b> |
| Analyte    | Result  | PQL                               | SPK Val | SPK Ref Value | %REC | Control Limit         | RPD Ref Value | %RPD                                     | RPD Limit | Qual         |
| Antimony   | 0.103   | 0.0050                            | 0.1     | 0             | 103  | 80-120                | 0             |                                          |           |              |
| Arsenic    | 0.09995 | 0.0050                            | 0.1     | 0             | 100  | 80-120                | 0             |                                          |           |              |
| Barium     | 0.0982  | 0.0050                            | 0.1     | 0             | 98.2 | 80-120                | 0             |                                          |           |              |
| Beryllium  | 0.09791 | 0.0020                            | 0.1     | 0             | 97.9 | 80-120                | 0             |                                          |           |              |
| Cadmium    | 0.1003  | 0.0020                            | 0.1     | 0             | 100  | 80-120                | 0             |                                          |           |              |
| Chromium   | 0.1018  | 0.0050                            | 0.1     | 0             | 102  | 80-120                | 0             |                                          |           |              |
| Cobalt     | 0.1014  | 0.0050                            | 0.1     | 0             | 101  | 80-120                | 0             |                                          |           |              |
| Copper     | 0.1018  | 0.0050                            | 0.1     | 0             | 102  | 80-120                | 0             |                                          |           |              |
| Iron       | 10.34   | 0.080                             | 10      | 0             | 103  | 80-120                | 0             |                                          |           |              |
| Lead       | 0.1003  | 0.0050                            | 0.1     | 0             | 100  | 80-120                | 0             |                                          |           |              |
| Manganese  | 0.1008  | 0.0050                            | 0.1     | 0             | 101  | 80-120                | 0             |                                          |           |              |
| Molybdenum | 0.09964 | 0.0050                            | 0.1     | 0             | 99.6 | 80-120                | 0             |                                          |           |              |
| Nickel     | 0.0986  | 0.0050                            | 0.1     | 0             | 98.6 | 80-120                | 0             |                                          |           |              |
| Selenium   | 0.1     | 0.0050                            | 0.1     | 0             | 100  | 80-120                | 0             |                                          |           |              |
| Silver     | 0.1012  | 0.0050                            | 0.1     | 0             | 101  | 80-120                | 0             |                                          |           |              |
| Thallium   | 0.09695 | 0.0050                            | 0.1     | 0             | 97   | 80-120                | 0             |                                          |           |              |
| Vanadium   | 0.1025  | 0.0050                            | 0.1     | 0             | 102  | 80-120                | 0             |                                          |           |              |
| Zinc       | 0.1011  | 0.010                             | 0.1     | 0             | 101  | 80-120                | 0             |                                          |           |              |

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** GHD Services Inc.  
**Work Order:** 15101851  
**Project:** Former GRMP (17360)

## QC BATCH REPORT

Batch ID: **78402** Instrument ID **ICPMS2** Method: **SW6020A**

| MS                                 |         |        |         | Sample ID: 15101851-12BMS |      |               | Units: mg/L    |      | Analysis Date: 11/5/2015 02:29 AM |      |
|------------------------------------|---------|--------|---------|---------------------------|------|---------------|----------------|------|-----------------------------------|------|
| Client ID: WG-017360-102715-MR-033 |         |        |         | Run ID: ICPMS2_151104A    |      |               | SeqNo: 3549251 |      | Prep Date: 11/4/2015              |      |
|                                    |         |        |         |                           |      |               | DF: 1          |      |                                   |      |
| Analyte                            | Result  | PQL    | SPK Val | SPK Ref Value             | %REC | Control Limit | RPD Ref Value  | %RPD | RPD Limit                         | Qual |
| Antimony                           | 0.1002  | 0.0050 | 0.1     | 0.0001046                 | 100  | 75-125        | 0              |      |                                   |      |
| Arsenic                            | 0.1011  | 0.0050 | 0.1     | 0.0005885                 | 101  | 75-125        | 0              |      |                                   |      |
| Barium                             | 0.1206  | 0.0050 | 0.1     | 0.02265                   | 98   | 75-125        | 0              |      |                                   |      |
| Beryllium                          | 0.09184 | 0.0020 | 0.1     | 4.713E-06                 | 91.8 | 75-125        | 0              |      |                                   |      |
| Cadmium                            | 0.09796 | 0.0020 | 0.1     | 0.00001703                | 97.9 | 75-125        | 0              |      |                                   |      |
| Chromium                           | 0.1014  | 0.0050 | 0.1     | 0.002473                  | 98.9 | 75-125        | 0              |      |                                   |      |
| Cobalt                             | 0.1022  | 0.0050 | 0.1     | 0.002662                  | 99.5 | 75-125        | 0              |      |                                   |      |
| Copper                             | 0.09976 | 0.0050 | 0.1     | 0.002406                  | 97.4 | 75-125        | 0              |      |                                   |      |
| Iron                               | 9.956   | 0.080  | 10      | 0.02408                   | 99.3 | 75-125        | 0              |      |                                   |      |
| Lead                               | 0.1001  | 0.0050 | 0.1     | 0.00009646                | 100  | 75-125        | 0              |      |                                   |      |
| Manganese                          | 0.1017  | 0.0050 | 0.1     | 0.002078                  | 99.6 | 75-125        | 0              |      |                                   |      |
| Molybdenum                         | 0.1035  | 0.0050 | 0.1     | 0.003173                  | 100  | 75-125        | 0              |      |                                   |      |
| Nickel                             | 0.09826 | 0.0050 | 0.1     | 0.002877                  | 95.4 | 75-125        | 0              |      |                                   |      |
| Selenium                           | 0.09897 | 0.0050 | 0.1     | 0.0007818                 | 98.2 | 75-125        | 0              |      |                                   |      |
| Silver                             | 0.09227 | 0.0050 | 0.1     | -3.109E-06                | 92.3 | 75-125        | 0              |      |                                   |      |
| Thallium                           | 0.09699 | 0.0050 | 0.1     | 0.00001922                | 97   | 75-125        | 0              |      |                                   |      |
| Vanadium                           | 0.1047  | 0.0050 | 0.1     | 0.0005907                 | 104  | 75-125        | 0              |      |                                   |      |
| Zinc                               | 0.09752 | 0.010  | 0.1     | 0.0009784                 | 96.5 | 75-125        | 0              |      |                                   |      |

| MSD                                |         |        |         | Sample ID: 15101851-12BMSD |      |               | Units: mg/L    |        | Analysis Date: 11/5/2015 02:34 AM |      |
|------------------------------------|---------|--------|---------|----------------------------|------|---------------|----------------|--------|-----------------------------------|------|
| Client ID: WG-017360-102715-MR-033 |         |        |         | Run ID: ICPMS2_151104A     |      |               | SeqNo: 3549252 |        | Prep Date: 11/4/2015              |      |
|                                    |         |        |         |                            |      |               | DF: 1          |        |                                   |      |
| Analyte                            | Result  | PQL    | SPK Val | SPK Ref Value              | %REC | Control Limit | RPD Ref Value  | %RPD   | RPD Limit                         | Qual |
| Antimony                           | 0.09989 | 0.0050 | 0.1     | 0.0001046                  | 99.8 | 75-125        | 0.1002         | 0.31   | 20                                |      |
| Arsenic                            | 0.1002  | 0.0050 | 0.1     | 0.0005885                  | 99.6 | 75-125        | 0.1011         | 0.894  | 20                                |      |
| Barium                             | 0.1194  | 0.0050 | 0.1     | 0.02265                    | 96.8 | 75-125        | 0.1206         | 1      | 20                                |      |
| Beryllium                          | 0.09161 | 0.0020 | 0.1     | 4.713E-06                  | 91.6 | 75-125        | 0.09184        | 0.251  | 20                                |      |
| Cadmium                            | 0.09755 | 0.0020 | 0.1     | 0.00001703                 | 97.5 | 75-125        | 0.09796        | 0.419  | 20                                |      |
| Chromium                           | 0.1007  | 0.0050 | 0.1     | 0.002473                   | 98.2 | 75-125        | 0.1014         | 0.693  | 20                                |      |
| Cobalt                             | 0.1034  | 0.0050 | 0.1     | 0.002662                   | 101  | 75-125        | 0.1022         | 1.17   | 20                                |      |
| Copper                             | 0.1004  | 0.0050 | 0.1     | 0.002406                   | 98   | 75-125        | 0.09976        | 0.639  | 20                                |      |
| Iron                               | 9.941   | 0.080  | 10      | 0.02408                    | 99.2 | 75-125        | 9.956          | 0.151  | 20                                |      |
| Lead                               | 0.1003  | 0.0050 | 0.1     | 0.00009646                 | 100  | 75-125        | 0.1001         | 0.2    | 20                                |      |
| Manganese                          | 0.1023  | 0.0050 | 0.1     | 0.002078                   | 100  | 75-125        | 0.1017         | 0.588  | 20                                |      |
| Molybdenum                         | 0.1035  | 0.0050 | 0.1     | 0.003173                   | 100  | 75-125        | 0.1035         | 0      | 20                                |      |
| Nickel                             | 0.09876 | 0.0050 | 0.1     | 0.002877                   | 95.9 | 75-125        | 0.09826        | 0.508  | 20                                |      |
| Selenium                           | 0.1004  | 0.0050 | 0.1     | 0.0007818                  | 99.6 | 75-125        | 0.09897        | 1.43   | 20                                |      |
| Silver                             | 0.09162 | 0.0050 | 0.1     | -3.109E-06                 | 91.6 | 75-125        | 0.09227        | 0.707  | 20                                |      |
| Thallium                           | 0.09758 | 0.0050 | 0.1     | 0.00001922                 | 97.6 | 75-125        | 0.09699        | 0.606  | 20                                |      |
| Vanadium                           | 0.105   | 0.0050 | 0.1     | 0.0005907                  | 104  | 75-125        | 0.1047         | 0.286  | 20                                |      |
| Zinc                               | 0.09757 | 0.010  | 0.1     | 0.0009784                  | 96.6 | 75-125        | 0.09752        | 0.0513 | 20                                |      |

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** GHD Services Inc.  
**Work Order:** 15101851  
**Project:** Former GRMP (17360)

**QC BATCH REPORT**

Batch ID: **78402**      Instrument ID **ICPMS2**      Method: **SW6020A**

The following samples were analyzed in this batch:

|              |              |
|--------------|--------------|
| 15101851-11B | 15101851-12B |
|--------------|--------------|

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** GHD Services Inc.  
**Work Order:** 15101851  
**Project:** Former GRMP (17360)

## QC BATCH REPORT

Batch ID: **78279** Instrument ID **SVMS5** Method: **SW846 8270D**

| MBLK                        |        | Sample ID: <b>SBLKW1-78279-78279</b> |         |               |      | Units: <b>µg/L</b>    |               | Analysis Date: <b>11/2/2015 04:17 PM</b> |           |              |
|-----------------------------|--------|--------------------------------------|---------|---------------|------|-----------------------|---------------|------------------------------------------|-----------|--------------|
| Client ID:                  |        | Run ID: <b>SVMS5_151102A</b>         |         |               |      | SeqNo: <b>3543789</b> |               | Prep Date: <b>11/2/2015</b>              |           | DF: <b>1</b> |
| Analyte                     | Result | PQL                                  | SPK Val | SPK Ref Value | %REC | Control Limit         | RPD Ref Value | %RPD                                     | RPD Limit | Qual         |
| 1,1'-Biphenyl               | U      | 5.0                                  |         |               |      |                       |               |                                          |           |              |
| 2,4,5-Trichlorophenol       | U      | 5.0                                  |         |               |      |                       |               |                                          |           |              |
| 2,4,6-Trichlorophenol       | U      | 5.0                                  |         |               |      |                       |               |                                          |           |              |
| 2,4-Dichlorophenol          | U      | 5.0                                  |         |               |      |                       |               |                                          |           |              |
| 2,4-Dimethylphenol          | U      | 5.0                                  |         |               |      |                       |               |                                          |           |              |
| 2,4-Dinitrophenol           | U      | 5.0                                  |         |               |      |                       |               |                                          |           |              |
| 2,4-Dinitrotoluene          | U      | 5.0                                  |         |               |      |                       |               |                                          |           |              |
| 2,6-Dinitrotoluene          | U      | 5.0                                  |         |               |      |                       |               |                                          |           |              |
| 2-Chloronaphthalene         | U      | 5.0                                  |         |               |      |                       |               |                                          |           |              |
| 2-Chlorophenol              | U      | 5.0                                  |         |               |      |                       |               |                                          |           |              |
| 2-Methylnaphthalene         | U      | 5.0                                  |         |               |      |                       |               |                                          |           |              |
| 2-Methylphenol              | U      | 5.0                                  |         |               |      |                       |               |                                          |           |              |
| 2-Nitroaniline              | U      | 5.0                                  |         |               |      |                       |               |                                          |           |              |
| 2-Nitrophenol               | U      | 5.0                                  |         |               |      |                       |               |                                          |           |              |
| 3&4-Methylphenol            | U      | 5.0                                  |         |               |      |                       |               |                                          |           |              |
| 3,3'-Dichlorobenzidine      | U      | 5.0                                  |         |               |      |                       |               |                                          |           |              |
| 3-Nitroaniline              | U      | 5.0                                  |         |               |      |                       |               |                                          |           |              |
| 4,6-Dinitro-2-methylphenol  | U      | 5.0                                  |         |               |      |                       |               |                                          |           |              |
| 4-Bromophenyl phenyl ether  | U      | 5.0                                  |         |               |      |                       |               |                                          |           |              |
| 4-Chloro-3-methylphenol     | U      | 5.0                                  |         |               |      |                       |               |                                          |           |              |
| 4-Chloroaniline             | U      | 5.0                                  |         |               |      |                       |               |                                          |           |              |
| 4-Chlorophenyl phenyl ether | U      | 5.0                                  |         |               |      |                       |               |                                          |           |              |
| 4-Nitroaniline              | U      | 5.0                                  |         |               |      |                       |               |                                          |           |              |
| 4-Nitrophenol               | U      | 5.0                                  |         |               |      |                       |               |                                          |           |              |
| Acenaphthene                | U      | 5.0                                  |         |               |      |                       |               |                                          |           |              |
| Acenaphthylene              | U      | 5.0                                  |         |               |      |                       |               |                                          |           |              |
| Acetophenone                | U      | 1.0                                  |         |               |      |                       |               |                                          |           |              |
| Anthracene                  | U      | 5.0                                  |         |               |      |                       |               |                                          |           |              |
| Atrazine                    | U      | 1.0                                  |         |               |      |                       |               |                                          |           |              |
| Benzaldehyde                | U      | 1.0                                  |         |               |      |                       |               |                                          |           |              |
| Benzo(a)anthracene          | U      | 5.0                                  |         |               |      |                       |               |                                          |           |              |
| Benzo(a)pyrene              | U      | 5.0                                  |         |               |      |                       |               |                                          |           |              |
| Benzo(b)fluoranthene        | U      | 5.0                                  |         |               |      |                       |               |                                          |           |              |
| Benzo(g,h,i)perylene        | U      | 5.0                                  |         |               |      |                       |               |                                          |           |              |
| Benzo(k)fluoranthene        | U      | 5.0                                  |         |               |      |                       |               |                                          |           |              |
| Bis(2-chloroethoxy)methane  | U      | 5.0                                  |         |               |      |                       |               |                                          |           |              |
| Bis(2-chloroethyl)ether     | U      | 5.0                                  |         |               |      |                       |               |                                          |           |              |
| Bis(2-chloroisopropyl)ether | U      | 5.0                                  |         |               |      |                       |               |                                          |           |              |
| Bis(2-ethylhexyl)phthalate  | U      | 5.0                                  |         |               |      |                       |               |                                          |           |              |
| Butyl benzyl phthalate      | U      | 5.0                                  |         |               |      |                       |               |                                          |           |              |
| Caprolactam                 | U      | 10                                   |         |               |      |                       |               |                                          |           |              |
| Carbazole                   | U      | 5.0                                  |         |               |      |                       |               |                                          |           |              |

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** GHD Services Inc.  
**Work Order:** 15101851  
**Project:** Former GRMP (17360)

## QC BATCH REPORT

|                                   |                            |                            |           |          |             |               |          |  |
|-----------------------------------|----------------------------|----------------------------|-----------|----------|-------------|---------------|----------|--|
| Batch ID: <b>78279</b>            | Instrument ID <b>SVMS5</b> | Method: <b>SW846 8270D</b> |           |          |             |               |          |  |
| Chrysene                          | U                          | 5.0                        |           |          |             |               |          |  |
| Dibenzo(a,h)anthracene            | U                          | 5.0                        |           |          |             |               |          |  |
| Dibenzofuran                      | U                          | 5.0                        |           |          |             |               |          |  |
| Diethyl phthalate                 | 0.3                        | 5.0                        |           |          |             |               |          |  |
| Dimethyl phthalate                | U                          | 5.0                        |           |          |             |               |          |  |
| Di-n-butyl phthalate              | U                          | 5.0                        |           |          |             |               |          |  |
| Di-n-octyl phthalate              | U                          | 5.0                        |           |          |             |               |          |  |
| Fluoranthene                      | U                          | 5.0                        |           |          |             |               |          |  |
| Fluorene                          | U                          | 5.0                        |           |          |             |               |          |  |
| Hexachlorobenzene                 | U                          | 5.0                        |           |          |             |               |          |  |
| Hexachlorobutadiene               | U                          | 5.0                        |           |          |             |               |          |  |
| Hexachlorocyclopentadiene         | U                          | 5.0                        |           |          |             |               |          |  |
| Hexachloroethane                  | U                          | 5.0                        |           |          |             |               |          |  |
| Indeno(1,2,3-cd)pyrene            | U                          | 5.0                        |           |          |             |               |          |  |
| Isophorone                        | U                          | 5.0                        |           |          |             |               |          |  |
| Naphthalene                       | U                          | 5.0                        |           |          |             |               |          |  |
| Nitrobenzene                      | U                          | 5.0                        |           |          |             |               |          |  |
| N-Nitrosodi-n-propylamine         | U                          | 5.0                        |           |          |             |               |          |  |
| N-Nitrosodiphenylamine            | U                          | 5.0                        |           |          |             |               |          |  |
| Pentachlorophenol                 | U                          | 5.0                        |           |          |             |               |          |  |
| Phenanthrene                      | U                          | 5.0                        |           |          |             |               |          |  |
| Phenol                            | U                          | 5.0                        |           |          |             |               |          |  |
| Pyrene                            | U                          | 5.0                        |           |          |             |               |          |  |
| <i>Surr: 2,4,6-Tribromophenol</i> | <i>40.62</i>               | <i>0</i>                   | <i>50</i> | <i>0</i> | <i>81.2</i> | <i>38-115</i> | <i>0</i> |  |
| <i>Surr: 2-Fluorobiphenyl</i>     | <i>44.65</i>               | <i>0</i>                   | <i>50</i> | <i>0</i> | <i>89.3</i> | <i>32-100</i> | <i>0</i> |  |
| <i>Surr: 2-Fluorophenol</i>       | <i>25.71</i>               | <i>0</i>                   | <i>50</i> | <i>0</i> | <i>51.4</i> | <i>22-59</i>  | <i>0</i> |  |
| <i>Surr: 4-Terphenyl-d14</i>      | <i>51.76</i>               | <i>0</i>                   | <i>50</i> | <i>0</i> | <i>104</i>  | <i>23-112</i> | <i>0</i> |  |
| <i>Surr: Nitrobenzene-d5</i>      | <i>43.34</i>               | <i>0</i>                   | <i>50</i> | <i>0</i> | <i>86.7</i> | <i>31-93</i>  | <i>0</i> |  |
| <i>Surr: Phenol-d6</i>            | <i>14.73</i>               | <i>0</i>                   | <i>50</i> | <i>0</i> | <i>29.5</i> | <i>13-36</i>  | <i>0</i> |  |

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** GHD Services Inc.  
**Work Order:** 15101851  
**Project:** Former GRMP (17360)

## QC BATCH REPORT

Batch ID: **78279**      Instrument ID **SVMS5**      Method: **SW846 8270D**

| LCS                         |        | Sample ID: <b>SLCSW1-78279-78279</b> |         |               |      | Units: <b>µg/L</b>    |               | Analysis Date: <b>11/2/2015 04:41 PM</b> |           |              |
|-----------------------------|--------|--------------------------------------|---------|---------------|------|-----------------------|---------------|------------------------------------------|-----------|--------------|
| Client ID:                  |        | Run ID: <b>SVMS5_151102A</b>         |         |               |      | SeqNo: <b>3543790</b> |               | Prep Date: <b>11/2/2015</b>              |           | DF: <b>1</b> |
| Analyte                     | Result | PQL                                  | SPK Val | SPK Ref Value | %REC | Control Limit         | RPD Ref Value | %RPD                                     | RPD Limit | Qual         |
| 1,1'-Biphenyl               | 18.4   | 5.0                                  | 20      | 0             | 92   | 30-120                | 0             |                                          |           |              |
| 2,4,5-Trichlorophenol       | 20.58  | 5.0                                  | 20      | 0             | 103  | 50-110                | 0             |                                          |           |              |
| 2,4,6-Trichlorophenol       | 20.41  | 5.0                                  | 20      | 0             | 102  | 50-115                | 0             |                                          |           |              |
| 2,4-Dichlorophenol          | 18.29  | 5.0                                  | 20      | 0             | 91.4 | 50-105                | 0             |                                          |           |              |
| 2,4-Dimethylphenol          | 18.8   | 5.0                                  | 20      | 0             | 94   | 30-110                | 0             |                                          |           |              |
| 2,4-Dinitrophenol           | 19.54  | 5.0                                  | 20      | 0             | 97.7 | 15-140                | 0             |                                          |           |              |
| 2,4-Dinitrotoluene          | 20.63  | 5.0                                  | 20      | 0             | 103  | 50-120                | 0             |                                          |           |              |
| 2,6-Dinitrotoluene          | 19.35  | 5.0                                  | 20      | 0             | 96.8 | 50-115                | 0             |                                          |           |              |
| 2-Chloronaphthalene         | 18.4   | 5.0                                  | 20      | 0             | 92   | 50-105                | 0             |                                          |           |              |
| 2-Chlorophenol              | 17.92  | 5.0                                  | 20      | 0             | 89.6 | 35-105                | 0             |                                          |           |              |
| 2-Methylnaphthalene         | 17.86  | 5.0                                  | 20      | 0             | 89.3 | 45-105                | 0             |                                          |           |              |
| 2-Methylphenol              | 15.59  | 5.0                                  | 20      | 0             | 78   | 40-110                | 0             |                                          |           |              |
| 2-Nitroaniline              | 18.67  | 5.0                                  | 20      | 0             | 93.4 | 50-115                | 0             |                                          |           |              |
| 2-Nitrophenol               | 18.02  | 5.0                                  | 20      | 0             | 90.1 | 40-115                | 0             |                                          |           |              |
| 3&4-Methylphenol            | 15.02  | 5.0                                  | 20      | 0             | 75.1 | 30-110                | 0             |                                          |           |              |
| 3,3'-Dichlorobenzidine      | 22.91  | 5.0                                  | 20      | 0             | 115  | 30-120                | 0             |                                          |           |              |
| 3-Nitroaniline              | 18.29  | 5.0                                  | 20      | 0             | 91.4 | 20-125                | 0             |                                          |           |              |
| 4,6-Dinitro-2-methylphenol  | 19.38  | 5.0                                  | 20      | 0             | 96.9 | 40-130                | 0             |                                          |           |              |
| 4-Bromophenyl phenyl ether  | 20.14  | 5.0                                  | 20      | 0             | 101  | 50-115                | 0             |                                          |           |              |
| 4-Chloro-3-methylphenol     | 18.29  | 5.0                                  | 20      | 0             | 91.4 | 45-110                | 0             |                                          |           |              |
| 4-Chloroaniline             | 16.29  | 5.0                                  | 20      | 0             | 81.4 | 15-110                | 0             |                                          |           |              |
| 4-Chlorophenyl phenyl ether | 19.31  | 5.0                                  | 20      | 0             | 96.6 | 50-110                | 0             |                                          |           |              |
| 4-Nitroaniline              | 22.01  | 5.0                                  | 20      | 0             | 110  | 35-150                | 0             |                                          |           |              |
| 4-Nitrophenol               | 8.63   | 5.0                                  | 20      | 0             | 43.2 | 10-58                 | 0             |                                          |           |              |
| Acenaphthene                | 17.96  | 5.0                                  | 20      | 0             | 89.8 | 45-110                | 0             |                                          |           |              |
| Acenaphthylene              | 19     | 5.0                                  | 20      | 0             | 95   | 50-105                | 0             |                                          |           |              |
| Acetophenone                | 18.82  | 1.0                                  | 20      | 0             | 94.1 | 30-120                | 0             |                                          |           |              |
| Anthracene                  | 21.22  | 5.0                                  | 20      | 0             | 106  | 55-110                | 0             |                                          |           |              |
| Atrazine                    | 25.14  | 1.0                                  | 20      | 0             | 126  | 30-120                | 0             |                                          |           | S            |
| Benzaldehyde                | 20.01  | 1.0                                  | 20      | 0             | 100  | 30-120                | 0             |                                          |           |              |
| Benzo(a)anthracene          | 20.86  | 5.0                                  | 20      | 0             | 104  | 55-110                | 0             |                                          |           |              |
| Benzo(a)pyrene              | 21.36  | 5.0                                  | 20      | 0             | 107  | 55-110                | 0             |                                          |           |              |
| Benzo(b)fluoranthene        | 21.8   | 5.0                                  | 20      | 0             | 109  | 45-120                | 0             |                                          |           |              |
| Benzo(g,h,i)perylene        | 19.7   | 5.0                                  | 20      | 0             | 98.5 | 40-125                | 0             |                                          |           |              |
| Benzo(k)fluoranthene        | 21.48  | 5.0                                  | 20      | 0             | 107  | 45-125                | 0             |                                          |           |              |
| Bis(2-chloroethoxy)methane  | 18.7   | 5.0                                  | 20      | 0             | 93.5 | 45-105                | 0             |                                          |           |              |
| Bis(2-chloroethyl)ether     | 21.46  | 5.0                                  | 20      | 0             | 107  | 35-110                | 0             |                                          |           |              |
| Bis(2-chloroisopropyl)ether | 18.19  | 5.0                                  | 20      | 0             | 91   | 25-130                | 0             |                                          |           |              |
| Bis(2-ethylhexyl)phthalate  | 20.42  | 5.0                                  | 20      | 0             | 102  | 40-125                | 0             |                                          |           |              |
| Butyl benzyl phthalate      | 19.81  | 5.0                                  | 20      | 0             | 99   | 45-115                | 0             |                                          |           |              |
| Carbazole                   | 20.98  | 5.0                                  | 20      | 0             | 105  | 50-150                | 0             |                                          |           |              |
| Chrysene                    | 21.17  | 5.0                                  | 20      | 0             | 106  | 55-110                | 0             |                                          |           |              |

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.



**Client:** GHD Services Inc.  
**Work Order:** 15101851  
**Project:** Former GRMP (17360)

## QC BATCH REPORT

| Batch ID: <b>78279</b>            |       | Instrument ID <b>SVMS5</b> |    | Method: <b>SW846 8270D</b> |      |        |   |  |
|-----------------------------------|-------|----------------------------|----|----------------------------|------|--------|---|--|
| Dibenzo(a,h)anthracene            | 23.97 | 5.0                        | 20 | 0                          | 120  | 40-125 | 0 |  |
| Dibenzofuran                      | 18.95 | 5.0                        | 20 | 0                          | 94.8 | 55-105 | 0 |  |
| Diethyl phthalate                 | 20.66 | 5.0                        | 20 | 0                          | 103  | 40-120 | 0 |  |
| Dimethyl phthalate                | 21.02 | 5.0                        | 20 | 0                          | 105  | 25-125 | 0 |  |
| Di-n-butyl phthalate              | 20.8  | 5.0                        | 20 | 0                          | 104  | 55-115 | 0 |  |
| Di-n-octyl phthalate              | 25.18 | 5.0                        | 20 | 0                          | 126  | 35-135 | 0 |  |
| Fluoranthene                      | 21.35 | 5.0                        | 20 | 0                          | 107  | 55-115 | 0 |  |
| Fluorene                          | 19.19 | 5.0                        | 20 | 0                          | 96   | 50-110 | 0 |  |
| Hexachlorobenzene                 | 21.73 | 5.0                        | 20 | 0                          | 109  | 50-110 | 0 |  |
| Hexachlorobutadiene               | 14.52 | 5.0                        | 20 | 0                          | 72.6 | 25-105 | 0 |  |
| Hexachlorocyclopentadiene         | 8.96  | 5.0                        | 20 | 0                          | 44.8 | 25-105 | 0 |  |
| Hexachloroethane                  | 13.93 | 5.0                        | 20 | 0                          | 69.6 | 30-95  | 0 |  |
| Indeno(1,2,3-cd)pyrene            | 24.44 | 5.0                        | 20 | 0                          | 122  | 45-125 | 0 |  |
| Isophorone                        | 20.58 | 5.0                        | 20 | 0                          | 103  | 50-110 | 0 |  |
| Naphthalene                       | 16.63 | 5.0                        | 20 | 0                          | 83.2 | 40-100 | 0 |  |
| Nitrobenzene                      | 19.16 | 5.0                        | 20 | 0                          | 95.8 | 45-110 | 0 |  |
| N-Nitrosodi-n-propylamine         | 18.39 | 5.0                        | 20 | 0                          | 92   | 35-130 | 0 |  |
| N-Nitrosodiphenylamine            | 18.63 | 5.0                        | 20 | 0                          | 93.2 | 50-110 | 0 |  |
| Pentachlorophenol                 | 17.96 | 5.0                        | 20 | 0                          | 89.8 | 40-115 | 0 |  |
| Phenanthrene                      | 19.4  | 5.0                        | 20 | 0                          | 97   | 50-115 | 0 |  |
| Phenol                            | 7.02  | 5.0                        | 20 | 0                          | 35.1 | 12-43  | 0 |  |
| Pyrene                            | 22.47 | 5.0                        | 20 | 0                          | 112  | 50-130 | 0 |  |
| <i>Surr: 2,4,6-Tribromophenol</i> | 43.29 | 0                          | 50 | 0                          | 86.6 | 38-115 | 0 |  |
| <i>Surr: 2-Fluorobiphenyl</i>     | 45.05 | 0                          | 50 | 0                          | 90.1 | 32-100 | 0 |  |
| <i>Surr: 2-Fluorophenol</i>       | 26.82 | 0                          | 50 | 0                          | 53.6 | 22-59  | 0 |  |
| <i>Surr: 4-Terphenyl-d14</i>      | 52.07 | 0                          | 50 | 0                          | 104  | 23-112 | 0 |  |
| <i>Surr: Nitrobenzene-d5</i>      | 45.45 | 0                          | 50 | 0                          | 90.9 | 31-93  | 0 |  |
| <i>Surr: Phenol-d6</i>            | 16.69 | 0                          | 50 | 0                          | 33.4 | 13-36  | 0 |  |

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** GHD Services Inc.  
**Work Order:** 15101851  
**Project:** Former GRMP (17360)

## QC BATCH REPORT

Batch ID: **78279**      Instrument ID **SVMS5**      Method: **SW846 8270D**

| MS                                 |        |     |         | Sample ID: 15101851-24B MS |      |               | Units: µg/L    |      | Analysis Date: 11/3/2015 11:15 AM |      |
|------------------------------------|--------|-----|---------|----------------------------|------|---------------|----------------|------|-----------------------------------|------|
| Client ID: WG-017360-102915-MR-045 |        |     |         | Run ID: SVMS5_151103A      |      |               | SeqNo: 3547088 |      | Prep Date: 11/2/2015              |      |
|                                    |        |     |         |                            |      |               | DF: 1          |      |                                   |      |
| Analyte                            | Result | PQL | SPK Val | SPK Ref Value              | %REC | Control Limit | RPD Ref Value  | %RPD | RPD Limit                         | Qual |
| 1,1'-Biphenyl                      | 21.11  | 5.0 | 20      | 0                          | 106  | 30-120        | 0              |      |                                   |      |
| 2,4,5-Trichlorophenol              | 21.4   | 5.0 | 20      | 0                          | 107  | 50-110        | 0              |      |                                   |      |
| 2,4,6-Trichlorophenol              | 20.9   | 5.0 | 20      | 0                          | 104  | 50-115        | 0              |      |                                   |      |
| 2,4-Dichlorophenol                 | 19.49  | 5.0 | 20      | 0                          | 97.4 | 50-105        | 0              |      |                                   |      |
| 2,4-Dimethylphenol                 | 25.55  | 5.0 | 20      | 3.8                        | 109  | 30-110        | 0              |      |                                   |      |
| 2,4-Dinitrophenol                  | 30.8   | 5.0 | 20      | 0                          | 154  | 15-140        | 0              |      |                                   | S    |
| 2,4-Dinitrotoluene                 | 21.54  | 5.0 | 20      | 0                          | 108  | 50-120        | 0              |      |                                   |      |
| 2,6-Dinitrotoluene                 | 20.25  | 5.0 | 20      | 0                          | 101  | 50-115        | 0              |      |                                   |      |
| 2-Chloronaphthalene                | 18.36  | 5.0 | 20      | 0                          | 91.8 | 50-105        | 0              |      |                                   |      |
| 2-Chlorophenol                     | 17.89  | 5.0 | 20      | 0                          | 89.4 | 35-105        | 0              |      |                                   |      |
| 2-Methylnaphthalene                | 19.76  | 5.0 | 20      | 0                          | 98.8 | 45-105        | 0              |      |                                   |      |
| 2-Methylphenol                     | 17.29  | 5.0 | 20      | 0                          | 86.4 | 40-110        | 0              |      |                                   |      |
| 2-Nitroaniline                     | 23.62  | 5.0 | 20      | 0                          | 118  | 50-115        | 0              |      |                                   | S    |
| 2-Nitrophenol                      | 19.61  | 5.0 | 20      | 0                          | 98   | 40-115        | 0              |      |                                   |      |
| 3&4-Methylphenol                   | 16.36  | 5.0 | 20      | 0                          | 81.8 | 30-110        | 0              |      |                                   |      |
| 3,3'-Dichlorobenzidine             | U      | 5.0 | 20      | 0                          | 0    | 30-120        | 0              |      |                                   | S    |
| 3-Nitroaniline                     | 11.93  | 5.0 | 20      | 0                          | 59.6 | 20-125        | 0              |      |                                   |      |
| 4,6-Dinitro-2-methylphenol         | 23.36  | 5.0 | 20      | 0                          | 117  | 40-130        | 0              |      |                                   |      |
| 4-Bromophenyl phenyl ether         | 19.72  | 5.0 | 20      | 0                          | 98.6 | 50-115        | 0              |      |                                   |      |
| 4-Chloro-3-methylphenol            | 21.75  | 5.0 | 20      | 0                          | 109  | 45-110        | 0              |      |                                   |      |
| 4-Chloroaniline                    | 8.75   | 5.0 | 20      | 0                          | 43.8 | 15-110        | 0              |      |                                   |      |
| 4-Chlorophenyl phenyl ether        | 19.14  | 5.0 | 20      | 0                          | 95.7 | 50-110        | 0              |      |                                   |      |
| 4-Nitroaniline                     | 20.05  | 5.0 | 20      | 0                          | 100  | 35-150        | 0              |      |                                   |      |
| 4-Nitrophenol                      | 10.89  | 5.0 | 20      | 0                          | 54.4 | 1-58          | 0              |      |                                   |      |
| Acenaphthene                       | 18.31  | 5.0 | 20      | 0                          | 91.6 | 45-110        | 0              |      |                                   |      |
| Acenaphthylene                     | 17.88  | 5.0 | 20      | 0                          | 89.4 | 50-105        | 0              |      |                                   |      |
| Acetophenone                       | 22.07  | 1.0 | 20      | 0                          | 110  | 30-120        | 0              |      |                                   |      |
| Anthracene                         | 22.68  | 5.0 | 20      | 0                          | 113  | 55-110        | 0              |      |                                   | S    |
| Atrazine                           | 15.66  | 1.0 | 20      | 0                          | 78.3 | 30-120        | 0              |      |                                   |      |
| Benzaldehyde                       | 18.3   | 1.0 | 20      | 0                          | 91.5 | 30-120        | 0              |      |                                   |      |
| Benzo(a)anthracene                 | 20.96  | 5.0 | 20      | 0                          | 105  | 55-110        | 0              |      |                                   |      |
| Benzo(a)pyrene                     | 22.97  | 5.0 | 20      | 0                          | 115  | 55-110        | 0              |      |                                   | S    |
| Benzo(b)fluoranthene               | 22.68  | 5.0 | 20      | 0                          | 113  | 45-120        | 0              |      |                                   |      |
| Benzo(g,h,i)perylene               | 19.42  | 5.0 | 20      | 0                          | 97.1 | 40-125        | 0              |      |                                   |      |
| Benzo(k)fluoranthene               | 22.55  | 5.0 | 20      | 0                          | 113  | 45-125        | 0              |      |                                   |      |
| Bis(2-chloroethoxy)methane         | 19.8   | 5.0 | 20      | 0                          | 99   | 45-105        | 0              |      |                                   |      |
| Bis(2-chloroethyl)ether            | 21.16  | 5.0 | 20      | 0                          | 106  | 35-110        | 0              |      |                                   |      |
| Bis(2-chloroisopropyl)ether        | 19.11  | 5.0 | 20      | 0                          | 95.6 | 25-130        | 0              |      |                                   |      |
| Bis(2-ethylhexyl)phthalate         | 21.91  | 5.0 | 20      | 0                          | 110  | 40-125        | 0              |      |                                   |      |
| Butyl benzyl phthalate             | 21.58  | 5.0 | 20      | 0                          | 108  | 45-115        | 0              |      |                                   |      |
| Carbazole                          | 23.54  | 5.0 | 20      | 0                          | 118  | 50-150        | 0              |      |                                   |      |
| Chrysene                           | 20.33  | 5.0 | 20      | 0                          | 102  | 55-110        | 0              |      |                                   |      |

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** GHD Services Inc.  
**Work Order:** 15101851  
**Project:** Former GRMP (17360)

## QC BATCH REPORT

| Batch ID: <b>78279</b>            |       | Instrument ID <b>SVMS5</b> |    | Method: <b>SW846 8270D</b> |      |        |   |  |   |
|-----------------------------------|-------|----------------------------|----|----------------------------|------|--------|---|--|---|
| Dibenzo(a,h)anthracene            | 19.68 | 5.0                        | 20 | 0                          | 98.4 | 40-125 | 0 |  |   |
| Dibenzofuran                      | 18.21 | 5.0                        | 20 | 0                          | 91   | 55-105 | 0 |  |   |
| Diethyl phthalate                 | 19.96 | 5.0                        | 20 | 0                          | 99.8 | 40-120 | 0 |  |   |
| Dimethyl phthalate                | 19.74 | 5.0                        | 20 | 0                          | 98.7 | 25-125 | 0 |  |   |
| Di-n-butyl phthalate              | 22.92 | 5.0                        | 20 | 0                          | 115  | 55-115 | 0 |  |   |
| Di-n-octyl phthalate              | 30.13 | 5.0                        | 20 | 0                          | 151  | 35-135 | 0 |  | S |
| Fluoranthene                      | 23.26 | 5.0                        | 20 | 0                          | 116  | 55-115 | 0 |  | S |
| Fluorene                          | 19.67 | 5.0                        | 20 | 0                          | 98.4 | 50-110 | 0 |  |   |
| Hexachlorobenzene                 | 20.03 | 5.0                        | 20 | 0                          | 100  | 50-110 | 0 |  |   |
| Hexachlorobutadiene               | 18.32 | 5.0                        | 20 | 0                          | 91.6 | 25-105 | 0 |  |   |
| Hexachlorocyclopentadiene         | 10.92 | 5.0                        | 20 | 0                          | 54.6 | 25-105 | 0 |  |   |
| Hexachloroethane                  | 21.25 | 5.0                        | 20 | 0                          | 106  | 30-95  | 0 |  | S |
| Indeno(1,2,3-cd)pyrene            | 21.83 | 5.0                        | 20 | 0                          | 109  | 45-125 | 0 |  |   |
| Isophorone                        | 21.78 | 5.0                        | 20 | 0                          | 109  | 50-110 | 0 |  |   |
| Naphthalene                       | 20.7  | 5.0                        | 20 | 2.54                       | 90.8 | 40-100 | 0 |  |   |
| Nitrobenzene                      | 20.56 | 5.0                        | 20 | 0                          | 103  | 45-110 | 0 |  |   |
| N-Nitrosodi-n-propylamine         | 21.51 | 5.0                        | 20 | 0                          | 108  | 35-130 | 0 |  |   |
| N-Nitrosodiphenylamine            | 19.67 | 5.0                        | 20 | 0                          | 98.4 | 50-110 | 0 |  |   |
| Pentachlorophenol                 | 35.93 | 5.0                        | 20 | 0                          | 180  | 40-115 | 0 |  | S |
| Phenanthrene                      | 19.95 | 5.0                        | 20 | 0                          | 99.8 | 50-115 | 0 |  |   |
| Phenol                            | 7.06  | 5.0                        | 20 | 0                          | 35.3 | 12-43  | 0 |  |   |
| Pyrene                            | 22.14 | 5.0                        | 20 | 0                          | 111  | 50-130 | 0 |  |   |
| <i>Surr: 2,4,6-Tribromophenol</i> | 47.28 | 0                          | 50 | 0                          | 94.6 | 38-115 | 0 |  |   |
| <i>Surr: 2-Fluorobiphenyl</i>     | 41.52 | 0                          | 50 | 0                          | 83   | 32-100 | 0 |  |   |
| <i>Surr: 2-Fluorophenol</i>       | 25.55 | 0                          | 50 | 0                          | 51.1 | 22-59  | 0 |  |   |
| <i>Surr: 4-Terphenyl-d14</i>      | 49.29 | 0                          | 50 | 0                          | 98.6 | 23-112 | 0 |  |   |
| <i>Surr: Nitrobenzene-d5</i>      | 48.37 | 0                          | 50 | 0                          | 96.7 | 31-93  | 0 |  | S |
| <i>Surr: Phenol-d6</i>            | 16.67 | 0                          | 50 | 0                          | 33.3 | 13-36  | 0 |  |   |

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

Client: GHD Services Inc.  
 Work Order: 15101851  
 Project: Former GRMP (17360)

## QC BATCH REPORT

Batch ID: 78279 Instrument ID SVMS5 Method: SW846 8270D

| MSD                                |        |     |         | Sample ID: 15101851-24B MSD |      |               | Units: µg/L    |       | Analysis Date: 11/3/2015 11:38 AM |      |
|------------------------------------|--------|-----|---------|-----------------------------|------|---------------|----------------|-------|-----------------------------------|------|
| Client ID: WG-017360-102915-MR-045 |        |     |         | Run ID: SVMS5_151103A       |      |               | SeqNo: 3547090 |       | Prep Date: 11/2/2015              |      |
|                                    |        |     |         |                             |      |               |                |       | DF: 1                             |      |
| Analyte                            | Result | PQL | SPK Val | SPK Ref Value               | %REC | Control Limit | RPD Ref Value  | %RPD  | RPD Limit                         | Qual |
| 1,1'-Biphenyl                      | 20.65  | 5.0 | 20      | 0                           | 103  | 30-120        | 21.11          | 2.2   | 30                                |      |
| 2,4,5-Trichlorophenol              | 20.94  | 5.0 | 20      | 0                           | 105  | 50-110        | 21.4           | 2.17  | 30                                |      |
| 2,4,6-Trichlorophenol              | 19.95  | 5.0 | 20      | 0                           | 99.8 | 50-115        | 20.9           | 4.65  | 30                                |      |
| 2,4-Dichlorophenol                 | 19.11  | 5.0 | 20      | 0                           | 95.6 | 50-105        | 19.49          | 1.97  | 30                                |      |
| 2,4-Dimethylphenol                 | 24.89  | 5.0 | 20      | 3.8                         | 105  | 30-110        | 25.55          | 2.62  | 30                                |      |
| 2,4-Dinitrophenol                  | 30.85  | 5.0 | 20      | 0                           | 154  | 15-140        | 30.8           | 0.162 | 30                                | S    |
| 2,4-Dinitrotoluene                 | 21.12  | 5.0 | 20      | 0                           | 106  | 50-120        | 21.54          | 1.97  | 30                                |      |
| 2,6-Dinitrotoluene                 | 20.46  | 5.0 | 20      | 0                           | 102  | 50-115        | 20.25          | 1.03  | 30                                |      |
| 2-Chloronaphthalene                | 17.69  | 5.0 | 20      | 0                           | 88.4 | 50-105        | 18.36          | 3.72  | 30                                |      |
| 2-Chlorophenol                     | 17.72  | 5.0 | 20      | 0                           | 88.6 | 35-105        | 17.89          | 0.955 | 30                                |      |
| 2-Methylnaphthalene                | 18.91  | 5.0 | 20      | 0                           | 94.6 | 45-105        | 19.76          | 4.4   | 30                                |      |
| 2-Methylphenol                     | 15.13  | 5.0 | 20      | 0                           | 75.6 | 40-110        | 17.29          | 13.3  | 30                                |      |
| 2-Nitroaniline                     | 21.35  | 5.0 | 20      | 0                           | 107  | 50-115        | 23.62          | 10.1  | 30                                |      |
| 2-Nitrophenol                      | 19.25  | 5.0 | 20      | 0                           | 96.2 | 40-115        | 19.61          | 1.85  | 30                                |      |
| 3&4-Methylphenol                   | 14.83  | 5.0 | 20      | 0                           | 74.2 | 30-110        | 16.36          | 9.81  | 30                                |      |
| 3,3'-Dichlorobenzidine             | U      | 5.0 | 20      | 0                           | 0    | 30-120        | 0              | 0     | 30                                | S    |
| 3-Nitroaniline                     | 12.21  | 5.0 | 20      | 0                           | 61   | 20-125        | 11.93          | 2.32  | 30                                |      |
| 4,6-Dinitro-2-methylphenol         | 22.75  | 5.0 | 20      | 0                           | 114  | 40-130        | 23.36          | 2.65  | 30                                |      |
| 4-Bromophenyl phenyl ether         | 19.41  | 5.0 | 20      | 0                           | 97   | 50-115        | 19.72          | 1.58  | 30                                |      |
| 4-Chloro-3-methylphenol            | 20.79  | 5.0 | 20      | 0                           | 104  | 45-110        | 21.75          | 4.51  | 30                                |      |
| 4-Chloroaniline                    | 8.69   | 5.0 | 20      | 0                           | 43.4 | 15-110        | 8.75           | 0.688 | 30                                |      |
| 4-Chlorophenyl phenyl ether        | 18.54  | 5.0 | 20      | 0                           | 92.7 | 50-110        | 19.14          | 3.18  | 30                                |      |
| 4-Nitroaniline                     | 18.52  | 5.0 | 20      | 0                           | 92.6 | 35-150        | 20.05          | 7.93  | 30                                |      |
| 4-Nitrophenol                      | 8.12   | 5.0 | 20      | 0                           | 40.6 | 1-58          | 10.89          | 29.1  | 30                                |      |
| Acenaphthene                       | 17.73  | 5.0 | 20      | 0                           | 88.6 | 45-110        | 18.31          | 3.22  | 30                                |      |
| Acenaphthylene                     | 17.48  | 5.0 | 20      | 0                           | 87.4 | 50-105        | 17.88          | 2.26  | 30                                |      |
| Acetophenone                       | 22.34  | 1.0 | 20      | 0                           | 112  | 30-120        | 22.07          | 1.22  | 30                                |      |
| Anthracene                         | 21.78  | 5.0 | 20      | 0                           | 109  | 55-110        | 22.68          | 4.05  | 30                                |      |
| Atrazine                           | 15.27  | 1.0 | 20      | 0                           | 76.4 | 30-120        | 15.66          | 2.52  | 30                                |      |
| Benzaldehyde                       | 17.53  | 1.0 | 20      | 0                           | 87.6 | 30-120        | 18.3           | 4.3   | 30                                |      |
| Benzo(a)anthracene                 | 20.23  | 5.0 | 20      | 0                           | 101  | 55-110        | 20.96          | 3.54  | 30                                |      |
| Benzo(a)pyrene                     | 22.17  | 5.0 | 20      | 0                           | 111  | 55-110        | 22.97          | 3.54  | 30                                | S    |
| Benzo(b)fluoranthene               | 22.88  | 5.0 | 20      | 0                           | 114  | 45-120        | 22.68          | 0.878 | 30                                |      |
| Benzo(g,h,i)perylene               | 18.83  | 5.0 | 20      | 0                           | 94.2 | 40-125        | 19.42          | 3.08  | 30                                |      |
| Benzo(k)fluoranthene               | 20.73  | 5.0 | 20      | 0                           | 104  | 45-125        | 22.55          | 8.41  | 30                                |      |
| Bis(2-chloroethoxy)methane         | 19.05  | 5.0 | 20      | 0                           | 95.2 | 45-105        | 19.8           | 3.86  | 30                                |      |
| Bis(2-chloroethyl)ether            | 20.31  | 5.0 | 20      | 0                           | 102  | 35-110        | 21.16          | 4.1   | 30                                |      |
| Bis(2-chloroisopropyl)ether        | 18.36  | 5.0 | 20      | 0                           | 91.8 | 25-130        | 19.11          | 4     | 30                                |      |
| Bis(2-ethylhexyl)phthalate         | 21.06  | 5.0 | 20      | 0                           | 105  | 40-125        | 21.91          | 3.96  | 30                                |      |
| Butyl benzyl phthalate             | 20.55  | 5.0 | 20      | 0                           | 103  | 45-115        | 21.58          | 4.89  | 30                                |      |
| Carbazole                          | 22.67  | 5.0 | 20      | 0                           | 113  | 50-150        | 23.54          | 3.77  | 30                                |      |
| Chrysene                           | 19.56  | 5.0 | 20      | 0                           | 97.8 | 55-110        | 20.33          | 3.86  | 30                                |      |

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** GHD Services Inc.  
**Work Order:** 15101851  
**Project:** Former GRMP (17360)

## QC BATCH REPORT

| Batch ID: <b>78279</b>            |       | Instrument ID <b>SVMS5</b> |    | Method: <b>SW846 8270D</b> |      |        |       |       |      |
|-----------------------------------|-------|----------------------------|----|----------------------------|------|--------|-------|-------|------|
| Dibenzo(a,h)anthracene            | 19.26 | 5.0                        | 20 | 0                          | 96.3 | 40-125 | 19.68 | 2.16  | 30   |
| Dibenzofuran                      | 17.87 | 5.0                        | 20 | 0                          | 89.4 | 55-105 | 18.21 | 1.88  | 30   |
| Diethyl phthalate                 | 19.19 | 5.0                        | 20 | 0                          | 96   | 40-120 | 19.96 | 3.93  | 30   |
| Dimethyl phthalate                | 19.25 | 5.0                        | 20 | 0                          | 96.2 | 25-125 | 19.74 | 2.51  | 30   |
| Di-n-butyl phthalate              | 21.61 | 5.0                        | 20 | 0                          | 108  | 55-115 | 22.92 | 5.88  | 30   |
| Di-n-octyl phthalate              | 28.59 | 5.0                        | 20 | 0                          | 143  | 35-135 | 30.13 | 5.25  | 30 S |
| Fluoranthene                      | 21.93 | 5.0                        | 20 | 0                          | 110  | 55-115 | 23.26 | 5.89  | 30   |
| Fluorene                          | 19.19 | 5.0                        | 20 | 0                          | 96   | 50-110 | 19.67 | 2.47  | 30   |
| Hexachlorobenzene                 | 19.44 | 5.0                        | 20 | 0                          | 97.2 | 50-110 | 20.03 | 2.99  | 30   |
| Hexachlorobutadiene               | 17.47 | 5.0                        | 20 | 0                          | 87.4 | 25-105 | 18.32 | 4.75  | 30   |
| Hexachlorocyclopentadiene         | 10.9  | 5.0                        | 20 | 0                          | 54.5 | 25-105 | 10.92 | 0.183 | 30   |
| Hexachloroethane                  | 20.8  | 5.0                        | 20 | 0                          | 104  | 30-95  | 21.25 | 2.14  | 30 S |
| Indeno(1,2,3-cd)pyrene            | 21.91 | 5.0                        | 20 | 0                          | 110  | 45-125 | 21.83 | 0.366 | 30   |
| Isophorone                        | 21.39 | 5.0                        | 20 | 0                          | 107  | 50-110 | 21.78 | 1.81  | 30   |
| Naphthalene                       | 20.45 | 5.0                        | 20 | 2.54                       | 89.6 | 40-100 | 20.7  | 1.22  | 30   |
| Nitrobenzene                      | 19.66 | 5.0                        | 20 | 0                          | 98.3 | 45-110 | 20.56 | 4.48  | 30   |
| N-Nitrosodi-n-propylamine         | 21.13 | 5.0                        | 20 | 0                          | 106  | 35-130 | 21.51 | 1.78  | 30   |
| N-Nitrosodiphenylamine            | 18.79 | 5.0                        | 20 | 0                          | 94   | 50-110 | 19.67 | 4.58  | 30   |
| Pentachlorophenol                 | 33.66 | 5.0                        | 20 | 0                          | 168  | 40-115 | 35.93 | 6.52  | 30 S |
| Phenanthrene                      | 19.18 | 5.0                        | 20 | 0                          | 95.9 | 50-115 | 19.95 | 3.94  | 30   |
| Phenol                            | 6.26  | 5.0                        | 20 | 0                          | 31.3 | 12-43  | 7.06  | 12    | 30   |
| Pyrene                            | 21.43 | 5.0                        | 20 | 0                          | 107  | 50-130 | 22.14 | 3.26  | 30   |
| <i>Surr: 2,4,6-Tribromophenol</i> | 46.09 | 0                          | 50 | 0                          | 92.2 | 38-115 | 47.28 | 2.55  | 40   |
| <i>Surr: 2-Fluorobiphenyl</i>     | 40.56 | 0                          | 50 | 0                          | 81.1 | 32-100 | 41.52 | 2.34  | 40   |
| <i>Surr: 2-Fluorophenol</i>       | 23.3  | 0                          | 50 | 0                          | 46.6 | 22-59  | 25.55 | 9.21  | 40   |
| <i>Surr: 4-Terphenyl-d14</i>      | 48.97 | 0                          | 50 | 0                          | 97.9 | 23-112 | 49.29 | 0.651 | 40   |
| <i>Surr: Nitrobenzene-d5</i>      | 46.9  | 0                          | 50 | 0                          | 93.8 | 31-93  | 48.37 | 3.09  | 40 S |
| <i>Surr: Phenol-d6</i>            | 14.52 | 0                          | 50 | 0                          | 29   | 13-36  | 16.67 | 13.8  | 40   |

The following samples were analyzed in this batch:

|              |              |              |
|--------------|--------------|--------------|
| 15101851-21B | 15101851-23B | 15101851-24B |
|--------------|--------------|--------------|

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** GHD Services Inc.  
**Work Order:** 15101851  
**Project:** Former GRMP (17360)

## QC BATCH REPORT

Batch ID: **78333** Instrument ID **SVMS8** Method: **SW846 8270D**

| MBLK                        |        | Sample ID: <b>SBLKW1-78333-78333</b> |         |               |      | Units: <b>µg/L</b>    |               | Analysis Date: <b>11/4/2015 01:44 PM</b> |           |              |
|-----------------------------|--------|--------------------------------------|---------|---------------|------|-----------------------|---------------|------------------------------------------|-----------|--------------|
| Client ID:                  |        | Run ID: <b>SVMS8_151104A</b>         |         |               |      | SeqNo: <b>3550299</b> |               | Prep Date: <b>11/3/2015</b>              |           | DF: <b>1</b> |
| Analyte                     | Result | PQL                                  | SPK Val | SPK Ref Value | %REC | Control Limit         | RPD Ref Value | %RPD                                     | RPD Limit | Qual         |
| 1,1'-Biphenyl               | U      | 5.0                                  |         |               |      |                       |               |                                          |           |              |
| 2,4,5-Trichlorophenol       | U      | 5.0                                  |         |               |      |                       |               |                                          |           |              |
| 2,4,6-Trichlorophenol       | U      | 5.0                                  |         |               |      |                       |               |                                          |           |              |
| 2,4-Dichlorophenol          | U      | 5.0                                  |         |               |      |                       |               |                                          |           |              |
| 2,4-Dimethylphenol          | U      | 5.0                                  |         |               |      |                       |               |                                          |           |              |
| 2,4-Dinitrophenol           | U      | 5.0                                  |         |               |      |                       |               |                                          |           |              |
| 2,4-Dinitrotoluene          | U      | 5.0                                  |         |               |      |                       |               |                                          |           |              |
| 2,6-Dinitrotoluene          | U      | 5.0                                  |         |               |      |                       |               |                                          |           |              |
| 2-Chloronaphthalene         | U      | 5.0                                  |         |               |      |                       |               |                                          |           |              |
| 2-Chlorophenol              | U      | 5.0                                  |         |               |      |                       |               |                                          |           |              |
| 2-Methylnaphthalene         | U      | 5.0                                  |         |               |      |                       |               |                                          |           |              |
| 2-Methylphenol              | U      | 5.0                                  |         |               |      |                       |               |                                          |           |              |
| 2-Nitroaniline              | U      | 5.0                                  |         |               |      |                       |               |                                          |           |              |
| 2-Nitrophenol               | U      | 5.0                                  |         |               |      |                       |               |                                          |           |              |
| 3&4-Methylphenol            | U      | 5.0                                  |         |               |      |                       |               |                                          |           |              |
| 3,3'-Dichlorobenzidine      | U      | 5.0                                  |         |               |      |                       |               |                                          |           |              |
| 3-Nitroaniline              | U      | 5.0                                  |         |               |      |                       |               |                                          |           |              |
| 4,6-Dinitro-2-methylphenol  | U      | 5.0                                  |         |               |      |                       |               |                                          |           |              |
| 4-Bromophenyl phenyl ether  | U      | 5.0                                  |         |               |      |                       |               |                                          |           |              |
| 4-Chloro-3-methylphenol     | U      | 5.0                                  |         |               |      |                       |               |                                          |           |              |
| 4-Chloroaniline             | U      | 5.0                                  |         |               |      |                       |               |                                          |           |              |
| 4-Chlorophenyl phenyl ether | U      | 5.0                                  |         |               |      |                       |               |                                          |           |              |
| 4-Nitroaniline              | U      | 5.0                                  |         |               |      |                       |               |                                          |           |              |
| 4-Nitrophenol               | U      | 5.0                                  |         |               |      |                       |               |                                          |           |              |
| Acenaphthene                | U      | 5.0                                  |         |               |      |                       |               |                                          |           |              |
| Acenaphthylene              | U      | 5.0                                  |         |               |      |                       |               |                                          |           |              |
| Acetophenone                | U      | 1.0                                  |         |               |      |                       |               |                                          |           |              |
| Anthracene                  | U      | 5.0                                  |         |               |      |                       |               |                                          |           |              |
| Atrazine                    | U      | 1.0                                  |         |               |      |                       |               |                                          |           |              |
| Benzaldehyde                | U      | 1.0                                  |         |               |      |                       |               |                                          |           |              |
| Benzo(a)anthracene          | U      | 5.0                                  |         |               |      |                       |               |                                          |           |              |
| Benzo(a)pyrene              | U      | 5.0                                  |         |               |      |                       |               |                                          |           |              |
| Benzo(b)fluoranthene        | U      | 5.0                                  |         |               |      |                       |               |                                          |           |              |
| Benzo(g,h,i)perylene        | U      | 5.0                                  |         |               |      |                       |               |                                          |           |              |
| Benzo(k)fluoranthene        | U      | 5.0                                  |         |               |      |                       |               |                                          |           |              |
| Bis(2-chloroethoxy)methane  | U      | 5.0                                  |         |               |      |                       |               |                                          |           |              |
| Bis(2-chloroethyl)ether     | U      | 5.0                                  |         |               |      |                       |               |                                          |           |              |
| Bis(2-chloroisopropyl)ether | U      | 5.0                                  |         |               |      |                       |               |                                          |           |              |
| Bis(2-ethylhexyl)phthalate  | U      | 5.0                                  |         |               |      |                       |               |                                          |           |              |
| Butyl benzyl phthalate      | U      | 5.0                                  |         |               |      |                       |               |                                          |           |              |
| Caprolactam                 | U      | 10                                   |         |               |      |                       |               |                                          |           |              |
| Carbazole                   | U      | 5.0                                  |         |               |      |                       |               |                                          |           |              |

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** GHD Services Inc.  
**Work Order:** 15101851  
**Project:** Former GRMP (17360)

## QC BATCH REPORT

| Batch ID: <b>78333</b>            |              | Instrument ID <b>SVMS8</b> |           | Method: <b>SW846 8270D</b> |             |               |          |  |
|-----------------------------------|--------------|----------------------------|-----------|----------------------------|-------------|---------------|----------|--|
| Chrysene                          | U            | 5.0                        |           |                            |             |               |          |  |
| Dibenzo(a,h)anthracene            | U            | 5.0                        |           |                            |             |               |          |  |
| Dibenzofuran                      | U            | 5.0                        |           |                            |             |               |          |  |
| Diethyl phthalate                 | U            | 5.0                        |           |                            |             |               |          |  |
| Dimethyl phthalate                | U            | 5.0                        |           |                            |             |               |          |  |
| Di-n-butyl phthalate              | U            | 5.0                        |           |                            |             |               |          |  |
| Di-n-octyl phthalate              | U            | 5.0                        |           |                            |             |               |          |  |
| Fluoranthene                      | U            | 5.0                        |           |                            |             |               |          |  |
| Fluorene                          | U            | 5.0                        |           |                            |             |               |          |  |
| Hexachlorobenzene                 | U            | 5.0                        |           |                            |             |               |          |  |
| Hexachlorobutadiene               | U            | 5.0                        |           |                            |             |               |          |  |
| Hexachlorocyclopentadiene         | U            | 5.0                        |           |                            |             |               |          |  |
| Hexachloroethane                  | U            | 5.0                        |           |                            |             |               |          |  |
| Indeno(1,2,3-cd)pyrene            | U            | 5.0                        |           |                            |             |               |          |  |
| Isophorone                        | U            | 5.0                        |           |                            |             |               |          |  |
| Naphthalene                       | U            | 5.0                        |           |                            |             |               |          |  |
| Nitrobenzene                      | U            | 5.0                        |           |                            |             |               |          |  |
| N-Nitrosodi-n-propylamine         | U            | 5.0                        |           |                            |             |               |          |  |
| N-Nitrosodiphenylamine            | U            | 5.0                        |           |                            |             |               |          |  |
| Pentachlorophenol                 | U            | 5.0                        |           |                            |             |               |          |  |
| Phenanthrene                      | U            | 5.0                        |           |                            |             |               |          |  |
| Phenol                            | U            | 5.0                        |           |                            |             |               |          |  |
| Pyrene                            | U            | 5.0                        |           |                            |             |               |          |  |
| <i>Surr: 2,4,6-Tribromophenol</i> | <i>38.34</i> | <i>0</i>                   | <i>50</i> | <i>0</i>                   | <i>76.7</i> | <i>38-115</i> | <i>0</i> |  |
| <i>Surr: 2-Fluorobiphenyl</i>     | <i>33.61</i> | <i>0</i>                   | <i>50</i> | <i>0</i>                   | <i>67.2</i> | <i>32-100</i> | <i>0</i> |  |
| <i>Surr: 2-Fluorophenol</i>       | <i>21.44</i> | <i>0</i>                   | <i>50</i> | <i>0</i>                   | <i>42.9</i> | <i>22-59</i>  | <i>0</i> |  |
| <i>Surr: 4-Terphenyl-d14</i>      | <i>45.15</i> | <i>0</i>                   | <i>50</i> | <i>0</i>                   | <i>90.3</i> | <i>23-112</i> | <i>0</i> |  |
| <i>Surr: Nitrobenzene-d5</i>      | <i>30.44</i> | <i>0</i>                   | <i>50</i> | <i>0</i>                   | <i>60.9</i> | <i>31-93</i>  | <i>0</i> |  |
| <i>Surr: Phenol-d6</i>            | <i>12.72</i> | <i>0</i>                   | <i>50</i> | <i>0</i>                   | <i>25.4</i> | <i>13-36</i>  | <i>0</i> |  |

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** GHD Services Inc.  
**Work Order:** 15101851  
**Project:** Former GRMP (17360)

## QC BATCH REPORT

Batch ID: **78333** Instrument ID **SVMS8** Method: **SW846 8270D**

| LCS                         |        | Sample ID: <b>SLCSW1-78333-78333</b> |         |               |      | Units: <b>µg/L</b>    |               | Analysis Date: <b>11/4/2015 02:04 PM</b> |           |              |
|-----------------------------|--------|--------------------------------------|---------|---------------|------|-----------------------|---------------|------------------------------------------|-----------|--------------|
| Client ID:                  |        | Run ID: <b>SVMS8_151104A</b>         |         |               |      | SeqNo: <b>3550300</b> |               | Prep Date: <b>11/3/2015</b>              |           | DF: <b>1</b> |
| Analyte                     | Result | PQL                                  | SPK Val | SPK Ref Value | %REC | Control Limit         | RPD Ref Value | %RPD                                     | RPD Limit | Qual         |
| 1,1'-Biphenyl               | 13.44  | 5.0                                  | 20      | 0             | 67.2 | 30-120                | 0             |                                          |           |              |
| 2,4,5-Trichlorophenol       | 16.6   | 5.0                                  | 20      | 0             | 83   | 50-110                | 0             |                                          |           |              |
| 2,4,6-Trichlorophenol       | 16.78  | 5.0                                  | 20      | 0             | 83.9 | 50-115                | 0             |                                          |           |              |
| 2,4-Dichlorophenol          | 15.05  | 5.0                                  | 20      | 0             | 75.2 | 50-105                | 0             |                                          |           |              |
| 2,4-Dimethylphenol          | 12.44  | 5.0                                  | 20      | 0             | 62.2 | 30-110                | 0             |                                          |           |              |
| 2,4-Dinitrophenol           | 10.04  | 5.0                                  | 20      | 0             | 50.2 | 15-140                | 0             |                                          |           |              |
| 2,4-Dinitrotoluene          | 15.53  | 5.0                                  | 20      | 0             | 77.6 | 50-120                | 0             |                                          |           |              |
| 2,6-Dinitrotoluene          | 15.2   | 5.0                                  | 20      | 0             | 76   | 50-115                | 0             |                                          |           |              |
| 2-Chloronaphthalene         | 13.51  | 5.0                                  | 20      | 0             | 67.6 | 50-105                | 0             |                                          |           |              |
| 2-Chlorophenol              | 13.87  | 5.0                                  | 20      | 0             | 69.4 | 35-105                | 0             |                                          |           |              |
| 2-Methylnaphthalene         | 12.22  | 5.0                                  | 20      | 0             | 61.1 | 45-105                | 0             |                                          |           |              |
| 2-Methylphenol              | 12.45  | 5.0                                  | 20      | 0             | 62.2 | 40-110                | 0             |                                          |           |              |
| 2-Nitroaniline              | 12.47  | 5.0                                  | 20      | 0             | 62.4 | 50-115                | 0             |                                          |           |              |
| 2-Nitrophenol               | 14.84  | 5.0                                  | 20      | 0             | 74.2 | 40-115                | 0             |                                          |           |              |
| 3&4-Methylphenol            | 11.37  | 5.0                                  | 20      | 0             | 56.8 | 30-110                | 0             |                                          |           |              |
| 3,3'-Dichlorobenzidine      | 12.43  | 5.0                                  | 20      | 0             | 62.2 | 30-120                | 0             |                                          |           |              |
| 3-Nitroaniline              | 14.97  | 5.0                                  | 20      | 0             | 74.8 | 20-125                | 0             |                                          |           |              |
| 4,6-Dinitro-2-methylphenol  | 16.26  | 5.0                                  | 20      | 0             | 81.3 | 40-130                | 0             |                                          |           |              |
| 4-Bromophenyl phenyl ether  | 16.3   | 5.0                                  | 20      | 0             | 81.5 | 50-115                | 0             |                                          |           |              |
| 4-Chloro-3-methylphenol     | 14.15  | 5.0                                  | 20      | 0             | 70.8 | 45-110                | 0             |                                          |           |              |
| 4-Chloroaniline             | 14.96  | 5.0                                  | 20      | 0             | 74.8 | 15-110                | 0             |                                          |           |              |
| 4-Chlorophenyl phenyl ether | 14.78  | 5.0                                  | 20      | 0             | 73.9 | 50-110                | 0             |                                          |           |              |
| 4-Nitroaniline              | 14.47  | 5.0                                  | 20      | 0             | 72.4 | 35-150                | 0             |                                          |           |              |
| 4-Nitrophenol               | 4.58   | 5.0                                  | 20      | 0             | 22.9 | 10-58                 | 0             |                                          |           | J            |
| Acenaphthene                | 13.99  | 5.0                                  | 20      | 0             | 70   | 45-110                | 0             |                                          |           |              |
| Acenaphthylene              | 14.65  | 5.0                                  | 20      | 0             | 73.2 | 50-105                | 0             |                                          |           |              |
| Acetophenone                | 13.41  | 1.0                                  | 20      | 0             | 67   | 30-120                | 0             |                                          |           |              |
| Anthracene                  | 16.24  | 5.0                                  | 20      | 0             | 81.2 | 55-110                | 0             |                                          |           |              |
| Atrazine                    | 16.96  | 1.0                                  | 20      | 0             | 84.8 | 30-120                | 0             |                                          |           |              |
| Benzaldehyde                | 12.05  | 1.0                                  | 20      | 0             | 60.2 | 30-120                | 0             |                                          |           |              |
| Benzo(a)anthracene          | 16.03  | 5.0                                  | 20      | 0             | 80.2 | 55-110                | 0             |                                          |           |              |
| Benzo(a)pyrene              | 16.24  | 5.0                                  | 20      | 0             | 81.2 | 55-110                | 0             |                                          |           |              |
| Benzo(b)fluoranthene        | 16.53  | 5.0                                  | 20      | 0             | 82.6 | 45-120                | 0             |                                          |           |              |
| Benzo(g,h,i)perylene        | 17.52  | 5.0                                  | 20      | 0             | 87.6 | 40-125                | 0             |                                          |           |              |
| Benzo(k)fluoranthene        | 16.44  | 5.0                                  | 20      | 0             | 82.2 | 45-125                | 0             |                                          |           |              |
| Bis(2-chloroethoxy)methane  | 12.75  | 5.0                                  | 20      | 0             | 63.8 | 45-105                | 0             |                                          |           |              |
| Bis(2-chloroethyl)ether     | 12.91  | 5.0                                  | 20      | 0             | 64.6 | 35-110                | 0             |                                          |           |              |
| Bis(2-chloroisopropyl)ether | 10.68  | 5.0                                  | 20      | 0             | 53.4 | 25-130                | 0             |                                          |           |              |
| Bis(2-ethylhexyl)phthalate  | 15.54  | 5.0                                  | 20      | 0             | 77.7 | 40-125                | 0             |                                          |           |              |
| Butyl benzyl phthalate      | 14.65  | 5.0                                  | 20      | 0             | 73.2 | 45-115                | 0             |                                          |           |              |
| Carbazole                   | 16.04  | 5.0                                  | 20      | 0             | 80.2 | 50-150                | 0             |                                          |           |              |
| Chrysene                    | 15.87  | 5.0                                  | 20      | 0             | 79.4 | 55-110                | 0             |                                          |           |              |

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.



**Client:** GHD Services Inc.  
**Work Order:** 15101851  
**Project:** Former GRMP (17360)

## QC BATCH REPORT

| Batch ID: <b>78333</b>            |              | Instrument ID <b>SVMS8</b> |           | Method: <b>SW846 8270D</b> |             |               |          |
|-----------------------------------|--------------|----------------------------|-----------|----------------------------|-------------|---------------|----------|
| Dibenzo(a,h)anthracene            | 17.73        | 5.0                        | 20        | 0                          | 88.6        | 40-125        | 0        |
| Dibenzofuran                      | 14.7         | 5.0                        | 20        | 0                          | 73.5        | 55-105        | 0        |
| Diethyl phthalate                 | 15.1         | 5.0                        | 20        | 0                          | 75.5        | 40-120        | 0        |
| Dimethyl phthalate                | 15.52        | 5.0                        | 20        | 0                          | 77.6        | 25-125        | 0        |
| Di-n-butyl phthalate              | 16.24        | 5.0                        | 20        | 0                          | 81.2        | 55-115        | 0        |
| Di-n-octyl phthalate              | 16.97        | 5.0                        | 20        | 0                          | 84.8        | 35-135        | 0        |
| Fluoranthene                      | 16.43        | 5.0                        | 20        | 0                          | 82.2        | 55-115        | 0        |
| Fluorene                          | 14.88        | 5.0                        | 20        | 0                          | 74.4        | 50-110        | 0        |
| Hexachlorobenzene                 | 16.36        | 5.0                        | 20        | 0                          | 81.8        | 50-110        | 0        |
| Hexachlorobutadiene               | 7.79         | 5.0                        | 20        | 0                          | 39          | 25-105        | 0        |
| Hexachlorocyclopentadiene         | 5.55         | 5.0                        | 20        | 0                          | 27.8        | 25-105        | 0        |
| Hexachloroethane                  | 6.58         | 5.0                        | 20        | 0                          | 32.9        | 30-95         | 0        |
| Indeno(1,2,3-cd)pyrene            | 17.65        | 5.0                        | 20        | 0                          | 88.2        | 45-125        | 0        |
| Isophorone                        | 12.87        | 5.0                        | 20        | 0                          | 64.4        | 50-110        | 0        |
| Naphthalene                       | 11.55        | 5.0                        | 20        | 0                          | 57.8        | 40-100        | 0        |
| Nitrobenzene                      | 12.41        | 5.0                        | 20        | 0                          | 62          | 45-110        | 0        |
| N-Nitrosodi-n-propylamine         | 12.82        | 5.0                        | 20        | 0                          | 64.1        | 35-130        | 0        |
| N-Nitrosodiphenylamine            | 15.66        | 5.0                        | 20        | 0                          | 78.3        | 50-110        | 0        |
| Pentachlorophenol                 | 13.07        | 5.0                        | 20        | 0                          | 65.4        | 40-115        | 0        |
| Phenanthrene                      | 15           | 5.0                        | 20        | 0                          | 75          | 50-115        | 0        |
| Phenol                            | 5.07         | 5.0                        | 20        | 0                          | 25.4        | 12-43         | 0        |
| Pyrene                            | 16.55        | 5.0                        | 20        | 0                          | 82.8        | 50-130        | 0        |
| <i>Surr: 2,4,6-Tribromophenol</i> | <i>42.57</i> | <i>0</i>                   | <i>50</i> | <i>0</i>                   | <i>85.1</i> | <i>38-115</i> | <i>0</i> |
| <i>Surr: 2-Fluorobiphenyl</i>     | <i>35.36</i> | <i>0</i>                   | <i>50</i> | <i>0</i>                   | <i>70.7</i> | <i>32-100</i> | <i>0</i> |
| <i>Surr: 2-Fluorophenol</i>       | <i>21.41</i> | <i>0</i>                   | <i>50</i> | <i>0</i>                   | <i>42.8</i> | <i>22-59</i>  | <i>0</i> |
| <i>Surr: 4-Terphenyl-d14</i>      | <i>40.43</i> | <i>0</i>                   | <i>50</i> | <i>0</i>                   | <i>80.9</i> | <i>23-112</i> | <i>0</i> |
| <i>Surr: Nitrobenzene-d5</i>      | <i>30.85</i> | <i>0</i>                   | <i>50</i> | <i>0</i>                   | <i>61.7</i> | <i>31-93</i>  | <i>0</i> |
| <i>Surr: Phenol-d6</i>            | <i>13.4</i>  | <i>0</i>                   | <i>50</i> | <i>0</i>                   | <i>26.8</i> | <i>13-36</i>  | <i>0</i> |

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** GHD Services Inc.  
**Work Order:** 15101851  
**Project:** Former GRMP (17360)

## QC BATCH REPORT

Batch ID: **78333** Instrument ID **SVMS8** Method: **SW846 8270D**

| MS                          |        |     |         | Sample ID: 15101910-02B MS |      |               | Units: µg/L    |      | Analysis Date: 11/4/2015 06:59 PM |      |
|-----------------------------|--------|-----|---------|----------------------------|------|---------------|----------------|------|-----------------------------------|------|
| Client ID:                  |        |     |         | Run ID: SVMS8_151104A      |      |               | SeqNo: 3550301 |      | Prep Date: 11/3/2015              |      |
|                             |        |     |         |                            |      |               | DF: 1          |      |                                   |      |
| Analyte                     | Result | PQL | SPK Val | SPK Ref Value              | %REC | Control Limit | RPD Ref Value  | %RPD | RPD Limit                         | Qual |
| 1,1'-Biphenyl               | 275.2  | 100 | 400     | 0                          | 68.8 | 30-120        | 0              |      |                                   |      |
| 2,4,5-Trichlorophenol       | 314.2  | 100 | 400     | 0                          | 78.6 | 50-110        | 0              |      |                                   |      |
| 2,4,6-Trichlorophenol       | 323    | 100 | 400     | 0                          | 80.8 | 50-115        | 0              |      |                                   |      |
| 2,4-Dichlorophenol          | 287.2  | 100 | 400     | 0                          | 71.8 | 50-105        | 0              |      |                                   |      |
| 2,4-Dimethylphenol          | 217.8  | 100 | 400     | 0                          | 54.4 | 30-110        | 0              |      |                                   |      |
| 2,4-Dinitrophenol           | 304    | 100 | 400     | 0                          | 76   | 15-140        | 0              |      |                                   |      |
| 2,4-Dinitrotoluene          | 303.6  | 100 | 400     | 0                          | 75.9 | 50-120        | 0              |      |                                   |      |
| 2,6-Dinitrotoluene          | 306.8  | 100 | 400     | 0                          | 76.7 | 50-115        | 0              |      |                                   |      |
| 2-Chloronaphthalene         | 276    | 100 | 400     | 0                          | 69   | 50-105        | 0              |      |                                   |      |
| 2-Chlorophenol              | 272.4  | 100 | 400     | 0                          | 68.1 | 35-105        | 0              |      |                                   |      |
| 2-Methylnaphthalene         | 388.4  | 100 | 400     | 118.6                      | 67.4 | 45-105        | 0              |      |                                   |      |
| 2-Methylphenol              | 231    | 100 | 400     | 0                          | 57.8 | 40-110        | 0              |      |                                   |      |
| 2-Nitroaniline              | 262    | 100 | 400     | 0                          | 65.5 | 50-115        | 0              |      |                                   |      |
| 2-Nitrophenol               | 297.6  | 100 | 400     | 0                          | 74.4 | 40-115        | 0              |      |                                   |      |
| 3&4-Methylphenol            | 223    | 100 | 400     | 0                          | 55.8 | 30-110        | 0              |      |                                   |      |
| 3,3'-Dichlorobenzidine      | 287.2  | 100 | 400     | 0                          | 71.8 | 30-120        | 0              |      |                                   |      |
| 3-Nitroaniline              | 277.8  | 100 | 400     | 0                          | 69.4 | 20-125        | 0              |      |                                   |      |
| 4,6-Dinitro-2-methylphenol  | 322    | 100 | 400     | 0                          | 80.5 | 40-130        | 0              |      |                                   |      |
| 4-Bromophenyl phenyl ether  | 322.6  | 100 | 400     | 0                          | 80.6 | 50-115        | 0              |      |                                   |      |
| 4-Chloro-3-methylphenol     | 270    | 100 | 400     | 0                          | 67.5 | 45-110        | 0              |      |                                   |      |
| 4-Chloroaniline             | 277.4  | 100 | 400     | 0                          | 69.4 | 15-110        | 0              |      |                                   |      |
| 4-Chlorophenyl phenyl ether | 285    | 100 | 400     | 0                          | 71.2 | 50-110        | 0              |      |                                   |      |
| 4-Nitroaniline              | 280.2  | 100 | 400     | 0                          | 70   | 35-150        | 0              |      |                                   |      |
| 4-Nitrophenol               | 135.8  | 100 | 400     | 0                          | 34   | 1-58          | 0              |      |                                   |      |
| Acenaphthene                | 412    | 100 | 400     | 131                        | 70.2 | 45-110        | 0              |      |                                   |      |
| Acenaphthylene              | 288.6  | 100 | 400     | 0                          | 72.2 | 50-105        | 0              |      |                                   |      |
| Acetophenone                | 264.4  | 20  | 400     | 0                          | 66.1 | 30-120        | 0              |      |                                   |      |
| Anthracene                  | 334    | 100 | 400     | 10                         | 81   | 55-110        | 0              |      |                                   |      |
| Atrazine                    | 327.6  | 20  | 400     | 0                          | 81.9 | 30-120        | 0              |      |                                   |      |
| Benzaldehyde                | 222.2  | 20  | 400     | 0                          | 55.6 | 30-120        | 0              |      |                                   |      |
| Benzo(a)anthracene          | 328.2  | 100 | 400     | 0                          | 82   | 55-110        | 0              |      |                                   |      |
| Benzo(a)pyrene              | 339.8  | 100 | 400     | 0                          | 85   | 55-110        | 0              |      |                                   |      |
| Benzo(b)fluoranthene        | 325.6  | 100 | 400     | 0                          | 81.4 | 45-120        | 0              |      |                                   |      |
| Benzo(g,h,i)perylene        | 305.6  | 100 | 400     | 0                          | 76.4 | 40-125        | 0              |      |                                   |      |
| Benzo(k)fluoranthene        | 324    | 100 | 400     | 0                          | 81   | 45-125        | 0              |      |                                   |      |
| Bis(2-chloroethoxy)methane  | 264.8  | 100 | 400     | 0                          | 66.2 | 45-105        | 0              |      |                                   |      |
| Bis(2-chloroethyl)ether     | 262.2  | 100 | 400     | 0                          | 65.6 | 35-110        | 0              |      |                                   |      |
| Bis(2-chloroisopropyl)ether | 222    | 100 | 400     | 0                          | 55.5 | 25-130        | 0              |      |                                   |      |
| Bis(2-ethylhexyl)phthalate  | 333.6  | 100 | 400     | 0                          | 83.4 | 40-125        | 0              |      |                                   |      |
| Butyl benzyl phthalate      | 302.4  | 100 | 400     | 0                          | 75.6 | 45-115        | 0              |      |                                   |      |
| Carbazole                   | 347.2  | 100 | 400     | 21.8                       | 81.4 | 50-150        | 0              |      |                                   |      |
| Chrysene                    | 311.2  | 100 | 400     | 0                          | 77.8 | 55-110        | 0              |      |                                   |      |

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** GHD Services Inc.  
**Work Order:** 15101851  
**Project:** Former GRMP (17360)

## QC BATCH REPORT

| Batch ID: <b>78333</b>            |              | Instrument ID <b>SVMS8</b> |             | Method: <b>SW846 8270D</b> |             |               |          |  |
|-----------------------------------|--------------|----------------------------|-------------|----------------------------|-------------|---------------|----------|--|
| Dibenzo(a,h)anthracene            | 324.6        | 100                        | 400         | 0                          | 81.2        | 40-125        | 0        |  |
| Dibenzofuran                      | 345.8        | 100                        | 400         | 55.6                       | 72.6        | 55-105        | 0        |  |
| Diethyl phthalate                 | 296.2        | 100                        | 400         | 0                          | 74          | 40-120        | 0        |  |
| Dimethyl phthalate                | 294.2        | 100                        | 400         | 0                          | 73.6        | 25-125        | 0        |  |
| Di-n-butyl phthalate              | 339.6        | 100                        | 400         | 0                          | 84.9        | 55-115        | 0        |  |
| Di-n-octyl phthalate              | 375.4        | 100                        | 400         | 0                          | 93.8        | 35-135        | 0        |  |
| Fluoranthene                      | 336.4        | 100                        | 400         | 7.4                        | 82.2        | 55-115        | 0        |  |
| Fluorene                          | 347          | 100                        | 400         | 56.8                       | 72.6        | 50-110        | 0        |  |
| Hexachlorobenzene                 | 312          | 100                        | 400         | 0                          | 78          | 50-110        | 0        |  |
| Hexachlorobutadiene               | 205.6        | 100                        | 400         | 0                          | 51.4        | 25-105        | 0        |  |
| Hexachlorocyclopentadiene         | 158.2        | 100                        | 400         | 0                          | 39.6        | 25-105        | 0        |  |
| Hexachloroethane                  | 204.2        | 100                        | 400         | 0                          | 51          | 30-95         | 0        |  |
| Indeno(1,2,3-cd)pyrene            | 326          | 100                        | 400         | 0                          | 81.5        | 45-125        | 0        |  |
| Isophorone                        | 266.8        | 100                        | 400         | 0                          | 66.7        | 50-110        | 0        |  |
| Naphthalene                       | 940.2        | 100                        | 400         | 653.4                      | 71.7        | 40-100        | 0        |  |
| Nitrobenzene                      | 246.8        | 100                        | 400         | 0                          | 61.7        | 45-110        | 0        |  |
| N-Nitrosodi-n-propylamine         | 256.6        | 100                        | 400         | 0                          | 64.2        | 35-130        | 0        |  |
| N-Nitrosodiphenylamine            | 315.8        | 100                        | 400         | 0                          | 79          | 50-110        | 0        |  |
| Pentachlorophenol                 | 347.2        | 100                        | 400         | 0                          | 86.8        | 40-115        | 0        |  |
| Phenanthrene                      | 399          | 100                        | 400         | 88.2                       | 77.7        | 50-115        | 0        |  |
| Phenol                            | 104.4        | 100                        | 400         | 0                          | 26.1        | 12-43         | 0        |  |
| Pyrene                            | 283.2        | 100                        | 400         | 4.6                        | 69.6        | 50-130        | 0        |  |
| <i>Surr: 2,4,6-Tribromophenol</i> | <i>832.4</i> | <i>0</i>                   | <i>1000</i> | <i>0</i>                   | <i>83.2</i> | <i>38-115</i> | <i>0</i> |  |
| <i>Surr: 2-Fluorobiphenyl</i>     | <i>700.4</i> | <i>0</i>                   | <i>1000</i> | <i>0</i>                   | <i>70</i>   | <i>32-100</i> | <i>0</i> |  |
| <i>Surr: 2-Fluorophenol</i>       | <i>434.4</i> | <i>0</i>                   | <i>1000</i> | <i>0</i>                   | <i>43.4</i> | <i>22-59</i>  | <i>0</i> |  |
| <i>Surr: 4-Terphenyl-d14</i>      | <i>676.2</i> | <i>0</i>                   | <i>1000</i> | <i>0</i>                   | <i>67.6</i> | <i>23-112</i> | <i>0</i> |  |
| <i>Surr: Nitrobenzene-d5</i>      | <i>643.6</i> | <i>0</i>                   | <i>1000</i> | <i>0</i>                   | <i>64.4</i> | <i>31-93</i>  | <i>0</i> |  |
| <i>Surr: Phenol-d6</i>            | <i>276.2</i> | <i>0</i>                   | <i>1000</i> | <i>0</i>                   | <i>27.6</i> | <i>13-36</i>  | <i>0</i> |  |

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** GHD Services Inc.  
**Work Order:** 15101851  
**Project:** Former GRMP (17360)

## QC BATCH REPORT

Batch ID: **78333**      Instrument ID **SVMS8**      Method: **SW846 8270D**

| MSD                         |        |     |         | Sample ID: 15101910-02B MSD |      |               | Units: µg/L    |        | Analysis Date: 11/4/2015 07:19 PM |      |
|-----------------------------|--------|-----|---------|-----------------------------|------|---------------|----------------|--------|-----------------------------------|------|
| Client ID:                  |        |     |         | Run ID: SVMS8_151104A       |      |               | SeqNo: 3550302 |        | Prep Date: 11/3/2015              |      |
|                             |        |     |         |                             |      |               | DF: 1          |        |                                   |      |
| Analyte                     | Result | PQL | SPK Val | SPK Ref Value               | %REC | Control Limit | RPD Ref Value  | %RPD   | RPD Limit                         | Qual |
| 1,1'-Biphenyl               | 266.8  | 100 | 400     | 0                           | 66.7 | 30-120        | 275.2          | 3.1    | 30                                |      |
| 2,4,5-Trichlorophenol       | 326.6  | 100 | 400     | 0                           | 81.6 | 50-110        | 314.2          | 3.87   | 30                                |      |
| 2,4,6-Trichlorophenol       | 314.2  | 100 | 400     | 0                           | 78.6 | 50-115        | 323            | 2.76   | 30                                |      |
| 2,4-Dichlorophenol          | 298.2  | 100 | 400     | 0                           | 74.6 | 50-105        | 287.2          | 3.76   | 30                                |      |
| 2,4-Dimethylphenol          | 249.4  | 100 | 400     | 0                           | 62.4 | 30-110        | 217.8          | 13.5   | 30                                |      |
| 2,4-Dinitrophenol           | 332    | 100 | 400     | 0                           | 83   | 15-140        | 304            | 8.81   | 30                                |      |
| 2,4-Dinitrotoluene          | 313.8  | 100 | 400     | 0                           | 78.4 | 50-120        | 303.6          | 3.3    | 30                                |      |
| 2,6-Dinitrotoluene          | 315.6  | 100 | 400     | 0                           | 78.9 | 50-115        | 306.8          | 2.83   | 30                                |      |
| 2-Chloronaphthalene         | 274.2  | 100 | 400     | 0                           | 68.6 | 50-105        | 276            | 0.654  | 30                                |      |
| 2-Chlorophenol              | 280.4  | 100 | 400     | 0                           | 70.1 | 35-105        | 272.4          | 2.89   | 30                                |      |
| 2-Methylnaphthalene         | 377.4  | 100 | 400     | 118.6                       | 64.7 | 45-105        | 388.4          | 2.87   | 30                                |      |
| 2-Methylphenol              | 250    | 100 | 400     | 0                           | 62.5 | 40-110        | 231            | 7.9    | 30                                |      |
| 2-Nitroaniline              | 262.2  | 100 | 400     | 0                           | 65.6 | 50-115        | 262            | 0.0763 | 30                                |      |
| 2-Nitrophenol               | 302    | 100 | 400     | 0                           | 75.5 | 40-115        | 297.6          | 1.47   | 30                                |      |
| 3&4-Methylphenol            | 235.6  | 100 | 400     | 0                           | 58.9 | 30-110        | 223            | 5.49   | 30                                |      |
| 3,3'-Dichlorobenzidine      | 310.2  | 100 | 400     | 0                           | 77.6 | 30-120        | 287.2          | 7.7    | 30                                |      |
| 3-Nitroaniline              | 292.6  | 100 | 400     | 0                           | 73.2 | 20-125        | 277.8          | 5.19   | 30                                |      |
| 4,6-Dinitro-2-methylphenol  | 346    | 100 | 400     | 0                           | 86.5 | 40-130        | 322            | 7.19   | 30                                |      |
| 4-Bromophenyl phenyl ether  | 316    | 100 | 400     | 0                           | 79   | 50-115        | 322.6          | 2.07   | 30                                |      |
| 4-Chloro-3-methylphenol     | 287.2  | 100 | 400     | 0                           | 71.8 | 45-110        | 270            | 6.17   | 30                                |      |
| 4-Chloroaniline             | 303.2  | 100 | 400     | 0                           | 75.8 | 15-110        | 277.4          | 8.89   | 30                                |      |
| 4-Chlorophenyl phenyl ether | 290    | 100 | 400     | 0                           | 72.5 | 50-110        | 285            | 1.74   | 30                                |      |
| 4-Nitroaniline              | 285.6  | 100 | 400     | 0                           | 71.4 | 35-150        | 280.2          | 1.91   | 30                                |      |
| 4-Nitrophenol               | 117.2  | 100 | 400     | 0                           | 29.3 | 1-58          | 135.8          | 14.7   | 30                                |      |
| Acenaphthene                | 421.8  | 100 | 400     | 131                         | 72.7 | 45-110        | 412            | 2.35   | 30                                |      |
| Acenaphthylene              | 291    | 100 | 400     | 0                           | 72.8 | 50-105        | 288.6          | 0.828  | 30                                |      |
| Acetophenone                | 270.4  | 20  | 400     | 0                           | 67.6 | 30-120        | 264.4          | 2.24   | 30                                |      |
| Anthracene                  | 336.4  | 100 | 400     | 10                          | 81.6 | 55-110        | 334            | 0.716  | 30                                |      |
| Atrazine                    | 338.4  | 20  | 400     | 0                           | 84.6 | 30-120        | 327.6          | 3.24   | 30                                |      |
| Benzaldehyde                | 224.2  | 20  | 400     | 0                           | 56   | 30-120        | 222.2          | 0.896  | 30                                |      |
| Benzo(a)anthracene          | 332.4  | 100 | 400     | 0                           | 83.1 | 55-110        | 328.2          | 1.27   | 30                                |      |
| Benzo(a)pyrene              | 337.4  | 100 | 400     | 0                           | 84.4 | 55-110        | 339.8          | 0.709  | 30                                |      |
| Benzo(b)fluoranthene        | 330.2  | 100 | 400     | 0                           | 82.6 | 45-120        | 325.6          | 1.4    | 30                                |      |
| Benzo(g,h,i)perylene        | 297.8  | 100 | 400     | 0                           | 74.4 | 40-125        | 305.6          | 2.59   | 30                                |      |
| Benzo(k)fluoranthene        | 317    | 100 | 400     | 0                           | 79.2 | 45-125        | 324            | 2.18   | 30                                |      |
| Bis(2-chloroethoxy)methane  | 279.6  | 100 | 400     | 0                           | 69.9 | 45-105        | 264.8          | 5.44   | 30                                |      |
| Bis(2-chloroethyl)ether     | 281    | 100 | 400     | 0                           | 70.2 | 35-110        | 262.2          | 6.92   | 30                                |      |
| Bis(2-chloroisopropyl)ether | 234.8  | 100 | 400     | 0                           | 58.7 | 25-130        | 222            | 5.6    | 30                                |      |
| Bis(2-ethylhexyl)phthalate  | 335.4  | 100 | 400     | 0                           | 83.8 | 40-125        | 333.6          | 0.538  | 30                                |      |
| Butyl benzyl phthalate      | 299.8  | 100 | 400     | 0                           | 75   | 45-115        | 302.4          | 0.864  | 30                                |      |
| Carbazole                   | 354    | 100 | 400     | 21.8                        | 83   | 50-150        | 347.2          | 1.94   | 30                                |      |
| Chrysene                    | 321.2  | 100 | 400     | 0                           | 80.3 | 55-110        | 311.2          | 3.16   | 30                                |      |

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** GHD Services Inc.  
**Work Order:** 15101851  
**Project:** Former GRMP (17360)

## QC BATCH REPORT

| Batch ID: <b>78333</b>            |              | Instrument ID <b>SVMS8</b> |             | Method: <b>SW846 8270D</b> |             |               |              |              |           |
|-----------------------------------|--------------|----------------------------|-------------|----------------------------|-------------|---------------|--------------|--------------|-----------|
| Dibenzo(a,h)anthracene            | 318.2        | 100                        | 400         | 0                          | 79.6        | 40-125        | 324.6        | 1.99         | 30        |
| Dibenzofuran                      | 342          | 100                        | 400         | 55.6                       | 71.6        | 55-105        | 345.8        | 1.1          | 30        |
| Diethyl phthalate                 | 299.8        | 100                        | 400         | 0                          | 75          | 40-120        | 296.2        | 1.21         | 30        |
| Dimethyl phthalate                | 308.4        | 100                        | 400         | 0                          | 77.1        | 25-125        | 294.2        | 4.71         | 30        |
| Di-n-butyl phthalate              | 353.2        | 100                        | 400         | 0                          | 88.3        | 55-115        | 339.6        | 3.93         | 30        |
| Di-n-octyl phthalate              | 373.6        | 100                        | 400         | 0                          | 93.4        | 35-135        | 375.4        | 0.481        | 30        |
| Fluoranthene                      | 334.4        | 100                        | 400         | 7.4                        | 81.8        | 55-115        | 336.4        | 0.596        | 30        |
| Fluorene                          | 351          | 100                        | 400         | 56.8                       | 73.6        | 50-110        | 347          | 1.15         | 30        |
| Hexachlorobenzene                 | 316.4        | 100                        | 400         | 0                          | 79.1        | 50-110        | 312          | 1.4          | 30        |
| Hexachlorobutadiene               | 185.6        | 100                        | 400         | 0                          | 46.4        | 25-105        | 205.6        | 10.2         | 30        |
| Hexachlorocyclopentadiene         | 114.6        | 100                        | 400         | 0                          | 28.6        | 25-105        | 158.2        | 32           | 30 R      |
| Hexachloroethane                  | 181.2        | 100                        | 400         | 0                          | 45.3        | 30-95         | 204.2        | 11.9         | 30        |
| Indeno(1,2,3-cd)pyrene            | 316.8        | 100                        | 400         | 0                          | 79.2        | 45-125        | 326          | 2.86         | 30        |
| Isophorone                        | 275.8        | 100                        | 400         | 0                          | 69          | 50-110        | 266.8        | 3.32         | 30        |
| Naphthalene                       | 935          | 100                        | 400         | 653.4                      | 70.4        | 40-100        | 940.2        | 0.555        | 30        |
| Nitrobenzene                      | 253.8        | 100                        | 400         | 0                          | 63.4        | 45-110        | 246.8        | 2.8          | 30        |
| N-Nitrosodi-n-propylamine         | 265.2        | 100                        | 400         | 0                          | 66.3        | 35-130        | 256.6        | 3.3          | 30        |
| N-Nitrosodiphenylamine            | 321          | 100                        | 400         | 0                          | 80.2        | 50-110        | 315.8        | 1.63         | 30        |
| Pentachlorophenol                 | 351.2        | 100                        | 400         | 0                          | 87.8        | 40-115        | 347.2        | 1.15         | 30        |
| Phenanthrene                      | 411.4        | 100                        | 400         | 88.2                       | 80.8        | 50-115        | 399          | 3.06         | 30        |
| Phenol                            | 101.6        | 100                        | 400         | 0                          | 25.4        | 12-43         | 104.4        | 2.72         | 30        |
| Pyrene                            | 284.4        | 100                        | 400         | 4.6                        | 70          | 50-130        | 283.2        | 0.423        | 30        |
| <i>Surr: 2,4,6-Tribromophenol</i> | <i>856.6</i> | <i>0</i>                   | <i>1000</i> | <i>0</i>                   | <i>85.7</i> | <i>38-115</i> | <i>832.4</i> | <i>2.87</i>  | <i>40</i> |
| <i>Surr: 2-Fluorobiphenyl</i>     | <i>698.2</i> | <i>0</i>                   | <i>1000</i> | <i>0</i>                   | <i>69.8</i> | <i>32-100</i> | <i>700.4</i> | <i>0.315</i> | <i>40</i> |
| <i>Surr: 2-Fluorophenol</i>       | <i>443.6</i> | <i>0</i>                   | <i>1000</i> | <i>0</i>                   | <i>44.4</i> | <i>22-59</i>  | <i>434.4</i> | <i>2.1</i>   | <i>40</i> |
| <i>Surr: 4-Terphenyl-d14</i>      | <i>670.8</i> | <i>0</i>                   | <i>1000</i> | <i>0</i>                   | <i>67.1</i> | <i>23-112</i> | <i>676.2</i> | <i>0.802</i> | <i>40</i> |
| <i>Surr: Nitrobenzene-d5</i>      | <i>633</i>   | <i>0</i>                   | <i>1000</i> | <i>0</i>                   | <i>63.3</i> | <i>31-93</i>  | <i>643.6</i> | <i>1.66</i>  | <i>40</i> |
| <i>Surr: Phenol-d6</i>            | <i>277</i>   | <i>0</i>                   | <i>1000</i> | <i>0</i>                   | <i>27.7</i> | <i>13-36</i>  | <i>276.2</i> | <i>0.289</i> | <i>40</i> |

The following samples were analyzed in this batch:

|              |              |              |
|--------------|--------------|--------------|
| 15101851-25B | 15101851-26B | 15101851-27B |
|--------------|--------------|--------------|

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** GHD Services Inc.  
**Work Order:** 15101851  
**Project:** Former GRMP (17360)

## QC BATCH REPORT

Batch ID: **R175616** Instrument ID **VMS7** Method: **SW8260B**

| MBLK                           |        | Sample ID: <b>VBLKW2-151106-R175616</b> |         |               |      | Units: <b>µg/L</b>    |               | Analysis Date: <b>11/7/2015 05:38 AM</b> |           |              |
|--------------------------------|--------|-----------------------------------------|---------|---------------|------|-----------------------|---------------|------------------------------------------|-----------|--------------|
| Client ID:                     |        | Run ID: <b>VMS7_151106B</b>             |         |               |      | SeqNo: <b>3553308</b> |               | Prep Date:                               |           | DF: <b>1</b> |
| Analyte                        | Result | PQL                                     | SPK Val | SPK Ref Value | %REC | Control Limit         | RPD Ref Value | %RPD                                     | RPD Limit | Qual         |
| 1,1,1,2-Tetrachloroethane      | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| 1,1,1-Trichloroethane          | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| 1,1,2,2-Tetrachloroethane      | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| 1,1,2-Trichloroethane          | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| 1,1,2-Trichlorotrifluoroethane | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| 1,1-Dichloroethane             | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| 1,1-Dichloroethene             | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| 1,2,4-Trichlorobenzene         | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| 1,2-Dibromo-3-chloropropane    | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| 1,2-Dibromoethane              | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| 1,2-Dichlorobenzene            | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| 1,2-Dichloroethane             | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| 1,2-Dichloropropane            | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| 1,3-Dichlorobenzene            | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| 1,4-Dichlorobenzene            | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| 2-Butanone                     | U      | 5.0                                     |         |               |      |                       |               |                                          |           |              |
| 2-Hexanone                     | U      | 5.0                                     |         |               |      |                       |               |                                          |           |              |
| 4-Methyl-2-pentanone           | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| Acetone                        | U      | 10                                      |         |               |      |                       |               |                                          |           |              |
| Benzene                        | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| Bromodichloromethane           | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| Bromoform                      | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| Bromomethane                   | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| Carbon disulfide               | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| Carbon tetrachloride           | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| Chlorobenzene                  | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| Chloroethane                   | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| Chloroform                     | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| Chloromethane                  | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| cis-1,2-Dichloroethene         | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| cis-1,3-Dichloropropene        | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| Cyclohexane                    | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| Dibromochloromethane           | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| Dichlorodifluoromethane        | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| Ethylbenzene                   | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| Isopropylbenzene               | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| Methyl acetate                 | U      | 2.0                                     |         |               |      |                       |               |                                          |           |              |
| Methyl tert-butyl ether        | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| Methylcyclohexane              | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| Methylene chloride             | U      | 5.0                                     |         |               |      |                       |               |                                          |           |              |
| Styrene                        | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| Tetrachloroethene              | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

Client: GHD Services Inc.  
Work Order: 15101851  
Project: Former GRMP (17360)

QC BATCH REPORT

|                                    |              |                           |           |                        |             |               |          |  |
|------------------------------------|--------------|---------------------------|-----------|------------------------|-------------|---------------|----------|--|
| Batch ID: <b>R175616</b>           |              | Instrument ID <b>VMS7</b> |           | Method: <b>SW8260B</b> |             |               |          |  |
| Toluene                            | U            | 1.0                       |           |                        |             |               |          |  |
| trans-1,2-Dichloroethene           | U            | 1.0                       |           |                        |             |               |          |  |
| trans-1,3-Dichloropropene          | U            | 1.0                       |           |                        |             |               |          |  |
| Trichloroethene                    | U            | 1.0                       |           |                        |             |               |          |  |
| Trichlorofluoromethane             | U            | 1.0                       |           |                        |             |               |          |  |
| Vinyl chloride                     | U            | 1.0                       |           |                        |             |               |          |  |
| Xylenes, Total                     | U            | 3.0                       |           |                        |             |               |          |  |
| <i>Surr: 1,2-Dichloroethane-d4</i> | <i>19.46</i> | <i>0</i>                  | <i>20</i> | <i>0</i>               | <i>97.3</i> | <i>75-120</i> | <i>0</i> |  |
| <i>Surr: 4-Bromofluorobenzene</i>  | <i>19.21</i> | <i>0</i>                  | <i>20</i> | <i>0</i>               | <i>96</i>   | <i>80-110</i> | <i>0</i> |  |
| <i>Surr: Dibromofluoromethane</i>  | <i>20.04</i> | <i>0</i>                  | <i>20</i> | <i>0</i>               | <i>100</i>  | <i>85-115</i> | <i>0</i> |  |
| <i>Surr: Toluene-d8</i>            | <i>19.64</i> | <i>0</i>                  | <i>20</i> | <i>0</i>               | <i>98.2</i> | <i>85-110</i> | <i>0</i> |  |

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** GHD Services Inc.  
**Work Order:** 15101851  
**Project:** Former GRMP (17360)

## QC BATCH REPORT

Batch ID: **R175616** Instrument ID **VMS7** Method: **SW8260B**

| LCS                         |        | Sample ID: <b>VLCSW2-151106-R175616</b> |         |               |      | Units: <b>µg/L</b>    |               | Analysis Date: <b>11/7/2015 04:24 AM</b> |           |              |
|-----------------------------|--------|-----------------------------------------|---------|---------------|------|-----------------------|---------------|------------------------------------------|-----------|--------------|
| Client ID:                  |        | Run ID: <b>VMS7_151106B</b>             |         |               |      | SeqNo: <b>3553307</b> |               | Prep Date:                               |           | DF: <b>1</b> |
| Analyte                     | Result | PQL                                     | SPK Val | SPK Ref Value | %REC | Control Limit         | RPD Ref Value | %RPD                                     | RPD Limit | Qual         |
| 1,1,1,2-Tetrachloroethane   | 20.37  | 1.0                                     | 20      | 0             | 102  | 80-130                | 0             |                                          |           |              |
| 1,1,1-Trichloroethane       | 21.22  | 1.0                                     | 20      | 0             | 106  | 75-130                | 0             |                                          |           |              |
| 1,1,2,2-Tetrachloroethane   | 19.77  | 1.0                                     | 20      | 0             | 98.8 | 75-130                | 0             |                                          |           |              |
| 1,1,2-Trichloroethane       | 20.3   | 1.0                                     | 20      | 0             | 102  | 75-125                | 0             |                                          |           |              |
| 1,1-Dichloroethane          | 20.65  | 1.0                                     | 20      | 0             | 103  | 75-133                | 0             |                                          |           |              |
| 1,1-Dichloroethene          | 21.29  | 1.0                                     | 20      | 0             | 106  | 70-145                | 0             |                                          |           |              |
| 1,2,4-Trichlorobenzene      | 21.38  | 1.0                                     | 20      | 0             | 107  | 70-135                | 0             |                                          |           |              |
| 1,2-Dibromo-3-chloropropane | 17.96  | 1.0                                     | 20      | 0             | 89.8 | 60-130                | 0             |                                          |           |              |
| 1,2-Dibromoethane           | 22.63  | 1.0                                     | 20      | 0             | 113  | 80-150                | 0             |                                          |           |              |
| 1,2-Dichlorobenzene         | 20.28  | 1.0                                     | 20      | 0             | 101  | 70-130                | 0             |                                          |           |              |
| 1,2-Dichloroethane          | 20.56  | 1.0                                     | 20      | 0             | 103  | 78-125                | 0             |                                          |           |              |
| 1,2-Dichloropropane         | 21.43  | 1.0                                     | 20      | 0             | 107  | 75-125                | 0             |                                          |           |              |
| 1,3-Dichlorobenzene         | 21     | 1.0                                     | 20      | 0             | 105  | 75-130                | 0             |                                          |           |              |
| 1,4-Dichlorobenzene         | 20.67  | 1.0                                     | 20      | 0             | 103  | 75-130                | 0             |                                          |           |              |
| 2-Butanone                  | 17.22  | 5.0                                     | 20      | 0             | 86.1 | 55-150                | 0             |                                          |           |              |
| 2-Hexanone                  | 18.09  | 5.0                                     | 20      | 0             | 90.4 | 60-135                | 0             |                                          |           |              |
| 4-Methyl-2-pentanone        | 24.49  | 1.0                                     | 20      | 0             | 122  | 77-178                | 0             |                                          |           |              |
| Acetone                     | 18.97  | 10                                      | 20      | 0             | 94.8 | 60-160                | 0             |                                          |           |              |
| Benzene                     | 20.85  | 1.0                                     | 20      | 0             | 104  | 85-125                | 0             |                                          |           |              |
| Bromodichloromethane        | 20.92  | 1.0                                     | 20      | 0             | 105  | 75-125                | 0             |                                          |           |              |
| Bromoform                   | 19.23  | 1.0                                     | 20      | 0             | 96.2 | 60-125                | 0             |                                          |           |              |
| Bromomethane                | 29.54  | 1.0                                     | 20      | 0             | 148  | 30-185                | 0             |                                          |           |              |
| Carbon disulfide            | 23.65  | 1.0                                     | 20      | 0             | 118  | 60-165                | 0             |                                          |           |              |
| Carbon tetrachloride        | 21.3   | 1.0                                     | 20      | 0             | 106  | 65-140                | 0             |                                          |           |              |
| Chlorobenzene               | 20.83  | 1.0                                     | 20      | 0             | 104  | 80-120                | 0             |                                          |           |              |
| Chloroethane                | 24.05  | 1.0                                     | 20      | 0             | 120  | 50-140                | 0             |                                          |           |              |
| Chloroform                  | 19.2   | 1.0                                     | 20      | 0             | 96   | 80-130                | 0             |                                          |           |              |
| Chloromethane               | 15.67  | 1.0                                     | 20      | 0             | 78.4 | 50-130                | 0             |                                          |           |              |
| cis-1,2-Dichloroethene      | 20.57  | 1.0                                     | 20      | 0             | 103  | 75-134                | 0             |                                          |           |              |
| cis-1,3-Dichloropropene     | 20.32  | 1.0                                     | 20      | 0             | 102  | 70-130                | 0             |                                          |           |              |
| Dibromochloromethane        | 20.54  | 1.0                                     | 20      | 0             | 103  | 60-115                | 0             |                                          |           |              |
| Dichlorodifluoromethane     | 20.53  | 1.0                                     | 20      | 0             | 103  | 20-120                | 0             |                                          |           |              |
| Ethylbenzene                | 20.22  | 1.0                                     | 20      | 0             | 101  | 85-125                | 0             |                                          |           |              |
| Isopropylbenzene            | 21.28  | 1.0                                     | 20      | 0             | 106  | 80-127                | 0             |                                          |           |              |
| Methyl tert-butyl ether     | 19.75  | 1.0                                     | 20      | 0             | 98.8 | 80-130                | 0             |                                          |           |              |
| Methylene chloride          | 21.71  | 5.0                                     | 20      | 0             | 109  | 75-140                | 0             |                                          |           |              |
| Styrene                     | 21.07  | 1.0                                     | 20      | 0             | 105  | 85-125                | 0             |                                          |           |              |
| Tetrachloroethene           | 22.13  | 1.0                                     | 20      | 0             | 111  | 77-138                | 0             |                                          |           |              |
| Toluene                     | 20.83  | 1.0                                     | 20      | 0             | 104  | 85-125                | 0             |                                          |           |              |
| trans-1,2-Dichloroethene    | 23.1   | 1.0                                     | 20      | 0             | 116  | 80-140                | 0             |                                          |           |              |
| trans-1,3-Dichloropropene   | 19.96  | 1.0                                     | 20      | 0             | 99.8 | 81-123                | 0             |                                          |           |              |
| Trichloroethene             | 20.75  | 1.0                                     | 20      | 0             | 104  | 84-130                | 0             |                                          |           |              |

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.



**Client:** GHD Services Inc.  
**Work Order:** 15101851  
**Project:** Former GRMP (17360)

## QC BATCH REPORT

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|                                    |                           |     |    |                        |      |        |   |
|------------------------------------|---------------------------|-----|----|------------------------|------|--------|---|
| Batch ID: <b>R175616</b>           | Instrument ID <b>VMS7</b> |     |    | Method: <b>SW8260B</b> |      |        |   |
| Trichlorofluoromethane             | 23.61                     | 1.0 | 20 | 0                      | 118  | 60-140 | 0 |
| Vinyl chloride                     | 21.72                     | 1.0 | 20 | 0                      | 109  | 50-136 | 0 |
| Xylenes, Total                     | 59.38                     | 3.0 | 60 | 0                      | 99   | 80-126 | 0 |
| <i>Surr: 1,2-Dichloroethane-d4</i> | 19.12                     | 0   | 20 | 0                      | 95.6 | 75-120 | 0 |
| <i>Surr: 4-Bromofluorobenzene</i>  | 19.76                     | 0   | 20 | 0                      | 98.8 | 80-110 | 0 |
| <i>Surr: Dibromofluoromethane</i>  | 19.64                     | 0   | 20 | 0                      | 98.2 | 85-115 | 0 |
| <i>Surr: Toluene-d8</i>            | 19.53                     | 0   | 20 | 0                      | 97.6 | 85-110 | 0 |

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**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** GHD Services Inc.  
**Work Order:** 15101851  
**Project:** Former GRMP (17360)

## QC BATCH REPORT

Batch ID: **R175616** Instrument ID **VMS7** Method: **SW8260B**

| MS                                 |        |     |         | Sample ID: 15101851-17A MS |      |               | Units: µg/L    |      | Analysis Date: 11/7/2015 02:20 PM |      |
|------------------------------------|--------|-----|---------|----------------------------|------|---------------|----------------|------|-----------------------------------|------|
| Client ID: WG-017360-102715-MR-038 |        |     |         | Run ID: VMS7_151106B       |      |               | SeqNo: 3553329 |      | Prep Date:                        |      |
|                                    |        |     |         |                            |      |               |                |      | DF: 1                             |      |
| Analyte                            | Result | PQL | SPK Val | SPK Ref Value              | %REC | Control Limit | RPD Ref Value  | %RPD | RPD Limit                         | Qual |
| 1,1,1,2-Tetrachloroethane          | 21.63  | 1.0 | 20      | 0                          | 108  | 80-130        | 0              |      |                                   |      |
| 1,1,1-Trichloroethane              | 23.33  | 1.0 | 20      | 0                          | 117  | 75-130        | 0              |      |                                   |      |
| 1,1,2,2-Tetrachloroethane          | 19.76  | 1.0 | 20      | 0                          | 98.8 | 75-130        | 0              |      |                                   |      |
| 1,1,2-Trichloroethane              | 20.36  | 1.0 | 20      | 0                          | 102  | 75-125        | 0              |      |                                   |      |
| 1,1-Dichloroethane                 | 21.83  | 1.0 | 20      | 0                          | 109  | 75-133        | 0              |      |                                   |      |
| 1,1-Dichloroethene                 | 22.49  | 1.0 | 20      | 0                          | 112  | 70-145        | 0              |      |                                   |      |
| 1,2,4-Trichlorobenzene             | 20.37  | 1.0 | 20      | 0                          | 102  | 70-135        | 0              |      |                                   |      |
| 1,2-Dibromo-3-chloropropane        | 16.57  | 1.0 | 20      | 0                          | 82.8 | 60-130        | 0              |      |                                   |      |
| 1,2-Dibromoethane                  | 22.62  | 1.0 | 20      | 0                          | 113  | 80-150        | 0              |      |                                   |      |
| 1,2-Dichlorobenzene                | 20.37  | 1.0 | 20      | 0                          | 102  | 70-130        | 0              |      |                                   |      |
| 1,2-Dichloroethane                 | 21.25  | 1.0 | 20      | 0                          | 106  | 78-125        | 0              |      |                                   |      |
| 1,2-Dichloropropane                | 21.86  | 1.0 | 20      | 0                          | 109  | 75-125        | 0              |      |                                   |      |
| 1,3-Dichlorobenzene                | 21.12  | 1.0 | 20      | 0                          | 106  | 75-130        | 0              |      |                                   |      |
| 1,4-Dichlorobenzene                | 20.64  | 1.0 | 20      | 0                          | 103  | 75-130        | 0              |      |                                   |      |
| 2-Butanone                         | 13.11  | 5.0 | 20      | 0                          | 65.6 | 55-150        | 0              |      |                                   |      |
| 2-Hexanone                         | 15.64  | 5.0 | 20      | 0                          | 78.2 | 60-135        | 0              |      |                                   |      |
| 4-Methyl-2-pentanone               | 22.39  | 1.0 | 20      | 0                          | 112  | 77-178        | 0              |      |                                   |      |
| Acetone                            | 13.83  | 10  | 20      | 0                          | 69.2 | 60-160        | 0              |      |                                   |      |
| Benzene                            | 21.96  | 1.0 | 20      | 0                          | 110  | 85-125        | 0              |      |                                   |      |
| Bromodichloromethane               | 21.46  | 1.0 | 20      | 0                          | 107  | 75-125        | 0              |      |                                   |      |
| Bromoform                          | 19.75  | 1.0 | 20      | 0                          | 98.8 | 60-125        | 0              |      |                                   |      |
| Bromomethane                       | 34.35  | 1.0 | 20      | 0                          | 172  | 30-185        | 0              |      |                                   |      |
| Carbon disulfide                   | 24.15  | 1.0 | 20      | 0                          | 121  | 60-165        | 0              |      |                                   |      |
| Carbon tetrachloride               | 22.8   | 1.0 | 20      | 0                          | 114  | 65-140        | 0              |      |                                   |      |
| Chlorobenzene                      | 21.83  | 1.0 | 20      | 0                          | 109  | 80-120        | 0              |      |                                   |      |
| Chloroethane                       | 27.41  | 1.0 | 20      | 0                          | 137  | 50-140        | 0              |      |                                   |      |
| Chloroform                         | 20.47  | 1.0 | 20      | 0.28                       | 101  | 80-130        | 0              |      |                                   |      |
| Chloromethane                      | 15.49  | 1.0 | 20      | 0                          | 77.4 | 50-130        | 0              |      |                                   |      |
| cis-1,2-Dichloroethene             | 20.53  | 1.0 | 20      | 0                          | 103  | 75-134        | 0              |      |                                   |      |
| cis-1,3-Dichloropropene            | 19.75  | 1.0 | 20      | 0                          | 98.8 | 70-130        | 0              |      |                                   |      |
| Dibromochloromethane               | 20.7   | 1.0 | 20      | 0                          | 104  | 60-115        | 0              |      |                                   |      |
| Dichlorodifluoromethane            | 20.46  | 1.0 | 20      | 0                          | 102  | 20-120        | 0              |      |                                   |      |
| Ethylbenzene                       | 21.23  | 1.0 | 20      | 0                          | 106  | 85-125        | 0              |      |                                   |      |
| Isopropylbenzene                   | 21.98  | 1.0 | 20      | 0                          | 110  | 80-127        | 0              |      |                                   |      |
| Methyl tert-butyl ether            | 19.95  | 1.0 | 20      | 0                          | 99.8 | 80-130        | 0              |      |                                   |      |
| Methylene chloride                 | 21.41  | 5.0 | 20      | 0                          | 107  | 75-140        | 0              |      |                                   |      |
| Styrene                            | 22.23  | 1.0 | 20      | 0                          | 111  | 85-125        | 0              |      |                                   |      |
| Tetrachloroethene                  | 23.88  | 1.0 | 20      | 0                          | 119  | 77-138        | 0              |      |                                   |      |
| Toluene                            | 21.93  | 1.0 | 20      | 0                          | 110  | 85-125        | 0              |      |                                   |      |
| trans-1,2-Dichloroethene           | 24.03  | 1.0 | 20      | 0                          | 120  | 80-140        | 0              |      |                                   |      |
| trans-1,3-Dichloropropene          | 20.03  | 1.0 | 20      | 0                          | 100  | 81-123        | 0              |      |                                   |      |
| Trichloroethene                    | 52.87  | 1.0 | 20      | 30.81                      | 110  | 84-130        | 0              |      |                                   |      |

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** GHD Services Inc.  
**Work Order:** 15101851  
**Project:** Former GRMP (17360)

## QC BATCH REPORT

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|                                    |                           |                        |           |          |             |               |          |
|------------------------------------|---------------------------|------------------------|-----------|----------|-------------|---------------|----------|
| Batch ID: <b>R175616</b>           | Instrument ID <b>VMS7</b> | Method: <b>SW8260B</b> |           |          |             |               |          |
| Trichlorofluoromethane             | 25.69                     | 1.0                    | 20        | 0        | 128         | 60-140        | 0        |
| Vinyl chloride                     | 23.53                     | 1.0                    | 20        | 0        | 118         | 50-136        | 0        |
| Xylenes, Total                     | 62.34                     | 3.0                    | 60        | 0        | 104         | 80-126        | 0        |
| <i>Surr: 1,2-Dichloroethane-d4</i> | <i>18.99</i>              | <i>0</i>               | <i>20</i> | <i>0</i> | <i>95</i>   | <i>75-120</i> | <i>0</i> |
| <i>Surr: 4-Bromofluorobenzene</i>  | <i>19.87</i>              | <i>0</i>               | <i>20</i> | <i>0</i> | <i>99.4</i> | <i>80-110</i> | <i>0</i> |
| <i>Surr: Dibromofluoromethane</i>  | <i>20.08</i>              | <i>0</i>               | <i>20</i> | <i>0</i> | <i>100</i>  | <i>85-115</i> | <i>0</i> |
| <i>Surr: Toluene-d8</i>            | <i>19.09</i>              | <i>0</i>               | <i>20</i> | <i>0</i> | <i>95.4</i> | <i>85-110</i> | <i>0</i> |

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**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** GHD Services Inc.  
**Work Order:** 15101851  
**Project:** Former GRMP (17360)

## QC BATCH REPORT

Batch ID: **R175616**      Instrument ID **VMS7**      Method: **SW8260B**

| MSD                                |        |     |         | Sample ID: 15101851-17A MSD |      |               | Units: µg/L    |        | Analysis Date: 11/7/2015 02:46 PM |      |
|------------------------------------|--------|-----|---------|-----------------------------|------|---------------|----------------|--------|-----------------------------------|------|
| Client ID: WG-017360-102715-MR-038 |        |     |         | Run ID: VMS7_151106B        |      |               | SeqNo: 3553330 |        | Prep Date:                        |      |
|                                    |        |     |         |                             |      |               |                |        | DF: 1                             |      |
| Analyte                            | Result | PQL | SPK Val | SPK Ref Value               | %REC | Control Limit | RPD Ref Value  | %RPD   | RPD Limit                         | Qual |
| 1,1,1,2-Tetrachloroethane          | 21.14  | 1.0 | 20      | 0                           | 106  | 80-130        | 21.63          | 2.29   | 30                                |      |
| 1,1,1-Trichloroethane              | 23.27  | 1.0 | 20      | 0                           | 116  | 75-130        | 23.33          | 0.258  | 30                                |      |
| 1,1,2,2-Tetrachloroethane          | 18.81  | 1.0 | 20      | 0                           | 94   | 75-130        | 19.76          | 4.93   | 30                                |      |
| 1,1,2-Trichloroethane              | 20.74  | 1.0 | 20      | 0                           | 104  | 75-125        | 20.36          | 1.85   | 30                                |      |
| 1,1-Dichloroethane                 | 20.7   | 1.0 | 20      | 0                           | 104  | 75-133        | 21.83          | 5.31   | 30                                |      |
| 1,1-Dichloroethene                 | 23.75  | 1.0 | 20      | 0                           | 119  | 70-145        | 22.49          | 5.45   | 30                                |      |
| 1,2,4-Trichlorobenzene             | 21.18  | 1.0 | 20      | 0                           | 106  | 70-135        | 20.37          | 3.9    | 30                                |      |
| 1,2-Dibromo-3-chloropropane        | 17.45  | 1.0 | 20      | 0                           | 87.2 | 60-130        | 16.57          | 5.17   | 30                                |      |
| 1,2-Dibromoethane                  | 22.32  | 1.0 | 20      | 0                           | 112  | 80-150        | 22.62          | 1.34   | 30                                |      |
| 1,2-Dichlorobenzene                | 20.96  | 1.0 | 20      | 0                           | 105  | 70-130        | 20.37          | 2.86   | 30                                |      |
| 1,2-Dichloroethane                 | 21.23  | 1.0 | 20      | 0                           | 106  | 78-125        | 21.25          | 0.0942 | 30                                |      |
| 1,2-Dichloropropane                | 21.37  | 1.0 | 20      | 0                           | 107  | 75-125        | 21.86          | 2.27   | 30                                |      |
| 1,3-Dichlorobenzene                | 21.82  | 1.0 | 20      | 0                           | 109  | 75-130        | 21.12          | 3.26   | 30                                |      |
| 1,4-Dichlorobenzene                | 21.32  | 1.0 | 20      | 0                           | 107  | 75-130        | 20.64          | 3.24   | 30                                |      |
| 2-Butanone                         | 13.39  | 5.0 | 20      | 0                           | 67   | 55-150        | 13.11          | 2.11   | 30                                |      |
| 2-Hexanone                         | 15.82  | 5.0 | 20      | 0                           | 79.1 | 60-135        | 15.64          | 1.14   | 30                                |      |
| 4-Methyl-2-pentanone               | 22.49  | 1.0 | 20      | 0                           | 112  | 77-178        | 22.39          | 0.446  | 30                                |      |
| Acetone                            | 15.6   | 10  | 20      | 0                           | 78   | 60-160        | 13.83          | 12     | 30                                |      |
| Benzene                            | 22.31  | 1.0 | 20      | 0                           | 112  | 85-125        | 21.96          | 1.58   | 30                                |      |
| Bromodichloromethane               | 21.33  | 1.0 | 20      | 0                           | 107  | 75-125        | 21.46          | 0.608  | 30                                |      |
| Bromoform                          | 18.89  | 1.0 | 20      | 0                           | 94.4 | 60-125        | 19.75          | 4.45   | 30                                |      |
| Bromomethane                       | 34.15  | 1.0 | 20      | 0                           | 171  | 30-185        | 34.35          | 0.584  | 30                                |      |
| Carbon disulfide                   | 25     | 1.0 | 20      | 0                           | 125  | 60-165        | 24.15          | 3.46   | 30                                |      |
| Carbon tetrachloride               | 23.42  | 1.0 | 20      | 0                           | 117  | 65-140        | 22.8           | 2.68   | 30                                |      |
| Chlorobenzene                      | 21.65  | 1.0 | 20      | 0                           | 108  | 80-120        | 21.83          | 0.828  | 30                                |      |
| Chloroethane                       | 26.3   | 1.0 | 20      | 0                           | 132  | 50-140        | 27.41          | 4.13   | 30                                |      |
| Chloroform                         | 20.24  | 1.0 | 20      | 0.28                        | 99.8 | 80-130        | 20.47          | 1.13   | 30                                |      |
| Chloromethane                      | 15.11  | 1.0 | 20      | 0                           | 75.6 | 50-130        | 15.49          | 2.48   | 30                                |      |
| cis-1,2-Dichloroethene             | 20.2   | 1.0 | 20      | 0                           | 101  | 75-134        | 20.53          | 1.62   | 30                                |      |
| cis-1,3-Dichloropropene            | 19.35  | 1.0 | 20      | 0                           | 96.8 | 70-130        | 19.75          | 2.05   | 30                                |      |
| Dibromochloromethane               | 20.39  | 1.0 | 20      | 0                           | 102  | 60-115        | 20.7           | 1.51   | 30                                |      |
| Dichlorodifluoromethane            | 19.88  | 1.0 | 20      | 0                           | 99.4 | 20-120        | 20.46          | 2.88   | 30                                |      |
| Ethylbenzene                       | 20.98  | 1.0 | 20      | 0                           | 105  | 85-125        | 21.23          | 1.18   | 30                                |      |
| Isopropylbenzene                   | 22.19  | 1.0 | 20      | 0                           | 111  | 80-127        | 21.98          | 0.951  | 30                                |      |
| Methyl tert-butyl ether            | 19.5   | 1.0 | 20      | 0                           | 97.5 | 80-130        | 19.95          | 2.28   | 30                                |      |
| Methylene chloride                 | 21.97  | 5.0 | 20      | 0                           | 110  | 75-140        | 21.41          | 2.58   | 30                                |      |
| Styrene                            | 21.86  | 1.0 | 20      | 0                           | 109  | 85-125        | 22.23          | 1.68   | 30                                |      |
| Tetrachloroethene                  | 23.53  | 1.0 | 20      | 0                           | 118  | 77-138        | 23.88          | 1.48   | 30                                |      |
| Toluene                            | 21.49  | 1.0 | 20      | 0                           | 107  | 85-125        | 21.93          | 2.03   | 30                                |      |
| trans-1,2-Dichloroethene           | 24.3   | 1.0 | 20      | 0                           | 122  | 80-140        | 24.03          | 1.12   | 30                                |      |
| trans-1,3-Dichloropropene          | 19.46  | 1.0 | 20      | 0                           | 97.3 | 81-123        | 20.03          | 2.89   | 30                                |      |
| Trichloroethene                    | 54.07  | 1.0 | 20      | 30.81                       | 116  | 84-130        | 52.87          | 2.24   | 30                                |      |

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

Client: GHD Services Inc.  
Work Order: 15101851  
Project: Former GRMP (17360)

QC BATCH REPORT

|                                    |                           |     |    |                        |      |        |       |       |    |
|------------------------------------|---------------------------|-----|----|------------------------|------|--------|-------|-------|----|
| Batch ID: <b>R175616</b>           | Instrument ID <b>VMS7</b> |     |    | Method: <b>SW8260B</b> |      |        |       |       |    |
| Trichlorofluoromethane             | 25.73                     | 1.0 | 20 | 0                      | 129  | 60-140 | 25.69 | 0.156 | 30 |
| Vinyl chloride                     | 22.36                     | 1.0 | 20 | 0                      | 112  | 50-136 | 23.53 | 5.1   | 30 |
| Xylenes, Total                     | 61.58                     | 3.0 | 60 | 0                      | 103  | 80-126 | 62.34 | 1.23  | 30 |
| <i>Surr: 1,2-Dichloroethane-d4</i> | 19.59                     | 0   | 20 | 0                      | 98   | 75-120 | 18.99 | 3.11  | 30 |
| <i>Surr: 4-Bromofluorobenzene</i>  | 19.75                     | 0   | 20 | 0                      | 98.8 | 80-110 | 19.87 | 0.606 | 30 |
| <i>Surr: Dibromofluoromethane</i>  | 20.5                      | 0   | 20 | 0                      | 102  | 85-115 | 20.08 | 2.07  | 30 |
| <i>Surr: Toluene-d8</i>            | 19.98                     | 0   | 20 | 0                      | 99.9 | 85-110 | 19.09 | 4.56  | 30 |

The following samples were analyzed in this batch:

|              |              |              |
|--------------|--------------|--------------|
| 15101851-01A | 15101851-02A | 15101851-03A |
| 15101851-04A | 15101851-05A | 15101851-06A |
| 15101851-07A | 15101851-08A | 15101851-09A |
| 15101851-10A | 15101851-11A | 15101851-12A |
| 15101851-13A | 15101851-14A | 15101851-15A |
| 15101851-16A | 15101851-17A | 15101851-18A |
| 15101851-19A | 15101851-20A |              |

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** GHD Services Inc.  
**Work Order:** 15101851  
**Project:** Former GRMP (17360)

## QC BATCH REPORT

Batch ID: **R175624** Instrument ID **VMS9** Method: **SW8260B**

| MBLK                           |        | Sample ID: <b>VLKW1-151107-R175624</b> |         |               |      | Units: <b>µg/L</b>    |               | Analysis Date: <b>11/7/2015 06:38 PM</b> |           |              |
|--------------------------------|--------|----------------------------------------|---------|---------------|------|-----------------------|---------------|------------------------------------------|-----------|--------------|
| Client ID:                     |        | Run ID: <b>VMS9_151107A</b>            |         |               |      | SeqNo: <b>3554151</b> |               | Prep Date:                               |           | DF: <b>1</b> |
| Analyte                        | Result | PQL                                    | SPK Val | SPK Ref Value | %REC | Control Limit         | RPD Ref Value | %RPD                                     | RPD Limit | Qual         |
| 1,1,1-Trichloroethane          | U      | 1.0                                    |         |               |      |                       |               |                                          |           |              |
| 1,1,2,2-Tetrachloroethane      | U      | 1.0                                    |         |               |      |                       |               |                                          |           |              |
| 1,1,2-Trichloroethane          | U      | 1.0                                    |         |               |      |                       |               |                                          |           |              |
| 1,1,2-Trichlorotrifluoroethane | U      | 1.0                                    |         |               |      |                       |               |                                          |           |              |
| 1,1-Dichloroethane             | U      | 1.0                                    |         |               |      |                       |               |                                          |           |              |
| 1,1-Dichloroethene             | U      | 1.0                                    |         |               |      |                       |               |                                          |           |              |
| 1,2,4-Trichlorobenzene         | U      | 1.0                                    |         |               |      |                       |               |                                          |           |              |
| 1,2-Dibromo-3-chloropropane    | U      | 1.0                                    |         |               |      |                       |               |                                          |           |              |
| 1,2-Dibromoethane              | U      | 1.0                                    |         |               |      |                       |               |                                          |           |              |
| 1,2-Dichlorobenzene            | U      | 1.0                                    |         |               |      |                       |               |                                          |           |              |
| 1,2-Dichloroethane             | U      | 1.0                                    |         |               |      |                       |               |                                          |           |              |
| 1,2-Dichloropropane            | U      | 1.0                                    |         |               |      |                       |               |                                          |           |              |
| 1,3-Dichlorobenzene            | U      | 1.0                                    |         |               |      |                       |               |                                          |           |              |
| 1,4-Dichlorobenzene            | U      | 1.0                                    |         |               |      |                       |               |                                          |           |              |
| 2-Butanone                     | U      | 5.0                                    |         |               |      |                       |               |                                          |           |              |
| 2-Hexanone                     | U      | 5.0                                    |         |               |      |                       |               |                                          |           |              |
| 4-Methyl-2-pentanone           | U      | 1.0                                    |         |               |      |                       |               |                                          |           |              |
| Acetone                        | U      | 10                                     |         |               |      |                       |               |                                          |           |              |
| Benzene                        | U      | 1.0                                    |         |               |      |                       |               |                                          |           |              |
| Bromodichloromethane           | U      | 1.0                                    |         |               |      |                       |               |                                          |           |              |
| Bromoform                      | U      | 1.0                                    |         |               |      |                       |               |                                          |           |              |
| Bromomethane                   | U      | 1.0                                    |         |               |      |                       |               |                                          |           |              |
| Carbon disulfide               | U      | 1.0                                    |         |               |      |                       |               |                                          |           |              |
| Carbon tetrachloride           | U      | 1.0                                    |         |               |      |                       |               |                                          |           |              |
| Chlorobenzene                  | U      | 1.0                                    |         |               |      |                       |               |                                          |           |              |
| Chloroethane                   | U      | 1.0                                    |         |               |      |                       |               |                                          |           |              |
| Chloroform                     | U      | 1.0                                    |         |               |      |                       |               |                                          |           |              |
| Chloromethane                  | U      | 1.0                                    |         |               |      |                       |               |                                          |           |              |
| cis-1,2-Dichloroethene         | U      | 1.0                                    |         |               |      |                       |               |                                          |           |              |
| cis-1,3-Dichloropropene        | U      | 1.0                                    |         |               |      |                       |               |                                          |           |              |
| Cyclohexane                    | U      | 1.0                                    |         |               |      |                       |               |                                          |           |              |
| Dibromochloromethane           | U      | 1.0                                    |         |               |      |                       |               |                                          |           |              |
| Dichlorodifluoromethane        | U      | 1.0                                    |         |               |      |                       |               |                                          |           |              |
| Ethylbenzene                   | U      | 1.0                                    |         |               |      |                       |               |                                          |           |              |
| Isopropylbenzene               | U      | 1.0                                    |         |               |      |                       |               |                                          |           |              |
| Methyl acetate                 | U      | 2.0                                    |         |               |      |                       |               |                                          |           |              |
| Methyl tert-butyl ether        | U      | 1.0                                    |         |               |      |                       |               |                                          |           |              |
| Methylcyclohexane              | U      | 1.0                                    |         |               |      |                       |               |                                          |           |              |
| Methylene chloride             | U      | 5.0                                    |         |               |      |                       |               |                                          |           |              |
| Styrene                        | U      | 1.0                                    |         |               |      |                       |               |                                          |           |              |
| Tetrachloroethene              | U      | 1.0                                    |         |               |      |                       |               |                                          |           |              |
| Toluene                        | U      | 1.0                                    |         |               |      |                       |               |                                          |           |              |

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

Client: GHD Services Inc.  
Work Order: 15101851  
Project: Former GRMP (17360)

QC BATCH REPORT

|                             |  |                           |     |                        |   |      |        |   |
|-----------------------------|--|---------------------------|-----|------------------------|---|------|--------|---|
| Batch ID: <b>R175624</b>    |  | Instrument ID <b>VMS9</b> |     | Method: <b>SW8260B</b> |   |      |        |   |
| trans-1,2-Dichloroethene    |  | U                         | 1.0 |                        |   |      |        |   |
| trans-1,3-Dichloropropene   |  | U                         | 1.0 |                        |   |      |        |   |
| Trichloroethene             |  | U                         | 1.0 |                        |   |      |        |   |
| Trichlorofluoromethane      |  | U                         | 1.0 |                        |   |      |        |   |
| Vinyl chloride              |  | U                         | 1.0 |                        |   |      |        |   |
| Xylenes, Total              |  | U                         | 3.0 |                        |   |      |        |   |
| Surr: 1,2-Dichloroethane-d4 |  | 19.39                     | 0   | 20                     | 0 | 97   | 75-120 | 0 |
| Surr: 4-Bromofluorobenzene  |  | 18.5                      | 0   | 20                     | 0 | 92.5 | 80-110 | 0 |
| Surr: Dibromofluoromethane  |  | 19.86                     | 0   | 20                     | 0 | 99.3 | 85-115 | 0 |
| Surr: Toluene-d8            |  | 19.84                     | 0   | 20                     | 0 | 99.2 | 85-110 | 0 |

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** GHD Services Inc.  
**Work Order:** 15101851  
**Project:** Former GRMP (17360)

## QC BATCH REPORT

Batch ID: **R175624**      Instrument ID **VMS9**      Method: **SW8260B**

| LCS                         |        | Sample ID: <b>VLCSW1-151107-R175624</b> |         |               |      | Units: <b>µg/L</b>    |               | Analysis Date: <b>11/7/2015 05:21 PM</b> |           |              |
|-----------------------------|--------|-----------------------------------------|---------|---------------|------|-----------------------|---------------|------------------------------------------|-----------|--------------|
| Client ID:                  |        | Run ID: <b>VMS9_151107A</b>             |         |               |      | SeqNo: <b>3554142</b> |               | Prep Date:                               |           | DF: <b>1</b> |
| Analyte                     | Result | PQL                                     | SPK Val | SPK Ref Value | %REC | Control Limit         | RPD Ref Value | %RPD                                     | RPD Limit | Qual         |
| 1,1,1-Trichloroethane       | 19.91  | 1.0                                     | 20      | 0             | 99.6 | 75-130                | 0             |                                          |           |              |
| 1,1,2,2-Tetrachloroethane   | 18.43  | 1.0                                     | 20      | 0             | 92.2 | 75-130                | 0             |                                          |           |              |
| 1,1,2-Trichloroethane       | 19.51  | 1.0                                     | 20      | 0             | 97.6 | 75-125                | 0             |                                          |           |              |
| 1,1-Dichloroethane          | 18.74  | 1.0                                     | 20      | 0             | 93.7 | 75-133                | 0             |                                          |           |              |
| 1,1-Dichloroethene          | 19.62  | 1.0                                     | 20      | 0             | 98.1 | 70-145                | 0             |                                          |           |              |
| 1,2,4-Trichlorobenzene      | 20.77  | 1.0                                     | 20      | 0             | 104  | 70-135                | 0             |                                          |           |              |
| 1,2-Dibromo-3-chloropropane | 16.58  | 1.0                                     | 20      | 0             | 82.9 | 60-130                | 0             |                                          |           |              |
| 1,2-Dibromoethane           | 23.19  | 1.0                                     | 20      | 0             | 116  | 80-150                | 0             |                                          |           |              |
| 1,2-Dichlorobenzene         | 19.06  | 1.0                                     | 20      | 0             | 95.3 | 70-130                | 0             |                                          |           |              |
| 1,2-Dichloroethane          | 18.19  | 1.0                                     | 20      | 0             | 91   | 78-125                | 0             |                                          |           |              |
| 1,2-Dichloropropane         | 21.58  | 1.0                                     | 20      | 0             | 108  | 75-125                | 0             |                                          |           |              |
| 1,3-Dichlorobenzene         | 20.88  | 1.0                                     | 20      | 0             | 104  | 75-130                | 0             |                                          |           |              |
| 1,4-Dichlorobenzene         | 20.07  | 1.0                                     | 20      | 0             | 100  | 75-130                | 0             |                                          |           |              |
| 2-Butanone                  | 18.47  | 5.0                                     | 20      | 0             | 92.4 | 55-150                | 0             |                                          |           |              |
| 2-Hexanone                  | 15.65  | 5.0                                     | 20      | 0             | 78.2 | 60-135                | 0             |                                          |           |              |
| 4-Methyl-2-pentanone        | 22.59  | 1.0                                     | 20      | 0             | 113  | 77-178                | 0             |                                          |           |              |
| Acetone                     | 14.7   | 10                                      | 20      | 0             | 73.5 | 60-160                | 0             |                                          |           |              |
| Benzene                     | 21.07  | 1.0                                     | 20      | 0             | 105  | 85-125                | 0             |                                          |           |              |
| Bromodichloromethane        | 19.23  | 1.0                                     | 20      | 0             | 96.2 | 75-125                | 0             |                                          |           |              |
| Bromoform                   | 16.25  | 1.0                                     | 20      | 0             | 81.2 | 60-125                | 0             |                                          |           |              |
| Bromomethane                | 14.55  | 1.0                                     | 20      | 0             | 72.8 | 30-185                | 0             |                                          |           |              |
| Carbon disulfide            | 23.8   | 1.0                                     | 20      | 0             | 119  | 60-165                | 0             |                                          |           |              |
| Carbon tetrachloride        | 20.5   | 1.0                                     | 20      | 0             | 102  | 65-140                | 0             |                                          |           |              |
| Chlorobenzene               | 20.88  | 1.0                                     | 20      | 0             | 104  | 80-120                | 0             |                                          |           |              |
| Chloroethane                | 20.52  | 1.0                                     | 20      | 0             | 103  | 50-140                | 0             |                                          |           |              |
| Chloroform                  | 18.91  | 1.0                                     | 20      | 0             | 94.6 | 80-130                | 0             |                                          |           |              |
| Chloromethane               | 19.76  | 1.0                                     | 20      | 0             | 98.8 | 50-130                | 0             |                                          |           |              |
| cis-1,2-Dichloroethene      | 20.68  | 1.0                                     | 20      | 0             | 103  | 75-134                | 0             |                                          |           |              |
| cis-1,3-Dichloropropene     | 18.64  | 1.0                                     | 20      | 0             | 93.2 | 70-130                | 0             |                                          |           |              |
| Dibromochloromethane        | 16.6   | 1.0                                     | 20      | 0             | 83   | 60-115                | 0             |                                          |           |              |
| Dichlorodifluoromethane     | 18.41  | 1.0                                     | 20      | 0             | 92   | 20-120                | 0             |                                          |           |              |
| Ethylbenzene                | 18.7   | 1.0                                     | 20      | 0             | 93.5 | 85-125                | 0             |                                          |           |              |
| Isopropylbenzene            | 19.58  | 1.0                                     | 20      | 0             | 97.9 | 80-127                | 0             |                                          |           |              |
| Methyl tert-butyl ether     | 18.09  | 1.0                                     | 20      | 0             | 90.4 | 80-130                | 0             |                                          |           |              |
| Methylene chloride          | 17.68  | 5.0                                     | 20      | 0             | 88.4 | 75-140                | 0             |                                          |           |              |
| Styrene                     | 19.05  | 1.0                                     | 20      | 0             | 95.2 | 85-125                | 0             |                                          |           |              |
| Tetrachloroethene           | 20.49  | 1.0                                     | 20      | 0             | 102  | 77-138                | 0             |                                          |           |              |
| Toluene                     | 21.09  | 1.0                                     | 20      | 0             | 105  | 85-125                | 0             |                                          |           |              |
| trans-1,2-Dichloroethene    | 19.86  | 1.0                                     | 20      | 0             | 99.3 | 80-140                | 0             |                                          |           |              |
| trans-1,3-Dichloropropene   | 17.51  | 1.0                                     | 20      | 0             | 87.6 | 81-123                | 0             |                                          |           |              |
| Trichloroethene             | 19.88  | 1.0                                     | 20      | 0             | 99.4 | 84-130                | 0             |                                          |           |              |
| Trichlorofluoromethane      | 17.01  | 1.0                                     | 20      | 0             | 85   | 60-140                | 0             |                                          |           |              |

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.



**Client:** GHD Services Inc.  
**Work Order:** 15101851  
**Project:** Former GRMP (17360)

## QC BATCH REPORT

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|                                    |                           |                        |           |          |             |               |          |
|------------------------------------|---------------------------|------------------------|-----------|----------|-------------|---------------|----------|
| Batch ID: <b>R175624</b>           | Instrument ID <b>VMS9</b> | Method: <b>SW8260B</b> |           |          |             |               |          |
| Vinyl chloride                     | 19.53                     | 1.0                    | 20        | 0        | 97.6        | 50-136        | 0        |
| Xylenes, Total                     | 57.89                     | 3.0                    | 60        | 0        | 96.5        | 80-126        | 0        |
| <i>Surr: 1,2-Dichloroethane-d4</i> | <i>18.17</i>              | <i>0</i>               | <i>20</i> | <i>0</i> | <i>90.8</i> | <i>75-120</i> | <i>0</i> |
| <i>Surr: 4-Bromofluorobenzene</i>  | <i>21.36</i>              | <i>0</i>               | <i>20</i> | <i>0</i> | <i>107</i>  | <i>80-110</i> | <i>0</i> |
| <i>Surr: Dibromofluoromethane</i>  | <i>19.3</i>               | <i>0</i>               | <i>20</i> | <i>0</i> | <i>96.5</i> | <i>85-115</i> | <i>0</i> |
| <i>Surr: Toluene-d8</i>            | <i>20.37</i>              | <i>0</i>               | <i>20</i> | <i>0</i> | <i>102</i>  | <i>85-110</i> | <i>0</i> |

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**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** GHD Services Inc.  
**Work Order:** 15101851  
**Project:** Former GRMP (17360)

## QC BATCH REPORT

Batch ID: **R175624** Instrument ID **VMS9** Method: **SW8260B**

| MS                                 |        |     |         | Sample ID: 15101851-24A MS |      |               | Units: µg/L    |      | Analysis Date: 11/8/2015 02:45 AM |      |
|------------------------------------|--------|-----|---------|----------------------------|------|---------------|----------------|------|-----------------------------------|------|
| Client ID: WG-017360-102915-MR-045 |        |     |         | Run ID: VMS9_151107A       |      |               | SeqNo: 3554198 |      | Prep Date:                        |      |
|                                    |        |     |         |                            |      |               |                |      | DF: 10                            |      |
| Analyte                            | Result | PQL | SPK Val | SPK Ref Value              | %REC | Control Limit | RPD Ref Value  | %RPD | RPD Limit                         | Qual |
| 1,1,1-Trichloroethane              | 184.4  | 10  | 200     | 0                          | 92.2 | 75-130        | 0              |      |                                   |      |
| 1,1,2,2-Tetrachloroethane          | 174.7  | 10  | 200     | 0                          | 87.4 | 75-130        | 0              |      |                                   |      |
| 1,1,2-Trichloroethane              | 178.4  | 10  | 200     | 0                          | 89.2 | 75-125        | 0              |      |                                   |      |
| 1,1-Dichloroethane                 | 171.7  | 10  | 200     | 0                          | 85.8 | 75-133        | 0              |      |                                   |      |
| 1,1-Dichloroethene                 | 178.7  | 10  | 200     | 0                          | 89.4 | 70-145        | 0              |      |                                   |      |
| 1,2,4-Trichlorobenzene             | 172.2  | 10  | 200     | 0                          | 86.1 | 70-135        | 0              |      |                                   |      |
| 1,2-Dibromo-3-chloropropane        | 162.5  | 10  | 200     | 0                          | 81.2 | 60-130        | 0              |      |                                   |      |
| 1,2-Dibromoethane                  | 211.5  | 10  | 200     | 0                          | 106  | 80-150        | 0              |      |                                   |      |
| 1,2-Dichlorobenzene                | 173    | 10  | 200     | 1.52                       | 85.7 | 70-130        | 0              |      |                                   |      |
| 1,2-Dichloroethane                 | 163.4  | 10  | 200     | 0                          | 81.7 | 78-125        | 0              |      |                                   |      |
| 1,2-Dichloropropane                | 194.8  | 10  | 200     | 0                          | 97.4 | 75-125        | 0              |      |                                   |      |
| 1,3-Dichlorobenzene                | 182.7  | 10  | 200     | 0                          | 91.4 | 75-130        | 0              |      |                                   |      |
| 1,4-Dichlorobenzene                | 175.8  | 10  | 200     | 0                          | 87.9 | 75-130        | 0              |      |                                   |      |
| 2-Butanone                         | 169.2  | 50  | 200     | 0                          | 84.6 | 55-150        | 0              |      |                                   |      |
| 2-Hexanone                         | 156.4  | 50  | 200     | 0                          | 78.2 | 60-135        | 0              |      |                                   |      |
| 4-Methyl-2-pentanone               | 180.7  | 10  | 200     | 2.24                       | 89.2 | 77-178        | 0              |      |                                   |      |
| Acetone                            | 153.4  | 100 | 200     | 0                          | 76.7 | 60-160        | 0              |      |                                   |      |
| Benzene                            | 191.3  | 10  | 200     | 0                          | 95.6 | 85-125        | 0              |      |                                   |      |
| Bromodichloromethane               | 167.5  | 10  | 200     | 0                          | 83.8 | 75-125        | 0              |      |                                   |      |
| Bromoform                          | 142.5  | 10  | 200     | 0                          | 71.2 | 60-125        | 0              |      |                                   |      |
| Bromomethane                       | 105.8  | 10  | 200     | 0                          | 52.9 | 30-185        | 0              |      |                                   |      |
| Carbon disulfide                   | 204.2  | 10  | 200     | 0                          | 102  | 60-165        | 0              |      |                                   |      |
| Carbon tetrachloride               | 183.8  | 10  | 200     | 0                          | 91.9 | 65-140        | 0              |      |                                   |      |
| Chlorobenzene                      | 187.5  | 10  | 200     | 0                          | 93.8 | 80-120        | 0              |      |                                   |      |
| Chloroethane                       | 184.5  | 10  | 200     | 0                          | 92.2 | 50-140        | 0              |      |                                   |      |
| Chloroform                         | 174.4  | 10  | 200     | 0                          | 87.2 | 80-130        | 0              |      |                                   |      |
| Chloromethane                      | 177.3  | 10  | 200     | 0                          | 88.6 | 50-130        | 0              |      |                                   |      |
| cis-1,2-Dichloroethene             | 186    | 10  | 200     | 1.24                       | 92.4 | 75-134        | 0              |      |                                   |      |
| cis-1,3-Dichloropropene            | 168.1  | 10  | 200     | 0                          | 84   | 70-130        | 0              |      |                                   |      |
| Dibromochloromethane               | 147.2  | 10  | 200     | 0                          | 73.6 | 60-115        | 0              |      |                                   |      |
| Dichlorodifluoromethane            | 140.6  | 10  | 200     | 0                          | 70.3 | 20-120        | 0              |      |                                   |      |
| Ethylbenzene                       | 172.2  | 10  | 200     | 2.51                       | 84.8 | 85-125        | 0              |      |                                   | S    |
| Isopropylbenzene                   | 171    | 10  | 200     | 2.75                       | 84.1 | 80-127        | 0              |      |                                   |      |
| Methyl tert-butyl ether            | 163.9  | 10  | 200     | 0                          | 82   | 80-130        | 0              |      |                                   |      |
| Methylene chloride                 | 163.7  | 50  | 200     | 0                          | 81.8 | 75-140        | 0              |      |                                   |      |
| Styrene                            | 168.8  | 10  | 200     | 0                          | 84.4 | 85-125        | 0              |      |                                   | S    |
| Tetrachloroethene                  | 173.1  | 10  | 200     | 0                          | 86.6 | 77-138        | 0              |      |                                   |      |
| Toluene                            | 194.5  | 10  | 200     | 0                          | 97.2 | 85-125        | 0              |      |                                   |      |
| trans-1,2-Dichloroethene           | 180.1  | 10  | 200     | 0                          | 90   | 80-140        | 0              |      |                                   |      |
| trans-1,3-Dichloropropene          | 151.7  | 10  | 200     | 0                          | 75.8 | 81-123        | 0              |      |                                   | S    |
| Trichloroethene                    | 176.2  | 10  | 200     | 0                          | 88.1 | 84-130        | 0              |      |                                   |      |
| Trichlorofluoromethane             | 149.2  | 10  | 200     | 0                          | 74.6 | 60-140        | 0              |      |                                   |      |

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** GHD Services Inc.  
**Work Order:** 15101851  
**Project:** Former GRMP (17360)

**QC BATCH REPORT**

|                                    |              |                           |            |                        |             |               |          |
|------------------------------------|--------------|---------------------------|------------|------------------------|-------------|---------------|----------|
| Batch ID: <b>R175624</b>           |              | Instrument ID <b>VMS9</b> |            | Method: <b>SW8260B</b> |             |               |          |
| Vinyl chloride                     | 178.7        | 10                        | 200        | 0                      | 89.4        | 50-136        | 0        |
| Xylenes, Total                     | 526.6        | 30                        | 600        | 8.71                   | 86.3        | 80-126        | 0        |
| <i>Surr: 1,2-Dichloroethane-d4</i> | <i>183</i>   | <i>0</i>                  | <i>200</i> | <i>0</i>               | <i>91.5</i> | <i>75-120</i> | <i>0</i> |
| <i>Surr: 4-Bromofluorobenzene</i>  | <i>206.6</i> | <i>0</i>                  | <i>200</i> | <i>0</i>               | <i>103</i>  | <i>80-110</i> | <i>0</i> |
| <i>Surr: Dibromofluoromethane</i>  | <i>191.8</i> | <i>0</i>                  | <i>200</i> | <i>0</i>               | <i>95.9</i> | <i>85-115</i> | <i>0</i> |
| <i>Surr: Toluene-d8</i>            | <i>204.1</i> | <i>0</i>                  | <i>200</i> | <i>0</i>               | <i>102</i>  | <i>85-110</i> | <i>0</i> |

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

Client: GHD Services Inc.  
 Work Order: 15101851  
 Project: Former GRMP (17360)

# QC BATCH REPORT

Batch ID: **R175624** Instrument ID **VMS9** Method: **SW8260B**

| MSD                                |        |     |         | Sample ID: 15101851-24A MSD |      |               | Units: µg/L    |       | Analysis Date: 11/8/2015 03:11 AM |      |
|------------------------------------|--------|-----|---------|-----------------------------|------|---------------|----------------|-------|-----------------------------------|------|
| Client ID: WG-017360-102915-MR-045 |        |     |         | Run ID: VMS9_151107A        |      |               | SeqNo: 3554199 |       | Prep Date:                        |      |
|                                    |        |     |         |                             |      |               |                |       | DF: 10                            |      |
| Analyte                            | Result | PQL | SPK Val | SPK Ref Value               | %REC | Control Limit | RPD Ref Value  | %RPD  | RPD Limit                         | Qual |
| 1,1,1-Trichloroethane              | 177.5  | 10  | 200     | 0                           | 88.8 | 75-130        | 184.4          | 3.81  | 30                                |      |
| 1,1,2,2-Tetrachloroethane          | 165.1  | 10  | 200     | 0                           | 82.6 | 75-130        | 174.7          | 5.65  | 30                                |      |
| 1,1,2-Trichloroethane              | 168.3  | 10  | 200     | 0                           | 84.2 | 75-125        | 178.4          | 5.83  | 30                                |      |
| 1,1-Dichloroethane                 | 168    | 10  | 200     | 0                           | 84   | 75-133        | 171.7          | 2.18  | 30                                |      |
| 1,1-Dichloroethene                 | 174.6  | 10  | 200     | 0                           | 87.3 | 70-145        | 178.7          | 2.32  | 30                                |      |
| 1,2,4-Trichlorobenzene             | 169    | 10  | 200     | 0                           | 84.5 | 70-135        | 172.2          | 1.88  | 30                                |      |
| 1,2-Dibromo-3-chloropropane        | 154.2  | 10  | 200     | 0                           | 77.1 | 60-130        | 162.5          | 5.24  | 30                                |      |
| 1,2-Dibromoethane                  | 200.1  | 10  | 200     | 0                           | 100  | 80-150        | 211.5          | 5.54  | 30                                |      |
| 1,2-Dichlorobenzene                | 168.7  | 10  | 200     | 1.52                        | 83.6 | 70-130        | 173            | 2.52  | 30                                |      |
| 1,2-Dichloroethane                 | 158.1  | 10  | 200     | 0                           | 79   | 78-125        | 163.4          | 3.3   | 30                                |      |
| 1,2-Dichloropropane                | 188    | 10  | 200     | 0                           | 94   | 75-125        | 194.8          | 3.55  | 30                                |      |
| 1,3-Dichlorobenzene                | 178.5  | 10  | 200     | 0                           | 89.2 | 75-130        | 182.7          | 2.33  | 30                                |      |
| 1,4-Dichlorobenzene                | 169.4  | 10  | 200     | 0                           | 84.7 | 75-130        | 175.8          | 3.71  | 30                                |      |
| 2-Butanone                         | 162.5  | 50  | 200     | 0                           | 81.2 | 55-150        | 169.2          | 4.04  | 30                                |      |
| 2-Hexanone                         | 155    | 50  | 200     | 0                           | 77.5 | 60-135        | 156.4          | 0.899 | 30                                |      |
| 4-Methyl-2-pentanone               | 224.4  | 10  | 200     | 2.24                        | 111  | 77-178        | 180.7          | 21.6  | 30                                |      |
| Acetone                            | 148.5  | 100 | 200     | 0                           | 74.2 | 60-160        | 153.4          | 3.25  | 30                                |      |
| Benzene                            | 186.6  | 10  | 200     | 0                           | 93.3 | 85-125        | 191.3          | 2.49  | 30                                |      |
| Bromodichloromethane               | 159.5  | 10  | 200     | 0                           | 79.8 | 75-125        | 167.5          | 4.89  | 30                                |      |
| Bromoform                          | 139.6  | 10  | 200     | 0                           | 69.8 | 60-125        | 142.5          | 2.06  | 30                                |      |
| Bromomethane                       | 73     | 10  | 200     | 0                           | 36.5 | 30-185        | 105.8          | 36.7  | 30                                | R    |
| Carbon disulfide                   | 203.8  | 10  | 200     | 0                           | 102  | 60-165        | 204.2          | 0.196 | 30                                |      |
| Carbon tetrachloride               | 179.2  | 10  | 200     | 0                           | 89.6 | 65-140        | 183.8          | 2.53  | 30                                |      |
| Chlorobenzene                      | 181.5  | 10  | 200     | 0                           | 90.8 | 80-120        | 187.5          | 3.25  | 30                                |      |
| Chloroethane                       | 183.9  | 10  | 200     | 0                           | 92   | 50-140        | 184.5          | 0.326 | 30                                |      |
| Chloroform                         | 165.6  | 10  | 200     | 0                           | 82.8 | 80-130        | 174.4          | 5.18  | 30                                |      |
| Chloromethane                      | 177    | 10  | 200     | 0                           | 88.5 | 50-130        | 177.3          | 0.169 | 30                                |      |
| cis-1,2-Dichloroethene             | 178.4  | 10  | 200     | 1.24                        | 88.6 | 75-134        | 186            | 4.17  | 30                                |      |
| cis-1,3-Dichloropropene            | 157    | 10  | 200     | 0                           | 78.5 | 70-130        | 168.1          | 6.83  | 30                                |      |
| Dibromochloromethane               | 143.8  | 10  | 200     | 0                           | 71.9 | 60-115        | 147.2          | 2.34  | 30                                |      |
| Dichlorodifluoromethane            | 145    | 10  | 200     | 0                           | 72.5 | 20-120        | 140.6          | 3.08  | 30                                |      |
| Ethylbenzene                       | 166.1  | 10  | 200     | 2.51                        | 81.8 | 85-125        | 172.2          | 3.61  | 30                                | S    |
| Isopropylbenzene                   | 169.6  | 10  | 200     | 2.75                        | 83.4 | 80-127        | 171            | 0.822 | 30                                |      |
| Methyl tert-butyl ether            | 159.3  | 10  | 200     | 0                           | 79.6 | 80-130        | 163.9          | 2.85  | 30                                | S    |
| Methylene chloride                 | 160.6  | 50  | 200     | 0                           | 80.3 | 75-140        | 163.7          | 1.91  | 30                                |      |
| Styrene                            | 165    | 10  | 200     | 0                           | 82.5 | 85-125        | 168.8          | 2.28  | 30                                | S    |
| Tetrachloroethene                  | 172    | 10  | 200     | 0                           | 86   | 77-138        | 173.1          | 0.637 | 30                                |      |
| Toluene                            | 189.4  | 10  | 200     | 0                           | 94.7 | 85-125        | 194.5          | 2.66  | 30                                |      |
| trans-1,2-Dichloroethene           | 175.1  | 10  | 200     | 0                           | 87.6 | 80-140        | 180.1          | 2.82  | 30                                |      |
| trans-1,3-Dichloropropene          | 147.6  | 10  | 200     | 0                           | 73.8 | 81-123        | 151.7          | 2.74  | 30                                | S    |
| Trichloroethene                    | 172.3  | 10  | 200     | 0                           | 86.2 | 84-130        | 176.2          | 2.24  | 30                                |      |
| Trichlorofluoromethane             | 150.5  | 10  | 200     | 0                           | 75.2 | 60-140        | 149.2          | 0.868 | 30                                |      |

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

Client: GHD Services Inc.  
Work Order: 15101851  
Project: Former GRMP (17360)

QC BATCH REPORT

|                             |                           |                        |     |      |      |        |       |       |    |
|-----------------------------|---------------------------|------------------------|-----|------|------|--------|-------|-------|----|
| Batch ID: <b>R175624</b>    | Instrument ID <b>VMS9</b> | Method: <b>SW8260B</b> |     |      |      |        |       |       |    |
| Vinyl chloride              | 177.2                     | 10                     | 200 | 0    | 88.6 | 50-136 | 178.7 | 0.843 | 30 |
| Xylenes, Total              | 511.3                     | 30                     | 600 | 8.71 | 83.8 | 80-126 | 526.6 | 2.95  | 30 |
| Surr: 1,2-Dichloroethane-d4 | 178.9                     | 0                      | 200 | 0    | 89.4 | 75-120 | 183   | 2.27  | 30 |
| Surr: 4-Bromofluorobenzene  | 209.9                     | 0                      | 200 | 0    | 105  | 80-110 | 206.6 | 1.58  | 30 |
| Surr: Dibromofluoromethane  | 193.7                     | 0                      | 200 | 0    | 96.8 | 85-115 | 191.8 | 0.986 | 30 |
| Surr: Toluene-d8            | 206.7                     | 0                      | 200 | 0    | 103  | 85-110 | 204.1 | 1.27  | 30 |

|                                                    |              |              |              |
|----------------------------------------------------|--------------|--------------|--------------|
| The following samples were analyzed in this batch: | 15101851-23A | 15101851-24A | 15101851-25A |
|                                                    | 15101851-26A | 15101851-27A | 15101851-28A |
|                                                    |              |              |              |

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** GHD Services Inc.  
**Work Order:** 15101851  
**Project:** Former GRMP (17360)

# QC BATCH REPORT

Batch ID: **R175676**      Instrument ID **VMS7**      Method: **SW8260B**

| MBLK                        |        |     |                      | Sample ID: VBLKW1-151108-R175676 |      |               |                | Units: µg/L |           |            | Analysis Date: 11/8/2015 10:51 PM |       |  |
|-----------------------------|--------|-----|----------------------|----------------------------------|------|---------------|----------------|-------------|-----------|------------|-----------------------------------|-------|--|
| Client ID:                  |        |     | Run ID: VMS7_151108A |                                  |      |               | SeqNo: 3554750 |             |           | Prep Date: |                                   | DF: 1 |  |
| Analyte                     | Result | PQL | SPK Val              | SPK Ref Value                    | %REC | Control Limit | RPD Ref Value  | %RPD        | RPD Limit | Qual       |                                   |       |  |
| Tetrachloroethene           | U      | 1.0 |                      |                                  |      |               |                |             |           |            |                                   |       |  |
| Surr: 1,2-Dichloroethane-d4 | 19.19  | 0   | 20                   | 0                                | 96   | 75-120        | 0              |             |           |            |                                   |       |  |
| Surr: 4-Bromofluorobenzene  | 19.77  | 0   | 20                   | 0                                | 98.8 | 80-110        | 0              |             |           |            |                                   |       |  |
| Surr: Dibromofluoromethane  | 19.22  | 0   | 20                   | 0                                | 96.1 | 85-115        | 0              |             |           |            |                                   |       |  |
| Surr: Toluene-d8            | 19.87  | 0   | 20                   | 0                                | 99.4 | 85-110        | 0              |             |           |            |                                   |       |  |

| LCS                         |        |                      |         | Sample ID: VLCSW1-151108-R175676 |                |               |               | Units: µg/L |           | Analysis Date: 11/8/2015 09:34 PM |  |
|-----------------------------|--------|----------------------|---------|----------------------------------|----------------|---------------|---------------|-------------|-----------|-----------------------------------|--|
| Client ID:                  |        | Run ID: VMS7_151108A |         |                                  | SeqNo: 3554746 |               | Prep Date:    |             | DF: 1     |                                   |  |
| Analyte                     | Result | PQL                  | SPK Val | SPK Ref Value                    | %REC           | Control Limit | RPD Ref Value | %RPD        | RPD Limit | Qual                              |  |
| Tetrachloroethene           | 22.11  | 1.0                  | 20      | 0                                | 111            | 77-138        | 0             |             |           |                                   |  |
| Surr: 1,2-Dichloroethane-d4 | 18.93  | 0                    | 20      | 0                                | 94.6           | 75-120        | 0             |             |           |                                   |  |
| Surr: 4-Bromofluorobenzene  | 20     | 0                    | 20      | 0                                | 100            | 80-110        | 0             |             |           |                                   |  |
| Surr: Dibromofluoromethane  | 19.31  | 0                    | 20      | 0                                | 96.6           | 85-115        | 0             |             |           |                                   |  |
| Surr: Toluene-d8            | 19.72  | 0                    | 20      | 0                                | 98.6           | 85-110        | 0             |             |           |                                   |  |

| MS                          |        |     |                      |               | Sample ID: 15101881-14A MS |                |               | Units: µg/L |           | Analysis Date: 11/9/2015 07:36 AM |  |
|-----------------------------|--------|-----|----------------------|---------------|----------------------------|----------------|---------------|-------------|-----------|-----------------------------------|--|
| Client ID:                  |        |     | Run ID: VMS7_151108A |               |                            | SeqNo: 3554806 |               | Prep Date:  |           | DF: 1                             |  |
| Analyte                     | Result | PQL | SPK Val              | SPK Ref Value | %REC                       | Control Limit  | RPD Ref Value | %RPD        | RPD Limit | Qual                              |  |
| Tetrachloroethene           | 28.86  | 1.0 | 20                   | 4.51          | 122                        | 77-138         |               | 0           |           |                                   |  |
| Surr: 1,2-Dichloroethane-d4 | 19.21  | 0   | 20                   | 0             | 96                         | 75-120         |               | 0           |           |                                   |  |
| Surr: 4-Bromofluorobenzene  | 20.49  | 0   | 20                   | 0             | 102                        | 80-110         |               | 0           |           |                                   |  |
| Surr: Dibromofluoromethane  | 19.67  | 0   | 20                   | 0             | 98.4                       | 85-115         |               | 0           |           |                                   |  |
| Surr: Toluene-d8            | 20.36  | 0   | 20                   | 0             | 102                        | 85-110         |               | 0           |           |                                   |  |

| MSD                         |        |     |                      | Sample ID: 15101881-14A MSD |      |                |               | Units: µg/L |           | Analysis Date: 11/9/2015 08:01 AM |  |
|-----------------------------|--------|-----|----------------------|-----------------------------|------|----------------|---------------|-------------|-----------|-----------------------------------|--|
| Client ID:                  |        |     | Run ID: VMS7_151108A |                             |      | SeqNo: 3554807 |               | Prep Date:  |           | DF: 1                             |  |
| Analyte                     | Result | PQL | SPK Val              | SPK Ref Value               | %REC | Control Limit  | RPD Ref Value | %RPD        | RPD Limit | Qual                              |  |
| Tetrachloroethene           | 29.2   | 1.0 | 20                   | 4.51                        | 123  | 77-138         | 28.86         | 1.17        | 30        |                                   |  |
| Surr: 1,2-Dichloroethane-d4 | 18.55  | 0   | 20                   | 0                           | 92.8 | 75-120         | 19.21         | 3.5         | 30        |                                   |  |
| Surr: 4-Bromofluorobenzene  | 20.03  | 0   | 20                   | 0                           | 100  | 80-110         | 20.49         | 2.27        | 30        |                                   |  |
| Surr: Dibromofluoromethane  | 19.78  | 0   | 20                   | 0                           | 98.9 | 85-115         | 19.67         | 0.558       | 30        |                                   |  |
| Surr: Toluene-d8            | 19.78  | 0   | 20                   | 0                           | 98.9 | 85-110         | 20.36         | 2.89        | 30        |                                   |  |

The following samples were analyzed in this batch:

|              |              |
|--------------|--------------|
| 15101851-01A | 15101851-02A |
|--------------|--------------|

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** GHD Services Inc.  
**Work Order:** 15101851  
**Project:** Former GRMP (17360)

## QC BATCH REPORT

Batch ID: **R175711** Instrument ID **VMS9** Method: **SW8260B**

| MBLK                           |        | Sample ID: <b>VLKW1-151109-R175711</b> |         |               |      | Units: <b>µg/L</b>    |               | Analysis Date: <b>11/9/2015 04:06 PM</b> |           |              |
|--------------------------------|--------|----------------------------------------|---------|---------------|------|-----------------------|---------------|------------------------------------------|-----------|--------------|
| Client ID:                     |        | Run ID: <b>VMS9_151109A</b>            |         |               |      | SeqNo: <b>3556795</b> |               | Prep Date:                               |           | DF: <b>1</b> |
| Analyte                        | Result | PQL                                    | SPK Val | SPK Ref Value | %REC | Control Limit         | RPD Ref Value | %RPD                                     | RPD Limit | Qual         |
| 1,1,1-Trichloroethane          | U      | 1.0                                    |         |               |      |                       |               |                                          |           |              |
| 1,1,2,2-Tetrachloroethane      | U      | 1.0                                    |         |               |      |                       |               |                                          |           |              |
| 1,1,2-Trichloroethane          | U      | 1.0                                    |         |               |      |                       |               |                                          |           |              |
| 1,1,2-Trichlorotrifluoroethane | U      | 1.0                                    |         |               |      |                       |               |                                          |           |              |
| 1,1-Dichloroethane             | U      | 1.0                                    |         |               |      |                       |               |                                          |           |              |
| 1,1-Dichloroethene             | U      | 1.0                                    |         |               |      |                       |               |                                          |           |              |
| 1,2,4-Trichlorobenzene         | U      | 1.0                                    |         |               |      |                       |               |                                          |           |              |
| 1,2-Dibromo-3-chloropropane    | U      | 1.0                                    |         |               |      |                       |               |                                          |           |              |
| 1,2-Dibromoethane              | U      | 1.0                                    |         |               |      |                       |               |                                          |           |              |
| 1,2-Dichlorobenzene            | U      | 1.0                                    |         |               |      |                       |               |                                          |           |              |
| 1,2-Dichloroethane             | U      | 1.0                                    |         |               |      |                       |               |                                          |           |              |
| 1,2-Dichloropropane            | U      | 1.0                                    |         |               |      |                       |               |                                          |           |              |
| 1,3-Dichlorobenzene            | U      | 1.0                                    |         |               |      |                       |               |                                          |           |              |
| 1,4-Dichlorobenzene            | U      | 1.0                                    |         |               |      |                       |               |                                          |           |              |
| 2-Butanone                     | U      | 5.0                                    |         |               |      |                       |               |                                          |           |              |
| 2-Hexanone                     | U      | 5.0                                    |         |               |      |                       |               |                                          |           |              |
| 4-Methyl-2-pentanone           | U      | 1.0                                    |         |               |      |                       |               |                                          |           |              |
| Acetone                        | U      | 10                                     |         |               |      |                       |               |                                          |           |              |
| Benzene                        | U      | 1.0                                    |         |               |      |                       |               |                                          |           |              |
| Bromodichloromethane           | U      | 1.0                                    |         |               |      |                       |               |                                          |           |              |
| Bromoform                      | U      | 1.0                                    |         |               |      |                       |               |                                          |           |              |
| Bromomethane                   | U      | 1.0                                    |         |               |      |                       |               |                                          |           |              |
| Carbon disulfide               | U      | 1.0                                    |         |               |      |                       |               |                                          |           |              |
| Carbon tetrachloride           | U      | 1.0                                    |         |               |      |                       |               |                                          |           |              |
| Chlorobenzene                  | U      | 1.0                                    |         |               |      |                       |               |                                          |           |              |
| Chloroethane                   | U      | 1.0                                    |         |               |      |                       |               |                                          |           |              |
| Chloroform                     | U      | 1.0                                    |         |               |      |                       |               |                                          |           |              |
| Chloromethane                  | U      | 1.0                                    |         |               |      |                       |               |                                          |           |              |
| cis-1,2-Dichloroethene         | U      | 1.0                                    |         |               |      |                       |               |                                          |           |              |
| cis-1,3-Dichloropropene        | U      | 1.0                                    |         |               |      |                       |               |                                          |           |              |
| Cyclohexane                    | U      | 1.0                                    |         |               |      |                       |               |                                          |           |              |
| Dibromochloromethane           | U      | 1.0                                    |         |               |      |                       |               |                                          |           |              |
| Dichlorodifluoromethane        | U      | 1.0                                    |         |               |      |                       |               |                                          |           |              |
| Ethylbenzene                   | U      | 1.0                                    |         |               |      |                       |               |                                          |           |              |
| Isopropylbenzene               | U      | 1.0                                    |         |               |      |                       |               |                                          |           |              |
| Methyl acetate                 | U      | 2.0                                    |         |               |      |                       |               |                                          |           |              |
| Methyl tert-butyl ether        | U      | 1.0                                    |         |               |      |                       |               |                                          |           |              |
| Methylcyclohexane              | U      | 1.0                                    |         |               |      |                       |               |                                          |           |              |
| Methylene chloride             | U      | 5.0                                    |         |               |      |                       |               |                                          |           |              |
| Styrene                        | U      | 1.0                                    |         |               |      |                       |               |                                          |           |              |
| Tetrachloroethene              | U      | 1.0                                    |         |               |      |                       |               |                                          |           |              |
| Toluene                        | U      | 1.0                                    |         |               |      |                       |               |                                          |           |              |

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

Client: GHD Services Inc.  
Work Order: 15101851  
Project: Former GRMP (17360)

QC BATCH REPORT

|                             |  |                           |     |                        |   |      |        |   |
|-----------------------------|--|---------------------------|-----|------------------------|---|------|--------|---|
| Batch ID: <b>R175711</b>    |  | Instrument ID <b>VMS9</b> |     | Method: <b>SW8260B</b> |   |      |        |   |
| trans-1,2-Dichloroethene    |  | U                         | 1.0 |                        |   |      |        |   |
| trans-1,3-Dichloropropene   |  | U                         | 1.0 |                        |   |      |        |   |
| Trichloroethene             |  | U                         | 1.0 |                        |   |      |        |   |
| Trichlorofluoromethane      |  | U                         | 1.0 |                        |   |      |        |   |
| Vinyl chloride              |  | U                         | 1.0 |                        |   |      |        |   |
| Xylenes, Total              |  | U                         | 3.0 |                        |   |      |        |   |
| Surr: 1,2-Dichloroethane-d4 |  | 20.12                     | 0   | 20                     | 0 | 101  | 75-120 | 0 |
| Surr: 4-Bromofluorobenzene  |  | 18.15                     | 0   | 20                     | 0 | 90.8 | 80-110 | 0 |
| Surr: Dibromofluoromethane  |  | 20.4                      | 0   | 20                     | 0 | 102  | 85-115 | 0 |
| Surr: Toluene-d8            |  | 19.68                     | 0   | 20                     | 0 | 98.4 | 85-110 | 0 |

Note: See Qualifiers Page for a list of Qualifiers and their explanation.



**Client:** GHD Services Inc.  
**Work Order:** 15101851  
**Project:** Former GRMP (17360)

## QC BATCH REPORT

Batch ID: **R175711** Instrument ID **VMS9** Method: **SW8260B**

| LCS                         |        | Sample ID: <b>VLCSW1-151109-R175711</b> |         |               |      | Units: <b>µg/L</b>    |               | Analysis Date: <b>11/9/2015 02:48 PM</b> |           |              |
|-----------------------------|--------|-----------------------------------------|---------|---------------|------|-----------------------|---------------|------------------------------------------|-----------|--------------|
| Client ID:                  |        | Run ID: <b>VMS9_151109A</b>             |         |               |      | SeqNo: <b>3556794</b> |               | Prep Date:                               |           | DF: <b>1</b> |
| Analyte                     | Result | PQL                                     | SPK Val | SPK Ref Value | %REC | Control Limit         | RPD Ref Value | %RPD                                     | RPD Limit | Qual         |
| 1,1,1-Trichloroethane       | 20.73  | 1.0                                     | 20      | 0             | 104  | 75-130                | 0             |                                          |           |              |
| 1,1,2,2-Tetrachloroethane   | 20.12  | 1.0                                     | 20      | 0             | 101  | 75-130                | 0             |                                          |           |              |
| 1,1,2-Trichloroethane       | 20.16  | 1.0                                     | 20      | 0             | 101  | 75-125                | 0             |                                          |           |              |
| 1,1-Dichloroethane          | 19.11  | 1.0                                     | 20      | 0             | 95.6 | 75-133                | 0             |                                          |           |              |
| 1,1-Dichloroethene          | 19.89  | 1.0                                     | 20      | 0             | 99.4 | 70-145                | 0             |                                          |           |              |
| 1,2,4-Trichlorobenzene      | 20.04  | 1.0                                     | 20      | 0             | 100  | 70-135                | 0             |                                          |           |              |
| 1,2-Dibromo-3-chloropropane | 19.48  | 1.0                                     | 20      | 0             | 97.4 | 60-130                | 0             |                                          |           |              |
| 1,2-Dibromoethane           | 24.07  | 1.0                                     | 20      | 0             | 120  | 80-150                | 0             |                                          |           |              |
| 1,2-Dichlorobenzene         | 19.13  | 1.0                                     | 20      | 0             | 95.6 | 70-130                | 0             |                                          |           |              |
| 1,2-Dichloroethane          | 18.94  | 1.0                                     | 20      | 0             | 94.7 | 78-125                | 0             |                                          |           |              |
| 1,2-Dichloropropane         | 22.08  | 1.0                                     | 20      | 0             | 110  | 75-125                | 0             |                                          |           |              |
| 1,3-Dichlorobenzene         | 20.71  | 1.0                                     | 20      | 0             | 104  | 75-130                | 0             |                                          |           |              |
| 1,4-Dichlorobenzene         | 19.86  | 1.0                                     | 20      | 0             | 99.3 | 75-130                | 0             |                                          |           |              |
| 2-Butanone                  | 20.75  | 5.0                                     | 20      | 0             | 104  | 55-150                | 0             |                                          |           |              |
| 2-Hexanone                  | 18.1   | 5.0                                     | 20      | 0             | 90.5 | 60-135                | 0             |                                          |           |              |
| 4-Methyl-2-pentanone        | 20.26  | 1.0                                     | 20      | 0             | 101  | 77-178                | 0             |                                          |           |              |
| Acetone                     | 17.47  | 10                                      | 20      | 0             | 87.4 | 60-160                | 0             |                                          |           |              |
| Benzene                     | 21.66  | 1.0                                     | 20      | 0             | 108  | 85-125                | 0             |                                          |           |              |
| Bromodichloromethane        | 19.28  | 1.0                                     | 20      | 0             | 96.4 | 75-125                | 0             |                                          |           |              |
| Bromoform                   | 17.56  | 1.0                                     | 20      | 0             | 87.8 | 60-125                | 0             |                                          |           |              |
| Bromomethane                | 15.35  | 1.0                                     | 20      | 0             | 76.8 | 30-185                | 0             |                                          |           |              |
| Carbon disulfide            | 24     | 1.0                                     | 20      | 0             | 120  | 60-165                | 0             |                                          |           |              |
| Carbon tetrachloride        | 21.29  | 1.0                                     | 20      | 0             | 106  | 65-140                | 0             |                                          |           |              |
| Chlorobenzene               | 20.62  | 1.0                                     | 20      | 0             | 103  | 80-120                | 0             |                                          |           |              |
| Chloroethane                | 20.3   | 1.0                                     | 20      | 0             | 102  | 50-140                | 0             |                                          |           |              |
| Chloroform                  | 19.6   | 1.0                                     | 20      | 0             | 98   | 80-130                | 0             |                                          |           |              |
| Chloromethane               | 20.75  | 1.0                                     | 20      | 0             | 104  | 50-130                | 0             |                                          |           |              |
| cis-1,2-Dichloroethene      | 21.05  | 1.0                                     | 20      | 0             | 105  | 75-134                | 0             |                                          |           |              |
| cis-1,3-Dichloropropene     | 18.84  | 1.0                                     | 20      | 0             | 94.2 | 70-130                | 0             |                                          |           |              |
| Dibromochloromethane        | 17.31  | 1.0                                     | 20      | 0             | 86.6 | 60-115                | 0             |                                          |           |              |
| Dichlorodifluoromethane     | 17.82  | 1.0                                     | 20      | 0             | 89.1 | 20-120                | 0             |                                          |           |              |
| Ethylbenzene                | 18.62  | 1.0                                     | 20      | 0             | 93.1 | 85-125                | 0             |                                          |           |              |
| Isopropylbenzene            | 19.05  | 1.0                                     | 20      | 0             | 95.2 | 80-127                | 0             |                                          |           |              |
| Methyl tert-butyl ether     | 18.84  | 1.0                                     | 20      | 0             | 94.2 | 80-130                | 0             |                                          |           |              |
| Methylene chloride          | 18.56  | 5.0                                     | 20      | 0             | 92.8 | 75-140                | 0             |                                          |           |              |
| Styrene                     | 18.91  | 1.0                                     | 20      | 0             | 94.6 | 85-125                | 0             |                                          |           |              |
| Tetrachloroethene           | 21.26  | 1.0                                     | 20      | 0             | 106  | 77-138                | 0             |                                          |           |              |
| Toluene                     | 21.11  | 1.0                                     | 20      | 0             | 106  | 85-125                | 0             |                                          |           |              |
| trans-1,2-Dichloroethene    | 20.39  | 1.0                                     | 20      | 0             | 102  | 80-140                | 0             |                                          |           |              |
| trans-1,3-Dichloropropene   | 17.74  | 1.0                                     | 20      | 0             | 88.7 | 81-123                | 0             |                                          |           |              |
| Trichloroethene             | 20.5   | 1.0                                     | 20      | 0             | 102  | 84-130                | 0             |                                          |           |              |
| Trichlorofluoromethane      | 17.26  | 1.0                                     | 20      | 0             | 86.3 | 60-140                | 0             |                                          |           |              |

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

Client: GHD Services Inc.  
Work Order: 15101851  
Project: Former GRMP (17360)

QC BATCH REPORT

|                                    |              |                           |           |                        |             |               |          |
|------------------------------------|--------------|---------------------------|-----------|------------------------|-------------|---------------|----------|
| Batch ID: <b>R175711</b>           |              | Instrument ID <b>VMS9</b> |           | Method: <b>SW8260B</b> |             |               |          |
| Vinyl chloride                     | 20.27        | 1.0                       | 20        | 0                      | 101         | 50-136        | 0        |
| Xylenes, Total                     | 56.8         | 3.0                       | 60        | 0                      | 94.7        | 80-126        | 0        |
| <i>Surr: 1,2-Dichloroethane-d4</i> | <i>18.99</i> | <i>0</i>                  | <i>20</i> | <i>0</i>               | <i>95</i>   | <i>75-120</i> | <i>0</i> |
| <i>Surr: 4-Bromofluorobenzene</i>  | <i>21.41</i> | <i>0</i>                  | <i>20</i> | <i>0</i>               | <i>107</i>  | <i>80-110</i> | <i>0</i> |
| <i>Surr: Dibromofluoromethane</i>  | <i>19.64</i> | <i>0</i>                  | <i>20</i> | <i>0</i>               | <i>98.2</i> | <i>85-115</i> | <i>0</i> |
| <i>Surr: Toluene-d8</i>            | <i>20.35</i> | <i>0</i>                  | <i>20</i> | <i>0</i>               | <i>102</i>  | <i>85-110</i> | <i>0</i> |

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** GHD Services Inc.  
**Work Order:** 15101851  
**Project:** Former GRMP (17360)

## QC BATCH REPORT

Batch ID: **R175711** Instrument ID **VMS9** Method: **SW8260B**

| MS                          |        |     |         | Sample ID: 15101878-01A MS |      |               | Units: µg/L    |      | Analysis Date: 11/10/2015 12:14 PM |      |
|-----------------------------|--------|-----|---------|----------------------------|------|---------------|----------------|------|------------------------------------|------|
| Client ID:                  |        |     |         | Run ID: VMS9_151109A       |      |               | SeqNo: 3556459 |      | Prep Date:                         |      |
|                             |        |     |         |                            |      |               |                |      | DF: 5                              |      |
| Analyte                     | Result | PQL | SPK Val | SPK Ref Value              | %REC | Control Limit | RPD Ref Value  | %RPD | RPD Limit                          | Qual |
| 1,1,1-Trichloroethane       | 115    | 5.0 | 100     | 0                          | 115  | 75-130        | 0              |      |                                    |      |
| 1,1,2,2-Tetrachloroethane   | 100.6  | 5.0 | 100     | 0                          | 101  | 75-130        | 0              |      |                                    |      |
| 1,1,2-Trichloroethane       | 105.9  | 5.0 | 100     | 0                          | 106  | 75-125        | 0              |      |                                    |      |
| 1,1-Dichloroethane          | 103.4  | 5.0 | 100     | 0                          | 103  | 75-133        | 0              |      |                                    |      |
| 1,1-Dichloroethene          | 109.8  | 5.0 | 100     | 0                          | 110  | 70-145        | 0              |      |                                    |      |
| 1,2,4-Trichlorobenzene      | 104.4  | 5.0 | 100     | 0                          | 104  | 70-135        | 0              |      |                                    |      |
| 1,2-Dibromo-3-chloropropane | 99.5   | 5.0 | 100     | 0                          | 99.5 | 60-130        | 0              |      |                                    |      |
| 1,2-Dibromoethane           | 129.6  | 5.0 | 100     | 0                          | 130  | 80-150        | 0              |      |                                    |      |
| 1,2-Dichlorobenzene         | 104    | 5.0 | 100     | 0                          | 104  | 70-130        | 0              |      |                                    |      |
| 1,2-Dichloroethane          | 100    | 5.0 | 100     | 0                          | 100  | 78-125        | 0              |      |                                    |      |
| 1,2-Dichloropropane         | 118.1  | 5.0 | 100     | 0                          | 118  | 75-125        | 0              |      |                                    |      |
| 1,3-Dichlorobenzene         | 109.7  | 5.0 | 100     | 0                          | 110  | 75-130        | 0              |      |                                    |      |
| 1,4-Dichlorobenzene         | 106.1  | 5.0 | 100     | 0                          | 106  | 75-130        | 0              |      |                                    |      |
| 2-Butanone                  | 94.3   | 25  | 100     | 0                          | 94.3 | 55-150        | 0              |      |                                    |      |
| 2-Hexanone                  | 78.45  | 25  | 100     | 0                          | 78.4 | 60-135        | 0              |      |                                    |      |
| 4-Methyl-2-pentanone        | 101.1  | 5.0 | 100     | 0                          | 101  | 77-178        | 0              |      |                                    |      |
| Acetone                     | 94.85  | 50  | 100     | 0                          | 94.8 | 60-160        | 0              |      |                                    |      |
| Benzene                     | 219.8  | 5.0 | 100     | 101.3                      | 118  | 85-125        | 0              |      |                                    |      |
| Bromodichloromethane        | 103.7  | 5.0 | 100     | 0                          | 104  | 75-125        | 0              |      |                                    |      |
| Bromoform                   | 86.4   | 5.0 | 100     | 0                          | 86.4 | 60-125        | 0              |      |                                    |      |
| Bromomethane                | 64.9   | 5.0 | 100     | 0                          | 64.9 | 30-185        | 0              |      |                                    |      |
| Carbon disulfide            | 131.8  | 5.0 | 100     | 0                          | 132  | 60-165        | 0              |      |                                    |      |
| Carbon tetrachloride        | 115.2  | 5.0 | 100     | 0                          | 115  | 65-140        | 0              |      |                                    |      |
| Chlorobenzene               | 114.2  | 5.0 | 100     | 0                          | 114  | 80-120        | 0              |      |                                    |      |
| Chloroethane                | 122.6  | 5.0 | 100     | 0                          | 123  | 50-140        | 0              |      |                                    |      |
| Chloroform                  | 103    | 5.0 | 100     | 0                          | 103  | 80-130        | 0              |      |                                    |      |
| Chloromethane               | 109.6  | 5.0 | 100     | 0                          | 110  | 50-130        | 0              |      |                                    |      |
| cis-1,2-Dichloroethene      | 107.6  | 5.0 | 100     | 0                          | 108  | 75-134        | 0              |      |                                    |      |
| cis-1,3-Dichloropropene     | 99.45  | 5.0 | 100     | 0                          | 99.4 | 70-130        | 0              |      |                                    |      |
| Dibromochloromethane        | 91.25  | 5.0 | 100     | 0                          | 91.2 | 60-115        | 0              |      |                                    |      |
| Dichlorodifluoromethane     | 97.35  | 5.0 | 100     | 0                          | 97.4 | 20-120        | 0              |      |                                    |      |
| Ethylbenzene                | 242.4  | 5.0 | 100     | 130.3                      | 112  | 85-125        | 0              |      |                                    |      |
| Isopropylbenzene            | 121    | 5.0 | 100     | 22.5                       | 98.5 | 80-127        | 0              |      |                                    |      |
| Methyl tert-butyl ether     | 95.45  | 5.0 | 100     | 0                          | 95.4 | 80-130        | 0              |      |                                    |      |
| Methylene chloride          | 101    | 25  | 100     | 0                          | 101  | 75-140        | 0              |      |                                    |      |
| Styrene                     | 104.8  | 5.0 | 100     | 0                          | 105  | 85-125        | 0              |      |                                    |      |
| Tetrachloroethene           | 107.8  | 5.0 | 100     | 0                          | 108  | 77-138        | 0              |      |                                    |      |
| Toluene                     | 121.1  | 5.0 | 100     | 0                          | 121  | 85-125        | 0              |      |                                    |      |
| trans-1,2-Dichloroethene    | 108.5  | 5.0 | 100     | 0                          | 108  | 80-140        | 0              |      |                                    |      |
| trans-1,3-Dichloropropene   | 94.1   | 5.0 | 100     | 0                          | 94.1 | 81-123        | 0              |      |                                    |      |
| Trichloroethene             | 107.5  | 5.0 | 100     | 0                          | 108  | 84-130        | 0              |      |                                    |      |
| Trichlorofluoromethane      | 95.25  | 5.0 | 100     | 0                          | 95.2 | 60-140        | 0              |      |                                    |      |

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

Client: GHD Services Inc.  
Work Order: 15101851  
Project: Former GRMP (17360)

QC BATCH REPORT

|                                    |              |                           |            |                        |             |               |          |    |
|------------------------------------|--------------|---------------------------|------------|------------------------|-------------|---------------|----------|----|
| Batch ID: <b>R175711</b>           |              | Instrument ID <b>VMS9</b> |            | Method: <b>SW8260B</b> |             |               |          |    |
| Vinyl chloride                     | 111.6        | 5.0                       | 100        | 0                      | 112         | 50-136        | 0        |    |
| Xylenes, Total                     | 2374         | 15                        | 300        | 2060                   | 105         | 80-126        | 0        | EO |
| <i>Surr: 1,2-Dichloroethane-d4</i> | <i>91.65</i> | <i>0</i>                  | <i>100</i> | <i>0</i>               | <i>91.6</i> | <i>75-120</i> | <i>0</i> |    |
| <i>Surr: 4-Bromofluorobenzene</i>  | <i>105.5</i> | <i>0</i>                  | <i>100</i> | <i>0</i>               | <i>106</i>  | <i>80-110</i> | <i>0</i> |    |
| <i>Surr: Dibromofluoromethane</i>  | <i>98.35</i> | <i>0</i>                  | <i>100</i> | <i>0</i>               | <i>98.4</i> | <i>85-115</i> | <i>0</i> |    |
| <i>Surr: Toluene-d8</i>            | <i>111.8</i> | <i>0</i>                  | <i>100</i> | <i>0</i>               | <i>112</i>  | <i>85-110</i> | <i>0</i> | S  |

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** GHD Services Inc.  
**Work Order:** 15101851  
**Project:** Former GRMP (17360)

## QC BATCH REPORT

Batch ID: **R175711**      Instrument ID **VMS9**      Method: **SW8260B**

| MSD                         |        |     |         | Sample ID: 15101878-01A MSD |      |               | Units: µg/L    |      | Analysis Date: 11/10/2015 12:40 PM |      |
|-----------------------------|--------|-----|---------|-----------------------------|------|---------------|----------------|------|------------------------------------|------|
| Client ID:                  |        |     |         | Run ID: VMS9_151109A        |      |               | SeqNo: 3556460 |      | Prep Date:                         |      |
|                             |        |     |         |                             |      |               |                |      | DF: 5                              |      |
| Analyte                     | Result | PQL | SPK Val | SPK Ref Value               | %REC | Control Limit | RPD Ref Value  | %RPD | RPD Limit                          | Qual |
| 1,1,1-Trichloroethane       | 123.2  | 5.0 | 100     | 0                           | 123  | 75-130        | 115            | 6.88 | 30                                 |      |
| 1,1,2,2-Tetrachloroethane   | 112.2  | 5.0 | 100     | 0                           | 112  | 75-130        | 100.6          | 10.9 | 30                                 |      |
| 1,1,2-Trichloroethane       | 116.3  | 5.0 | 100     | 0                           | 116  | 75-125        | 105.9          | 9.36 | 30                                 |      |
| 1,1-Dichloroethane          | 112.1  | 5.0 | 100     | 0                           | 112  | 75-133        | 103.4          | 8.03 | 30                                 |      |
| 1,1-Dichloroethene          | 120    | 5.0 | 100     | 0                           | 120  | 70-145        | 109.8          | 8.96 | 30                                 |      |
| 1,2,4-Trichlorobenzene      | 118    | 5.0 | 100     | 0                           | 118  | 70-135        | 104.4          | 12.3 | 30                                 |      |
| 1,2-Dibromo-3-chloropropane | 107.6  | 5.0 | 100     | 0                           | 108  | 60-130        | 99.5           | 7.82 | 30                                 |      |
| 1,2-Dibromoethane           | 143.9  | 5.0 | 100     | 0                           | 144  | 80-150        | 129.6          | 10.5 | 30                                 |      |
| 1,2-Dichlorobenzene         | 113.1  | 5.0 | 100     | 0                           | 113  | 70-130        | 104            | 8.38 | 30                                 |      |
| 1,2-Dichloroethane          | 107.6  | 5.0 | 100     | 0                           | 108  | 78-125        | 100            | 7.32 | 30                                 |      |
| 1,2-Dichloropropane         | 131.2  | 5.0 | 100     | 0                           | 131  | 75-125        | 118.1          | 10.5 | 30                                 | S    |
| 1,3-Dichlorobenzene         | 118    | 5.0 | 100     | 0                           | 118  | 75-130        | 109.7          | 7.33 | 30                                 |      |
| 1,4-Dichlorobenzene         | 115.6  | 5.0 | 100     | 0                           | 116  | 75-130        | 106.1          | 8.57 | 30                                 |      |
| 2-Butanone                  | 107.7  | 25  | 100     | 0                           | 108  | 55-150        | 94.3           | 13.3 | 30                                 |      |
| 2-Hexanone                  | 88.5   | 25  | 100     | 0                           | 88.5 | 60-135        | 78.45          | 12   | 30                                 |      |
| 4-Methyl-2-pentanone        | 111.4  | 5.0 | 100     | 0                           | 111  | 77-178        | 101.1          | 9.69 | 30                                 |      |
| Acetone                     | 103.1  | 50  | 100     | 0                           | 103  | 60-160        | 94.85          | 8.34 | 30                                 |      |
| Benzene                     | 239.4  | 5.0 | 100     | 101.3                       | 138  | 85-125        | 219.8          | 8.54 | 30                                 | S    |
| Bromodichloromethane        | 110.4  | 5.0 | 100     | 0                           | 110  | 75-125        | 103.7          | 6.26 | 30                                 |      |
| Bromoform                   | 92.9   | 5.0 | 100     | 0                           | 92.9 | 60-125        | 86.4           | 7.25 | 30                                 |      |
| Bromomethane                | 73.45  | 5.0 | 100     | 0                           | 73.4 | 30-185        | 64.9           | 12.4 | 30                                 |      |
| Carbon disulfide            | 144.2  | 5.0 | 100     | 0                           | 144  | 60-165        | 131.8          | 8.95 | 30                                 |      |
| Carbon tetrachloride        | 125.8  | 5.0 | 100     | 0                           | 126  | 65-140        | 115.2          | 8.84 | 30                                 |      |
| Chlorobenzene               | 123.4  | 5.0 | 100     | 0                           | 123  | 80-120        | 114.2          | 7.7  | 30                                 | S    |
| Chloroethane                | 144.5  | 5.0 | 100     | 0                           | 144  | 50-140        | 122.6          | 16.4 | 30                                 | S    |
| Chloroform                  | 111    | 5.0 | 100     | 0                           | 111  | 80-130        | 103            | 7.43 | 30                                 |      |
| Chloromethane               | 116.7  | 5.0 | 100     | 0                           | 117  | 50-130        | 109.6          | 6.23 | 30                                 |      |
| cis-1,2-Dichloroethene      | 116    | 5.0 | 100     | 0                           | 116  | 75-134        | 107.6          | 7.56 | 30                                 |      |
| cis-1,3-Dichloropropene     | 110.2  | 5.0 | 100     | 0                           | 110  | 70-130        | 99.45          | 10.2 | 30                                 |      |
| Dibromochloromethane        | 96.6   | 5.0 | 100     | 0                           | 96.6 | 60-115        | 91.25          | 5.7  | 30                                 |      |
| Dichlorodifluoromethane     | 101.8  | 5.0 | 100     | 0                           | 102  | 20-120        | 97.35          | 4.47 | 30                                 |      |
| Ethylbenzene                | 262.4  | 5.0 | 100     | 130.3                       | 132  | 85-125        | 242.4          | 7.9  | 30                                 | S    |
| Isopropylbenzene            | 134.2  | 5.0 | 100     | 22.5                        | 112  | 80-127        | 121            | 10.3 | 30                                 |      |
| Methyl tert-butyl ether     | 103.3  | 5.0 | 100     | 0                           | 103  | 80-130        | 95.45          | 7.9  | 30                                 |      |
| Methylene chloride          | 108.4  | 25  | 100     | 0                           | 108  | 75-140        | 101            | 7.02 | 30                                 |      |
| Styrene                     | 111.9  | 5.0 | 100     | 0                           | 112  | 85-125        | 104.8          | 6.55 | 30                                 |      |
| Tetrachloroethene           | 114.8  | 5.0 | 100     | 0                           | 115  | 77-138        | 107.8          | 6.33 | 30                                 |      |
| Toluene                     | 131    | 5.0 | 100     | 0                           | 131  | 85-125        | 121.1          | 7.85 | 30                                 | S    |
| trans-1,2-Dichloroethene    | 118.4  | 5.0 | 100     | 0                           | 118  | 80-140        | 108.5          | 8.68 | 30                                 |      |
| trans-1,3-Dichloropropene   | 101.2  | 5.0 | 100     | 0                           | 101  | 81-123        | 94.1           | 7.32 | 30                                 |      |
| Trichloroethene             | 119.2  | 5.0 | 100     | 0                           | 119  | 84-130        | 107.5          | 10.3 | 30                                 |      |
| Trichlorofluoromethane      | 104.8  | 5.0 | 100     | 0                           | 105  | 60-140        | 95.25          | 9.5  | 30                                 |      |

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

Client: GHD Services Inc.  
Work Order: 15101851  
Project: Former GRMP (17360)

QC BATCH REPORT

|                             |       |                           |     |                        |      |        |       |       |    |     |
|-----------------------------|-------|---------------------------|-----|------------------------|------|--------|-------|-------|----|-----|
| Batch ID: <b>R175711</b>    |       | Instrument ID <b>VMS9</b> |     | Method: <b>SW8260B</b> |      |        |       |       |    |     |
| Vinyl chloride              | 121.5 | 5.0                       | 100 | 0                      | 122  | 50-136 | 111.6 | 8.54  | 30 |     |
| Xylenes, Total              | 2533  | 15                        | 300 | 2060                   | 158  | 80-126 | 2374  | 6.46  | 30 | SEO |
| Surr: 1,2-Dichloroethane-d4 | 92.35 | 0                         | 100 | 0                      | 92.4 | 75-120 | 91.65 | 0.761 | 30 |     |
| Surr: 4-Bromofluorobenzene  | 105.1 | 0                         | 100 | 0                      | 105  | 80-110 | 105.5 | 0.38  | 30 |     |
| Surr: Dibromofluoromethane  | 98.05 | 0                         | 100 | 0                      | 98   | 85-115 | 98.35 | 0.305 | 30 |     |
| Surr: Toluene-d8            | 111.1 | 0                         | 100 | 0                      | 111  | 85-110 | 111.8 | 0.583 | 30 | S   |

The following samples were analyzed in this batch:

|              |              |
|--------------|--------------|
| 15101851-21A | 15101851-22A |
|--------------|--------------|

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** GHD Services Inc.  
**Work Order:** 15101851  
**Project:** Former GRMP (17360)

## QC BATCH REPORT

Batch ID: **R175886** Instrument ID **VMS8** Method: **SW8260B**

| MBLK                           |        | Sample ID: <b>VLKW2-151110-R175886</b> |         |               |      | Units: <b>µg/L</b>    |               | Analysis Date: <b>11/10/2015 08:28 PM</b> |           |              |
|--------------------------------|--------|----------------------------------------|---------|---------------|------|-----------------------|---------------|-------------------------------------------|-----------|--------------|
| Client ID:                     |        | Run ID: <b>VMS8_151110B</b>            |         |               |      | SeqNo: <b>3559858</b> |               | Prep Date:                                |           | DF: <b>1</b> |
| Analyte                        | Result | PQL                                    | SPK Val | SPK Ref Value | %REC | Control Limit         | RPD Ref Value | %RPD                                      | RPD Limit | Qual         |
| 1,1,1-Trichloroethane          | U      | 1.0                                    |         |               |      |                       |               |                                           |           |              |
| 1,1,2,2-Tetrachloroethane      | U      | 1.0                                    |         |               |      |                       |               |                                           |           |              |
| 1,1,2-Trichloroethane          | U      | 1.0                                    |         |               |      |                       |               |                                           |           |              |
| 1,1,2-Trichlorotrifluoroethane | U      | 1.0                                    |         |               |      |                       |               |                                           |           |              |
| 1,1-Dichloroethane             | U      | 1.0                                    |         |               |      |                       |               |                                           |           |              |
| 1,1-Dichloroethene             | U      | 1.0                                    |         |               |      |                       |               |                                           |           |              |
| 1,2,4-Trichlorobenzene         | U      | 1.0                                    |         |               |      |                       |               |                                           |           |              |
| 1,2-Dibromo-3-chloropropane    | U      | 1.0                                    |         |               |      |                       |               |                                           |           |              |
| 1,2-Dibromoethane              | U      | 1.0                                    |         |               |      |                       |               |                                           |           |              |
| 1,2-Dichlorobenzene            | U      | 1.0                                    |         |               |      |                       |               |                                           |           |              |
| 1,2-Dichloroethane             | U      | 1.0                                    |         |               |      |                       |               |                                           |           |              |
| 1,2-Dichloropropane            | U      | 1.0                                    |         |               |      |                       |               |                                           |           |              |
| 1,3-Dichlorobenzene            | U      | 1.0                                    |         |               |      |                       |               |                                           |           |              |
| 1,4-Dichlorobenzene            | U      | 1.0                                    |         |               |      |                       |               |                                           |           |              |
| 2-Butanone                     | U      | 5.0                                    |         |               |      |                       |               |                                           |           |              |
| 2-Hexanone                     | U      | 5.0                                    |         |               |      |                       |               |                                           |           |              |
| 4-Methyl-2-pentanone           | U      | 1.0                                    |         |               |      |                       |               |                                           |           |              |
| Acetone                        | U      | 10                                     |         |               |      |                       |               |                                           |           |              |
| Benzene                        | U      | 1.0                                    |         |               |      |                       |               |                                           |           |              |
| Bromodichloromethane           | U      | 1.0                                    |         |               |      |                       |               |                                           |           |              |
| Bromoform                      | U      | 1.0                                    |         |               |      |                       |               |                                           |           |              |
| Bromomethane                   | U      | 1.0                                    |         |               |      |                       |               |                                           |           |              |
| Carbon disulfide               | U      | 1.0                                    |         |               |      |                       |               |                                           |           |              |
| Carbon tetrachloride           | U      | 1.0                                    |         |               |      |                       |               |                                           |           |              |
| Chlorobenzene                  | U      | 1.0                                    |         |               |      |                       |               |                                           |           |              |
| Chloroethane                   | U      | 1.0                                    |         |               |      |                       |               |                                           |           |              |
| Chloroform                     | U      | 1.0                                    |         |               |      |                       |               |                                           |           |              |
| Chloromethane                  | U      | 1.0                                    |         |               |      |                       |               |                                           |           |              |
| cis-1,2-Dichloroethene         | U      | 1.0                                    |         |               |      |                       |               |                                           |           |              |
| cis-1,3-Dichloropropene        | U      | 1.0                                    |         |               |      |                       |               |                                           |           |              |
| Cyclohexane                    | U      | 1.0                                    |         |               |      |                       |               |                                           |           |              |
| Dibromochloromethane           | U      | 1.0                                    |         |               |      |                       |               |                                           |           |              |
| Dichlorodifluoromethane        | U      | 1.0                                    |         |               |      |                       |               |                                           |           |              |
| Ethylbenzene                   | U      | 1.0                                    |         |               |      |                       |               |                                           |           |              |
| Isopropylbenzene               | U      | 1.0                                    |         |               |      |                       |               |                                           |           |              |
| Methyl acetate                 | U      | 2.0                                    |         |               |      |                       |               |                                           |           |              |
| Methyl tert-butyl ether        | U      | 1.0                                    |         |               |      |                       |               |                                           |           |              |
| Methylcyclohexane              | U      | 1.0                                    |         |               |      |                       |               |                                           |           |              |
| Methylene chloride             | U      | 5.0                                    |         |               |      |                       |               |                                           |           |              |
| Styrene                        | U      | 1.0                                    |         |               |      |                       |               |                                           |           |              |
| Tetrachloroethene              | U      | 1.0                                    |         |               |      |                       |               |                                           |           |              |
| Toluene                        | U      | 1.0                                    |         |               |      |                       |               |                                           |           |              |

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** GHD Services Inc.  
**Work Order:** 15101851  
**Project:** Former GRMP (17360)

## QC BATCH REPORT

|                                    |                           |                        |           |          |             |               |          |  |
|------------------------------------|---------------------------|------------------------|-----------|----------|-------------|---------------|----------|--|
| Batch ID: <b>R175886</b>           | Instrument ID <b>VMS8</b> | Method: <b>SW8260B</b> |           |          |             |               |          |  |
| trans-1,2-Dichloroethene           | U                         | 1.0                    |           |          |             |               |          |  |
| trans-1,3-Dichloropropene          | U                         | 1.0                    |           |          |             |               |          |  |
| Trichloroethene                    | U                         | 1.0                    |           |          |             |               |          |  |
| Trichlorofluoromethane             | U                         | 1.0                    |           |          |             |               |          |  |
| Vinyl chloride                     | U                         | 1.0                    |           |          |             |               |          |  |
| Xylenes, Total                     | U                         | 3.0                    |           |          |             |               |          |  |
| <i>Surr: 1,2-Dichloroethane-d4</i> | <i>20.23</i>              | <i>0</i>               | <i>20</i> | <i>0</i> | <i>101</i>  | <i>75-120</i> | <i>0</i> |  |
| <i>Surr: 4-Bromofluorobenzene</i>  | <i>18.61</i>              | <i>0</i>               | <i>20</i> | <i>0</i> | <i>93</i>   | <i>80-110</i> | <i>0</i> |  |
| <i>Surr: Dibromofluoromethane</i>  | <i>19.48</i>              | <i>0</i>               | <i>20</i> | <i>0</i> | <i>97.4</i> | <i>85-115</i> | <i>0</i> |  |
| <i>Surr: Toluene-d8</i>            | <i>19.65</i>              | <i>0</i>               | <i>20</i> | <i>0</i> | <i>98.2</i> | <i>85-110</i> | <i>0</i> |  |

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.



**Client:** GHD Services Inc.  
**Work Order:** 15101851  
**Project:** Former GRMP (17360)

## QC BATCH REPORT

Batch ID: **R175886** Instrument ID **VMS8** Method: **SW8260B**

| LCS                         |        | Sample ID: <b>VLCSW2-151110-R175886</b> |         |               |      | Units: <b>µg/L</b>    |               | Analysis Date: <b>11/10/2015 07:15 PM</b> |           |              |
|-----------------------------|--------|-----------------------------------------|---------|---------------|------|-----------------------|---------------|-------------------------------------------|-----------|--------------|
| Client ID:                  |        | Run ID: <b>VMS8_151110B</b>             |         |               |      | SeqNo: <b>3559857</b> |               | Prep Date:                                |           | DF: <b>1</b> |
| Analyte                     | Result | PQL                                     | SPK Val | SPK Ref Value | %REC | Control Limit         | RPD Ref Value | %RPD                                      | RPD Limit | Qual         |
| 1,1,1-Trichloroethane       | 22.6   | 1.0                                     | 20      | 0             | 113  | 75-130                | 0             |                                           |           |              |
| 1,1,2,2-Tetrachloroethane   | 20.93  | 1.0                                     | 20      | 0             | 105  | 75-130                | 0             |                                           |           |              |
| 1,1,2-Trichloroethane       | 20.92  | 1.0                                     | 20      | 0             | 105  | 75-125                | 0             |                                           |           |              |
| 1,1-Dichloroethane          | 23.24  | 1.0                                     | 20      | 0             | 116  | 75-133                | 0             |                                           |           |              |
| 1,1-Dichloroethene          | 23.01  | 1.0                                     | 20      | 0             | 115  | 70-145                | 0             |                                           |           |              |
| 1,2,4-Trichlorobenzene      | 21.43  | 1.0                                     | 20      | 0             | 107  | 70-135                | 0             |                                           |           |              |
| 1,2-Dibromo-3-chloropropane | 20.19  | 1.0                                     | 20      | 0             | 101  | 60-130                | 0             |                                           |           |              |
| 1,2-Dibromoethane           | 34     | 1.0                                     | 20      | 0             | 170  | 80-150                | 0             |                                           |           | S            |
| 1,2-Dichlorobenzene         | 21     | 1.0                                     | 20      | 0             | 105  | 70-130                | 0             |                                           |           |              |
| 1,2-Dichloroethane          | 21.09  | 1.0                                     | 20      | 0             | 105  | 78-125                | 0             |                                           |           |              |
| 1,2-Dichloropropane         | 21.86  | 1.0                                     | 20      | 0             | 109  | 75-125                | 0             |                                           |           |              |
| 1,3-Dichlorobenzene         | 21.89  | 1.0                                     | 20      | 0             | 109  | 75-130                | 0             |                                           |           |              |
| 1,4-Dichlorobenzene         | 21.09  | 1.0                                     | 20      | 0             | 105  | 75-130                | 0             |                                           |           |              |
| 2-Butanone                  | 22.07  | 5.0                                     | 20      | 0             | 110  | 55-150                | 0             |                                           |           |              |
| 2-Hexanone                  | 20.85  | 5.0                                     | 20      | 0             | 104  | 60-135                | 0             |                                           |           |              |
| 4-Methyl-2-pentanone        | 26.63  | 1.0                                     | 20      | 0             | 133  | 77-178                | 0             |                                           |           |              |
| Acetone                     | 20.34  | 10                                      | 20      | 0             | 102  | 60-160                | 0             |                                           |           |              |
| Benzene                     | 22.19  | 1.0                                     | 20      | 0             | 111  | 85-125                | 0             |                                           |           |              |
| Bromodichloromethane        | 21.43  | 1.0                                     | 20      | 0             | 107  | 75-125                | 0             |                                           |           |              |
| Bromoform                   | 19.37  | 1.0                                     | 20      | 0             | 96.8 | 60-125                | 0             |                                           |           |              |
| Bromomethane                | 20.57  | 1.0                                     | 20      | 0             | 103  | 30-185                | 0             |                                           |           |              |
| Carbon disulfide            | 27.61  | 1.0                                     | 20      | 0             | 138  | 60-165                | 0             |                                           |           |              |
| Carbon tetrachloride        | 22.63  | 1.0                                     | 20      | 0             | 113  | 65-140                | 0             |                                           |           |              |
| Chlorobenzene               | 22.07  | 1.0                                     | 20      | 0             | 110  | 80-120                | 0             |                                           |           |              |
| Chloroethane                | 19.02  | 1.0                                     | 20      | 0             | 95.1 | 50-140                | 0             |                                           |           |              |
| Chloroform                  | 21.62  | 1.0                                     | 20      | 0             | 108  | 80-130                | 0             |                                           |           |              |
| Chloromethane               | 21.02  | 1.0                                     | 20      | 0             | 105  | 50-130                | 0             |                                           |           |              |
| cis-1,2-Dichloroethene      | 22.8   | 1.0                                     | 20      | 0             | 114  | 75-134                | 0             |                                           |           |              |
| cis-1,3-Dichloropropene     | 23.05  | 1.0                                     | 20      | 0             | 115  | 70-130                | 0             |                                           |           |              |
| Dibromochloromethane        | 18.33  | 1.0                                     | 20      | 0             | 91.6 | 60-115                | 0             |                                           |           |              |
| Dichlorodifluoromethane     | 18.47  | 1.0                                     | 20      | 0             | 92.4 | 20-120                | 0             |                                           |           |              |
| Ethylbenzene                | 22.04  | 1.0                                     | 20      | 0             | 110  | 85-125                | 0             |                                           |           |              |
| Isopropylbenzene            | 22.23  | 1.0                                     | 20      | 0             | 111  | 80-127                | 0             |                                           |           |              |
| Methyl tert-butyl ether     | 20.19  | 1.0                                     | 20      | 0             | 101  | 80-130                | 0             |                                           |           |              |
| Methylene chloride          | 23.6   | 5.0                                     | 20      | 0             | 118  | 75-140                | 0             |                                           |           |              |
| Styrene                     | 20.75  | 1.0                                     | 20      | 0             | 104  | 85-125                | 0             |                                           |           |              |
| Tetrachloroethene           | 22.86  | 1.0                                     | 20      | 0             | 114  | 77-138                | 0             |                                           |           |              |
| Toluene                     | 22.33  | 1.0                                     | 20      | 0             | 112  | 85-125                | 0             |                                           |           |              |
| trans-1,2-Dichloroethene    | 22.94  | 1.0                                     | 20      | 0             | 115  | 80-140                | 0             |                                           |           |              |
| trans-1,3-Dichloropropene   | 19.4   | 1.0                                     | 20      | 0             | 97   | 81-123                | 0             |                                           |           |              |
| Trichloroethene             | 21.12  | 1.0                                     | 20      | 0             | 106  | 84-130                | 0             |                                           |           |              |
| Trichlorofluoromethane      | 19.24  | 1.0                                     | 20      | 0             | 96.2 | 60-140                | 0             |                                           |           |              |

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

Client: GHD Services Inc.  
Work Order: 15101851  
Project: Former GRMP (17360)

QC BATCH REPORT

|                                    |                           |          |           |                        |             |               |          |
|------------------------------------|---------------------------|----------|-----------|------------------------|-------------|---------------|----------|
| Batch ID: <b>R175886</b>           | Instrument ID <b>VMS8</b> |          |           | Method: <b>SW8260B</b> |             |               |          |
| Vinyl chloride                     | 19.14                     | 1.0      | 20        | 0                      | 95.7        | 50-136        | 0        |
| Xylenes, Total                     | 67.6                      | 3.0      | 60        | 0                      | 113         | 80-126        | 0        |
| <i>Surr: 1,2-Dichloroethane-d4</i> | <i>19.75</i>              | <i>0</i> | <i>20</i> | <i>0</i>               | <i>98.8</i> | <i>75-120</i> | <i>0</i> |
| <i>Surr: 4-Bromofluorobenzene</i>  | <i>19.86</i>              | <i>0</i> | <i>20</i> | <i>0</i>               | <i>99.3</i> | <i>80-110</i> | <i>0</i> |
| <i>Surr: Dibromofluoromethane</i>  | <i>19.69</i>              | <i>0</i> | <i>20</i> | <i>0</i>               | <i>98.4</i> | <i>85-115</i> | <i>0</i> |
| <i>Surr: Toluene-d8</i>            | <i>20.31</i>              | <i>0</i> | <i>20</i> | <i>0</i>               | <i>102</i>  | <i>85-110</i> | <i>0</i> |

The following samples were analyzed in this batch:

|              |
|--------------|
| 15101851-22A |
|--------------|

Note: See Qualifiers Page for a list of Qualifiers and their explanation.



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Page 1 of 3

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Salt Lake City, UT  
+1 801 266 7700

South Charleston, WV  
+1 304 356 3168

York, PA  
+1 717 505 5280

| Customer Information |                              |                 |                  | Project Information |      |  |  | Parameter/Method Request for Analysis |  |  |  |  |  |  |  |  |  |  |  |
|----------------------|------------------------------|-----------------|------------------|---------------------|------|--|--|---------------------------------------|--|--|--|--|--|--|--|--|--|--|--|
| Purchase Order       |                              | Project Name    | Former GRMP      | A                   | VOCs |  |  |                                       |  |  |  |  |  |  |  |  |  |  |  |
| Work Order           |                              | Project Number  | 017360           | B                   |      |  |  |                                       |  |  |  |  |  |  |  |  |  |  |  |
| Company Name         | GHD                          | Bill To Company | Same as Customer | C                   |      |  |  |                                       |  |  |  |  |  |  |  |  |  |  |  |
| Send Report To       | Rawa Fleisher                | Invoice Attn    |                  | D                   |      |  |  |                                       |  |  |  |  |  |  |  |  |  |  |  |
| Address              | 14496 Sheldon Rd.<br>Ste 200 | Address         |                  | E                   |      |  |  |                                       |  |  |  |  |  |  |  |  |  |  |  |
| City/State/Zip       | Plymouth, MI 48170           | City/State/Zip  |                  | F                   |      |  |  |                                       |  |  |  |  |  |  |  |  |  |  |  |
| Phone                | 734-453-5723                 | Phone           |                  | G                   |      |  |  |                                       |  |  |  |  |  |  |  |  |  |  |  |
| Fax                  |                              | Fax             |                  | H                   |      |  |  |                                       |  |  |  |  |  |  |  |  |  |  |  |
| e-Mail Address       | Rawa.Fleisher@GHD.com        | e-Mail Address  |                  | I                   |      |  |  |                                       |  |  |  |  |  |  |  |  |  |  |  |
|                      |                              |                 |                  | J                   |      |  |  |                                       |  |  |  |  |  |  |  |  |  |  |  |

| No. | Sample Description      | Date     | Time | Matrix | Pres. | # Bottles | A | B | C | D | E | F | G | H | I | J | Hold |
|-----|-------------------------|----------|------|--------|-------|-----------|---|---|---|---|---|---|---|---|---|---|------|
| 1   | WG-017360-102615-MR-022 | 10/26/15 | 1138 | Water  | -1    | 3         | X |   |   |   |   |   |   |   |   |   |      |
| 2   | WG- " " -023            |          | 1150 |        |       |           |   |   |   |   |   |   |   |   |   |   |      |
| 3   | WG- " " -024            |          | 1109 |        |       |           |   |   |   |   |   |   |   |   |   |   |      |
| 4   | WG- " " -025            |          | 1135 |        |       |           |   |   |   |   |   |   |   |   |   |   |      |
| 5   | WG- " " -026            |          | 1418 |        |       |           |   |   |   |   |   |   |   |   |   |   |      |
| 6   | WG- " " -027            |          | 1518 |        |       |           |   |   |   |   |   |   |   |   |   |   |      |
| 7   | WG- " " -028            |          | 1625 |        |       |           |   |   |   |   |   |   |   |   |   |   |      |
| 8   | WG- " " -029            |          | 1659 |        |       |           |   |   |   |   |   |   |   |   |   |   |      |
| 9   | WG- " " -030            |          | 1710 |        |       |           |   |   |   |   |   |   |   |   |   |   |      |
| 10  | WG-017360-102715-MR-031 | 10/27/15 | 1059 |        |       |           |   |   |   |   |   |   |   |   |   |   |      |

|                                |  |                 |  |                                                                                                                                                |  |  |  |                   |  |
|--------------------------------|--|-----------------|--|------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|-------------------|--|
| Sampler(s) Please Print & Sign |  | Shipment Method |  | Required Turnaround Time: (Check Box) <input type="checkbox"/> Other                                                                           |  |  |  | Results Due Date: |  |
|                                |  |                 |  | <input type="checkbox"/> STD 10 Wk Days <input type="checkbox"/> 5 Wk Days <input type="checkbox"/> 2 Wk Days <input type="checkbox"/> 24 Hour |  |  |  |                   |  |

|                         |          |       |                           |                                                                                                                                                                                                                                                             |             |
|-------------------------|----------|-------|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| Relinquished by:        | Date:    | Time: | Received by:              | Notes:                                                                                                                                                                                                                                                      |             |
| <i>[Signature]</i>      | 10/30/15 | 855   | <i>[Signature]</i>        |                                                                                                                                                                                                                                                             |             |
| Relinquished by:        | Date:    | Time: | Received by (Laboratory): | Cooler ID                                                                                                                                                                                                                                                   | Cooler Temp |
| <i>[Signature]</i>      | 10/30/15 | 0955  | <i>[Signature]</i>        |                                                                                                                                                                                                                                                             | 2.8°C       |
| Logged by (Laboratory): | Date:    | Time: | Checked by (Laboratory):  | QC Package: (Check One Box Below)                                                                                                                                                                                                                           |             |
| <i>[Signature]</i>      | 10/30/15 | 0925  | <i>[Signature]</i>        | <input type="checkbox"/> Level II Std QC <input type="checkbox"/> TRAP Checklist<br><input type="checkbox"/> Level III Std QC/Raw Date <input type="checkbox"/> TRAP Level IV<br><input type="checkbox"/> Level IV SW846/CLP <input type="checkbox"/> Other |             |

|                   |       |                    |                                  |        |                                                 |                      |         |       |        |
|-------------------|-------|--------------------|----------------------------------|--------|-------------------------------------------------|----------------------|---------|-------|--------|
| Preservative Key: | 1-HCl | 2-HNO <sub>3</sub> | 3-H <sub>2</sub> SO <sub>4</sub> | 4-NaOH | 5-Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> | 6-NaHSO <sub>4</sub> | 7-Other | 8-4°C | 9-5035 |
|-------------------|-------|--------------------|----------------------------------|--------|-------------------------------------------------|----------------------|---------|-------|--------|

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+1 801 266 7700

South Charleston, WV  
+1 304 356 3168

York, PA  
+1 717 505 5280

| Customer Information |                               |                 | Project Information |  |  | Parameter/Method Request for Analysis |            |  |  |  |  |  |  |  |  |  |  |  |
|----------------------|-------------------------------|-----------------|---------------------|--|--|---------------------------------------|------------|--|--|--|--|--|--|--|--|--|--|--|
| Purchase Order       |                               | Project Name    | Former GRMP         |  |  | A                                     | VOCs       |  |  |  |  |  |  |  |  |  |  |  |
| Work Order           |                               | Project Number  | 017360              |  |  | B                                     | TAL Metals |  |  |  |  |  |  |  |  |  |  |  |
| Company Name         | GHO                           | Bill To Company | Same as customer    |  |  | C                                     |            |  |  |  |  |  |  |  |  |  |  |  |
| Send Report To       | Rana Fleisher                 | Invoice Attn    |                     |  |  | D                                     |            |  |  |  |  |  |  |  |  |  |  |  |
| Address              | 14496 Sheldon Rd.<br>ste. 200 | Address         |                     |  |  | E                                     |            |  |  |  |  |  |  |  |  |  |  |  |
| City/State/Zip       | Plymouth, MI 48170            | City/State/Zip  |                     |  |  | F                                     |            |  |  |  |  |  |  |  |  |  |  |  |
| Phone                | 734-453-5123                  | Phone           |                     |  |  | G                                     |            |  |  |  |  |  |  |  |  |  |  |  |
| Fax                  |                               | Fax             |                     |  |  | H                                     |            |  |  |  |  |  |  |  |  |  |  |  |
| e-Mail Address       | rana.fleisher@gho.com         | e-Mail Address  |                     |  |  | I                                     |            |  |  |  |  |  |  |  |  |  |  |  |
|                      |                               |                 |                     |  |  | J                                     |            |  |  |  |  |  |  |  |  |  |  |  |

| No. | Sample Description         | Date     | Time | Matrix | Pres. | # Bottles | A | B | C | D | E | F | G | H | I | J | Hold |
|-----|----------------------------|----------|------|--------|-------|-----------|---|---|---|---|---|---|---|---|---|---|------|
| 11  | WG-617360-102715 -MR- -032 | 10/27/15 | 1143 | water  | 1,2   | 4         | X | X |   |   |   |   |   |   |   |   |      |
| 12  | WG- " " -033               |          | 1200 |        | 1,2   | 4         |   | X |   |   |   |   |   |   |   |   |      |
| 13  | WG- " " -034               |          | 1258 |        | 1     | 3         |   |   |   |   |   |   |   |   |   |   |      |
| 14  | WG- " " -035               |          | 1357 |        | 1     |           |   |   |   |   |   |   |   |   |   |   |      |
| 15  | WG- " " -036               |          | 1415 |        | 1     |           |   |   |   |   |   |   |   |   |   |   |      |
| 16  | WG- " " -037               |          | 1508 |        | 1     |           |   |   |   |   |   |   |   |   |   |   |      |
| 17  | WG- " " -038               |          | 1605 |        | 1     | 9         |   |   |   |   |   |   |   |   |   |   |      |
| 18  | WG-017360-102815 -MR- -039 | 10/28/15 | 1057 |        | 1     | 3         |   |   |   |   |   |   |   |   |   |   |      |
| 19  | WG- " " -040               |          | 1142 |        | 1     |           |   |   |   |   |   |   |   |   |   |   |      |
| 20  | WG- " " -041               |          | 1255 |        | 1     |           |   |   |   |   |   |   |   |   |   |   |      |

|                                |  |  |                 |  |                                                                                                                                                |  |  |  |                   |  |
|--------------------------------|--|--|-----------------|--|------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|-------------------|--|
| Sampler(s) Please Print & Sign |  |  | Shipment Method |  | Required Turnaround Time: (Check Box) <input type="checkbox"/> Other                                                                           |  |  |  | Results Due Date: |  |
|                                |  |  |                 |  | <input type="checkbox"/> STD 10 Wk Days <input type="checkbox"/> 5 Wk Days <input type="checkbox"/> 2 Wk Days <input type="checkbox"/> 24 Hour |  |  |  |                   |  |

|                                            |                |            |                                              |                     |
|--------------------------------------------|----------------|------------|----------------------------------------------|---------------------|
| Relinquished by: <i>[Signature]</i>        | Date: 10/30/15 | Time: 855  | Received by: <i>[Signature]</i>              | Notes: -038- MS/MSD |
| Relinquished by: <i>[Signature]</i>        | Date: 10/30/15 | Time: 0855 | Received by (Laboratory): <i>[Signature]</i> |                     |
| Logged by (Laboratory): <i>[Signature]</i> | Date: 10/30/15 | Time: 0923 | Checked by (Laboratory): <i>[Signature]</i>  |                     |

|                                                                                                                                                                              |  |  |  |           |             |                                                                                                                                                                                                                                                                |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|-----------|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Preservative Key: 1-HCl 2-HNO <sub>3</sub> 3-H <sub>2</sub> SO <sub>4</sub> 4-NaOH 5-Na <sub>2</sub> S <sub>2</sub> O <sub>8</sub> 6-NaHSO <sub>4</sub> 7-Other 8-4°C 9-5035 |  |  |  | Cooler ID | Cooler Temp | QC Package: (Check One Box Below)                                                                                                                                                                                                                              |
|                                                                                                                                                                              |  |  |  |           |             | <input type="checkbox"/> Level II Std QC <input type="checkbox"/> TRAP Checklist<br><input type="checkbox"/> Level III Std QC/Raw Data <input type="checkbox"/> TRAP Level IV<br><input type="checkbox"/> Level IV SW846/CLP<br><input type="checkbox"/> Other |

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Page 3 of 3

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+1 610 948 4903

Salt Lake City, UT  
+1 801 266 7700

South Charleston, WV  
+1 304 356 3168

York, PA  
+1 717 505 5280

| Customer Information                  |                              |                 |                         | Project Information |              |  |  | ALS Project Manager: <u>Chad Whelton</u> ALS Work Order #: <u>15101851</u> |  |  |  |  |  |  |  |  |  |  |  |
|---------------------------------------|------------------------------|-----------------|-------------------------|---------------------|--------------|--|--|----------------------------------------------------------------------------|--|--|--|--|--|--|--|--|--|--|--|
| Parameter/Method Request for Analysis |                              |                 |                         |                     |              |  |  |                                                                            |  |  |  |  |  |  |  |  |  |  |  |
| Purchase Order                        |                              | Project Name    | <u>Former GRMP</u>      | A                   | <u>VOCs</u>  |  |  |                                                                            |  |  |  |  |  |  |  |  |  |  |  |
| Work Order                            |                              | Project Number  | <u>017360</u>           | B                   | <u>SvOCs</u> |  |  |                                                                            |  |  |  |  |  |  |  |  |  |  |  |
| Company Name                          | <u>GHD</u>                   | Bill To Company | <u>Same as customer</u> | C                   |              |  |  |                                                                            |  |  |  |  |  |  |  |  |  |  |  |
| Send Report To                        | <u>Rawa Fleisher</u>         | Invoice Attn    |                         | D                   |              |  |  |                                                                            |  |  |  |  |  |  |  |  |  |  |  |
| Address                               | <u>14496 Sheldon Rd.</u>     | Address         |                         | E                   |              |  |  |                                                                            |  |  |  |  |  |  |  |  |  |  |  |
|                                       | <u>Ste. 200</u>              |                 |                         | F                   |              |  |  |                                                                            |  |  |  |  |  |  |  |  |  |  |  |
| City/State/Zip                        | <u>Plymouth, MI 48170</u>    | City/State/Zip  |                         | G                   |              |  |  |                                                                            |  |  |  |  |  |  |  |  |  |  |  |
| Phone                                 | <u>734-453-5123</u>          | Phone           |                         | H                   |              |  |  |                                                                            |  |  |  |  |  |  |  |  |  |  |  |
| Fax                                   |                              | Fax             |                         | I                   |              |  |  |                                                                            |  |  |  |  |  |  |  |  |  |  |  |
| e-Mail Address                        | <u>Rawa.Fleisher@GHD.com</u> | e-Mail Address  |                         | J                   |              |  |  |                                                                            |  |  |  |  |  |  |  |  |  |  |  |

| No. | Sample Description      | Date     | Time | Matrix | Pres. | # Bottles | A | B | C | D | E | F | G | H | I | J | Hold |
|-----|-------------------------|----------|------|--------|-------|-----------|---|---|---|---|---|---|---|---|---|---|------|
| 21  | WG-017360-102815-MR-043 | 10/28/15 | 1403 | Water  | 1     | 5         | X | X |   |   |   |   |   |   |   |   |      |
| 22  | WG- " " -043            | ↓        | 1457 | ↓      | 1     | 3         | ↓ | X |   |   |   |   |   |   |   |   |      |
| 23  | WG- " " -044            | ↓        | 1616 | ↓      | 1     | 5         | ↓ | X |   |   |   |   |   |   |   |   |      |
| 24  | WG-017360-102915-MR-045 | 10/29/15 | 1128 | ↓      | 1     | 13        | ↓ | X |   |   |   |   |   |   |   |   |      |
| 25  | WG- " " -046            | ↓        | 1332 | ↓      | 1     | 5         | ↓ | X |   |   |   |   |   |   |   |   |      |
| 26  | WG- " " -047            | ↓        | 1506 | ↓      | 1     | 5         | ↓ | X |   |   |   |   |   |   |   |   |      |
| 27  | WG- " " -048            | ↓        | 1628 | ↓      | 1     | 5         | ↓ | X |   |   |   |   |   |   |   |   |      |
| 28  | TB- " " -049            | ↓        | -    | ↓      | 1     | 1         | ↓ |   |   |   |   |   |   |   |   |   |      |
| 9   |                         |          |      |        |       |           |   |   |   |   |   |   |   |   |   |   |      |
| 10  |                         |          |      |        |       |           |   |   |   |   |   |   |   |   |   |   |      |

|                                |  |  |  |                 |  |                                                                                                                                                |  |  |  |                   |  |  |  |
|--------------------------------|--|--|--|-----------------|--|------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|-------------------|--|--|--|
| Sampler(s) Please Print & Sign |  |  |  | Shipment Method |  | Required Turnaround Time: (Check Box) <input type="checkbox"/> Other <input type="checkbox"/>                                                  |  |  |  | Results Due Date: |  |  |  |
|                                |  |  |  |                 |  | <input type="checkbox"/> STD 10 Wk Days <input type="checkbox"/> 5 Wk Days <input type="checkbox"/> 2 Wk Days <input type="checkbox"/> 24 Hour |  |  |  |                   |  |  |  |

|                                            |                       |                   |                                              |                                                     |                                         |
|--------------------------------------------|-----------------------|-------------------|----------------------------------------------|-----------------------------------------------------|-----------------------------------------|
| Relinquished by: <u>[Signature]</u>        | Date: <u>10/30/15</u> | Time: <u>0855</u> | Received by: <u>[Signature]</u>              | Notes: <u>-045 - MS/MSD / -049 - VOC trip blank</u> |                                         |
| Relinquished by: <u>[Signature]</u>        | Date: <u>10/30/15</u> | Time: <u>0855</u> | Received by (Laboratory): <u>[Signature]</u> | Cooler ID                                           | Cooler Temp                             |
| Logged by (Laboratory): <u>[Signature]</u> | Date: <u>10/30/15</u> | Time: <u>0925</u> | Checked by (Laboratory): <u>[Signature]</u>  | QC Package: (Check One Box Below)                   |                                         |
|                                            |                       |                   |                                              | <input type="checkbox"/> Level II Std QC            | <input type="checkbox"/> TRRP Checklist |
|                                            |                       |                   |                                              | <input type="checkbox"/> Level III Std QC/Raw Data  | <input type="checkbox"/> TRRP Level IV  |
|                                            |                       |                   |                                              | <input type="checkbox"/> Level IV SW846/CLP         |                                         |
|                                            |                       |                   |                                              | <input type="checkbox"/> Other                      |                                         |

|                   |       |                    |                                  |        |                                                 |                      |         |       |        |
|-------------------|-------|--------------------|----------------------------------|--------|-------------------------------------------------|----------------------|---------|-------|--------|
| Preservative Key: | 1-HCl | 2-HNO <sub>3</sub> | 3-H <sub>2</sub> SO <sub>4</sub> | 4-NaOH | 5-Na <sub>2</sub> S <sub>2</sub> O <sub>8</sub> | 6-NaHSO <sub>4</sub> | 7-Other | 8-4°C | 9-5035 |
|-------------------|-------|--------------------|----------------------------------|--------|-------------------------------------------------|----------------------|---------|-------|--------|

Sample Receipt Checklist

Client Name: **GHD - PLYMOUTH**

Date/Time Received: **30-Oct-15 08:55**

Work Order: **15101851**

Received by: **KRW**

Checklist completed by Keith Wurenga  
eSignature

30-Oct-15  
Date

Reviewed by: Chad Whelton  
eSignature

02-Nov-15  
Date

Matrices: **Water**

Carrier name: **Client**

|                                                         |                                         |                                        |                                                 |
|---------------------------------------------------------|-----------------------------------------|----------------------------------------|-------------------------------------------------|
| Shipping container/cooler in good condition?            | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            | Not Present <input type="checkbox"/>            |
| Custody seals intact on shipping container/cooler?      | Yes <input type="checkbox"/>            | No <input type="checkbox"/>            | Not Present <input checked="" type="checkbox"/> |
| Custody seals intact on sample bottles?                 | Yes <input type="checkbox"/>            | No <input type="checkbox"/>            | Not Present <input checked="" type="checkbox"/> |
| Chain of custody present?                               | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            |                                                 |
| Chain of custody signed when relinquished and received? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            |                                                 |
| Chain of custody agrees with sample labels?             | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            |                                                 |
| Samples in proper container/bottle?                     | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            |                                                 |
| Sample containers intact?                               | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            |                                                 |
| Sufficient sample volume for indicated test?            | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            |                                                 |
| All samples received within holding time?               | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            |                                                 |
| Container/Temp Blank temperature in compliance?         | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            |                                                 |
| Sample(s) received on ice?                              | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            |                                                 |
| Temperature(s)/Thermometer(s):                          | <u>2.8/2.8, 3.0/3.0 C</u>               |                                        | <u>SR2</u>                                      |
| Cooler(s)/Kit(s):                                       | <u></u>                                 |                                        |                                                 |
| Date/Time sample(s) sent to storage:                    | <u>10/30/2015 9:46:20 AM</u>            |                                        |                                                 |
| Water - VOA vials have zero headspace?                  | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            | No VOA vials submitted <input type="checkbox"/> |
| Water - pH acceptable upon receipt?                     | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            | N/A <input type="checkbox"/>                    |
| pH adjusted?                                            | Yes <input type="checkbox"/>            | No <input checked="" type="checkbox"/> | N/A <input type="checkbox"/>                    |
| pH adjusted by:                                         | <u>-</u>                                |                                        |                                                 |

Login Notes:

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Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:





06-Nov-2015

Rawa Fleisher  
GHD Services Inc.  
14496 Sheldon Road  
Suite 200  
Plymouth, MI 48170

Re: **Former GRMP (17360)**

Work Order: **15101476**

Dear Rawa,

ALS Environmental received 21 samples on 23-Oct-2015 10:00 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

Sample results are compliant with NELAP standard requirements and QC results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 88.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

*Chad Whelton*

Electronically approved by: Chad Whelton

Chad Whelton  
Project Manager



Certificate No: MN 532786

## Report of Laboratory Analysis

ADDRESS 3352 128th Avenue Holland, Michigan 49424-9263 | PHONE (616) 399-6070 | FAX (616) 399-6185

ALS GROUP USA, CORP Part of the ALS Laboratory Group A Campbell Brothers Limited Company

Environmental 

[www.alsglobal.com](http://www.alsglobal.com)

RIGHT SOLUTIONS RIGHT PARTNER

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Work Order:** 15101476

**Work Order Sample Summary**

| <u>Lab Samp ID</u> | <u>Client Sample ID</u> | <u>Matrix</u> | <u>Tag Number</u> | <u>Collection Date</u> | <u>Date Received</u> | <u>Hold</u>              |
|--------------------|-------------------------|---------------|-------------------|------------------------|----------------------|--------------------------|
| 15101476-01        | WG-017360-102015-MR-001 | Water         |                   | 10/20/2015 10:18       | 10/23/2015 10:00     | <input type="checkbox"/> |
| 15101476-02        | WG-017360-102015-MR-002 | Water         |                   | 10/20/2015 10:35       | 10/23/2015 10:00     | <input type="checkbox"/> |
| 15101476-03        | WG-017360-102015-MR-003 | Water         |                   | 10/20/2015 11:25       | 10/23/2015 10:00     | <input type="checkbox"/> |
| 15101476-04        | SW-017360-102015-MR-004 | Water         |                   | 10/20/2015 11:45       | 10/23/2015 10:00     | <input type="checkbox"/> |
| 15101476-05        | WG-017360-102015-MR-005 | Water         |                   | 10/20/2015 13:10       | 10/23/2015 10:00     | <input type="checkbox"/> |
| 15101476-06        | SW-017360-102015-MR-006 | Water         |                   | 10/20/2015 13:40       | 10/23/2015 10:00     | <input type="checkbox"/> |
| 15101476-07        | SW-017360-102015-MR-007 | Water         |                   | 10/20/2015 14:10       | 10/23/2015 10:00     | <input type="checkbox"/> |
| 15101476-08        | WG-017360-102115-MR-008 | Water         |                   | 10/21/2015 10:39       | 10/23/2015 10:00     | <input type="checkbox"/> |
| 15101476-09        | WG-017360-102115-MR-009 | Water         |                   | 10/21/2015 11:41       | 10/23/2015 10:00     | <input type="checkbox"/> |
| 15101476-10        | WG-017360-102115-MR-010 | Water         |                   | 10/21/2015 13:04       | 10/23/2015 10:00     | <input type="checkbox"/> |
| 15101476-11        | WG-017360-102115-MR-011 | Water         |                   | 10/21/2015 14:39       | 10/23/2015 10:00     | <input type="checkbox"/> |
| 15101476-12        | WG-017360-102115-MR-012 | Water         |                   | 10/21/2015 15:15       | 10/23/2015 10:00     | <input type="checkbox"/> |
| 15101476-13        | WG-017360-102115-MR-013 | Water         |                   | 10/21/2015 16:19       | 10/23/2015 10:00     | <input type="checkbox"/> |
| 15101476-14        | WG-017360-102215-MR-014 | Water         |                   | 10/22/2015 10:31       | 10/23/2015 10:00     | <input type="checkbox"/> |
| 15101476-15        | WG-017360-102215-MR-015 | Water         |                   | 10/22/2015 10:55       | 10/23/2015 10:00     | <input type="checkbox"/> |
| 15101476-16        | WG-017360-102215-MR-016 | Water         |                   | 10/22/2015 12:48       | 10/23/2015 10:00     | <input type="checkbox"/> |
| 15101476-17        | WG-017360-102215-MR-017 | Water         |                   | 10/22/2015 13:38       | 10/23/2015 10:00     | <input type="checkbox"/> |
| 15101476-18        | WG-017360-102215-MR-018 | Water         |                   | 10/22/2015 14:59       | 10/23/2015 10:00     | <input type="checkbox"/> |
| 15101476-19        | WG-017360-102215-MR-019 | Water         |                   | 10/22/2015 15:56       | 10/23/2015 10:00     | <input type="checkbox"/> |
| 15101476-20        | WG-017360-102215-MR-020 | Water         |                   | 10/22/2015 16:52       | 10/23/2015 10:00     | <input type="checkbox"/> |
| 15101476-21        | TB-017360-102215-MR-021 | Water         |                   | 10/22/2015             | 10/23/2015 10:00     | <input type="checkbox"/> |



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**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Work Order:** 15101476

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**Case Narrative**

Batch R175223, Method VOC\_8260\_W, CCV: 1,2-Dibromoethane recovery was low in the CCV; results may be biased low.

Batches R175223 and R175278, Method VOC\_8260\_W, Sample 15101476-03A MS/MSD: Multiple spike recoveries and RPDs in the MS and MSD outside of control limits due to poor spiking technique. Results are not-indicative of matrix interference as show in the third set run out of hold time. Analyst has since been retrained on proper spiking technique.

Batch R175236A, Method VOC\_8260\_W, Sample VLCSW1-151103: The LCS recovery was above the upper control limit for Dichlorodifluoromethane. The sample results for this analyte may be biased high.

Batch R175355, Method VOC\_8260\_W, Sample VLCSW1-151104: The LCS recovery was above the upper control limit for Bromomethane. All the sample results in the batch were non-detect. No qualification is required.

Batch R175355, Method VOC\_8260\_W, Sample 15101476-03A MS/MSD: The MS and MSD recovery was above the upper control limit for Bromomethane. The corresponding result in the parent sample was non-detect, therefore no qualification is required.

Batch R175355, Method VOC\_8260\_W, Sample 15101476-03A MS: The MS recovery was above the upper control limit for Dichlorodifluoromethane. However, the MSD recovery and the RPD between the MS and MSD were within control limits. No qualification is required.

Batch R175355, Method VOC\_8260\_W, Sample 15101476-03A MS/MSD: The MS and MSD ran out of hold to check for a laboratory spiking error.

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**WorkOrder:** 15101476

## **QUALIFIERS, ACRONYMS, UNITS**

| <b><u>Qualifier</u></b> | <b><u>Description</u></b>                                                                                                                               |
|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| *                       | Value exceeds Regulatory Limit                                                                                                                          |
| a                       | Not accredited                                                                                                                                          |
| B                       | Analyte detected in the associated Method Blank above the Reporting Limit                                                                               |
| E                       | Value above quantitation range                                                                                                                          |
| H                       | Analyzed outside of Holding Time                                                                                                                        |
| J                       | Analyte is present at an estimated concentration between the MDL and Report Limit                                                                       |
| n                       | Not offered for accreditation                                                                                                                           |
| ND                      | Not Detected at the Reporting Limit                                                                                                                     |
| O                       | Sample amount is > 4 times amount spiked                                                                                                                |
| P                       | Dual Column results percent difference > 40%                                                                                                            |
| R                       | RPD above laboratory control limit                                                                                                                      |
| S                       | Spike Recovery outside laboratory control limits                                                                                                        |
| U                       | Analyzed but not detected above the MDL                                                                                                                 |
| X                       | Analyte was detected in the Method Blank between the MDL and PQL, sample results may exhibit background or reagent contamination at the observed level. |

| <b><u>Acronym</u></b> | <b><u>Description</u></b>           |
|-----------------------|-------------------------------------|
| DUP                   | Method Duplicate                    |
| LCS                   | Laboratory Control Sample           |
| LCSD                  | Laboratory Control Sample Duplicate |
| LOD                   | Limit of Detection (see MDL)        |
| LOQ                   | Limit of Quantitation (see PQL)     |
| MBLK                  | Method Blank                        |
| MDL                   | Method Detection Limit              |
| MS                    | Matrix Spike                        |
| MSD                   | Matrix Spike Duplicate              |
| PQL                   | Practical Quantitation Limit        |
| RPD                   | Relative Percent Difference         |
| TDL                   | Target Detection Limit              |
| TNTC                  | Too Numerous To Count               |
| A                     | APHA Standard Methods               |
| D                     | ASTM                                |
| E                     | EPA                                 |
| SW                    | SW-846 Update III                   |

| <b><u>Units Reported</u></b> | <b><u>Description</u></b> |
|------------------------------|---------------------------|
| µg/L                         | Micrograms per Liter      |
| mg/L                         | Milligrams per Liter      |

# ALS Group USA, Corp

Date: 06-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102015-MR-001  
**Collection Date:** 10/20/2015 10:18 AM

**Work Order:** 15101476  
**Lab ID:** 15101476-01  
**Matrix:** WATER

| Analyses                          | Result | Qual | MDL             | Report Limit | Units | Dilution Factor | Date Analyzed   |
|-----------------------------------|--------|------|-----------------|--------------|-------|-----------------|-----------------|
| <b>VOLATILE ORGANIC COMPOUNDS</b> |        |      | Method: SW8260B |              |       | Analyst: AK     |                 |
| 1,1,1-Trichloroethane             | U      |      | 0.19            | 1.0          | µg/L  | 1               | 11/2/2015 22:13 |
| 1,1,2,2-Tetrachloroethane         | U      |      | 0.34            | 1.0          | µg/L  | 1               | 11/2/2015 22:13 |
| 1,1,2-Trichloroethane             | U      |      | 0.25            | 1.0          | µg/L  | 1               | 11/2/2015 22:13 |
| 1,1,2-Trichlorotrifluoroethane    | U      |      | 0.47            | 1.0          | µg/L  | 1               | 11/2/2015 22:13 |
| 1,1-Dichloroethane                | U      |      | 0.21            | 1.0          | µg/L  | 1               | 11/2/2015 22:13 |
| 1,1-Dichloroethene                | U      |      | 0.24            | 1.0          | µg/L  | 1               | 11/2/2015 22:13 |
| 1,2,4-Trichlorobenzene            | U      |      | 0.19            | 5.0          | µg/L  | 1               | 11/2/2015 22:13 |
| 1,2-Dibromo-3-chloropropane       | U      |      | 0.42            | 1.0          | µg/L  | 1               | 11/2/2015 22:13 |
| 1,2-Dibromoethane                 | U      |      | 0.34            | 1.0          | µg/L  | 1               | 11/2/2015 22:13 |
| 1,2-Dichlorobenzene               | U      |      | 0.22            | 1.0          | µg/L  | 1               | 11/2/2015 22:13 |
| 1,2-Dichloroethane                | U      |      | 0.26            | 1.0          | µg/L  | 1               | 11/2/2015 22:13 |
| 1,2-Dichloropropane               | U      |      | 0.26            | 1.0          | µg/L  | 1               | 11/2/2015 22:13 |
| 1,3-Dichlorobenzene               | U      |      | 0.21            | 1.0          | µg/L  | 1               | 11/2/2015 22:13 |
| 1,4-Dichlorobenzene               | U      |      | 0.20            | 1.0          | µg/L  | 1               | 11/2/2015 22:13 |
| 2-Butanone                        | U      |      | 0.87            | 25           | µg/L  | 1               | 11/2/2015 22:13 |
| 2-Hexanone                        | U      |      | 0.15            | 50           | µg/L  | 1               | 11/2/2015 22:13 |
| 4-Methyl-2-pentanone              | U      |      | 0.15            | 50           | µg/L  | 1               | 11/2/2015 22:13 |
| Acetone                           | U      |      | 3.1             | 50           | µg/L  | 1               | 11/2/2015 22:13 |
| Benzene                           | U      |      | 0.25            | 1.0          | µg/L  | 1               | 11/2/2015 22:13 |
| Bromodichloromethane              | U      |      | 0.16            | 1.0          | µg/L  | 1               | 11/2/2015 22:13 |
| Bromoform                         | U      |      | 0.099           | 1.0          | µg/L  | 1               | 11/2/2015 22:13 |
| Bromomethane                      | U      |      | 1.0             | 5.0          | µg/L  | 1               | 11/2/2015 22:13 |
| Carbon disulfide                  | U      |      | 0.26            | 5.0          | µg/L  | 1               | 11/2/2015 22:13 |
| Carbon tetrachloride              | U      |      | 0.14            | 1.0          | µg/L  | 1               | 11/2/2015 22:13 |
| Chlorobenzene                     | U      |      | 0.19            | 1.0          | µg/L  | 1               | 11/2/2015 22:13 |
| Chloroethane                      | U      |      | 0.21            | 5.0          | µg/L  | 1               | 11/2/2015 22:13 |
| Chloroform                        | U      |      | 0.25            | 1.0          | µg/L  | 1               | 11/2/2015 22:13 |
| Chloromethane                     | U      |      | 0.25            | 5.0          | µg/L  | 1               | 11/2/2015 22:13 |
| cis-1,2-Dichloroethene            | U      |      | 0.25            | 1.0          | µg/L  | 1               | 11/2/2015 22:13 |
| cis-1,3-Dichloropropene           | U      |      | 0.24            | 1.0          | µg/L  | 1               | 11/2/2015 22:13 |
| Cyclohexane                       | U      |      | 0.31            | 1.0          | µg/L  | 1               | 11/2/2015 22:13 |
| Dibromochloromethane              | U      |      | 0.17            | 5.0          | µg/L  | 1               | 11/2/2015 22:13 |
| Dichlorodifluoromethane           | U      |      | 0.41            | 5.0          | µg/L  | 1               | 11/2/2015 22:13 |
| Ethylbenzene                      | U      |      | 0.22            | 1.0          | µg/L  | 1               | 11/2/2015 22:13 |
| Isopropylbenzene                  | U      |      | 0.25            | 5.0          | µg/L  | 1               | 11/2/2015 22:13 |
| Methyl acetate                    | U      |      | 0.62            | 10           | µg/L  | 1               | 11/2/2015 22:13 |
| Methyl tert-butyl ether           | U      |      | 0.12            | 5.0          | µg/L  | 1               | 11/2/2015 22:13 |
| Methylcyclohexane                 | U      |      | 0.32            | 1.0          | µg/L  | 1               | 11/2/2015 22:13 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

**ALS Group USA, Corp**

Date: 06-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102015-MR-001  
**Collection Date:** 10/20/2015 10:18 AM

**Work Order:** 15101476  
**Lab ID:** 15101476-01  
**Matrix:** WATER

| Analyses                    | Result | Qual | MDL  | Report Limit | Units | Dilution Factor | Date Analyzed   |
|-----------------------------|--------|------|------|--------------|-------|-----------------|-----------------|
| Methylene chloride          | U      |      | 0.64 | 5.0          | µg/L  | 1               | 11/2/2015 22:13 |
| Styrene                     | U      |      | 0.18 | 1.0          | µg/L  | 1               | 11/2/2015 22:13 |
| Tetrachloroethene           | U      |      | 0.25 | 1.0          | µg/L  | 1               | 11/2/2015 22:13 |
| Toluene                     | U      |      | 0.20 | 1.0          | µg/L  | 1               | 11/2/2015 22:13 |
| trans-1,2-Dichloroethene    | U      |      | 0.29 | 1.0          | µg/L  | 1               | 11/2/2015 22:13 |
| trans-1,3-Dichloropropene   | U      |      | 0.19 | 1.0          | µg/L  | 1               | 11/2/2015 22:13 |
| Trichloroethene             | U      |      | 0.34 | 1.0          | µg/L  | 1               | 11/2/2015 22:13 |
| Trichlorofluoromethane      | U      |      | 0.39 | 1.0          | µg/L  | 1               | 11/2/2015 22:13 |
| Vinyl chloride              | U      |      | 0.19 | 1.0          | µg/L  | 1               | 11/2/2015 22:13 |
| Xylenes, Total              | U      |      | 0.62 | 3.0          | µg/L  | 1               | 11/2/2015 22:13 |
| Surr: 1,2-Dichloroethane-d4 | 103    |      |      | 75-120       | %REC  | 1               | 11/2/2015 22:13 |
| Surr: 4-Bromofluorobenzene  | 94.8   |      |      | 80-110       | %REC  | 1               | 11/2/2015 22:13 |
| Surr: Dibromofluoromethane  | 99.6   |      |      | 85-115       | %REC  | 1               | 11/2/2015 22:13 |
| Surr: Toluene-d8            | 95.7   |      |      | 85-110       | %REC  | 1               | 11/2/2015 22:13 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 06-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102015-MR-002  
**Collection Date:** 10/20/2015 10:35 AM

**Work Order:** 15101476  
**Lab ID:** 15101476-02  
**Matrix:** WATER

| Analyses                          | Result | Qual | MDL             | Report Limit | Units | Dilution Factor | Date Analyzed   |
|-----------------------------------|--------|------|-----------------|--------------|-------|-----------------|-----------------|
| <b>VOLATILE ORGANIC COMPOUNDS</b> |        |      | Method: SW8260B |              |       | Analyst: AK     |                 |
| 1,1,1-Trichloroethane             | U      |      | 0.19            | 1.0          | µg/L  | 1               | 11/2/2015 22:38 |
| 1,1,2,2-Tetrachloroethane         | U      |      | 0.34            | 1.0          | µg/L  | 1               | 11/2/2015 22:38 |
| 1,1,2-Trichloroethane             | U      |      | 0.25            | 1.0          | µg/L  | 1               | 11/2/2015 22:38 |
| 1,1,2-Trichlorotrifluoroethane    | U      |      | 0.47            | 1.0          | µg/L  | 1               | 11/2/2015 22:38 |
| 1,1-Dichloroethane                | U      |      | 0.21            | 1.0          | µg/L  | 1               | 11/2/2015 22:38 |
| 1,1-Dichloroethene                | U      |      | 0.24            | 1.0          | µg/L  | 1               | 11/2/2015 22:38 |
| 1,2,4-Trichlorobenzene            | U      |      | 0.19            | 5.0          | µg/L  | 1               | 11/2/2015 22:38 |
| 1,2-Dibromo-3-chloropropane       | U      |      | 0.42            | 1.0          | µg/L  | 1               | 11/2/2015 22:38 |
| 1,2-Dibromoethane                 | U      |      | 0.34            | 1.0          | µg/L  | 1               | 11/2/2015 22:38 |
| 1,2-Dichlorobenzene               | U      |      | 0.22            | 1.0          | µg/L  | 1               | 11/2/2015 22:38 |
| 1,2-Dichloroethane                | U      |      | 0.26            | 1.0          | µg/L  | 1               | 11/2/2015 22:38 |
| 1,2-Dichloropropane               | U      |      | 0.26            | 1.0          | µg/L  | 1               | 11/2/2015 22:38 |
| 1,3-Dichlorobenzene               | U      |      | 0.21            | 1.0          | µg/L  | 1               | 11/2/2015 22:38 |
| 1,4-Dichlorobenzene               | U      |      | 0.20            | 1.0          | µg/L  | 1               | 11/2/2015 22:38 |
| 2-Butanone                        | U      |      | 0.87            | 25           | µg/L  | 1               | 11/2/2015 22:38 |
| 2-Hexanone                        | U      |      | 0.15            | 50           | µg/L  | 1               | 11/2/2015 22:38 |
| 4-Methyl-2-pentanone              | U      |      | 0.15            | 50           | µg/L  | 1               | 11/2/2015 22:38 |
| Acetone                           | U      |      | 3.1             | 50           | µg/L  | 1               | 11/2/2015 22:38 |
| Benzene                           | U      |      | 0.25            | 1.0          | µg/L  | 1               | 11/2/2015 22:38 |
| Bromodichloromethane              | U      |      | 0.16            | 1.0          | µg/L  | 1               | 11/2/2015 22:38 |
| Bromoform                         | U      |      | 0.099           | 1.0          | µg/L  | 1               | 11/2/2015 22:38 |
| Bromomethane                      | U      |      | 1.0             | 5.0          | µg/L  | 1               | 11/2/2015 22:38 |
| Carbon disulfide                  | U      |      | 0.26            | 5.0          | µg/L  | 1               | 11/2/2015 22:38 |
| Carbon tetrachloride              | U      |      | 0.14            | 1.0          | µg/L  | 1               | 11/2/2015 22:38 |
| Chlorobenzene                     | U      |      | 0.19            | 1.0          | µg/L  | 1               | 11/2/2015 22:38 |
| Chloroethane                      | U      |      | 0.21            | 5.0          | µg/L  | 1               | 11/2/2015 22:38 |
| Chloroform                        | U      |      | 0.25            | 1.0          | µg/L  | 1               | 11/2/2015 22:38 |
| Chloromethane                     | U      |      | 0.25            | 5.0          | µg/L  | 1               | 11/2/2015 22:38 |
| cis-1,2-Dichloroethene            | U      |      | 0.25            | 1.0          | µg/L  | 1               | 11/2/2015 22:38 |
| cis-1,3-Dichloropropene           | U      |      | 0.24            | 1.0          | µg/L  | 1               | 11/2/2015 22:38 |
| Cyclohexane                       | U      |      | 0.31            | 1.0          | µg/L  | 1               | 11/2/2015 22:38 |
| Dibromochloromethane              | U      |      | 0.17            | 5.0          | µg/L  | 1               | 11/2/2015 22:38 |
| Dichlorodifluoromethane           | U      |      | 0.41            | 5.0          | µg/L  | 1               | 11/2/2015 22:38 |
| Ethylbenzene                      | U      |      | 0.22            | 1.0          | µg/L  | 1               | 11/2/2015 22:38 |
| Isopropylbenzene                  | U      |      | 0.25            | 5.0          | µg/L  | 1               | 11/2/2015 22:38 |
| Methyl acetate                    | U      |      | 0.62            | 10           | µg/L  | 1               | 11/2/2015 22:38 |
| Methyl tert-butyl ether           | U      |      | 0.12            | 5.0          | µg/L  | 1               | 11/2/2015 22:38 |
| Methylcyclohexane                 | U      |      | 0.32            | 1.0          | µg/L  | 1               | 11/2/2015 22:38 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

**ALS Group USA, Corp**

Date: 06-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102015-MR-002  
**Collection Date:** 10/20/2015 10:35 AM

**Work Order:** 15101476  
**Lab ID:** 15101476-02  
**Matrix:** WATER

| Analyses                    | Result | Qual | MDL  | Report Limit | Units | Dilution Factor | Date Analyzed   |
|-----------------------------|--------|------|------|--------------|-------|-----------------|-----------------|
| Methylene chloride          | U      |      | 0.64 | 5.0          | µg/L  | 1               | 11/2/2015 22:38 |
| Styrene                     | U      |      | 0.18 | 1.0          | µg/L  | 1               | 11/2/2015 22:38 |
| Tetrachloroethene           | U      |      | 0.25 | 1.0          | µg/L  | 1               | 11/2/2015 22:38 |
| Toluene                     | U      |      | 0.20 | 1.0          | µg/L  | 1               | 11/2/2015 22:38 |
| trans-1,2-Dichloroethene    | U      |      | 0.29 | 1.0          | µg/L  | 1               | 11/2/2015 22:38 |
| trans-1,3-Dichloropropene   | U      |      | 0.19 | 1.0          | µg/L  | 1               | 11/2/2015 22:38 |
| Trichloroethene             | U      |      | 0.34 | 1.0          | µg/L  | 1               | 11/2/2015 22:38 |
| Trichlorofluoromethane      | U      |      | 0.39 | 1.0          | µg/L  | 1               | 11/2/2015 22:38 |
| Vinyl chloride              | U      |      | 0.19 | 1.0          | µg/L  | 1               | 11/2/2015 22:38 |
| Xylenes, Total              | U      |      | 0.62 | 3.0          | µg/L  | 1               | 11/2/2015 22:38 |
| Surr: 1,2-Dichloroethane-d4 | 103    |      |      | 75-120       | %REC  | 1               | 11/2/2015 22:38 |
| Surr: 4-Bromofluorobenzene  | 94.8   |      |      | 80-110       | %REC  | 1               | 11/2/2015 22:38 |
| Surr: Dibromofluoromethane  | 99.8   |      |      | 85-115       | %REC  | 1               | 11/2/2015 22:38 |
| Surr: Toluene-d8            | 94.2   |      |      | 85-110       | %REC  | 1               | 11/2/2015 22:38 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 06-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102015-MR-003  
**Collection Date:** 10/20/2015 11:25 AM

**Work Order:** 15101476  
**Lab ID:** 15101476-03  
**Matrix:** WATER

| Analyses                          | Result | Qual | MDL             | Report Limit | Units | Dilution Factor | Date Analyzed   |
|-----------------------------------|--------|------|-----------------|--------------|-------|-----------------|-----------------|
| <b>VOLATILE ORGANIC COMPOUNDS</b> |        |      | Method: SW8260B |              |       | Analyst: DD     |                 |
| 1,1,1-Trichloroethane             | U      |      | 0.19            | 1.0          | µg/L  | 1               | 11/3/2015 18:26 |
| 1,1,2,2-Tetrachloroethane         | U      |      | 0.34            | 1.0          | µg/L  | 1               | 11/3/2015 18:26 |
| 1,1,2-Trichloroethane             | U      |      | 0.25            | 1.0          | µg/L  | 1               | 11/3/2015 18:26 |
| 1,1,2-Trichlorotrifluoroethane    | U      |      | 0.47            | 1.0          | µg/L  | 1               | 11/3/2015 18:26 |
| 1,1-Dichloroethane                | U      |      | 0.21            | 1.0          | µg/L  | 1               | 11/3/2015 18:26 |
| 1,1-Dichloroethene                | U      |      | 0.24            | 1.0          | µg/L  | 1               | 11/3/2015 18:26 |
| 1,2,4-Trichlorobenzene            | U      |      | 0.19            | 5.0          | µg/L  | 1               | 11/3/2015 18:26 |
| 1,2-Dibromo-3-chloropropane       | U      |      | 0.42            | 1.0          | µg/L  | 1               | 11/3/2015 18:26 |
| 1,2-Dibromoethane                 | U      |      | 0.34            | 1.0          | µg/L  | 1               | 11/3/2015 18:26 |
| 1,2-Dichlorobenzene               | U      |      | 0.22            | 1.0          | µg/L  | 1               | 11/3/2015 18:26 |
| 1,2-Dichloroethane                | U      |      | 0.26            | 1.0          | µg/L  | 1               | 11/3/2015 18:26 |
| 1,2-Dichloropropane               | U      |      | 0.26            | 1.0          | µg/L  | 1               | 11/3/2015 18:26 |
| 1,3-Dichlorobenzene               | U      |      | 0.21            | 1.0          | µg/L  | 1               | 11/3/2015 18:26 |
| 1,4-Dichlorobenzene               | U      |      | 0.20            | 1.0          | µg/L  | 1               | 11/3/2015 18:26 |
| 2-Butanone                        | U      |      | 0.87            | 25           | µg/L  | 1               | 11/3/2015 18:26 |
| 2-Hexanone                        | U      |      | 0.15            | 50           | µg/L  | 1               | 11/3/2015 18:26 |
| 4-Methyl-2-pentanone              | U      |      | 0.15            | 50           | µg/L  | 1               | 11/3/2015 18:26 |
| Acetone                           | U      |      | 3.1             | 50           | µg/L  | 1               | 11/3/2015 18:26 |
| Benzene                           | U      |      | 0.25            | 1.0          | µg/L  | 1               | 11/3/2015 18:26 |
| Bromodichloromethane              | U      |      | 0.16            | 1.0          | µg/L  | 1               | 11/3/2015 18:26 |
| Bromoform                         | U      |      | 0.099           | 1.0          | µg/L  | 1               | 11/3/2015 18:26 |
| Bromomethane                      | U      |      | 1.0             | 5.0          | µg/L  | 1               | 11/3/2015 18:26 |
| Carbon disulfide                  | U      |      | 0.26            | 5.0          | µg/L  | 1               | 11/3/2015 18:26 |
| Carbon tetrachloride              | U      |      | 0.14            | 1.0          | µg/L  | 1               | 11/3/2015 18:26 |
| Chlorobenzene                     | U      |      | 0.19            | 1.0          | µg/L  | 1               | 11/3/2015 18:26 |
| Chloroethane                      | U      |      | 0.21            | 5.0          | µg/L  | 1               | 11/3/2015 18:26 |
| Chloroform                        | U      |      | 0.25            | 1.0          | µg/L  | 1               | 11/3/2015 18:26 |
| Chloromethane                     | U      |      | 0.25            | 5.0          | µg/L  | 1               | 11/3/2015 18:26 |
| cis-1,2-Dichloroethene            | U      |      | 0.25            | 1.0          | µg/L  | 1               | 11/3/2015 18:26 |
| cis-1,3-Dichloropropene           | U      |      | 0.24            | 1.0          | µg/L  | 1               | 11/3/2015 18:26 |
| Cyclohexane                       | U      |      | 0.31            | 1.0          | µg/L  | 1               | 11/3/2015 18:26 |
| Dibromochloromethane              | U      |      | 0.17            | 5.0          | µg/L  | 1               | 11/3/2015 18:26 |
| Dichlorodifluoromethane           | U      |      | 0.41            | 5.0          | µg/L  | 1               | 11/3/2015 18:26 |
| Ethylbenzene                      | U      |      | 0.22            | 1.0          | µg/L  | 1               | 11/3/2015 18:26 |
| Isopropylbenzene                  | U      |      | 0.25            | 5.0          | µg/L  | 1               | 11/3/2015 18:26 |
| Methyl acetate                    | U      |      | 0.62            | 10           | µg/L  | 1               | 11/3/2015 18:26 |
| Methyl tert-butyl ether           | U      |      | 0.12            | 5.0          | µg/L  | 1               | 11/3/2015 18:26 |
| Methylcyclohexane                 | U      |      | 0.32            | 1.0          | µg/L  | 1               | 11/3/2015 18:26 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

**ALS Group USA, Corp**

Date: 06-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102015-MR-003  
**Collection Date:** 10/20/2015 11:25 AM

**Work Order:** 15101476  
**Lab ID:** 15101476-03  
**Matrix:** WATER

| Analyses                    | Result | Qual | MDL  | Report Limit | Units | Dilution Factor | Date Analyzed   |
|-----------------------------|--------|------|------|--------------|-------|-----------------|-----------------|
| Methylene chloride          | U      |      | 0.64 | 5.0          | µg/L  | 1               | 11/3/2015 18:26 |
| Styrene                     | U      |      | 0.18 | 1.0          | µg/L  | 1               | 11/3/2015 18:26 |
| Tetrachloroethene           | U      |      | 0.25 | 1.0          | µg/L  | 1               | 11/3/2015 18:26 |
| Toluene                     | U      |      | 0.20 | 1.0          | µg/L  | 1               | 11/3/2015 18:26 |
| trans-1,2-Dichloroethene    | U      |      | 0.29 | 1.0          | µg/L  | 1               | 11/3/2015 18:26 |
| trans-1,3-Dichloropropene   | U      |      | 0.19 | 1.0          | µg/L  | 1               | 11/3/2015 18:26 |
| Trichloroethene             | U      |      | 0.34 | 1.0          | µg/L  | 1               | 11/3/2015 18:26 |
| Trichlorofluoromethane      | U      |      | 0.39 | 1.0          | µg/L  | 1               | 11/3/2015 18:26 |
| Vinyl chloride              | U      |      | 0.19 | 1.0          | µg/L  | 1               | 11/3/2015 18:26 |
| Xylenes, Total              | U      |      | 0.62 | 3.0          | µg/L  | 1               | 11/3/2015 18:26 |
| Surr: 1,2-Dichloroethane-d4 | 104    |      |      | 75-120       | %REC  | 1               | 11/3/2015 18:26 |
| Surr: 4-Bromofluorobenzene  | 93.4   |      |      | 80-110       | %REC  | 1               | 11/3/2015 18:26 |
| Surr: Dibromofluoromethane  | 101    |      |      | 85-115       | %REC  | 1               | 11/3/2015 18:26 |
| Surr: Toluene-d8            | 93.5   |      |      | 85-110       | %REC  | 1               | 11/3/2015 18:26 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.



# ALS Group USA, Corp

Date: 06-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** SW-017360-102015-MR-004  
**Collection Date:** 10/20/2015 11:45 AM

**Work Order:** 15101476  
**Lab ID:** 15101476-04  
**Matrix:** WATER

| Analyses                          | Result     | Qual | MDL             | Report Limit | Units       | Dilution Factor | Date Analyzed   |
|-----------------------------------|------------|------|-----------------|--------------|-------------|-----------------|-----------------|
| <b>VOLATILE ORGANIC COMPOUNDS</b> |            |      | Method: SW8260B |              |             | Analyst: AK     |                 |
| 1,1,1-Trichloroethane             | U          |      | 0.19            | 1.0          | µg/L        | 1               | 11/2/2015 23:27 |
| 1,1,2,2-Tetrachloroethane         | U          |      | 0.34            | 1.0          | µg/L        | 1               | 11/2/2015 23:27 |
| 1,1,2-Trichloroethane             | U          |      | 0.25            | 1.0          | µg/L        | 1               | 11/2/2015 23:27 |
| 1,1,2-Trichlorotrifluoroethane    | U          |      | 0.47            | 1.0          | µg/L        | 1               | 11/2/2015 23:27 |
| 1,1-Dichloroethane                | U          |      | 0.21            | 1.0          | µg/L        | 1               | 11/2/2015 23:27 |
| 1,1-Dichloroethene                | U          |      | 0.24            | 1.0          | µg/L        | 1               | 11/2/2015 23:27 |
| 1,2,4-Trichlorobenzene            | U          |      | 0.19            | 5.0          | µg/L        | 1               | 11/2/2015 23:27 |
| 1,2-Dibromo-3-chloropropane       | U          |      | 0.42            | 1.0          | µg/L        | 1               | 11/2/2015 23:27 |
| 1,2-Dibromoethane                 | U          |      | 0.34            | 1.0          | µg/L        | 1               | 11/2/2015 23:27 |
| 1,2-Dichlorobenzene               | U          |      | 0.22            | 1.0          | µg/L        | 1               | 11/2/2015 23:27 |
| 1,2-Dichloroethane                | U          |      | 0.26            | 1.0          | µg/L        | 1               | 11/2/2015 23:27 |
| 1,2-Dichloropropane               | U          |      | 0.26            | 1.0          | µg/L        | 1               | 11/2/2015 23:27 |
| 1,3-Dichlorobenzene               | U          |      | 0.21            | 1.0          | µg/L        | 1               | 11/2/2015 23:27 |
| 1,4-Dichlorobenzene               | U          |      | 0.20            | 1.0          | µg/L        | 1               | 11/2/2015 23:27 |
| 2-Butanone                        | U          |      | 0.87            | 25           | µg/L        | 1               | 11/2/2015 23:27 |
| 2-Hexanone                        | U          |      | 0.15            | 50           | µg/L        | 1               | 11/2/2015 23:27 |
| 4-Methyl-2-pentanone              | U          |      | 0.15            | 50           | µg/L        | 1               | 11/2/2015 23:27 |
| Acetone                           | U          |      | 3.1             | 50           | µg/L        | 1               | 11/2/2015 23:27 |
| Benzene                           | U          |      | 0.25            | 1.0          | µg/L        | 1               | 11/2/2015 23:27 |
| Bromodichloromethane              | U          |      | 0.16            | 1.0          | µg/L        | 1               | 11/2/2015 23:27 |
| Bromoform                         | U          |      | 0.099           | 1.0          | µg/L        | 1               | 11/2/2015 23:27 |
| Bromomethane                      | U          |      | 1.0             | 5.0          | µg/L        | 1               | 11/2/2015 23:27 |
| Carbon disulfide                  | U          |      | 0.26            | 5.0          | µg/L        | 1               | 11/2/2015 23:27 |
| Carbon tetrachloride              | U          |      | 0.14            | 1.0          | µg/L        | 1               | 11/2/2015 23:27 |
| Chlorobenzene                     | U          |      | 0.19            | 1.0          | µg/L        | 1               | 11/2/2015 23:27 |
| Chloroethane                      | U          |      | 0.21            | 5.0          | µg/L        | 1               | 11/2/2015 23:27 |
| Chloroform                        | U          |      | 0.25            | 1.0          | µg/L        | 1               | 11/2/2015 23:27 |
| Chloromethane                     | U          |      | 0.25            | 5.0          | µg/L        | 1               | 11/2/2015 23:27 |
| <b>cis-1,2-Dichloroethene</b>     | <b>1.2</b> |      | <b>0.25</b>     | <b>1.0</b>   | <b>µg/L</b> | 1               | 11/2/2015 23:27 |
| cis-1,3-Dichloropropene           | U          |      | 0.24            | 1.0          | µg/L        | 1               | 11/2/2015 23:27 |
| Cyclohexane                       | U          |      | 0.31            | 1.0          | µg/L        | 1               | 11/2/2015 23:27 |
| Dibromochloromethane              | U          |      | 0.17            | 5.0          | µg/L        | 1               | 11/2/2015 23:27 |
| Dichlorodifluoromethane           | U          |      | 0.41            | 5.0          | µg/L        | 1               | 11/2/2015 23:27 |
| Ethylbenzene                      | U          |      | 0.22            | 1.0          | µg/L        | 1               | 11/2/2015 23:27 |
| Isopropylbenzene                  | U          |      | 0.25            | 5.0          | µg/L        | 1               | 11/2/2015 23:27 |
| Methyl acetate                    | U          |      | 0.62            | 10           | µg/L        | 1               | 11/2/2015 23:27 |
| Methyl tert-butyl ether           | U          |      | 0.12            | 5.0          | µg/L        | 1               | 11/2/2015 23:27 |
| Methylcyclohexane                 | U          |      | 0.32            | 1.0          | µg/L        | 1               | 11/2/2015 23:27 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 06-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** SW-017360-102015-MR-004  
**Collection Date:** 10/20/2015 11:45 AM

**Work Order:** 15101476  
**Lab ID:** 15101476-04  
**Matrix:** WATER

| Analyses                    | Result      | Qual | MDL         | Report Limit | Units       | Dilution Factor | Date Analyzed   |
|-----------------------------|-------------|------|-------------|--------------|-------------|-----------------|-----------------|
| Methylene chloride          | U           |      | 0.64        | 5.0          | µg/L        | 1               | 11/2/2015 23:27 |
| Styrene                     | U           |      | 0.18        | 1.0          | µg/L        | 1               | 11/2/2015 23:27 |
| <b>Tetrachloroethene</b>    | <b>2.5</b>  |      | <b>0.25</b> | <b>1.0</b>   | <b>µg/L</b> | 1               | 11/2/2015 23:27 |
| Toluene                     | U           |      | 0.20        | 1.0          | µg/L        | 1               | 11/2/2015 23:27 |
| trans-1,2-Dichloroethene    | U           |      | 0.29        | 1.0          | µg/L        | 1               | 11/2/2015 23:27 |
| trans-1,3-Dichloropropene   | U           |      | 0.19        | 1.0          | µg/L        | 1               | 11/2/2015 23:27 |
| Trichloroethene             | U           |      | 0.34        | 1.0          | µg/L        | 1               | 11/2/2015 23:27 |
| Trichlorofluoromethane      | U           |      | 0.39        | 1.0          | µg/L        | 1               | 11/2/2015 23:27 |
| <b>Vinyl chloride</b>       | <b>0.86</b> | J    | <b>0.19</b> | <b>1.0</b>   | <b>µg/L</b> | 1               | 11/2/2015 23:27 |
| Xylenes, Total              | U           |      | 0.62        | 3.0          | µg/L        | 1               | 11/2/2015 23:27 |
| Surr: 1,2-Dichloroethane-d4 | 106         |      |             | 75-120       | %REC        | 1               | 11/2/2015 23:27 |
| Surr: 4-Bromofluorobenzene  | 91.8        |      |             | 80-110       | %REC        | 1               | 11/2/2015 23:27 |
| Surr: Dibromofluoromethane  | 101         |      |             | 85-115       | %REC        | 1               | 11/2/2015 23:27 |
| Surr: Toluene-d8            | 93.0        |      |             | 85-110       | %REC        | 1               | 11/2/2015 23:27 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 06-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102015-MR-005  
**Collection Date:** 10/20/2015 01:10 PM

**Work Order:** 15101476  
**Lab ID:** 15101476-05  
**Matrix:** WATER

| Analyses                          | Result  | Qual | MDL                    | Report Limit | Units | Dilution Factor          | Date Analyzed      |
|-----------------------------------|---------|------|------------------------|--------------|-------|--------------------------|--------------------|
| <b>MERCURY BY CVAA</b>            |         |      |                        |              |       |                          |                    |
|                                   |         |      | Method: <b>SW7470A</b> |              |       | Prep: SW7470 / 10/28/15  | Analyst: <b>LR</b> |
| Mercury                           | U       |      | 0.000018               | 0.00020      | mg/L  | 1                        | 10/28/2015 16:07   |
| <b>METALS BY ICP-MS</b>           |         |      |                        |              |       |                          |                    |
|                                   |         |      | Method: <b>SW6020A</b> |              |       | Prep: SW3005A / 10/27/15 | Analyst: <b>RH</b> |
| Antimony                          | U       |      | 0.00010                | 0.0020       | mg/L  | 1                        | 10/28/2015 23:32   |
| Arsenic                           | 0.0018  | J    | 0.00070                | 0.0050       | mg/L  | 1                        | 10/28/2015 23:32   |
| Barium                            | 0.10    |      | 0.00020                | 0.10         | mg/L  | 1                        | 10/28/2015 23:32   |
| Beryllium                         | U       |      | 0.00020                | 0.0010       | mg/L  | 1                        | 10/28/2015 23:32   |
| Cadmium                           | U       |      | 0.00010                | 0.0010       | mg/L  | 1                        | 10/28/2015 23:32   |
| Chromium                          | U       |      | 0.00010                | 0.010        | mg/L  | 1                        | 10/28/2015 23:32   |
| Cobalt                            | 0.00032 | J    | 0.00020                | 0.020        | mg/L  | 1                        | 10/28/2015 23:32   |
| Copper                            | 0.00094 | J    | 0.00020                | 0.0040       | mg/L  | 1                        | 10/28/2015 23:32   |
| Iron                              | 0.40    |      | 0.010                  | 0.20         | mg/L  | 1                        | 10/28/2015 23:32   |
| Lead                              | 0.00028 | J    | 0.00010                | 0.0030       | mg/L  | 1                        | 10/28/2015 23:32   |
| Manganese                         | 0.038   | J    | 0.00020                | 0.050        | mg/L  | 1                        | 10/28/2015 23:32   |
| Molybdenum                        | 0.00072 | J    | 0.00020                | 0.050        | mg/L  | 1                        | 10/28/2015 23:32   |
| Nickel                            | 0.0027  | J    | 0.00040                | 0.020        | mg/L  | 1                        | 10/28/2015 23:32   |
| Selenium                          | U       |      | 0.0010                 | 0.0050       | mg/L  | 1                        | 10/28/2015 23:32   |
| Silver                            | U       |      | 0.00010                | 0.00020      | mg/L  | 1                        | 10/28/2015 23:32   |
| Thallium                          | U       |      | 0.00040                | 0.0020       | mg/L  | 1                        | 10/28/2015 23:32   |
| Vanadium                          | U       |      | 0.00040                | 0.0040       | mg/L  | 1                        | 10/28/2015 23:32   |
| Zinc                              | 0.0026  | J    | 0.0024                 | 0.050        | mg/L  | 1                        | 10/28/2015 23:32   |
| <b>VOLATILE ORGANIC COMPOUNDS</b> |         |      |                        |              |       |                          |                    |
|                                   |         |      | Method: <b>SW8260B</b> |              |       |                          | Analyst: <b>AK</b> |
| 1,1,1-Trichloroethane             | U       |      | 0.19                   | 1.0          | µg/L  | 1                        | 11/2/2015 23:51    |
| 1,1,2,2-Tetrachloroethane         | U       |      | 0.34                   | 1.0          | µg/L  | 1                        | 11/2/2015 23:51    |
| 1,1,2-Trichloroethane             | U       |      | 0.25                   | 1.0          | µg/L  | 1                        | 11/2/2015 23:51    |
| 1,1,2-Trichlorotrifluoroethane    | U       |      | 0.47                   | 1.0          | µg/L  | 1                        | 11/2/2015 23:51    |
| 1,1-Dichloroethane                | 0.64    | J    | 0.21                   | 1.0          | µg/L  | 1                        | 11/2/2015 23:51    |
| 1,1-Dichloroethene                | U       |      | 0.24                   | 1.0          | µg/L  | 1                        | 11/2/2015 23:51    |
| 1,2,4-Trichlorobenzene            | U       |      | 0.19                   | 5.0          | µg/L  | 1                        | 11/2/2015 23:51    |
| 1,2-Dibromo-3-chloropropane       | U       |      | 0.42                   | 1.0          | µg/L  | 1                        | 11/2/2015 23:51    |
| 1,2-Dibromoethane                 | U       |      | 0.34                   | 1.0          | µg/L  | 1                        | 11/2/2015 23:51    |
| 1,2-Dichlorobenzene               | U       |      | 0.22                   | 1.0          | µg/L  | 1                        | 11/2/2015 23:51    |
| 1,2-Dichloroethane                | U       |      | 0.26                   | 1.0          | µg/L  | 1                        | 11/2/2015 23:51    |
| 1,2-Dichloropropane               | U       |      | 0.26                   | 1.0          | µg/L  | 1                        | 11/2/2015 23:51    |
| 1,3-Dichlorobenzene               | U       |      | 0.21                   | 1.0          | µg/L  | 1                        | 11/2/2015 23:51    |
| 1,4-Dichlorobenzene               | U       |      | 0.20                   | 1.0          | µg/L  | 1                        | 11/2/2015 23:51    |
| 2-Butanone                        | U       |      | 0.87                   | 25           | µg/L  | 1                        | 11/2/2015 23:51    |
| 2-Hexanone                        | U       |      | 0.15                   | 50           | µg/L  | 1                        | 11/2/2015 23:51    |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 06-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102015-MR-005  
**Collection Date:** 10/20/2015 01:10 PM

**Work Order:** 15101476  
**Lab ID:** 15101476-05  
**Matrix:** WATER

| Analyses                      | Result    | Qual | MDL         | Report Limit | Units       | Dilution Factor | Date Analyzed   |
|-------------------------------|-----------|------|-------------|--------------|-------------|-----------------|-----------------|
| 4-Methyl-2-pentanone          | U         |      | 0.15        | 50           | µg/L        | 1               | 11/2/2015 23:51 |
| Acetone                       | U         |      | 3.1         | 50           | µg/L        | 1               | 11/2/2015 23:51 |
| Benzene                       | U         |      | 0.25        | 1.0          | µg/L        | 1               | 11/2/2015 23:51 |
| Bromodichloromethane          | U         |      | 0.16        | 1.0          | µg/L        | 1               | 11/2/2015 23:51 |
| Bromoform                     | U         |      | 0.099       | 1.0          | µg/L        | 1               | 11/2/2015 23:51 |
| Bromomethane                  | U         |      | 1.0         | 5.0          | µg/L        | 1               | 11/2/2015 23:51 |
| Carbon disulfide              | U         |      | 0.26        | 5.0          | µg/L        | 1               | 11/2/2015 23:51 |
| Carbon tetrachloride          | U         |      | 0.14        | 1.0          | µg/L        | 1               | 11/2/2015 23:51 |
| Chlorobenzene                 | U         |      | 0.19        | 1.0          | µg/L        | 1               | 11/2/2015 23:51 |
| Chloroethane                  | U         |      | 0.21        | 5.0          | µg/L        | 1               | 11/2/2015 23:51 |
| Chloroform                    | U         |      | 0.25        | 1.0          | µg/L        | 1               | 11/2/2015 23:51 |
| Chloromethane                 | U         |      | 0.25        | 5.0          | µg/L        | 1               | 11/2/2015 23:51 |
| <b>cis-1,2-Dichloroethene</b> | <b>16</b> |      | <b>0.25</b> | <b>1.0</b>   | <b>µg/L</b> | 1               | 11/2/2015 23:51 |
| cis-1,3-Dichloropropene       | U         |      | 0.24        | 1.0          | µg/L        | 1               | 11/2/2015 23:51 |
| Cyclohexane                   | U         |      | 0.31        | 1.0          | µg/L        | 1               | 11/2/2015 23:51 |
| Dibromochloromethane          | U         |      | 0.17        | 5.0          | µg/L        | 1               | 11/2/2015 23:51 |
| Dichlorodifluoromethane       | U         |      | 0.41        | 5.0          | µg/L        | 1               | 11/2/2015 23:51 |
| Ethylbenzene                  | U         |      | 0.22        | 1.0          | µg/L        | 1               | 11/2/2015 23:51 |
| Isopropylbenzene              | U         |      | 0.25        | 5.0          | µg/L        | 1               | 11/2/2015 23:51 |
| Methyl acetate                | U         |      | 0.62        | 10           | µg/L        | 1               | 11/2/2015 23:51 |
| Methyl tert-butyl ether       | U         |      | 0.12        | 5.0          | µg/L        | 1               | 11/2/2015 23:51 |
| Methylcyclohexane             | U         |      | 0.32        | 1.0          | µg/L        | 1               | 11/2/2015 23:51 |
| Methylene chloride            | U         |      | 0.64        | 5.0          | µg/L        | 1               | 11/2/2015 23:51 |
| Styrene                       | U         |      | 0.18        | 1.0          | µg/L        | 1               | 11/2/2015 23:51 |
| Tetrachloroethene             | U         |      | 0.25        | 1.0          | µg/L        | 1               | 11/2/2015 23:51 |
| Toluene                       | U         |      | 0.20        | 1.0          | µg/L        | 1               | 11/2/2015 23:51 |
| trans-1,2-Dichloroethene      | U         |      | 0.29        | 1.0          | µg/L        | 1               | 11/2/2015 23:51 |
| trans-1,3-Dichloropropene     | U         |      | 0.19        | 1.0          | µg/L        | 1               | 11/2/2015 23:51 |
| Trichloroethene               | U         |      | 0.34        | 1.0          | µg/L        | 1               | 11/2/2015 23:51 |
| Trichlorofluoromethane        | U         |      | 0.39        | 1.0          | µg/L        | 1               | 11/2/2015 23:51 |
| Vinyl chloride                | U         |      | 0.19        | 1.0          | µg/L        | 1               | 11/2/2015 23:51 |
| Xylenes, Total                | U         |      | 0.62        | 3.0          | µg/L        | 1               | 11/2/2015 23:51 |
| Surr: 1,2-Dichloroethane-d4   | 106       |      |             | 75-120       | %REC        | 1               | 11/2/2015 23:51 |
| Surr: 4-Bromofluorobenzene    | 95.6      |      |             | 80-110       | %REC        | 1               | 11/2/2015 23:51 |
| Surr: Dibromofluoromethane    | 105       |      |             | 85-115       | %REC        | 1               | 11/2/2015 23:51 |
| Surr: Toluene-d8              | 94.2      |      |             | 85-110       | %REC        | 1               | 11/2/2015 23:51 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 06-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** SW-017360-102015-MR-006  
**Collection Date:** 10/20/2015 01:40 PM

**Work Order:** 15101476  
**Lab ID:** 15101476-06  
**Matrix:** WATER

| Analyses                          | Result      | Qual     | MDL             | Report Limit | Units       | Dilution Factor | Date Analyzed   |
|-----------------------------------|-------------|----------|-----------------|--------------|-------------|-----------------|-----------------|
| <b>VOLATILE ORGANIC COMPOUNDS</b> |             |          | Method: SW8260B |              |             | Analyst: AK     |                 |
| 1,1,1-Trichloroethane             | U           |          | 0.19            | 1.0          | µg/L        | 1               | 11/3/2015 12:16 |
| 1,1,2,2-Tetrachloroethane         | U           |          | 0.34            | 1.0          | µg/L        | 1               | 11/3/2015 12:16 |
| 1,1,2-Trichloroethane             | U           |          | 0.25            | 1.0          | µg/L        | 1               | 11/3/2015 12:16 |
| 1,1,2-Trichlorotrifluoroethane    | U           |          | 0.47            | 1.0          | µg/L        | 1               | 11/3/2015 12:16 |
| 1,1-Dichloroethane                | U           |          | 0.21            | 1.0          | µg/L        | 1               | 11/3/2015 12:16 |
| 1,1-Dichloroethene                | U           |          | 0.24            | 1.0          | µg/L        | 1               | 11/3/2015 12:16 |
| 1,2,4-Trichlorobenzene            | U           |          | 0.19            | 5.0          | µg/L        | 1               | 11/3/2015 12:16 |
| 1,2-Dibromo-3-chloropropane       | U           |          | 0.42            | 1.0          | µg/L        | 1               | 11/3/2015 12:16 |
| 1,2-Dibromoethane                 | U           |          | 0.34            | 1.0          | µg/L        | 1               | 11/3/2015 12:16 |
| 1,2-Dichlorobenzene               | U           |          | 0.22            | 1.0          | µg/L        | 1               | 11/3/2015 12:16 |
| 1,2-Dichloroethane                | U           |          | 0.26            | 1.0          | µg/L        | 1               | 11/3/2015 12:16 |
| 1,2-Dichloropropane               | U           |          | 0.26            | 1.0          | µg/L        | 1               | 11/3/2015 12:16 |
| 1,3-Dichlorobenzene               | U           |          | 0.21            | 1.0          | µg/L        | 1               | 11/3/2015 12:16 |
| 1,4-Dichlorobenzene               | U           |          | 0.20            | 1.0          | µg/L        | 1               | 11/3/2015 12:16 |
| 2-Butanone                        | U           |          | 0.87            | 25           | µg/L        | 1               | 11/3/2015 12:16 |
| 2-Hexanone                        | U           |          | 0.15            | 50           | µg/L        | 1               | 11/3/2015 12:16 |
| 4-Methyl-2-pentanone              | U           |          | 0.15            | 50           | µg/L        | 1               | 11/3/2015 12:16 |
| Acetone                           | U           |          | 3.1             | 50           | µg/L        | 1               | 11/3/2015 12:16 |
| Benzene                           | U           |          | 0.25            | 1.0          | µg/L        | 1               | 11/3/2015 12:16 |
| Bromodichloromethane              | U           |          | 0.16            | 1.0          | µg/L        | 1               | 11/3/2015 12:16 |
| Bromoform                         | U           |          | 0.099           | 1.0          | µg/L        | 1               | 11/3/2015 12:16 |
| Bromomethane                      | U           |          | 1.0             | 5.0          | µg/L        | 1               | 11/3/2015 12:16 |
| Carbon disulfide                  | U           |          | 0.26            | 5.0          | µg/L        | 1               | 11/3/2015 12:16 |
| Carbon tetrachloride              | U           |          | 0.14            | 1.0          | µg/L        | 1               | 11/3/2015 12:16 |
| Chlorobenzene                     | U           |          | 0.19            | 1.0          | µg/L        | 1               | 11/3/2015 12:16 |
| Chloroethane                      | U           |          | 0.21            | 5.0          | µg/L        | 1               | 11/3/2015 12:16 |
| Chloroform                        | U           |          | 0.25            | 1.0          | µg/L        | 1               | 11/3/2015 12:16 |
| Chloromethane                     | U           |          | 0.25            | 5.0          | µg/L        | 1               | 11/3/2015 12:16 |
| <b>cis-1,2-Dichloroethene</b>     | <b>0.87</b> | <b>J</b> | <b>0.25</b>     | <b>1.0</b>   | <b>µg/L</b> | 1               | 11/3/2015 12:16 |
| cis-1,3-Dichloropropene           | U           |          | 0.24            | 1.0          | µg/L        | 1               | 11/3/2015 12:16 |
| Cyclohexane                       | U           |          | 0.31            | 1.0          | µg/L        | 1               | 11/3/2015 12:16 |
| Dibromochloromethane              | U           |          | 0.17            | 5.0          | µg/L        | 1               | 11/3/2015 12:16 |
| Dichlorodifluoromethane           | U           |          | 0.41            | 5.0          | µg/L        | 1               | 11/3/2015 12:16 |
| Ethylbenzene                      | U           |          | 0.22            | 1.0          | µg/L        | 1               | 11/3/2015 12:16 |
| Isopropylbenzene                  | U           |          | 0.25            | 5.0          | µg/L        | 1               | 11/3/2015 12:16 |
| Methyl acetate                    | U           |          | 0.62            | 10           | µg/L        | 1               | 11/3/2015 12:16 |
| Methyl tert-butyl ether           | U           |          | 0.12            | 5.0          | µg/L        | 1               | 11/3/2015 12:16 |
| Methylcyclohexane                 | U           |          | 0.32            | 1.0          | µg/L        | 1               | 11/3/2015 12:16 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 06-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** SW-017360-102015-MR-006  
**Collection Date:** 10/20/2015 01:40 PM

**Work Order:** 15101476  
**Lab ID:** 15101476-06  
**Matrix:** WATER

| Analyses                    | Result | Qual | MDL  | Report Limit | Units | Dilution Factor | Date Analyzed   |
|-----------------------------|--------|------|------|--------------|-------|-----------------|-----------------|
| Methylene chloride          | U      |      | 0.64 | 5.0          | µg/L  | 1               | 11/3/2015 12:16 |
| Styrene                     | U      |      | 0.18 | 1.0          | µg/L  | 1               | 11/3/2015 12:16 |
| Tetrachloroethene           | U      |      | 0.25 | 1.0          | µg/L  | 1               | 11/3/2015 12:16 |
| Toluene                     | U      |      | 0.20 | 1.0          | µg/L  | 1               | 11/3/2015 12:16 |
| trans-1,2-Dichloroethene    | U      |      | 0.29 | 1.0          | µg/L  | 1               | 11/3/2015 12:16 |
| trans-1,3-Dichloropropene   | U      |      | 0.19 | 1.0          | µg/L  | 1               | 11/3/2015 12:16 |
| Trichloroethene             | U      |      | 0.34 | 1.0          | µg/L  | 1               | 11/3/2015 12:16 |
| Trichlorofluoromethane      | U      |      | 0.39 | 1.0          | µg/L  | 1               | 11/3/2015 12:16 |
| Vinyl chloride              | U      |      | 0.19 | 1.0          | µg/L  | 1               | 11/3/2015 12:16 |
| Xylenes, Total              | U      |      | 0.62 | 3.0          | µg/L  | 1               | 11/3/2015 12:16 |
| Surr: 1,2-Dichloroethane-d4 | 106    |      |      | 75-120       | %REC  | 1               | 11/3/2015 12:16 |
| Surr: 4-Bromofluorobenzene  | 93.4   |      |      | 80-110       | %REC  | 1               | 11/3/2015 12:16 |
| Surr: Dibromofluoromethane  | 102    |      |      | 85-115       | %REC  | 1               | 11/3/2015 12:16 |
| Surr: Toluene-d8            | 94.0   |      |      | 85-110       | %REC  | 1               | 11/3/2015 12:16 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 06-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** SW-017360-102015-MR-007  
**Collection Date:** 10/20/2015 02:10 PM

**Work Order:** 15101476  
**Lab ID:** 15101476-07  
**Matrix:** WATER

| Analyses                          | Result      | Qual     | MDL             | Report Limit | Units       | Dilution Factor | Date Analyzed   |
|-----------------------------------|-------------|----------|-----------------|--------------|-------------|-----------------|-----------------|
| <b>VOLATILE ORGANIC COMPOUNDS</b> |             |          | Method: SW8260B |              |             | Analyst: AK     |                 |
| 1,1,1-Trichloroethane             | U           |          | 0.19            | 1.0          | µg/L        | 1               | 11/3/2015 12:40 |
| 1,1,2,2-Tetrachloroethane         | U           |          | 0.34            | 1.0          | µg/L        | 1               | 11/3/2015 12:40 |
| 1,1,2-Trichloroethane             | U           |          | 0.25            | 1.0          | µg/L        | 1               | 11/3/2015 12:40 |
| 1,1,2-Trichlorotrifluoroethane    | U           |          | 0.47            | 1.0          | µg/L        | 1               | 11/3/2015 12:40 |
| 1,1-Dichloroethane                | U           |          | 0.21            | 1.0          | µg/L        | 1               | 11/3/2015 12:40 |
| 1,1-Dichloroethene                | U           |          | 0.24            | 1.0          | µg/L        | 1               | 11/3/2015 12:40 |
| 1,2,4-Trichlorobenzene            | U           |          | 0.19            | 5.0          | µg/L        | 1               | 11/3/2015 12:40 |
| 1,2-Dibromo-3-chloropropane       | U           |          | 0.42            | 1.0          | µg/L        | 1               | 11/3/2015 12:40 |
| 1,2-Dibromoethane                 | U           |          | 0.34            | 1.0          | µg/L        | 1               | 11/3/2015 12:40 |
| 1,2-Dichlorobenzene               | U           |          | 0.22            | 1.0          | µg/L        | 1               | 11/3/2015 12:40 |
| 1,2-Dichloroethane                | U           |          | 0.26            | 1.0          | µg/L        | 1               | 11/3/2015 12:40 |
| 1,2-Dichloropropane               | U           |          | 0.26            | 1.0          | µg/L        | 1               | 11/3/2015 12:40 |
| 1,3-Dichlorobenzene               | U           |          | 0.21            | 1.0          | µg/L        | 1               | 11/3/2015 12:40 |
| 1,4-Dichlorobenzene               | U           |          | 0.20            | 1.0          | µg/L        | 1               | 11/3/2015 12:40 |
| 2-Butanone                        | U           |          | 0.87            | 25           | µg/L        | 1               | 11/3/2015 12:40 |
| 2-Hexanone                        | U           |          | 0.15            | 50           | µg/L        | 1               | 11/3/2015 12:40 |
| 4-Methyl-2-pentanone              | U           |          | 0.15            | 50           | µg/L        | 1               | 11/3/2015 12:40 |
| Acetone                           | U           |          | 3.1             | 50           | µg/L        | 1               | 11/3/2015 12:40 |
| Benzene                           | U           |          | 0.25            | 1.0          | µg/L        | 1               | 11/3/2015 12:40 |
| Bromodichloromethane              | U           |          | 0.16            | 1.0          | µg/L        | 1               | 11/3/2015 12:40 |
| Bromoform                         | U           |          | 0.099           | 1.0          | µg/L        | 1               | 11/3/2015 12:40 |
| Bromomethane                      | U           |          | 1.0             | 5.0          | µg/L        | 1               | 11/3/2015 12:40 |
| Carbon disulfide                  | U           |          | 0.26            | 5.0          | µg/L        | 1               | 11/3/2015 12:40 |
| Carbon tetrachloride              | U           |          | 0.14            | 1.0          | µg/L        | 1               | 11/3/2015 12:40 |
| Chlorobenzene                     | U           |          | 0.19            | 1.0          | µg/L        | 1               | 11/3/2015 12:40 |
| Chloroethane                      | U           |          | 0.21            | 5.0          | µg/L        | 1               | 11/3/2015 12:40 |
| <b>Chloroform</b>                 | <b>0.63</b> | <b>J</b> | <b>0.25</b>     | <b>1.0</b>   | <b>µg/L</b> | 1               | 11/3/2015 12:40 |
| Chloromethane                     | U           |          | 0.25            | 5.0          | µg/L        | 1               | 11/3/2015 12:40 |
| cis-1,2-Dichloroethene            | U           |          | 0.25            | 1.0          | µg/L        | 1               | 11/3/2015 12:40 |
| cis-1,3-Dichloropropene           | U           |          | 0.24            | 1.0          | µg/L        | 1               | 11/3/2015 12:40 |
| Cyclohexane                       | U           |          | 0.31            | 1.0          | µg/L        | 1               | 11/3/2015 12:40 |
| Dibromochloromethane              | U           |          | 0.17            | 5.0          | µg/L        | 1               | 11/3/2015 12:40 |
| Dichlorodifluoromethane           | U           |          | 0.41            | 5.0          | µg/L        | 1               | 11/3/2015 12:40 |
| Ethylbenzene                      | U           |          | 0.22            | 1.0          | µg/L        | 1               | 11/3/2015 12:40 |
| Isopropylbenzene                  | U           |          | 0.25            | 5.0          | µg/L        | 1               | 11/3/2015 12:40 |
| Methyl acetate                    | U           |          | 0.62            | 10           | µg/L        | 1               | 11/3/2015 12:40 |
| Methyl tert-butyl ether           | U           |          | 0.12            | 5.0          | µg/L        | 1               | 11/3/2015 12:40 |
| Methylcyclohexane                 | U           |          | 0.32            | 1.0          | µg/L        | 1               | 11/3/2015 12:40 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

**ALS Group USA, Corp**

Date: 06-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** SW-017360-102015-MR-007  
**Collection Date:** 10/20/2015 02:10 PM

**Work Order:** 15101476  
**Lab ID:** 15101476-07  
**Matrix:** WATER

| Analyses                    | Result | Qual | MDL  | Report Limit | Units | Dilution Factor | Date Analyzed   |
|-----------------------------|--------|------|------|--------------|-------|-----------------|-----------------|
| Methylene chloride          | U      |      | 0.64 | 5.0          | µg/L  | 1               | 11/3/2015 12:40 |
| Styrene                     | U      |      | 0.18 | 1.0          | µg/L  | 1               | 11/3/2015 12:40 |
| Tetrachloroethene           | U      |      | 0.25 | 1.0          | µg/L  | 1               | 11/3/2015 12:40 |
| Toluene                     | U      |      | 0.20 | 1.0          | µg/L  | 1               | 11/3/2015 12:40 |
| trans-1,2-Dichloroethene    | U      |      | 0.29 | 1.0          | µg/L  | 1               | 11/3/2015 12:40 |
| trans-1,3-Dichloropropene   | U      |      | 0.19 | 1.0          | µg/L  | 1               | 11/3/2015 12:40 |
| Trichloroethene             | U      |      | 0.34 | 1.0          | µg/L  | 1               | 11/3/2015 12:40 |
| Trichlorofluoromethane      | U      |      | 0.39 | 1.0          | µg/L  | 1               | 11/3/2015 12:40 |
| Vinyl chloride              | U      |      | 0.19 | 1.0          | µg/L  | 1               | 11/3/2015 12:40 |
| Xylenes, Total              | U      |      | 0.62 | 3.0          | µg/L  | 1               | 11/3/2015 12:40 |
| Surr: 1,2-Dichloroethane-d4 | 106    |      |      | 75-120       | %REC  | 1               | 11/3/2015 12:40 |
| Surr: 4-Bromofluorobenzene  | 93.8   |      |      | 80-110       | %REC  | 1               | 11/3/2015 12:40 |
| Surr: Dibromofluoromethane  | 102    |      |      | 85-115       | %REC  | 1               | 11/3/2015 12:40 |
| Surr: Toluene-d8            | 94.8   |      |      | 85-110       | %REC  | 1               | 11/3/2015 12:40 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.



# ALS Group USA, Corp

Date: 06-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102115-MR-008  
**Collection Date:** 10/21/2015 10:39 AM

**Work Order:** 15101476  
**Lab ID:** 15101476-08  
**Matrix:** WATER

| Analyses                          | Result | Qual | MDL             | Report Limit | Units | Dilution Factor | Date Analyzed   |
|-----------------------------------|--------|------|-----------------|--------------|-------|-----------------|-----------------|
| <b>VOLATILE ORGANIC COMPOUNDS</b> |        |      | Method: SW8260B |              |       | Analyst: AK     |                 |
| 1,1,1-Trichloroethane             | U      |      | 0.19            | 1.0          | µg/L  | 1               | 11/3/2015 01:05 |
| 1,1,2,2-Tetrachloroethane         | U      |      | 0.34            | 1.0          | µg/L  | 1               | 11/3/2015 01:05 |
| 1,1,2-Trichloroethane             | U      |      | 0.25            | 1.0          | µg/L  | 1               | 11/3/2015 01:05 |
| 1,1,2-Trichlorotrifluoroethane    | U      |      | 0.47            | 1.0          | µg/L  | 1               | 11/3/2015 01:05 |
| 1,1-Dichloroethane                | U      |      | 0.21            | 1.0          | µg/L  | 1               | 11/3/2015 01:05 |
| 1,1-Dichloroethene                | U      |      | 0.24            | 1.0          | µg/L  | 1               | 11/3/2015 01:05 |
| 1,2,4-Trichlorobenzene            | U      |      | 0.19            | 5.0          | µg/L  | 1               | 11/3/2015 01:05 |
| 1,2-Dibromo-3-chloropropane       | U      |      | 0.42            | 1.0          | µg/L  | 1               | 11/3/2015 01:05 |
| 1,2-Dibromoethane                 | U      |      | 0.34            | 1.0          | µg/L  | 1               | 11/3/2015 01:05 |
| 1,2-Dichlorobenzene               | U      |      | 0.22            | 1.0          | µg/L  | 1               | 11/3/2015 01:05 |
| 1,2-Dichloroethane                | U      |      | 0.26            | 1.0          | µg/L  | 1               | 11/3/2015 01:05 |
| 1,2-Dichloropropane               | U      |      | 0.26            | 1.0          | µg/L  | 1               | 11/3/2015 01:05 |
| 1,3-Dichlorobenzene               | U      |      | 0.21            | 1.0          | µg/L  | 1               | 11/3/2015 01:05 |
| 1,4-Dichlorobenzene               | U      |      | 0.20            | 1.0          | µg/L  | 1               | 11/3/2015 01:05 |
| 2-Butanone                        | U      |      | 0.87            | 25           | µg/L  | 1               | 11/3/2015 01:05 |
| 2-Hexanone                        | U      |      | 0.15            | 50           | µg/L  | 1               | 11/3/2015 01:05 |
| 4-Methyl-2-pentanone              | U      |      | 0.15            | 50           | µg/L  | 1               | 11/3/2015 01:05 |
| Acetone                           | U      |      | 3.1             | 50           | µg/L  | 1               | 11/3/2015 01:05 |
| Benzene                           | U      |      | 0.25            | 1.0          | µg/L  | 1               | 11/3/2015 01:05 |
| Bromodichloromethane              | U      |      | 0.16            | 1.0          | µg/L  | 1               | 11/3/2015 01:05 |
| Bromoform                         | U      |      | 0.099           | 1.0          | µg/L  | 1               | 11/3/2015 01:05 |
| Bromomethane                      | U      |      | 1.0             | 5.0          | µg/L  | 1               | 11/3/2015 01:05 |
| Carbon disulfide                  | U      |      | 0.26            | 5.0          | µg/L  | 1               | 11/3/2015 01:05 |
| Carbon tetrachloride              | U      |      | 0.14            | 1.0          | µg/L  | 1               | 11/3/2015 01:05 |
| Chlorobenzene                     | U      |      | 0.19            | 1.0          | µg/L  | 1               | 11/3/2015 01:05 |
| Chloroethane                      | U      |      | 0.21            | 5.0          | µg/L  | 1               | 11/3/2015 01:05 |
| Chloroform                        | U      |      | 0.25            | 1.0          | µg/L  | 1               | 11/3/2015 01:05 |
| Chloromethane                     | U      |      | 0.25            | 5.0          | µg/L  | 1               | 11/3/2015 01:05 |
| cis-1,2-Dichloroethene            | U      |      | 0.25            | 1.0          | µg/L  | 1               | 11/3/2015 01:05 |
| cis-1,3-Dichloropropene           | U      |      | 0.24            | 1.0          | µg/L  | 1               | 11/3/2015 01:05 |
| Cyclohexane                       | U      |      | 0.31            | 1.0          | µg/L  | 1               | 11/3/2015 01:05 |
| Dibromochloromethane              | U      |      | 0.17            | 5.0          | µg/L  | 1               | 11/3/2015 01:05 |
| Dichlorodifluoromethane           | U      |      | 0.41            | 5.0          | µg/L  | 1               | 11/3/2015 01:05 |
| Ethylbenzene                      | U      |      | 0.22            | 1.0          | µg/L  | 1               | 11/3/2015 01:05 |
| Isopropylbenzene                  | U      |      | 0.25            | 5.0          | µg/L  | 1               | 11/3/2015 01:05 |
| Methyl acetate                    | U      |      | 0.62            | 10           | µg/L  | 1               | 11/3/2015 01:05 |
| Methyl tert-butyl ether           | U      |      | 0.12            | 5.0          | µg/L  | 1               | 11/3/2015 01:05 |
| Methylcyclohexane                 | U      |      | 0.32            | 1.0          | µg/L  | 1               | 11/3/2015 01:05 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 06-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102115-MR-008  
**Collection Date:** 10/21/2015 10:39 AM

**Work Order:** 15101476  
**Lab ID:** 15101476-08  
**Matrix:** WATER

| Analyses                    | Result     | Qual | MDL         | Report Limit | Units       | Dilution Factor | Date Analyzed   |
|-----------------------------|------------|------|-------------|--------------|-------------|-----------------|-----------------|
| Methylene chloride          | U          |      | 0.64        | 5.0          | µg/L        | 1               | 11/3/2015 01:05 |
| Styrene                     | U          |      | 0.18        | 1.0          | µg/L        | 1               | 11/3/2015 01:05 |
| Tetrachloroethene           | U          |      | 0.25        | 1.0          | µg/L        | 1               | 11/3/2015 01:05 |
| Toluene                     | U          |      | 0.20        | 1.0          | µg/L        | 1               | 11/3/2015 01:05 |
| trans-1,2-Dichloroethene    | U          |      | 0.29        | 1.0          | µg/L        | 1               | 11/3/2015 01:05 |
| trans-1,3-Dichloropropene   | U          |      | 0.19        | 1.0          | µg/L        | 1               | 11/3/2015 01:05 |
| <b>Trichloroethene</b>      | <b>2.6</b> |      | <b>0.34</b> | <b>1.0</b>   | <b>µg/L</b> | 1               | 11/3/2015 01:05 |
| Trichlorofluoromethane      | U          |      | 0.39        | 1.0          | µg/L        | 1               | 11/3/2015 01:05 |
| Vinyl chloride              | U          |      | 0.19        | 1.0          | µg/L        | 1               | 11/3/2015 01:05 |
| Xylenes, Total              | U          |      | 0.62        | 3.0          | µg/L        | 1               | 11/3/2015 01:05 |
| Surr: 1,2-Dichloroethane-d4 | 105        |      |             | 75-120       | %REC        | 1               | 11/3/2015 01:05 |
| Surr: 4-Bromofluorobenzene  | 92.5       |      |             | 80-110       | %REC        | 1               | 11/3/2015 01:05 |
| Surr: Dibromofluoromethane  | 103        |      |             | 85-115       | %REC        | 1               | 11/3/2015 01:05 |
| Surr: Toluene-d8            | 93.2       |      |             | 85-110       | %REC        | 1               | 11/3/2015 01:05 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 06-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102115-MR-009  
**Collection Date:** 10/21/2015 11:41 AM

**Work Order:** 15101476  
**Lab ID:** 15101476-09  
**Matrix:** WATER

| Analyses                          | Result     | Qual | MDL             | Report Limit | Units       | Dilution Factor | Date Analyzed   |
|-----------------------------------|------------|------|-----------------|--------------|-------------|-----------------|-----------------|
| <b>VOLATILE ORGANIC COMPOUNDS</b> |            |      | Method: SW8260B |              |             | Analyst: AK     |                 |
| 1,1,1-Trichloroethane             | U          |      | 0.19            | 1.0          | µg/L        | 1               | 11/3/2015 01:29 |
| 1,1,2,2-Tetrachloroethane         | U          |      | 0.34            | 1.0          | µg/L        | 1               | 11/3/2015 01:29 |
| 1,1,2-Trichloroethane             | U          |      | 0.25            | 1.0          | µg/L        | 1               | 11/3/2015 01:29 |
| 1,1,2-Trichlorotrifluoroethane    | U          |      | 0.47            | 1.0          | µg/L        | 1               | 11/3/2015 01:29 |
| 1,1-Dichloroethane                | U          |      | 0.21            | 1.0          | µg/L        | 1               | 11/3/2015 01:29 |
| 1,1-Dichloroethene                | U          |      | 0.24            | 1.0          | µg/L        | 1               | 11/3/2015 01:29 |
| 1,2,4-Trichlorobenzene            | U          |      | 0.19            | 5.0          | µg/L        | 1               | 11/3/2015 01:29 |
| 1,2-Dibromo-3-chloropropane       | U          |      | 0.42            | 1.0          | µg/L        | 1               | 11/3/2015 01:29 |
| 1,2-Dibromoethane                 | U          |      | 0.34            | 1.0          | µg/L        | 1               | 11/3/2015 01:29 |
| 1,2-Dichlorobenzene               | U          |      | 0.22            | 1.0          | µg/L        | 1               | 11/3/2015 01:29 |
| 1,2-Dichloroethane                | U          |      | 0.26            | 1.0          | µg/L        | 1               | 11/3/2015 01:29 |
| 1,2-Dichloropropane               | U          |      | 0.26            | 1.0          | µg/L        | 1               | 11/3/2015 01:29 |
| 1,3-Dichlorobenzene               | U          |      | 0.21            | 1.0          | µg/L        | 1               | 11/3/2015 01:29 |
| 1,4-Dichlorobenzene               | U          |      | 0.20            | 1.0          | µg/L        | 1               | 11/3/2015 01:29 |
| 2-Butanone                        | U          |      | 0.87            | 25           | µg/L        | 1               | 11/3/2015 01:29 |
| 2-Hexanone                        | U          |      | 0.15            | 50           | µg/L        | 1               | 11/3/2015 01:29 |
| 4-Methyl-2-pentanone              | U          |      | 0.15            | 50           | µg/L        | 1               | 11/3/2015 01:29 |
| Acetone                           | U          |      | 3.1             | 50           | µg/L        | 1               | 11/3/2015 01:29 |
| Benzene                           | U          |      | 0.25            | 1.0          | µg/L        | 1               | 11/3/2015 01:29 |
| Bromodichloromethane              | U          |      | 0.16            | 1.0          | µg/L        | 1               | 11/3/2015 01:29 |
| Bromoform                         | U          |      | 0.099           | 1.0          | µg/L        | 1               | 11/3/2015 01:29 |
| Bromomethane                      | U          |      | 1.0             | 5.0          | µg/L        | 1               | 11/3/2015 01:29 |
| Carbon disulfide                  | U          |      | 0.26            | 5.0          | µg/L        | 1               | 11/3/2015 01:29 |
| Carbon tetrachloride              | U          |      | 0.14            | 1.0          | µg/L        | 1               | 11/3/2015 01:29 |
| Chlorobenzene                     | U          |      | 0.19            | 1.0          | µg/L        | 1               | 11/3/2015 01:29 |
| Chloroethane                      | U          |      | 0.21            | 5.0          | µg/L        | 1               | 11/3/2015 01:29 |
| <b>Chloroform</b>                 | <b>2.1</b> |      | <b>0.25</b>     | <b>1.0</b>   | <b>µg/L</b> | 1               | 11/3/2015 01:29 |
| Chloromethane                     | U          |      | 0.25            | 5.0          | µg/L        | 1               | 11/3/2015 01:29 |
| cis-1,2-Dichloroethene            | U          |      | 0.25            | 1.0          | µg/L        | 1               | 11/3/2015 01:29 |
| cis-1,3-Dichloropropene           | U          |      | 0.24            | 1.0          | µg/L        | 1               | 11/3/2015 01:29 |
| Cyclohexane                       | U          |      | 0.31            | 1.0          | µg/L        | 1               | 11/3/2015 01:29 |
| Dibromochloromethane              | U          |      | 0.17            | 5.0          | µg/L        | 1               | 11/3/2015 01:29 |
| Dichlorodifluoromethane           | U          |      | 0.41            | 5.0          | µg/L        | 1               | 11/3/2015 01:29 |
| Ethylbenzene                      | U          |      | 0.22            | 1.0          | µg/L        | 1               | 11/3/2015 01:29 |
| Isopropylbenzene                  | U          |      | 0.25            | 5.0          | µg/L        | 1               | 11/3/2015 01:29 |
| Methyl acetate                    | U          |      | 0.62            | 10           | µg/L        | 1               | 11/3/2015 01:29 |
| Methyl tert-butyl ether           | U          |      | 0.12            | 5.0          | µg/L        | 1               | 11/3/2015 01:29 |
| Methylcyclohexane                 | U          |      | 0.32            | 1.0          | µg/L        | 1               | 11/3/2015 01:29 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 06-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102115-MR-009  
**Collection Date:** 10/21/2015 11:41 AM

**Work Order:** 15101476  
**Lab ID:** 15101476-09  
**Matrix:** WATER

| Analyses                    | Result | Qual | MDL  | Report Limit | Units | Dilution Factor | Date Analyzed   |
|-----------------------------|--------|------|------|--------------|-------|-----------------|-----------------|
| Methylene chloride          | U      |      | 0.64 | 5.0          | µg/L  | 1               | 11/3/2015 01:29 |
| Styrene                     | U      |      | 0.18 | 1.0          | µg/L  | 1               | 11/3/2015 01:29 |
| Tetrachloroethene           | U      |      | 0.25 | 1.0          | µg/L  | 1               | 11/3/2015 01:29 |
| Toluene                     | U      |      | 0.20 | 1.0          | µg/L  | 1               | 11/3/2015 01:29 |
| trans-1,2-Dichloroethene    | U      |      | 0.29 | 1.0          | µg/L  | 1               | 11/3/2015 01:29 |
| trans-1,3-Dichloropropene   | U      |      | 0.19 | 1.0          | µg/L  | 1               | 11/3/2015 01:29 |
| Trichloroethene             | U      |      | 0.34 | 1.0          | µg/L  | 1               | 11/3/2015 01:29 |
| Trichlorofluoromethane      | U      |      | 0.39 | 1.0          | µg/L  | 1               | 11/3/2015 01:29 |
| Vinyl chloride              | U      |      | 0.19 | 1.0          | µg/L  | 1               | 11/3/2015 01:29 |
| Xylenes, Total              | U      |      | 0.62 | 3.0          | µg/L  | 1               | 11/3/2015 01:29 |
| Surr: 1,2-Dichloroethane-d4 | 105    |      |      | 75-120       | %REC  | 1               | 11/3/2015 01:29 |
| Surr: 4-Bromofluorobenzene  | 94.5   |      |      | 80-110       | %REC  | 1               | 11/3/2015 01:29 |
| Surr: Dibromofluoromethane  | 102    |      |      | 85-115       | %REC  | 1               | 11/3/2015 01:29 |
| Surr: Toluene-d8            | 93.7   |      |      | 85-110       | %REC  | 1               | 11/3/2015 01:29 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 06-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102115-MR-010  
**Collection Date:** 10/21/2015 01:04 PM

**Work Order:** 15101476  
**Lab ID:** 15101476-10  
**Matrix:** WATER

| Analyses                          | Result | Qual | MDL             | Report Limit | Units | Dilution Factor | Date Analyzed   |
|-----------------------------------|--------|------|-----------------|--------------|-------|-----------------|-----------------|
| <b>VOLATILE ORGANIC COMPOUNDS</b> |        |      | Method: SW8260B |              |       | Analyst: AK     |                 |
| 1,1,1-Trichloroethane             | U      |      | 0.19            | 1.0          | µg/L  | 1               | 11/3/2015 01:54 |
| 1,1,2,2-Tetrachloroethane         | U      |      | 0.34            | 1.0          | µg/L  | 1               | 11/3/2015 01:54 |
| 1,1,2-Trichloroethane             | U      |      | 0.25            | 1.0          | µg/L  | 1               | 11/3/2015 01:54 |
| 1,1,2-Trichlorotrifluoroethane    | U      |      | 0.47            | 1.0          | µg/L  | 1               | 11/3/2015 01:54 |
| 1,1-Dichloroethane                | U      |      | 0.21            | 1.0          | µg/L  | 1               | 11/3/2015 01:54 |
| 1,1-Dichloroethene                | U      |      | 0.24            | 1.0          | µg/L  | 1               | 11/3/2015 01:54 |
| 1,2,4-Trichlorobenzene            | U      |      | 0.19            | 5.0          | µg/L  | 1               | 11/3/2015 01:54 |
| 1,2-Dibromo-3-chloropropane       | U      |      | 0.42            | 1.0          | µg/L  | 1               | 11/3/2015 01:54 |
| 1,2-Dibromoethane                 | U      |      | 0.34            | 1.0          | µg/L  | 1               | 11/3/2015 01:54 |
| 1,2-Dichlorobenzene               | U      |      | 0.22            | 1.0          | µg/L  | 1               | 11/3/2015 01:54 |
| 1,2-Dichloroethane                | U      |      | 0.26            | 1.0          | µg/L  | 1               | 11/3/2015 01:54 |
| 1,2-Dichloropropane               | U      |      | 0.26            | 1.0          | µg/L  | 1               | 11/3/2015 01:54 |
| 1,3-Dichlorobenzene               | U      |      | 0.21            | 1.0          | µg/L  | 1               | 11/3/2015 01:54 |
| 1,4-Dichlorobenzene               | U      |      | 0.20            | 1.0          | µg/L  | 1               | 11/3/2015 01:54 |
| 2-Butanone                        | U      |      | 0.87            | 25           | µg/L  | 1               | 11/3/2015 01:54 |
| 2-Hexanone                        | U      |      | 0.15            | 50           | µg/L  | 1               | 11/3/2015 01:54 |
| 4-Methyl-2-pentanone              | U      |      | 0.15            | 50           | µg/L  | 1               | 11/3/2015 01:54 |
| Acetone                           | U      |      | 3.1             | 50           | µg/L  | 1               | 11/3/2015 01:54 |
| Benzene                           | U      |      | 0.25            | 1.0          | µg/L  | 1               | 11/3/2015 01:54 |
| Bromodichloromethane              | U      |      | 0.16            | 1.0          | µg/L  | 1               | 11/3/2015 01:54 |
| Bromoform                         | U      |      | 0.099           | 1.0          | µg/L  | 1               | 11/3/2015 01:54 |
| Bromomethane                      | U      |      | 1.0             | 5.0          | µg/L  | 1               | 11/3/2015 01:54 |
| Carbon disulfide                  | U      |      | 0.26            | 5.0          | µg/L  | 1               | 11/3/2015 01:54 |
| Carbon tetrachloride              | U      |      | 0.14            | 1.0          | µg/L  | 1               | 11/3/2015 01:54 |
| Chlorobenzene                     | U      |      | 0.19            | 1.0          | µg/L  | 1               | 11/3/2015 01:54 |
| Chloroethane                      | U      |      | 0.21            | 5.0          | µg/L  | 1               | 11/3/2015 01:54 |
| Chloroform                        | U      |      | 0.25            | 1.0          | µg/L  | 1               | 11/3/2015 01:54 |
| Chloromethane                     | U      |      | 0.25            | 5.0          | µg/L  | 1               | 11/3/2015 01:54 |
| cis-1,2-Dichloroethene            | U      |      | 0.25            | 1.0          | µg/L  | 1               | 11/3/2015 01:54 |
| cis-1,3-Dichloropropene           | U      |      | 0.24            | 1.0          | µg/L  | 1               | 11/3/2015 01:54 |
| Cyclohexane                       | U      |      | 0.31            | 1.0          | µg/L  | 1               | 11/3/2015 01:54 |
| Dibromochloromethane              | U      |      | 0.17            | 5.0          | µg/L  | 1               | 11/3/2015 01:54 |
| Dichlorodifluoromethane           | U      |      | 0.41            | 5.0          | µg/L  | 1               | 11/3/2015 01:54 |
| Ethylbenzene                      | U      |      | 0.22            | 1.0          | µg/L  | 1               | 11/3/2015 01:54 |
| Isopropylbenzene                  | U      |      | 0.25            | 5.0          | µg/L  | 1               | 11/3/2015 01:54 |
| Methyl acetate                    | U      |      | 0.62            | 10           | µg/L  | 1               | 11/3/2015 01:54 |
| Methyl tert-butyl ether           | U      |      | 0.12            | 5.0          | µg/L  | 1               | 11/3/2015 01:54 |
| Methylcyclohexane                 | U      |      | 0.32            | 1.0          | µg/L  | 1               | 11/3/2015 01:54 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

**ALS Group USA, Corp**

Date: 06-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102115-MR-010  
**Collection Date:** 10/21/2015 01:04 PM

**Work Order:** 15101476  
**Lab ID:** 15101476-10  
**Matrix:** WATER

| Analyses                    | Result | Qual | MDL  | Report Limit | Units | Dilution Factor | Date Analyzed   |
|-----------------------------|--------|------|------|--------------|-------|-----------------|-----------------|
| Methylene chloride          | U      |      | 0.64 | 5.0          | µg/L  | 1               | 11/3/2015 01:54 |
| Styrene                     | U      |      | 0.18 | 1.0          | µg/L  | 1               | 11/3/2015 01:54 |
| Tetrachloroethene           | U      |      | 0.25 | 1.0          | µg/L  | 1               | 11/3/2015 01:54 |
| Toluene                     | U      |      | 0.20 | 1.0          | µg/L  | 1               | 11/3/2015 01:54 |
| trans-1,2-Dichloroethene    | U      |      | 0.29 | 1.0          | µg/L  | 1               | 11/3/2015 01:54 |
| trans-1,3-Dichloropropene   | U      |      | 0.19 | 1.0          | µg/L  | 1               | 11/3/2015 01:54 |
| Trichloroethene             | U      |      | 0.34 | 1.0          | µg/L  | 1               | 11/3/2015 01:54 |
| Trichlorofluoromethane      | U      |      | 0.39 | 1.0          | µg/L  | 1               | 11/3/2015 01:54 |
| Vinyl chloride              | U      |      | 0.19 | 1.0          | µg/L  | 1               | 11/3/2015 01:54 |
| Xylenes, Total              | U      |      | 0.62 | 3.0          | µg/L  | 1               | 11/3/2015 01:54 |
| Surr: 1,2-Dichloroethane-d4 | 107    |      |      | 75-120       | %REC  | 1               | 11/3/2015 01:54 |
| Surr: 4-Bromofluorobenzene  | 91.4   |      |      | 80-110       | %REC  | 1               | 11/3/2015 01:54 |
| Surr: Dibromofluoromethane  | 104    |      |      | 85-115       | %REC  | 1               | 11/3/2015 01:54 |
| Surr: Toluene-d8            | 94.4   |      |      | 85-110       | %REC  | 1               | 11/3/2015 01:54 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 06-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102115-MR-011  
**Collection Date:** 10/21/2015 02:39 PM

**Work Order:** 15101476  
**Lab ID:** 15101476-11  
**Matrix:** WATER

| Analyses                          | Result | Qual | MDL             | Report Limit | Units | Dilution Factor | Date Analyzed   |
|-----------------------------------|--------|------|-----------------|--------------|-------|-----------------|-----------------|
| <b>VOLATILE ORGANIC COMPOUNDS</b> |        |      | Method: SW8260B |              |       | Analyst: BG     |                 |
| 1,1,1-Trichloroethane             | U      |      | 0.19            | 1.0          | µg/L  | 1               | 11/3/2015 13:34 |
| 1,1,2,2-Tetrachloroethane         | U      |      | 0.34            | 1.0          | µg/L  | 1               | 11/3/2015 13:34 |
| 1,1,2-Trichloroethane             | U      |      | 0.25            | 1.0          | µg/L  | 1               | 11/3/2015 13:34 |
| 1,1,2-Trichlorotrifluoroethane    | U      |      | 0.47            | 1.0          | µg/L  | 1               | 11/3/2015 13:34 |
| 1,1-Dichloroethane                | U      |      | 0.21            | 1.0          | µg/L  | 1               | 11/3/2015 13:34 |
| 1,1-Dichloroethene                | U      |      | 0.24            | 1.0          | µg/L  | 1               | 11/3/2015 13:34 |
| 1,2,4-Trichlorobenzene            | U      |      | 0.19            | 5.0          | µg/L  | 1               | 11/3/2015 13:34 |
| 1,2-Dibromo-3-chloropropane       | U      |      | 0.42            | 1.0          | µg/L  | 1               | 11/3/2015 13:34 |
| 1,2-Dibromoethane                 | U      |      | 0.34            | 1.0          | µg/L  | 1               | 11/3/2015 13:34 |
| 1,2-Dichlorobenzene               | U      |      | 0.22            | 1.0          | µg/L  | 1               | 11/3/2015 13:34 |
| 1,2-Dichloroethane                | U      |      | 0.26            | 1.0          | µg/L  | 1               | 11/3/2015 13:34 |
| 1,2-Dichloropropane               | U      |      | 0.26            | 1.0          | µg/L  | 1               | 11/3/2015 13:34 |
| 1,3-Dichlorobenzene               | U      |      | 0.21            | 1.0          | µg/L  | 1               | 11/3/2015 13:34 |
| 1,4-Dichlorobenzene               | U      |      | 0.20            | 1.0          | µg/L  | 1               | 11/3/2015 13:34 |
| 2-Butanone                        | U      |      | 0.87            | 25           | µg/L  | 1               | 11/3/2015 13:34 |
| 2-Hexanone                        | U      |      | 0.15            | 50           | µg/L  | 1               | 11/3/2015 13:34 |
| 4-Methyl-2-pentanone              | U      |      | 0.15            | 50           | µg/L  | 1               | 11/3/2015 13:34 |
| Acetone                           | U      |      | 3.1             | 50           | µg/L  | 1               | 11/3/2015 13:34 |
| Benzene                           | U      |      | 0.25            | 1.0          | µg/L  | 1               | 11/3/2015 13:34 |
| Bromodichloromethane              | U      |      | 0.16            | 1.0          | µg/L  | 1               | 11/3/2015 13:34 |
| Bromoform                         | U      |      | 0.099           | 1.0          | µg/L  | 1               | 11/3/2015 13:34 |
| Bromomethane                      | U      |      | 1.0             | 5.0          | µg/L  | 1               | 11/3/2015 13:34 |
| Carbon disulfide                  | U      |      | 0.26            | 5.0          | µg/L  | 1               | 11/3/2015 13:34 |
| Carbon tetrachloride              | U      |      | 0.14            | 1.0          | µg/L  | 1               | 11/3/2015 13:34 |
| Chlorobenzene                     | U      |      | 0.19            | 1.0          | µg/L  | 1               | 11/3/2015 13:34 |
| Chloroethane                      | U      |      | 0.21            | 5.0          | µg/L  | 1               | 11/3/2015 13:34 |
| Chloroform                        | U      |      | 0.25            | 1.0          | µg/L  | 1               | 11/3/2015 13:34 |
| Chloromethane                     | U      |      | 0.25            | 5.0          | µg/L  | 1               | 11/3/2015 13:34 |
| cis-1,2-Dichloroethene            | U      |      | 0.25            | 1.0          | µg/L  | 1               | 11/3/2015 13:34 |
| cis-1,3-Dichloropropene           | U      |      | 0.24            | 1.0          | µg/L  | 1               | 11/3/2015 13:34 |
| Cyclohexane                       | U      |      | 0.31            | 1.0          | µg/L  | 1               | 11/3/2015 13:34 |
| Dibromochloromethane              | U      |      | 0.17            | 5.0          | µg/L  | 1               | 11/3/2015 13:34 |
| Dichlorodifluoromethane           | U      |      | 0.41            | 5.0          | µg/L  | 1               | 11/3/2015 13:34 |
| Ethylbenzene                      | U      |      | 0.22            | 1.0          | µg/L  | 1               | 11/3/2015 13:34 |
| Isopropylbenzene                  | U      |      | 0.25            | 5.0          | µg/L  | 1               | 11/3/2015 13:34 |
| Methyl acetate                    | U      |      | 0.62            | 10           | µg/L  | 1               | 11/3/2015 13:34 |
| Methyl tert-butyl ether           | U      |      | 0.12            | 5.0          | µg/L  | 1               | 11/3/2015 13:34 |
| Methylcyclohexane                 | U      |      | 0.32            | 1.0          | µg/L  | 1               | 11/3/2015 13:34 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 06-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102115-MR-011  
**Collection Date:** 10/21/2015 02:39 PM

**Work Order:** 15101476  
**Lab ID:** 15101476-11  
**Matrix:** WATER

| Analyses                    | Result      | Qual     | MDL         | Report Limit | Units       | Dilution Factor | Date Analyzed   |
|-----------------------------|-------------|----------|-------------|--------------|-------------|-----------------|-----------------|
| Methylene chloride          | U           |          | 0.64        | 5.0          | µg/L        | 1               | 11/3/2015 13:34 |
| Styrene                     | U           |          | 0.18        | 1.0          | µg/L        | 1               | 11/3/2015 13:34 |
| <b>Tetrachloroethene</b>    | <b>0.50</b> | <b>J</b> | <b>0.25</b> | <b>1.0</b>   | <b>µg/L</b> | 1               | 11/3/2015 13:34 |
| Toluene                     | U           |          | 0.20        | 1.0          | µg/L        | 1               | 11/3/2015 13:34 |
| trans-1,2-Dichloroethene    | U           |          | 0.29        | 1.0          | µg/L        | 1               | 11/3/2015 13:34 |
| trans-1,3-Dichloropropene   | U           |          | 0.19        | 1.0          | µg/L        | 1               | 11/3/2015 13:34 |
| Trichloroethene             | U           |          | 0.34        | 1.0          | µg/L        | 1               | 11/3/2015 13:34 |
| Trichlorofluoromethane      | U           |          | 0.39        | 1.0          | µg/L        | 1               | 11/3/2015 13:34 |
| Vinyl chloride              | U           |          | 0.19        | 1.0          | µg/L        | 1               | 11/3/2015 13:34 |
| Xylenes, Total              | U           |          | 0.62        | 3.0          | µg/L        | 1               | 11/3/2015 13:34 |
| Surr: 1,2-Dichloroethane-d4 | 94.4        |          |             | 75-120       | %REC        | 1               | 11/3/2015 13:34 |
| Surr: 4-Bromofluorobenzene  | 101         |          |             | 80-110       | %REC        | 1               | 11/3/2015 13:34 |
| Surr: Dibromofluoromethane  | 98.6        |          |             | 85-115       | %REC        | 1               | 11/3/2015 13:34 |
| Surr: Toluene-d8            | 93.2        |          |             | 85-110       | %REC        | 1               | 11/3/2015 13:34 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.



# ALS Group USA, Corp

Date: 06-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102115-MR-012  
**Collection Date:** 10/21/2015 03:15 PM

**Work Order:** 15101476  
**Lab ID:** 15101476-12  
**Matrix:** WATER

| Analyses                          | Result      | Qual     | MDL             | Report Limit | Units       | Dilution Factor | Date Analyzed   |
|-----------------------------------|-------------|----------|-----------------|--------------|-------------|-----------------|-----------------|
| <b>VOLATILE ORGANIC COMPOUNDS</b> |             |          | Method: SW8260B |              |             | Analyst: BG     |                 |
| 1,1,1-Trichloroethane             | U           |          | 0.19            | 1.0          | µg/L        | 1               | 11/3/2015 14:00 |
| 1,1,2,2-Tetrachloroethane         | U           |          | 0.34            | 1.0          | µg/L        | 1               | 11/3/2015 14:00 |
| 1,1,2-Trichloroethane             | U           |          | 0.25            | 1.0          | µg/L        | 1               | 11/3/2015 14:00 |
| 1,1,2-Trichlorotrifluoroethane    | U           |          | 0.47            | 1.0          | µg/L        | 1               | 11/3/2015 14:00 |
| 1,1-Dichloroethane                | U           |          | 0.21            | 1.0          | µg/L        | 1               | 11/3/2015 14:00 |
| 1,1-Dichloroethene                | U           |          | 0.24            | 1.0          | µg/L        | 1               | 11/3/2015 14:00 |
| 1,2,4-Trichlorobenzene            | U           |          | 0.19            | 5.0          | µg/L        | 1               | 11/3/2015 14:00 |
| 1,2-Dibromo-3-chloropropane       | U           |          | 0.42            | 1.0          | µg/L        | 1               | 11/3/2015 14:00 |
| 1,2-Dibromoethane                 | U           |          | 0.34            | 1.0          | µg/L        | 1               | 11/3/2015 14:00 |
| 1,2-Dichlorobenzene               | U           |          | 0.22            | 1.0          | µg/L        | 1               | 11/3/2015 14:00 |
| 1,2-Dichloroethane                | U           |          | 0.26            | 1.0          | µg/L        | 1               | 11/3/2015 14:00 |
| 1,2-Dichloropropane               | U           |          | 0.26            | 1.0          | µg/L        | 1               | 11/3/2015 14:00 |
| 1,3-Dichlorobenzene               | U           |          | 0.21            | 1.0          | µg/L        | 1               | 11/3/2015 14:00 |
| 1,4-Dichlorobenzene               | U           |          | 0.20            | 1.0          | µg/L        | 1               | 11/3/2015 14:00 |
| 2-Butanone                        | U           |          | 0.87            | 25           | µg/L        | 1               | 11/3/2015 14:00 |
| 2-Hexanone                        | U           |          | 0.15            | 50           | µg/L        | 1               | 11/3/2015 14:00 |
| 4-Methyl-2-pentanone              | U           |          | 0.15            | 50           | µg/L        | 1               | 11/3/2015 14:00 |
| Acetone                           | U           |          | 3.1             | 50           | µg/L        | 1               | 11/3/2015 14:00 |
| Benzene                           | U           |          | 0.25            | 1.0          | µg/L        | 1               | 11/3/2015 14:00 |
| Bromodichloromethane              | U           |          | 0.16            | 1.0          | µg/L        | 1               | 11/3/2015 14:00 |
| Bromoform                         | U           |          | 0.099           | 1.0          | µg/L        | 1               | 11/3/2015 14:00 |
| Bromomethane                      | U           |          | 1.0             | 5.0          | µg/L        | 1               | 11/3/2015 14:00 |
| Carbon disulfide                  | U           |          | 0.26            | 5.0          | µg/L        | 1               | 11/3/2015 14:00 |
| Carbon tetrachloride              | U           |          | 0.14            | 1.0          | µg/L        | 1               | 11/3/2015 14:00 |
| Chlorobenzene                     | U           |          | 0.19            | 1.0          | µg/L        | 1               | 11/3/2015 14:00 |
| Chloroethane                      | U           |          | 0.21            | 5.0          | µg/L        | 1               | 11/3/2015 14:00 |
| Chloroform                        | U           |          | 0.25            | 1.0          | µg/L        | 1               | 11/3/2015 14:00 |
| Chloromethane                     | U           |          | 0.25            | 5.0          | µg/L        | 1               | 11/3/2015 14:00 |
| <b>cis-1,2-Dichloroethene</b>     | <b>0.83</b> | <b>J</b> | <b>0.25</b>     | <b>1.0</b>   | <b>µg/L</b> | 1               | 11/3/2015 14:00 |
| cis-1,3-Dichloropropene           | U           |          | 0.24            | 1.0          | µg/L        | 1               | 11/3/2015 14:00 |
| Cyclohexane                       | U           |          | 0.31            | 1.0          | µg/L        | 1               | 11/3/2015 14:00 |
| Dibromochloromethane              | U           |          | 0.17            | 5.0          | µg/L        | 1               | 11/3/2015 14:00 |
| Dichlorodifluoromethane           | U           |          | 0.41            | 5.0          | µg/L        | 1               | 11/3/2015 14:00 |
| Ethylbenzene                      | U           |          | 0.22            | 1.0          | µg/L        | 1               | 11/3/2015 14:00 |
| Isopropylbenzene                  | U           |          | 0.25            | 5.0          | µg/L        | 1               | 11/3/2015 14:00 |
| Methyl acetate                    | U           |          | 0.62            | 10           | µg/L        | 1               | 11/3/2015 14:00 |
| Methyl tert-butyl ether           | U           |          | 0.12            | 5.0          | µg/L        | 1               | 11/3/2015 14:00 |
| Methylcyclohexane                 | U           |          | 0.32            | 1.0          | µg/L        | 1               | 11/3/2015 14:00 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 06-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102115-MR-012  
**Collection Date:** 10/21/2015 03:15 PM

**Work Order:** 15101476  
**Lab ID:** 15101476-12  
**Matrix:** WATER

| Analyses                    | Result     | Qual | MDL         | Report Limit | Units       | Dilution Factor | Date Analyzed   |
|-----------------------------|------------|------|-------------|--------------|-------------|-----------------|-----------------|
| Methylene chloride          | U          |      | 0.64        | 5.0          | µg/L        | 1               | 11/3/2015 14:00 |
| Styrene                     | U          |      | 0.18        | 1.0          | µg/L        | 1               | 11/3/2015 14:00 |
| Tetrachloroethene           | U          |      | 0.25        | 1.0          | µg/L        | 1               | 11/3/2015 14:00 |
| Toluene                     | U          |      | 0.20        | 1.0          | µg/L        | 1               | 11/3/2015 14:00 |
| trans-1,2-Dichloroethene    | U          |      | 0.29        | 1.0          | µg/L        | 1               | 11/3/2015 14:00 |
| trans-1,3-Dichloropropene   | U          |      | 0.19        | 1.0          | µg/L        | 1               | 11/3/2015 14:00 |
| <b>Trichloroethene</b>      | <b>3.1</b> |      | <b>0.34</b> | <b>1.0</b>   | <b>µg/L</b> | 1               | 11/3/2015 14:00 |
| Trichlorofluoromethane      | U          |      | 0.39        | 1.0          | µg/L        | 1               | 11/3/2015 14:00 |
| Vinyl chloride              | U          |      | 0.19        | 1.0          | µg/L        | 1               | 11/3/2015 14:00 |
| Xylenes, Total              | U          |      | 0.62        | 3.0          | µg/L        | 1               | 11/3/2015 14:00 |
| Surr: 1,2-Dichloroethane-d4 | 93.7       |      |             | 75-120       | %REC        | 1               | 11/3/2015 14:00 |
| Surr: 4-Bromofluorobenzene  | 101        |      |             | 80-110       | %REC        | 1               | 11/3/2015 14:00 |
| Surr: Dibromofluoromethane  | 99.1       |      |             | 85-115       | %REC        | 1               | 11/3/2015 14:00 |
| Surr: Toluene-d8            | 93.0       |      |             | 85-110       | %REC        | 1               | 11/3/2015 14:00 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 06-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102115-MR-013  
**Collection Date:** 10/21/2015 04:19 PM

**Work Order:** 15101476  
**Lab ID:** 15101476-13  
**Matrix:** WATER

| Analyses                          | Result      | Qual     | MDL             | Report Limit | Units       | Dilution Factor | Date Analyzed   |
|-----------------------------------|-------------|----------|-----------------|--------------|-------------|-----------------|-----------------|
| <b>VOLATILE ORGANIC COMPOUNDS</b> |             |          | Method: SW8260B |              |             | Analyst: BG     |                 |
| 1,1,1-Trichloroethane             | U           |          | 0.19            | 1.0          | µg/L        | 1               | 11/3/2015 14:25 |
| 1,1,2,2-Tetrachloroethane         | U           |          | 0.34            | 1.0          | µg/L        | 1               | 11/3/2015 14:25 |
| 1,1,2-Trichloroethane             | U           |          | 0.25            | 1.0          | µg/L        | 1               | 11/3/2015 14:25 |
| 1,1,2-Trichlorotrifluoroethane    | U           |          | 0.47            | 1.0          | µg/L        | 1               | 11/3/2015 14:25 |
| 1,1-Dichloroethane                | U           |          | 0.21            | 1.0          | µg/L        | 1               | 11/3/2015 14:25 |
| 1,1-Dichloroethene                | U           |          | 0.24            | 1.0          | µg/L        | 1               | 11/3/2015 14:25 |
| 1,2,4-Trichlorobenzene            | U           |          | 0.19            | 5.0          | µg/L        | 1               | 11/3/2015 14:25 |
| 1,2-Dibromo-3-chloropropane       | U           |          | 0.42            | 1.0          | µg/L        | 1               | 11/3/2015 14:25 |
| 1,2-Dibromoethane                 | U           |          | 0.34            | 1.0          | µg/L        | 1               | 11/3/2015 14:25 |
| 1,2-Dichlorobenzene               | U           |          | 0.22            | 1.0          | µg/L        | 1               | 11/3/2015 14:25 |
| 1,2-Dichloroethane                | U           |          | 0.26            | 1.0          | µg/L        | 1               | 11/3/2015 14:25 |
| 1,2-Dichloropropane               | U           |          | 0.26            | 1.0          | µg/L        | 1               | 11/3/2015 14:25 |
| 1,3-Dichlorobenzene               | U           |          | 0.21            | 1.0          | µg/L        | 1               | 11/3/2015 14:25 |
| 1,4-Dichlorobenzene               | U           |          | 0.20            | 1.0          | µg/L        | 1               | 11/3/2015 14:25 |
| 2-Butanone                        | U           |          | 0.87            | 25           | µg/L        | 1               | 11/3/2015 14:25 |
| 2-Hexanone                        | U           |          | 0.15            | 50           | µg/L        | 1               | 11/3/2015 14:25 |
| 4-Methyl-2-pentanone              | U           |          | 0.15            | 50           | µg/L        | 1               | 11/3/2015 14:25 |
| Acetone                           | U           |          | 3.1             | 50           | µg/L        | 1               | 11/3/2015 14:25 |
| Benzene                           | U           |          | 0.25            | 1.0          | µg/L        | 1               | 11/3/2015 14:25 |
| Bromodichloromethane              | U           |          | 0.16            | 1.0          | µg/L        | 1               | 11/3/2015 14:25 |
| Bromoform                         | U           |          | 0.099           | 1.0          | µg/L        | 1               | 11/3/2015 14:25 |
| Bromomethane                      | U           |          | 1.0             | 5.0          | µg/L        | 1               | 11/3/2015 14:25 |
| Carbon disulfide                  | U           |          | 0.26            | 5.0          | µg/L        | 1               | 11/3/2015 14:25 |
| Carbon tetrachloride              | U           |          | 0.14            | 1.0          | µg/L        | 1               | 11/3/2015 14:25 |
| Chlorobenzene                     | U           |          | 0.19            | 1.0          | µg/L        | 1               | 11/3/2015 14:25 |
| Chloroethane                      | U           |          | 0.21            | 5.0          | µg/L        | 1               | 11/3/2015 14:25 |
| <b>Chloroform</b>                 | <b>0.29</b> | <b>J</b> | <b>0.25</b>     | <b>1.0</b>   | <b>µg/L</b> | 1               | 11/3/2015 14:25 |
| Chloromethane                     | U           |          | 0.25            | 5.0          | µg/L        | 1               | 11/3/2015 14:25 |
| cis-1,2-Dichloroethene            | U           |          | 0.25            | 1.0          | µg/L        | 1               | 11/3/2015 14:25 |
| cis-1,3-Dichloropropene           | U           |          | 0.24            | 1.0          | µg/L        | 1               | 11/3/2015 14:25 |
| Cyclohexane                       | U           |          | 0.31            | 1.0          | µg/L        | 1               | 11/3/2015 14:25 |
| Dibromochloromethane              | U           |          | 0.17            | 5.0          | µg/L        | 1               | 11/3/2015 14:25 |
| Dichlorodifluoromethane           | U           |          | 0.41            | 5.0          | µg/L        | 1               | 11/3/2015 14:25 |
| Ethylbenzene                      | U           |          | 0.22            | 1.0          | µg/L        | 1               | 11/3/2015 14:25 |
| Isopropylbenzene                  | U           |          | 0.25            | 5.0          | µg/L        | 1               | 11/3/2015 14:25 |
| Methyl acetate                    | U           |          | 0.62            | 10           | µg/L        | 1               | 11/3/2015 14:25 |
| Methyl tert-butyl ether           | U           |          | 0.12            | 5.0          | µg/L        | 1               | 11/3/2015 14:25 |
| Methylcyclohexane                 | U           |          | 0.32            | 1.0          | µg/L        | 1               | 11/3/2015 14:25 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 06-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102115-MR-013  
**Collection Date:** 10/21/2015 04:19 PM

**Work Order:** 15101476  
**Lab ID:** 15101476-13  
**Matrix:** WATER

| Analyses                    | Result | Qual | MDL  | Report Limit | Units | Dilution Factor | Date Analyzed   |
|-----------------------------|--------|------|------|--------------|-------|-----------------|-----------------|
| Methylene chloride          | U      |      | 0.64 | 5.0          | µg/L  | 1               | 11/3/2015 14:25 |
| Styrene                     | U      |      | 0.18 | 1.0          | µg/L  | 1               | 11/3/2015 14:25 |
| Tetrachloroethene           | U      |      | 0.25 | 1.0          | µg/L  | 1               | 11/3/2015 14:25 |
| Toluene                     | U      |      | 0.20 | 1.0          | µg/L  | 1               | 11/3/2015 14:25 |
| trans-1,2-Dichloroethene    | U      |      | 0.29 | 1.0          | µg/L  | 1               | 11/3/2015 14:25 |
| trans-1,3-Dichloropropene   | U      |      | 0.19 | 1.0          | µg/L  | 1               | 11/3/2015 14:25 |
| Trichloroethene             | U      |      | 0.34 | 1.0          | µg/L  | 1               | 11/3/2015 14:25 |
| Trichlorofluoromethane      | U      |      | 0.39 | 1.0          | µg/L  | 1               | 11/3/2015 14:25 |
| Vinyl chloride              | U      |      | 0.19 | 1.0          | µg/L  | 1               | 11/3/2015 14:25 |
| Xylenes, Total              | U      |      | 0.62 | 3.0          | µg/L  | 1               | 11/3/2015 14:25 |
| Surr: 1,2-Dichloroethane-d4 | 95.4   |      |      | 75-120       | %REC  | 1               | 11/3/2015 14:25 |
| Surr: 4-Bromofluorobenzene  | 103    |      |      | 80-110       | %REC  | 1               | 11/3/2015 14:25 |
| Surr: Dibromofluoromethane  | 99.6   |      |      | 85-115       | %REC  | 1               | 11/3/2015 14:25 |
| Surr: Toluene-d8            | 93.4   |      |      | 85-110       | %REC  | 1               | 11/3/2015 14:25 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 06-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102215-MR-014  
**Collection Date:** 10/22/2015 10:31 AM

**Work Order:** 15101476  
**Lab ID:** 15101476-14  
**Matrix:** WATER

| Analyses                          | Result | Qual | MDL             | Report Limit | Units | Dilution Factor | Date Analyzed   |
|-----------------------------------|--------|------|-----------------|--------------|-------|-----------------|-----------------|
| <b>VOLATILE ORGANIC COMPOUNDS</b> |        |      | Method: SW8260B |              |       | Analyst: BG     |                 |
| 1,1,1-Trichloroethane             | U      |      | 0.19            | 1.0          | µg/L  | 1               | 11/3/2015 14:51 |
| 1,1,2,2-Tetrachloroethane         | U      |      | 0.34            | 1.0          | µg/L  | 1               | 11/3/2015 14:51 |
| 1,1,2-Trichloroethane             | U      |      | 0.25            | 1.0          | µg/L  | 1               | 11/3/2015 14:51 |
| 1,1,2-Trichlorotrifluoroethane    | U      |      | 0.47            | 1.0          | µg/L  | 1               | 11/3/2015 14:51 |
| 1,1-Dichloroethane                | U      |      | 0.21            | 1.0          | µg/L  | 1               | 11/3/2015 14:51 |
| 1,1-Dichloroethene                | U      |      | 0.24            | 1.0          | µg/L  | 1               | 11/3/2015 14:51 |
| 1,2,4-Trichlorobenzene            | U      |      | 0.19            | 5.0          | µg/L  | 1               | 11/3/2015 14:51 |
| 1,2-Dibromo-3-chloropropane       | U      |      | 0.42            | 1.0          | µg/L  | 1               | 11/3/2015 14:51 |
| 1,2-Dibromoethane                 | U      |      | 0.34            | 1.0          | µg/L  | 1               | 11/3/2015 14:51 |
| 1,2-Dichlorobenzene               | U      |      | 0.22            | 1.0          | µg/L  | 1               | 11/3/2015 14:51 |
| 1,2-Dichloroethane                | U      |      | 0.26            | 1.0          | µg/L  | 1               | 11/3/2015 14:51 |
| 1,2-Dichloropropane               | U      |      | 0.26            | 1.0          | µg/L  | 1               | 11/3/2015 14:51 |
| 1,3-Dichlorobenzene               | U      |      | 0.21            | 1.0          | µg/L  | 1               | 11/3/2015 14:51 |
| 1,4-Dichlorobenzene               | U      |      | 0.20            | 1.0          | µg/L  | 1               | 11/3/2015 14:51 |
| 2-Butanone                        | U      |      | 0.87            | 25           | µg/L  | 1               | 11/3/2015 14:51 |
| 2-Hexanone                        | U      |      | 0.15            | 50           | µg/L  | 1               | 11/3/2015 14:51 |
| 4-Methyl-2-pentanone              | U      |      | 0.15            | 50           | µg/L  | 1               | 11/3/2015 14:51 |
| Acetone                           | U      |      | 3.1             | 50           | µg/L  | 1               | 11/3/2015 14:51 |
| Benzene                           | U      |      | 0.25            | 1.0          | µg/L  | 1               | 11/3/2015 14:51 |
| Bromodichloromethane              | U      |      | 0.16            | 1.0          | µg/L  | 1               | 11/3/2015 14:51 |
| Bromoform                         | U      |      | 0.099           | 1.0          | µg/L  | 1               | 11/3/2015 14:51 |
| Bromomethane                      | U      |      | 1.0             | 5.0          | µg/L  | 1               | 11/3/2015 14:51 |
| Carbon disulfide                  | U      |      | 0.26            | 5.0          | µg/L  | 1               | 11/3/2015 14:51 |
| Carbon tetrachloride              | U      |      | 0.14            | 1.0          | µg/L  | 1               | 11/3/2015 14:51 |
| Chlorobenzene                     | U      |      | 0.19            | 1.0          | µg/L  | 1               | 11/3/2015 14:51 |
| Chloroethane                      | U      |      | 0.21            | 5.0          | µg/L  | 1               | 11/3/2015 14:51 |
| Chloroform                        | U      |      | 0.25            | 1.0          | µg/L  | 1               | 11/3/2015 14:51 |
| Chloromethane                     | U      |      | 0.25            | 5.0          | µg/L  | 1               | 11/3/2015 14:51 |
| cis-1,2-Dichloroethene            | U      |      | 0.25            | 1.0          | µg/L  | 1               | 11/3/2015 14:51 |
| cis-1,3-Dichloropropene           | U      |      | 0.24            | 1.0          | µg/L  | 1               | 11/3/2015 14:51 |
| Cyclohexane                       | U      |      | 0.31            | 1.0          | µg/L  | 1               | 11/3/2015 14:51 |
| Dibromochloromethane              | U      |      | 0.17            | 5.0          | µg/L  | 1               | 11/3/2015 14:51 |
| Dichlorodifluoromethane           | U      |      | 0.41            | 5.0          | µg/L  | 1               | 11/3/2015 14:51 |
| Ethylbenzene                      | U      |      | 0.22            | 1.0          | µg/L  | 1               | 11/3/2015 14:51 |
| Isopropylbenzene                  | U      |      | 0.25            | 5.0          | µg/L  | 1               | 11/3/2015 14:51 |
| Methyl acetate                    | U      |      | 0.62            | 10           | µg/L  | 1               | 11/3/2015 14:51 |
| Methyl tert-butyl ether           | U      |      | 0.12            | 5.0          | µg/L  | 1               | 11/3/2015 14:51 |
| Methylcyclohexane                 | U      |      | 0.32            | 1.0          | µg/L  | 1               | 11/3/2015 14:51 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 06-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102215-MR-014  
**Collection Date:** 10/22/2015 10:31 AM

**Work Order:** 15101476  
**Lab ID:** 15101476-14  
**Matrix:** WATER

| Analyses                    | Result | Qual | MDL  | Report Limit | Units | Dilution Factor | Date Analyzed   |
|-----------------------------|--------|------|------|--------------|-------|-----------------|-----------------|
| Methylene chloride          | U      |      | 0.64 | 5.0          | µg/L  | 1               | 11/3/2015 14:51 |
| Styrene                     | U      |      | 0.18 | 1.0          | µg/L  | 1               | 11/3/2015 14:51 |
| Tetrachloroethene           | U      |      | 0.25 | 1.0          | µg/L  | 1               | 11/3/2015 14:51 |
| Toluene                     | U      |      | 0.20 | 1.0          | µg/L  | 1               | 11/3/2015 14:51 |
| trans-1,2-Dichloroethene    | U      |      | 0.29 | 1.0          | µg/L  | 1               | 11/3/2015 14:51 |
| trans-1,3-Dichloropropene   | U      |      | 0.19 | 1.0          | µg/L  | 1               | 11/3/2015 14:51 |
| Trichloroethene             | U      |      | 0.34 | 1.0          | µg/L  | 1               | 11/3/2015 14:51 |
| Trichlorofluoromethane      | U      |      | 0.39 | 1.0          | µg/L  | 1               | 11/3/2015 14:51 |
| Vinyl chloride              | U      |      | 0.19 | 1.0          | µg/L  | 1               | 11/3/2015 14:51 |
| Xylenes, Total              | U      |      | 0.62 | 3.0          | µg/L  | 1               | 11/3/2015 14:51 |
| Surr: 1,2-Dichloroethane-d4 | 93.8   |      |      | 75-120       | %REC  | 1               | 11/3/2015 14:51 |
| Surr: 4-Bromofluorobenzene  | 100    |      |      | 80-110       | %REC  | 1               | 11/3/2015 14:51 |
| Surr: Dibromofluoromethane  | 97.8   |      |      | 85-115       | %REC  | 1               | 11/3/2015 14:51 |
| Surr: Toluene-d8            | 93.1   |      |      | 85-110       | %REC  | 1               | 11/3/2015 14:51 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 06-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102215-MR-015  
**Collection Date:** 10/22/2015 10:55 AM

**Work Order:** 15101476  
**Lab ID:** 15101476-15  
**Matrix:** WATER

| Analyses                          | Result     | Qual | MDL             | Report Limit | Units       | Dilution Factor | Date Analyzed   |
|-----------------------------------|------------|------|-----------------|--------------|-------------|-----------------|-----------------|
| <b>VOLATILE ORGANIC COMPOUNDS</b> |            |      | Method: SW8260B |              |             | Analyst: BG     |                 |
| 1,1,1-Trichloroethane             | U          |      | 0.19            | 1.0          | µg/L        | 1               | 11/3/2015 15:16 |
| 1,1,2,2-Tetrachloroethane         | U          |      | 0.34            | 1.0          | µg/L        | 1               | 11/3/2015 15:16 |
| 1,1,2-Trichloroethane             | U          |      | 0.25            | 1.0          | µg/L        | 1               | 11/3/2015 15:16 |
| 1,1,2-Trichlorotrifluoroethane    | U          |      | 0.47            | 1.0          | µg/L        | 1               | 11/3/2015 15:16 |
| 1,1-Dichloroethane                | U          |      | 0.21            | 1.0          | µg/L        | 1               | 11/3/2015 15:16 |
| 1,1-Dichloroethene                | U          |      | 0.24            | 1.0          | µg/L        | 1               | 11/3/2015 15:16 |
| 1,2,4-Trichlorobenzene            | U          |      | 0.19            | 5.0          | µg/L        | 1               | 11/3/2015 15:16 |
| 1,2-Dibromo-3-chloropropane       | U          |      | 0.42            | 1.0          | µg/L        | 1               | 11/3/2015 15:16 |
| 1,2-Dibromoethane                 | U          |      | 0.34            | 1.0          | µg/L        | 1               | 11/3/2015 15:16 |
| 1,2-Dichlorobenzene               | U          |      | 0.22            | 1.0          | µg/L        | 1               | 11/3/2015 15:16 |
| 1,2-Dichloroethane                | U          |      | 0.26            | 1.0          | µg/L        | 1               | 11/3/2015 15:16 |
| 1,2-Dichloropropane               | U          |      | 0.26            | 1.0          | µg/L        | 1               | 11/3/2015 15:16 |
| 1,3-Dichlorobenzene               | U          |      | 0.21            | 1.0          | µg/L        | 1               | 11/3/2015 15:16 |
| 1,4-Dichlorobenzene               | U          |      | 0.20            | 1.0          | µg/L        | 1               | 11/3/2015 15:16 |
| 2-Butanone                        | U          |      | 0.87            | 25           | µg/L        | 1               | 11/3/2015 15:16 |
| 2-Hexanone                        | U          |      | 0.15            | 50           | µg/L        | 1               | 11/3/2015 15:16 |
| 4-Methyl-2-pentanone              | U          |      | 0.15            | 50           | µg/L        | 1               | 11/3/2015 15:16 |
| Acetone                           | U          |      | 3.1             | 50           | µg/L        | 1               | 11/3/2015 15:16 |
| Benzene                           | U          |      | 0.25            | 1.0          | µg/L        | 1               | 11/3/2015 15:16 |
| Bromodichloromethane              | U          |      | 0.16            | 1.0          | µg/L        | 1               | 11/3/2015 15:16 |
| Bromoform                         | U          |      | 0.099           | 1.0          | µg/L        | 1               | 11/3/2015 15:16 |
| Bromomethane                      | U          |      | 1.0             | 5.0          | µg/L        | 1               | 11/3/2015 15:16 |
| Carbon disulfide                  | U          |      | 0.26            | 5.0          | µg/L        | 1               | 11/3/2015 15:16 |
| Carbon tetrachloride              | U          |      | 0.14            | 1.0          | µg/L        | 1               | 11/3/2015 15:16 |
| Chlorobenzene                     | U          |      | 0.19            | 1.0          | µg/L        | 1               | 11/3/2015 15:16 |
| Chloroethane                      | U          |      | 0.21            | 5.0          | µg/L        | 1               | 11/3/2015 15:16 |
| <b>Chloroform</b>                 | <b>1.2</b> |      | <b>0.25</b>     | <b>1.0</b>   | <b>µg/L</b> | 1               | 11/3/2015 15:16 |
| Chloromethane                     | U          |      | 0.25            | 5.0          | µg/L        | 1               | 11/3/2015 15:16 |
| cis-1,2-Dichloroethene            | U          |      | 0.25            | 1.0          | µg/L        | 1               | 11/3/2015 15:16 |
| cis-1,3-Dichloropropene           | U          |      | 0.24            | 1.0          | µg/L        | 1               | 11/3/2015 15:16 |
| Cyclohexane                       | U          |      | 0.31            | 1.0          | µg/L        | 1               | 11/3/2015 15:16 |
| Dibromochloromethane              | U          |      | 0.17            | 5.0          | µg/L        | 1               | 11/3/2015 15:16 |
| Dichlorodifluoromethane           | U          |      | 0.41            | 5.0          | µg/L        | 1               | 11/3/2015 15:16 |
| Ethylbenzene                      | U          |      | 0.22            | 1.0          | µg/L        | 1               | 11/3/2015 15:16 |
| Isopropylbenzene                  | U          |      | 0.25            | 5.0          | µg/L        | 1               | 11/3/2015 15:16 |
| Methyl acetate                    | U          |      | 0.62            | 10           | µg/L        | 1               | 11/3/2015 15:16 |
| Methyl tert-butyl ether           | U          |      | 0.12            | 5.0          | µg/L        | 1               | 11/3/2015 15:16 |
| Methylcyclohexane                 | U          |      | 0.32            | 1.0          | µg/L        | 1               | 11/3/2015 15:16 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 06-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102215-MR-015  
**Collection Date:** 10/22/2015 10:55 AM

**Work Order:** 15101476  
**Lab ID:** 15101476-15  
**Matrix:** WATER

| Analyses                    | Result     | Qual | MDL         | Report Limit | Units       | Dilution Factor | Date Analyzed   |
|-----------------------------|------------|------|-------------|--------------|-------------|-----------------|-----------------|
| Methylene chloride          | U          |      | 0.64        | 5.0          | µg/L        | 1               | 11/3/2015 15:16 |
| Styrene                     | U          |      | 0.18        | 1.0          | µg/L        | 1               | 11/3/2015 15:16 |
| Tetrachloroethene           | U          |      | 0.25        | 1.0          | µg/L        | 1               | 11/3/2015 15:16 |
| Toluene                     | U          |      | 0.20        | 1.0          | µg/L        | 1               | 11/3/2015 15:16 |
| trans-1,2-Dichloroethene    | U          |      | 0.29        | 1.0          | µg/L        | 1               | 11/3/2015 15:16 |
| trans-1,3-Dichloropropene   | U          |      | 0.19        | 1.0          | µg/L        | 1               | 11/3/2015 15:16 |
| <b>Trichloroethene</b>      | <b>2.3</b> |      | <b>0.34</b> | <b>1.0</b>   | <b>µg/L</b> | 1               | 11/3/2015 15:16 |
| Trichlorofluoromethane      | U          |      | 0.39        | 1.0          | µg/L        | 1               | 11/3/2015 15:16 |
| Vinyl chloride              | U          |      | 0.19        | 1.0          | µg/L        | 1               | 11/3/2015 15:16 |
| Xylenes, Total              | U          |      | 0.62        | 3.0          | µg/L        | 1               | 11/3/2015 15:16 |
| Surr: 1,2-Dichloroethane-d4 | 93.8       |      |             | 75-120       | %REC        | 1               | 11/3/2015 15:16 |
| Surr: 4-Bromofluorobenzene  | 102        |      |             | 80-110       | %REC        | 1               | 11/3/2015 15:16 |
| Surr: Dibromofluoromethane  | 99.0       |      |             | 85-115       | %REC        | 1               | 11/3/2015 15:16 |
| Surr: Toluene-d8            | 93.2       |      |             | 85-110       | %REC        | 1               | 11/3/2015 15:16 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.



# ALS Group USA, Corp

Date: 06-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102215-MR-016  
**Collection Date:** 10/22/2015 12:48 PM

**Work Order:** 15101476  
**Lab ID:** 15101476-16  
**Matrix:** WATER

| Analyses                          | Result     | Qual | MDL             | Report Limit | Units       | Dilution Factor | Date Analyzed   |
|-----------------------------------|------------|------|-----------------|--------------|-------------|-----------------|-----------------|
| <b>VOLATILE ORGANIC COMPOUNDS</b> |            |      | Method: SW8260B |              |             | Analyst: DD     |                 |
| 1,1,1-Trichloroethane             | U          |      | 0.19            | 1.0          | µg/L        | 1               | 11/3/2015 14:40 |
| 1,1,2,2-Tetrachloroethane         | U          |      | 0.34            | 1.0          | µg/L        | 1               | 11/3/2015 14:40 |
| 1,1,2-Trichloroethane             | U          |      | 0.25            | 1.0          | µg/L        | 1               | 11/3/2015 14:40 |
| 1,1,2-Trichlorotrifluoroethane    | U          |      | 0.47            | 1.0          | µg/L        | 1               | 11/3/2015 14:40 |
| 1,1-Dichloroethane                | U          |      | 0.21            | 1.0          | µg/L        | 1               | 11/3/2015 14:40 |
| 1,1-Dichloroethene                | U          |      | 0.24            | 1.0          | µg/L        | 1               | 11/3/2015 14:40 |
| 1,2,4-Trichlorobenzene            | U          |      | 0.19            | 5.0          | µg/L        | 1               | 11/3/2015 14:40 |
| 1,2-Dibromo-3-chloropropane       | U          |      | 0.42            | 1.0          | µg/L        | 1               | 11/3/2015 14:40 |
| 1,2-Dibromoethane                 | U          |      | 0.34            | 1.0          | µg/L        | 1               | 11/3/2015 14:40 |
| 1,2-Dichlorobenzene               | U          |      | 0.22            | 1.0          | µg/L        | 1               | 11/3/2015 14:40 |
| 1,2-Dichloroethane                | U          |      | 0.26            | 1.0          | µg/L        | 1               | 11/3/2015 14:40 |
| 1,2-Dichloropropane               | U          |      | 0.26            | 1.0          | µg/L        | 1               | 11/3/2015 14:40 |
| 1,3-Dichlorobenzene               | U          |      | 0.21            | 1.0          | µg/L        | 1               | 11/3/2015 14:40 |
| 1,4-Dichlorobenzene               | U          |      | 0.20            | 1.0          | µg/L        | 1               | 11/3/2015 14:40 |
| 2-Butanone                        | U          |      | 0.87            | 25           | µg/L        | 1               | 11/3/2015 14:40 |
| 2-Hexanone                        | U          |      | 0.15            | 50           | µg/L        | 1               | 11/3/2015 14:40 |
| 4-Methyl-2-pentanone              | U          |      | 0.15            | 50           | µg/L        | 1               | 11/3/2015 14:40 |
| Acetone                           | U          |      | 3.1             | 50           | µg/L        | 1               | 11/3/2015 14:40 |
| Benzene                           | U          |      | 0.25            | 1.0          | µg/L        | 1               | 11/3/2015 14:40 |
| Bromodichloromethane              | U          |      | 0.16            | 1.0          | µg/L        | 1               | 11/3/2015 14:40 |
| Bromoform                         | U          |      | 0.099           | 1.0          | µg/L        | 1               | 11/3/2015 14:40 |
| Bromomethane                      | U          |      | 1.0             | 5.0          | µg/L        | 1               | 11/3/2015 14:40 |
| Carbon disulfide                  | U          |      | 0.26            | 5.0          | µg/L        | 1               | 11/3/2015 14:40 |
| Carbon tetrachloride              | U          |      | 0.14            | 1.0          | µg/L        | 1               | 11/3/2015 14:40 |
| Chlorobenzene                     | U          |      | 0.19            | 1.0          | µg/L        | 1               | 11/3/2015 14:40 |
| Chloroethane                      | U          |      | 0.21            | 5.0          | µg/L        | 1               | 11/3/2015 14:40 |
| Chloroform                        | U          |      | 0.25            | 1.0          | µg/L        | 1               | 11/3/2015 14:40 |
| Chloromethane                     | U          |      | 0.25            | 5.0          | µg/L        | 1               | 11/3/2015 14:40 |
| <b>cis-1,2-Dichloroethene</b>     | <b>1.8</b> |      | <b>0.25</b>     | <b>1.0</b>   | <b>µg/L</b> | 1               | 11/3/2015 14:40 |
| cis-1,3-Dichloropropene           | U          |      | 0.24            | 1.0          | µg/L        | 1               | 11/3/2015 14:40 |
| Cyclohexane                       | U          |      | 0.31            | 1.0          | µg/L        | 1               | 11/3/2015 14:40 |
| Dibromochloromethane              | U          |      | 0.17            | 5.0          | µg/L        | 1               | 11/3/2015 14:40 |
| Dichlorodifluoromethane           | U          |      | 0.41            | 5.0          | µg/L        | 1               | 11/3/2015 14:40 |
| Ethylbenzene                      | U          |      | 0.22            | 1.0          | µg/L        | 1               | 11/3/2015 14:40 |
| Isopropylbenzene                  | U          |      | 0.25            | 5.0          | µg/L        | 1               | 11/3/2015 14:40 |
| Methyl acetate                    | U          |      | 0.62            | 10           | µg/L        | 1               | 11/3/2015 14:40 |
| Methyl tert-butyl ether           | U          |      | 0.12            | 5.0          | µg/L        | 1               | 11/3/2015 14:40 |
| Methylcyclohexane                 | U          |      | 0.32            | 1.0          | µg/L        | 1               | 11/3/2015 14:40 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 06-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102215-MR-016  
**Collection Date:** 10/22/2015 12:48 PM

**Work Order:** 15101476  
**Lab ID:** 15101476-16  
**Matrix:** WATER

| Analyses                    | Result      | Qual | MDL         | Report Limit | Units       | Dilution Factor | Date Analyzed   |
|-----------------------------|-------------|------|-------------|--------------|-------------|-----------------|-----------------|
| Methylene chloride          | U           |      | 0.64        | 5.0          | µg/L        | 1               | 11/3/2015 14:40 |
| Styrene                     | U           |      | 0.18        | 1.0          | µg/L        | 1               | 11/3/2015 14:40 |
| Tetrachloroethene           | U           |      | 0.25        | 1.0          | µg/L        | 1               | 11/3/2015 14:40 |
| Toluene                     | U           |      | 0.20        | 1.0          | µg/L        | 1               | 11/3/2015 14:40 |
| trans-1,2-Dichloroethene    | U           |      | 0.29        | 1.0          | µg/L        | 1               | 11/3/2015 14:40 |
| trans-1,3-Dichloropropene   | U           |      | 0.19        | 1.0          | µg/L        | 1               | 11/3/2015 14:40 |
| <b>Trichloroethene</b>      | <b>2.8</b>  |      | <b>0.34</b> | <b>1.0</b>   | <b>µg/L</b> | 1               | 11/3/2015 14:40 |
| Trichlorofluoromethane      | U           |      | 0.39        | 1.0          | µg/L        | 1               | 11/3/2015 14:40 |
| <b>Vinyl chloride</b>       | <b>0.87</b> | J    | <b>0.19</b> | <b>1.0</b>   | <b>µg/L</b> | 1               | 11/3/2015 14:40 |
| Xylenes, Total              | U           |      | 0.62        | 3.0          | µg/L        | 1               | 11/3/2015 14:40 |
| Surr: 1,2-Dichloroethane-d4 | 103         |      |             | 75-120       | %REC        | 1               | 11/3/2015 14:40 |
| Surr: 4-Bromofluorobenzene  | 95.0        |      |             | 80-110       | %REC        | 1               | 11/3/2015 14:40 |
| Surr: Dibromofluoromethane  | 100         |      |             | 85-115       | %REC        | 1               | 11/3/2015 14:40 |
| Surr: Toluene-d8            | 95.0        |      |             | 85-110       | %REC        | 1               | 11/3/2015 14:40 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 06-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102215-MR-017  
**Collection Date:** 10/22/2015 01:38 PM

**Work Order:** 15101476  
**Lab ID:** 15101476-17  
**Matrix:** WATER

| Analyses                          | Result | Qual | MDL             | Report Limit | Units | Dilution Factor | Date Analyzed   |
|-----------------------------------|--------|------|-----------------|--------------|-------|-----------------|-----------------|
| <b>VOLATILE ORGANIC COMPOUNDS</b> |        |      | Method: SW8260B |              |       | Analyst: DD     |                 |
| 1,1,1-Trichloroethane             | U      |      | 0.19            | 1.0          | µg/L  | 1               | 11/3/2015 15:04 |
| 1,1,2,2-Tetrachloroethane         | U      |      | 0.34            | 1.0          | µg/L  | 1               | 11/3/2015 15:04 |
| 1,1,2-Trichloroethane             | U      |      | 0.25            | 1.0          | µg/L  | 1               | 11/3/2015 15:04 |
| 1,1,2-Trichlorotrifluoroethane    | U      |      | 0.47            | 1.0          | µg/L  | 1               | 11/3/2015 15:04 |
| 1,1-Dichloroethane                | U      |      | 0.21            | 1.0          | µg/L  | 1               | 11/3/2015 15:04 |
| 1,1-Dichloroethene                | U      |      | 0.24            | 1.0          | µg/L  | 1               | 11/3/2015 15:04 |
| 1,2,4-Trichlorobenzene            | U      |      | 0.19            | 5.0          | µg/L  | 1               | 11/3/2015 15:04 |
| 1,2-Dibromo-3-chloropropane       | U      |      | 0.42            | 1.0          | µg/L  | 1               | 11/3/2015 15:04 |
| 1,2-Dibromoethane                 | U      |      | 0.34            | 1.0          | µg/L  | 1               | 11/3/2015 15:04 |
| 1,2-Dichlorobenzene               | U      |      | 0.22            | 1.0          | µg/L  | 1               | 11/3/2015 15:04 |
| 1,2-Dichloroethane                | U      |      | 0.26            | 1.0          | µg/L  | 1               | 11/3/2015 15:04 |
| 1,2-Dichloropropane               | U      |      | 0.26            | 1.0          | µg/L  | 1               | 11/3/2015 15:04 |
| 1,3-Dichlorobenzene               | U      |      | 0.21            | 1.0          | µg/L  | 1               | 11/3/2015 15:04 |
| 1,4-Dichlorobenzene               | U      |      | 0.20            | 1.0          | µg/L  | 1               | 11/3/2015 15:04 |
| 2-Butanone                        | U      |      | 0.87            | 25           | µg/L  | 1               | 11/3/2015 15:04 |
| 2-Hexanone                        | U      |      | 0.15            | 50           | µg/L  | 1               | 11/3/2015 15:04 |
| 4-Methyl-2-pentanone              | U      |      | 0.15            | 50           | µg/L  | 1               | 11/3/2015 15:04 |
| Acetone                           | U      |      | 3.1             | 50           | µg/L  | 1               | 11/3/2015 15:04 |
| Benzene                           | U      |      | 0.25            | 1.0          | µg/L  | 1               | 11/3/2015 15:04 |
| Bromodichloromethane              | U      |      | 0.16            | 1.0          | µg/L  | 1               | 11/3/2015 15:04 |
| Bromoform                         | U      |      | 0.099           | 1.0          | µg/L  | 1               | 11/3/2015 15:04 |
| Bromomethane                      | U      |      | 1.0             | 5.0          | µg/L  | 1               | 11/3/2015 15:04 |
| Carbon disulfide                  | U      |      | 0.26            | 5.0          | µg/L  | 1               | 11/3/2015 15:04 |
| Carbon tetrachloride              | U      |      | 0.14            | 1.0          | µg/L  | 1               | 11/3/2015 15:04 |
| Chlorobenzene                     | U      |      | 0.19            | 1.0          | µg/L  | 1               | 11/3/2015 15:04 |
| Chloroethane                      | U      |      | 0.21            | 5.0          | µg/L  | 1               | 11/3/2015 15:04 |
| Chloroform                        | U      |      | 0.25            | 1.0          | µg/L  | 1               | 11/3/2015 15:04 |
| Chloromethane                     | U      |      | 0.25            | 5.0          | µg/L  | 1               | 11/3/2015 15:04 |
| cis-1,2-Dichloroethene            | U      |      | 0.25            | 1.0          | µg/L  | 1               | 11/3/2015 15:04 |
| cis-1,3-Dichloropropene           | U      |      | 0.24            | 1.0          | µg/L  | 1               | 11/3/2015 15:04 |
| Cyclohexane                       | U      |      | 0.31            | 1.0          | µg/L  | 1               | 11/3/2015 15:04 |
| Dibromochloromethane              | U      |      | 0.17            | 5.0          | µg/L  | 1               | 11/3/2015 15:04 |
| Dichlorodifluoromethane           | U      |      | 0.41            | 5.0          | µg/L  | 1               | 11/3/2015 15:04 |
| Ethylbenzene                      | U      |      | 0.22            | 1.0          | µg/L  | 1               | 11/3/2015 15:04 |
| Isopropylbenzene                  | U      |      | 0.25            | 5.0          | µg/L  | 1               | 11/3/2015 15:04 |
| Methyl acetate                    | U      |      | 0.62            | 10           | µg/L  | 1               | 11/3/2015 15:04 |
| Methyl tert-butyl ether           | U      |      | 0.12            | 5.0          | µg/L  | 1               | 11/3/2015 15:04 |
| Methylcyclohexane                 | U      |      | 0.32            | 1.0          | µg/L  | 1               | 11/3/2015 15:04 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 06-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102215-MR-017  
**Collection Date:** 10/22/2015 01:38 PM

**Work Order:** 15101476  
**Lab ID:** 15101476-17  
**Matrix:** WATER

| Analyses                    | Result     | Qual | MDL         | Report Limit | Units       | Dilution Factor | Date Analyzed   |
|-----------------------------|------------|------|-------------|--------------|-------------|-----------------|-----------------|
| Methylene chloride          | U          |      | 0.64        | 5.0          | µg/L        | 1               | 11/3/2015 15:04 |
| Styrene                     | U          |      | 0.18        | 1.0          | µg/L        | 1               | 11/3/2015 15:04 |
| Tetrachloroethene           | U          |      | 0.25        | 1.0          | µg/L        | 1               | 11/3/2015 15:04 |
| Toluene                     | U          |      | 0.20        | 1.0          | µg/L        | 1               | 11/3/2015 15:04 |
| trans-1,2-Dichloroethene    | U          |      | 0.29        | 1.0          | µg/L        | 1               | 11/3/2015 15:04 |
| trans-1,3-Dichloropropene   | U          |      | 0.19        | 1.0          | µg/L        | 1               | 11/3/2015 15:04 |
| <b>Trichloroethene</b>      | <b>2.2</b> |      | <b>0.34</b> | <b>1.0</b>   | <b>µg/L</b> | 1               | 11/3/2015 15:04 |
| Trichlorofluoromethane      | U          |      | 0.39        | 1.0          | µg/L        | 1               | 11/3/2015 15:04 |
| Vinyl chloride              | U          |      | 0.19        | 1.0          | µg/L        | 1               | 11/3/2015 15:04 |
| Xylenes, Total              | U          |      | 0.62        | 3.0          | µg/L        | 1               | 11/3/2015 15:04 |
| Surr: 1,2-Dichloroethane-d4 | 104        |      |             | 75-120       | %REC        | 1               | 11/3/2015 15:04 |
| Surr: 4-Bromofluorobenzene  | 95.0       |      |             | 80-110       | %REC        | 1               | 11/3/2015 15:04 |
| Surr: Dibromofluoromethane  | 103        |      |             | 85-115       | %REC        | 1               | 11/3/2015 15:04 |
| Surr: Toluene-d8            | 93.1       |      |             | 85-110       | %REC        | 1               | 11/3/2015 15:04 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 06-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102215-MR-018  
**Collection Date:** 10/22/2015 02:59 PM

**Work Order:** 15101476  
**Lab ID:** 15101476-18  
**Matrix:** WATER

| Analyses                          | Result      | Qual     | MDL             | Report Limit | Units       | Dilution Factor | Date Analyzed   |
|-----------------------------------|-------------|----------|-----------------|--------------|-------------|-----------------|-----------------|
| <b>VOLATILE ORGANIC COMPOUNDS</b> |             |          | Method: SW8260B |              |             | Analyst: DD     |                 |
| 1,1,1-Trichloroethane             | U           |          | 0.19            | 1.0          | µg/L        | 1               | 11/3/2015 15:29 |
| 1,1,2,2-Tetrachloroethane         | U           |          | 0.34            | 1.0          | µg/L        | 1               | 11/3/2015 15:29 |
| 1,1,2-Trichloroethane             | U           |          | 0.25            | 1.0          | µg/L        | 1               | 11/3/2015 15:29 |
| 1,1,2-Trichlorotrifluoroethane    | U           |          | 0.47            | 1.0          | µg/L        | 1               | 11/3/2015 15:29 |
| 1,1-Dichloroethane                | U           |          | 0.21            | 1.0          | µg/L        | 1               | 11/3/2015 15:29 |
| 1,1-Dichloroethene                | U           |          | 0.24            | 1.0          | µg/L        | 1               | 11/3/2015 15:29 |
| 1,2,4-Trichlorobenzene            | U           |          | 0.19            | 5.0          | µg/L        | 1               | 11/3/2015 15:29 |
| 1,2-Dibromo-3-chloropropane       | U           |          | 0.42            | 1.0          | µg/L        | 1               | 11/3/2015 15:29 |
| 1,2-Dibromoethane                 | U           |          | 0.34            | 1.0          | µg/L        | 1               | 11/3/2015 15:29 |
| 1,2-Dichlorobenzene               | U           |          | 0.22            | 1.0          | µg/L        | 1               | 11/3/2015 15:29 |
| 1,2-Dichloroethane                | U           |          | 0.26            | 1.0          | µg/L        | 1               | 11/3/2015 15:29 |
| 1,2-Dichloropropane               | U           |          | 0.26            | 1.0          | µg/L        | 1               | 11/3/2015 15:29 |
| 1,3-Dichlorobenzene               | U           |          | 0.21            | 1.0          | µg/L        | 1               | 11/3/2015 15:29 |
| 1,4-Dichlorobenzene               | U           |          | 0.20            | 1.0          | µg/L        | 1               | 11/3/2015 15:29 |
| 2-Butanone                        | U           |          | 0.87            | 25           | µg/L        | 1               | 11/3/2015 15:29 |
| 2-Hexanone                        | U           |          | 0.15            | 50           | µg/L        | 1               | 11/3/2015 15:29 |
| 4-Methyl-2-pentanone              | U           |          | 0.15            | 50           | µg/L        | 1               | 11/3/2015 15:29 |
| Acetone                           | U           |          | 3.1             | 50           | µg/L        | 1               | 11/3/2015 15:29 |
| Benzene                           | U           |          | 0.25            | 1.0          | µg/L        | 1               | 11/3/2015 15:29 |
| Bromodichloromethane              | U           |          | 0.16            | 1.0          | µg/L        | 1               | 11/3/2015 15:29 |
| Bromoform                         | U           |          | 0.099           | 1.0          | µg/L        | 1               | 11/3/2015 15:29 |
| Bromomethane                      | U           |          | 1.0             | 5.0          | µg/L        | 1               | 11/3/2015 15:29 |
| Carbon disulfide                  | U           |          | 0.26            | 5.0          | µg/L        | 1               | 11/3/2015 15:29 |
| Carbon tetrachloride              | U           |          | 0.14            | 1.0          | µg/L        | 1               | 11/3/2015 15:29 |
| Chlorobenzene                     | U           |          | 0.19            | 1.0          | µg/L        | 1               | 11/3/2015 15:29 |
| Chloroethane                      | U           |          | 0.21            | 5.0          | µg/L        | 1               | 11/3/2015 15:29 |
| Chloroform                        | U           |          | 0.25            | 1.0          | µg/L        | 1               | 11/3/2015 15:29 |
| Chloromethane                     | U           |          | 0.25            | 5.0          | µg/L        | 1               | 11/3/2015 15:29 |
| cis-1,2-Dichloroethene            | U           |          | 0.25            | 1.0          | µg/L        | 1               | 11/3/2015 15:29 |
| cis-1,3-Dichloropropene           | U           |          | 0.24            | 1.0          | µg/L        | 1               | 11/3/2015 15:29 |
| Cyclohexane                       | U           |          | 0.31            | 1.0          | µg/L        | 1               | 11/3/2015 15:29 |
| Dibromochloromethane              | U           |          | 0.17            | 5.0          | µg/L        | 1               | 11/3/2015 15:29 |
| Dichlorodifluoromethane           | U           |          | 0.41            | 5.0          | µg/L        | 1               | 11/3/2015 15:29 |
| Ethylbenzene                      | U           |          | 0.22            | 1.0          | µg/L        | 1               | 11/3/2015 15:29 |
| Isopropylbenzene                  | U           |          | 0.25            | 5.0          | µg/L        | 1               | 11/3/2015 15:29 |
| Methyl acetate                    | U           |          | 0.62            | 10           | µg/L        | 1               | 11/3/2015 15:29 |
| <b>Methyl tert-butyl ether</b>    | <b>0.63</b> | <b>J</b> | <b>0.12</b>     | <b>5.0</b>   | <b>µg/L</b> | 1               | 11/3/2015 15:29 |
| Methylcyclohexane                 | U           |          | 0.32            | 1.0          | µg/L        | 1               | 11/3/2015 15:29 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

**ALS Group USA, Corp**

Date: 06-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102215-MR-018  
**Collection Date:** 10/22/2015 02:59 PM

**Work Order:** 15101476  
**Lab ID:** 15101476-18  
**Matrix:** WATER

| Analyses                    | Result | Qual | MDL  | Report Limit | Units | Dilution Factor | Date Analyzed   |
|-----------------------------|--------|------|------|--------------|-------|-----------------|-----------------|
| Methylene chloride          | U      |      | 0.64 | 5.0          | µg/L  | 1               | 11/3/2015 15:29 |
| Styrene                     | U      |      | 0.18 | 1.0          | µg/L  | 1               | 11/3/2015 15:29 |
| Tetrachloroethene           | U      |      | 0.25 | 1.0          | µg/L  | 1               | 11/3/2015 15:29 |
| Toluene                     | U      |      | 0.20 | 1.0          | µg/L  | 1               | 11/3/2015 15:29 |
| trans-1,2-Dichloroethene    | U      |      | 0.29 | 1.0          | µg/L  | 1               | 11/3/2015 15:29 |
| trans-1,3-Dichloropropene   | U      |      | 0.19 | 1.0          | µg/L  | 1               | 11/3/2015 15:29 |
| Trichloroethene             | U      |      | 0.34 | 1.0          | µg/L  | 1               | 11/3/2015 15:29 |
| Trichlorofluoromethane      | U      |      | 0.39 | 1.0          | µg/L  | 1               | 11/3/2015 15:29 |
| Vinyl chloride              | U      |      | 0.19 | 1.0          | µg/L  | 1               | 11/3/2015 15:29 |
| Xylenes, Total              | U      |      | 0.62 | 3.0          | µg/L  | 1               | 11/3/2015 15:29 |
| Surr: 1,2-Dichloroethane-d4 | 104    |      |      | 75-120       | %REC  | 1               | 11/3/2015 15:29 |
| Surr: 4-Bromofluorobenzene  | 95.8   |      |      | 80-110       | %REC  | 1               | 11/3/2015 15:29 |
| Surr: Dibromofluoromethane  | 102    |      |      | 85-115       | %REC  | 1               | 11/3/2015 15:29 |
| Surr: Toluene-d8            | 95.0   |      |      | 85-110       | %REC  | 1               | 11/3/2015 15:29 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 06-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102215-MR-019  
**Collection Date:** 10/22/2015 03:56 PM

**Work Order:** 15101476  
**Lab ID:** 15101476-19  
**Matrix:** WATER

| Analyses                          | Result    | Qual | MDL             | Report Limit | Units       | Dilution Factor | Date Analyzed   |
|-----------------------------------|-----------|------|-----------------|--------------|-------------|-----------------|-----------------|
| <b>VOLATILE ORGANIC COMPOUNDS</b> |           |      | Method: SW8260B |              |             | Analyst: DD     |                 |
| 1,1,1-Trichloroethane             | U         |      | 0.19            | 1.0          | µg/L        | 1               | 11/3/2015 15:53 |
| 1,1,2,2-Tetrachloroethane         | U         |      | 0.34            | 1.0          | µg/L        | 1               | 11/3/2015 15:53 |
| 1,1,2-Trichloroethane             | U         |      | 0.25            | 1.0          | µg/L        | 1               | 11/3/2015 15:53 |
| 1,1,2-Trichlorotrifluoroethane    | U         |      | 0.47            | 1.0          | µg/L        | 1               | 11/3/2015 15:53 |
| 1,1-Dichloroethane                | U         |      | 0.21            | 1.0          | µg/L        | 1               | 11/3/2015 15:53 |
| 1,1-Dichloroethene                | U         |      | 0.24            | 1.0          | µg/L        | 1               | 11/3/2015 15:53 |
| 1,2,4-Trichlorobenzene            | U         |      | 0.19            | 5.0          | µg/L        | 1               | 11/3/2015 15:53 |
| 1,2-Dibromo-3-chloropropane       | U         |      | 0.42            | 1.0          | µg/L        | 1               | 11/3/2015 15:53 |
| 1,2-Dibromoethane                 | U         |      | 0.34            | 1.0          | µg/L        | 1               | 11/3/2015 15:53 |
| 1,2-Dichlorobenzene               | U         |      | 0.22            | 1.0          | µg/L        | 1               | 11/3/2015 15:53 |
| 1,2-Dichloroethane                | U         |      | 0.26            | 1.0          | µg/L        | 1               | 11/3/2015 15:53 |
| 1,2-Dichloropropane               | U         |      | 0.26            | 1.0          | µg/L        | 1               | 11/3/2015 15:53 |
| 1,3-Dichlorobenzene               | U         |      | 0.21            | 1.0          | µg/L        | 1               | 11/3/2015 15:53 |
| 1,4-Dichlorobenzene               | U         |      | 0.20            | 1.0          | µg/L        | 1               | 11/3/2015 15:53 |
| 2-Butanone                        | U         |      | 0.87            | 25           | µg/L        | 1               | 11/3/2015 15:53 |
| 2-Hexanone                        | U         |      | 0.15            | 50           | µg/L        | 1               | 11/3/2015 15:53 |
| 4-Methyl-2-pentanone              | U         |      | 0.15            | 50           | µg/L        | 1               | 11/3/2015 15:53 |
| Acetone                           | U         |      | 3.1             | 50           | µg/L        | 1               | 11/3/2015 15:53 |
| Benzene                           | U         |      | 0.25            | 1.0          | µg/L        | 1               | 11/3/2015 15:53 |
| Bromodichloromethane              | U         |      | 0.16            | 1.0          | µg/L        | 1               | 11/3/2015 15:53 |
| Bromoform                         | U         |      | 0.099           | 1.0          | µg/L        | 1               | 11/3/2015 15:53 |
| Bromomethane                      | U         |      | 1.0             | 5.0          | µg/L        | 1               | 11/3/2015 15:53 |
| Carbon disulfide                  | U         |      | 0.26            | 5.0          | µg/L        | 1               | 11/3/2015 15:53 |
| Carbon tetrachloride              | U         |      | 0.14            | 1.0          | µg/L        | 1               | 11/3/2015 15:53 |
| Chlorobenzene                     | U         |      | 0.19            | 1.0          | µg/L        | 1               | 11/3/2015 15:53 |
| Chloroethane                      | U         |      | 0.21            | 5.0          | µg/L        | 1               | 11/3/2015 15:53 |
| Chloroform                        | U         |      | 0.25            | 1.0          | µg/L        | 1               | 11/3/2015 15:53 |
| Chloromethane                     | U         |      | 0.25            | 5.0          | µg/L        | 1               | 11/3/2015 15:53 |
| <b>cis-1,2-Dichloroethene</b>     | <b>69</b> |      | <b>0.25</b>     | <b>1.0</b>   | <b>µg/L</b> | 1               | 11/3/2015 15:53 |
| cis-1,3-Dichloropropene           | U         |      | 0.24            | 1.0          | µg/L        | 1               | 11/3/2015 15:53 |
| Cyclohexane                       | U         |      | 0.31            | 1.0          | µg/L        | 1               | 11/3/2015 15:53 |
| Dibromochloromethane              | U         |      | 0.17            | 5.0          | µg/L        | 1               | 11/3/2015 15:53 |
| Dichlorodifluoromethane           | U         |      | 0.41            | 5.0          | µg/L        | 1               | 11/3/2015 15:53 |
| Ethylbenzene                      | U         |      | 0.22            | 1.0          | µg/L        | 1               | 11/3/2015 15:53 |
| Isopropylbenzene                  | U         |      | 0.25            | 5.0          | µg/L        | 1               | 11/3/2015 15:53 |
| Methyl acetate                    | U         |      | 0.62            | 10           | µg/L        | 1               | 11/3/2015 15:53 |
| Methyl tert-butyl ether           | U         |      | 0.12            | 5.0          | µg/L        | 1               | 11/3/2015 15:53 |
| Methylcyclohexane                 | U         |      | 0.32            | 1.0          | µg/L        | 1               | 11/3/2015 15:53 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 06-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102215-MR-019  
**Collection Date:** 10/22/2015 03:56 PM

**Work Order:** 15101476  
**Lab ID:** 15101476-19  
**Matrix:** WATER

| Analyses                        | Result     | Qual | MDL         | Report Limit | Units       | Dilution Factor | Date Analyzed   |
|---------------------------------|------------|------|-------------|--------------|-------------|-----------------|-----------------|
| Methylene chloride              | U          |      | 0.64        | 5.0          | µg/L        | 1               | 11/3/2015 15:53 |
| Styrene                         | U          |      | 0.18        | 1.0          | µg/L        | 1               | 11/3/2015 15:53 |
| <b>Tetrachloroethene</b>        | <b>160</b> |      | <b>1.2</b>  | <b>5.0</b>   | <b>µg/L</b> | 5               | 11/4/2015 17:16 |
| Toluene                         | U          |      | 0.20        | 1.0          | µg/L        | 1               | 11/3/2015 15:53 |
| <b>trans-1,2-Dichloroethene</b> | <b>2.2</b> |      | <b>0.29</b> | <b>1.0</b>   | <b>µg/L</b> | 1               | 11/3/2015 15:53 |
| trans-1,3-Dichloropropene       | U          |      | 0.19        | 1.0          | µg/L        | 1               | 11/3/2015 15:53 |
| <b>Trichloroethene</b>          | <b>8.6</b> |      | <b>0.34</b> | <b>1.0</b>   | <b>µg/L</b> | 1               | 11/3/2015 15:53 |
| Trichlorofluoromethane          | U          |      | 0.39        | 1.0          | µg/L        | 1               | 11/3/2015 15:53 |
| Vinyl chloride                  | U          |      | 0.19        | 1.0          | µg/L        | 1               | 11/3/2015 15:53 |
| Xylenes, Total                  | U          |      | 0.62        | 3.0          | µg/L        | 1               | 11/3/2015 15:53 |
| Surr: 1,2-Dichloroethane-d4     | 106        |      |             | 75-120       | %REC        | 1               | 11/3/2015 15:53 |
| Surr: 1,2-Dichloroethane-d4     | 98.2       |      |             | 75-120       | %REC        | 5               | 11/4/2015 17:16 |
| Surr: 4-Bromofluorobenzene      | 96.1       |      |             | 80-110       | %REC        | 1               | 11/3/2015 15:53 |
| Surr: 4-Bromofluorobenzene      | 98.6       |      |             | 80-110       | %REC        | 5               | 11/4/2015 17:16 |
| Surr: Dibromofluoromethane      | 103        |      |             | 85-115       | %REC        | 1               | 11/3/2015 15:53 |
| Surr: Dibromofluoromethane      | 101        |      |             | 85-115       | %REC        | 5               | 11/4/2015 17:16 |
| Surr: Toluene-d8                | 93.0       |      |             | 85-110       | %REC        | 1               | 11/3/2015 15:53 |
| Surr: Toluene-d8                | 99.2       |      |             | 85-110       | %REC        | 5               | 11/4/2015 17:16 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.



# ALS Group USA, Corp

Date: 06-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102215-MR-020  
**Collection Date:** 10/22/2015 04:52 PM

**Work Order:** 15101476  
**Lab ID:** 15101476-20  
**Matrix:** WATER

| Analyses                               | Result | Qual | MDL                        | Report Limit | Units                   | Dilution Factor | Date Analyzed      |
|----------------------------------------|--------|------|----------------------------|--------------|-------------------------|-----------------|--------------------|
| <b>SEMI-VOLATILE ORGANIC COMPOUNDS</b> |        |      | Method: <b>SW846 8270D</b> |              | Prep: SW3510 / 10/28/15 |                 | Analyst: <b>RS</b> |
| 1,1'-Biphenyl                          | U      |      | 0.22                       | 5.0          | µg/L                    | 1               | 10/29/2015 01:19   |
| 2,4,5-Trichlorophenol                  | U      |      | 0.29                       | 5.0          | µg/L                    | 1               | 10/29/2015 01:19   |
| 2,4,6-Trichlorophenol                  | U      |      | 0.25                       | 5.0          | µg/L                    | 1               | 10/29/2015 01:19   |
| 2,4-Dichlorophenol                     | U      |      | 0.17                       | 5.0          | µg/L                    | 1               | 10/29/2015 01:19   |
| 2,4-Dimethylphenol                     | U      |      | 0.18                       | 5.0          | µg/L                    | 1               | 10/29/2015 01:19   |
| 2,4-Dinitrophenol                      | U      |      | 1.5                        | 5.0          | µg/L                    | 1               | 10/29/2015 01:19   |
| 2,4-Dinitrotoluene                     | U      |      | 0.14                       | 5.0          | µg/L                    | 1               | 10/29/2015 01:19   |
| 2,6-Dinitrotoluene                     | U      |      | 0.20                       | 5.0          | µg/L                    | 1               | 10/29/2015 01:19   |
| 2-Chloronaphthalene                    | U      |      | 0.030                      | 5.0          | µg/L                    | 1               | 10/29/2015 01:19   |
| 2-Chlorophenol                         | U      |      | 0.29                       | 5.0          | µg/L                    | 1               | 10/29/2015 01:19   |
| 2-Methylnaphthalene                    | U      |      | 0.099                      | 5.0          | µg/L                    | 1               | 10/29/2015 01:19   |
| 2-Methylphenol                         | U      |      | 0.14                       | 5.0          | µg/L                    | 1               | 10/29/2015 01:19   |
| 2-Nitroaniline                         | U      |      | 0.24                       | 5.0          | µg/L                    | 1               | 10/29/2015 01:19   |
| 2-Nitrophenol                          | U      |      | 0.27                       | 5.0          | µg/L                    | 1               | 10/29/2015 01:19   |
| 3&4-Methylphenol                       | U      |      | 0.24                       | 5.0          | µg/L                    | 1               | 10/29/2015 01:19   |
| 3,3'-Dichlorobenzidine                 | U      |      | 0.70                       | 5.0          | µg/L                    | 1               | 10/29/2015 01:19   |
| 3-Nitroaniline                         | U      |      | 0.24                       | 5.0          | µg/L                    | 1               | 10/29/2015 01:19   |
| 4,6-Dinitro-2-methylphenol             | U      |      | 0.12                       | 5.0          | µg/L                    | 1               | 10/29/2015 01:19   |
| 4-Bromophenyl phenyl ether             | U      |      | 0.29                       | 5.0          | µg/L                    | 1               | 10/29/2015 01:19   |
| 4-Chloro-3-methylphenol                | U      |      | 0.16                       | 5.0          | µg/L                    | 1               | 10/29/2015 01:19   |
| 4-Chloroaniline                        | U      |      | 0.22                       | 5.0          | µg/L                    | 1               | 10/29/2015 01:19   |
| 4-Chlorophenyl phenyl ether            | U      |      | 0.20                       | 5.0          | µg/L                    | 1               | 10/29/2015 01:19   |
| 4-Nitroaniline                         | U      |      | 0.13                       | 5.0          | µg/L                    | 1               | 10/29/2015 01:19   |
| 4-Nitrophenol                          | U      |      | 0.62                       | 5.0          | µg/L                    | 1               | 10/29/2015 01:19   |
| Acenaphthene                           | U      |      | 0.041                      | 5.0          | µg/L                    | 1               | 10/29/2015 01:19   |
| Acenaphthylene                         | U      |      | 0.039                      | 5.0          | µg/L                    | 1               | 10/29/2015 01:19   |
| Acetophenone                           | U      |      | 0.37                       | 1.0          | µg/L                    | 1               | 10/29/2015 01:19   |
| Anthracene                             | U      |      | 0.028                      | 5.0          | µg/L                    | 1               | 10/29/2015 01:19   |
| Atrazine                               | U      |      | 0.16                       | 1.0          | µg/L                    | 1               | 10/29/2015 01:19   |
| Benzaldehyde                           | U      |      | 0.25                       | 1.0          | µg/L                    | 1               | 10/29/2015 01:19   |
| Benzo(a)anthracene                     | U      |      | 0.072                      | 5.0          | µg/L                    | 1               | 10/29/2015 01:19   |
| Benzo(a)pyrene                         | U      |      | 0.036                      | 5.0          | µg/L                    | 1               | 10/29/2015 01:19   |
| Benzo(b)fluoranthene                   | U      |      | 0.043                      | 5.0          | µg/L                    | 1               | 10/29/2015 01:19   |
| Benzo(g,h,i)perylene                   | U      |      | 0.070                      | 5.0          | µg/L                    | 1               | 10/29/2015 01:19   |
| Benzo(k)fluoranthene                   | U      |      | 0.062                      | 5.0          | µg/L                    | 1               | 10/29/2015 01:19   |
| Bis(2-chloroethoxy)methane             | U      |      | 0.23                       | 5.0          | µg/L                    | 1               | 10/29/2015 01:19   |
| Bis(2-chloroethyl)ether                | U      |      | 0.16                       | 5.0          | µg/L                    | 1               | 10/29/2015 01:19   |
| Bis(2-chloroisopropyl)ether            | U      |      | 0.19                       | 5.0          | µg/L                    | 1               | 10/29/2015 01:19   |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 06-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102215-MR-020  
**Collection Date:** 10/22/2015 04:52 PM

**Work Order:** 15101476  
**Lab ID:** 15101476-20  
**Matrix:** WATER

| Analyses                          | Result     | Qual     | MDL         | Report Limit | Units       | Dilution Factor | Date Analyzed    |
|-----------------------------------|------------|----------|-------------|--------------|-------------|-----------------|------------------|
| <b>Bis(2-ethylhexyl)phthalate</b> | <b>1.5</b> | <b>J</b> | <b>0.18</b> | <b>5.0</b>   | <b>µg/L</b> | <b>1</b>        | 10/29/2015 01:19 |
| Butyl benzyl phthalate            | U          |          | 0.12        | 5.0          | µg/L        | 1               | 10/29/2015 01:19 |
| Caprolactam                       | U          |          | 0.96        | 10           | µg/L        | 1               | 10/29/2015 01:19 |
| Carbazole                         | U          |          | 0.12        | 5.0          | µg/L        | 1               | 10/29/2015 01:19 |
| Chrysene                          | U          |          | 0.042       | 5.0          | µg/L        | 1               | 10/29/2015 01:19 |
| Dibenzo(a,h)anthracene            | U          |          | 0.074       | 5.0          | µg/L        | 1               | 10/29/2015 01:19 |
| Dibenzofuran                      | U          |          | 0.23        | 5.0          | µg/L        | 1               | 10/29/2015 01:19 |
| Diethyl phthalate                 | U          |          | 0.17        | 5.0          | µg/L        | 1               | 10/29/2015 01:19 |
| Dimethyl phthalate                | U          |          | 0.15        | 5.0          | µg/L        | 1               | 10/29/2015 01:19 |
| Di-n-butyl phthalate              | U          |          | 0.15        | 5.0          | µg/L        | 1               | 10/29/2015 01:19 |
| Di-n-octyl phthalate              | U          |          | 0.15        | 5.0          | µg/L        | 1               | 10/29/2015 01:19 |
| Fluoranthene                      | U          |          | 0.047       | 5.0          | µg/L        | 1               | 10/29/2015 01:19 |
| Fluorene                          | U          |          | 0.036       | 5.0          | µg/L        | 1               | 10/29/2015 01:19 |
| Hexachlorobenzene                 | U          |          | 0.23        | 5.0          | µg/L        | 1               | 10/29/2015 01:19 |
| Hexachlorobutadiene               | U          |          | 0.37        | 5.0          | µg/L        | 1               | 10/29/2015 01:19 |
| Hexachlorocyclopentadiene         | U          |          | 0.18        | 5.0          | µg/L        | 1               | 10/29/2015 01:19 |
| Hexachloroethane                  | U          |          | 0.47        | 5.0          | µg/L        | 1               | 10/29/2015 01:19 |
| Indeno(1,2,3-cd)pyrene            | U          |          | 0.064       | 5.0          | µg/L        | 1               | 10/29/2015 01:19 |
| Isophorone                        | U          |          | 0.25        | 5.0          | µg/L        | 1               | 10/29/2015 01:19 |
| Naphthalene                       | U          |          | 0.050       | 5.0          | µg/L        | 1               | 10/29/2015 01:19 |
| Nitrobenzene                      | U          |          | 0.23        | 5.0          | µg/L        | 1               | 10/29/2015 01:19 |
| N-Nitrosodi-n-propylamine         | U          |          | 0.24        | 5.0          | µg/L        | 1               | 10/29/2015 01:19 |
| N-Nitrosodiphenylamine            | U          |          | 0.24        | 5.0          | µg/L        | 1               | 10/29/2015 01:19 |
| Pentachlorophenol                 | U          |          | 0.52        | 5.0          | µg/L        | 1               | 10/29/2015 01:19 |
| Phenanthrene                      | U          |          | 0.054       | 5.0          | µg/L        | 1               | 10/29/2015 01:19 |
| Phenol                            | U          |          | 0.13        | 5.0          | µg/L        | 1               | 10/29/2015 01:19 |
| Pyrene                            | U          |          | 0.069       | 5.0          | µg/L        | 1               | 10/29/2015 01:19 |
| Surr: 2,4,6-Tribromophenol        | 58.8       |          |             | 38-115       | %REC        | 1               | 10/29/2015 01:19 |
| Surr: 2-Fluorobiphenyl            | 46.8       |          |             | 32-100       | %REC        | 1               | 10/29/2015 01:19 |
| Surr: 2-Fluorophenol              | 27.5       |          |             | 22-59        | %REC        | 1               | 10/29/2015 01:19 |
| Surr: 4-Terphenyl-d14             | 69.4       |          |             | 23-112       | %REC        | 1               | 10/29/2015 01:19 |
| Surr: Nitrobenzene-d5             | 43.9       |          |             | 31-93        | %REC        | 1               | 10/29/2015 01:19 |
| Surr: Phenol-d6                   | 16.9       |          |             | 13-36        | %REC        | 1               | 10/29/2015 01:19 |

## VOLATILE ORGANIC COMPOUNDS

Method: SW8260B

Analyst: DD

|                                |   |  |      |     |      |   |                 |
|--------------------------------|---|--|------|-----|------|---|-----------------|
| 1,1,1-Trichloroethane          | U |  | 0.19 | 1.0 | µg/L | 1 | 11/3/2015 13:47 |
| 1,1,2,2-Tetrachloroethane      | U |  | 0.34 | 1.0 | µg/L | 1 | 11/3/2015 13:47 |
| 1,1,2-Trichloroethane          | U |  | 0.25 | 1.0 | µg/L | 1 | 11/3/2015 13:47 |
| 1,1,2-Trichlorotrifluoroethane | U |  | 0.47 | 1.0 | µg/L | 1 | 11/3/2015 13:47 |
| 1,1-Dichloroethane             | U |  | 0.21 | 1.0 | µg/L | 1 | 11/3/2015 13:47 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 06-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102215-MR-020  
**Collection Date:** 10/22/2015 04:52 PM

**Work Order:** 15101476  
**Lab ID:** 15101476-20  
**Matrix:** WATER

| Analyses                    | Result     | Qual | MDL         | Report Limit | Units       | Dilution Factor | Date Analyzed   |
|-----------------------------|------------|------|-------------|--------------|-------------|-----------------|-----------------|
| 1,1-Dichloroethene          | U          |      | 0.24        | 1.0          | µg/L        | 1               | 11/3/2015 13:47 |
| 1,2,4-Trichlorobenzene      | U          |      | 0.19        | 5.0          | µg/L        | 1               | 11/3/2015 13:47 |
| 1,2-Dibromo-3-chloropropane | U          |      | 0.42        | 1.0          | µg/L        | 1               | 11/3/2015 13:47 |
| 1,2-Dibromoethane           | U          |      | 0.34        | 1.0          | µg/L        | 1               | 11/3/2015 13:47 |
| 1,2-Dichlorobenzene         | U          |      | 0.22        | 1.0          | µg/L        | 1               | 11/3/2015 13:47 |
| 1,2-Dichloroethane          | U          |      | 0.26        | 1.0          | µg/L        | 1               | 11/3/2015 13:47 |
| 1,2-Dichloropropane         | U          |      | 0.26        | 1.0          | µg/L        | 1               | 11/3/2015 13:47 |
| 1,3-Dichlorobenzene         | U          |      | 0.21        | 1.0          | µg/L        | 1               | 11/3/2015 13:47 |
| 1,4-Dichlorobenzene         | U          |      | 0.20        | 1.0          | µg/L        | 1               | 11/3/2015 13:47 |
| 2-Butanone                  | U          |      | 0.87        | 25           | µg/L        | 1               | 11/3/2015 13:47 |
| 2-Hexanone                  | U          |      | 0.15        | 50           | µg/L        | 1               | 11/3/2015 13:47 |
| 4-Methyl-2-pentanone        | U          |      | 0.15        | 50           | µg/L        | 1               | 11/3/2015 13:47 |
| Acetone                     | U          |      | 3.1         | 50           | µg/L        | 1               | 11/3/2015 13:47 |
| Benzene                     | U          |      | 0.25        | 1.0          | µg/L        | 1               | 11/3/2015 13:47 |
| Bromodichloromethane        | U          |      | 0.16        | 1.0          | µg/L        | 1               | 11/3/2015 13:47 |
| Bromoform                   | U          |      | 0.099       | 1.0          | µg/L        | 1               | 11/3/2015 13:47 |
| Bromomethane                | U          |      | 1.0         | 5.0          | µg/L        | 1               | 11/3/2015 13:47 |
| Carbon disulfide            | U          |      | 0.26        | 5.0          | µg/L        | 1               | 11/3/2015 13:47 |
| Carbon tetrachloride        | U          |      | 0.14        | 1.0          | µg/L        | 1               | 11/3/2015 13:47 |
| Chlorobenzene               | U          |      | 0.19        | 1.0          | µg/L        | 1               | 11/3/2015 13:47 |
| Chloroethane                | U          |      | 0.21        | 5.0          | µg/L        | 1               | 11/3/2015 13:47 |
| Chloroform                  | U          |      | 0.25        | 1.0          | µg/L        | 1               | 11/3/2015 13:47 |
| Chloromethane               | U          |      | 0.25        | 5.0          | µg/L        | 1               | 11/3/2015 13:47 |
| cis-1,2-Dichloroethene      | U          |      | 0.25        | 1.0          | µg/L        | 1               | 11/3/2015 13:47 |
| cis-1,3-Dichloropropene     | U          |      | 0.24        | 1.0          | µg/L        | 1               | 11/3/2015 13:47 |
| Cyclohexane                 | U          |      | 0.31        | 1.0          | µg/L        | 1               | 11/3/2015 13:47 |
| Dibromochloromethane        | U          |      | 0.17        | 5.0          | µg/L        | 1               | 11/3/2015 13:47 |
| Dichlorodifluoromethane     | U          |      | 0.41        | 5.0          | µg/L        | 1               | 11/3/2015 13:47 |
| Ethylbenzene                | U          |      | 0.22        | 1.0          | µg/L        | 1               | 11/3/2015 13:47 |
| Isopropylbenzene            | U          |      | 0.25        | 5.0          | µg/L        | 1               | 11/3/2015 13:47 |
| Methyl acetate              | U          |      | 0.62        | 10           | µg/L        | 1               | 11/3/2015 13:47 |
| Methyl tert-butyl ether     | U          |      | 0.12        | 5.0          | µg/L        | 1               | 11/3/2015 13:47 |
| Methylcyclohexane           | U          |      | 0.32        | 1.0          | µg/L        | 1               | 11/3/2015 13:47 |
| Methylene chloride          | U          |      | 0.64        | 5.0          | µg/L        | 1               | 11/3/2015 13:47 |
| Styrene                     | U          |      | 0.18        | 1.0          | µg/L        | 1               | 11/3/2015 13:47 |
| <b>Tetrachloroethene</b>    | <b>9.3</b> |      | <b>0.25</b> | <b>1.0</b>   | <b>µg/L</b> | 1               | 11/3/2015 13:47 |
| Toluene                     | U          |      | 0.20        | 1.0          | µg/L        | 1               | 11/3/2015 13:47 |
| trans-1,2-Dichloroethene    | U          |      | 0.29        | 1.0          | µg/L        | 1               | 11/3/2015 13:47 |
| trans-1,3-Dichloropropene   | U          |      | 0.19        | 1.0          | µg/L        | 1               | 11/3/2015 13:47 |
| <b>Trichloroethene</b>      | <b>1.9</b> |      | <b>0.34</b> | <b>1.0</b>   | <b>µg/L</b> | 1               | 11/3/2015 13:47 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

**ALS Group USA, Corp**

Date: 06-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** WG-017360-102215-MR-020  
**Collection Date:** 10/22/2015 04:52 PM

**Work Order:** 15101476  
**Lab ID:** 15101476-20  
**Matrix:** WATER

| Analyses                    | Result | Qual | MDL  | Report Limit | Units | Dilution Factor | Date Analyzed   |
|-----------------------------|--------|------|------|--------------|-------|-----------------|-----------------|
| Trichlorofluoromethane      | U      |      | 0.39 | 1.0          | µg/L  | 1               | 11/3/2015 13:47 |
| Vinyl chloride              | U      |      | 0.19 | 1.0          | µg/L  | 1               | 11/3/2015 13:47 |
| Xylenes, Total              | U      |      | 0.62 | 3.0          | µg/L  | 1               | 11/3/2015 13:47 |
| Surr: 1,2-Dichloroethane-d4 | 101    |      |      | 75-120       | %REC  | 1               | 11/3/2015 13:47 |
| Surr: 4-Bromofluorobenzene  | 97.0   |      |      | 80-110       | %REC  | 1               | 11/3/2015 13:47 |
| Surr: Dibromofluoromethane  | 97.6   |      |      | 85-115       | %REC  | 1               | 11/3/2015 13:47 |
| Surr: Toluene-d8            | 96.8   |      |      | 85-110       | %REC  | 1               | 11/3/2015 13:47 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 06-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** TB-017360-102215-MR-021  
**Collection Date:** 10/22/2015

**Work Order:** 15101476  
**Lab ID:** 15101476-21  
**Matrix:** WATER

| Analyses                          | Result      | Qual     | MDL             | Report Limit | Units       | Dilution Factor | Date Analyzed   |
|-----------------------------------|-------------|----------|-----------------|--------------|-------------|-----------------|-----------------|
| <b>VOLATILE ORGANIC COMPOUNDS</b> |             |          | Method: SW8260B |              |             | Analyst: DD     |                 |
| 1,1,1-Trichloroethane             | U           |          | 0.19            | 1.0          | µg/L        | 1               | 11/3/2015 14:11 |
| 1,1,2,2-Tetrachloroethane         | U           |          | 0.34            | 1.0          | µg/L        | 1               | 11/3/2015 14:11 |
| 1,1,2-Trichloroethane             | U           |          | 0.25            | 1.0          | µg/L        | 1               | 11/3/2015 14:11 |
| 1,1,2-Trichlorotrifluoroethane    | U           |          | 0.47            | 1.0          | µg/L        | 1               | 11/3/2015 14:11 |
| 1,1-Dichloroethane                | U           |          | 0.21            | 1.0          | µg/L        | 1               | 11/3/2015 14:11 |
| 1,1-Dichloroethene                | U           |          | 0.24            | 1.0          | µg/L        | 1               | 11/3/2015 14:11 |
| 1,2,4-Trichlorobenzene            | U           |          | 0.19            | 5.0          | µg/L        | 1               | 11/3/2015 14:11 |
| 1,2-Dibromo-3-chloropropane       | U           |          | 0.42            | 1.0          | µg/L        | 1               | 11/3/2015 14:11 |
| 1,2-Dibromoethane                 | U           |          | 0.34            | 1.0          | µg/L        | 1               | 11/3/2015 14:11 |
| 1,2-Dichlorobenzene               | U           |          | 0.22            | 1.0          | µg/L        | 1               | 11/3/2015 14:11 |
| 1,2-Dichloroethane                | U           |          | 0.26            | 1.0          | µg/L        | 1               | 11/3/2015 14:11 |
| 1,2-Dichloropropane               | U           |          | 0.26            | 1.0          | µg/L        | 1               | 11/3/2015 14:11 |
| 1,3-Dichlorobenzene               | U           |          | 0.21            | 1.0          | µg/L        | 1               | 11/3/2015 14:11 |
| 1,4-Dichlorobenzene               | U           |          | 0.20            | 1.0          | µg/L        | 1               | 11/3/2015 14:11 |
| 2-Butanone                        | U           |          | 0.87            | 25           | µg/L        | 1               | 11/3/2015 14:11 |
| 2-Hexanone                        | U           |          | 0.15            | 50           | µg/L        | 1               | 11/3/2015 14:11 |
| 4-Methyl-2-pentanone              | U           |          | 0.15            | 50           | µg/L        | 1               | 11/3/2015 14:11 |
| Acetone                           | U           |          | 3.1             | 50           | µg/L        | 1               | 11/3/2015 14:11 |
| Benzene                           | U           |          | 0.25            | 1.0          | µg/L        | 1               | 11/3/2015 14:11 |
| Bromodichloromethane              | U           |          | 0.16            | 1.0          | µg/L        | 1               | 11/3/2015 14:11 |
| Bromoform                         | U           |          | 0.099           | 1.0          | µg/L        | 1               | 11/3/2015 14:11 |
| Bromomethane                      | U           |          | 1.0             | 5.0          | µg/L        | 1               | 11/3/2015 14:11 |
| Carbon disulfide                  | U           |          | 0.26            | 5.0          | µg/L        | 1               | 11/3/2015 14:11 |
| Carbon tetrachloride              | U           |          | 0.14            | 1.0          | µg/L        | 1               | 11/3/2015 14:11 |
| Chlorobenzene                     | U           |          | 0.19            | 1.0          | µg/L        | 1               | 11/3/2015 14:11 |
| Chloroethane                      | U           |          | 0.21            | 5.0          | µg/L        | 1               | 11/3/2015 14:11 |
| <b>Chloroform</b>                 | <b>0.64</b> | <b>J</b> | <b>0.25</b>     | <b>1.0</b>   | <b>µg/L</b> | 1               | 11/3/2015 14:11 |
| Chloromethane                     | U           |          | 0.25            | 5.0          | µg/L        | 1               | 11/3/2015 14:11 |
| cis-1,2-Dichloroethene            | U           |          | 0.25            | 1.0          | µg/L        | 1               | 11/3/2015 14:11 |
| cis-1,3-Dichloropropene           | U           |          | 0.24            | 1.0          | µg/L        | 1               | 11/3/2015 14:11 |
| Cyclohexane                       | U           |          | 0.31            | 1.0          | µg/L        | 1               | 11/3/2015 14:11 |
| Dibromochloromethane              | U           |          | 0.17            | 5.0          | µg/L        | 1               | 11/3/2015 14:11 |
| Dichlorodifluoromethane           | U           |          | 0.41            | 5.0          | µg/L        | 1               | 11/3/2015 14:11 |
| Ethylbenzene                      | U           |          | 0.22            | 1.0          | µg/L        | 1               | 11/3/2015 14:11 |
| Isopropylbenzene                  | U           |          | 0.25            | 5.0          | µg/L        | 1               | 11/3/2015 14:11 |
| Methyl acetate                    | U           |          | 0.62            | 10           | µg/L        | 1               | 11/3/2015 14:11 |
| Methyl tert-butyl ether           | U           |          | 0.12            | 5.0          | µg/L        | 1               | 11/3/2015 14:11 |
| Methylcyclohexane                 | U           |          | 0.32            | 1.0          | µg/L        | 1               | 11/3/2015 14:11 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

**ALS Group USA, Corp**

Date: 06-Nov-15

**Client:** GHD Services Inc.  
**Project:** Former GRMP (17360)  
**Sample ID:** TB-017360-102215-MR-021  
**Collection Date:** 10/22/2015

**Work Order:** 15101476  
**Lab ID:** 15101476-21  
**Matrix:** WATER

| Analyses                    | Result | Qual | MDL  | Report Limit | Units | Dilution Factor | Date Analyzed   |
|-----------------------------|--------|------|------|--------------|-------|-----------------|-----------------|
| Methylene chloride          | U      |      | 0.64 | 5.0          | µg/L  | 1               | 11/3/2015 14:11 |
| Styrene                     | U      |      | 0.18 | 1.0          | µg/L  | 1               | 11/3/2015 14:11 |
| Tetrachloroethene           | U      |      | 0.25 | 1.0          | µg/L  | 1               | 11/3/2015 14:11 |
| Toluene                     | U      |      | 0.20 | 1.0          | µg/L  | 1               | 11/3/2015 14:11 |
| trans-1,2-Dichloroethene    | U      |      | 0.29 | 1.0          | µg/L  | 1               | 11/3/2015 14:11 |
| trans-1,3-Dichloropropene   | U      |      | 0.19 | 1.0          | µg/L  | 1               | 11/3/2015 14:11 |
| Trichloroethene             | U      |      | 0.34 | 1.0          | µg/L  | 1               | 11/3/2015 14:11 |
| Trichlorofluoromethane      | U      |      | 0.39 | 1.0          | µg/L  | 1               | 11/3/2015 14:11 |
| Vinyl chloride              | U      |      | 0.19 | 1.0          | µg/L  | 1               | 11/3/2015 14:11 |
| Xylenes, Total              | U      |      | 0.62 | 3.0          | µg/L  | 1               | 11/3/2015 14:11 |
| Surr: 1,2-Dichloroethane-d4 | 99.6   |      |      | 75-120       | %REC  | 1               | 11/3/2015 14:11 |
| Surr: 4-Bromofluorobenzene  | 94.0   |      |      | 80-110       | %REC  | 1               | 11/3/2015 14:11 |
| Surr: Dibromofluoromethane  | 98.1   |      |      | 85-115       | %REC  | 1               | 11/3/2015 14:11 |
| Surr: Toluene-d8            | 96.6   |      |      | 85-110       | %REC  | 1               | 11/3/2015 14:11 |

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

Client: GHD Services Inc.

Work Order: 15101476

Project: Former GRMP (17360)

# QC BATCH REPORT

Batch ID: 78122

Instrument ID HG1

Method: SW7470A

|             |        |                                    |         |               |      |                       |               |                                           |           |              |
|-------------|--------|------------------------------------|---------|---------------|------|-----------------------|---------------|-------------------------------------------|-----------|--------------|
| <b>MBLK</b> |        | Sample ID: <b>MBLK-78122-78122</b> |         |               |      | Units: <b>mg/L</b>    |               | Analysis Date: <b>10/28/2015 02:31 PM</b> |           |              |
| Client ID:  |        | Run ID: <b>HG1_151028A</b>         |         |               |      | SeqNo: <b>3535601</b> |               | Prep Date: <b>10/28/2015</b>              |           | DF: <b>1</b> |
| Analyte     | Result | PQL                                | SPK Val | SPK Ref Value | %REC | Control Limit         | RPD Ref Value | %RPD                                      | RPD Limit | Qual         |

Mercury U 0.00020

|            |        |                                   |         |               |      |                       |               |                                           |           |              |
|------------|--------|-----------------------------------|---------|---------------|------|-----------------------|---------------|-------------------------------------------|-----------|--------------|
| <b>LCS</b> |        | Sample ID: <b>LCS-78122-78122</b> |         |               |      | Units: <b>mg/L</b>    |               | Analysis Date: <b>10/28/2015 02:33 PM</b> |           |              |
| Client ID: |        | Run ID: <b>HG1_151028A</b>        |         |               |      | SeqNo: <b>3535602</b> |               | Prep Date: <b>10/28/2015</b>              |           | DF: <b>1</b> |
| Analyte    | Result | PQL                               | SPK Val | SPK Ref Value | %REC | Control Limit         | RPD Ref Value | %RPD                                      | RPD Limit | Qual         |

Mercury 0.00213 0.00020 0.002 0 106 80-120 0

|            |        |                                  |         |               |      |                       |               |                                           |           |              |
|------------|--------|----------------------------------|---------|---------------|------|-----------------------|---------------|-------------------------------------------|-----------|--------------|
| <b>MS</b>  |        | Sample ID: <b>15101584-01AMS</b> |         |               |      | Units: <b>mg/L</b>    |               | Analysis Date: <b>10/28/2015 02:38 PM</b> |           |              |
| Client ID: |        | Run ID: <b>HG1_151028A</b>       |         |               |      | SeqNo: <b>3535604</b> |               | Prep Date: <b>10/28/2015</b>              |           | DF: <b>1</b> |
| Analyte    | Result | PQL                              | SPK Val | SPK Ref Value | %REC | Control Limit         | RPD Ref Value | %RPD                                      | RPD Limit | Qual         |

Mercury 0.0203 0.0020 0.02 -0.0003 103 75-125 0

|            |        |                                  |         |               |      |                       |               |                                           |           |              |
|------------|--------|----------------------------------|---------|---------------|------|-----------------------|---------------|-------------------------------------------|-----------|--------------|
| <b>MS</b>  |        | Sample ID: <b>15101661-01CMS</b> |         |               |      | Units: <b>mg/L</b>    |               | Analysis Date: <b>10/28/2015 08:27 PM</b> |           |              |
| Client ID: |        | Run ID: <b>HG1_151028A</b>       |         |               |      | SeqNo: <b>3536663</b> |               | Prep Date: <b>10/28/2015</b>              |           | DF: <b>1</b> |
| Analyte    | Result | PQL                              | SPK Val | SPK Ref Value | %REC | Control Limit         | RPD Ref Value | %RPD                                      | RPD Limit | Qual         |

Mercury 0.00211 0.00020 0.002 -0.000025 107 75-125 0

|            |        |                                   |         |               |      |                       |               |                                           |           |              |
|------------|--------|-----------------------------------|---------|---------------|------|-----------------------|---------------|-------------------------------------------|-----------|--------------|
| <b>MSD</b> |        | Sample ID: <b>15101584-01AMSD</b> |         |               |      | Units: <b>mg/L</b>    |               | Analysis Date: <b>10/28/2015 02:40 PM</b> |           |              |
| Client ID: |        | Run ID: <b>HG1_151028A</b>        |         |               |      | SeqNo: <b>3535606</b> |               | Prep Date: <b>10/28/2015</b>              |           | DF: <b>1</b> |
| Analyte    | Result | PQL                               | SPK Val | SPK Ref Value | %REC | Control Limit         | RPD Ref Value | %RPD                                      | RPD Limit | Qual         |

Mercury 0.0209 0.0020 0.02 -0.0003 106 75-125 0.0203 2.91 20

|            |        |                                   |         |               |      |                       |               |                                           |           |              |
|------------|--------|-----------------------------------|---------|---------------|------|-----------------------|---------------|-------------------------------------------|-----------|--------------|
| <b>MSD</b> |        | Sample ID: <b>15101661-01CMSD</b> |         |               |      | Units: <b>mg/L</b>    |               | Analysis Date: <b>10/28/2015 08:30 PM</b> |           |              |
| Client ID: |        | Run ID: <b>HG1_151028A</b>        |         |               |      | SeqNo: <b>3536664</b> |               | Prep Date: <b>10/28/2015</b>              |           | DF: <b>1</b> |
| Analyte    | Result | PQL                               | SPK Val | SPK Ref Value | %REC | Control Limit         | RPD Ref Value | %RPD                                      | RPD Limit | Qual         |

Mercury 0.00212 0.00020 0.002 -0.000025 107 75-125 0.00211 0.473 20

The following samples were analyzed in this batch:

15101476-05B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** GHD Services Inc.  
**Work Order:** 15101476  
**Project:** Former GRMP (17360)

## QC BATCH REPORT

Batch ID: **78052** Instrument ID **ICPMS2** Method: **SW6020A**

| MBLK       |           | Sample ID: <b>MBLK-78052-78052</b> |         |               |      | Units: <b>mg/L</b>    |               | Analysis Date: <b>10/28/2015 08:39 PM</b> |           |              |
|------------|-----------|------------------------------------|---------|---------------|------|-----------------------|---------------|-------------------------------------------|-----------|--------------|
| Client ID: |           | Run ID: <b>ICPMS2_151028B</b>      |         |               |      | SeqNo: <b>3536394</b> |               | Prep Date: <b>10/27/2015</b>              |           | DF: <b>1</b> |
| Analyte    | Result    | PQL                                | SPK Val | SPK Ref Value | %REC | Control Limit         | RPD Ref Value | %RPD                                      | RPD Limit | Qual         |
| Antimony   | U         | 0.0050                             |         |               |      |                       |               |                                           |           |              |
| Arsenic    | U         | 0.0050                             |         |               |      |                       |               |                                           |           |              |
| Barium     | U         | 0.0050                             |         |               |      |                       |               |                                           |           |              |
| Beryllium  | U         | 0.0020                             |         |               |      |                       |               |                                           |           |              |
| Cadmium    | U         | 0.0020                             |         |               |      |                       |               |                                           |           |              |
| Chromium   | 0.004177  | 0.0050                             |         |               |      |                       |               |                                           |           | J            |
| Cobalt     | U         | 0.0050                             |         |               |      |                       |               |                                           |           |              |
| Copper     | U         | 0.0050                             |         |               |      |                       |               |                                           |           |              |
| Iron       | U         | 0.080                              |         |               |      |                       |               |                                           |           |              |
| Lead       | U         | 0.0050                             |         |               |      |                       |               |                                           |           |              |
| Manganese  | U         | 0.0050                             |         |               |      |                       |               |                                           |           |              |
| Molybdenum | U         | 0.0050                             |         |               |      |                       |               |                                           |           |              |
| Nickel     | 0.0005247 | 0.0050                             |         |               |      |                       |               |                                           |           | J            |
| Selenium   | U         | 0.0050                             |         |               |      |                       |               |                                           |           |              |
| Silver     | U         | 0.0050                             |         |               |      |                       |               |                                           |           |              |
| Thallium   | U         | 0.0050                             |         |               |      |                       |               |                                           |           |              |
| Vanadium   | U         | 0.0050                             |         |               |      |                       |               |                                           |           |              |
| Zinc       | U         | 0.010                              |         |               |      |                       |               |                                           |           |              |

| LCS        |         | Sample ID: <b>LCS-78052-78052</b> |         |               |      | Units: <b>mg/L</b>    |               | Analysis Date: <b>10/28/2015 08:45 PM</b> |           |              |
|------------|---------|-----------------------------------|---------|---------------|------|-----------------------|---------------|-------------------------------------------|-----------|--------------|
| Client ID: |         | Run ID: <b>ICPMS2_151028B</b>     |         |               |      | SeqNo: <b>3536395</b> |               | Prep Date: <b>10/27/2015</b>              |           | DF: <b>1</b> |
| Analyte    | Result  | PQL                               | SPK Val | SPK Ref Value | %REC | Control Limit         | RPD Ref Value | %RPD                                      | RPD Limit | Qual         |
| Antimony   | 0.1086  | 0.0050                            | 0.1     | 0             | 109  | 80-120                | 0             |                                           |           |              |
| Arsenic    | 0.09968 | 0.0050                            | 0.1     | 0             | 99.7 | 80-120                | 0             |                                           |           |              |
| Barium     | 0.09847 | 0.0050                            | 0.1     | 0             | 98.5 | 80-120                | 0             |                                           |           |              |
| Beryllium  | 0.1006  | 0.0020                            | 0.1     | 0             | 101  | 80-120                | 0             |                                           |           |              |
| Cadmium    | 0.09725 | 0.0020                            | 0.1     | 0             | 97.2 | 80-120                | 0             |                                           |           |              |
| Chromium   | 0.09969 | 0.0050                            | 0.1     | 0             | 99.7 | 80-120                | 0             |                                           |           |              |
| Cobalt     | 0.08683 | 0.0050                            | 0.1     | 0             | 86.8 | 80-120                | 0             |                                           |           |              |
| Copper     | 0.09441 | 0.0050                            | 0.1     | 0             | 94.4 | 80-120                | 0             |                                           |           |              |
| Iron       | 10.08   | 0.080                             | 10      | 0             | 101  | 80-120                | 0             |                                           |           |              |
| Lead       | 0.09541 | 0.0050                            | 0.1     | 0             | 95.4 | 80-120                | 0             |                                           |           |              |
| Molybdenum | 0.09871 | 0.0050                            | 0.1     | 0             | 98.7 | 80-120                | 0             |                                           |           |              |
| Nickel     | 0.0911  | 0.0050                            | 0.1     | 0             | 91.1 | 80-120                | 0             |                                           |           |              |
| Selenium   | 0.1005  | 0.0050                            | 0.1     | 0             | 100  | 80-120                | 0             |                                           |           |              |
| Silver     | 0.1049  | 0.0050                            | 0.1     | 0             | 105  | 80-120                | 0             |                                           |           |              |
| Thallium   | 0.09376 | 0.0050                            | 0.1     | 0             | 93.8 | 80-120                | 0             |                                           |           |              |
| Vanadium   | 0.09803 | 0.0050                            | 0.1     | 0             | 98   | 80-120                | 0             |                                           |           |              |
| Zinc       | 0.09884 | 0.010                             | 0.1     | 0             | 98.8 | 80-120                | 0             |                                           |           |              |

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.



**Client:** GHD Services Inc.  
**Work Order:** 15101476  
**Project:** Former GRMP (17360)

## QC BATCH REPORT

Batch ID: **78052** Instrument ID **ICPMS2** Method: **SW6020A**

| <b>LCS</b> |        | Sample ID: <b>LCS-78052-78052</b> |         |               |      | Units: <b>mg/L</b>    |               | Analysis Date: <b>10/29/2015 01:02 PM</b> |           |              |
|------------|--------|-----------------------------------|---------|---------------|------|-----------------------|---------------|-------------------------------------------|-----------|--------------|
| Client ID: |        | Run ID: <b>ICPMS2_151029A</b>     |         |               |      | SeqNo: <b>3537767</b> |               | Prep Date: <b>10/27/2015</b>              |           | DF: <b>1</b> |
| Analyte    | Result | PQL                               | SPK Val | SPK Ref Value | %REC | Control Limit         | RPD Ref Value | %RPD                                      | RPD Limit | Qual         |
| Manganese  | 0.1028 | 0.0050                            | 0.1     | 0             | 103  | 80-120                | 0             |                                           |           |              |

| <b>MS</b>  |         | Sample ID: <b>15101374-07BMS</b> |         |               |      | Units: <b>mg/L</b>    |               | Analysis Date: <b>10/28/2015 10:44 PM</b> |           |              |
|------------|---------|----------------------------------|---------|---------------|------|-----------------------|---------------|-------------------------------------------|-----------|--------------|
| Client ID: |         | Run ID: <b>ICPMS2_151028B</b>    |         |               |      | SeqNo: <b>3536418</b> |               | Prep Date: <b>10/27/2015</b>              |           | DF: <b>1</b> |
| Analyte    | Result  | PQL                              | SPK Val | SPK Ref Value | %REC | Control Limit         | RPD Ref Value | %RPD                                      | RPD Limit | Qual         |
| Antimony   | 0.1019  | 0.0050                           | 0.1     | 0.00005017    | 102  | 75-125                | 0             |                                           |           |              |
| Arsenic    | 0.09994 | 0.0050                           | 0.1     | 0.000965      | 99   | 75-125                | 0             |                                           |           |              |
| Barium     | 0.167   | 0.0050                           | 0.1     | 0.06712       | 99.9 | 75-125                | 0             |                                           |           |              |
| Beryllium  | 0.09329 | 0.0020                           | 0.1     | 0.00001018    | 93.3 | 75-125                | 0             |                                           |           |              |
| Cadmium    | 0.09821 | 0.0020                           | 0.1     | 0.0001592     | 98.1 | 75-125                | 0             |                                           |           |              |
| Chromium   | 0.09798 | 0.0050                           | 0.1     | -0.0001986    | 98.2 | 75-125                | 0             |                                           |           |              |
| Cobalt     | 0.09551 | 0.0050                           | 0.1     | 0.0007034     | 94.8 | 75-125                | 0             |                                           |           |              |
| Copper     | 0.09831 | 0.0050                           | 0.1     | 0.002083      | 96.2 | 75-125                | 0             |                                           |           |              |
| Iron       | 9.847   | 0.080                            | 10      | 0.02075       | 98.3 | 75-125                | 0             |                                           |           |              |
| Lead       | 0.1005  | 0.0050                           | 0.1     | 0.0001466     | 100  | 75-125                | 0             |                                           |           |              |
| Manganese  | 0.1379  | 0.0050                           | 0.1     | 0.04587       | 92   | 75-125                | 0             |                                           |           |              |
| Molybdenum | 0.1017  | 0.0050                           | 0.1     | 0.0002096     | 101  | 75-125                | 0             |                                           |           |              |
| Nickel     | 0.09784 | 0.0050                           | 0.1     | 0.003764      | 94.1 | 75-125                | 0             |                                           |           |              |
| Selenium   | 0.1019  | 0.0050                           | 0.1     | 0.0001457     | 102  | 75-125                | 0             |                                           |           |              |
| Silver     | 0.09647 | 0.0050                           | 0.1     | 1.666E-06     | 96.5 | 75-125                | 0             |                                           |           |              |
| Thallium   | 0.09704 | 0.0050                           | 0.1     | -2.059E-05    | 97.1 | 75-125                | 0             |                                           |           |              |
| Vanadium   | 0.1024  | 0.0050                           | 0.1     | 0.003317      | 99.1 | 75-125                | 0             |                                           |           |              |
| Zinc       | 0.09762 | 0.010                            | 0.1     | 0.002144      | 95.5 | 75-125                | 0             |                                           |           |              |

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** GHD Services Inc.  
**Work Order:** 15101476  
**Project:** Former GRMP (17360)

## QC BATCH REPORT

Batch ID: **78052** Instrument ID **ICPMS2** Method: **SW6020A**

| MSD        |         |        |                        |               | Sample ID: 15101374-07BMSD |                |               | Units: mg/L           |           | Analysis Date: 10/28/2015 10:50 PM |  |
|------------|---------|--------|------------------------|---------------|----------------------------|----------------|---------------|-----------------------|-----------|------------------------------------|--|
| Client ID: |         |        | Run ID: ICPMS2_151028B |               |                            | SeqNo: 3536419 |               | Prep Date: 10/27/2015 |           | DF: 1                              |  |
| Analyte    | Result  | PQL    | SPK Val                | SPK Ref Value | %REC                       | Control Limit  | RPD Ref Value | %RPD                  | RPD Limit | Qual                               |  |
| Antimony   | 0.1034  | 0.0050 | 0.1                    | 0.00005017    | 103                        | 75-125         | 0.1019        | 1.46                  | 20        |                                    |  |
| Arsenic    | 0.1024  | 0.0050 | 0.1                    | 0.000965      | 101                        | 75-125         | 0.09994       | 2.43                  | 20        |                                    |  |
| Barium     | 0.1723  | 0.0050 | 0.1                    | 0.06712       | 105                        | 75-125         | 0.167         | 3.12                  | 20        |                                    |  |
| Beryllium  | 0.09418 | 0.0020 | 0.1                    | 0.00001018    | 94.2                       | 75-125         | 0.09329       | 0.949                 | 20        |                                    |  |
| Cadmium    | 0.1018  | 0.0020 | 0.1                    | 0.0001592     | 102                        | 75-125         | 0.09821       | 3.59                  | 20        |                                    |  |
| Chromium   | 0.09889 | 0.0050 | 0.1                    | -0.0001986    | 99.1                       | 75-125         | 0.09798       | 0.924                 | 20        |                                    |  |
| Cobalt     | 0.09777 | 0.0050 | 0.1                    | 0.0007034     | 97.1                       | 75-125         | 0.09551       | 2.34                  | 20        |                                    |  |
| Copper     | 0.1004  | 0.0050 | 0.1                    | 0.002083      | 98.3                       | 75-125         | 0.09831       | 2.1                   | 20        |                                    |  |
| Iron       | 9.97    | 0.080  | 10                     | 0.02075       | 99.5                       | 75-125         | 9.847         | 1.24                  | 20        |                                    |  |
| Lead       | 0.1033  | 0.0050 | 0.1                    | 0.0001466     | 103                        | 75-125         | 0.1005        | 2.75                  | 20        |                                    |  |
| Manganese  | 0.1406  | 0.0050 | 0.1                    | 0.04587       | 94.7                       | 75-125         | 0.1379        | 1.94                  | 20        |                                    |  |
| Molybdenum | 0.1053  | 0.0050 | 0.1                    | 0.0002096     | 105                        | 75-125         | 0.1017        | 3.48                  | 20        |                                    |  |
| Nickel     | 0.1006  | 0.0050 | 0.1                    | 0.003764      | 96.8                       | 75-125         | 0.09784       | 2.78                  | 20        |                                    |  |
| Selenium   | 0.1025  | 0.0050 | 0.1                    | 0.0001457     | 102                        | 75-125         | 0.1019        | 0.587                 | 20        |                                    |  |
| Silver     | 0.09826 | 0.0050 | 0.1                    | 1.666E-06     | 98.3                       | 75-125         | 0.09647       | 1.84                  | 20        |                                    |  |
| Thallium   | 0.09955 | 0.0050 | 0.1                    | -2.059E-05    | 99.6                       | 75-125         | 0.09704       | 2.55                  | 20        |                                    |  |
| Vanadium   | 0.1019  | 0.0050 | 0.1                    | 0.003317      | 98.6                       | 75-125         | 0.1024        | 0.489                 | 20        |                                    |  |
| Zinc       | 0.1003  | 0.010  | 0.1                    | 0.002144      | 98.2                       | 75-125         | 0.09762       | 2.71                  | 20        |                                    |  |

The following samples were analyzed in this batch:

15101476-05B

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** GHD Services Inc.  
**Work Order:** 15101476  
**Project:** Former GRMP (17360)

## QC BATCH REPORT

Batch ID: **78090** Instrument ID **SVMS5** Method: **SW846 8270D**

| MBLK                        |        | Sample ID: <b>SBLKW1-78090-78090</b> |         |               |      | Units: <b>µg/L</b>    |               | Analysis Date: <b>10/28/2015 07:41 PM</b> |           |              |
|-----------------------------|--------|--------------------------------------|---------|---------------|------|-----------------------|---------------|-------------------------------------------|-----------|--------------|
| Client ID:                  |        | Run ID: <b>SVMS5_151028A</b>         |         |               |      | SeqNo: <b>3537265</b> |               | Prep Date: <b>10/28/2015</b>              |           | DF: <b>1</b> |
| Analyte                     | Result | PQL                                  | SPK Val | SPK Ref Value | %REC | Control Limit         | RPD Ref Value | %RPD                                      | RPD Limit | Qual         |
| 1,1'-Biphenyl               | U      | 5.0                                  |         |               |      |                       |               |                                           |           |              |
| 2,4,5-Trichlorophenol       | U      | 5.0                                  |         |               |      |                       |               |                                           |           |              |
| 2,4,6-Trichlorophenol       | U      | 5.0                                  |         |               |      |                       |               |                                           |           |              |
| 2,4-Dichlorophenol          | U      | 5.0                                  |         |               |      |                       |               |                                           |           |              |
| 2,4-Dimethylphenol          | U      | 5.0                                  |         |               |      |                       |               |                                           |           |              |
| 2,4-Dinitrophenol           | U      | 5.0                                  |         |               |      |                       |               |                                           |           |              |
| 2,4-Dinitrotoluene          | U      | 5.0                                  |         |               |      |                       |               |                                           |           |              |
| 2,6-Dinitrotoluene          | U      | 5.0                                  |         |               |      |                       |               |                                           |           |              |
| 2-Chloronaphthalene         | U      | 5.0                                  |         |               |      |                       |               |                                           |           |              |
| 2-Chlorophenol              | U      | 5.0                                  |         |               |      |                       |               |                                           |           |              |
| 2-Methylnaphthalene         | U      | 5.0                                  |         |               |      |                       |               |                                           |           |              |
| 2-Methylphenol              | U      | 5.0                                  |         |               |      |                       |               |                                           |           |              |
| 2-Nitroaniline              | U      | 5.0                                  |         |               |      |                       |               |                                           |           |              |
| 2-Nitrophenol               | U      | 5.0                                  |         |               |      |                       |               |                                           |           |              |
| 3&4-Methylphenol            | U      | 5.0                                  |         |               |      |                       |               |                                           |           |              |
| 3,3'-Dichlorobenzidine      | U      | 5.0                                  |         |               |      |                       |               |                                           |           |              |
| 3-Nitroaniline              | U      | 5.0                                  |         |               |      |                       |               |                                           |           |              |
| 4,6-Dinitro-2-methylphenol  | U      | 5.0                                  |         |               |      |                       |               |                                           |           |              |
| 4-Bromophenyl phenyl ether  | U      | 5.0                                  |         |               |      |                       |               |                                           |           |              |
| 4-Chloro-3-methylphenol     | U      | 5.0                                  |         |               |      |                       |               |                                           |           |              |
| 4-Chloroaniline             | U      | 5.0                                  |         |               |      |                       |               |                                           |           |              |
| 4-Chlorophenyl phenyl ether | U      | 5.0                                  |         |               |      |                       |               |                                           |           |              |
| 4-Nitroaniline              | U      | 5.0                                  |         |               |      |                       |               |                                           |           |              |
| 4-Nitrophenol               | U      | 5.0                                  |         |               |      |                       |               |                                           |           |              |
| Acenaphthene                | U      | 5.0                                  |         |               |      |                       |               |                                           |           |              |
| Acenaphthylene              | U      | 5.0                                  |         |               |      |                       |               |                                           |           |              |
| Acetophenone                | U      | 1.0                                  |         |               |      |                       |               |                                           |           |              |
| Anthracene                  | U      | 5.0                                  |         |               |      |                       |               |                                           |           |              |
| Atrazine                    | U      | 1.0                                  |         |               |      |                       |               |                                           |           |              |
| Benzaldehyde                | U      | 1.0                                  |         |               |      |                       |               |                                           |           |              |
| Benzo(a)anthracene          | U      | 5.0                                  |         |               |      |                       |               |                                           |           |              |
| Benzo(a)pyrene              | U      | 5.0                                  |         |               |      |                       |               |                                           |           |              |
| Benzo(b)fluoranthene        | U      | 5.0                                  |         |               |      |                       |               |                                           |           |              |
| Benzo(g,h,i)perylene        | U      | 5.0                                  |         |               |      |                       |               |                                           |           |              |
| Benzo(k)fluoranthene        | U      | 5.0                                  |         |               |      |                       |               |                                           |           |              |
| Bis(2-chloroethoxy)methane  | U      | 5.0                                  |         |               |      |                       |               |                                           |           |              |
| Bis(2-chloroethyl)ether     | U      | 5.0                                  |         |               |      |                       |               |                                           |           |              |
| Bis(2-chloroisopropyl)ether | U      | 5.0                                  |         |               |      |                       |               |                                           |           |              |
| Bis(2-ethylhexyl)phthalate  | U      | 5.0                                  |         |               |      |                       |               |                                           |           |              |
| Butyl benzyl phthalate      | U      | 5.0                                  |         |               |      |                       |               |                                           |           |              |
| Caprolactam                 | U      | 10                                   |         |               |      |                       |               |                                           |           |              |
| Carbazole                   | U      | 5.0                                  |         |               |      |                       |               |                                           |           |              |

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** GHD Services Inc.  
**Work Order:** 15101476  
**Project:** Former GRMP (17360)

## QC BATCH REPORT

| Batch ID: <b>78090</b>            |       | Instrument ID <b>SVMS5</b> |    | Method: <b>SW846 8270D</b> |      |        |   |  |
|-----------------------------------|-------|----------------------------|----|----------------------------|------|--------|---|--|
| Chrysene                          | U     | 5.0                        |    |                            |      |        |   |  |
| Dibenzo(a,h)anthracene            | U     | 5.0                        |    |                            |      |        |   |  |
| Dibenzofuran                      | U     | 5.0                        |    |                            |      |        |   |  |
| Diethyl phthalate                 | U     | 5.0                        |    |                            |      |        |   |  |
| Dimethyl phthalate                | U     | 5.0                        |    |                            |      |        |   |  |
| Di-n-butyl phthalate              | U     | 5.0                        |    |                            |      |        |   |  |
| Di-n-octyl phthalate              | U     | 5.0                        |    |                            |      |        |   |  |
| Fluoranthene                      | U     | 5.0                        |    |                            |      |        |   |  |
| Fluorene                          | U     | 5.0                        |    |                            |      |        |   |  |
| Hexachlorobenzene                 | U     | 5.0                        |    |                            |      |        |   |  |
| Hexachlorobutadiene               | U     | 5.0                        |    |                            |      |        |   |  |
| Hexachlorocyclopentadiene         | U     | 5.0                        |    |                            |      |        |   |  |
| Hexachloroethane                  | U     | 5.0                        |    |                            |      |        |   |  |
| Indeno(1,2,3-cd)pyrene            | U     | 5.0                        |    |                            |      |        |   |  |
| Isophorone                        | U     | 5.0                        |    |                            |      |        |   |  |
| Naphthalene                       | U     | 5.0                        |    |                            |      |        |   |  |
| Nitrobenzene                      | U     | 5.0                        |    |                            |      |        |   |  |
| N-Nitrosodi-n-propylamine         | U     | 5.0                        |    |                            |      |        |   |  |
| N-Nitrosodiphenylamine            | U     | 5.0                        |    |                            |      |        |   |  |
| Pentachlorophenol                 | U     | 5.0                        |    |                            |      |        |   |  |
| Phenanthrene                      | U     | 5.0                        |    |                            |      |        |   |  |
| Phenol                            | U     | 5.0                        |    |                            |      |        |   |  |
| Pyrene                            | U     | 5.0                        |    |                            |      |        |   |  |
| <i>Surr: 2,4,6-Tribromophenol</i> | 32.9  | 0                          | 50 | 0                          | 65.8 | 38-115 | 0 |  |
| <i>Surr: 2-Fluorobiphenyl</i>     | 29.49 | 0                          | 50 | 0                          | 59   | 32-100 | 0 |  |
| <i>Surr: 2-Fluorophenol</i>       | 19.12 | 0                          | 50 | 0                          | 38.2 | 22-59  | 0 |  |
| <i>Surr: 4-Terphenyl-d14</i>      | 39.86 | 0                          | 50 | 0                          | 79.7 | 23-112 | 0 |  |
| <i>Surr: Nitrobenzene-d5</i>      | 27.8  | 0                          | 50 | 0                          | 55.6 | 31-93  | 0 |  |
| <i>Surr: Phenol-d6</i>            | 11.65 | 0                          | 50 | 0                          | 23.3 | 13-36  | 0 |  |

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** GHD Services Inc.  
**Work Order:** 15101476  
**Project:** Former GRMP (17360)

## QC BATCH REPORT

Batch ID: **78090** Instrument ID **SVMS5** Method: **SW846 8270D**

| LCS                         |        | Sample ID: <b>SLCSW1-78090-78090</b> |         |               |      | Units: <b>µg/L</b>    |               | Analysis Date: <b>10/28/2015 08:05 PM</b> |           |              |
|-----------------------------|--------|--------------------------------------|---------|---------------|------|-----------------------|---------------|-------------------------------------------|-----------|--------------|
| Client ID:                  |        | Run ID: <b>SVMS5_151028A</b>         |         |               |      | SeqNo: <b>3537267</b> |               | Prep Date: <b>10/28/2015</b>              |           | DF: <b>1</b> |
| Analyte                     | Result | PQL                                  | SPK Val | SPK Ref Value | %REC | Control Limit         | RPD Ref Value | %RPD                                      | RPD Limit | Qual         |
| 1,1'-Biphenyl               | 14.49  | 5.0                                  | 20      | 0             | 72.4 | 30-120                | 0             |                                           |           |              |
| 2,4,5-Trichlorophenol       | 15.26  | 5.0                                  | 20      | 0             | 76.3 | 50-110                | 0             |                                           |           |              |
| 2,4,6-Trichlorophenol       | 15.61  | 5.0                                  | 20      | 0             | 78   | 50-115                | 0             |                                           |           |              |
| 2,4-Dichlorophenol          | 14.11  | 5.0                                  | 20      | 0             | 70.6 | 50-105                | 0             |                                           |           |              |
| 2,4-Dimethylphenol          | 13.56  | 5.0                                  | 20      | 0             | 67.8 | 30-110                | 0             |                                           |           |              |
| 2,4-Dinitrophenol           | 11.33  | 5.0                                  | 20      | 0             | 56.6 | 15-140                | 0             |                                           |           |              |
| 2,4-Dinitrotoluene          | 17.52  | 5.0                                  | 20      | 0             | 87.6 | 50-120                | 0             |                                           |           |              |
| 2,6-Dinitrotoluene          | 16.89  | 5.0                                  | 20      | 0             | 84.4 | 50-115                | 0             |                                           |           |              |
| 2-Chloronaphthalene         | 13.76  | 5.0                                  | 20      | 0             | 68.8 | 50-105                | 0             |                                           |           |              |
| 2-Chlorophenol              | 13.29  | 5.0                                  | 20      | 0             | 66.4 | 35-105                | 0             |                                           |           |              |
| 2-Methylnaphthalene         | 13.46  | 5.0                                  | 20      | 0             | 67.3 | 45-105                | 0             |                                           |           |              |
| 2-Methylphenol              | 12.1   | 5.0                                  | 20      | 0             | 60.5 | 40-110                | 0             |                                           |           |              |
| 2-Nitroaniline              | 16.06  | 5.0                                  | 20      | 0             | 80.3 | 50-115                | 0             |                                           |           |              |
| 2-Nitrophenol               | 14.03  | 5.0                                  | 20      | 0             | 70.2 | 40-115                | 0             |                                           |           |              |
| 3&4-Methylphenol            | 11.71  | 5.0                                  | 20      | 0             | 58.6 | 30-110                | 0             |                                           |           |              |
| 3,3'-Dichlorobenzidine      | 16.47  | 5.0                                  | 20      | 0             | 82.4 | 30-120                | 0             |                                           |           |              |
| 3-Nitroaniline              | 17.11  | 5.0                                  | 20      | 0             | 85.6 | 20-125                | 0             |                                           |           |              |
| 4,6-Dinitro-2-methylphenol  | 15.74  | 5.0                                  | 20      | 0             | 78.7 | 40-130                | 0             |                                           |           |              |
| 4-Bromophenyl phenyl ether  | 17.68  | 5.0                                  | 20      | 0             | 88.4 | 50-115                | 0             |                                           |           |              |
| 4-Chloro-3-methylphenol     | 14.69  | 5.0                                  | 20      | 0             | 73.4 | 45-110                | 0             |                                           |           |              |
| 4-Chloroaniline             | 16.35  | 5.0                                  | 20      | 0             | 81.8 | 15-110                | 0             |                                           |           |              |
| 4-Chlorophenyl phenyl ether | 15.27  | 5.0                                  | 20      | 0             | 76.4 | 50-110                | 0             |                                           |           |              |
| 4-Nitroaniline              | 18.16  | 5.0                                  | 20      | 0             | 90.8 | 35-150                | 0             |                                           |           |              |
| 4-Nitrophenol               | 6.74   | 5.0                                  | 20      | 0             | 33.7 | 10-58                 | 0             |                                           |           |              |
| Acenaphthene                | 14.86  | 5.0                                  | 20      | 0             | 74.3 | 45-110                | 0             |                                           |           |              |
| Acenaphthylene              | 14.66  | 5.0                                  | 20      | 0             | 73.3 | 50-105                | 0             |                                           |           |              |
| Acetophenone                | 14.23  | 1.0                                  | 20      | 0             | 71.2 | 30-120                | 0             |                                           |           |              |
| Anthracene                  | 16.89  | 5.0                                  | 20      | 0             | 84.4 | 55-110                | 0             |                                           |           |              |
| Atrazine                    | 17.52  | 1.0                                  | 20      | 0             | 87.6 | 30-120                | 0             |                                           |           |              |
| Benzaldehyde                | 14.53  | 1.0                                  | 20      | 0             | 72.6 | 30-120                | 0             |                                           |           |              |
| Benzo(a)anthracene          | 17.38  | 5.0                                  | 20      | 0             | 86.9 | 55-110                | 0             |                                           |           |              |
| Benzo(a)pyrene              | 17.34  | 5.0                                  | 20      | 0             | 86.7 | 55-110                | 0             |                                           |           |              |
| Benzo(b)fluoranthene        | 19.82  | 5.0                                  | 20      | 0             | 99.1 | 45-120                | 0             |                                           |           |              |
| Benzo(g,h,i)perylene        | 19.45  | 5.0                                  | 20      | 0             | 97.2 | 40-125                | 0             |                                           |           |              |
| Benzo(k)fluoranthene        | 18.86  | 5.0                                  | 20      | 0             | 94.3 | 45-125                | 0             |                                           |           |              |
| Bis(2-chloroethoxy)methane  | 14.93  | 5.0                                  | 20      | 0             | 74.6 | 45-105                | 0             |                                           |           |              |
| Bis(2-chloroethyl)ether     | 14.99  | 5.0                                  | 20      | 0             | 75   | 35-110                | 0             |                                           |           |              |
| Bis(2-chloroisopropyl)ether | 14.4   | 5.0                                  | 20      | 0             | 72   | 25-130                | 0             |                                           |           |              |
| Bis(2-ethylhexyl)phthalate  | 17.4   | 5.0                                  | 20      | 0             | 87   | 40-125                | 0             |                                           |           |              |
| Butyl benzyl phthalate      | 16.42  | 5.0                                  | 20      | 0             | 82.1 | 45-115                | 0             |                                           |           |              |
| Carbazole                   | 17.84  | 5.0                                  | 20      | 0             | 89.2 | 50-150                | 0             |                                           |           |              |
| Chrysene                    | 17.29  | 5.0                                  | 20      | 0             | 86.4 | 55-110                | 0             |                                           |           |              |

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** GHD Services Inc.  
**Work Order:** 15101476  
**Project:** Former GRMP (17360)

## QC BATCH REPORT

| Batch ID: <b>78090</b>            |              | Instrument ID <b>SVMS5</b> |           | Method: <b>SW846 8270D</b> |             |               |          |
|-----------------------------------|--------------|----------------------------|-----------|----------------------------|-------------|---------------|----------|
| Dibenzo(a,h)anthracene            | 17.49        | 5.0                        | 20        | 0                          | 87.4        | 40-125        | 0        |
| Dibenzofuran                      | 14.98        | 5.0                        | 20        | 0                          | 74.9        | 55-105        | 0        |
| Diethyl phthalate                 | 16.53        | 5.0                        | 20        | 0                          | 82.6        | 40-120        | 0        |
| Dimethyl phthalate                | 16.57        | 5.0                        | 20        | 0                          | 82.8        | 25-125        | 0        |
| Di-n-butyl phthalate              | 18.28        | 5.0                        | 20        | 0                          | 91.4        | 55-115        | 0        |
| Di-n-octyl phthalate              | 18.04        | 5.0                        | 20        | 0                          | 90.2        | 35-135        | 0        |
| Fluoranthene                      | 18.1         | 5.0                        | 20        | 0                          | 90.5        | 55-115        | 0        |
| Fluorene                          | 15.17        | 5.0                        | 20        | 0                          | 75.8        | 50-110        | 0        |
| Hexachlorobenzene                 | 17.05        | 5.0                        | 20        | 0                          | 85.2        | 50-110        | 0        |
| Hexachlorobutadiene               | 10.97        | 5.0                        | 20        | 0                          | 54.8        | 25-105        | 0        |
| Hexachlorocyclopentadiene         | 9            | 5.0                        | 20        | 0                          | 45          | 25-105        | 0        |
| Hexachloroethane                  | 10.18        | 5.0                        | 20        | 0                          | 50.9        | 30-95         | 0        |
| Indeno(1,2,3-cd)pyrene            | 17.77        | 5.0                        | 20        | 0                          | 88.8        | 45-125        | 0        |
| Isophorone                        | 15.44        | 5.0                        | 20        | 0                          | 77.2        | 50-110        | 0        |
| Naphthalene                       | 12.41        | 5.0                        | 20        | 0                          | 62          | 40-100        | 0        |
| Nitrobenzene                      | 13.7         | 5.0                        | 20        | 0                          | 68.5        | 45-110        | 0        |
| N-Nitrosodi-n-propylamine         | 16.23        | 5.0                        | 20        | 0                          | 81.2        | 35-130        | 0        |
| N-Nitrosodiphenylamine            | 16.68        | 5.0                        | 20        | 0                          | 83.4        | 50-110        | 0        |
| Pentachlorophenol                 | 18.58        | 5.0                        | 20        | 0                          | 92.9        | 40-115        | 0        |
| Phenanthrene                      | 16.17        | 5.0                        | 20        | 0                          | 80.8        | 50-115        | 0        |
| Phenol                            | 5.62         | 5.0                        | 20        | 0                          | 28.1        | 12-43         | 0        |
| Pyrene                            | 16.27        | 5.0                        | 20        | 0                          | 81.4        | 50-130        | 0        |
| <i>Surr: 2,4,6-Tribromophenol</i> | <i>43.89</i> | <i>0</i>                   | <i>50</i> | <i>0</i>                   | <i>87.8</i> | <i>38-115</i> | <i>0</i> |
| <i>Surr: 2-Fluorobiphenyl</i>     | <i>35.29</i> | <i>0</i>                   | <i>50</i> | <i>0</i>                   | <i>70.6</i> | <i>32-100</i> | <i>0</i> |
| <i>Surr: 2-Fluorophenol</i>       | <i>21.06</i> | <i>0</i>                   | <i>50</i> | <i>0</i>                   | <i>42.1</i> | <i>22-59</i>  | <i>0</i> |
| <i>Surr: 4-Terphenyl-d14</i>      | <i>41.36</i> | <i>0</i>                   | <i>50</i> | <i>0</i>                   | <i>82.7</i> | <i>23-112</i> | <i>0</i> |
| <i>Surr: Nitrobenzene-d5</i>      | <i>32.8</i>  | <i>0</i>                   | <i>50</i> | <i>0</i>                   | <i>65.6</i> | <i>31-93</i>  | <i>0</i> |
| <i>Surr: Phenol-d6</i>            | <i>13.31</i> | <i>0</i>                   | <i>50</i> | <i>0</i>                   | <i>26.6</i> | <i>13-36</i>  | <i>0</i> |

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** GHD Services Inc.  
**Work Order:** 15101476  
**Project:** Former GRMP (17360)

## QC BATCH REPORT

Batch ID: **78090** Instrument ID **SVMS5** Method: **SW846 8270D**

| MS                          |        |     |         | Sample ID: 15101481-03A MS |      |               | Units: µg/L    |      | Analysis Date: 10/28/2015 11:23 PM |      |
|-----------------------------|--------|-----|---------|----------------------------|------|---------------|----------------|------|------------------------------------|------|
| Client ID:                  |        |     |         | Run ID: SVMS5_151028A      |      |               | SeqNo: 3537268 |      | Prep Date: 10/28/2015              |      |
|                             |        |     |         |                            |      |               | DF: 1          |      |                                    |      |
| Analyte                     | Result | PQL | SPK Val | SPK Ref Value              | %REC | Control Limit | RPD Ref Value  | %RPD | RPD Limit                          | Qual |
| 1,1'-Biphenyl               | 252    | 100 | 400     | 0                          | 63   | 30-120        | 0              |      |                                    |      |
| 2,4,5-Trichlorophenol       | 279.4  | 100 | 400     | 0                          | 69.8 | 50-110        | 0              |      |                                    |      |
| 2,4,6-Trichlorophenol       | 272    | 100 | 400     | 0                          | 68   | 50-115        | 0              |      |                                    |      |
| 2,4-Dichlorophenol          | 282.8  | 100 | 400     | 0                          | 70.7 | 50-105        | 0              |      |                                    |      |
| 2,4-Dimethylphenol          | 262    | 100 | 400     | 0                          | 65.5 | 30-110        | 0              |      |                                    |      |
| 2,4-Dinitrophenol           | 155.2  | 100 | 400     | 0                          | 38.8 | 15-140        | 0              |      |                                    |      |
| 2,4-Dinitrotoluene          | 336    | 100 | 400     | 0                          | 84   | 50-120        | 0              |      |                                    |      |
| 2,6-Dinitrotoluene          | 296    | 100 | 400     | 0                          | 74   | 50-115        | 0              |      |                                    |      |
| 2-Chloronaphthalene         | 239.6  | 100 | 400     | 0                          | 59.9 | 50-105        | 0              |      |                                    |      |
| 2-Chlorophenol              | 267.4  | 100 | 400     | 0                          | 66.8 | 35-105        | 0              |      |                                    |      |
| 2-Methylnaphthalene         | 249    | 100 | 400     | 0                          | 62.2 | 45-105        | 0              |      |                                    |      |
| 2-Methylphenol              | 240.6  | 100 | 400     | 0                          | 60.2 | 40-110        | 0              |      |                                    |      |
| 2-Nitroaniline              | 303.8  | 100 | 400     | 0                          | 76   | 50-115        | 0              |      |                                    |      |
| 2-Nitrophenol               | 282.8  | 100 | 400     | 0                          | 70.7 | 40-115        | 0              |      |                                    |      |
| 3&4-Methylphenol            | 229.8  | 100 | 400     | 0                          | 57.4 | 30-110        | 0              |      |                                    |      |
| 3,3'-Dichlorobenzidine      | 341.4  | 100 | 400     | 0                          | 85.4 | 30-120        | 0              |      |                                    |      |
| 3-Nitroaniline              | 339.6  | 100 | 400     | 0                          | 84.9 | 20-125        | 0              |      |                                    |      |
| 4,6-Dinitro-2-methylphenol  | 225.4  | 100 | 400     | 0                          | 56.4 | 40-130        | 0              |      |                                    |      |
| 4-Bromophenyl phenyl ether  | 307    | 100 | 400     | 0                          | 76.8 | 50-115        | 0              |      |                                    |      |
| 4-Chloro-3-methylphenol     | 293.4  | 100 | 400     | 0                          | 73.4 | 45-110        | 0              |      |                                    |      |
| 4-Chloroaniline             | 322.2  | 100 | 400     | 0                          | 80.6 | 15-110        | 0              |      |                                    |      |
| 4-Chlorophenyl phenyl ether | 296    | 100 | 400     | 0                          | 74   | 50-110        | 0              |      |                                    |      |
| 4-Nitroaniline              | 379.6  | 100 | 400     | 0                          | 94.9 | 35-150        | 0              |      |                                    |      |
| 4-Nitrophenol               | 139.4  | 100 | 400     | 0                          | 34.8 | 1-58          | 0              |      |                                    |      |
| Acenaphthene                | 275.6  | 100 | 400     | 0                          | 68.9 | 45-110        | 0              |      |                                    |      |
| Acenaphthylene              | 271.6  | 100 | 400     | 0                          | 67.9 | 50-105        | 0              |      |                                    |      |
| Acetophenone                | 283    | 20  | 400     | 0                          | 70.8 | 30-120        | 0              |      |                                    |      |
| Anthracene                  | 320.6  | 100 | 400     | 0                          | 80.2 | 55-110        | 0              |      |                                    |      |
| Atrazine                    | 356.6  | 20  | 400     | 0                          | 89.2 | 30-120        | 0              |      |                                    |      |
| Benzaldehyde                | 278.2  | 20  | 400     | 0                          | 69.6 | 30-120        | 0              |      |                                    |      |
| Benzo(a)anthracene          | 346.2  | 100 | 400     | 0                          | 86.6 | 55-110        | 0              |      |                                    |      |
| Benzo(a)pyrene              | 312.4  | 100 | 400     | 0                          | 78.1 | 55-110        | 0              |      |                                    |      |
| Benzo(b)fluoranthene        | 337.4  | 100 | 400     | 0                          | 84.4 | 45-120        | 0              |      |                                    |      |
| Benzo(g,h,i)perylene        | 291.6  | 100 | 400     | 0                          | 72.9 | 40-125        | 0              |      |                                    |      |
| Benzo(k)fluoranthene        | 338.8  | 100 | 400     | 0                          | 84.7 | 45-125        | 0              |      |                                    |      |
| Bis(2-chloroethoxy)methane  | 292    | 100 | 400     | 0                          | 73   | 45-105        | 0              |      |                                    |      |
| Bis(2-chloroethyl)ether     | 293.8  | 100 | 400     | 0                          | 73.4 | 35-110        | 0              |      |                                    |      |
| Bis(2-chloroisopropyl)ether | 260.2  | 100 | 400     | 0                          | 65   | 25-130        | 0              |      |                                    |      |
| Bis(2-ethylhexyl)phthalate  | 345    | 100 | 400     | 0                          | 86.2 | 40-125        | 0              |      |                                    |      |
| Butyl benzyl phthalate      | 306.2  | 100 | 400     | 0                          | 76.6 | 45-115        | 0              |      |                                    |      |
| Carbazole                   | 346.4  | 100 | 400     | 0                          | 86.6 | 50-150        | 0              |      |                                    |      |
| Chrysene                    | 321.2  | 100 | 400     | 0                          | 80.3 | 55-110        | 0              |      |                                    |      |

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** GHD Services Inc.  
**Work Order:** 15101476  
**Project:** Former GRMP (17360)

## QC BATCH REPORT

| Batch ID: <b>78090</b>            |       | Instrument ID <b>SVMS5</b> |      | Method: <b>SW846 8270D</b> |      |        |   |  |
|-----------------------------------|-------|----------------------------|------|----------------------------|------|--------|---|--|
| Dibenzo(a,h)anthracene            | 358.2 | 100                        | 400  | 0                          | 89.6 | 40-125 | 0 |  |
| Dibenzofuran                      | 287.4 | 100                        | 400  | 0                          | 71.8 | 55-105 | 0 |  |
| Diethyl phthalate                 | 319.6 | 100                        | 400  | 0                          | 79.9 | 40-120 | 0 |  |
| Dimethyl phthalate                | 286.8 | 100                        | 400  | 0                          | 71.7 | 25-125 | 0 |  |
| Di-n-butyl phthalate              | 344.6 | 100                        | 400  | 0                          | 86.2 | 55-115 | 0 |  |
| Di-n-octyl phthalate              | 324.6 | 100                        | 400  | 0                          | 81.2 | 35-135 | 0 |  |
| Fluoranthene                      | 308.2 | 100                        | 400  | 0                          | 77   | 55-115 | 0 |  |
| Fluorene                          | 300   | 100                        | 400  | 0                          | 75   | 50-110 | 0 |  |
| Hexachlorobenzene                 | 332.8 | 100                        | 400  | 0                          | 83.2 | 50-110 | 0 |  |
| Hexachlorobutadiene               | 167.2 | 100                        | 400  | 0                          | 41.8 | 25-105 | 0 |  |
| Hexachlorocyclopentadiene         | 117.6 | 100                        | 400  | 0                          | 29.4 | 25-105 | 0 |  |
| Hexachloroethane                  | 148.6 | 100                        | 400  | 0                          | 37.2 | 30-95  | 0 |  |
| Indeno(1,2,3-cd)pyrene            | 323.8 | 100                        | 400  | 0                          | 81   | 45-125 | 0 |  |
| Isophorone                        | 300   | 100                        | 400  | 0                          | 75   | 50-110 | 0 |  |
| Naphthalene                       | 226   | 100                        | 400  | 0                          | 56.5 | 40-100 | 0 |  |
| Nitrobenzene                      | 270.2 | 100                        | 400  | 0                          | 67.6 | 45-110 | 0 |  |
| N-Nitrosodi-n-propylamine         | 314.2 | 100                        | 400  | 0                          | 78.6 | 35-130 | 0 |  |
| N-Nitrosodiphenylamine            | 319.2 | 100                        | 400  | 0                          | 79.8 | 50-110 | 0 |  |
| Pentachlorophenol                 | 404.2 | 100                        | 400  | 0                          | 101  | 40-115 | 0 |  |
| Phenanthrene                      | 312   | 100                        | 400  | 0                          | 78   | 50-115 | 0 |  |
| Phenol                            | 112.4 | 100                        | 400  | 0                          | 28.1 | 12-43  | 0 |  |
| Pyrene                            | 279.8 | 100                        | 400  | 0                          | 70   | 50-130 | 0 |  |
| <i>Surr: 2,4,6-Tribromophenol</i> | 820.8 | 0                          | 1000 | 0                          | 82.1 | 38-115 | 0 |  |
| <i>Surr: 2-Fluorobiphenyl</i>     | 630.2 | 0                          | 1000 | 0                          | 63   | 32-100 | 0 |  |
| <i>Surr: 2-Fluorophenol</i>       | 407.2 | 0                          | 1000 | 0                          | 40.7 | 22-59  | 0 |  |
| <i>Surr: 4-Terphenyl-d14</i>      | 704.6 | 0                          | 1000 | 0                          | 70.5 | 23-112 | 0 |  |
| <i>Surr: Nitrobenzene-d5</i>      | 620   | 0                          | 1000 | 0                          | 62   | 31-93  | 0 |  |
| <i>Surr: Phenol-d6</i>            | 263   | 0                          | 1000 | 0                          | 26.3 | 13-36  | 0 |  |

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.



**Client:** GHD Services Inc.  
**Work Order:** 15101476  
**Project:** Former GRMP (17360)

## QC BATCH REPORT

Batch ID: **78090** Instrument ID **SVMS5** Method: **SW846 8270D**

| MSD                         |        |     |                       | Sample ID: 15101481-03A MSD |      |                |               | Units: µg/L           |           | Analysis Date: 10/28/2015 11:46 PM |  |
|-----------------------------|--------|-----|-----------------------|-----------------------------|------|----------------|---------------|-----------------------|-----------|------------------------------------|--|
| Client ID:                  |        |     | Run ID: SVMS5_151028A |                             |      | SeqNo: 3537270 |               | Prep Date: 10/28/2015 |           | DF: 1                              |  |
| Analyte                     | Result | PQL | SPK Val               | SPK Ref Value               | %REC | Control Limit  | RPD Ref Value | %RPD                  | RPD Limit | Qual                               |  |
| 1,1'-Biphenyl               | 263.6  | 100 | 400                   | 0                           | 65.9 | 30-120         | 252           | 4.5                   | 30        |                                    |  |
| 2,4,5-Trichlorophenol       | 299.6  | 100 | 400                   | 0                           | 74.9 | 50-110         | 279.4         | 6.98                  | 30        |                                    |  |
| 2,4,6-Trichlorophenol       | 300.4  | 100 | 400                   | 0                           | 75.1 | 50-115         | 272           | 9.92                  | 30        |                                    |  |
| 2,4-Dichlorophenol          | 273.8  | 100 | 400                   | 0                           | 68.4 | 50-105         | 282.8         | 3.23                  | 30        |                                    |  |
| 2,4-Dimethylphenol          | 258    | 100 | 400                   | 0                           | 64.5 | 30-110         | 262           | 1.54                  | 30        |                                    |  |
| 2,4-Dinitrophenol           | 152.2  | 100 | 400                   | 0                           | 38   | 15-140         | 155.2         | 1.95                  | 30        |                                    |  |
| 2,4-Dinitrotoluene          | 336.6  | 100 | 400                   | 0                           | 84.2 | 50-120         | 336           | 0.178                 | 30        |                                    |  |
| 2,6-Dinitrotoluene          | 321    | 100 | 400                   | 0                           | 80.2 | 50-115         | 296           | 8.1                   | 30        |                                    |  |
| 2-Chloronaphthalene         | 260.4  | 100 | 400                   | 0                           | 65.1 | 50-105         | 239.6         | 8.32                  | 30        |                                    |  |
| 2-Chlorophenol              | 263.6  | 100 | 400                   | 0                           | 65.9 | 35-105         | 267.4         | 1.43                  | 30        |                                    |  |
| 2-Methylnaphthalene         | 248.2  | 100 | 400                   | 0                           | 62   | 45-105         | 249           | 0.322                 | 30        |                                    |  |
| 2-Methylphenol              | 250.4  | 100 | 400                   | 0                           | 62.6 | 40-110         | 240.6         | 3.99                  | 30        |                                    |  |
| 2-Nitroaniline              | 334.6  | 100 | 400                   | 0                           | 83.6 | 50-115         | 303.8         | 9.65                  | 30        |                                    |  |
| 2-Nitrophenol               | 268.2  | 100 | 400                   | 0                           | 67   | 40-115         | 282.8         | 5.3                   | 30        |                                    |  |
| 3&4-Methylphenol            | 232    | 100 | 400                   | 0                           | 58   | 30-110         | 229.8         | 0.953                 | 30        |                                    |  |
| 3,3'-Dichlorobenzidine      | 307.4  | 100 | 400                   | 0                           | 76.8 | 30-120         | 341.4         | 10.5                  | 30        |                                    |  |
| 3-Nitroaniline              | 346.8  | 100 | 400                   | 0                           | 86.7 | 20-125         | 339.6         | 2.1                   | 30        |                                    |  |
| 4,6-Dinitro-2-methylphenol  | 217.8  | 100 | 400                   | 0                           | 54.4 | 40-130         | 225.4         | 3.43                  | 30        |                                    |  |
| 4-Bromophenyl phenyl ether  | 306.6  | 100 | 400                   | 0                           | 76.6 | 50-115         | 307           | 0.13                  | 30        |                                    |  |
| 4-Chloro-3-methylphenol     | 298    | 100 | 400                   | 0                           | 74.5 | 45-110         | 293.4         | 1.56                  | 30        |                                    |  |
| 4-Chloroaniline             | 316    | 100 | 400                   | 0                           | 79   | 15-110         | 322.2         | 1.94                  | 30        |                                    |  |
| 4-Chlorophenyl phenyl ether | 291.6  | 100 | 400                   | 0                           | 72.9 | 50-110         | 296           | 1.5                   | 30        |                                    |  |
| 4-Nitroaniline              | 365.8  | 100 | 400                   | 0                           | 91.4 | 35-150         | 379.6         | 3.7                   | 30        |                                    |  |
| 4-Nitrophenol               | 151.4  | 100 | 400                   | 0                           | 37.8 | 1-58           | 139.4         | 8.25                  | 30        |                                    |  |
| Acenaphthene                | 280.2  | 100 | 400                   | 0                           | 70   | 45-110         | 275.6         | 1.66                  | 30        |                                    |  |
| Acenaphthylene              | 284.4  | 100 | 400                   | 0                           | 71.1 | 50-105         | 271.6         | 4.6                   | 30        |                                    |  |
| Acetophenone                | 288.8  | 20  | 400                   | 0                           | 72.2 | 30-120         | 283           | 2.03                  | 30        |                                    |  |
| Anthracene                  | 315.6  | 100 | 400                   | 0                           | 78.9 | 55-110         | 320.6         | 1.57                  | 30        |                                    |  |
| Atrazine                    | 345.4  | 20  | 400                   | 0                           | 86.4 | 30-120         | 356.6         | 3.19                  | 30        |                                    |  |
| Benzaldehyde                | 286    | 20  | 400                   | 0                           | 71.5 | 30-120         | 278.2         | 2.76                  | 30        |                                    |  |
| Benzo(a)anthracene          | 343.4  | 100 | 400                   | 0                           | 85.8 | 55-110         | 346.2         | 0.812                 | 30        |                                    |  |
| Benzo(a)pyrene              | 341    | 100 | 400                   | 0                           | 85.2 | 55-110         | 312.4         | 8.75                  | 30        |                                    |  |
| Benzo(b)fluoranthene        | 327    | 100 | 400                   | 0                           | 81.8 | 45-120         | 337.4         | 3.13                  | 30        |                                    |  |
| Benzo(g,h,i)perylene        | 331.2  | 100 | 400                   | 0                           | 82.8 | 40-125         | 291.6         | 12.7                  | 30        |                                    |  |
| Benzo(k)fluoranthene        | 366.8  | 100 | 400                   | 0                           | 91.7 | 45-125         | 338.8         | 7.94                  | 30        |                                    |  |
| Bis(2-chloroethoxy)methane  | 291    | 100 | 400                   | 0                           | 72.8 | 45-105         | 292           | 0.343                 | 30        |                                    |  |
| Bis(2-chloroethyl)ether     | 300.6  | 100 | 400                   | 0                           | 75.2 | 35-110         | 293.8         | 2.29                  | 30        |                                    |  |
| Bis(2-chloroisopropyl)ether | 281.4  | 100 | 400                   | 0                           | 70.4 | 25-130         | 260.2         | 7.83                  | 30        |                                    |  |
| Bis(2-ethylhexyl)phthalate  | 333.4  | 100 | 400                   | 0                           | 83.4 | 40-125         | 345           | 3.42                  | 30        |                                    |  |
| Butyl benzyl phthalate      | 297.6  | 100 | 400                   | 0                           | 74.4 | 45-115         | 306.2         | 2.85                  | 30        |                                    |  |
| Carbazole                   | 336.2  | 100 | 400                   | 0                           | 84   | 50-150         | 346.4         | 2.99                  | 30        |                                    |  |
| Chrysene                    | 339.8  | 100 | 400                   | 0                           | 85   | 55-110         | 321.2         | 5.63                  | 30        |                                    |  |

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** GHD Services Inc.  
**Work Order:** 15101476  
**Project:** Former GRMP (17360)

## QC BATCH REPORT

| Batch ID: <b>78090</b>            |              | Instrument ID <b>SVMS5</b> |             | Method: <b>SW846 8270D</b> |             |               |              |             |           |
|-----------------------------------|--------------|----------------------------|-------------|----------------------------|-------------|---------------|--------------|-------------|-----------|
| Dibenzo(a,h)anthracene            | 316          | 100                        | 400         | 0                          | 79          | 40-125        | 358.2        | 12.5        | 30        |
| Dibenzofuran                      | 286.6        | 100                        | 400         | 0                          | 71.6        | 55-105        | 287.4        | 0.279       | 30        |
| Diethyl phthalate                 | 328.4        | 100                        | 400         | 0                          | 82.1        | 40-120        | 319.6        | 2.72        | 30        |
| Dimethyl phthalate                | 323.4        | 100                        | 400         | 0                          | 80.8        | 25-125        | 286.8        | 12          | 30        |
| Di-n-butyl phthalate              | 337.6        | 100                        | 400         | 0                          | 84.4        | 55-115        | 344.6        | 2.05        | 30        |
| Di-n-octyl phthalate              | 320.4        | 100                        | 400         | 0                          | 80.1        | 35-135        | 324.6        | 1.3         | 30        |
| Fluoranthene                      | 328          | 100                        | 400         | 0                          | 82          | 55-115        | 308.2        | 6.22        | 30        |
| Fluorene                          | 296          | 100                        | 400         | 0                          | 74          | 50-110        | 300          | 1.34        | 30        |
| Hexachlorobenzene                 | 313          | 100                        | 400         | 0                          | 78.2        | 50-110        | 332.8        | 6.13        | 30        |
| Hexachlorobutadiene               | 179.2        | 100                        | 400         | 0                          | 44.8        | 25-105        | 167.2        | 6.93        | 30        |
| Hexachlorocyclopentadiene         | 135.2        | 100                        | 400         | 0                          | 33.8        | 25-105        | 117.6        | 13.9        | 30        |
| Hexachloroethane                  | 169.8        | 100                        | 400         | 0                          | 42.4        | 30-95         | 148.6        | 13.3        | 30        |
| Indeno(1,2,3-cd)pyrene            | 315.8        | 100                        | 400         | 0                          | 79          | 45-125        | 323.8        | 2.5         | 30        |
| Isophorone                        | 305.2        | 100                        | 400         | 0                          | 76.3        | 50-110        | 300          | 1.72        | 30        |
| Naphthalene                       | 232          | 100                        | 400         | 0                          | 58          | 40-100        | 226          | 2.62        | 30        |
| Nitrobenzene                      | 273.8        | 100                        | 400         | 0                          | 68.4        | 45-110        | 270.2        | 1.32        | 30        |
| N-Nitrosodi-n-propylamine         | 321          | 100                        | 400         | 0                          | 80.2        | 35-130        | 314.2        | 2.14        | 30        |
| N-Nitrosodiphenylamine            | 304.8        | 100                        | 400         | 0                          | 76.2        | 50-110        | 319.2        | 4.62        | 30        |
| Pentachlorophenol                 | 356.6        | 100                        | 400         | 0                          | 89.2        | 40-115        | 404.2        | 12.5        | 30        |
| Phenanthrene                      | 308.6        | 100                        | 400         | 0                          | 77.2        | 50-115        | 312          | 1.1         | 30        |
| Phenol                            | 120.8        | 100                        | 400         | 0                          | 30.2        | 12-43         | 112.4        | 7.2         | 30        |
| Pyrene                            | 287.2        | 100                        | 400         | 0                          | 71.8        | 50-130        | 279.8        | 2.61        | 30        |
| <i>Surr: 2,4,6-Tribromophenol</i> | <i>781</i>   | <i>0</i>                   | <i>1000</i> | <i>0</i>                   | <i>78.1</i> | <i>38-115</i> | <i>820.8</i> | <i>4.97</i> | <i>40</i> |
| <i>Surr: 2-Fluorobiphenyl</i>     | <i>679.8</i> | <i>0</i>                   | <i>1000</i> | <i>0</i>                   | <i>68</i>   | <i>32-100</i> | <i>630.2</i> | <i>7.57</i> | <i>40</i> |
| <i>Surr: 2-Fluorophenol</i>       | <i>437.6</i> | <i>0</i>                   | <i>1000</i> | <i>0</i>                   | <i>43.8</i> | <i>22-59</i>  | <i>407.2</i> | <i>7.2</i>  | <i>40</i> |
| <i>Surr: 4-Terphenyl-d14</i>      | <i>716.6</i> | <i>0</i>                   | <i>1000</i> | <i>0</i>                   | <i>71.7</i> | <i>23-112</i> | <i>704.6</i> | <i>1.69</i> | <i>40</i> |
| <i>Surr: Nitrobenzene-d5</i>      | <i>641.6</i> | <i>0</i>                   | <i>1000</i> | <i>0</i>                   | <i>64.2</i> | <i>31-93</i>  | <i>620</i>   | <i>3.42</i> | <i>40</i> |
| <i>Surr: Phenol-d6</i>            | <i>280</i>   | <i>0</i>                   | <i>1000</i> | <i>0</i>                   | <i>28</i>   | <i>13-36</i>  | <i>263</i>   | <i>6.26</i> | <i>40</i> |

The following samples were analyzed in this batch:

15101476-  
20B

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** GHD Services Inc.  
**Work Order:** 15101476  
**Project:** Former GRMP (17360)

## QC BATCH REPORT

Batch ID: **R175223**      Instrument ID **VMS8**      Method: **SW8260B**

| MBLK                           |        | Sample ID: <b>VBLKW1-151103-R175223</b> |         |               |      | Units: <b>µg/L</b>    |               | Analysis Date: <b>11/3/2015 12:32 PM</b> |           |              |
|--------------------------------|--------|-----------------------------------------|---------|---------------|------|-----------------------|---------------|------------------------------------------|-----------|--------------|
| Client ID:                     |        | Run ID: <b>VMS8_151103A</b>             |         |               |      | SeqNo: <b>3545002</b> |               | Prep Date:                               |           | DF: <b>1</b> |
| Analyte                        | Result | PQL                                     | SPK Val | SPK Ref Value | %REC | Control Limit         | RPD Ref Value | %RPD                                     | RPD Limit | Qual         |
| 1,1,1-Trichloroethane          | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| 1,1,2,2-Tetrachloroethane      | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| 1,1,2-Trichloroethane          | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| 1,1,2-Trichlorotrifluoroethane | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| 1,1-Dichloroethane             | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| 1,1-Dichloroethene             | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| 1,2,4-Trichlorobenzene         | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| 1,2-Dibromo-3-chloropropane    | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| 1,2-Dibromoethane              | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| 1,2-Dichlorobenzene            | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| 1,2-Dichloroethane             | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| 1,2-Dichloropropane            | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| 1,3-Dichlorobenzene            | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| 1,4-Dichlorobenzene            | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| 2-Butanone                     | U      | 5.0                                     |         |               |      |                       |               |                                          |           |              |
| 2-Hexanone                     | U      | 5.0                                     |         |               |      |                       |               |                                          |           |              |
| 4-Methyl-2-pentanone           | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| Acetone                        | U      | 10                                      |         |               |      |                       |               |                                          |           |              |
| Benzene                        | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| Bromodichloromethane           | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| Bromoform                      | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| Bromomethane                   | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| Carbon disulfide               | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| Carbon tetrachloride           | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| Chlorobenzene                  | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| Chloroethane                   | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| Chloroform                     | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| Chloromethane                  | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| cis-1,2-Dichloroethene         | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| cis-1,3-Dichloropropene        | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| Cyclohexane                    | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| Dibromochloromethane           | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| Dichlorodifluoromethane        | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| Ethylbenzene                   | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| Isopropylbenzene               | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| Methyl acetate                 | U      | 2.0                                     |         |               |      |                       |               |                                          |           |              |
| Methyl tert-butyl ether        | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| Methylcyclohexane              | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| Methylene chloride             | U      | 5.0                                     |         |               |      |                       |               |                                          |           |              |
| Styrene                        | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| Tetrachloroethene              | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| Toluene                        | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

Client: GHD Services Inc.  
Work Order: 15101476  
Project: Former GRMP (17360)

QC BATCH REPORT

|                             |                           |                        |
|-----------------------------|---------------------------|------------------------|
| Batch ID: <b>R175223</b>    | Instrument ID <b>VMS8</b> | Method: <b>SW8260B</b> |
| trans-1,2-Dichloroethene    | U                         | 1.0                    |
| trans-1,3-Dichloropropene   | U                         | 1.0                    |
| Trichloroethene             | U                         | 1.0                    |
| Trichlorofluoromethane      | U                         | 1.0                    |
| Vinyl chloride              | U                         | 1.0                    |
| Xylenes, Total              | U                         | 3.0                    |
| Surr: 1,2-Dichloroethane-d4 | 20.46                     | 0 20 0 102 75-120 0    |
| Surr: 4-Bromofluorobenzene  | 18.8                      | 0 20 0 94 80-110 0     |
| Surr: Dibromofluoromethane  | 20.08                     | 0 20 0 100 85-115 0    |
| Surr: Toluene-d8            | 18.86                     | 0 20 0 94.3 85-110 0   |

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** GHD Services Inc.  
**Work Order:** 15101476  
**Project:** Former GRMP (17360)

## QC BATCH REPORT

Batch ID: **R175223** Instrument ID **VMS8** Method: **SW8260B**

| LCS                         |        | Sample ID: <b>VLCSW1-151103-R175223</b> |         |               |      | Units: <b>µg/L</b>    |               | Analysis Date: <b>11/3/2015 10:05 AM</b> |           |              |
|-----------------------------|--------|-----------------------------------------|---------|---------------|------|-----------------------|---------------|------------------------------------------|-----------|--------------|
| Client ID:                  |        | Run ID: <b>VMS8_151103A</b>             |         |               |      | SeqNo: <b>3545001</b> |               | Prep Date:                               |           | DF: <b>1</b> |
| Analyte                     | Result | PQL                                     | SPK Val | SPK Ref Value | %REC | Control Limit         | RPD Ref Value | %RPD                                     | RPD Limit | Qual         |
| 1,1,1-Trichloroethane       | 40.84  | 1.0                                     | 40      | 0             | 102  | 75-130                | 0             |                                          |           |              |
| 1,1,2,2-Tetrachloroethane   | 39.22  | 1.0                                     | 40      | 0             | 98   | 75-130                | 0             |                                          |           |              |
| 1,1,2-Trichloroethane       | 39.38  | 1.0                                     | 40      | 0             | 98.4 | 75-125                | 0             |                                          |           |              |
| 1,1-Dichloroethane          | 44.59  | 1.0                                     | 40      | 0             | 111  | 75-133                | 0             |                                          |           |              |
| 1,1-Dichloroethene          | 47.18  | 1.0                                     | 40      | 0             | 118  | 70-145                | 0             |                                          |           |              |
| 1,2,4-Trichlorobenzene      | 41.24  | 1.0                                     | 40      | 0             | 103  | 70-135                | 0             |                                          |           |              |
| 1,2-Dibromo-3-chloropropane | 32.27  | 1.0                                     | 40      | 0             | 80.7 | 60-130                | 0             |                                          |           |              |
| 1,2-Dibromoethane           | 50.7   | 1.0                                     | 40      | 0             | 127  | 80-150                | 0             |                                          |           |              |
| 1,2-Dichlorobenzene         | 39.08  | 1.0                                     | 40      | 0             | 97.7 | 70-130                | 0             |                                          |           |              |
| 1,2-Dichloroethane          | 43.35  | 1.0                                     | 40      | 0             | 108  | 78-125                | 0             |                                          |           |              |
| 1,2-Dichloropropane         | 44.37  | 1.0                                     | 40      | 0             | 111  | 75-125                | 0             |                                          |           |              |
| 1,3-Dichlorobenzene         | 41.75  | 1.0                                     | 40      | 0             | 104  | 75-130                | 0             |                                          |           |              |
| 1,4-Dichlorobenzene         | 40.86  | 1.0                                     | 40      | 0             | 102  | 75-130                | 0             |                                          |           |              |
| 2-Butanone                  | 32.51  | 5.0                                     | 40      | 0             | 81.3 | 55-150                | 0             |                                          |           |              |
| 2-Hexanone                  | 29.44  | 5.0                                     | 40      | 0             | 73.6 | 60-135                | 0             |                                          |           |              |
| 4-Methyl-2-pentanone        | 36.49  | 1.0                                     | 40      | 0             | 91.2 | 77-178                | 0             |                                          |           |              |
| Acetone                     | 31.6   | 10                                      | 40      | 0             | 79   | 60-160                | 0             |                                          |           |              |
| Benzene                     | 42.26  | 1.0                                     | 40      | 0             | 106  | 85-125                | 0             |                                          |           |              |
| Bromodichloromethane        | 41.11  | 1.0                                     | 40      | 0             | 103  | 75-125                | 0             |                                          |           |              |
| Bromoform                   | 34.65  | 1.0                                     | 40      | 0             | 86.6 | 60-125                | 0             |                                          |           |              |
| Bromomethane                | 45.07  | 1.0                                     | 40      | 0             | 113  | 30-185                | 0             |                                          |           |              |
| Carbon disulfide            | 47.19  | 1.0                                     | 40      | 0             | 118  | 60-165                | 0             |                                          |           |              |
| Carbon tetrachloride        | 40.49  | 1.0                                     | 40      | 0             | 101  | 65-140                | 0             |                                          |           |              |
| Chlorobenzene               | 40.04  | 1.0                                     | 40      | 0             | 100  | 80-120                | 0             |                                          |           |              |
| Chloroethane                | 53.3   | 1.0                                     | 40      | 0             | 133  | 50-140                | 0             |                                          |           |              |
| Chloroform                  | 41.58  | 1.0                                     | 40      | 0             | 104  | 80-130                | 0             |                                          |           |              |
| Chloromethane               | 45.76  | 1.0                                     | 40      | 0             | 114  | 50-130                | 0             |                                          |           |              |
| cis-1,2-Dichloroethene      | 44.61  | 1.0                                     | 40      | 0             | 112  | 75-134                | 0             |                                          |           |              |
| cis-1,3-Dichloropropene     | 40.32  | 1.0                                     | 40      | 0             | 101  | 70-130                | 0             |                                          |           |              |
| Dibromochloromethane        | 37.96  | 1.0                                     | 40      | 0             | 94.9 | 60-115                | 0             |                                          |           |              |
| Dichlorodifluoromethane     | 44.73  | 1.0                                     | 40      | 0             | 112  | 20-120                | 0             |                                          |           |              |
| Ethylbenzene                | 38.52  | 1.0                                     | 40      | 0             | 96.3 | 85-125                | 0             |                                          |           |              |
| Isopropylbenzene            | 41.17  | 1.0                                     | 40      | 0             | 103  | 80-127                | 0             |                                          |           |              |
| Methyl tert-butyl ether     | 44.9   | 1.0                                     | 40      | 0             | 112  | 80-130                | 0             |                                          |           |              |
| Methylene chloride          | 49.07  | 5.0                                     | 40      | 0             | 123  | 75-140                | 0             |                                          |           |              |
| Styrene                     | 38.98  | 1.0                                     | 40      | 0             | 97.4 | 85-125                | 0             |                                          |           |              |
| Tetrachloroethene           | 42.81  | 1.0                                     | 40      | 0             | 107  | 77-138                | 0             |                                          |           |              |
| Toluene                     | 39.25  | 1.0                                     | 40      | 0             | 98.1 | 85-125                | 0             |                                          |           |              |
| trans-1,2-Dichloroethene    | 50.22  | 1.0                                     | 40      | 0             | 126  | 80-140                | 0             |                                          |           |              |
| trans-1,3-Dichloropropene   | 35.24  | 1.0                                     | 40      | 0             | 88.1 | 81-123                | 0             |                                          |           |              |
| Trichloroethene             | 39.69  | 1.0                                     | 40      | 0             | 99.2 | 84-130                | 0             |                                          |           |              |
| Trichlorofluoromethane      | 48.26  | 1.0                                     | 40      | 0             | 121  | 60-140                | 0             |                                          |           |              |

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** GHD Services Inc.  
**Work Order:** 15101476  
**Project:** Former GRMP (17360)

## QC BATCH REPORT

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|                                    |                           |                        |     |   |      |        |   |
|------------------------------------|---------------------------|------------------------|-----|---|------|--------|---|
| Batch ID: <b>R175223</b>           | Instrument ID <b>VMS8</b> | Method: <b>SW8260B</b> |     |   |      |        |   |
| Vinyl chloride                     | 44.83                     | 1.0                    | 40  | 0 | 112  | 50-136 | 0 |
| Xylenes, Total                     | 117.7                     | 3.0                    | 120 | 0 | 98.1 | 80-126 | 0 |
| <i>Surr: 1,2-Dichloroethane-d4</i> | 20.33                     | 0                      | 20  | 0 | 102  | 75-120 | 0 |
| <i>Surr: 4-Bromofluorobenzene</i>  | 19.32                     | 0                      | 20  | 0 | 96.6 | 80-110 | 0 |
| <i>Surr: Dibromofluoromethane</i>  | 21.24                     | 0                      | 20  | 0 | 106  | 85-115 | 0 |
| <i>Surr: Toluene-d8</i>            | 19.68                     | 0                      | 20  | 0 | 98.4 | 85-110 | 0 |

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**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** GHD Services Inc.  
**Work Order:** 15101476  
**Project:** Former GRMP (17360)

## QC BATCH REPORT

Batch ID: **R175223** Instrument ID **VMS8** Method: **SW8260B**

| MS                                 |        |     |         | Sample ID: 15101476-03A MS |      |               | Units: µg/L    |      | Analysis Date: 11/3/2015 08:29 PM |      |
|------------------------------------|--------|-----|---------|----------------------------|------|---------------|----------------|------|-----------------------------------|------|
| Client ID: WG-017360-102015-MR-003 |        |     |         | Run ID: VMS8_151103A       |      |               | SeqNo: 3545698 |      | Prep Date:                        |      |
|                                    |        |     |         |                            |      |               |                |      | DF: 1                             |      |
| Analyte                            | Result | PQL | SPK Val | SPK Ref Value              | %REC | Control Limit | RPD Ref Value  | %RPD | RPD Limit                         | Qual |
| 1,1,1-Trichloroethane              | 8.58   | 1.0 | 20      | 0                          | 42.9 | 75-130        | 0              |      |                                   | S    |
| 1,1,2,2-Tetrachloroethane          | 8.2    | 1.0 | 20      | 0                          | 41   | 75-130        | 0              |      |                                   | S    |
| 1,1,2-Trichloroethane              | 8.43   | 1.0 | 20      | 0                          | 42.2 | 75-125        | 0              |      |                                   | S    |
| 1,1-Dichloroethane                 | 9.67   | 1.0 | 20      | 0                          | 48.4 | 75-133        | 0              |      |                                   | S    |
| 1,1-Dichloroethene                 | 10.75  | 1.0 | 20      | 0                          | 53.8 | 70-145        | 0              |      |                                   | S    |
| 1,2,4-Trichlorobenzene             | 7.18   | 1.0 | 20      | 0                          | 35.9 | 70-135        | 0              |      |                                   | S    |
| 1,2-Dibromo-3-chloropropane        | 5.78   | 1.0 | 20      | 0                          | 28.9 | 60-130        | 0              |      |                                   | S    |
| 1,2-Dibromoethane                  | 9.67   | 1.0 | 20      | 0                          | 48.4 | 80-150        | 0              |      |                                   | S    |
| 1,2-Dichlorobenzene                | 7.32   | 1.0 | 20      | 0                          | 36.6 | 70-130        | 0              |      |                                   | S    |
| 1,2-Dichloroethane                 | 9.34   | 1.0 | 20      | 0                          | 46.7 | 78-125        | 0              |      |                                   | S    |
| 1,2-Dichloropropane                | 8.79   | 1.0 | 20      | 0                          | 44   | 75-125        | 0              |      |                                   | S    |
| 1,3-Dichlorobenzene                | 7.88   | 1.0 | 20      | 0                          | 39.4 | 75-130        | 0              |      |                                   | S    |
| 1,4-Dichlorobenzene                | 7.67   | 1.0 | 20      | 0                          | 38.4 | 75-130        | 0              |      |                                   | S    |
| 2-Butanone                         | 7.18   | 5.0 | 20      | 0                          | 35.9 | 55-150        | 0              |      |                                   | S    |
| 2-Hexanone                         | 6.22   | 5.0 | 20      | 0                          | 31.1 | 60-135        | 0              |      |                                   | S    |
| 4-Methyl-2-pentanone               | 8.15   | 1.0 | 20      | 0                          | 40.8 | 77-178        | 0              |      |                                   | S    |
| Acetone                            | 6.64   | 10  | 20      | 0                          | 33.2 | 60-160        | 0              |      |                                   | JS   |
| Benzene                            | 9.05   | 1.0 | 20      | 0                          | 45.2 | 85-125        | 0              |      |                                   | S    |
| Bromodichloromethane               | 8.15   | 1.0 | 20      | 0                          | 40.8 | 75-125        | 0              |      |                                   | S    |
| Bromoform                          | 5.97   | 1.0 | 20      | 0                          | 29.8 | 60-125        | 0              |      |                                   | S    |
| Bromomethane                       | 12.46  | 1.0 | 20      | 0                          | 62.3 | 30-185        | 0              |      |                                   |      |
| Carbon disulfide                   | 9.5    | 1.0 | 20      | 0                          | 47.5 | 60-165        | 0              |      |                                   | S    |
| Carbon tetrachloride               | 8.53   | 1.0 | 20      | 0                          | 42.6 | 65-140        | 0              |      |                                   | S    |
| Chlorobenzene                      | 8.33   | 1.0 | 20      | 0                          | 41.6 | 80-120        | 0              |      |                                   | S    |
| Chloroethane                       | 12.92  | 1.0 | 20      | 0                          | 64.6 | 50-140        | 0              |      |                                   |      |
| Chloroform                         | 9.43   | 1.0 | 20      | 0                          | 47.2 | 80-130        | 0              |      |                                   | S    |
| Chloromethane                      | 11.73  | 1.0 | 20      | 0                          | 58.6 | 50-130        | 0              |      |                                   |      |
| cis-1,2-Dichloroethene             | 9.47   | 1.0 | 20      | 0                          | 47.4 | 75-134        | 0              |      |                                   | S    |
| cis-1,3-Dichloropropene            | 7.32   | 1.0 | 20      | 0                          | 36.6 | 70-130        | 0              |      |                                   | S    |
| Dibromochloromethane               | 6.69   | 1.0 | 20      | 0                          | 33.4 | 60-115        | 0              |      |                                   | S    |
| Dichlorodifluoromethane            | 10.77  | 1.0 | 20      | 0                          | 53.8 | 20-120        | 0              |      |                                   |      |
| Ethylbenzene                       | 7.4    | 1.0 | 20      | 0                          | 37   | 85-125        | 0              |      |                                   | S    |
| Isopropylbenzene                   | 7.24   | 1.0 | 20      | 0                          | 36.2 | 80-127        | 0              |      |                                   | S    |
| Methyl tert-butyl ether            | 8.2    | 1.0 | 20      | 0                          | 41   | 80-130        | 0              |      |                                   | S    |
| Methylene chloride                 | 10.58  | 5.0 | 20      | 0                          | 52.9 | 75-140        | 0              |      |                                   | S    |
| Styrene                            | 7.34   | 1.0 | 20      | 0                          | 36.7 | 85-125        | 0              |      |                                   | S    |
| Tetrachloroethene                  | 9.01   | 1.0 | 20      | 0                          | 45   | 77-138        | 0              |      |                                   | S    |
| Toluene                            | 8.06   | 1.0 | 20      | 0                          | 40.3 | 85-125        | 0              |      |                                   | S    |
| trans-1,2-Dichloroethene           | 9.63   | 1.0 | 20      | 0                          | 48.2 | 80-140        | 0              |      |                                   | S    |
| trans-1,3-Dichloropropene          | 5.95   | 1.0 | 20      | 0                          | 29.8 | 81-123        | 0              |      |                                   | S    |
| Trichloroethene                    | 9.35   | 1.0 | 20      | 0                          | 46.8 | 84-130        | 0              |      |                                   | S    |
| Trichlorofluoromethane             | 10.89  | 1.0 | 20      | 0                          | 54.4 | 60-140        | 0              |      |                                   | S    |

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

Client: GHD Services Inc.  
Work Order: 15101476  
Project: Former GRMP (17360)

QC BATCH REPORT

|                                    |              |                           |           |                        |             |               |          |   |
|------------------------------------|--------------|---------------------------|-----------|------------------------|-------------|---------------|----------|---|
| Batch ID: <b>R175223</b>           |              | Instrument ID <b>VMS8</b> |           | Method: <b>SW8260B</b> |             |               |          |   |
| Vinyl chloride                     | 11.4         | 1.0                       | 20        | 0                      | 57          | 50-136        | 0        |   |
| Xylenes, Total                     | 22.16        | 3.0                       | 60        | 0                      | 36.9        | 80-126        | 0        | S |
| <i>Surr: 1,2-Dichloroethane-d4</i> | <i>20.84</i> | <i>0</i>                  | <i>20</i> | <i>0</i>               | <i>104</i>  | <i>75-120</i> | <i>0</i> |   |
| <i>Surr: 4-Bromofluorobenzene</i>  | <i>19.79</i> | <i>0</i>                  | <i>20</i> | <i>0</i>               | <i>99</i>   | <i>80-110</i> | <i>0</i> |   |
| <i>Surr: Dibromofluoromethane</i>  | <i>20.96</i> | <i>0</i>                  | <i>20</i> | <i>0</i>               | <i>105</i>  | <i>85-115</i> | <i>0</i> |   |
| <i>Surr: Toluene-d8</i>            | <i>19.28</i> | <i>0</i>                  | <i>20</i> | <i>0</i>               | <i>96.4</i> | <i>85-110</i> | <i>0</i> |   |

Note: See Qualifiers Page for a list of Qualifiers and their explanation.



**Client:** GHD Services Inc.  
**Work Order:** 15101476  
**Project:** Former GRMP (17360)

## QC BATCH REPORT

Batch ID: **R175223** Instrument ID **VMS8** Method: **SW8260B**

| MSD                                |        |     |                      | Sample ID: 15101476-03A MSD |                |               |               | Units: µg/L |           | Analysis Date: 11/3/2015 08:54 PM |  |
|------------------------------------|--------|-----|----------------------|-----------------------------|----------------|---------------|---------------|-------------|-----------|-----------------------------------|--|
| Client ID: WG-017360-102015-MR-003 |        |     | Run ID: VMS8_151103A |                             | SeqNo: 3545703 |               | Prep Date:    |             | DF: 1     |                                   |  |
| Analyte                            | Result | PQL | SPK Val              | SPK Ref Value               | %REC           | Control Limit | RPD Ref Value | %RPD        | RPD Limit | Qual                              |  |
| 1,1,1-Trichloroethane              | 15.84  | 1.0 | 20                   | 0                           | 79.2           | 75-130        | 8.58          | 59.5        | 30        | R                                 |  |
| 1,1,2,2-Tetrachloroethane          | 15.37  | 1.0 | 20                   | 0                           | 76.8           | 75-130        | 8.2           | 60.8        | 30        | R                                 |  |
| 1,1,2-Trichloroethane              | 14.89  | 1.0 | 20                   | 0                           | 74.4           | 75-125        | 8.43          | 55.4        | 30        | SR                                |  |
| 1,1-Dichloroethane                 | 18.09  | 1.0 | 20                   | 0                           | 90.4           | 75-133        | 9.67          | 60.7        | 30        | R                                 |  |
| 1,1-Dichloroethene                 | 19.63  | 1.0 | 20                   | 0                           | 98.2           | 70-145        | 10.75         | 58.5        | 30        | R                                 |  |
| 1,2,4-Trichlorobenzene             | 13.2   | 1.0 | 20                   | 0                           | 66             | 70-135        | 7.18          | 59.1        | 30        | SR                                |  |
| 1,2-Dibromo-3-chloropropane        | 11.78  | 1.0 | 20                   | 0                           | 58.9           | 60-130        | 5.78          | 68.3        | 30        | SR                                |  |
| 1,2-Dibromoethane                  | 18.23  | 1.0 | 20                   | 0                           | 91.2           | 80-150        | 9.67          | 61.4        | 30        | R                                 |  |
| 1,2-Dichlorobenzene                | 14     | 1.0 | 20                   | 0                           | 70             | 70-130        | 7.32          | 62.7        | 30        | R                                 |  |
| 1,2-Dichloroethane                 | 16.75  | 1.0 | 20                   | 0                           | 83.8           | 78-125        | 9.34          | 56.8        | 30        | R                                 |  |
| 1,2-Dichloropropane                | 16.7   | 1.0 | 20                   | 0                           | 83.5           | 75-125        | 8.79          | 62.1        | 30        | R                                 |  |
| 1,3-Dichlorobenzene                | 14.7   | 1.0 | 20                   | 0                           | 73.5           | 75-130        | 7.88          | 60.4        | 30        | SR                                |  |
| 1,4-Dichlorobenzene                | 15.08  | 1.0 | 20                   | 0                           | 75.4           | 75-130        | 7.67          | 65.1        | 30        | R                                 |  |
| 2-Butanone                         | 16.12  | 5.0 | 20                   | 0                           | 80.6           | 55-150        | 7.18          | 76.7        | 30        | R                                 |  |
| 2-Hexanone                         | 11.97  | 5.0 | 20                   | 0                           | 59.8           | 60-135        | 6.22          | 63.2        | 30        | SR                                |  |
| 4-Methyl-2-pentanone               | 15.7   | 1.0 | 20                   | 0                           | 78.5           | 77-178        | 8.15          | 63.3        | 30        | R                                 |  |
| Acetone                            | 15.62  | 10  | 20                   | 0                           | 78.1           | 60-160        | 6.64          | 80.7        | 30        | R                                 |  |
| Benzene                            | 16.83  | 1.0 | 20                   | 0                           | 84.2           | 85-125        | 9.05          | 60.1        | 30        | SR                                |  |
| Bromodichloromethane               | 14.97  | 1.0 | 20                   | 0                           | 74.8           | 75-125        | 8.15          | 59          | 30        | SR                                |  |
| Bromoform                          | 11.27  | 1.0 | 20                   | 0                           | 56.4           | 60-125        | 5.97          | 61.5        | 30        | SR                                |  |
| Bromomethane                       | 21.46  | 1.0 | 20                   | 0                           | 107            | 30-185        | 12.46         | 53.1        | 30        | R                                 |  |
| Carbon disulfide                   | 17.98  | 1.0 | 20                   | 0                           | 89.9           | 60-165        | 9.5           | 61.7        | 30        | R                                 |  |
| Carbon tetrachloride               | 15.81  | 1.0 | 20                   | 0                           | 79             | 65-140        | 8.53          | 59.8        | 30        | R                                 |  |
| Chlorobenzene                      | 14.95  | 1.0 | 20                   | 0                           | 74.8           | 80-120        | 8.33          | 56.9        | 30        | SR                                |  |
| Chloroethane                       | 23.59  | 1.0 | 20                   | 0                           | 118            | 50-140        | 12.92         | 58.4        | 30        | R                                 |  |
| Chloroform                         | 16.97  | 1.0 | 20                   | 0                           | 84.8           | 80-130        | 9.43          | 57.1        | 30        | R                                 |  |
| Chloromethane                      | 20.8   | 1.0 | 20                   | 0                           | 104            | 50-130        | 11.73         | 55.8        | 30        | R                                 |  |
| cis-1,2-Dichloroethene             | 18.06  | 1.0 | 20                   | 0                           | 90.3           | 75-134        | 9.47          | 62.4        | 30        | R                                 |  |
| cis-1,3-Dichloropropene            | 14.2   | 1.0 | 20                   | 0                           | 71             | 70-130        | 7.32          | 63.9        | 30        | R                                 |  |
| Dibromochloromethane               | 12.76  | 1.0 | 20                   | 0                           | 63.8           | 60-115        | 6.69          | 62.4        | 30        | R                                 |  |
| Dichlorodifluoromethane            | 20.62  | 1.0 | 20                   | 0                           | 103            | 20-120        | 10.77         | 62.8        | 30        | R                                 |  |
| Ethylbenzene                       | 14.26  | 1.0 | 20                   | 0                           | 71.3           | 85-125        | 7.4           | 63.3        | 30        | SR                                |  |
| Isopropylbenzene                   | 14.48  | 1.0 | 20                   | 0                           | 72.4           | 80-127        | 7.24          | 66.7        | 30        | SR                                |  |
| Methyl tert-butyl ether            | 15.39  | 1.0 | 20                   | 0                           | 77             | 80-130        | 8.2           | 61          | 30        | SR                                |  |
| Methylene chloride                 | 20.29  | 5.0 | 20                   | 0                           | 101            | 75-140        | 10.58         | 62.9        | 30        | R                                 |  |
| Styrene                            | 13.93  | 1.0 | 20                   | 0                           | 69.6           | 85-125        | 7.34          | 62          | 30        | SR                                |  |
| Tetrachloroethene                  | 16.1   | 1.0 | 20                   | 0                           | 80.5           | 77-138        | 9.01          | 56.5        | 30        | R                                 |  |
| Toluene                            | 15.15  | 1.0 | 20                   | 0                           | 75.8           | 85-125        | 8.06          | 61.1        | 30        | SR                                |  |
| trans-1,2-Dichloroethene           | 17.97  | 1.0 | 20                   | 0                           | 89.8           | 80-140        | 9.63          | 60.4        | 30        | R                                 |  |
| trans-1,3-Dichloropropene          | 11.83  | 1.0 | 20                   | 0                           | 59.2           | 81-123        | 5.95          | 66.1        | 30        | SR                                |  |
| Trichloroethene                    | 16.18  | 1.0 | 20                   | 0                           | 80.9           | 84-130        | 9.35          | 53.5        | 30        | SR                                |  |
| Trichlorofluoromethane             | 21.04  | 1.0 | 20                   | 0                           | 105            | 60-140        | 10.89         | 63.6        | 30        | R                                 |  |

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

Client: GHD Services Inc.  
Work Order: 15101476  
Project: Former GRMP (17360)

QC BATCH REPORT

|                             |       |                           |    |                        |      |        |       |       |    |    |
|-----------------------------|-------|---------------------------|----|------------------------|------|--------|-------|-------|----|----|
| Batch ID: <b>R175223</b>    |       | Instrument ID <b>VMS8</b> |    | Method: <b>SW8260B</b> |      |        |       |       |    |    |
| Vinyl chloride              | 20.47 | 1.0                       | 20 | 0                      | 102  | 50-136 | 11.4  | 56.9  | 30 | R  |
| Xylenes, Total              | 42.45 | 3.0                       | 60 | 0                      | 70.8 | 80-126 | 22.16 | 62.8  | 30 | SR |
| Surr: 1,2-Dichloroethane-d4 | 20.33 | 0                         | 20 | 0                      | 102  | 75-120 | 20.84 | 2.48  | 30 |    |
| Surr: 4-Bromofluorobenzene  | 19.94 | 0                         | 20 | 0                      | 99.7 | 80-110 | 19.79 | 0.755 | 30 |    |
| Surr: Dibromofluoromethane  | 20.66 | 0                         | 20 | 0                      | 103  | 85-115 | 20.96 | 1.44  | 30 |    |
| Surr: Toluene-d8            | 18.82 | 0                         | 20 | 0                      | 94.1 | 85-110 | 19.28 | 2.41  | 30 |    |

|                                                    |              |              |              |  |
|----------------------------------------------------|--------------|--------------|--------------|--|
| The following samples were analyzed in this batch: | 15101476-03A | 15101476-15A | 15101476-16A |  |
|                                                    | 15101476-17A | 15101476-18A | 15101476-19A |  |
|                                                    | 15101476-20A | 15101476-21A |              |  |
|                                                    |              |              |              |  |

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** GHD Services Inc.  
**Work Order:** 15101476  
**Project:** Former GRMP (17360)

## QC BATCH REPORT

Batch ID: **R175236A**      Instrument ID **VMS5**      Method: **SW8260B**

| MBLK                           |        | Sample ID: <b>VLKW1-151103-R175236A</b> |         |               |      | Units: <b>µg/L</b>    |               | Analysis Date: <b>11/3/2015 01:08 PM</b> |           |              |
|--------------------------------|--------|-----------------------------------------|---------|---------------|------|-----------------------|---------------|------------------------------------------|-----------|--------------|
| Client ID:                     |        | Run ID: <b>VMS5_151103A</b>             |         |               |      | SeqNo: <b>3545671</b> |               | Prep Date:                               |           | DF: <b>1</b> |
| Analyte                        | Result | PQL                                     | SPK Val | SPK Ref Value | %REC | Control Limit         | RPD Ref Value | %RPD                                     | RPD Limit | Qual         |
| 1,1,1-Trichloroethane          | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| 1,1,2,2-Tetrachloroethane      | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| 1,1,2-Trichloroethane          | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| 1,1,2-Trichlorotrifluoroethane | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| 1,1-Dichloroethane             | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| 1,1-Dichloroethene             | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| 1,2,4-Trichlorobenzene         | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| 1,2-Dibromo-3-chloropropane    | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| 1,2-Dibromoethane              | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| 1,2-Dichlorobenzene            | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| 1,2-Dichloroethane             | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| 1,2-Dichloropropane            | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| 1,3-Dichlorobenzene            | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| 1,4-Dichlorobenzene            | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| 2-Butanone                     | U      | 5.0                                     |         |               |      |                       |               |                                          |           |              |
| 2-Hexanone                     | U      | 5.0                                     |         |               |      |                       |               |                                          |           |              |
| 4-Methyl-2-pentanone           | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| Acetone                        | U      | 10                                      |         |               |      |                       |               |                                          |           |              |
| Benzene                        | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| Bromodichloromethane           | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| Bromoform                      | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| Bromomethane                   | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| Carbon disulfide               | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| Carbon tetrachloride           | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| Chlorobenzene                  | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| Chloroethane                   | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| Chloroform                     | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| Chloromethane                  | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| cis-1,2-Dichloroethene         | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| cis-1,3-Dichloropropene        | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| Cyclohexane                    | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| Dibromochloromethane           | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| Dichlorodifluoromethane        | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| Ethylbenzene                   | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| Isopropylbenzene               | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| Methyl acetate                 | U      | 2.0                                     |         |               |      |                       |               |                                          |           |              |
| Methyl tert-butyl ether        | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| Methylcyclohexane              | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| Methylene chloride             | U      | 5.0                                     |         |               |      |                       |               |                                          |           |              |
| Styrene                        | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| Tetrachloroethene              | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| Toluene                        | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

Client: GHD Services Inc.  
Work Order: 15101476  
Project: Former GRMP (17360)

QC BATCH REPORT

|                                    |              |                           |           |                        |             |               |          |  |
|------------------------------------|--------------|---------------------------|-----------|------------------------|-------------|---------------|----------|--|
| Batch ID: <b>R175236A</b>          |              | Instrument ID <b>VMS5</b> |           | Method: <b>SW8260B</b> |             |               |          |  |
| trans-1,2-Dichloroethene           | U            | 1.0                       |           |                        |             |               |          |  |
| trans-1,3-Dichloropropene          | U            | 1.0                       |           |                        |             |               |          |  |
| Trichloroethene                    | U            | 1.0                       |           |                        |             |               |          |  |
| Trichlorofluoromethane             | U            | 1.0                       |           |                        |             |               |          |  |
| Vinyl chloride                     | U            | 1.0                       |           |                        |             |               |          |  |
| Xylenes, Total                     | U            | 3.0                       |           |                        |             |               |          |  |
| <i>Surr: 1,2-Dichloroethane-d4</i> | <i>19.13</i> | <i>0</i>                  | <i>20</i> | <i>0</i>               | <i>95.6</i> | <i>75-120</i> | <i>0</i> |  |
| <i>Surr: 4-Bromofluorobenzene</i>  | <i>20.24</i> | <i>0</i>                  | <i>20</i> | <i>0</i>               | <i>101</i>  | <i>80-110</i> | <i>0</i> |  |
| <i>Surr: Dibromofluoromethane</i>  | <i>19.48</i> | <i>0</i>                  | <i>20</i> | <i>0</i>               | <i>97.4</i> | <i>85-115</i> | <i>0</i> |  |
| <i>Surr: Toluene-d8</i>            | <i>17.68</i> | <i>0</i>                  | <i>20</i> | <i>0</i>               | <i>88.4</i> | <i>85-110</i> | <i>0</i> |  |

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** GHD Services Inc.  
**Work Order:** 15101476  
**Project:** Former GRMP (17360)

## QC BATCH REPORT

Batch ID: **R175236A**      Instrument ID **VMS5**      Method: **SW8260B**

| LCS                         |        | Sample ID: <b>VLCSW1-151103-R175236A</b> |         |               |      | Units: <b>µg/L</b>    |               | Analysis Date: <b>11/3/2015 11:25 AM</b> |           |              |
|-----------------------------|--------|------------------------------------------|---------|---------------|------|-----------------------|---------------|------------------------------------------|-----------|--------------|
| Client ID:                  |        | Run ID: <b>VMS5_151103A</b>              |         |               |      | SeqNo: <b>3545668</b> |               | Prep Date:                               |           | DF: <b>1</b> |
| Analyte                     | Result | PQL                                      | SPK Val | SPK Ref Value | %REC | Control Limit         | RPD Ref Value | %RPD                                     | RPD Limit | Qual         |
| 1,1,1-Trichloroethane       | 20.55  | 1.0                                      | 20      | 0             | 103  | 75-130                | 0             |                                          |           |              |
| 1,1,2,2-Tetrachloroethane   | 18.48  | 1.0                                      | 20      | 0             | 92.4 | 75-130                | 0             |                                          |           |              |
| 1,1,2-Trichloroethane       | 19.19  | 1.0                                      | 20      | 0             | 96   | 75-125                | 0             |                                          |           |              |
| 1,1-Dichloroethane          | 21.75  | 1.0                                      | 20      | 0             | 109  | 75-133                | 0             |                                          |           |              |
| 1,1-Dichloroethene          | 21.12  | 1.0                                      | 20      | 0             | 106  | 70-145                | 0             |                                          |           |              |
| 1,2,4-Trichlorobenzene      | 17.69  | 1.0                                      | 20      | 0             | 88.4 | 70-135                | 0             |                                          |           |              |
| 1,2-Dibromo-3-chloropropane | 15.89  | 1.0                                      | 20      | 0             | 79.4 | 60-130                | 0             |                                          |           |              |
| 1,2-Dibromoethane           | 21.39  | 1.0                                      | 20      | 0             | 107  | 80-150                | 0             |                                          |           |              |
| 1,2-Dichlorobenzene         | 17.7   | 1.0                                      | 20      | 0             | 88.5 | 70-130                | 0             |                                          |           |              |
| 1,2-Dichloroethane          | 21.31  | 1.0                                      | 20      | 0             | 107  | 78-125                | 0             |                                          |           |              |
| 1,2-Dichloropropane         | 21.59  | 1.0                                      | 20      | 0             | 108  | 75-125                | 0             |                                          |           |              |
| 1,3-Dichlorobenzene         | 17.85  | 1.0                                      | 20      | 0             | 89.2 | 75-130                | 0             |                                          |           |              |
| 1,4-Dichlorobenzene         | 17.48  | 1.0                                      | 20      | 0             | 87.4 | 75-130                | 0             |                                          |           |              |
| 2-Butanone                  | 18.95  | 5.0                                      | 20      | 0             | 94.8 | 55-150                | 0             |                                          |           |              |
| 2-Hexanone                  | 16.76  | 5.0                                      | 20      | 0             | 83.8 | 60-135                | 0             |                                          |           |              |
| 4-Methyl-2-pentanone        | 23.05  | 1.0                                      | 20      | 0             | 115  | 77-178                | 0             |                                          |           |              |
| Acetone                     | 18.03  | 10                                       | 20      | 0             | 90.2 | 60-160                | 0             |                                          |           |              |
| Benzene                     | 21.43  | 1.0                                      | 20      | 0             | 107  | 85-125                | 0             |                                          |           |              |
| Bromodichloromethane        | 19.86  | 1.0                                      | 20      | 0             | 99.3 | 75-125                | 0             |                                          |           |              |
| Bromoform                   | 17.54  | 1.0                                      | 20      | 0             | 87.7 | 60-125                | 0             |                                          |           |              |
| Bromomethane                | 24.33  | 1.0                                      | 20      | 0             | 122  | 30-185                | 0             |                                          |           |              |
| Carbon disulfide            | 21.4   | 1.0                                      | 20      | 0             | 107  | 60-165                | 0             |                                          |           |              |
| Carbon tetrachloride        | 20.31  | 1.0                                      | 20      | 0             | 102  | 65-140                | 0             |                                          |           |              |
| Chlorobenzene               | 19.53  | 1.0                                      | 20      | 0             | 97.6 | 80-120                | 0             |                                          |           |              |
| Chloroethane                | 24.15  | 1.0                                      | 20      | 0             | 121  | 50-140                | 0             |                                          |           |              |
| Chloroform                  | 20.14  | 1.0                                      | 20      | 0             | 101  | 80-130                | 0             |                                          |           |              |
| Chloromethane               | 25.02  | 1.0                                      | 20      | 0             | 125  | 50-130                | 0             |                                          |           |              |
| cis-1,2-Dichloroethene      | 21.72  | 1.0                                      | 20      | 0             | 109  | 75-134                | 0             |                                          |           |              |
| cis-1,3-Dichloropropene     | 20.72  | 1.0                                      | 20      | 0             | 104  | 70-130                | 0             |                                          |           |              |
| Dibromochloromethane        | 18.03  | 1.0                                      | 20      | 0             | 90.2 | 60-115                | 0             |                                          |           |              |
| Dichlorodifluoromethane     | 24.16  | 1.0                                      | 20      | 0             | 121  | 20-120                | 0             |                                          |           | S            |
| Ethylbenzene                | 19.62  | 1.0                                      | 20      | 0             | 98.1 | 85-125                | 0             |                                          |           |              |
| Isopropylbenzene            | 19.74  | 1.0                                      | 20      | 0             | 98.7 | 80-127                | 0             |                                          |           |              |
| Methyl tert-butyl ether     | 19.62  | 1.0                                      | 20      | 0             | 98.1 | 80-130                | 0             |                                          |           |              |
| Methylene chloride          | 22.27  | 5.0                                      | 20      | 0             | 111  | 75-140                | 0             |                                          |           |              |
| Styrene                     | 19.8   | 1.0                                      | 20      | 0             | 99   | 85-125                | 0             |                                          |           |              |
| Tetrachloroethene           | 19.47  | 1.0                                      | 20      | 0             | 97.4 | 77-138                | 0             |                                          |           |              |
| Toluene                     | 19.87  | 1.0                                      | 20      | 0             | 99.4 | 85-125                | 0             |                                          |           |              |
| trans-1,2-Dichloroethene    | 21.63  | 1.0                                      | 20      | 0             | 108  | 80-140                | 0             |                                          |           |              |
| trans-1,3-Dichloropropene   | 18.98  | 1.0                                      | 20      | 0             | 94.9 | 81-123                | 0             |                                          |           |              |
| Trichloroethene             | 19.28  | 1.0                                      | 20      | 0             | 96.4 | 84-130                | 0             |                                          |           |              |
| Trichlorofluoromethane      | 21.61  | 1.0                                      | 20      | 0             | 108  | 60-140                | 0             |                                          |           |              |

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** GHD Services Inc.  
**Work Order:** 15101476  
**Project:** Former GRMP (17360)

**QC BATCH REPORT**

|                                    |              |                           |           |                        |             |               |          |
|------------------------------------|--------------|---------------------------|-----------|------------------------|-------------|---------------|----------|
| Batch ID: <b>R175236A</b>          |              | Instrument ID <b>VMS5</b> |           | Method: <b>SW8260B</b> |             |               |          |
| Vinyl chloride                     | 24.26        | 1.0                       | 20        | 0                      | 121         | 50-136        | 0        |
| Xylenes, Total                     | 59.25        | 3.0                       | 60        | 0                      | 98.8        | 80-126        | 0        |
| <i>Surr: 1,2-Dichloroethane-d4</i> | <i>18.77</i> | <i>0</i>                  | <i>20</i> | <i>0</i>               | <i>93.8</i> | <i>75-120</i> | <i>0</i> |
| <i>Surr: 4-Bromofluorobenzene</i>  | <i>20.82</i> | <i>0</i>                  | <i>20</i> | <i>0</i>               | <i>104</i>  | <i>80-110</i> | <i>0</i> |
| <i>Surr: Dibromofluoromethane</i>  | <i>19.32</i> | <i>0</i>                  | <i>20</i> | <i>0</i>               | <i>96.6</i> | <i>85-115</i> | <i>0</i> |
| <i>Surr: Toluene-d8</i>            | <i>18.78</i> | <i>0</i>                  | <i>20</i> | <i>0</i>               | <i>93.9</i> | <i>85-110</i> | <i>0</i> |

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** GHD Services Inc.  
**Work Order:** 15101476  
**Project:** Former GRMP (17360)

## QC BATCH REPORT

Batch ID: **R175236A**      Instrument ID **VMS5**      Method: **SW8260B**

| MS                          |        |       |         | Sample ID: 15101542-29A MS |      |               | Units: µg/L    |      | Analysis Date: 11/3/2015 08:25 PM |      |
|-----------------------------|--------|-------|---------|----------------------------|------|---------------|----------------|------|-----------------------------------|------|
| Client ID:                  |        |       |         | Run ID: VMS5_151103A       |      |               | SeqNo: 3545713 |      | Prep Date:                        |      |
|                             |        |       |         |                            |      |               |                |      | DF: 100                           |      |
| Analyte                     | Result | PQL   | SPK Val | SPK Ref Value              | %REC | Control Limit | RPD Ref Value  | %RPD | RPD Limit                         | Qual |
| 1,1,1-Trichloroethane       | 2261   | 100   | 2000    | 0                          | 113  | 75-130        | 0              |      |                                   |      |
| 1,1,2,2-Tetrachloroethane   | 1895   | 100   | 2000    | 0                          | 94.8 | 75-130        | 0              |      |                                   |      |
| 1,1,2-Trichloroethane       | 1996   | 100   | 2000    | 0                          | 99.8 | 75-125        | 0              |      |                                   |      |
| 1,1-Dichloroethane          | 2442   | 100   | 2000    | 0                          | 122  | 75-133        | 0              |      |                                   |      |
| 1,1-Dichloroethene          | 2372   | 100   | 2000    | 0                          | 119  | 70-145        | 0              |      |                                   |      |
| 1,2,4-Trichlorobenzene      | 1897   | 100   | 2000    | 0                          | 94.8 | 70-135        | 0              |      |                                   |      |
| 1,2-Dibromo-3-chloropropane | 1671   | 100   | 2000    | 0                          | 83.6 | 60-130        | 0              |      |                                   |      |
| 1,2-Dibromoethane           | 2195   | 100   | 2000    | 0                          | 110  | 80-150        | 0              |      |                                   |      |
| 1,2-Dichlorobenzene         | 1837   | 100   | 2000    | 0                          | 91.8 | 70-130        | 0              |      |                                   |      |
| 1,2-Dichloroethane          | 2220   | 100   | 2000    | 0                          | 111  | 78-125        | 0              |      |                                   |      |
| 1,2-Dichloropropane         | 2412   | 100   | 2000    | 0                          | 121  | 75-125        | 0              |      |                                   |      |
| 1,3-Dichlorobenzene         | 1904   | 100   | 2000    | 0                          | 95.2 | 75-130        | 0              |      |                                   |      |
| 1,4-Dichlorobenzene         | 1829   | 100   | 2000    | 0                          | 91.4 | 75-130        | 0              |      |                                   |      |
| 2-Butanone                  | 2089   | 500   | 2000    | 0                          | 104  | 55-150        | 0              |      |                                   |      |
| 2-Hexanone                  | 1885   | 500   | 2000    | 0                          | 94.2 | 60-135        | 0              |      |                                   |      |
| 4-Methyl-2-pentanone        | 2400   | 100   | 2000    | 0                          | 120  | 77-178        | 0              |      |                                   |      |
| Acetone                     | 4133   | 1,000 | 2000    | 0                          | 207  | 60-160        | 0              |      |                                   | S    |
| Benzene                     | 2546   | 100   | 2000    | 217                        | 116  | 85-125        | 0              |      |                                   |      |
| Bromodichloromethane        | 2181   | 100   | 2000    | 0                          | 109  | 75-125        | 0              |      |                                   |      |
| Bromoform                   | 1814   | 100   | 2000    | 0                          | 90.7 | 60-125        | 0              |      |                                   |      |
| Bromomethane                | 1106   | 100   | 2000    | 0                          | 55.3 | 30-185        | 0              |      |                                   |      |
| Carbon disulfide            | 2526   | 100   | 2000    | 0                          | 126  | 60-165        | 0              |      |                                   |      |
| Carbon tetrachloride        | 2191   | 100   | 2000    | 0                          | 110  | 65-140        | 0              |      |                                   |      |
| Chlorobenzene               | 2039   | 100   | 2000    | 0                          | 102  | 80-120        | 0              |      |                                   |      |
| Chloroethane                | 2673   | 100   | 2000    | 0                          | 134  | 50-140        | 0              |      |                                   |      |
| Chloroform                  | 2316   | 100   | 2000    | 0                          | 116  | 80-130        | 0              |      |                                   |      |
| Chloromethane               | 2617   | 100   | 2000    | 0                          | 131  | 50-130        | 0              |      |                                   | S    |
| cis-1,2-Dichloroethene      | 2403   | 100   | 2000    | 47                         | 118  | 75-134        | 0              |      |                                   |      |
| cis-1,3-Dichloropropene     | 2203   | 100   | 2000    | 0                          | 110  | 70-130        | 0              |      |                                   |      |
| Dibromochloromethane        | 1878   | 100   | 2000    | 0                          | 93.9 | 60-115        | 0              |      |                                   |      |
| Dichlorodifluoromethane     | 2510   | 100   | 2000    | 0                          | 126  | 20-120        | 0              |      |                                   | S    |
| Ethylbenzene                | 5461   | 100   | 2000    | 3110                       | 118  | 85-125        | 0              |      |                                   |      |
| Isopropylbenzene            | 2323   | 100   | 2000    | 176                        | 107  | 80-127        | 0              |      |                                   |      |
| Methyl tert-butyl ether     | 2116   | 100   | 2000    | 0                          | 106  | 80-130        | 0              |      |                                   |      |
| Methylene chloride          | 2532   | 500   | 2000    | 0                          | 127  | 75-140        | 0              |      |                                   |      |
| Styrene                     | 2114   | 100   | 2000    | 0                          | 106  | 85-125        | 0              |      |                                   |      |
| Tetrachloroethene           | 2096   | 100   | 2000    | 0                          | 105  | 77-138        | 0              |      |                                   |      |
| Toluene                     | 2613   | 100   | 2000    | 446                        | 108  | 85-125        | 0              |      |                                   |      |
| trans-1,2-Dichloroethene    | 2457   | 100   | 2000    | 0                          | 123  | 80-140        | 0              |      |                                   |      |
| trans-1,3-Dichloropropene   | 1950   | 100   | 2000    | 0                          | 97.5 | 81-123        | 0              |      |                                   |      |
| Trichloroethene             | 2097   | 100   | 2000    | 0                          | 105  | 84-130        | 0              |      |                                   |      |
| Trichlorofluoromethane      | 2332   | 100   | 2000    | 0                          | 117  | 60-140        | 0              |      |                                   |      |

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** GHD Services Inc.  
**Work Order:** 15101476  
**Project:** Former GRMP (17360)

## QC BATCH REPORT

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|                                    |                           |          |                        |          |             |               |          |   |
|------------------------------------|---------------------------|----------|------------------------|----------|-------------|---------------|----------|---|
| Batch ID: <b>R175236A</b>          | Instrument ID <b>VMS5</b> |          | Method: <b>SW8260B</b> |          |             |               |          |   |
| Vinyl chloride                     | 2770                      | 100      | 2000                   | 0        | 138         | 50-136        | 0        | S |
| Xylenes, Total                     | 9971                      | 300      | 6000                   | 3374     | 110         | 80-126        | 0        |   |
| <i>Surr: 1,2-Dichloroethane-d4</i> | <i>1821</i>               | <i>0</i> | <i>2000</i>            | <i>0</i> | <i>91</i>   | <i>75-120</i> | <i>0</i> |   |
| <i>Surr: 4-Bromofluorobenzene</i>  | <i>2140</i>               | <i>0</i> | <i>2000</i>            | <i>0</i> | <i>107</i>  | <i>80-110</i> | <i>0</i> |   |
| <i>Surr: Dibromofluoromethane</i>  | <i>1903</i>               | <i>0</i> | <i>2000</i>            | <i>0</i> | <i>95.2</i> | <i>85-115</i> | <i>0</i> |   |
| <i>Surr: Toluene-d8</i>            | <i>1854</i>               | <i>0</i> | <i>2000</i>            | <i>0</i> | <i>92.7</i> | <i>85-110</i> | <i>0</i> |   |

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**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.



**Client:** GHD Services Inc.  
**Work Order:** 15101476  
**Project:** Former GRMP (17360)

## QC BATCH REPORT

Batch ID: **R175236A**      Instrument ID **VMS5**      Method: **SW8260B**

| MSD                         |        |       |                      | Sample ID: 15101542-29A MSD |      |                |               | Units: µg/L |           | Analysis Date: 11/3/2015 08:51 PM |  |  |
|-----------------------------|--------|-------|----------------------|-----------------------------|------|----------------|---------------|-------------|-----------|-----------------------------------|--|--|
| Client ID:                  |        |       | Run ID: VMS5_151103A |                             |      | SeqNo: 3545715 |               | Prep Date:  |           | DF: 100                           |  |  |
| Analyte                     | Result | PQL   | SPK Val              | SPK Ref Value               | %REC | Control Limit  | RPD Ref Value | %RPD        | RPD Limit | Qual                              |  |  |
| 1,1,1-Trichloroethane       | 2268   | 100   | 2000                 | 0                           | 113  | 75-130         | 2261          | 0.309       | 30        |                                   |  |  |
| 1,1,2,2-Tetrachloroethane   | 1857   | 100   | 2000                 | 0                           | 92.8 | 75-130         | 1895          | 2.03        | 30        |                                   |  |  |
| 1,1,2-Trichloroethane       | 1987   | 100   | 2000                 | 0                           | 99.4 | 75-125         | 1996          | 0.452       | 30        |                                   |  |  |
| 1,1-Dichloroethane          | 2374   | 100   | 2000                 | 0                           | 119  | 75-133         | 2442          | 2.82        | 30        |                                   |  |  |
| 1,1-Dichloroethene          | 2387   | 100   | 2000                 | 0                           | 119  | 70-145         | 2372          | 0.63        | 30        |                                   |  |  |
| 1,2,4-Trichlorobenzene      | 1931   | 100   | 2000                 | 0                           | 96.6 | 70-135         | 1897          | 1.78        | 30        |                                   |  |  |
| 1,2-Dibromo-3-chloropropane | 1717   | 100   | 2000                 | 0                           | 85.8 | 60-130         | 1671          | 2.72        | 30        |                                   |  |  |
| 1,2-Dibromoethane           | 2175   | 100   | 2000                 | 0                           | 109  | 80-150         | 2195          | 0.915       | 30        |                                   |  |  |
| 1,2-Dichlorobenzene         | 1816   | 100   | 2000                 | 0                           | 90.8 | 70-130         | 1837          | 1.15        | 30        |                                   |  |  |
| 1,2-Dichloroethane          | 2213   | 100   | 2000                 | 0                           | 111  | 78-125         | 2220          | 0.316       | 30        |                                   |  |  |
| 1,2-Dichloropropane         | 2391   | 100   | 2000                 | 0                           | 120  | 75-125         | 2412          | 0.874       | 30        |                                   |  |  |
| 1,3-Dichlorobenzene         | 1874   | 100   | 2000                 | 0                           | 93.7 | 75-130         | 1904          | 1.59        | 30        |                                   |  |  |
| 1,4-Dichlorobenzene         | 1812   | 100   | 2000                 | 0                           | 90.6 | 75-130         | 1829          | 0.934       | 30        |                                   |  |  |
| 2-Butanone                  | 2077   | 500   | 2000                 | 0                           | 104  | 55-150         | 2089          | 0.576       | 30        |                                   |  |  |
| 2-Hexanone                  | 1855   | 500   | 2000                 | 0                           | 92.8 | 60-135         | 1885          | 1.6         | 30        |                                   |  |  |
| 4-Methyl-2-pentanone        | 2378   | 100   | 2000                 | 0                           | 119  | 77-178         | 2400          | 0.921       | 30        |                                   |  |  |
| Acetone                     | 4541   | 1,000 | 2000                 | 0                           | 227  | 60-160         | 4133          | 9.41        | 30        | S                                 |  |  |
| Benzene                     | 2544   | 100   | 2000                 | 217                         | 116  | 85-125         | 2546          | 0.0786      | 30        |                                   |  |  |
| Bromodichloromethane        | 2187   | 100   | 2000                 | 0                           | 109  | 75-125         | 2181          | 0.275       | 30        |                                   |  |  |
| Bromoform                   | 1859   | 100   | 2000                 | 0                           | 93   | 60-125         | 1814          | 2.45        | 30        |                                   |  |  |
| Bromomethane                | 1483   | 100   | 2000                 | 0                           | 74.2 | 30-185         | 1106          | 29.1        | 30        |                                   |  |  |
| Carbon disulfide            | 2520   | 100   | 2000                 | 0                           | 126  | 60-165         | 2526          | 0.238       | 30        |                                   |  |  |
| Carbon tetrachloride        | 2264   | 100   | 2000                 | 0                           | 113  | 65-140         | 2191          | 3.28        | 30        |                                   |  |  |
| Chlorobenzene               | 2030   | 100   | 2000                 | 0                           | 102  | 80-120         | 2039          | 0.442       | 30        |                                   |  |  |
| Chloroethane                | 2654   | 100   | 2000                 | 0                           | 133  | 50-140         | 2673          | 0.713       | 30        |                                   |  |  |
| Chloroform                  | 2276   | 100   | 2000                 | 0                           | 114  | 80-130         | 2316          | 1.74        | 30        |                                   |  |  |
| Chloromethane               | 2624   | 100   | 2000                 | 0                           | 131  | 50-130         | 2617          | 0.267       | 30        | S                                 |  |  |
| cis-1,2-Dichloroethene      | 2421   | 100   | 2000                 | 47                          | 119  | 75-134         | 2403          | 0.746       | 30        |                                   |  |  |
| cis-1,3-Dichloropropene     | 2203   | 100   | 2000                 | 0                           | 110  | 70-130         | 2203          | 0           | 30        |                                   |  |  |
| Dibromochloromethane        | 1896   | 100   | 2000                 | 0                           | 94.8 | 60-115         | 1878          | 0.954       | 30        |                                   |  |  |
| Dichlorodifluoromethane     | 2505   | 100   | 2000                 | 0                           | 125  | 20-120         | 2510          | 0.199       | 30        | S                                 |  |  |
| Ethylbenzene                | 5514   | 100   | 2000                 | 3110                        | 120  | 85-125         | 5461          | 0.966       | 30        |                                   |  |  |
| Isopropylbenzene            | 2315   | 100   | 2000                 | 176                         | 107  | 80-127         | 2323          | 0.345       | 30        |                                   |  |  |
| Methyl tert-butyl ether     | 2077   | 100   | 2000                 | 0                           | 104  | 80-130         | 2116          | 1.86        | 30        |                                   |  |  |
| Methylene chloride          | 2428   | 500   | 2000                 | 0                           | 121  | 75-140         | 2532          | 4.19        | 30        |                                   |  |  |
| Styrene                     | 2094   | 100   | 2000                 | 0                           | 105  | 85-125         | 2114          | 0.951       | 30        |                                   |  |  |
| Tetrachloroethene           | 2073   | 100   | 2000                 | 0                           | 104  | 77-138         | 2096          | 1.1         | 30        |                                   |  |  |
| Toluene                     | 2552   | 100   | 2000                 | 446                         | 105  | 85-125         | 2613          | 2.36        | 30        |                                   |  |  |
| trans-1,2-Dichloroethene    | 2450   | 100   | 2000                 | 0                           | 122  | 80-140         | 2457          | 0.285       | 30        |                                   |  |  |
| trans-1,3-Dichloropropene   | 1941   | 100   | 2000                 | 0                           | 97   | 81-123         | 1950          | 0.463       | 30        |                                   |  |  |
| Trichloroethene             | 2109   | 100   | 2000                 | 0                           | 105  | 84-130         | 2097          | 0.571       | 30        |                                   |  |  |
| Trichlorofluoromethane      | 2328   | 100   | 2000                 | 0                           | 116  | 60-140         | 2332          | 0.172       | 30        |                                   |  |  |

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

Client: GHD Services Inc.  
Work Order: 15101476  
Project: Former GRMP (17360)

QC BATCH REPORT

|                             |                           |     |      |                        |      |        |      |       |    |   |
|-----------------------------|---------------------------|-----|------|------------------------|------|--------|------|-------|----|---|
| Batch ID: <b>R175236A</b>   | Instrument ID <b>VMS5</b> |     |      | Method: <b>SW8260B</b> |      |        |      |       |    |   |
| Vinyl chloride              | 2753                      | 100 | 2000 | 0                      | 138  | 50-136 | 2770 | 0.616 | 30 | S |
| Xylenes, Total              | 9947                      | 300 | 6000 | 3374                   | 110  | 80-126 | 9971 | 0.241 | 30 |   |
| Surr: 1,2-Dichloroethane-d4 | 1837                      | 0   | 2000 | 0                      | 91.8 | 75-120 | 1821 | 0.875 | 30 |   |
| Surr: 4-Bromofluorobenzene  | 2145                      | 0   | 2000 | 0                      | 107  | 80-110 | 2140 | 0.233 | 30 |   |
| Surr: Dibromofluoromethane  | 1946                      | 0   | 2000 | 0                      | 97.3 | 85-115 | 1903 | 2.23  | 30 |   |
| Surr: Toluene-d8            | 1877                      | 0   | 2000 | 0                      | 93.8 | 85-110 | 1854 | 1.23  | 30 |   |

|                                                    |              |              |              |
|----------------------------------------------------|--------------|--------------|--------------|
| The following samples were analyzed in this batch: | 15101476-11A | 15101476-12A | 15101476-13A |
|                                                    | 15101476-14A | 15101476-15A |              |
|                                                    |              |              |              |
|                                                    |              |              |              |

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** GHD Services Inc.  
**Work Order:** 15101476  
**Project:** Former GRMP (17360)

## QC BATCH REPORT

Batch ID: **R175278** Instrument ID **VMS8** Method: **SW8260B**

| MBLK                           |        | Sample ID: <b>VBLKW2-151102-R175278</b> |         |               |      | Units: <b>µg/L</b>    |               | Analysis Date: <b>11/2/2015 06:08 PM</b> |           |              |
|--------------------------------|--------|-----------------------------------------|---------|---------------|------|-----------------------|---------------|------------------------------------------|-----------|--------------|
| Client ID:                     |        | Run ID: <b>VMS8_151102B</b>             |         |               |      | SeqNo: <b>3544779</b> |               | Prep Date:                               |           | DF: <b>1</b> |
| Analyte                        | Result | PQL                                     | SPK Val | SPK Ref Value | %REC | Control Limit         | RPD Ref Value | %RPD                                     | RPD Limit | Qual         |
| 1,1,1-Trichloroethane          | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| 1,1,2,2-Tetrachloroethane      | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| 1,1,2-Trichloroethane          | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| 1,1,2-Trichlorotrifluoroethane | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| 1,1-Dichloroethane             | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| 1,1-Dichloroethene             | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| 1,2,4-Trichlorobenzene         | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| 1,2-Dibromo-3-chloropropane    | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| 1,2-Dibromoethane              | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| 1,2-Dichlorobenzene            | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| 1,2-Dichloroethane             | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| 1,2-Dichloropropane            | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| 1,3-Dichlorobenzene            | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| 1,4-Dichlorobenzene            | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| 2-Butanone                     | U      | 5.0                                     |         |               |      |                       |               |                                          |           |              |
| 2-Hexanone                     | U      | 5.0                                     |         |               |      |                       |               |                                          |           |              |
| 4-Methyl-2-pentanone           | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| Acetone                        | U      | 10                                      |         |               |      |                       |               |                                          |           |              |
| Benzene                        | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| Bromodichloromethane           | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| Bromoform                      | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| Bromomethane                   | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| Carbon disulfide               | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| Carbon tetrachloride           | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| Chlorobenzene                  | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| Chloroethane                   | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| Chloroform                     | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| Chloromethane                  | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| cis-1,2-Dichloroethene         | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| cis-1,3-Dichloropropene        | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| Cyclohexane                    | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| Dibromochloromethane           | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| Dichlorodifluoromethane        | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| Ethylbenzene                   | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| Isopropylbenzene               | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| Methyl acetate                 | U      | 2.0                                     |         |               |      |                       |               |                                          |           |              |
| Methyl tert-butyl ether        | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| Methylcyclohexane              | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| Methylene chloride             | U      | 5.0                                     |         |               |      |                       |               |                                          |           |              |
| Styrene                        | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| Tetrachloroethene              | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |
| Toluene                        | U      | 1.0                                     |         |               |      |                       |               |                                          |           |              |

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

Client: GHD Services Inc.  
Work Order: 15101476  
Project: Former GRMP (17360)

QC BATCH REPORT

|                             |                           |                        |
|-----------------------------|---------------------------|------------------------|
| Batch ID: <b>R175278</b>    | Instrument ID <b>VMS8</b> | Method: <b>SW8260B</b> |
| trans-1,2-Dichloroethene    | U                         | 1.0                    |
| trans-1,3-Dichloropropene   | U                         | 1.0                    |
| Trichloroethene             | U                         | 1.0                    |
| Trichlorofluoromethane      | U                         | 1.0                    |
| Vinyl chloride              | U                         | 1.0                    |
| Xylenes, Total              | U                         | 3.0                    |
| Surr: 1,2-Dichloroethane-d4 | 20.52                     | 0 20 0 103 75-120 0    |
| Surr: 4-Bromofluorobenzene  | 19.13                     | 0 20 0 95.6 80-110 0   |
| Surr: Dibromofluoromethane  | 20.14                     | 0 20 0 101 85-115 0    |
| Surr: Toluene-d8            | 18.97                     | 0 20 0 94.8 85-110 0   |

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** GHD Services Inc.  
**Work Order:** 15101476  
**Project:** Former GRMP (17360)

## QC BATCH REPORT

Batch ID: **R175278** Instrument ID **VMS8** Method: **SW8260B**

| LCS                         |        | Sample ID: <b>VLCSW2-151102-R175278</b> |         |               |      | Units: <b>µg/L</b>    |               | Analysis Date: <b>11/2/2015 04:30 PM</b> |           |              |
|-----------------------------|--------|-----------------------------------------|---------|---------------|------|-----------------------|---------------|------------------------------------------|-----------|--------------|
| Client ID:                  |        | Run ID: <b>VMS8_151102B</b>             |         |               |      | SeqNo: <b>3544778</b> |               | Prep Date:                               |           | DF: <b>1</b> |
| Analyte                     | Result | PQL                                     | SPK Val | SPK Ref Value | %REC | Control Limit         | RPD Ref Value | %RPD                                     | RPD Limit | Qual         |
| 1,1,1-Trichloroethane       | 19.63  | 1.0                                     | 20      | 0             | 98.2 | 75-130                | 0             |                                          |           |              |
| 1,1,2,2-Tetrachloroethane   | 19.91  | 1.0                                     | 20      | 0             | 99.6 | 75-130                | 0             |                                          |           |              |
| 1,1,2-Trichloroethane       | 19.93  | 1.0                                     | 20      | 0             | 99.6 | 75-125                | 0             |                                          |           |              |
| 1,1-Dichloroethane          | 21.67  | 1.0                                     | 20      | 0             | 108  | 75-133                | 0             |                                          |           |              |
| 1,1-Dichloroethene          | 23.08  | 1.0                                     | 20      | 0             | 115  | 70-145                | 0             |                                          |           |              |
| 1,2,4-Trichlorobenzene      | 19.86  | 1.0                                     | 20      | 0             | 99.3 | 70-135                | 0             |                                          |           |              |
| 1,2-Dibromo-3-chloropropane | 15.13  | 1.0                                     | 20      | 0             | 75.6 | 60-130                | 0             |                                          |           |              |
| 1,2-Dibromoethane           | 24.9   | 1.0                                     | 20      | 0             | 124  | 80-150                | 0             |                                          |           |              |
| 1,2-Dichlorobenzene         | 18.61  | 1.0                                     | 20      | 0             | 93   | 70-130                | 0             |                                          |           |              |
| 1,2-Dichloroethane          | 21.25  | 1.0                                     | 20      | 0             | 106  | 78-125                | 0             |                                          |           |              |
| 1,2-Dichloropropane         | 20.88  | 1.0                                     | 20      | 0             | 104  | 75-125                | 0             |                                          |           |              |
| 1,3-Dichlorobenzene         | 20.18  | 1.0                                     | 20      | 0             | 101  | 75-130                | 0             |                                          |           |              |
| 1,4-Dichlorobenzene         | 19.77  | 1.0                                     | 20      | 0             | 98.8 | 75-130                | 0             |                                          |           |              |
| 2-Butanone                  | 20.86  | 5.0                                     | 20      | 0             | 104  | 55-150                | 0             |                                          |           |              |
| 2-Hexanone                  | 17.63  | 5.0                                     | 20      | 0             | 88.2 | 60-135                | 0             |                                          |           |              |
| 4-Methyl-2-pentanone        | 21.3   | 1.0                                     | 20      | 0             | 106  | 77-178                | 0             |                                          |           |              |
| Acetone                     | 21.13  | 10                                      | 20      | 0             | 106  | 60-160                | 0             |                                          |           |              |
| Benzene                     | 20.83  | 1.0                                     | 20      | 0             | 104  | 85-125                | 0             |                                          |           |              |
| Bromodichloromethane        | 19.5   | 1.0                                     | 20      | 0             | 97.5 | 75-125                | 0             |                                          |           |              |
| Bromoform                   | 16.27  | 1.0                                     | 20      | 0             | 81.4 | 60-125                | 0             |                                          |           |              |
| Bromomethane                | 24.48  | 1.0                                     | 20      | 0             | 122  | 30-185                | 0             |                                          |           |              |
| Carbon disulfide            | 24.14  | 1.0                                     | 20      | 0             | 121  | 60-165                | 0             |                                          |           |              |
| Carbon tetrachloride        | 19.44  | 1.0                                     | 20      | 0             | 97.2 | 65-140                | 0             |                                          |           |              |
| Chlorobenzene               | 20.38  | 1.0                                     | 20      | 0             | 102  | 80-120                | 0             |                                          |           |              |
| Chloroethane                | 27.63  | 1.0                                     | 20      | 0             | 138  | 50-140                | 0             |                                          |           |              |
| Chloroform                  | 20.45  | 1.0                                     | 20      | 0             | 102  | 80-130                | 0             |                                          |           |              |
| Chloromethane               | 21.82  | 1.0                                     | 20      | 0             | 109  | 50-130                | 0             |                                          |           |              |
| cis-1,2-Dichloroethene      | 21.74  | 1.0                                     | 20      | 0             | 109  | 75-134                | 0             |                                          |           |              |
| cis-1,3-Dichloropropene     | 18.65  | 1.0                                     | 20      | 0             | 93.2 | 70-130                | 0             |                                          |           |              |
| Dibromochloromethane        | 17.46  | 1.0                                     | 20      | 0             | 87.3 | 60-115                | 0             |                                          |           |              |
| Dichlorodifluoromethane     | 18.53  | 1.0                                     | 20      | 0             | 92.6 | 20-120                | 0             |                                          |           |              |
| Ethylbenzene                | 18.9   | 1.0                                     | 20      | 0             | 94.5 | 85-125                | 0             |                                          |           |              |
| Isopropylbenzene            | 19.82  | 1.0                                     | 20      | 0             | 99.1 | 80-127                | 0             |                                          |           |              |
| Methyl tert-butyl ether     | 24.89  | 1.0                                     | 20      | 0             | 124  | 80-130                | 0             |                                          |           |              |
| Methylene chloride          | 23.89  | 5.0                                     | 20      | 0             | 119  | 75-140                | 0             |                                          |           |              |
| Styrene                     | 18.94  | 1.0                                     | 20      | 0             | 94.7 | 85-125                | 0             |                                          |           |              |
| Tetrachloroethene           | 21.56  | 1.0                                     | 20      | 0             | 108  | 77-138                | 0             |                                          |           |              |
| Toluene                     | 20.16  | 1.0                                     | 20      | 0             | 101  | 85-125                | 0             |                                          |           |              |
| trans-1,2-Dichloroethene    | 25.31  | 1.0                                     | 20      | 0             | 127  | 80-140                | 0             |                                          |           |              |
| trans-1,3-Dichloropropene   | 16.55  | 1.0                                     | 20      | 0             | 82.8 | 81-123                | 0             |                                          |           |              |
| Trichloroethene             | 19.92  | 1.0                                     | 20      | 0             | 99.6 | 84-130                | 0             |                                          |           |              |
| Trichlorofluoromethane      | 23.65  | 1.0                                     | 20      | 0             | 118  | 60-140                | 0             |                                          |           |              |

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** GHD Services Inc.  
**Work Order:** 15101476  
**Project:** Former GRMP (17360)

## QC BATCH REPORT

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|                                    |                           |                        |           |          |             |               |          |
|------------------------------------|---------------------------|------------------------|-----------|----------|-------------|---------------|----------|
| Batch ID: <b>R175278</b>           | Instrument ID <b>VMS8</b> | Method: <b>SW8260B</b> |           |          |             |               |          |
| Vinyl chloride                     | 22.22                     | 1.0                    | 20        | 0        | 111         | 50-136        | 0        |
| Xylenes, Total                     | 57.39                     | 3.0                    | 60        | 0        | 95.6        | 80-126        | 0        |
| <i>Surr: 1,2-Dichloroethane-d4</i> | <i>19.82</i>              | <i>0</i>               | <i>20</i> | <i>0</i> | <i>99.1</i> | <i>75-120</i> | <i>0</i> |
| <i>Surr: 4-Bromofluorobenzene</i>  | <i>19.76</i>              | <i>0</i>               | <i>20</i> | <i>0</i> | <i>98.8</i> | <i>80-110</i> | <i>0</i> |
| <i>Surr: Dibromofluoromethane</i>  | <i>20.82</i>              | <i>0</i>               | <i>20</i> | <i>0</i> | <i>104</i>  | <i>85-115</i> | <i>0</i> |
| <i>Surr: Toluene-d8</i>            | <i>19.63</i>              | <i>0</i>               | <i>20</i> | <i>0</i> | <i>98.2</i> | <i>85-110</i> | <i>0</i> |

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**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** GHD Services Inc.  
**Work Order:** 15101476  
**Project:** Former GRMP (17360)

## QC BATCH REPORT

Batch ID: **R175278** Instrument ID **VMS8** Method: **SW8260B**

| MS                                 |        |     |         | Sample ID: 15101476-03A MS |      |               | Units: µg/L    |      | Analysis Date: 11/3/2015 02:43 AM |      |
|------------------------------------|--------|-----|---------|----------------------------|------|---------------|----------------|------|-----------------------------------|------|
| Client ID: WG-017360-102015-MR-003 |        |     |         | Run ID: VMS8_151102B       |      |               | SeqNo: 3544807 |      | Prep Date:                        |      |
|                                    |        |     |         |                            |      |               |                |      | DF: 1                             |      |
| Analyte                            | Result | PQL | SPK Val | SPK Ref Value              | %REC | Control Limit | RPD Ref Value  | %RPD | RPD Limit                         | Qual |
| 1,1,1-Trichloroethane              | 11.66  | 1.0 | 20      | 0                          | 58.3 | 75-130        | 0              |      |                                   | S    |
| 1,1,2,2-Tetrachloroethane          | 10.71  | 1.0 | 20      | 0                          | 53.6 | 75-130        | 0              |      |                                   | S    |
| 1,1,2-Trichloroethane              | 10.8   | 1.0 | 20      | 0                          | 54   | 75-125        | 0              |      |                                   | S    |
| 1,1-Dichloroethane                 | 12.78  | 1.0 | 20      | 0                          | 63.9 | 75-133        | 0              |      |                                   | S    |
| 1,1-Dichloroethene                 | 14.49  | 1.0 | 20      | 0                          | 72.4 | 70-145        | 0              |      |                                   |      |
| 1,2,4-Trichlorobenzene             | 9.06   | 1.0 | 20      | 0                          | 45.3 | 70-135        | 0              |      |                                   | S    |
| 1,2-Dibromo-3-chloropropane        | 6.9    | 1.0 | 20      | 0                          | 34.5 | 60-130        | 0              |      |                                   | S    |
| 1,2-Dibromoethane                  | 13.15  | 1.0 | 20      | 0                          | 65.8 | 80-150        | 0              |      |                                   | S    |
| 1,2-Dichlorobenzene                | 9.97   | 1.0 | 20      | 0                          | 49.8 | 70-130        | 0              |      |                                   | S    |
| 1,2-Dichloroethane                 | 12.28  | 1.0 | 20      | 0                          | 61.4 | 78-125        | 0              |      |                                   | S    |
| 1,2-Dichloropropane                | 11.86  | 1.0 | 20      | 0                          | 59.3 | 75-125        | 0              |      |                                   | S    |
| 1,3-Dichlorobenzene                | 10.49  | 1.0 | 20      | 0                          | 52.4 | 75-130        | 0              |      |                                   | S    |
| 1,4-Dichlorobenzene                | 10.48  | 1.0 | 20      | 0                          | 52.4 | 75-130        | 0              |      |                                   | S    |
| 2-Butanone                         | 9.49   | 5.0 | 20      | 0                          | 47.4 | 55-150        | 0              |      |                                   | S    |
| 2-Hexanone                         | 8.17   | 5.0 | 20      | 0                          | 40.8 | 60-135        | 0              |      |                                   | S    |
| 4-Methyl-2-pentanone               | 10.16  | 1.0 | 20      | 0                          | 50.8 | 77-178        | 0              |      |                                   | S    |
| Acetone                            | 8.48   | 10  | 20      | 0                          | 42.4 | 60-160        | 0              |      |                                   | JS   |
| Benzene                            | 12.06  | 1.0 | 20      | 0                          | 60.3 | 85-125        | 0              |      |                                   | S    |
| Bromodichloromethane               | 10.56  | 1.0 | 20      | 0                          | 52.8 | 75-125        | 0              |      |                                   | S    |
| Bromoform                          | 7.82   | 1.0 | 20      | 0                          | 39.1 | 60-125        | 0              |      |                                   | S    |
| Bromomethane                       | 15.09  | 1.0 | 20      | 0                          | 75.4 | 30-185        | 0              |      |                                   |      |
| Carbon disulfide                   | 12.93  | 1.0 | 20      | 0                          | 64.6 | 60-165        | 0              |      |                                   |      |
| Carbon tetrachloride               | 11.07  | 1.0 | 20      | 0                          | 55.4 | 65-140        | 0              |      |                                   | S    |
| Chlorobenzene                      | 10.98  | 1.0 | 20      | 0                          | 54.9 | 80-120        | 0              |      |                                   | S    |
| Chloroethane                       | 16.64  | 1.0 | 20      | 0                          | 83.2 | 50-140        | 0              |      |                                   |      |
| Chloroform                         | 12.22  | 1.0 | 20      | 0                          | 61.1 | 80-130        | 0              |      |                                   | S    |
| Chloromethane                      | 14.86  | 1.0 | 20      | 0                          | 74.3 | 50-130        | 0              |      |                                   |      |
| cis-1,2-Dichloroethene             | 12.77  | 1.0 | 20      | 0                          | 63.8 | 75-134        | 0              |      |                                   | S    |
| cis-1,3-Dichloropropene            | 9.53   | 1.0 | 20      | 0                          | 47.6 | 70-130        | 0              |      |                                   | S    |
| Dibromochloromethane               | 8.84   | 1.0 | 20      | 0                          | 44.2 | 60-115        | 0              |      |                                   | S    |
| Dichlorodifluoromethane            | 14.62  | 1.0 | 20      | 0                          | 73.1 | 20-120        | 0              |      |                                   |      |
| Ethylbenzene                       | 9.81   | 1.0 | 20      | 0                          | 49   | 85-125        | 0              |      |                                   | S    |
| Isopropylbenzene                   | 9.92   | 1.0 | 20      | 0                          | 49.6 | 80-127        | 0              |      |                                   | S    |
| Methyl tert-butyl ether            | 12.39  | 1.0 | 20      | 0                          | 62   | 80-130        | 0              |      |                                   | S    |
| Methylene chloride                 | 14.45  | 5.0 | 20      | 0                          | 72.2 | 75-140        | 0              |      |                                   | S    |
| Styrene                            | 9.56   | 1.0 | 20      | 0                          | 47.8 | 85-125        | 0              |      |                                   | S    |
| Tetrachloroethene                  | 11.94  | 1.0 | 20      | 0                          | 59.7 | 77-138        | 0              |      |                                   | S    |
| Toluene                            | 10.8   | 1.0 | 20      | 0                          | 54   | 85-125        | 0              |      |                                   | S    |
| trans-1,2-Dichloroethene           | 15.35  | 1.0 | 20      | 0                          | 76.8 | 80-140        | 0              |      |                                   | S    |
| trans-1,3-Dichloropropene          | 7.54   | 1.0 | 20      | 0                          | 37.7 | 81-123        | 0              |      |                                   | S    |
| Trichloroethene                    | 12.24  | 1.0 | 20      | 0                          | 61.2 | 84-130        | 0              |      |                                   | S    |
| Trichlorofluoromethane             | 15.14  | 1.0 | 20      | 0                          | 75.7 | 60-140        | 0              |      |                                   |      |

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

Client: GHD Services Inc.  
Work Order: 15101476  
Project: Former GRMP (17360)

QC BATCH REPORT

|                                    |              |                           |           |                        |             |               |          |   |
|------------------------------------|--------------|---------------------------|-----------|------------------------|-------------|---------------|----------|---|
| Batch ID: <b>R175278</b>           |              | Instrument ID <b>VMS8</b> |           | Method: <b>SW8260B</b> |             |               |          |   |
| Vinyl chloride                     | 14.93        | 1.0                       | 20        | 0                      | 74.6        | 50-136        | 0        |   |
| Xylenes, Total                     | 29.3         | 3.0                       | 60        | 0                      | 48.8        | 80-126        | 0        | S |
| <i>Surr: 1,2-Dichloroethane-d4</i> | <i>21.08</i> | <i>0</i>                  | <i>20</i> | <i>0</i>               | <i>105</i>  | <i>75-120</i> | <i>0</i> |   |
| <i>Surr: 4-Bromofluorobenzene</i>  | <i>19.63</i> | <i>0</i>                  | <i>20</i> | <i>0</i>               | <i>98.2</i> | <i>80-110</i> | <i>0</i> |   |
| <i>Surr: Dibromofluoromethane</i>  | <i>21.62</i> | <i>0</i>                  | <i>20</i> | <i>0</i>               | <i>108</i>  | <i>85-115</i> | <i>0</i> |   |
| <i>Surr: Toluene-d8</i>            | <i>19.19</i> | <i>0</i>                  | <i>20</i> | <i>0</i>               | <i>96</i>   | <i>85-110</i> | <i>0</i> |   |

Note: See Qualifiers Page for a list of Qualifiers and their explanation.



**Client:** GHD Services Inc.  
**Work Order:** 15101476  
**Project:** Former GRMP (17360)

## QC BATCH REPORT

Batch ID: **R175278** Instrument ID **VMS8** Method: **SW8260B**

| MSD                                |        |     |                      |               | Sample ID: 15101476-03A MSD |                |               | Units: µg/L |           | Analysis Date: 11/3/2015 03:07 AM |  |
|------------------------------------|--------|-----|----------------------|---------------|-----------------------------|----------------|---------------|-------------|-----------|-----------------------------------|--|
| Client ID: WG-017360-102015-MR-003 |        |     | Run ID: VMS8_151102B |               |                             | SeqNo: 3544808 |               | Prep Date:  |           | DF: 1                             |  |
| Analyte                            | Result | PQL | SPK Val              | SPK Ref Value | %REC                        | Control Limit  | RPD Ref Value | %RPD        | RPD Limit | Qual                              |  |
| 1,1,1-Trichloroethane              | 16.15  | 1.0 | 20                   | 0             | 80.8                        | 75-130         | 11.66         | 32.3        | 30        | R                                 |  |
| 1,1,2,2-Tetrachloroethane          | 14.97  | 1.0 | 20                   | 0             | 74.8                        | 75-130         | 10.71         | 33.2        | 30        | SR                                |  |
| 1,1,2-Trichloroethane              | 15.13  | 1.0 | 20                   | 0             | 75.6                        | 75-125         | 10.8          | 33.4        | 30        | R                                 |  |
| 1,1-Dichloroethane                 | 17.34  | 1.0 | 20                   | 0             | 86.7                        | 75-133         | 12.78         | 30.3        | 30        | R                                 |  |
| 1,1-Dichloroethene                 | 20.12  | 1.0 | 20                   | 0             | 101                         | 70-145         | 14.49         | 32.5        | 30        | R                                 |  |
| 1,2,4-Trichlorobenzene             | 12.98  | 1.0 | 20                   | 0             | 64.9                        | 70-135         | 9.06          | 35.6        | 30        | SR                                |  |
| 1,2-Dibromo-3-chloropropane        | 10.17  | 1.0 | 20                   | 0             | 50.8                        | 60-130         | 6.9           | 38.3        | 30        | SR                                |  |
| 1,2-Dibromoethane                  | 18.91  | 1.0 | 20                   | 0             | 94.6                        | 80-150         | 13.15         | 35.9        | 30        | R                                 |  |
| 1,2-Dichlorobenzene                | 13.8   | 1.0 | 20                   | 0             | 69                          | 70-130         | 9.97          | 32.2        | 30        | SR                                |  |
| 1,2-Dichloroethane                 | 16.93  | 1.0 | 20                   | 0             | 84.6                        | 78-125         | 12.28         | 31.8        | 30        | R                                 |  |
| 1,2-Dichloropropane                | 16.51  | 1.0 | 20                   | 0             | 82.6                        | 75-125         | 11.86         | 32.8        | 30        | R                                 |  |
| 1,3-Dichlorobenzene                | 14.33  | 1.0 | 20                   | 0             | 71.6                        | 75-130         | 10.49         | 30.9        | 30        | SR                                |  |
| 1,4-Dichlorobenzene                | 14.11  | 1.0 | 20                   | 0             | 70.6                        | 75-130         | 10.48         | 29.5        | 30        | S                                 |  |
| 2-Butanone                         | 12.48  | 5.0 | 20                   | 0             | 62.4                        | 55-150         | 9.49          | 27.2        | 30        |                                   |  |
| 2-Hexanone                         | 11.14  | 5.0 | 20                   | 0             | 55.7                        | 60-135         | 8.17          | 30.8        | 30        | SR                                |  |
| 4-Methyl-2-pentanone               | 13.78  | 1.0 | 20                   | 0             | 68.9                        | 77-178         | 10.16         | 30.2        | 30        | SR                                |  |
| Acetone                            | 13.11  | 10  | 20                   | 0             | 65.6                        | 60-160         | 8.48          | 42.9        | 30        | R                                 |  |
| Benzene                            | 16.94  | 1.0 | 20                   | 0             | 84.7                        | 85-125         | 12.06         | 33.7        | 30        | SR                                |  |
| Bromodichloromethane               | 15     | 1.0 | 20                   | 0             | 75                          | 75-125         | 10.56         | 34.7        | 30        | R                                 |  |
| Bromoform                          | 11.24  | 1.0 | 20                   | 0             | 56.2                        | 60-125         | 7.82          | 35.9        | 30        | SR                                |  |
| Bromomethane                       | 20.33  | 1.0 | 20                   | 0             | 102                         | 30-185         | 15.09         | 29.6        | 30        |                                   |  |
| Carbon disulfide                   | 17.87  | 1.0 | 20                   | 0             | 89.4                        | 60-165         | 12.93         | 32.1        | 30        | R                                 |  |
| Carbon tetrachloride               | 15.96  | 1.0 | 20                   | 0             | 79.8                        | 65-140         | 11.07         | 36.2        | 30        | R                                 |  |
| Chlorobenzene                      | 15.54  | 1.0 | 20                   | 0             | 77.7                        | 80-120         | 10.98         | 34.4        | 30        | SR                                |  |
| Chloroethane                       | 22.77  | 1.0 | 20                   | 0             | 114                         | 50-140         | 16.64         | 31.1        | 30        | R                                 |  |
| Chloroform                         | 16.73  | 1.0 | 20                   | 0             | 83.6                        | 80-130         | 12.22         | 31.2        | 30        | R                                 |  |
| Chloromethane                      | 20.62  | 1.0 | 20                   | 0             | 103                         | 50-130         | 14.86         | 32.5        | 30        | R                                 |  |
| cis-1,2-Dichloroethene             | 16.96  | 1.0 | 20                   | 0             | 84.8                        | 75-134         | 12.77         | 28.2        | 30        |                                   |  |
| cis-1,3-Dichloropropene            | 13.42  | 1.0 | 20                   | 0             | 67.1                        | 70-130         | 9.53          | 33.9        | 30        | SR                                |  |
| Dibromochloromethane               | 12.54  | 1.0 | 20                   | 0             | 62.7                        | 60-115         | 8.84          | 34.6        | 30        | R                                 |  |
| Dichlorodifluoromethane            | 19.26  | 1.0 | 20                   | 0             | 96.3                        | 20-120         | 14.62         | 27.4        | 30        |                                   |  |
| Ethylbenzene                       | 14.03  | 1.0 | 20                   | 0             | 70.2                        | 85-125         | 9.81          | 35.4        | 30        | SR                                |  |
| Isopropylbenzene                   | 14.42  | 1.0 | 20                   | 0             | 72.1                        | 80-127         | 9.92          | 37          | 30        | SR                                |  |
| Methyl tert-butyl ether            | 17.09  | 1.0 | 20                   | 0             | 85.4                        | 80-130         | 12.39         | 31.9        | 30        | R                                 |  |
| Methylene chloride                 | 19.59  | 5.0 | 20                   | 0             | 98                          | 75-140         | 14.45         | 30.2        | 30        | R                                 |  |
| Styrene                            | 13.76  | 1.0 | 20                   | 0             | 68.8                        | 85-125         | 9.56          | 36          | 30        | SR                                |  |
| Tetrachloroethene                  | 16.72  | 1.0 | 20                   | 0             | 83.6                        | 77-138         | 11.94         | 33.4        | 30        | R                                 |  |
| Toluene                            | 15.3   | 1.0 | 20                   | 0             | 76.5                        | 85-125         | 10.8          | 34.5        | 30        | SR                                |  |
| trans-1,2-Dichloroethene           | 20.78  | 1.0 | 20                   | 0             | 104                         | 80-140         | 15.35         | 30.1        | 30        | R                                 |  |
| trans-1,3-Dichloropropene          | 11.15  | 1.0 | 20                   | 0             | 55.8                        | 81-123         | 7.54          | 38.6        | 30        | SR                                |  |
| Trichloroethene                    | 16.53  | 1.0 | 20                   | 0             | 82.6                        | 84-130         | 12.24         | 29.8        | 30        | S                                 |  |
| Trichlorofluoromethane             | 20.76  | 1.0 | 20                   | 0             | 104                         | 60-140         | 15.14         | 31.3        | 30        | R                                 |  |

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

Client: GHD Services Inc.  
Work Order: 15101476  
Project: Former GRMP (17360)

QC BATCH REPORT

|                                    |                           |     |    |                        |      |        |       |       |    |
|------------------------------------|---------------------------|-----|----|------------------------|------|--------|-------|-------|----|
| Batch ID: <b>R175278</b>           | Instrument ID <b>VMS8</b> |     |    | Method: <b>SW8260B</b> |      |        |       |       |    |
| Vinyl chloride                     | 20.17                     | 1.0 | 20 | 0                      | 101  | 50-136 | 14.93 | 29.9  | 30 |
| Xylenes, Total                     | 42.83                     | 3.0 | 60 | 0                      | 71.4 | 80-126 | 29.3  | 37.5  | 30 |
| <i>Surr: 1,2-Dichloroethane-d4</i> | 20.82                     | 0   | 20 | 0                      | 104  | 75-120 | 21.08 | 1.24  | 30 |
| <i>Surr: 4-Bromofluorobenzene</i>  | 19.96                     | 0   | 20 | 0                      | 99.8 | 80-110 | 19.63 | 1.67  | 30 |
| <i>Surr: Dibromofluoromethane</i>  | 21.04                     | 0   | 20 | 0                      | 105  | 85-115 | 21.62 | 2.72  | 30 |
| <i>Surr: Toluene-d8</i>            | 19.28                     | 0   | 20 | 0                      | 96.4 | 85-110 | 19.19 | 0.468 | 30 |

|                                                    |              |              |              |
|----------------------------------------------------|--------------|--------------|--------------|
| The following samples were analyzed in this batch: | 15101476-01A | 15101476-02A | 15101476-03A |
|                                                    | 15101476-04A | 15101476-05A | 15101476-06A |
|                                                    | 15101476-07A | 15101476-08A | 15101476-09A |
|                                                    | 15101476-10A |              |              |
|                                                    |              |              |              |

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: GHD Services Inc.  
 Work Order: 15101476  
 Project: Former GRMP (17360)

## QC BATCH REPORT

Batch ID: **R175355** Instrument ID **VMS7** Method: **SW8260B**

| MBLK                        |        |     |                      | Sample ID: VBLKW1-151104-R175355 |      |               |                | Units: µg/L |           |            | Analysis Date: 11/4/2015 03:45 PM |       |  |
|-----------------------------|--------|-----|----------------------|----------------------------------|------|---------------|----------------|-------------|-----------|------------|-----------------------------------|-------|--|
| Client ID:                  |        |     | Run ID: VMS7_151104A |                                  |      |               | SeqNo: 3549928 |             |           | Prep Date: |                                   | DF: 1 |  |
| Analyte                     | Result | PQL | SPK Val              | SPK Ref Value                    | %REC | Control Limit | RPD Ref Value  | %RPD        | RPD Limit | Qual       |                                   |       |  |
| Tetrachloroethene           | U      | 1.0 |                      |                                  |      |               |                |             |           |            |                                   |       |  |
| Surr: 1,2-Dichloroethane-d4 | 20.11  | 0   | 20                   | 0                                | 101  | 75-120        |                | 0           |           |            |                                   |       |  |
| Surr: 4-Bromofluorobenzene  | 20.76  | 0   | 20                   | 0                                | 104  | 80-110        |                | 0           |           |            |                                   |       |  |
| Surr: Dibromofluoromethane  | 20.34  | 0   | 20                   | 0                                | 102  | 85-115        |                | 0           |           |            |                                   |       |  |
| Surr: Toluene-d8            | 20.07  | 0   | 20                   | 0                                | 100  | 85-110        |                | 0           |           |            |                                   |       |  |

| LCS                         |        |                      |         | Sample ID: VLCSW1-151104-R175355 |                |               |               | Units: µg/L |           | Analysis Date: 11/4/2015 01:15 PM |  |
|-----------------------------|--------|----------------------|---------|----------------------------------|----------------|---------------|---------------|-------------|-----------|-----------------------------------|--|
| Client ID:                  |        | Run ID: VMS7_151104A |         |                                  | SeqNo: 3549925 |               | Prep Date:    |             | DF: 1     |                                   |  |
| Analyte                     | Result | PQL                  | SPK Val | SPK Ref Value                    | %REC           | Control Limit | RPD Ref Value | %RPD        | RPD Limit | Qual                              |  |
| Tetrachloroethene           | 23.65  | 1.0                  | 20      | 0                                | 118            | 77-138        | 0             |             |           |                                   |  |
| Surr: 1,2-Dichloroethane-d4 | 19.82  | 0                    | 20      | 0                                | 99.1           | 75-120        | 0             |             |           |                                   |  |
| Surr: 4-Bromofluorobenzene  | 19.85  | 0                    | 20      | 0                                | 99.2           | 80-110        | 0             |             |           |                                   |  |
| Surr: Dibromofluoromethane  | 19.7   | 0                    | 20      | 0                                | 98.5           | 85-115        | 0             |             |           |                                   |  |
| Surr: Toluene-d8            | 20.22  | 0                    | 20      | 0                                | 101            | 85-110        | 0             |             |           |                                   |  |

| MS                                 |        |     |                      |               | Sample ID: 15101476-03A MS |                | Units: µg/L   |            | Analysis Date: 11/4/2015 02:05 PM |       |
|------------------------------------|--------|-----|----------------------|---------------|----------------------------|----------------|---------------|------------|-----------------------------------|-------|
| Client ID: WG-017360-102015-MR-003 |        |     | Run ID: VMS7_151104A |               |                            | SeqNo: 3549926 |               | Prep Date: |                                   | DF: 1 |
| Analyte                            | Result | PQL | SPK Val              | SPK Ref Value | %REC                       | Control Limit  | RPD Ref Value | %RPD       | RPD Limit                         | Qual  |
| Tetrachloroethene                  | 24.33  | 1.0 | 20                   | 0             | 122                        | 77-138         |               | 0          |                                   | H     |
| Surr: 1,2-Dichloroethane-d4        | 19.71  | 0   | 20                   | 0             | 98.6                       | 75-120         |               | 0          |                                   |       |
| Surr: 4-Bromofluorobenzene         | 20.32  | 0   | 20                   | 0             | 102                        | 80-110         |               | 0          |                                   |       |
| Surr: Dibromofluoromethane         | 18.91  | 0   | 20                   | 0             | 94.6                       | 85-115         |               | 0          |                                   |       |
| Surr: Toluene-d8                   | 19.8   | 0   | 20                   | 0             | 99                         | 85-110         |               | 0          |                                   |       |

| MSD                                |        |     |                      | Sample ID: 15101476-03A MSD |      |                |               | Units: µg/L |           | Analysis Date: 11/4/2015 02:30 PM |  |
|------------------------------------|--------|-----|----------------------|-----------------------------|------|----------------|---------------|-------------|-----------|-----------------------------------|--|
| Client ID: WG-017360-102015-MR-003 |        |     | Run ID: VMS7_151104A |                             |      | SeqNo: 3549927 |               | Prep Date:  |           | DF: 1                             |  |
| Analyte                            | Result | PQL | SPK Val              | SPK Ref Value               | %REC | Control Limit  | RPD Ref Value | %RPD        | RPD Limit | Qual                              |  |
| Tetrachloroethene                  | 23.82  | 1.0 | 20                   | 0                           | 119  | 77-138         | 24.33         | 2.12        | 30        | H                                 |  |
| Surr: 1,2-Dichloroethane-d4        | 19.68  | 0   | 20                   | 0                           | 98.4 | 75-120         | 19.71         | 0.152       | 30        |                                   |  |
| Surr: 4-Bromofluorobenzene         | 20.16  | 0   | 20                   | 0                           | 101  | 80-110         | 20.32         | 0.791       | 30        |                                   |  |
| Surr: Dibromofluoromethane         | 19.79  | 0   | 20                   | 0                           | 99   | 85-115         | 18.91         | 4.55        | 30        |                                   |  |
| Surr: Toluene-d8                   | 19.82  | 0   | 20                   | 0                           | 99.1 | 85-110         | 19.8          | 0.101       | 30        |                                   |  |

The following samples were analyzed in this batch:

|              |              |
|--------------|--------------|
| 15101476-03A | 15101476-19A |
|--------------|--------------|

Note: See Qualifiers Page for a list of Qualifiers and their explanation.



**Environmental**

Cincinnati, OH  
+1 513 733 5336

Everett, WA  
+1 425 356 2600

Fort Collins, CO  
+1 970 490 1511

Holland, MI  
+1 616 399 6070

# Chain of Custody Form

Page 1 of 2

COC ID: 26125

Houston, TX  
+1 281 530 5656

Middletown, PA  
+1 717 944 5541

Spring City, PA  
+1 610 948 4903

Salt Lake City, UT  
+1 801 266 7700

South Charleston, WV  
+1 304 356 3168

York, PA  
+1 717 505 5280

| Customer Information                  |                              |                 | Project Information          |  |  |  | ALS Project Manager: _____ ALS Work Order #: <u>15101476</u> |                     |  |  |  |  |  |  |  |  |  |  |  |  |
|---------------------------------------|------------------------------|-----------------|------------------------------|--|--|--|--------------------------------------------------------------|---------------------|--|--|--|--|--|--|--|--|--|--|--|--|
| Parameter/Method Request for Analysis |                              |                 |                              |  |  |  |                                                              |                     |  |  |  |  |  |  |  |  |  |  |  |  |
| Purchase Order                        |                              | Project Name    | <u>Former GRMP</u>           |  |  |  | A                                                            | <u>VOCS</u>         |  |  |  |  |  |  |  |  |  |  |  |  |
| Work Order                            |                              | Project Number  | <u>017360</u>                |  |  |  | B                                                            | <u>Trace Metals</u> |  |  |  |  |  |  |  |  |  |  |  |  |
| Company Name                          | <u>GHD</u>                   | Bill To Company | <u>Same as customer info</u> |  |  |  | C                                                            |                     |  |  |  |  |  |  |  |  |  |  |  |  |
| Send Report To                        | <u>Rawa Fleisher</u>         | Invoice Attn    |                              |  |  |  | D                                                            |                     |  |  |  |  |  |  |  |  |  |  |  |  |
| Address                               | <u>14496 Sheldon Rd.</u>     | Address         |                              |  |  |  | E                                                            |                     |  |  |  |  |  |  |  |  |  |  |  |  |
|                                       | <u>Ste. 200</u>              |                 |                              |  |  |  | F                                                            |                     |  |  |  |  |  |  |  |  |  |  |  |  |
| City/State/Zip                        | <u>Plymouth, MI 48170</u>    | City/State/Zip  |                              |  |  |  | G                                                            |                     |  |  |  |  |  |  |  |  |  |  |  |  |
| Phone                                 | <u>734-453-5123</u>          | Phone           |                              |  |  |  | H                                                            |                     |  |  |  |  |  |  |  |  |  |  |  |  |
| Fax                                   |                              | Fax             |                              |  |  |  | I                                                            |                     |  |  |  |  |  |  |  |  |  |  |  |  |
| e-Mail Address                        | <u>rawa.fleisher@ghd.com</u> | e-Mail Address  |                              |  |  |  | J                                                            |                     |  |  |  |  |  |  |  |  |  |  |  |  |

| No. | Sample Description        | Date     | Time | Matrix | Pres. | # Bottles | A | B | C | D | E | F | G | H | I | J | Hold |
|-----|---------------------------|----------|------|--------|-------|-----------|---|---|---|---|---|---|---|---|---|---|------|
| 1   | WL - 017360-102015-MR-001 | 10/20/15 | 1018 | Water  | 1     | 3         | X |   |   |   |   |   |   |   |   |   |      |
| 2   | WL - " -002               |          | 1035 |        | 1     | 3         |   |   |   |   |   |   |   |   |   |   |      |
| 3   | WL - " -003               |          | 1125 |        |       | 3         |   |   |   |   |   |   |   |   |   |   |      |
| 4   | SW - " -004               |          | 1105 |        |       | 3         |   |   |   |   |   |   |   |   |   |   |      |
| 5   | WL - " -005               |          | 1310 |        | 1/2   | 4         |   | X |   |   |   |   |   |   |   |   |      |
| 6   | SW - " -006               |          | 1340 |        | 1     | 3         |   |   |   |   |   |   |   |   |   |   |      |
| 7   | SW - " -007               |          | 1410 |        |       |           |   |   |   |   |   |   |   |   |   |   |      |
| 8   | WL - 017360-102115-MR-008 | 10/21/15 | 1039 |        |       |           |   |   |   |   |   |   |   |   |   |   |      |
| 9   | WL - " -009               |          | 1141 |        |       |           |   |   |   |   |   |   |   |   |   |   |      |
| 10  | WG - " -010               |          | 1304 |        |       |           |   |   |   |   |   |   |   |   |   |   |      |

|                                |  |                  |  |                                                                                                                                                |  |  |  |                   |  |
|--------------------------------|--|------------------|--|------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|-------------------|--|
| Sampler(s) Please Print & Sign |  | Shipment Method: |  | Required Turnaround Time: (Check Box) <input type="checkbox"/> Other <input type="checkbox"/>                                                  |  |  |  | Results Due Date: |  |
|                                |  |                  |  | <input type="checkbox"/> STD 10 Wk Days <input type="checkbox"/> 5 Wk Days <input type="checkbox"/> 2 Wk Days <input type="checkbox"/> 24 Hour |  |  |  |                   |  |

|                                     |                       |                   |                                              |                                     |              |
|-------------------------------------|-----------------------|-------------------|----------------------------------------------|-------------------------------------|--------------|
| Relinquished by: <u>[Signature]</u> | Date: <u>10/23/15</u> | Time: <u>1000</u> | Received by: <u>[Signature]</u>              | Notes: <u>-003 - MS/MSD request</u> |              |
| Relinquished by: <u>[Signature]</u> | Date: <u>10/23/15</u> | Time: <u>1000</u> | Received by (Laboratory): <u>[Signature]</u> | Cooler ID                           | Cooler Temp  |
| Logged by (Laboratory): <u>DFS</u>  | Date: <u>10/23/15</u> | Time: <u>1230</u> | Checked by (Laboratory): <u>[Signature]</u>  |                                     | <u>9.0°C</u> |

|                                                                                                                                                                              |  |  |  |  |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|
| Preservative Key: 1-HCl 2-HNO <sub>3</sub> 3-H <sub>2</sub> SO <sub>4</sub> 4-NaOH 5-Na <sub>2</sub> S <sub>2</sub> O <sub>8</sub> 6-NaHSO <sub>4</sub> 7-Other 8-4°C 9-5035 |  |  |  |  |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|

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Holland, MI  
+1 616 399 6070

# Chain of Custody Form

Page 2 of 2

COC ID: 17681

Houston, TX  
+1 281 530 5656

Middletown, PA  
+1 717 944 5341

Spring City, PA  
+1 610 948 4903

Salt Lake City, UT  
+1 801 266 7700

South Charleston, WV  
+1 304 356 3168

York, PA  
+1 717 505 5280

| Customer Information                                                                                                                                                         |                              |          | Project Information  |                           |       | ALS Work Order #: 18101476                     |       |                                                                                                                                                |   |                                                                                                                                                                                                                                                                |   |                   |   |   |   |   |      |  |  |  |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|----------|----------------------|---------------------------|-------|------------------------------------------------|-------|------------------------------------------------------------------------------------------------------------------------------------------------|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|-------------------|---|---|---|---|------|--|--|--|--|
| Parameter/Method Request for Analysis                                                                                                                                        |                              |          | ALS Project Manager: |                           |       |                                                |       |                                                                                                                                                |   |                                                                                                                                                                                                                                                                |   |                   |   |   |   |   |      |  |  |  |  |
| Purchase Order                                                                                                                                                               |                              |          | Project Name         | Former GRMP               |       | A                                              | VOCs  |                                                                                                                                                |   |                                                                                                                                                                                                                                                                |   |                   |   |   |   |   |      |  |  |  |  |
| Work Order                                                                                                                                                                   |                              |          | Project Number       | 017360                    |       | B                                              | SVOCs |                                                                                                                                                |   |                                                                                                                                                                                                                                                                |   |                   |   |   |   |   |      |  |  |  |  |
| Company Name                                                                                                                                                                 | GHD                          |          | Bill To Company      | Same as Customer Info     |       | C                                              |       |                                                                                                                                                |   |                                                                                                                                                                                                                                                                |   |                   |   |   |   |   |      |  |  |  |  |
| Send Report To                                                                                                                                                               | Randy Fleisher               |          | Invoice Attn         |                           |       | D                                              |       |                                                                                                                                                |   |                                                                                                                                                                                                                                                                |   |                   |   |   |   |   |      |  |  |  |  |
| Address                                                                                                                                                                      | 14496 Sholder Rd<br>Ste. 200 |          | Address              |                           |       | E                                              |       |                                                                                                                                                |   |                                                                                                                                                                                                                                                                |   |                   |   |   |   |   |      |  |  |  |  |
| City/State/Zip                                                                                                                                                               | Plymouth, MI 48170           |          | City/State/Zip       |                           |       | F                                              |       |                                                                                                                                                |   |                                                                                                                                                                                                                                                                |   |                   |   |   |   |   |      |  |  |  |  |
| Phone                                                                                                                                                                        | 734-453-5123                 |          | Phone                |                           |       | G                                              |       |                                                                                                                                                |   |                                                                                                                                                                                                                                                                |   |                   |   |   |   |   |      |  |  |  |  |
| Fax                                                                                                                                                                          |                              |          | Fax                  |                           |       | H                                              |       |                                                                                                                                                |   |                                                                                                                                                                                                                                                                |   |                   |   |   |   |   |      |  |  |  |  |
| e-Mail Address                                                                                                                                                               | rfleisher@ghd.com            |          | e-Mail Address       |                           |       | I                                              |       |                                                                                                                                                |   |                                                                                                                                                                                                                                                                |   |                   |   |   |   |   |      |  |  |  |  |
|                                                                                                                                                                              |                              |          |                      |                           |       | J                                              |       |                                                                                                                                                |   |                                                                                                                                                                                                                                                                |   |                   |   |   |   |   |      |  |  |  |  |
| No.                                                                                                                                                                          | Sample Description           | Date     | Time                 | Matrix                    | Pres. | # Bottles                                      | A     | B                                                                                                                                              | C | D                                                                                                                                                                                                                                                              | E | F                 | G | H | I | J | Hold |  |  |  |  |
| 1                                                                                                                                                                            | WG-017360-102115-MR -011     | 10/21/15 | 1439                 | Water                     | 1     | 3                                              | X     |                                                                                                                                                |   |                                                                                                                                                                                                                                                                |   |                   |   |   |   |   |      |  |  |  |  |
| 12                                                                                                                                                                           | WG- " -012                   |          | 1515                 |                           |       |                                                |       |                                                                                                                                                |   |                                                                                                                                                                                                                                                                |   |                   |   |   |   |   |      |  |  |  |  |
| 13                                                                                                                                                                           | WG- " -013                   |          | 1619                 |                           |       |                                                |       |                                                                                                                                                |   |                                                                                                                                                                                                                                                                |   |                   |   |   |   |   |      |  |  |  |  |
| 14                                                                                                                                                                           | WG-017360-102215-MR -014     | 10/22/15 | 1031                 |                           |       |                                                |       |                                                                                                                                                |   |                                                                                                                                                                                                                                                                |   |                   |   |   |   |   |      |  |  |  |  |
| 15                                                                                                                                                                           | WG- " -015                   |          | 1055                 |                           |       |                                                |       |                                                                                                                                                |   |                                                                                                                                                                                                                                                                |   |                   |   |   |   |   |      |  |  |  |  |
| 16                                                                                                                                                                           | WG- " -016                   |          | 1248                 |                           |       |                                                |       |                                                                                                                                                |   |                                                                                                                                                                                                                                                                |   |                   |   |   |   |   |      |  |  |  |  |
| 17                                                                                                                                                                           | WG- " -017                   |          | 1338                 |                           |       |                                                |       |                                                                                                                                                |   |                                                                                                                                                                                                                                                                |   |                   |   |   |   |   |      |  |  |  |  |
| 18                                                                                                                                                                           | WG- " -018                   |          | 1459                 |                           |       |                                                |       |                                                                                                                                                |   |                                                                                                                                                                                                                                                                |   |                   |   |   |   |   |      |  |  |  |  |
| 19                                                                                                                                                                           | WG- " -019                   |          | 1652                 |                           |       | 3                                              |       |                                                                                                                                                |   |                                                                                                                                                                                                                                                                |   |                   |   |   |   |   |      |  |  |  |  |
| 20                                                                                                                                                                           | WG- " -020                   |          | 1652                 |                           |       | 5                                              |       |                                                                                                                                                |   |                                                                                                                                                                                                                                                                |   |                   |   |   |   |   |      |  |  |  |  |
| 21                                                                                                                                                                           | WG- " -021                   |          |                      |                           |       |                                                |       |                                                                                                                                                |   |                                                                                                                                                                                                                                                                |   |                   |   |   |   |   |      |  |  |  |  |
| Sampler(s) Please Print & Sign                                                                                                                                               |                              |          |                      |                           |       | Shipment Method                                |       | Required Turnaround Time: (Check Box)                                                                                                          |   |                                                                                                                                                                                                                                                                |   | Results Due Date: |   |   |   |   |      |  |  |  |  |
|                                                                                                                                                                              |                              |          |                      |                           |       |                                                |       | <input type="checkbox"/> STD 10 Wk Days <input type="checkbox"/> 5 Wk Days <input type="checkbox"/> 2 Wk Days <input type="checkbox"/> 24 Hour |   |                                                                                                                                                                                                                                                                |   |                   |   |   |   |   |      |  |  |  |  |
| Relinquished by:                                                                                                                                                             |                              | Date:    | Time:                | Received by:              |       | Notes: -021 - VOC trip blank / -020 VOCs SVOCs |       |                                                                                                                                                |   |                                                                                                                                                                                                                                                                |   |                   |   |   |   |   |      |  |  |  |  |
| Relinquished by:                                                                                                                                                             |                              | Date:    | Time:                | Received by (Laboratory): |       |                                                |       |                                                                                                                                                |   |                                                                                                                                                                                                                                                                |   |                   |   |   |   |   |      |  |  |  |  |
| Logged by (Laboratory):                                                                                                                                                      |                              | Date:    | Time:                | Checked by (Laboratory):  |       |                                                |       |                                                                                                                                                |   |                                                                                                                                                                                                                                                                |   |                   |   |   |   |   |      |  |  |  |  |
| Preservative Key: 1-HCl 2-HNO <sub>3</sub> 3-H <sub>2</sub> SO <sub>4</sub> 4-NaOH 5-Na <sub>2</sub> S <sub>2</sub> O <sub>4</sub> 6-NaHSO <sub>4</sub> 7-Other 8-4°C 9-5035 |                              |          |                      |                           |       | Cooler ID                                      |       | Cooler Temp                                                                                                                                    |   | QC Package: (Check One Box Below)                                                                                                                                                                                                                              |   |                   |   |   |   |   |      |  |  |  |  |
|                                                                                                                                                                              |                              |          |                      |                           |       |                                                |       | 7.0°C                                                                                                                                          |   | <input type="checkbox"/> Level II Std QC <input type="checkbox"/> TRAP Checklist<br><input type="checkbox"/> Level III Std QC/Raw Data <input type="checkbox"/> TRAP Level IV<br><input type="checkbox"/> Level IV SW846/CLP<br><input type="checkbox"/> Other |   |                   |   |   |   |   |      |  |  |  |  |

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Sample Receipt Checklist

Client Name: GHD - PLYMOUTH

Date/Time Received: 23-Oct-15 10:00

Work Order: 15101476

Received by: DS

Checklist completed by Diane Shaw  
eSignature

23-Oct-15  
Date

Reviewed by: Chad Whelton  
eSignature

24-Oct-15  
Date

Matrices: Water

Carrier name: Client

|                                                         |                                         |                                        |                                                 |
|---------------------------------------------------------|-----------------------------------------|----------------------------------------|-------------------------------------------------|
| Shipping container/cooler in good condition?            | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            | Not Present <input type="checkbox"/>            |
| Custody seals intact on shipping container/cooler?      | Yes <input type="checkbox"/>            | No <input type="checkbox"/>            | Not Present <input checked="" type="checkbox"/> |
| Custody seals intact on sample bottles?                 | Yes <input type="checkbox"/>            | No <input type="checkbox"/>            | Not Present <input checked="" type="checkbox"/> |
| Chain of custody present?                               | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            |                                                 |
| Chain of custody signed when relinquished and received? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            |                                                 |
| Chain of custody agrees with sample labels?             | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            |                                                 |
| Samples in proper container/bottle?                     | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            |                                                 |
| Sample containers intact?                               | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            |                                                 |
| Sufficient sample volume for indicated test?            | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            |                                                 |
| All samples received within holding time?               | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            |                                                 |
| Container/Temp Blank temperature in compliance?         | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            |                                                 |
| Sample(s) received on ice?                              | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            |                                                 |
| Temperature(s)/Thermometer(s):                          | <u>4.0/4.0 c</u>                        |                                        | <u>SR2</u>                                      |
| Cooler(s)/Kit(s):                                       | <u></u>                                 |                                        |                                                 |
| Date/Time sample(s) sent to storage:                    | <u>10/23/2015 12:55:33 PM</u>           |                                        |                                                 |
| Water - VOA vials have zero headspace?                  | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            | No VOA vials submitted <input type="checkbox"/> |
| Water - pH acceptable upon receipt?                     | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            | N/A <input type="checkbox"/>                    |
| pH adjusted?                                            | Yes <input type="checkbox"/>            | No <input checked="" type="checkbox"/> | N/A <input type="checkbox"/>                    |
| pH adjusted by:                                         | <u>-</u>                                |                                        |                                                 |

Login Notes:

-----

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:

# Attachment B

## Data Validation Memorandum





## Memorandum

---

|       |                                                                                                                                                                            |           |                   |
|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-------------------|
| To:   | Jennifer Quigley                                                                                                                                                           | Ref. No.: | 17360-T08Y15      |
| From: | Ruth Mickle/tl/77/Det                                                                                                                                                      | Date:     | December 14, 2015 |
| Re:   | <b>Analytical Results and Reduced Validation<br/>2015 Monitoring Well and Culvert Sampling<br/>Racer Grand Rapids Stamping Site<br/>Wyoming, Michigan<br/>October 2015</b> |           |                   |

---

### 1. Introduction

The following document details a reduced validation of analytical results for groundwater and surface water samples collected in support of the 2015 Monitoring Well and Culvert Sampling at the Racer Grand Rapids Stamping Site during October 2015. Samples were submitted to ALS Environmental, located in Holland, Michigan (ALS-MI). A sample collection and analysis summary is presented in Table 1. The validated analytical results are summarized in Table 2. A summary of the analytical methodology is presented in Table 3.

Standard GHD report deliverables were submitted by the laboratory. The final results and supporting quality assurance/quality control (QA/QC) data were assessed. Evaluation of the data was based on information obtained from the chain of custody forms, finished report forms, method blank data, duplicate data, recovery data from surrogate spikes, laboratory control samples (LCS), matrix spikes and field QC samples.

The QA/QC criteria by which these data have been assessed are outlined in the analytical methods referenced in Table 3 and applicable documents entitled:

- i) "Former Grand Rapids Metal Plant Quality Assurance Project Plan (QAPP)", Revision 1, January 6, 2011
- ii) "USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review", United States Environmental Protection Agency (USEPA) 540/R-99-008, October 1999
- iii) "USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review", USEPA 540/R-94-013, February 1994

Items ii) and iii) will subsequently be referred to as the "Guidelines" in this Memorandum



## **2. Sample Holding Time and Preservation**

The sample holding time criteria and sample preservation requirements for the analyses are summarized in Table 3. The sample chain of custody documents and analytical reports were used to determine sample holding times. Sample WG-017360-102015-MR-003 was incorrectly spiked for volatile organic compound (VOC) parameters during the original matrix spike analyses. As a result, the matrix spike recoveries were outside the control limits (see Section 6). The sample was re-spiked and reanalyzed outside the method holding time. The unspiked sample results from reanalyses were comparable to the original analyses. The spike results from MS/MSD were not included in the report, and therefore, sample data were not qualified based on the holding time violation. The remaining samples were prepared and analyzed within the required holding times.

The samples were properly preserved and delivered on ice, and stored by the laboratory at the required temperature (0-6°C).

## **3. Laboratory Method Blank Analyses**

Method blanks are prepared from a purified matrix and analyzed with investigative samples to determine the existence and magnitude of sample contamination introduced during the analytical procedures.

For this study, laboratory method blanks were analyzed at a minimum frequency of one per 20 investigative samples and/or one per analytical batch.

Low concentrations of target parameters were detected in several method blanks which indicate a potential for laboratory contamination. The associated samples that contained similar concentrations of these compounds were assumed to be a reflection of laboratory contamination and the results were qualified non-detect, as detailed in Table 4.

## **4. Surrogate Spike Recoveries - Organic Analyses**

In accordance with the methods employed, all samples, blanks and QC samples analyzed for organics are spiked with surrogate compounds prior to sample extraction and/or analysis. Surrogate recoveries provide a means to evaluate the effects of laboratory performance on individual sample matrices.

All samples submitted for VOC and semi-volatile organic compound (SVOC) determinations were spiked with the appropriate number of surrogate compounds prior to sample extraction and/or analysis.

Each individual surrogate compound is expected to meet the laboratory control limits with the exception of SVOC analyses. According to the "Guidelines" for SVOC analyses, up to one outlying surrogate in the base/neutral or acid fractions is acceptable as long as the recovery is at least 10 percent.

Surrogate recoveries were assessed against laboratory control limits. The surrogate recoveries met the above criteria for investigative samples.

## **5. Laboratory Control Sample (LCS) Analyses**

LCS are prepared and analyzed as samples to assess the analytical efficiencies of the methods employed, independent of sample matrix effects.

For this study, LCS were analyzed at a minimum frequency of one per 20 investigative samples and/or one per analytical batch.

### **5.1 Organic Analyses**

The LCS contained all compounds of interest. All percent recoveries and were within the laboratory control limits or outlying percent recoveries did not result in qualification, demonstrating acceptable analytical accuracy.

### **5.2 Inorganic Analyses**

The LCS contained all analytes of interest. LCS recoveries were assessed per the "Guidelines". The LCS recoveries were within the control limits.

## **6. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analyses**

To evaluate the effects of sample matrices on the extraction or digestion process, measurement procedures, and accuracy of a particular analysis, samples are spiked with a known concentration of the analyte of concern and analyzed as MS or MS/MSD samples. The relative percent difference (RPD) between the MS and MSD is used to assess analytical precision.

MS/MSD analyses were performed as specified in Table 1. The laboratory performed additional site-specific MS/MSD analyses internally.

### **6.1 Organic Analyses**

The matrix samples were spiked with all compounds of interest, except PCBs which were spiked with the compounds specified in the method.

Table 5 presents outlying matrix spike data. Sample WG-017360-102015-MR-003 was incorrectly spiked for VOC parameters during the original analyses. As a result, the matrix spike recoveries were outside the control limits. Further, sample WG-017360-102915-MR-045 yielded low bias recoveries for VOC and SVOC analytes. This was likely due to matrix effects. The associated sample data for these samples were qualified estimated or rejected, as noted in the table.

The remaining percent recoveries and RPD values were within the control limits.

### **6.2 Inorganic Analyses**

The matrix spike samples were spiked with the analytes of interest and the results were evaluated using the "Guidelines".



The percent recoveries were within the control limits, demonstrating acceptable analytical accuracy and precision.

## **7. Field QA/QC Samples**

The field QA/QC consisted of two trip blank samples and four field duplicate samples.

### **7.1 Trip Blank Sample Analysis**

To evaluate contamination from sample collection, transportation, storage, and analytical activities, three trip blanks were submitted to the laboratory for VOC analysis. With the exception of one chloroform detection, the trip blanks were nondetect for VOC parameters. Table 6 presents the data qualified based on the trip blank detection.

### **7.2 Field Duplicate Sample Analysis**

To assess the analytical and sampling protocol precision, three field duplicate samples were collected and submitted "blind" to the laboratory, as specified in Table 1. The RPDs associated with these duplicate samples must be less than 50 percent for water samples. If the reported concentration in either the investigative sample or its duplicate is less than five times the reporting limit (RL), the evaluation criteria is one times the RL value for water samples.

All field duplicate results were within acceptable agreement, demonstrating acceptable sampling and analytical precision.

## **8. Analyte Reporting**

The laboratory reported detected results down to the laboratory's method detection limit (MDL) for each analyte. Positive analyte detections less than the RL but greater than the MDL were qualified as estimated (J) in Table 2 unless qualified otherwise in this memorandum. Non-detect results were presented as non-detect at the RL in Table 2.

## **9. Conclusion**

Based on the assessment detailed in the foregoing, the data summarized in Table 2 are acceptable with the specific exceptions and qualifications noted herein.

Table 1

**Sample Collection and Analysis Summary**  
**2015 Monitoring Well and Culvert Sampling**  
**Racer Grand Rapids Stamping Site**  
**Wyoming, Michigan**  
**October 2015**

| Analysis/Parameters       |            |        |                                 |                             |                      |           |                                     |
|---------------------------|------------|--------|---------------------------------|-----------------------------|----------------------|-----------|-------------------------------------|
| Sample Identification     | Location   | Matrix | Collection Date<br>(mm/dd/yyyy) | Collection Time<br>(hr:min) | Site-Specific Metals |           |                                     |
|                           |            |        |                                 |                             | TCL VOCs             | TCL SVOCs | Comments                            |
| ALS Lab SDG: 15101476     |            |        |                                 |                             |                      |           |                                     |
| WG-017360-102015-MR-001   | MW6-03     | water  | 10/20/2015                      | 10:18                       | X                    | --        | Field Duplicate of MR-001<br>MS/MSD |
| WG-017360-102015-MR-002   | MW6-03     | water  | 10/20/2015                      | 10:35                       | X                    | --        |                                     |
| WG-017360-102015-MR-003   | 87-13      | water  | 10/20/2015                      | 11:25                       | X                    | --        |                                     |
| SW-017360-102015-MR-004   | C-3        | water  | 10/20/2015                      | 11:45                       | X                    | --        |                                     |
| WG-017360-102015-MR-005   | MW59-14    | water  | 10/20/2015                      | 13:10                       | X                    | --        |                                     |
| SW-017360-102015-MR-006   | C-2        | water  | 10/20/2015                      | 13:40                       | X                    | --        |                                     |
| SW-017360-102015-MR-007   | C-1        | water  | 10/20/2015                      | 14:10                       | X                    | --        |                                     |
| WG-017360-102115-MR-008   | 87-10      | water  | 10/21/2015                      | 10:39                       | X                    | --        |                                     |
| WG-017360-102115-MR-009   | MW8-04     | water  | 10/21/2015                      | 11:41                       | X                    | --        |                                     |
| WG-017360-102115-MR-010   | MW9-04     | water  | 10/21/2015                      | 13:04                       | X                    | --        |                                     |
| WG-017360-102115-MR-011   | MW4-03     | water  | 10/21/2015                      | 14:39                       | X                    | --        |                                     |
| WG-017360-102115-MR-012   | MW10-04    | water  | 10/21/2015                      | 15:15                       | X                    | --        |                                     |
| WG-017360-102115-MR-013   | 87-8       | water  | 10/21/2015                      | 16:19                       | X                    | --        |                                     |
| WG-017360-102215-MR-014   | MW11S-05   | water  | 10/22/2015                      | 10:31                       | X                    | --        |                                     |
| WG-017360-102215-MR-015   | MW11D-04   | water  | 10/22/2015                      | 10:55                       | X                    | --        |                                     |
| WG-017360-102215-MR-016   | 86-3       | water  | 10/22/2015                      | 12:48                       | X                    | --        |                                     |
| WG-017360-102215-MR-017   | MW7-03     | water  | 10/22/2015                      | 13:38                       | X                    | --        |                                     |
| WG-017360-102215-MR-018   | MW48-13    | water  | 10/22/2015                      | 14:59                       | X                    | --        |                                     |
| WG-017360-102215-MR-019   | MW17-06    | water  | 10/22/2015                      | 15:56                       | X                    | --        |                                     |
| WG-017360-102215-MR-020   | 85-7       | water  | 10/22/2015                      | 16:52                       | X                    | X         |                                     |
| TB-017360-102215-MR-021   | Trip Blank | water  | 10/22/2015                      | --                          | X                    | --        |                                     |
| Trip Blank                |            |        |                                 |                             |                      |           |                                     |
| ALS Lab SDG: 15101851     |            |        |                                 |                             |                      |           |                                     |
| WG-017360-102615-MR-022   | MW49-13    | water  | 10/26/2015                      | 11:38                       | X                    | --        |                                     |
| WG-017360-102615-MR-023   | MW49-13    | water  | 10/26/2015                      | 11:50                       | X                    | --        |                                     |
| WG-017360-102615-MR-024   | MW2-03     | water  | 10/26/2015                      | 11:09                       | X                    | --        |                                     |
| WG-017360-102615-MR-025   | MW30-12    | water  | 10/26/2015                      | 13:15                       | X                    | --        |                                     |
| WG-017360-102615-MR-026   | MW28-12    | water  | 10/26/2015                      | 14:18                       | X                    | --        |                                     |
| WG-017360-102615-MR-027   | MW58-13    | water  | 10/26/2015                      | 15:18                       | X                    | --        |                                     |
| WG-017360-102615-MR-028   | MW33-12    | water  | 10/26/2015                      | 16:25                       | X                    | --        |                                     |
| WG-017360-102615-MR-029   | MW32-12    | water  | 10/26/2015                      | 16:59                       | X                    | --        |                                     |
| WG-017360-102615-MR-030   | MW32-12    | water  | 10/26/2015                      | 17:10                       | X                    | --        |                                     |
| Field Duplicate of MR-029 |            |        |                                 |                             |                      |           |                                     |



Table 2

Validated Analytical Summary Results  
2015 Monitoring Well and Culvert Sampling  
Racer Grand Rapids Stamping Site  
Wyoming, Michigan  
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| AOI                                                  | AOI 25<br>87-13<br>WG-017360-102015-MR-003<br>10/20/2015 | AOI 25<br>C-1<br>SW-017360-102015-MR-007<br>10/20/2015 | AOI 25<br>C-2<br>SW-017360-102015-MR-006<br>10/20/2015 | AOI 25<br>C-3<br>SW-017360-102015-MR-004<br>10/20/2015 |
|------------------------------------------------------|----------------------------------------------------------|--------------------------------------------------------|--------------------------------------------------------|--------------------------------------------------------|
| Sample Location:                                     |                                                          |                                                        |                                                        |                                                        |
| Sample Identification:                               |                                                          |                                                        |                                                        |                                                        |
| Sample Date:                                         |                                                          |                                                        |                                                        |                                                        |
| Sample Type:                                         |                                                          |                                                        |                                                        |                                                        |
| Segment_Depth                                        |                                                          |                                                        |                                                        |                                                        |
|                                                      | (40-43) ft BGS                                           |                                                        |                                                        |                                                        |
|                                                      | Units                                                    |                                                        |                                                        |                                                        |
| <b>Volatile Organic Compounds</b>                    |                                                          |                                                        |                                                        |                                                        |
| 1,1,1-Trichloroethane                                | 1.0 UJ                                                   | 1.0 U                                                  | 1.0 U                                                  | 1.0 U                                                  |
| 1,1,2,2-Tetrachloroethane                            | 1.0 UJ                                                   | 1.0 U                                                  | 1.0 U                                                  | 1.0 U                                                  |
| 1,1,2-Trichloroethane                                | 1.0 UJ                                                   | 1.0 U                                                  | 1.0 U                                                  | 1.0 U                                                  |
| 1,1-Dichloroethane                                   | 1.0 UJ                                                   | 1.0 U                                                  | 1.0 U                                                  | 1.0 U                                                  |
| 1,1-Dichloroethene                                   | 5.0 UJ                                                   | 5.0 U                                                  | 5.0 U                                                  | 5.0 U                                                  |
| 1,2,4-Trichlorobenzene                               | 1.0 UJ                                                   | 1.0 U                                                  | 1.0 U                                                  | 1.0 U                                                  |
| 1,2-Dibromo-3-chloropropane (DBCP)                   | 1.0 UJ                                                   | 1.0 U                                                  | 1.0 U                                                  | 1.0 U                                                  |
| 1,2-Dibromoethane (Ethylene dibromide)               | 1.0 UJ                                                   | 1.0 U                                                  | 1.0 U                                                  | 1.0 U                                                  |
| 1,2-Dichlorobenzene                                  | 1.0 UJ                                                   | 1.0 U                                                  | 1.0 U                                                  | 1.0 U                                                  |
| 1,2-Dichloroethane                                   | 1.0 UJ                                                   | 1.0 U                                                  | 1.0 U                                                  | 1.0 U                                                  |
| 1,2-Dichloropropane                                  | 1.0 UJ                                                   | 1.0 U                                                  | 1.0 U                                                  | 1.0 U                                                  |
| 1,3-Dichlorobenzene                                  | 1.0 UJ                                                   | 1.0 U                                                  | 1.0 U                                                  | 1.0 U                                                  |
| 1,4-Dichlorobenzene                                  | 1.0 UJ                                                   | 1.0 U                                                  | 1.0 U                                                  | 1.0 U                                                  |
| 2-Butanone (Methyl ethyl ketone) (MEK)               | 25 UJ                                                    | 25 U                                                   | 25 U                                                   | 25 U                                                   |
| 2-Hexanone                                           | 50 UJ                                                    | 50 U                                                   | 50 U                                                   | 50 U                                                   |
| 4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK) | 50 UJ                                                    | 50 U                                                   | 50 U                                                   | 50 U                                                   |
| Acetone                                              | 1.0 UJ                                                   | 1.0 U                                                  | 1.0 U                                                  | 1.0 U                                                  |
| Benzene                                              | 1.0 UJ                                                   | 1.0 U                                                  | 1.0 U                                                  | 1.0 U                                                  |
| Bromodichloromethane                                 | 1.0 UJ                                                   | 1.0 U                                                  | 1.0 U                                                  | 1.0 U                                                  |
| Bromoform                                            | 5.0 U                                                    | 5.0 U                                                  | 5.0 U                                                  | 5.0 U                                                  |
| Bromomethane (Methyl bromide)                        | 5.0 UJ                                                   | 5.0 U                                                  | 5.0 U                                                  | 5.0 U                                                  |
| Carbon disulfide                                     | 1.0 UJ                                                   | 1.0 U                                                  | 1.0 U                                                  | 1.0 U                                                  |
| Carbon tetrachloride                                 | 1.0 UJ                                                   | 1.0 U                                                  | 1.0 U                                                  | 1.0 U                                                  |
| Chlorobenzene                                        | 5.0 U                                                    | 5.0 U                                                  | 5.0 U                                                  | 5.0 U                                                  |
| Chloroethane                                         | 1.0 UJ                                                   | 0.63 J                                                 | 1.0 U                                                  | 1.0 U                                                  |
| Chloroform (Trichloromethane)                        | 5.0 U                                                    | 5.0 U                                                  | 5.0 U                                                  | 5.0 U                                                  |
| Chloromethane (Methyl chloride)                      | 1.0 UJ                                                   | 1.0 U                                                  | 1.0 U                                                  | 1.0 U                                                  |
| cis-1,2-Dichloroethene                               | 1.0 UJ                                                   | 1.0 U                                                  | 1.0 U                                                  | 1.0 U                                                  |
| cis-1,3-Dichloropropene                              | 1.0 U                                                    | 1.0 U                                                  | 1.0 U                                                  | 1.0 U                                                  |
| Cyclohexane                                          | 5.0 UJ                                                   | 5.0 U                                                  | 5.0 U                                                  | 5.0 U                                                  |
| Dibromochloromethane                                 | 5.0 UJ                                                   | 5.0 U                                                  | 5.0 U                                                  | 5.0 U                                                  |
| Dichlorodifluoromethane (CFC-12)                     | 5.0 U                                                    | 5.0 U                                                  | 5.0 U                                                  | 5.0 U                                                  |
| Ethylbenzene                                         | 1.0 UJ                                                   | 1.0 U                                                  | 1.0 U                                                  | 1.0 U                                                  |
| Isopropyl benzene                                    | 5.0 UJ                                                   | 5.0 U                                                  | 5.0 U                                                  | 5.0 U                                                  |



Table 2

Validated Analytical Summary Results  
2015 Monitoring Well and Culvert Sampling  
Racer Grand Rapids Stamping Site  
Wyoming, Michigan  
October 2015

| AOI                                                         | AOI 25<br>87-13         | AOI 25<br>C-1           | AOI 25<br>C-2           | AOI 25<br>C-3           |
|-------------------------------------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Sample Location:                                            | WG-017360-102015-MR-003 | SW-017360-102015-MR-007 | SW-017360-102015-MR-006 | SW-017360-102015-MR-004 |
| Sample Identification:                                      | 10/20/2015              | 10/20/2015              | 10/20/2015              | 10/20/2015              |
| Sample Date:                                                |                         |                         |                         |                         |
| Sample Type:                                                |                         |                         |                         |                         |
| Segment_Depth                                               | (40-43) ft BGS          |                         |                         |                         |
| Units                                                       |                         |                         |                         |                         |
| <b>Volatile Organic Compounds</b>                           |                         |                         |                         |                         |
| Methyl acetate                                              | 10 U                    | 10 U                    | 10 U                    | 10 U                    |
| Methyl cyclohexane                                          | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Methyl tert butyl ether (MTBE)                              | 5.0 UJ                  | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| Methylene chloride                                          | 5.0 UJ                  | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| Styrene                                                     | 1.0 UJ                  | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Tetrachloroethene                                           | 1.0 UJ                  | 1.0 U                   | 1.0 U                   | 2.5                     |
| Toluene                                                     | 1.0 UJ                  | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| trans-1,2-Dichloroethene                                    | 1.0 UJ                  | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| trans-1,3-Dichloropropene                                   | 1.0 UJ                  | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Trichloroethene                                             | 1.0 UJ                  | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Trichlorofluoromethane (CFC-11)                             | 1.0 UJ                  | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Trifluorotrchloroethane (CFC-113)                           | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Vinyl chloride                                              | 1.0 U                   | 1.0 U                   | 1.0 U                   | 0.86 J                  |
| Xylenes (total)                                             | 3.0 UJ                  | 3.0 U                   | 3.0 U                   | 3.0 U                   |
| <b>Semi-Volatile Organic Compounds</b>                      |                         |                         |                         |                         |
| 2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether) | --                      | --                      | --                      | --                      |
| 2,4,5-Trichlorophenol                                       | --                      | --                      | --                      | --                      |
| 2,4,6-Trichlorophenol                                       | --                      | --                      | --                      | --                      |
| 2,4-Dichlorophenol                                          | --                      | --                      | --                      | --                      |
| 2,4-Dimethylphenol                                          | --                      | --                      | --                      | --                      |
| 2,4-Dinitrophenol                                           | --                      | --                      | --                      | --                      |
| 2,4-Dinitrotoluene                                          | --                      | --                      | --                      | --                      |
| 2,6-Dinitrotoluene                                          | --                      | --                      | --                      | --                      |
| 2-Chloronaphthalene                                         | --                      | --                      | --                      | --                      |
| 2-Chlorophenol                                              | --                      | --                      | --                      | --                      |
| 2-Methylnaphthalene                                         | --                      | --                      | --                      | --                      |
| 2-Methylphenol                                              | --                      | --                      | --                      | --                      |
| 2-Nitroaniline                                              | --                      | --                      | --                      | --                      |
| 2-Nitrophenol                                               | --                      | --                      | --                      | --                      |
| 3&4-Methylphenol                                            | --                      | --                      | --                      | --                      |
| 3,3'-Dichlorobenzidine                                      | --                      | --                      | --                      | --                      |
| 3-Nitroaniline                                              | --                      | --                      | --                      | --                      |
| 4,6-Dinitro-2-methylphenol                                  | --                      | --                      | --                      | --                      |
| 4-Bromophenyl phenyl ether                                  | --                      | --                      | --                      | --                      |
| 4-Chloro-3-methylphenol                                     | --                      | --                      | --                      | --                      |
| 4-Chloroaniline                                             | --                      | --                      | --                      | --                      |
| 4-Chlorophenyl phenyl ether                                 | --                      | --                      | --                      | --                      |
| 4-Nitroaniline                                              | --                      | --                      | --                      | --                      |
| 4-Nitrophenol                                               | --                      | --                      | --                      | --                      |
| Acenaphthene                                                | --                      | --                      | --                      | --                      |

Table 2

Validated Analytical Summary Results  
2015 Monitoring Well and Culvert Sampling  
Racer Grand Rapids Stamping Site  
Wyoming, Michigan  
October 2015

| Sample Location:                  | AOI 25                  | AOI 25                  | AOI 25                  | AOI 25                  |
|-----------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Sample Identification:            | 87-13                   | C-1                     | C-2                     | C-3                     |
| Sample Date:                      | 10/20/2015              | 10/20/2015              | 10/20/2015              | 10/20/2015              |
| Sample Type:                      | WG-017360-102015-MR-003 | SW-017360-102015-MR-007 | SW-017360-102015-MR-006 | SW-017360-102015-MR-004 |
| Segment_Depth                     | (40-43) ft BGS          |                         |                         |                         |
| Semi-Volatile Organic Compounds   |                         |                         |                         |                         |
| Acenaphthylene                    | ug/L                    | ---                     | ---                     | ---                     |
| Acetophenone                      | ug/L                    | ---                     | ---                     | ---                     |
| Anthracene                        | ug/L                    | ---                     | ---                     | ---                     |
| Atrazine                          | ug/L                    | ---                     | ---                     | ---                     |
| Benzaldehyde                      | ug/L                    | ---                     | ---                     | ---                     |
| Benzo(a)anthracene                | ug/L                    | ---                     | ---                     | ---                     |
| Benzo(a)pyrene                    | ug/L                    | ---                     | ---                     | ---                     |
| Benzo(b)fluoranthene              | ug/L                    | ---                     | ---                     | ---                     |
| Benzo(g,h,i)perylene              | ug/L                    | ---                     | ---                     | ---                     |
| Benzo(k)fluoranthene              | ug/L                    | ---                     | ---                     | ---                     |
| Biphenyl (1,1-Biphenyl)           | ug/L                    | ---                     | ---                     | ---                     |
| bis(2-Chloroethoxy)methane        | ug/L                    | ---                     | ---                     | ---                     |
| bis(2-Chloroethoxy)ether          | ug/L                    | ---                     | ---                     | ---                     |
| bis(2-Ethylhexyl)phthalate (DEHP) | ug/L                    | ---                     | ---                     | ---                     |
| Butyl benzylphthalate (BBP)       | ug/L                    | ---                     | ---                     | ---                     |
| Caprolactam                       | ug/L                    | ---                     | ---                     | ---                     |
| Carbazole                         | ug/L                    | ---                     | ---                     | ---                     |
| Chrysene                          | ug/L                    | ---                     | ---                     | ---                     |
| Dibenz(a,h)anthracene             | ug/L                    | ---                     | ---                     | ---                     |
| Dibenzofuran                      | ug/L                    | ---                     | ---                     | ---                     |
| Diethyl phthalate                 | ug/L                    | ---                     | ---                     | ---                     |
| Dimethyl phthalate                | ug/L                    | ---                     | ---                     | ---                     |
| Di-n-butylphthalate (DBP)         | ug/L                    | ---                     | ---                     | ---                     |
| Di-n-octyl phthalate (DnOP)       | ug/L                    | ---                     | ---                     | ---                     |
| Fluoranthene                      | ug/L                    | ---                     | ---                     | ---                     |
| Fluorene                          | ug/L                    | ---                     | ---                     | ---                     |
| Hexachlorobenzene                 | ug/L                    | ---                     | ---                     | ---                     |
| Hexachlorobutadiene               | ug/L                    | ---                     | ---                     | ---                     |
| Hexachlorocyclopentadiene         | ug/L                    | ---                     | ---                     | ---                     |
| Hexachloroethane                  | ug/L                    | ---                     | ---                     | ---                     |
| Indeno(1,2,3-cd)pyrene            | ug/L                    | ---                     | ---                     | ---                     |
| Isophorone                        | ug/L                    | ---                     | ---                     | ---                     |
| Naphthalene                       | ug/L                    | ---                     | ---                     | ---                     |
| Nitrobenzene                      | ug/L                    | ---                     | ---                     | ---                     |
| N-Nitrosodi-n-propylamine         | ug/L                    | ---                     | ---                     | ---                     |
| N-Nitrosodiphenylamine            | ug/L                    | ---                     | ---                     | ---                     |
| Pentachlorophenol                 | ug/L                    | ---                     | ---                     | ---                     |
| Phenanthrene                      | ug/L                    | ---                     | ---                     | ---                     |
| Phenol                            | ug/L                    | ---                     | ---                     | ---                     |
| Pyrene                            | ug/L                    | ---                     | ---                     | ---                     |



Table 2

Validated Analytical Summary Results  
2015 Monitoring Well and Culvert Sampling  
Racer Grand Rapids Stamping Site  
Wyoming, Michigan  
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| AOI              | AOI 25<br>87-13         | AOI 25<br>C-1           | AOI 25<br>C-2           | AOI 25<br>C-3           |
|------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Sample Location: | WG-017360-102015-MR-003 | SW-017360-102015-MR-007 | SW-017360-102015-MR-006 | SW-017360-102015-MR-004 |
| Sample Date:     | 10/20/2015              | 10/20/2015              | 10/20/2015              | 10/20/2015              |
| Sample Type:     |                         |                         |                         |                         |
| Segment_Depth    | (40-43) ft BGS          |                         |                         |                         |
| Metals           |                         |                         |                         |                         |
| Antimony         | ug/L                    | ug/L                    | ug/L                    | ug/L                    |
| Arsenic          | ug/L                    | ug/L                    | ug/L                    | ug/L                    |
| Barium           | ug/L                    | ug/L                    | ug/L                    | ug/L                    |
| Beryllium        | ug/L                    | ug/L                    | ug/L                    | ug/L                    |
| Cadmium          | ug/L                    | ug/L                    | ug/L                    | ug/L                    |
| Chromium         | ug/L                    | ug/L                    | ug/L                    | ug/L                    |
| Cobalt           | ug/L                    | ug/L                    | ug/L                    | ug/L                    |
| Copper           | ug/L                    | ug/L                    | ug/L                    | ug/L                    |
| Iron             | ug/L                    | ug/L                    | ug/L                    | ug/L                    |
| Lead             | ug/L                    | ug/L                    | ug/L                    | ug/L                    |
| Manganese        | ug/L                    | ug/L                    | ug/L                    | ug/L                    |
| Mercury          | ug/L                    | ug/L                    | ug/L                    | ug/L                    |
| Molybdenum       | ug/L                    | ug/L                    | ug/L                    | ug/L                    |
| Nickel           | ug/L                    | ug/L                    | ug/L                    | ug/L                    |
| Selenium         | ug/L                    | ug/L                    | ug/L                    | ug/L                    |
| Silver           | ug/L                    | ug/L                    | ug/L                    | ug/L                    |
| Thallium         | ug/L                    | ug/L                    | ug/L                    | ug/L                    |
| Vanadium         | ug/L                    | ug/L                    | ug/L                    | ug/L                    |
| Zinc             | ug/L                    | ug/L                    | ug/L                    | ug/L                    |

Table 2

Validated Analytical Summary Results  
2015 Monitoring Well and Culvert Sampling  
Racer Grand Rapids Stamping Site  
Wyoming, Michigan  
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| AOI                        | Sample Location:                                     | Sample Identification: | Sample Date: | Sample Type: | Segment_Depth | UNKNOWN<br>MW59-14<br>WG-017360-102015-MR-005<br>10/20/2015 | AOI 25<br>MW6-03<br>WG-017360-102015-MR-001<br>10/20/2015 | AOI 25<br>MW6-03<br>WG-017360-102015-MR-002<br>10/20/2015 | AOI 25<br>87-10<br>WG-017360-102115-MR-008<br>10/21/2015 |
|----------------------------|------------------------------------------------------|------------------------|--------------|--------------|---------------|-------------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------|----------------------------------------------------------|
|                            |                                                      |                        |              |              |               | (30-35) ft BGS                                              | (13-18) ft BGS                                            | Duplicate<br>(13-18) ft BGS                               | (29-32) ft BGS                                           |
| Units                      |                                                      |                        |              |              |               |                                                             |                                                           |                                                           |                                                          |
| Volatile Organic Compounds |                                                      |                        |              |              |               |                                                             |                                                           |                                                           |                                                          |
|                            | 1,1,1-Trichloroethane                                |                        |              |              |               | 1.0 U                                                       | 1.0 U                                                     | 1.0 U                                                     | 1.0 U                                                    |
|                            | 1,1,2,2-Tetrachloroethane                            |                        |              |              |               | 1.0 U                                                       | 1.0 U                                                     | 1.0 U                                                     | 1.0 U                                                    |
|                            | 1,1,2-Trichloroethane                                |                        |              |              |               | 1.0 U                                                       | 1.0 U                                                     | 1.0 U                                                     | 1.0 U                                                    |
|                            | 1,1-Dichloroethane                                   |                        |              |              |               | 0.64 U                                                      | 1.0 U                                                     | 1.0 U                                                     | 1.0 U                                                    |
|                            | 1,1-Dichloroethene                                   |                        |              |              |               | 1.0 U                                                       | 1.0 U                                                     | 1.0 U                                                     | 1.0 U                                                    |
|                            | 1,2,4-Trichlorobenzene                               |                        |              |              |               | 5.0 U                                                       | 5.0 U                                                     | 5.0 U                                                     | 5.0 U                                                    |
|                            | 1,2-Dibromo-3-chloropropane (DBCP)                   |                        |              |              |               | 1.0 U                                                       | 1.0 U                                                     | 1.0 U                                                     | 1.0 U                                                    |
|                            | 1,2-Dibromoethane (Ethylene dibromide)               |                        |              |              |               | 1.0 U                                                       | 1.0 U                                                     | 1.0 U                                                     | 1.0 U                                                    |
|                            | 1,2-Dichlorobenzene                                  |                        |              |              |               | 1.0 U                                                       | 1.0 U                                                     | 1.0 U                                                     | 1.0 U                                                    |
|                            | 1,2-Dichloroethane                                   |                        |              |              |               | 1.0 U                                                       | 1.0 U                                                     | 1.0 U                                                     | 1.0 U                                                    |
|                            | 1,2-Dichloropropane                                  |                        |              |              |               | 1.0 U                                                       | 1.0 U                                                     | 1.0 U                                                     | 1.0 U                                                    |
|                            | 1,3-Dichlorobenzene                                  |                        |              |              |               | 1.0 U                                                       | 1.0 U                                                     | 1.0 U                                                     | 1.0 U                                                    |
|                            | 1,4-Dichlorobenzene                                  |                        |              |              |               | 1.0 U                                                       | 1.0 U                                                     | 1.0 U                                                     | 1.0 U                                                    |
|                            | 2-Butanone (Methyl ethyl ketone) (MEK)               |                        |              |              |               | 25 U                                                        | 25 U                                                      | 25 U                                                      | 25 U                                                     |
|                            | 2-Hexanone                                           |                        |              |              |               | 50 U                                                        | 50 U                                                      | 50 U                                                      | 50 U                                                     |
|                            | 4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK) |                        |              |              |               | 50 U                                                        | 50 U                                                      | 50 U                                                      | 50 U                                                     |
|                            | Acetone                                              |                        |              |              |               | 50 U                                                        | 50 U                                                      | 50 U                                                      | 50 U                                                     |
|                            | Benzene                                              |                        |              |              |               | 1.0 U                                                       | 1.0 U                                                     | 1.0 U                                                     | 1.0 U                                                    |
|                            | Bromodichloromethane                                 |                        |              |              |               | 1.0 U                                                       | 1.0 U                                                     | 1.0 U                                                     | 1.0 U                                                    |
|                            | Bromoform                                            |                        |              |              |               | 5.0 U                                                       | 5.0 U                                                     | 5.0 U                                                     | 5.0 U                                                    |
|                            | Bromomethane (Methyl bromide)                        |                        |              |              |               | 5.0 U                                                       | 5.0 U                                                     | 5.0 U                                                     | 5.0 U                                                    |
|                            | Carbon disulfide                                     |                        |              |              |               | 1.0 U                                                       | 1.0 U                                                     | 1.0 U                                                     | 1.0 U                                                    |
|                            | Carbon tetrachloride                                 |                        |              |              |               | 1.0 U                                                       | 1.0 U                                                     | 1.0 U                                                     | 1.0 U                                                    |
|                            | Chlorobenzene                                        |                        |              |              |               | 5.0 U                                                       | 5.0 U                                                     | 5.0 U                                                     | 5.0 U                                                    |
|                            | Chloroethane                                         |                        |              |              |               | 1.0 U                                                       | 1.0 U                                                     | 1.0 U                                                     | 1.0 U                                                    |
|                            | Chloroform (Trichloromethane)                        |                        |              |              |               | 5.0 U                                                       | 5.0 U                                                     | 5.0 U                                                     | 5.0 U                                                    |
|                            | Chloromethane (Methyl chloride)                      |                        |              |              |               | 1.0 U                                                       | 1.0 U                                                     | 1.0 U                                                     | 1.0 U                                                    |
|                            | cis-1,2-Dichloroethene                               |                        |              |              |               | 1.0 U                                                       | 1.0 U                                                     | 1.0 U                                                     | 1.0 U                                                    |
|                            | cis-1,3-Dichloropropene                              |                        |              |              |               | 1.0 U                                                       | 1.0 U                                                     | 1.0 U                                                     | 1.0 U                                                    |
|                            | Cyclohexane                                          |                        |              |              |               | 5.0 U                                                       | 5.0 U                                                     | 5.0 U                                                     | 5.0 U                                                    |
|                            | Dibromochloromethane                                 |                        |              |              |               | 5.0 U                                                       | 5.0 U                                                     | 5.0 U                                                     | 5.0 U                                                    |
|                            | Dichlorodifluoromethane (CFC-12)                     |                        |              |              |               | 5.0 U                                                       | 5.0 U                                                     | 5.0 U                                                     | 5.0 U                                                    |
|                            | Ethylbenzene                                         |                        |              |              |               | 1.0 U                                                       | 1.0 U                                                     | 1.0 U                                                     | 1.0 U                                                    |
|                            | Isopropyl benzene                                    |                        |              |              |               | 5.0 U                                                       | 5.0 U                                                     | 5.0 U                                                     | 5.0 U                                                    |

Table 2

Validated Analytical Summary Results  
2015 Monitoring Well and Culvert Sampling  
Racer Grand Rapids Stamping Site  
Wyoming, Michigan  
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| AOI                                                         | UNKNOWN<br>MW59-14      | AOI 25<br>MW6-03        | AOI 25<br>MW6-03            | AOI 25<br>87-10         |
|-------------------------------------------------------------|-------------------------|-------------------------|-----------------------------|-------------------------|
| Sample Location:                                            | WG-017360-102015-MR-005 | WG-017360-102015-MR-001 | WG-017360-102015-MR-002     | WG-017360-102115-MR-008 |
| Sample Identification:                                      | 10/20/2015              | 10/20/2015              | 10/20/2015                  | 10/21/2015              |
| Sample Date:                                                |                         |                         |                             |                         |
| Sample Type:                                                |                         |                         |                             |                         |
| Segment_Depth                                               | (30-35) ft BGS          | (13-18) ft BGS          | Duplicate<br>(13-18) ft BGS | (29-32) ft BGS          |
| Units                                                       |                         |                         |                             |                         |
| Volatile Organic Compounds                                  |                         |                         |                             |                         |
| Methyl acetate                                              | 10 U                    | 10 U                    | 10 U                        | 10 U                    |
| Methyl cyclohexane                                          | 1.0 U                   | 1.0 U                   | 1.0 U                       | 1.0 U                   |
| Methyl tert butyl ether (MTBE)                              | 5.0 U                   | 5.0 U                   | 5.0 U                       | 5.0 U                   |
| Methylene chloride                                          | 5.0 U                   | 5.0 U                   | 5.0 U                       | 5.0 U                   |
| Styrene                                                     | 1.0 U                   | 1.0 U                   | 1.0 U                       | 1.0 U                   |
| Tetrachloroethene                                           | 1.0 U                   | 1.0 U                   | 1.0 U                       | 1.0 U                   |
| Toluene                                                     | 1.0 U                   | 1.0 U                   | 1.0 U                       | 1.0 U                   |
| trans-1,2-Dichloroethene                                    | 1.0 U                   | 1.0 U                   | 1.0 U                       | 1.0 U                   |
| trans-1,3-Dichloropropene                                   | 1.0 U                   | 1.0 U                   | 1.0 U                       | 1.0 U                   |
| Trichloroethene                                             | 1.0 U                   | 1.0 U                   | 1.0 U                       | 2.6                     |
| Trichlorofluoromethane (CFC-11)                             | 1.0 U                   | 1.0 U                   | 1.0 U                       | 1.0 U                   |
| Trifluorotrichloroethane (CFC-113)                          | 1.0 U                   | 1.0 U                   | 1.0 U                       | 1.0 U                   |
| Vinyl chloride                                              | 1.0 U                   | 1.0 U                   | 1.0 U                       | 1.0 U                   |
| Xylenes (total)                                             | 3.0 U                   | 3.0 U                   | 3.0 U                       | 3.0 U                   |
| Semi-Volatile Organic Compounds                             |                         |                         |                             |                         |
| 2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether) | --                      | --                      | --                          | --                      |
| 2,4,5-Trichlorophenol                                       | --                      | --                      | --                          | --                      |
| 2,4,6-Trichlorophenol                                       | --                      | --                      | --                          | --                      |
| 2,4-Dichlorophenol                                          | --                      | --                      | --                          | --                      |
| 2,4-Dimethylphenol                                          | --                      | --                      | --                          | --                      |
| 2,4-Dinitrophenol                                           | --                      | --                      | --                          | --                      |
| 2,4-Dinitrotoluene                                          | --                      | --                      | --                          | --                      |
| 2,6-Dinitrotoluene                                          | --                      | --                      | --                          | --                      |
| 2-Chloronaphthalene                                         | --                      | --                      | --                          | --                      |
| 2-Chlorophenol                                              | --                      | --                      | --                          | --                      |
| 2-Methylnaphthalene                                         | --                      | --                      | --                          | --                      |
| 2-Methylphenol                                              | --                      | --                      | --                          | --                      |
| 2-Nitroaniline                                              | --                      | --                      | --                          | --                      |
| 2-Nitrophenol                                               | --                      | --                      | --                          | --                      |
| 3&4-Methylphenol                                            | --                      | --                      | --                          | --                      |
| 3,3'-Dichlorobenzidine                                      | --                      | --                      | --                          | --                      |
| 3-Nitroaniline                                              | --                      | --                      | --                          | --                      |
| 4,6-Dinitro-2-methylphenol                                  | --                      | --                      | --                          | --                      |
| 4-Bromophenyl phenyl ether                                  | --                      | --                      | --                          | --                      |
| 4-Chloro-3-methylphenol                                     | --                      | --                      | --                          | --                      |
| 4-Chloroaniline                                             | --                      | --                      | --                          | --                      |
| 4-Chlorophenyl phenyl ether                                 | --                      | --                      | --                          | --                      |
| 4-Nitroaniline                                              | --                      | --                      | --                          | --                      |
| 4-Nitrophenol                                               | --                      | --                      | --                          | --                      |
| Acenaphthene                                                | --                      | --                      | --                          | --                      |

Table 2

Validated Analytical Summary Results  
2015 Monitoring Well and Culvert Sampling  
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Wyoming, Michigan  
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| AOI                             | Sample Location:                  | Sample Identification: | Sample Date: | Sample Type: | Segment_Depth | Units | UNKNOWN<br>MW59-14<br>WG-017360-102015-MR-005<br>10/20/2015<br>(30-35) ft BGS | AOI 25<br>MW6-03<br>WG-017360-102015-MR-001<br>10/20/2015<br>(13-18) ft BGS | AOI 25<br>MW6-03<br>WG-017360-102015-MR-002<br>10/20/2015<br>Duplicate<br>(13-18) ft BGS | AOI 25<br>87-10<br>WG-017360-102115-MR-008<br>10/21/2015<br>(29-32) ft BGS |
|---------------------------------|-----------------------------------|------------------------|--------------|--------------|---------------|-------|-------------------------------------------------------------------------------|-----------------------------------------------------------------------------|------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|
| Semi-Volatile Organic Compounds |                                   |                        |              |              |               |       |                                                                               |                                                                             |                                                                                          |                                                                            |
|                                 | Acenaphthylene                    |                        |              |              |               | ug/L  | --                                                                            | --                                                                          | --                                                                                       | --                                                                         |
|                                 | Acetophenone                      |                        |              |              |               | ug/L  | --                                                                            | --                                                                          | --                                                                                       | --                                                                         |
|                                 | Anthracene                        |                        |              |              |               | ug/L  | --                                                                            | --                                                                          | --                                                                                       | --                                                                         |
|                                 | Atrazine                          |                        |              |              |               | ug/L  | --                                                                            | --                                                                          | --                                                                                       | --                                                                         |
|                                 | Benzaldehyde                      |                        |              |              |               | ug/L  | --                                                                            | --                                                                          | --                                                                                       | --                                                                         |
|                                 | Benzo(a)anthracene                |                        |              |              |               | ug/L  | --                                                                            | --                                                                          | --                                                                                       | --                                                                         |
|                                 | Benzo(a)pyrene                    |                        |              |              |               | ug/L  | --                                                                            | --                                                                          | --                                                                                       | --                                                                         |
|                                 | Benzo(b)fluoranthene              |                        |              |              |               | ug/L  | --                                                                            | --                                                                          | --                                                                                       | --                                                                         |
|                                 | Benzo(g,h,i)perylene              |                        |              |              |               | ug/L  | --                                                                            | --                                                                          | --                                                                                       | --                                                                         |
|                                 | Benzo(k)fluoranthene              |                        |              |              |               | ug/L  | --                                                                            | --                                                                          | --                                                                                       | --                                                                         |
|                                 | Biphenyl (1,1-Biphenyl)           |                        |              |              |               | ug/L  | --                                                                            | --                                                                          | --                                                                                       | --                                                                         |
|                                 | bis(2-Chloroethoxy)methane        |                        |              |              |               | ug/L  | --                                                                            | --                                                                          | --                                                                                       | --                                                                         |
|                                 | bis(2-Chloroethyl)ether           |                        |              |              |               | ug/L  | --                                                                            | --                                                                          | --                                                                                       | --                                                                         |
|                                 | bis(2-Ethylhexyl)phthalate (DEHP) |                        |              |              |               | ug/L  | --                                                                            | --                                                                          | --                                                                                       | --                                                                         |
|                                 | Butyl benzylphthalate (BBP)       |                        |              |              |               | ug/L  | --                                                                            | --                                                                          | --                                                                                       | --                                                                         |
|                                 | Caprolactam                       |                        |              |              |               | ug/L  | --                                                                            | --                                                                          | --                                                                                       | --                                                                         |
|                                 | Carbazole                         |                        |              |              |               | ug/L  | --                                                                            | --                                                                          | --                                                                                       | --                                                                         |
|                                 | Chrysene                          |                        |              |              |               | ug/L  | --                                                                            | --                                                                          | --                                                                                       | --                                                                         |
|                                 | Dibenz(a,h)anthracene             |                        |              |              |               | ug/L  | --                                                                            | --                                                                          | --                                                                                       | --                                                                         |
|                                 | Dibenzofuran                      |                        |              |              |               | ug/L  | --                                                                            | --                                                                          | --                                                                                       | --                                                                         |
|                                 | Diethyl phthalate                 |                        |              |              |               | ug/L  | --                                                                            | --                                                                          | --                                                                                       | --                                                                         |
|                                 | Dimethyl phthalate                |                        |              |              |               | ug/L  | --                                                                            | --                                                                          | --                                                                                       | --                                                                         |
|                                 | Di-n-butylphthalate (DBP)         |                        |              |              |               | ug/L  | --                                                                            | --                                                                          | --                                                                                       | --                                                                         |
|                                 | Di-n-octyl phthalate (DnOP)       |                        |              |              |               | ug/L  | --                                                                            | --                                                                          | --                                                                                       | --                                                                         |
|                                 | Fluoranthene                      |                        |              |              |               | ug/L  | --                                                                            | --                                                                          | --                                                                                       | --                                                                         |
|                                 | Fluorene                          |                        |              |              |               | ug/L  | --                                                                            | --                                                                          | --                                                                                       | --                                                                         |
|                                 | Hexachlorobenzene                 |                        |              |              |               | ug/L  | --                                                                            | --                                                                          | --                                                                                       | --                                                                         |
|                                 | Hexachlorobutadiene               |                        |              |              |               | ug/L  | --                                                                            | --                                                                          | --                                                                                       | --                                                                         |
|                                 | Hexachlorocyclopentadiene         |                        |              |              |               | ug/L  | --                                                                            | --                                                                          | --                                                                                       | --                                                                         |
|                                 | Hexachloroethane                  |                        |              |              |               | ug/L  | --                                                                            | --                                                                          | --                                                                                       | --                                                                         |
|                                 | Indeno(1,2,3-cd)pyrene            |                        |              |              |               | ug/L  | --                                                                            | --                                                                          | --                                                                                       | --                                                                         |
|                                 | Isophorone                        |                        |              |              |               | ug/L  | --                                                                            | --                                                                          | --                                                                                       | --                                                                         |
|                                 | Naphthalene                       |                        |              |              |               | ug/L  | --                                                                            | --                                                                          | --                                                                                       | --                                                                         |
|                                 | Nitrobenzene                      |                        |              |              |               | ug/L  | --                                                                            | --                                                                          | --                                                                                       | --                                                                         |
|                                 | N-Nitrosodi-n-propylamine         |                        |              |              |               | ug/L  | --                                                                            | --                                                                          | --                                                                                       | --                                                                         |
|                                 | N-Nitrosodiphenylamine            |                        |              |              |               | ug/L  | --                                                                            | --                                                                          | --                                                                                       | --                                                                         |
|                                 | Pentachlorophenol                 |                        |              |              |               | ug/L  | --                                                                            | --                                                                          | --                                                                                       | --                                                                         |
|                                 | Phenanthrene                      |                        |              |              |               | ug/L  | --                                                                            | --                                                                          | --                                                                                       | --                                                                         |
|                                 | Phenol                            |                        |              |              |               | ug/L  | --                                                                            | --                                                                          | --                                                                                       | --                                                                         |
|                                 | Pyrene                            |                        |              |              |               | ug/L  | --                                                                            | --                                                                          | --                                                                                       | --                                                                         |

Table 2

Validated Analytical Summary Results  
2015 Monitoring Well and Culvert Sampling  
Racer Grand Rapids Stamping Site  
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| AOI                    | UNKNOWN                 | AOI 25                  | AOI 25                  | AOI 25                  |
|------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Sample Location:       | MW59-14                 | MW6-03                  | MW6-03                  | 87-10                   |
| Sample Identification: | WG-017360-102015-MR-005 | WG-017360-102015-MR-001 | WG-017360-102015-MR-002 | WG-017360-102115-MR-008 |
| Sample Date:           | 10/20/2015              | 10/20/2015              | 10/20/2015              | 10/21/2015              |
| Sample Type:           |                         |                         | Duplicate               |                         |
| Segment_Depth          | (30-35) ft BGS          | (13-18) ft BGS          | (13-18) ft BGS          | (29-32) ft BGS          |
| Metals                 | Units                   |                         |                         |                         |
| Antimony               | 2 U                     | --                      | --                      | --                      |
| Arsenic                | 1.8 J                   | --                      | --                      | --                      |
| Barium                 | 100                     | --                      | --                      | --                      |
| Beryllium              | 1 U                     | --                      | --                      | --                      |
| Cadmium                | 1 U                     | --                      | --                      | --                      |
| Chromium               | 10 U                    | --                      | --                      | --                      |
| Cobalt                 | 0.32 J                  | --                      | --                      | --                      |
| Copper                 | 0.94 J                  | --                      | --                      | --                      |
| Iron                   | 400                     | --                      | --                      | --                      |
| Lead                   | 0.28 J                  | --                      | --                      | --                      |
| Manganese              | 38 J                    | --                      | --                      | --                      |
| Mercury                | 0.2 U                   | --                      | --                      | --                      |
| Molybdenum             | 0.72 J                  | --                      | --                      | --                      |
| Nickel                 | 2.7 J                   | --                      | --                      | --                      |
| Selenium               | 5 U                     | --                      | --                      | --                      |
| Silver                 | 0.2 U                   | --                      | --                      | --                      |
| Thallium               | 2 U                     | --                      | --                      | --                      |
| Vanadium               | 4 U                     | --                      | --                      | --                      |
| Zinc                   | 2.6 J                   | --                      | --                      | --                      |



Table 2

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| AOI                                                  | AOI 25, AOI 4.3<br>87-8 | AOI 25<br>MW10-04       | AOI 25<br>MW4-03        | AOI 25<br>MW8-04        |
|------------------------------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Sample Location:                                     | WG-017360-102115-MR-013 | WG-017360-102115-MR-012 | WG-017360-102115-MR-011 | WG-017360-102115-MR-009 |
| Sample Identification:                               | 10/21/2015              | 10/21/2015              | 10/21/2015              | 10/21/2015              |
| Sample Date:                                         |                         |                         |                         |                         |
| Sample Type:                                         |                         |                         |                         |                         |
| Segment_Depth                                        | (19.7-22.7) ft BGS      | (33-38) ft BGS          | (62-57) ft BGS          | (30-35) ft BGS          |
| Units                                                |                         |                         |                         |                         |
| Volatiles Organic Compounds                          |                         |                         |                         |                         |
| 1,1,1-Trichloroethane                                | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,1,2,2-Tetrachloroethane                            | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,1,2-Trichloroethane                                | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,1-Dichloroethane                                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,1-Dichloroethene                                   | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| 1,2,4-Trichlorobenzene                               | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,2-Dibromo-3-chloropropane (DBCP)                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,2-Dibromoethane (Ethylene dibromide)               | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,2-Dichlorobenzene                                  | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,2-Dichloroethane                                   | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,2-Dichloropropane                                  | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,3-Dichlorobenzene                                  | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,4-Dichlorobenzene                                  | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 2-Butanone (Methyl ethyl ketone) (MEK)               | 25 U                    | 25 U                    | 25 U                    | 25 U                    |
| 2-Hexanone                                           | 50 U                    | 50 U                    | 50 U                    | 50 U                    |
| 4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK) | 50 U                    | 50 U                    | 50 U                    | 50 U                    |
| Acetone                                              | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Benzene                                              | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Bromodichloromethane                                 | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Bromoform                                            | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| Bromomethane (Methyl bromide)                        | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| Carbon disulfide                                     | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Carbon tetrachloride                                 | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Chlorobenzene                                        | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| Chloroethane                                         | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Chloroform (Trichloromethane)                        | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| Chloromethane (Methyl chloride)                      | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| cis-1,2-Dichloroethene                               | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| cis-1,3-Dichloropropene                              | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Cyclohexane                                          | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| Dibromochloromethane                                 | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| Dichlorodifluoromethane (CFC-12)                     | 1.0 U                   | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Ethylbenzene                                         | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| Isopropyl benzene                                    | 5.0 U                   | 5.0 U                   | 5.0 U                   | 5.0 U                   |

Table 2

Validated Analytical Summary Results  
2015 Monitoring Well and Culvert Sampling  
Racer Grand Rapids Stamping Site  
Wyoming, Michigan  
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| AOI                                                         | AOI 25, AOI 4.3<br>87-8 | AOI 25<br>MW10-04<br>WG-017360-102115-MR-013<br>10/21/2015 | AOI 25<br>MW4-03<br>WG-017360-102115-MR-012<br>10/21/2015 | AOI 25<br>MW8-04<br>WG-017360-102115-MR-009<br>10/21/2015 |
|-------------------------------------------------------------|-------------------------|------------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------|
| Sample Location:                                            |                         |                                                            |                                                           |                                                           |
| Sample Identification:                                      |                         |                                                            |                                                           |                                                           |
| Sample Date:                                                |                         |                                                            |                                                           |                                                           |
| Sample Type:                                                |                         |                                                            |                                                           |                                                           |
| Segment_Depth                                               | (19.7-22.7) ft BGS      | (33-38) ft BGS                                             | (52-57) ft BGS                                            | (30-35) ft BGS                                            |
| Units                                                       |                         |                                                            |                                                           |                                                           |
| <b>Volatile Organic Compounds</b>                           |                         |                                                            |                                                           |                                                           |
| Methyl acetate                                              | 10 U                    | 10 U                                                       | 10 U                                                      | 10 U                                                      |
| Methyl cyclohexane                                          | 1.0 U                   | 1.0 U                                                      | 1.0 U                                                     | 1.0 U                                                     |
| Methyl tert butyl ether (MTBE)                              | 5.0 U                   | 5.0 U                                                      | 5.0 U                                                     | 5.0 U                                                     |
| Methylene chloride                                          | 5.0 U                   | 5.0 U                                                      | 5.0 U                                                     | 5.0 U                                                     |
| Styrene                                                     | 1.0 U                   | 1.0 U                                                      | 1.0 U                                                     | 1.0 U                                                     |
| Tetrachloroethene                                           | 1.0 U                   | 1.0 U                                                      | 0.50 J                                                    | 1.0 U                                                     |
| Toluene                                                     | 1.0 U                   | 1.0 U                                                      | 1.0 U                                                     | 1.0 U                                                     |
| trans-1,2-Dichloroethene                                    | 1.0 U                   | 1.0 U                                                      | 1.0 U                                                     | 1.0 U                                                     |
| trans-1,3-Dichloropropene                                   | 1.0 U                   | 1.0 U                                                      | 1.0 U                                                     | 1.0 U                                                     |
| Trichloroethene                                             | 1.0 U                   | 3.1                                                        | 1.0 U                                                     | 1.0 U                                                     |
| Trichlorofluoromethane (CFC-11)                             | 1.0 U                   | 1.0 U                                                      | 1.0 U                                                     | 1.0 U                                                     |
| Trifluorotrichloroethane (CFC-113)                          | 1.0 U                   | 1.0 U                                                      | 1.0 U                                                     | 1.0 U                                                     |
| Vinyl chloride                                              | 1.0 U                   | 1.0 U                                                      | 1.0 U                                                     | 1.0 U                                                     |
| Xylenes (total)                                             | 3.0 U                   | 3.0 U                                                      | 3.0 U                                                     | 3.0 U                                                     |
| <b>Semi-Volatile Organic Compounds</b>                      |                         |                                                            |                                                           |                                                           |
| 2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether) | --                      | --                                                         | --                                                        | --                                                        |
| 2,4,5-Trichlorophenol                                       | --                      | --                                                         | --                                                        | --                                                        |
| 2,4,6-Trichlorophenol                                       | --                      | --                                                         | --                                                        | --                                                        |
| 2,4-Dichlorophenol                                          | --                      | --                                                         | --                                                        | --                                                        |
| 2,4-Dimethylphenol                                          | --                      | --                                                         | --                                                        | --                                                        |
| 2,4-Dinitrophenol                                           | --                      | --                                                         | --                                                        | --                                                        |
| 2,4-Dinitrotoluene                                          | --                      | --                                                         | --                                                        | --                                                        |
| 2,6-Dinitrotoluene                                          | --                      | --                                                         | --                                                        | --                                                        |
| 2-Chloronaphthalene                                         | --                      | --                                                         | --                                                        | --                                                        |
| 2-Chlorophenol                                              | --                      | --                                                         | --                                                        | --                                                        |
| 2-Methylnaphthalene                                         | --                      | --                                                         | --                                                        | --                                                        |
| 2-Methylphenol                                              | --                      | --                                                         | --                                                        | --                                                        |
| 2-Nitroaniline                                              | --                      | --                                                         | --                                                        | --                                                        |
| 2-Nitrophenol                                               | --                      | --                                                         | --                                                        | --                                                        |
| 3,3'-Dichlorobenzidine                                      | --                      | --                                                         | --                                                        | --                                                        |
| 3-Nitroaniline                                              | --                      | --                                                         | --                                                        | --                                                        |
| 4,6-Dinitro-2-methylphenol                                  | --                      | --                                                         | --                                                        | --                                                        |
| 4-Bromophenyl phenyl ether                                  | --                      | --                                                         | --                                                        | --                                                        |
| 4-Chloro-3-methylphenol                                     | --                      | --                                                         | --                                                        | --                                                        |
| 4-Chloroaniline                                             | --                      | --                                                         | --                                                        | --                                                        |
| 4-Chlorophenyl phenyl ether                                 | --                      | --                                                         | --                                                        | --                                                        |
| 4-Nitroaniline                                              | --                      | --                                                         | --                                                        | --                                                        |
| 4-Nitrophenol                                               | --                      | --                                                         | --                                                        | --                                                        |
| Acenaphthene                                                | --                      | --                                                         | --                                                        | --                                                        |

Table 2

Validated Analytical Summary Results  
2015 Monitoring Well and Culvert Sampling  
Racer Grand Rapids Stamping Site  
Wyoming, Michigan  
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| AOI                               | AOI 25, AOI 4.3<br>87-8 | AOI 25<br>MW10-04       | AOI 25<br>MW4-03        | AOI 25<br>MW8-04        |
|-----------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Sample Location:                  | WG-017360-102115-MR-013 | WG-017360-102115-MR-012 | WG-017360-102115-MR-011 | WG-017360-102115-MR-009 |
| Sample Date:                      | 10/21/2015              | 10/21/2015              | 10/21/2015              | 10/21/2015              |
| Sample Type:                      |                         |                         |                         |                         |
| Segment_Depth                     | (19.7-22.7) ft BGS      | (33-38) ft BGS          | (52-57) ft BGS          | (30-35) ft BGS          |
| Semi-Volatile Organic Compounds   |                         |                         |                         |                         |
| Acenaphthylene                    | ug/L                    | --                      | --                      | --                      |
| Acetophenone                      | ug/L                    | --                      | --                      | --                      |
| Anthracene                        | ug/L                    | --                      | --                      | --                      |
| Atrazine                          | ug/L                    | --                      | --                      | --                      |
| Benzaldehyde                      | ug/L                    | --                      | --                      | --                      |
| Benzo(a)anthracene                | ug/L                    | --                      | --                      | --                      |
| Benzo(a)pyrene                    | ug/L                    | --                      | --                      | --                      |
| Benzo(b)fluoranthene              | ug/L                    | --                      | --                      | --                      |
| Benzo(g,h,i)perylene              | ug/L                    | --                      | --                      | --                      |
| Benzo(k)fluoranthene              | ug/L                    | --                      | --                      | --                      |
| Biphenyl (1,1-Biphenyl)           | ug/L                    | --                      | --                      | --                      |
| bis(2-Chloroethoxy)methane        | ug/L                    | --                      | --                      | --                      |
| bis(2-Ethylhexyl)phthalate (DEHP) | ug/L                    | --                      | --                      | --                      |
| Butyl benzylphthalate (BBP)       | ug/L                    | --                      | --                      | --                      |
| Caprolactam                       | ug/L                    | --                      | --                      | --                      |
| Carbazole                         | ug/L                    | --                      | --                      | --                      |
| Chrysene                          | ug/L                    | --                      | --                      | --                      |
| Dibenz(a,h)anthracene             | ug/L                    | --                      | --                      | --                      |
| Dibenzofuran                      | ug/L                    | --                      | --                      | --                      |
| Diethyl phthalate                 | ug/L                    | --                      | --                      | --                      |
| Dimethyl phthalate                | ug/L                    | --                      | --                      | --                      |
| Di-n-butylphthalate (DBP)         | ug/L                    | --                      | --                      | --                      |
| Di-n-octyl phthalate (DnOP)       | ug/L                    | --                      | --                      | --                      |
| Fluoranthene                      | ug/L                    | --                      | --                      | --                      |
| Fluorene                          | ug/L                    | --                      | --                      | --                      |
| Hexachlorobenzene                 | ug/L                    | --                      | --                      | --                      |
| Hexachlorobutadiene               | ug/L                    | --                      | --                      | --                      |
| Hexachlorocyclopentadiene         | ug/L                    | --                      | --                      | --                      |
| Hexachloroethane                  | ug/L                    | --                      | --                      | --                      |
| Indeno(1,2,3-cd)pyrene            | ug/L                    | --                      | --                      | --                      |
| Isophorone                        | ug/L                    | --                      | --                      | --                      |
| Naphthalene                       | ug/L                    | --                      | --                      | --                      |
| Nitrobenzene                      | ug/L                    | --                      | --                      | --                      |
| N-Nitrosodi-n-propylamine         | ug/L                    | --                      | --                      | --                      |
| N-Nitrosodiphenylamine            | ug/L                    | --                      | --                      | --                      |
| Pentachlorophenol                 | ug/L                    | --                      | --                      | --                      |
| Phenanthrene                      | ug/L                    | --                      | --                      | --                      |
| Phenol                            | ug/L                    | --                      | --                      | --                      |
| Pyrene                            | ug/L                    | --                      | --                      | --                      |



Table 2

Validated Analytical Summary Results  
2015 Monitoring Well and Culvert Sampling  
Racer Grand Rapids Stamping Site  
Wyoming, Michigan  
October 2015

| AOI                    | AOI 25, AOI 4.3<br>87-8 | AOI 25<br>MW10-04       | AOI 25<br>MW4-03        | AOI 25<br>MW8-04        |
|------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Sample Location:       | WG-017360-102115-MR-013 | WG-017360-102115-MR-012 | WG-017360-102115-MR-011 | WG-017360-102115-MR-009 |
| Sample Identification: | 10/21/2015              | 10/21/2015              | 10/21/2015              | 10/21/2015              |
| Sample Date:           |                         |                         |                         |                         |
| Sample Type:           |                         |                         |                         |                         |
| Segment_Depth          | (19.7-22.7) ft BGS      | (33-38) ft BGS          | (52-57) ft BGS          | (30-35) ft BGS          |
| Metals                 |                         |                         |                         |                         |
| Antimony               | ug/L                    | ug/L                    | ug/L                    | ug/L                    |
| Arsenic                | ug/L                    | ug/L                    | ug/L                    | ug/L                    |
| Barium                 | ug/L                    | ug/L                    | ug/L                    | ug/L                    |
| Beryllium              | ug/L                    | ug/L                    | ug/L                    | ug/L                    |
| Cadmium                | ug/L                    | ug/L                    | ug/L                    | ug/L                    |
| Chromium               | ug/L                    | ug/L                    | ug/L                    | ug/L                    |
| Cobalt                 | ug/L                    | ug/L                    | ug/L                    | ug/L                    |
| Copper                 | ug/L                    | ug/L                    | ug/L                    | ug/L                    |
| Iron                   | ug/L                    | ug/L                    | ug/L                    | ug/L                    |
| Lead                   | ug/L                    | ug/L                    | ug/L                    | ug/L                    |
| Manganese              | ug/L                    | ug/L                    | ug/L                    | ug/L                    |
| Mercury                | ug/L                    | ug/L                    | ug/L                    | ug/L                    |
| Molybdenum             | ug/L                    | ug/L                    | ug/L                    | ug/L                    |
| Nickel                 | ug/L                    | ug/L                    | ug/L                    | ug/L                    |
| Selenium               | ug/L                    | ug/L                    | ug/L                    | ug/L                    |
| Silver                 | ug/L                    | ug/L                    | ug/L                    | ug/L                    |
| Thallium               | ug/L                    | ug/L                    | ug/L                    | ug/L                    |
| Vanadium               | ug/L                    | ug/L                    | ug/L                    | ug/L                    |
| Zinc                   | ug/L                    | ug/L                    | ug/L                    | ug/L                    |

Table 2

Validated Analytical Summary Results  
2015 Monitoring Well and Culvert Sampling  
Racer Grand Rapids Stamping Site  
Wyoming, Michigan  
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| AOI                                                  | AOI 25<br>MW9-04        | AOI 6, AOI 25, AOI 1, AOI 4.1<br>85-6 | AOI 25, AOI 4.3<br>86-3 | AOI 25, AOI 3<br>MW11D-04 |
|------------------------------------------------------|-------------------------|---------------------------------------|-------------------------|---------------------------|
| Sample Location:                                     | WG-017360-102115-MR-010 | WG-017360-102215-MR-020               | WG-017360-102215-MR-016 | WG-017360-102215-MR-015   |
| Sample Identification:                               | 10/21/2015              | 10/22/2015                            | 10/22/2015              | 10/22/2015                |
| Sample Date:                                         |                         |                                       |                         |                           |
| Sample Type:                                         |                         |                                       |                         |                           |
| Segment_Depth                                        | (43-48) ft BGS          | (19.5-24.5) ft BGS                    | (41.5-46.5) ft BGS      | (40-45) ft BGS            |
| Units                                                |                         |                                       |                         |                           |
| Volatile Organic Compounds                           |                         |                                       |                         |                           |
| 1,1,1-Trichloroethane                                | 1.0 U                   | 1.0 U                                 | 1.0 U                   | 1.0 U                     |
| 1,1,2,2-Tetrachloroethane                            | 1.0 U                   | 1.0 U                                 | 1.0 U                   | 1.0 U                     |
| 1,1,2-Trichloroethane                                | 1.0 U                   | 1.0 U                                 | 1.0 U                   | 1.0 U                     |
| 1,1-Dichloroethane                                   | 1.0 U                   | 1.0 U                                 | 1.0 U                   | 1.0 U                     |
| 1,1-Dichloroethene                                   | 1.0 U                   | 1.0 U                                 | 1.0 U                   | 1.0 U                     |
| 1,2,4-Trichlorobenzene                               | 5.0 U                   | 5.0 U                                 | 5.0 U                   | 5.0 U                     |
| 1,2-Dibromo-3-chloropropane (DBCP)                   | 1.0 U                   | 1.0 U                                 | 1.0 U                   | 1.0 U                     |
| 1,2-Dibromoethane (Ethylene dibromide)               | 1.0 U                   | 1.0 U                                 | 1.0 U                   | 1.0 U                     |
| 1,2-Dichlorobenzene                                  | 1.0 U                   | 1.0 U                                 | 1.0 U                   | 1.0 U                     |
| 1,2-Dichloroethane                                   | 1.0 U                   | 1.0 U                                 | 1.0 U                   | 1.0 U                     |
| 1,2-Dichloropropane                                  | 1.0 U                   | 1.0 U                                 | 1.0 U                   | 1.0 U                     |
| 1,3-Dichlorobenzene                                  | 1.0 U                   | 1.0 U                                 | 1.0 U                   | 1.0 U                     |
| 1,4-Dichlorobenzene                                  | 1.0 U                   | 1.0 U                                 | 1.0 U                   | 1.0 U                     |
| 2-Butanone (Methyl ethyl ketone) (MEK)               | 25 U                    | 25 U                                  | 25 U                    | 25 U                      |
| 2-Hexanone                                           | 50 U                    | 50 U                                  | 50 U                    | 50 U                      |
| 4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK) | 50 U                    | 50 U                                  | 50 U                    | 50 U                      |
| Acetone                                              | 50 U                    | 50 U                                  | 50 U                    | 50 U                      |
| Benzene                                              | 1.0 U                   | 1.0 U                                 | 1.0 U                   | 1.0 U                     |
| Bromodichloromethane                                 | 1.0 U                   | 1.0 U                                 | 1.0 U                   | 1.0 U                     |
| Bromoform                                            | 1.0 U                   | 1.0 U                                 | 1.0 U                   | 1.0 U                     |
| Bromomethane (Methyl bromide)                        | 5.0 U                   | 5.0 U                                 | 5.0 U                   | 5.0 U                     |
| Carbon disulfide                                     | 5.0 U                   | 5.0 U                                 | 5.0 U                   | 5.0 U                     |
| Carbon tetrachloride                                 | 1.0 U                   | 1.0 U                                 | 1.0 U                   | 1.0 U                     |
| Chlorobenzene                                        | 1.0 U                   | 1.0 U                                 | 1.0 U                   | 1.0 U                     |
| Chloroethane                                         | 5.0 U                   | 5.0 U                                 | 5.0 U                   | 5.0 U                     |
| Chloroform (Trichloromethane)                        | 1.0 U                   | 1.0 U                                 | 1.0 U                   | 1.2 U                     |
| Chloromethane (Methyl chloride)                      | 5.0 U                   | 5.0 U                                 | 5.0 U                   | 5.0 U                     |
| cis-1,2-Dichloroethene                               | 1.0 U                   | 1.0 U                                 | 1.8                     | 1.0 U                     |
| cis-1,3-Dichloropropene                              | 1.0 U                   | 1.0 U                                 | 1.0 U                   | 1.0 U                     |
| Cyclohexane                                          | 1.0 U                   | 1.0 U                                 | 1.0 U                   | 1.0 U                     |
| Dibromochloromethane                                 | 5.0 U                   | 5.0 U                                 | 5.0 U                   | 5.0 U                     |
| Dichlorodifluoromethane (CFC-12)                     | 5.0 U                   | 5.0 U                                 | 5.0 U                   | 5.0 U                     |
| Ethylbenzene                                         | 1.0 U                   | 1.0 U                                 | 1.0 U                   | 1.0 U                     |
| Isopropyl benzene                                    | 5.0 U                   | 5.0 U                                 | 5.0 U                   | 5.0 U                     |

Table 2

Validated Analytical Summary Results  
2015 Monitoring Well and Culvert Sampling  
Racer Grand Rapids Stamping Site  
Wyoming, Michigan  
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| AOI                                                         | AOI 25<br>MW9-04<br>WG-017360-102115-MR-010<br>10/21/2015 | AOI 6, AOI 25, AOI 1, AOI 4.1<br>85-6<br>WG-017360-102215-MR-020<br>10/22/2015 | AOI 25, AOI 4.3<br>86-3<br>WG-017360-102215-MR-016<br>10/22/2015 | AOI 25, AOI 3<br>MW11D-04<br>WG-017360-102215-MR-015<br>10/22/2015 |
|-------------------------------------------------------------|-----------------------------------------------------------|--------------------------------------------------------------------------------|------------------------------------------------------------------|--------------------------------------------------------------------|
| Sample Location:                                            |                                                           |                                                                                |                                                                  |                                                                    |
| Sample Identification:                                      |                                                           |                                                                                |                                                                  |                                                                    |
| Sample Date:                                                |                                                           |                                                                                |                                                                  |                                                                    |
| Sample Type:                                                |                                                           |                                                                                |                                                                  |                                                                    |
| Segment_Depth                                               |                                                           |                                                                                |                                                                  |                                                                    |
|                                                             | (43-48) ft BGS                                            | (19.5-24.5) ft BGS                                                             | (41.5-46.5) ft BGS                                               | (40-45) ft BGS                                                     |
| Units                                                       |                                                           |                                                                                |                                                                  |                                                                    |
| <b>Volatile Organic Compounds</b>                           |                                                           |                                                                                |                                                                  |                                                                    |
| Methyl acetate                                              | 10 U                                                      | 10 U                                                                           | 10 U                                                             | 10 U                                                               |
| Methyl cyclohexane                                          | 1.0 U                                                     | 1.0 U                                                                          | 1.0 U                                                            | 1.0 U                                                              |
| Methyl tert butyl ether (MTBE)                              | 5.0 U                                                     | 5.0 U                                                                          | 5.0 U                                                            | 5.0 U                                                              |
| Methylene chloride                                          | 5.0 U                                                     | 5.0 U                                                                          | 5.0 U                                                            | 5.0 U                                                              |
| Styrene                                                     | 1.0 U                                                     | 1.0 U                                                                          | 1.0 U                                                            | 1.0 U                                                              |
| Tetrachloroethene                                           | 1.0 U                                                     | 9.3                                                                            | 1.0 U                                                            | 1.0 U                                                              |
| Toluene                                                     | 1.0 U                                                     | 1.0 U                                                                          | 1.0 U                                                            | 1.0 U                                                              |
| trans-1,2-Dichloroethene                                    | 1.0 U                                                     | 1.0 U                                                                          | 1.0 U                                                            | 1.0 U                                                              |
| trans-1,3-Dichloropropene                                   | 1.0 U                                                     | 1.0 U                                                                          | 1.0 U                                                            | 1.0 U                                                              |
| Trichloroethene                                             | 1.0 U                                                     | 1.9                                                                            | 2.8                                                              | 2.3                                                                |
| Trichlorofluoromethane (CFC-11)                             | 1.0 U                                                     | 1.0 U                                                                          | 1.0 U                                                            | 1.0 U                                                              |
| Trifluorotrichloroethane (CFC-113)                          | 1.0 U                                                     | 1.0 U                                                                          | 1.0 U                                                            | 1.0 U                                                              |
| Vinyl chloride                                              | 1.0 U                                                     | 1.0 U                                                                          | 0.87 J                                                           | 1.0 U                                                              |
| Xylenes (total)                                             | 3.0 U                                                     | 3.0 U                                                                          | 3.0 U                                                            | 3.0 U                                                              |
| <b>Semi-Volatile Organic Compounds</b>                      |                                                           |                                                                                |                                                                  |                                                                    |
| 2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether) | 5.0 U                                                     | 5.0 U                                                                          | 5.0 U                                                            | 5.0 U                                                              |
| 2,4,5-Trichlorophenol                                       | 5.0 U                                                     | 5.0 U                                                                          | 5.0 U                                                            | 5.0 U                                                              |
| 2,4,6-Trichlorophenol                                       | 5.0 U                                                     | 5.0 U                                                                          | 5.0 U                                                            | 5.0 U                                                              |
| 2,4-Dichlorophenol                                          | 5.0 U                                                     | 5.0 U                                                                          | 5.0 U                                                            | 5.0 U                                                              |
| 2,4-Dimethylphenol                                          | 5.0 U                                                     | 5.0 U                                                                          | 5.0 U                                                            | 5.0 U                                                              |
| 2,4-Dinitrophenol                                           | 5.0 U                                                     | 5.0 U                                                                          | 5.0 U                                                            | 5.0 U                                                              |
| 2,4-Dinitrotoluene                                          | 5.0 U                                                     | 5.0 U                                                                          | 5.0 U                                                            | 5.0 U                                                              |
| 2,6-Dinitrotoluene                                          | 5.0 U                                                     | 5.0 U                                                                          | 5.0 U                                                            | 5.0 U                                                              |
| 2-Chloronaphthalene                                         | 5.0 U                                                     | 5.0 U                                                                          | 5.0 U                                                            | 5.0 U                                                              |
| 2-Chlorophenol                                              | 5.0 U                                                     | 5.0 U                                                                          | 5.0 U                                                            | 5.0 U                                                              |
| 2-Methylnaphthalene                                         | 5.0 U                                                     | 5.0 U                                                                          | 5.0 U                                                            | 5.0 U                                                              |
| 2-Methylphenol                                              | 5.0 U                                                     | 5.0 U                                                                          | 5.0 U                                                            | 5.0 U                                                              |
| 2-Nitroaniline                                              | 5.0 U                                                     | 5.0 U                                                                          | 5.0 U                                                            | 5.0 U                                                              |
| 2-Nitrophenol                                               | 5.0 U                                                     | 5.0 U                                                                          | 5.0 U                                                            | 5.0 U                                                              |
| 3,4-Methylphenol                                            | 5.0 U                                                     | 5.0 U                                                                          | 5.0 U                                                            | 5.0 U                                                              |
| 3,3'-Dichlorobenzidine                                      | 5.0 U                                                     | 5.0 U                                                                          | 5.0 U                                                            | 5.0 U                                                              |
| 3-Nitroaniline                                              | 5.0 U                                                     | 5.0 U                                                                          | 5.0 U                                                            | 5.0 U                                                              |
| 4,6-Dinitro-2-methylphenol                                  | 5.0 U                                                     | 5.0 U                                                                          | 5.0 U                                                            | 5.0 U                                                              |
| 4-Bromophenyl phenyl ether                                  | 5.0 U                                                     | 5.0 U                                                                          | 5.0 U                                                            | 5.0 U                                                              |
| 4-Chloro-3-methylphenol                                     | 5.0 U                                                     | 5.0 U                                                                          | 5.0 U                                                            | 5.0 U                                                              |
| 4-Chloroaniline                                             | 5.0 U                                                     | 5.0 U                                                                          | 5.0 U                                                            | 5.0 U                                                              |
| 4-Chlorophenyl phenyl ether                                 | 5.0 U                                                     | 5.0 U                                                                          | 5.0 U                                                            | 5.0 U                                                              |
| 4-Nitroaniline                                              | 5.0 U                                                     | 5.0 U                                                                          | 5.0 U                                                            | 5.0 U                                                              |
| 4-Nitrophenol                                               | 5.0 U                                                     | 5.0 U                                                                          | 5.0 U                                                            | 5.0 U                                                              |
| Acenaphthene                                                | 5.0 U                                                     | 5.0 U                                                                          | 5.0 U                                                            | 5.0 U                                                              |

Table 2

Validated Analytical Summary Results  
2015 Monitoring Well and Culvert Sampling  
Racer Grand Rapids Stamping Site  
Wyoming, Michigan  
October 2015

| AOI                               | AOI 25<br>MW9-04<br>WG-017360-102115-MR-010<br>10/21/2015 | AOI 6, AOI 25, AOI 1, AOI 4.1<br>85-6<br>WG-017360-102215-MR-020<br>10/22/2015 | AOI 25, AOI 4.3<br>86-3<br>WG-017360-102215-MR-016<br>10/22/2015 | AOI 25, AOI 3<br>MW11D-04<br>WG-017360-102215-MR-015<br>10/22/2015 |
|-----------------------------------|-----------------------------------------------------------|--------------------------------------------------------------------------------|------------------------------------------------------------------|--------------------------------------------------------------------|
| Sample Location:                  |                                                           |                                                                                |                                                                  |                                                                    |
| Sample Identification:            |                                                           |                                                                                |                                                                  |                                                                    |
| Sample Date:                      |                                                           |                                                                                |                                                                  |                                                                    |
| Sample Type:                      |                                                           |                                                                                |                                                                  |                                                                    |
| Segment_Depth                     | (43-48) ft BGS                                            | (19.5-24.5) ft BGS                                                             | (41.5-46.5) ft BGS                                               | (40-45) ft BGS                                                     |
| Semi-Volatile Organic Compounds   |                                                           |                                                                                |                                                                  |                                                                    |
| Acenaphthylene                    | ug/L                                                      | 5.0 U                                                                          |                                                                  |                                                                    |
| Acetophenone                      | ug/L                                                      | 1.0 U                                                                          |                                                                  |                                                                    |
| Anthracene                        | ug/L                                                      | 5.0 U                                                                          |                                                                  |                                                                    |
| Atrazine                          | ug/L                                                      | 1.0 U                                                                          |                                                                  |                                                                    |
| Benzaldehyde                      | ug/L                                                      | 1.0 U                                                                          |                                                                  |                                                                    |
| Benzo(a)anthracene                | ug/L                                                      | 5.0 U                                                                          |                                                                  |                                                                    |
| Benzo(a)pyrene                    | ug/L                                                      | 5.0 U                                                                          |                                                                  |                                                                    |
| Benzo(b)fluoranthene              | ug/L                                                      | 5.0 U                                                                          |                                                                  |                                                                    |
| Benzo(g,h,i)perylene              | ug/L                                                      | 5.0 U                                                                          |                                                                  |                                                                    |
| Benzo(k)fluoranthene              | ug/L                                                      | 5.0 U                                                                          |                                                                  |                                                                    |
| Biphenyl (1,1-Biphenyl)           | ug/L                                                      | 5.0 U                                                                          |                                                                  |                                                                    |
| bis(2-Chloroethoxy)methane        | ug/L                                                      | 5.0 U                                                                          |                                                                  |                                                                    |
| bis(2-Chloroethyl)ether           | ug/L                                                      | 5.0 U                                                                          |                                                                  |                                                                    |
| bis(2-Ethylhexyl)phthalate (DEHP) | ug/L                                                      | 1.5 J                                                                          |                                                                  |                                                                    |
| Butyl benzylphthalate (BBP)       | ug/L                                                      | 5.0 U                                                                          |                                                                  |                                                                    |
| Caprolactam                       | ug/L                                                      | 10 U                                                                           |                                                                  |                                                                    |
| Carbazole                         | ug/L                                                      | 5.0 U                                                                          |                                                                  |                                                                    |
| Chrysene                          | ug/L                                                      | 5.0 U                                                                          |                                                                  |                                                                    |
| Dibenz(a,h)anthracene             | ug/L                                                      | 5.0 U                                                                          |                                                                  |                                                                    |
| Dibenzofuran                      | ug/L                                                      | 5.0 U                                                                          |                                                                  |                                                                    |
| Diethyl phthalate                 | ug/L                                                      | 5.0 U                                                                          |                                                                  |                                                                    |
| Dimethyl phthalate                | ug/L                                                      | 5.0 U                                                                          |                                                                  |                                                                    |
| Di-n-butylphthalate (DBP)         | ug/L                                                      | 5.0 U                                                                          |                                                                  |                                                                    |
| Di-n-octyl phthalate (DnOP)       | ug/L                                                      | 5.0 U                                                                          |                                                                  |                                                                    |
| Fluoranthene                      | ug/L                                                      | 5.0 U                                                                          |                                                                  |                                                                    |
| Fluorene                          | ug/L                                                      | 5.0 U                                                                          |                                                                  |                                                                    |
| Hexachlorobenzene                 | ug/L                                                      | 5.0 U                                                                          |                                                                  |                                                                    |
| Hexachlorobutadiene               | ug/L                                                      | 5.0 U                                                                          |                                                                  |                                                                    |
| Hexachlorocyclopentadiene         | ug/L                                                      | 5.0 U                                                                          |                                                                  |                                                                    |
| Hexachloroethane                  | ug/L                                                      | 5.0 U                                                                          |                                                                  |                                                                    |
| Indeno(1,2,3-cd)pyrene            | ug/L                                                      | 5.0 U                                                                          |                                                                  |                                                                    |
| Isophorone                        | ug/L                                                      | 5.0 U                                                                          |                                                                  |                                                                    |
| Naphthalene                       | ug/L                                                      | 5.0 U                                                                          |                                                                  |                                                                    |
| Nitrobenzene                      | ug/L                                                      | 5.0 U                                                                          |                                                                  |                                                                    |
| N-Nitrosodi-n-propylamine         | ug/L                                                      | 5.0 U                                                                          |                                                                  |                                                                    |
| N-Nitrosodiphenylamine            | ug/L                                                      | 5.0 U                                                                          |                                                                  |                                                                    |
| Pentachlorophenol                 | ug/L                                                      | 5.0 U                                                                          |                                                                  |                                                                    |
| Phenanthrene                      | ug/L                                                      | 5.0 U                                                                          |                                                                  |                                                                    |
| Phenol                            | ug/L                                                      | 5.0 U                                                                          |                                                                  |                                                                    |
| Pyrene                            | ug/L                                                      | 5.0 U                                                                          |                                                                  |                                                                    |

Table 2

Validated Analytical Summary Results  
2015 Monitoring Well and Culvert Sampling  
Racer Grand Rapids Stamping Site  
Wyoming, Michigan  
October 2015

| AOI                    | AOI 25<br>MW9-04<br>WG-017360-102115-MR-010<br>10/21/2015 | AOI 6, AOI 25, AOI 1, AOI 4.1<br>85-6<br>WG-017360-102215-MR-020<br>10/22/2015 | AOI 25, AOI 4.3<br>86-3<br>WG-017360-102215-MR-016<br>10/22/2015 | AOI 25, AOI 3<br>MW11D-04<br>WG-017360-102215-MR-015<br>10/22/2015 |
|------------------------|-----------------------------------------------------------|--------------------------------------------------------------------------------|------------------------------------------------------------------|--------------------------------------------------------------------|
| Sample Location:       |                                                           |                                                                                |                                                                  |                                                                    |
| Sample Identification: |                                                           |                                                                                |                                                                  |                                                                    |
| Sample Date:           |                                                           |                                                                                |                                                                  |                                                                    |
| Sample Type:           |                                                           |                                                                                |                                                                  |                                                                    |
| Segment_Depth          | (43-48) ft BGS                                            | (19.5-24.5) ft BGS                                                             | (41.5-46.5) ft BGS                                               | (40-45) ft BGS                                                     |
| Metals                 |                                                           |                                                                                |                                                                  |                                                                    |
| Antimony               | ug/L                                                      | ug/L                                                                           | ug/L                                                             | ug/L                                                               |
| Arsenic                | ug/L                                                      | ug/L                                                                           | ug/L                                                             | ug/L                                                               |
| Barium                 | ug/L                                                      | ug/L                                                                           | ug/L                                                             | ug/L                                                               |
| Beryllium              | ug/L                                                      | ug/L                                                                           | ug/L                                                             | ug/L                                                               |
| Cadmium                | ug/L                                                      | ug/L                                                                           | ug/L                                                             | ug/L                                                               |
| Chromium               | ug/L                                                      | ug/L                                                                           | ug/L                                                             | ug/L                                                               |
| Cobalt                 | ug/L                                                      | ug/L                                                                           | ug/L                                                             | ug/L                                                               |
| Copper                 | ug/L                                                      | ug/L                                                                           | ug/L                                                             | ug/L                                                               |
| Iron                   | ug/L                                                      | ug/L                                                                           | ug/L                                                             | ug/L                                                               |
| Lead                   | ug/L                                                      | ug/L                                                                           | ug/L                                                             | ug/L                                                               |
| Manganese              | ug/L                                                      | ug/L                                                                           | ug/L                                                             | ug/L                                                               |
| Mercury                | ug/L                                                      | ug/L                                                                           | ug/L                                                             | ug/L                                                               |
| Molybdenum             | ug/L                                                      | ug/L                                                                           | ug/L                                                             | ug/L                                                               |
| Nickel                 | ug/L                                                      | ug/L                                                                           | ug/L                                                             | ug/L                                                               |
| Selenium               | ug/L                                                      | ug/L                                                                           | ug/L                                                             | ug/L                                                               |
| Silver                 | ug/L                                                      | ug/L                                                                           | ug/L                                                             | ug/L                                                               |
| Thallium               | ug/L                                                      | ug/L                                                                           | ug/L                                                             | ug/L                                                               |
| Vanadium               | ug/L                                                      | ug/L                                                                           | ug/L                                                             | ug/L                                                               |
| Zinc                   | ug/L                                                      | ug/L                                                                           | ug/L                                                             | ug/L                                                               |



Table 2

Validated Analytical Summary Results  
2015 Monitoring Well and Culvert Sampling  
Racer Grand Rapids Stamping Site  
Wyoming, Michigan  
October 2015

| AOI                                                  | AOI 25, AOI 3<br>MW11S-05 | AOI 25, AOI 3<br>MW17-06 | AOI 3<br>MW48-13        | AOI 25, AOI 4.3<br>MW7-03 |
|------------------------------------------------------|---------------------------|--------------------------|-------------------------|---------------------------|
| Sample Location:                                     | WG-017360-102215-MR-014   | WG-017360-102215-MR-019  | WG-017360-102215-MR-018 | WG-017360-102215-MR-017   |
| Sample Identification:                               | 10/22/2015                | 10/22/2015               | 10/22/2015              | 10/22/2015                |
| Sample Date:                                         |                           |                          |                         |                           |
| Sample Type:                                         |                           |                          |                         |                           |
| Segment_Depth                                        | (5-10) ft BGS             | (51-56) ft BGS           | (46-51) ft BGS          | (36-41) ft BGS            |
| Units                                                |                           |                          |                         |                           |
| Volatiles Organic Compounds                          |                           |                          |                         |                           |
| 1,1,1-Trichloroethane                                | 1.0 U                     | 1.0 U                    | 1.0 U                   | 1.0 U                     |
| 1,1,2,2-Tetrachloroethane                            | 1.0 U                     | 1.0 U                    | 1.0 U                   | 1.0 U                     |
| 1,1,2-Trichloroethane                                | 1.0 U                     | 1.0 U                    | 1.0 U                   | 1.0 U                     |
| 1,1-Dichloroethane                                   | 1.0 U                     | 1.0 U                    | 1.0 U                   | 1.0 U                     |
| 1,1-Dichloroethene                                   | 5.0 U                     | 5.0 U                    | 5.0 U                   | 5.0 U                     |
| 1,2,4-Trichlorobenzene                               | 1.0 U                     | 1.0 U                    | 1.0 U                   | 1.0 U                     |
| 1,2-Dibromo-3-chloropropane (DBCP)                   | 1.0 U                     | 1.0 U                    | 1.0 U                   | 1.0 U                     |
| 1,2-Dibromoethane (Ethylene dibromide)               | 1.0 U                     | 1.0 U                    | 1.0 U                   | 1.0 U                     |
| 1,2-Dichlorobenzene                                  | 1.0 U                     | 1.0 U                    | 1.0 U                   | 1.0 U                     |
| 1,2-Dichloroethane                                   | 1.0 U                     | 1.0 U                    | 1.0 U                   | 1.0 U                     |
| 1,2-Dichloropropane                                  | 1.0 U                     | 1.0 U                    | 1.0 U                   | 1.0 U                     |
| 1,3-Dichlorobenzene                                  | 1.0 U                     | 1.0 U                    | 1.0 U                   | 1.0 U                     |
| 1,4-Dichlorobenzene                                  | 1.0 U                     | 1.0 U                    | 1.0 U                   | 1.0 U                     |
| 2-Butanone (Methyl ethyl ketone) (MEK)               | 25 U                      | 25 U                     | 25 U                    | 25 U                      |
| 2-Hexanone                                           | 50 U                      | 50 U                     | 50 U                    | 50 U                      |
| 4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK) | 50 U                      | 50 U                     | 50 U                    | 50 U                      |
| Acetone                                              | 1.0 U                     | 1.0 U                    | 1.0 U                   | 1.0 U                     |
| Benzene                                              | 1.0 U                     | 1.0 U                    | 1.0 U                   | 1.0 U                     |
| Bromodichloromethane                                 | 1.0 U                     | 1.0 U                    | 1.0 U                   | 1.0 U                     |
| Bromoform                                            | 5.0 U                     | 5.0 U                    | 5.0 U                   | 5.0 U                     |
| Bromomethane (Methyl bromide)                        | 5.0 U                     | 5.0 U                    | 5.0 U                   | 5.0 U                     |
| Carbon disulfide                                     | 1.0 U                     | 1.0 U                    | 1.0 U                   | 1.0 U                     |
| Carbon tetrachloride                                 | 1.0 U                     | 1.0 U                    | 1.0 U                   | 1.0 U                     |
| Chlorobenzene                                        | 5.0 U                     | 5.0 U                    | 5.0 U                   | 5.0 U                     |
| Chloroethane                                         | 1.0 U                     | 1.0 U                    | 1.0 U                   | 1.0 U                     |
| Chloroform (Trichloromethane)                        | 1.0 U                     | 1.0 U                    | 1.0 U                   | 1.0 U                     |
| Chloromethane (Methyl chloride)                      | 5.0 U                     | 5.0 U                    | 5.0 U                   | 5.0 U                     |
| cis-1,2-Dichloroethene                               | 1.0 U                     | 1.0 U                    | 1.0 U                   | 1.0 U                     |
| cis-1,3-Dichloropropene                              | 1.0 U                     | 1.0 U                    | 1.0 U                   | 1.0 U                     |
| Cyclohexane                                          | 5.0 U                     | 5.0 U                    | 5.0 U                   | 5.0 U                     |
| Dibromochloromethane                                 | 1.0 U                     | 1.0 U                    | 1.0 U                   | 1.0 U                     |
| Dichlorodifluoromethane (CFC-12)                     | 5.0 U                     | 5.0 U                    | 5.0 U                   | 5.0 U                     |
| Ethylbenzene                                         | 1.0 U                     | 1.0 U                    | 1.0 U                   | 1.0 U                     |
| Isopropyl benzene                                    | 5.0 U                     | 5.0 U                    | 5.0 U                   | 5.0 U                     |

Table 2

Validated Analytical Summary Results  
2015 Monitoring Well and Culvert Sampling  
Racer Grand Rapids Stamping Site  
Wyoming, Michigan  
October 2015

| AOI                                                         | AOI 25, AOI 3<br>MW11S-05 | AOI 25, AOI 3<br>MW17-06 | AOI 3<br>MW48-13         | AOI 25, AOI 4.3<br>MW7-03 |
|-------------------------------------------------------------|---------------------------|--------------------------|--------------------------|---------------------------|
| Sample Location:                                            | WG-017360-102215-MIR-014  | WG-017360-102215-MIR-019 | WG-017360-102215-MIR-018 | WG-017360-102215-MIR-017  |
| Sample Identification:                                      | 10/22/2015                | 10/22/2015               | 10/22/2015               | 10/22/2015                |
| Sample Date:                                                |                           |                          |                          |                           |
| Sample Type:                                                |                           |                          |                          |                           |
| Segment Depth                                               | (5-10) ft BGS             | (51-56) ft BGS           | (46-51) ft BGS           | (36-41) ft BGS            |
| Units                                                       |                           |                          |                          |                           |
| <b>Volatile Organic Compounds</b>                           |                           |                          |                          |                           |
| Methyl acetate                                              | 10 U                      | 10 U                     | 10 U                     | 10 U                      |
| Methyl cyclohexane                                          | 1.0 U                     | 1.0 U                    | 1.0 U                    | 1.0 U                     |
| Methyl tert butyl ether (MTBE)                              | 5.0 U                     | 5.0 U                    | 0.63 J                   | 5.0 U                     |
| Methylene chloride                                          | 5.0 U                     | 5.0 U                    | 5.0 U                    | 5.0 U                     |
| Styrene                                                     | 1.0 U                     | 1.0 U                    | 1.0 U                    | 1.0 U                     |
| Tetrachloroethene                                           | 1.0 U                     | 180                      | 1.0 U                    | 1.0 U                     |
| Toluene                                                     | 1.0 U                     | 1.0 U                    | 1.0 U                    | 1.0 U                     |
| trans-1,2-Dichloroethene                                    | 1.0 U                     | 2.2                      | 1.0 U                    | 1.0 U                     |
| trans-1,3-Dichloropropene                                   | 1.0 U                     | 1.0 U                    | 1.0 U                    | 1.0 U                     |
| Trichloroethene                                             | 1.0 U                     | 8.6                      | 1.0 U                    | 2.2                       |
| Trichlorofluoromethane (CFC-11)                             | 1.0 U                     | 1.0 U                    | 1.0 U                    | 1.0 U                     |
| Trifluorotrichloroethane (CFC-113)                          | 1.0 U                     | 1.0 U                    | 1.0 U                    | 1.0 U                     |
| Vinyl chloride                                              | 1.0 U                     | 1.0 U                    | 1.0 U                    | 1.0 U                     |
| Xylenes (total)                                             | 3.0 U                     | 3.0 U                    | 3.0 U                    | 3.0 U                     |
| <b>Semi-Volatile Organic Compounds</b>                      |                           |                          |                          |                           |
| 2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether) | --                        | --                       | --                       | --                        |
| 2,4,5-Trichlorophenol                                       | --                        | --                       | --                       | --                        |
| 2,4,6-Trichlorophenol                                       | --                        | --                       | --                       | --                        |
| 2,4-Dichlorophenol                                          | --                        | --                       | --                       | --                        |
| 2,4-Dimethylphenol                                          | --                        | --                       | --                       | --                        |
| 2,4-Dinitrophenol                                           | --                        | --                       | --                       | --                        |
| 2,4-Dinitrotoluene                                          | --                        | --                       | --                       | --                        |
| 2,6-Dinitrotoluene                                          | --                        | --                       | --                       | --                        |
| 2-Chloronaphthalene                                         | --                        | --                       | --                       | --                        |
| 2-Chlorophenol                                              | --                        | --                       | --                       | --                        |
| 2-Methylnaphthalene                                         | --                        | --                       | --                       | --                        |
| 2-Methylphenol                                              | --                        | --                       | --                       | --                        |
| 2-Nitroaniline                                              | --                        | --                       | --                       | --                        |
| 2-Nitrophenol                                               | --                        | --                       | --                       | --                        |
| 3,8,4-Methylphenol                                          | --                        | --                       | --                       | --                        |
| 3,3'-Dichlorobenzidine                                      | --                        | --                       | --                       | --                        |
| 3-Nitroaniline                                              | --                        | --                       | --                       | --                        |
| 4,6-Dinitro-2-methylphenol                                  | --                        | --                       | --                       | --                        |
| 4-Bromophenyl phenyl ether                                  | --                        | --                       | --                       | --                        |
| 4-Chloro-3-methylphenol                                     | --                        | --                       | --                       | --                        |
| 4-Chloroaniline                                             | --                        | --                       | --                       | --                        |
| 4-Chlorophenyl phenyl ether                                 | --                        | --                       | --                       | --                        |
| 4-Nitroaniline                                              | --                        | --                       | --                       | --                        |
| 4-Nitrophenol                                               | --                        | --                       | --                       | --                        |
| Acenaphthene                                                | --                        | --                       | --                       | --                        |

Table 2  
Validated Analytical Summary Results  
2015 Monitoring Well and Culvert Sampling  
Racer Grand Rapids Stamping Site  
Wyoming, Michigan  
October 2015

| AOI                               | AOI 25, AOI 3<br>MW11S-05 | AOI 25, AOI 3<br>MW17-06 | AOI 3<br>MW48-13        | AOI 25, AOI 4.3<br>MW7-03 |
|-----------------------------------|---------------------------|--------------------------|-------------------------|---------------------------|
| Sample Location:                  | WG-017360-102215-MR-014   | WG-017360-102215-MR-019  | WG-017360-102215-MR-018 | WG-017360-102215-MR-017   |
| Sample Identification:            | 10/22/2015                | 10/22/2015               | 10/22/2015              | 10/22/2015                |
| Sample Date:                      |                           |                          |                         |                           |
| Sample Type:                      |                           |                          |                         |                           |
| Segment_Depth                     | (5-10) ft BGS             | (51-56) ft BGS           | (46-51) ft BGS          | (36-41) ft BGS            |
| Units                             |                           |                          |                         |                           |
| Semi-Volatile Organic Compounds   |                           |                          |                         |                           |
| Acenaphthylene                    | ug/L                      | -                        | -                       | -                         |
| Acetophenone                      | ug/L                      | -                        | -                       | -                         |
| Anthracene                        | ug/L                      | -                        | -                       | -                         |
| Atrazine                          | ug/L                      | -                        | -                       | -                         |
| Benzaldehyde                      | ug/L                      | -                        | -                       | -                         |
| Benzo(a)anthracene                | ug/L                      | -                        | -                       | -                         |
| Benzo(a)pyrene                    | ug/L                      | -                        | -                       | -                         |
| Benzo(b)fluoranthene              | ug/L                      | -                        | -                       | -                         |
| Benzo(g,h,i)perylene              | ug/L                      | -                        | -                       | -                         |
| Benzo(k)fluoranthene              | ug/L                      | -                        | -                       | -                         |
| Biphenyl (1,1-Biphenyl)           | ug/L                      | -                        | -                       | -                         |
| bis(2-Chloroethoxy)methane        | ug/L                      | -                        | -                       | -                         |
| bis(2-Chloroethoxy)ether          | ug/L                      | -                        | -                       | -                         |
| bis(2-Ethylhexyl)phthalate (DEHP) | ug/L                      | -                        | -                       | -                         |
| Butyl benzylphthalate (BBP)       | ug/L                      | -                        | -                       | -                         |
| Caprolactam                       | ug/L                      | -                        | -                       | -                         |
| Carbazole                         | ug/L                      | -                        | -                       | -                         |
| Chrysene                          | ug/L                      | -                        | -                       | -                         |
| Dibenz(a,h)anthracene             | ug/L                      | -                        | -                       | -                         |
| Dibenzofuran                      | ug/L                      | -                        | -                       | -                         |
| Diethyl phthalate                 | ug/L                      | -                        | -                       | -                         |
| Dimethyl phthalate                | ug/L                      | -                        | -                       | -                         |
| Di-n-butylphthalate (DBP)         | ug/L                      | -                        | -                       | -                         |
| Di-n-octyl phthalate (DnOP)       | ug/L                      | -                        | -                       | -                         |
| Fluoranthene                      | ug/L                      | -                        | -                       | -                         |
| Fluorene                          | ug/L                      | -                        | -                       | -                         |
| Hexachlorobenzene                 | ug/L                      | -                        | -                       | -                         |
| Hexachlorobutadiene               | ug/L                      | -                        | -                       | -                         |
| Hexachlorocyclopentadiene         | ug/L                      | -                        | -                       | -                         |
| Hexachloroethane                  | ug/L                      | -                        | -                       | -                         |
| Indeno(1,2,3-cd)pyrene            | ug/L                      | -                        | -                       | -                         |
| Isophorone                        | ug/L                      | -                        | -                       | -                         |
| Naphthalene                       | ug/L                      | -                        | -                       | -                         |
| Nitrobenzene                      | ug/L                      | -                        | -                       | -                         |
| N-Nitrosodi-n-propylamine         | ug/L                      | -                        | -                       | -                         |
| N-Nitrosodiphenylamine            | ug/L                      | -                        | -                       | -                         |
| Pentachlorophenol                 | ug/L                      | -                        | -                       | -                         |
| Phenanthrene                      | ug/L                      | -                        | -                       | -                         |
| Phenol                            | ug/L                      | -                        | -                       | -                         |
| Pyrene                            | ug/L                      | -                        | -                       | -                         |



Table 2

Validated Analytical Summary Results  
 2015 Monitoring Well and Culvert Sampling  
 Racer Grand Rapids Stamping Site  
 Wyoming, Michigan  
 October 2015

| AOI              | AOI 25, AOI 3<br>MW11S-05 | AOI 25, AOI 3<br>MW17-06 | AOI 3<br>MW48-13        | AOI 25, AOI 4.3<br>MW7-03 |
|------------------|---------------------------|--------------------------|-------------------------|---------------------------|
| Sample Location: | WG-017360-102215-MR-014   | WG-017360-102215-MR-019  | WG-017360-102215-MR-018 | WG-017360-102215-MR-017   |
| Sample Date:     | 10/22/2015                | 10/22/2015               | 10/22/2015              | 10/22/2015                |
| Sample Type:     |                           |                          |                         |                           |
| Segment_Depth    | (5-10) ft BGS             | (51-56) ft BGS           | (46-51) ft BGS          | (36-41) ft BGS            |
| Metals           |                           |                          |                         |                           |
| Antimony         | --                        | --                       | --                      | --                        |
| Arsenic          | --                        | --                       | --                      | --                        |
| Barium           | --                        | --                       | --                      | --                        |
| Beryllium        | --                        | --                       | --                      | --                        |
| Cadmium          | --                        | --                       | --                      | --                        |
| Chromium         | --                        | --                       | --                      | --                        |
| Cobalt           | --                        | --                       | --                      | --                        |
| Copper           | --                        | --                       | --                      | --                        |
| Iron             | --                        | --                       | --                      | --                        |
| Lead             | --                        | --                       | --                      | --                        |
| Manganese        | --                        | --                       | --                      | --                        |
| Mercury          | --                        | --                       | --                      | --                        |
| Molybdenum       | --                        | --                       | --                      | --                        |
| Nickel           | --                        | --                       | --                      | --                        |
| Selenium         | --                        | --                       | --                      | --                        |
| Silver           | --                        | --                       | --                      | --                        |
| Thallium         | --                        | --                       | --                      | --                        |
| Vanadium         | --                        | --                       | --                      | --                        |
| Zinc             | --                        | --                       | --                      | --                        |
| Units            | ug/L                      | ug/L                     | ug/L                    | ug/L                      |

Table 2

Validated Analytical Summary Results  
2015 Monitoring Well and Culvert Sampling  
Racer Grand Rapids Stamping Site  
Wyoming, Michigan  
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| AOI                                                  | NA         | AOI 25, AOI 1, AOI 4.1<br>MW2-03 | AOI 8.2<br>MW28-12       | AOI 25, AOI 1, AOI 4.1<br>MW30-12 |
|------------------------------------------------------|------------|----------------------------------|--------------------------|-----------------------------------|
| Sample Location:                                     | Trip Blank | WG-017360-102215-MIR-021         | WG-017360-102615-MIR-026 | WG-017360-102615-MIR-025          |
| Sample Identification:                               | 10/22/2015 | 10/26/2015                       | 10/26/2015               | 10/26/2015                        |
| Sample Date:                                         | (other)    |                                  |                          |                                   |
| Sample Type:                                         |            |                                  |                          |                                   |
| Segment_Depth                                        |            | (22-27) ft BGS                   | (14-19) ft BGS           | (25-30) ft BGS                    |
| Units                                                |            |                                  |                          |                                   |
| <b>Volatile Organic Compounds</b>                    |            |                                  |                          |                                   |
| 1,1,1-Trichloroethane                                | 1.0 U      | 1.0 U                            | 1.0 U                    | 1.0 U                             |
| 1,1,2,2-Tetrachloroethane                            | 1.0 U      | 1.0 U                            | 1.0 U                    | 1.0 U                             |
| 1,1,2-Trichloroethane                                | 1.0 U      | 1.0 U                            | 1.0 U                    | 1.0 U                             |
| 1,1-Dichloroethane                                   | 1.0 U      | 1.0 U                            | 1.0 U                    | 1.0 U                             |
| 1,1-Dichloroethene                                   | 1.0 U      | 1.0 U                            | 1.0 U                    | 1.0 U                             |
| 1,2,4-Trichlorobenzene                               | 5.0 U      | 5.0 U                            | 5.0 U                    | 5.0 U                             |
| 1,2-Dibromo-3-chloropropane (DBCP)                   | 1.0 U      | 1.0 U                            | 1.0 U                    | 1.0 U                             |
| 1,2-Dibromoethane (Ethylene dibromide)               | 1.0 U      | 1.0 U                            | 1.0 U                    | 1.0 U                             |
| 1,2-Dichlorobenzene                                  | 1.0 U      | 1.0 U                            | 1.0 U                    | 1.0 U                             |
| 1,2-Dichloroethane                                   | 1.0 U      | 1.0 U                            | 1.0 U                    | 1.0 U                             |
| 1,3-Dichloropropane                                  | 1.0 U      | 1.0 U                            | 1.0 U                    | 1.0 U                             |
| 1,4-Dichlorobenzene                                  | 1.0 U      | 1.0 U                            | 1.0 U                    | 1.0 U                             |
| 2-Butanone (Methyl ethyl ketone) (MEK)               | 25 U       | 25 U                             | 25 U                     | 25 U                              |
| 2-Hexanone                                           | 50 U       | 50 U                             | 50 U                     | 50 U                              |
| 4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK) | 50 U       | 50 U                             | 50 U                     | 50 U                              |
| Acetone                                              | 50 U       | 50 U                             | 50 U                     | 50 U                              |
| Benzene                                              | 1.0 U      | 1.0 U                            | 1.0 U                    | 1.0 U                             |
| Bromodichloromethane                                 | 1.0 U      | 1.0 U                            | 1.0 U                    | 1.0 U                             |
| Bromoform                                            | 1.0 U      | 1.0 U                            | 1.0 U                    | 1.0 U                             |
| Bromomethane (Methyl bromide)                        | 5.0 U      | 5.0 U                            | 5.0 U                    | 5.0 U                             |
| Carbon disulfide                                     | 5.0 U      | 5.0 U                            | 5.0 U                    | 5.0 U                             |
| Carbon tetrachloride                                 | 1.0 U      | 1.0 U                            | 1.0 U                    | 1.0 U                             |
| Chlorobenzene                                        | 1.0 U      | 1.0 U                            | 1.0 U                    | 1.0 U                             |
| Chloroethane                                         | 5.0 U      | 5.0 U                            | 5.0 U                    | 5.0 U                             |
| Chloroform (Trichloromethane)                        | 0.64 J     | 0.41 J                           | 4.6                      | 1.0 U                             |
| Chloromethane (Methyl chloride)                      | 5.0 U      | 5.0 U                            | 5.0 U                    | 5.0 U                             |
| cis-1,2-Dichloroethene                               | 1.0 U      | 1.0 U                            | 1.0 U                    | 1.0 U                             |
| cis-1,3-Dichloropropene                              | 1.0 U      | 1.0 U                            | 1.0 U                    | 1.0 U                             |
| Cyclohexane                                          | 1.0 U      | 1.0 U                            | 1.0 U                    | 1.0 U                             |
| Dibromochloromethane                                 | 5.0 U      | 5.0 U                            | 5.0 U                    | 5.0 U                             |
| Dichlorodifluoromethane (CFC-12)                     | 5.0 U      | 5.0 U                            | 5.0 U                    | 5.0 U                             |
| Ethylbenzene                                         | 1.0 U      | 1.0 U                            | 1.0 U                    | 1.0 U                             |
| Isopropyl benzene                                    | 5.0 U      | 5.0 U                            | 5.0 U                    | 5.0 U                             |

**Validated Analytical Summary Results  
2015 Monitoring Well and Culvert Sampling  
Racer Grand Rapids Stamping Site  
Wyoming, Michigan  
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| AOI                                                         | NA                       | AOI 25, AOI 1, AOI 4.1   | AOI 8.2                  | AOI 25, AOI 1, AOI 4.1   |
|-------------------------------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Sample Location:                                            | Trip Blank               | MW2-03                   | MW28-12                  | MW30-12                  |
| Sample Identification:                                      | TB-017360-102215-MIR-021 | WG-017360-102615-MIR-024 | WG-017360-102615-MIR-026 | WG-017360-102615-MIR-025 |
| Sample Date:                                                | 10/22/2015               | 10/26/2015               | 10/26/2015               | 10/26/2015               |
| Sample Type:                                                | (other)                  |                          |                          |                          |
| Segment_Depth                                               |                          | (22-27) ft BGS           | (14-19) ft BGS           | (25-30) ft BGS           |
| <b>Volatiles Organic Compounds</b>                          |                          |                          |                          |                          |
| Methyl acetate                                              | 10 U                     | 10 U                     | 10 U                     | 10 U                     |
| Methyl cyclohexane                                          | 1.0 U                    | 1.0 U                    | 1.0 U                    | 1.0 U                    |
| Methyl tert butyl ether (MTBE)                              | 5.0 U                    | 5.0 U                    | 5.0 U                    | 5.0 U                    |
| Methylene chloride                                          | 5.0 U                    | 5.0 U                    | 5.0 U                    | 5.0 U                    |
| Styrene                                                     | 1.0 U                    | 1.0 U                    | 1.0 U                    | 1.0 U                    |
| Tetrachloroethene                                           | 1.0 U                    | 6.5                      | 0.62 J                   | 2.9                      |
| Toluene                                                     | 1.0 U                    | 1.0 U                    | 1.0 U                    | 0.32 J                   |
| trans-1,2-Dichloroethene                                    | 1.0 U                    | 1.0 U                    | 1.0 U                    | 1.0 U                    |
| trans-1,3-Dichloropropene                                   | 1.0 U                    | 1.0 U                    | 1.0 U                    | 1.0 U                    |
| Trichloroethene                                             | 1.0 U                    | 0.47 J                   | 1.0 U                    | 1.0 U                    |
| Trichlorofluoromethane (CFC-11)                             | 1.0 U                    | 1.0 U                    | 1.0 U                    | 1.0 U                    |
| Trifluorotrchloroethane (CFC-113)                           | 1.0 U                    | 1.0 U                    | 1.0 U                    | 1.0 U                    |
| Vinyl chloride                                              | 1.0 U                    | 1.0 U                    | 1.0 U                    | 1.0 U                    |
| Xylenes (total)                                             | 3.0 U                    | 3.0 U                    | 3.0 U                    | 3.0 U                    |
| <b>Semi-Volatile Organic Compounds</b>                      |                          |                          |                          |                          |
| 2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether) | --                       | --                       | --                       | --                       |
| 2,4,5-Trichlorophenol                                       | --                       | --                       | --                       | --                       |
| 2,4,6-Trichlorophenol                                       | --                       | --                       | --                       | --                       |
| 2,4-Dichlorophenol                                          | --                       | --                       | --                       | --                       |
| 2,4-Dimethylphenol                                          | --                       | --                       | --                       | --                       |
| 2,4-Dinitrophenol                                           | --                       | --                       | --                       | --                       |
| 2,4-Dinitrotoluene                                          | --                       | --                       | --                       | --                       |
| 2,6-Dinitrotoluene                                          | --                       | --                       | --                       | --                       |
| 2-Chloronaphthalene                                         | --                       | --                       | --                       | --                       |
| 2-Chlorophenol                                              | --                       | --                       | --                       | --                       |
| 2-Methylnaphthalene                                         | --                       | --                       | --                       | --                       |
| 2-Methylphenol                                              | --                       | --                       | --                       | --                       |
| 2-Nitroaniline                                              | --                       | --                       | --                       | --                       |
| 2-Nitrophenol                                               | --                       | --                       | --                       | --                       |
| 3&4-Methylphenol                                            | --                       | --                       | --                       | --                       |
| 3,3'-Dichlorobenzidine                                      | --                       | --                       | --                       | --                       |
| 3-Nitroaniline                                              | --                       | --                       | --                       | --                       |
| 4,6-Dinitro-2-methylphenol                                  | --                       | --                       | --                       | --                       |
| 4-Bromophenyl phenyl ether                                  | --                       | --                       | --                       | --                       |
| 4-Chloro-3-methylphenol                                     | --                       | --                       | --                       | --                       |
| 4-Chloroaniline                                             | --                       | --                       | --                       | --                       |
| 4-Chlorophenyl phenyl ether                                 | --                       | --                       | --                       | --                       |
| 4-Nitroaniline                                              | --                       | --                       | --                       | --                       |
| 4-Nitrophenol                                               | --                       | --                       | --                       | --                       |
| 4-cenaphthene                                               | --                       | --                       | --                       | --                       |

Table 2

Validated Analytical Summary Results  
2015 Monitoring Well and Culvert Sampling  
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Wyoming, Michigan  
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| AOI                               | AOI 25, AOI 1, AOI 4.1<br>MW2-03<br>WG-017360-102615-MR-021<br>10/22/2015<br>NA<br>Trip Blank<br>(other) | AOI 8.2<br>MW28-12<br>WG-017360-102615-MR-026<br>10/26/2015 | AOI 25, AOI 1, AOI 4.1<br>MW30-12<br>WG-017360-102615-MR-025<br>10/26/2015 |
|-----------------------------------|----------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|----------------------------------------------------------------------------|
| Sample Location:                  |                                                                                                          |                                                             |                                                                            |
| Sample Identification:            |                                                                                                          |                                                             |                                                                            |
| Sample Date:                      |                                                                                                          |                                                             |                                                                            |
| Sample Type:                      |                                                                                                          |                                                             |                                                                            |
| Segment_Depth                     |                                                                                                          | (22-27) ft BGS                                              | (14-19) ft BGS                                                             |
|                                   |                                                                                                          |                                                             | (25-30) ft BGS                                                             |
| Semi-Volatile Organic Compounds   |                                                                                                          |                                                             |                                                                            |
| Acenaphthylene                    | ug/L                                                                                                     | -                                                           | -                                                                          |
| Acetophenone                      | ug/L                                                                                                     | -                                                           | -                                                                          |
| Anthracene                        | ug/L                                                                                                     | -                                                           | -                                                                          |
| Atrazine                          | ug/L                                                                                                     | -                                                           | -                                                                          |
| Benzaldehyde                      | ug/L                                                                                                     | -                                                           | -                                                                          |
| Benzo(a)anthracene                | ug/L                                                                                                     | -                                                           | -                                                                          |
| Benzo(a)pyrene                    | ug/L                                                                                                     | -                                                           | -                                                                          |
| Benzo(b)fluoranthene              | ug/L                                                                                                     | -                                                           | -                                                                          |
| Benzo(g,h,i)perylene              | ug/L                                                                                                     | -                                                           | -                                                                          |
| Benzo(k)fluoranthene              | ug/L                                                                                                     | -                                                           | -                                                                          |
| Biphenyl (1,1-Biphenyl)           | ug/L                                                                                                     | -                                                           | -                                                                          |
| bis(2-Chloroethoxy)methane        | ug/L                                                                                                     | -                                                           | -                                                                          |
| bis(2-Chloroethoxy)ether          | ug/L                                                                                                     | -                                                           | -                                                                          |
| bis(2-Ethylhexyl)phthalate (DEHP) | ug/L                                                                                                     | -                                                           | -                                                                          |
| Butyl benzylphthalate (BBP)       | ug/L                                                                                                     | -                                                           | -                                                                          |
| Caprolactam                       | ug/L                                                                                                     | -                                                           | -                                                                          |
| Carbazole                         | ug/L                                                                                                     | -                                                           | -                                                                          |
| Chrysene                          | ug/L                                                                                                     | -                                                           | -                                                                          |
| Dibenz(a,h)anthracene             | ug/L                                                                                                     | -                                                           | -                                                                          |
| Dibenzofuran                      | ug/L                                                                                                     | -                                                           | -                                                                          |
| Diethyl phthalate                 | ug/L                                                                                                     | -                                                           | -                                                                          |
| Dimethyl phthalate                | ug/L                                                                                                     | -                                                           | -                                                                          |
| Di-n-butylphthalate (DBP)         | ug/L                                                                                                     | -                                                           | -                                                                          |
| Di-n-octyl phthalate (DnOP)       | ug/L                                                                                                     | -                                                           | -                                                                          |
| Fluoranthene                      | ug/L                                                                                                     | -                                                           | -                                                                          |
| Fluorene                          | ug/L                                                                                                     | -                                                           | -                                                                          |
| Hexachlorobenzene                 | ug/L                                                                                                     | -                                                           | -                                                                          |
| Hexachlorobutadiene               | ug/L                                                                                                     | -                                                           | -                                                                          |
| Hexachlorocyclopentadiene         | ug/L                                                                                                     | -                                                           | -                                                                          |
| Hexachloroethane                  | ug/L                                                                                                     | -                                                           | -                                                                          |
| Indeno(1,2,3-cd)pyrene            | ug/L                                                                                                     | -                                                           | -                                                                          |
| Isophorone                        | ug/L                                                                                                     | -                                                           | -                                                                          |
| Naphthalene                       | ug/L                                                                                                     | -                                                           | -                                                                          |
| Nitrobenzene                      | ug/L                                                                                                     | -                                                           | -                                                                          |
| N-Nitrosodi-n-propylamine         | ug/L                                                                                                     | -                                                           | -                                                                          |
| N-Nitrosodiphenylamine            | ug/L                                                                                                     | -                                                           | -                                                                          |
| Pentachlorophenol                 | ug/L                                                                                                     | -                                                           | -                                                                          |
| Phenanthrene                      | ug/L                                                                                                     | -                                                           | -                                                                          |
| Phenol                            | ug/L                                                                                                     | -                                                           | -                                                                          |
| Pyrene                            | ug/L                                                                                                     | -                                                           | -                                                                          |

Validated Analytical Summary Results  
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| AOI                    | AOI 8.2.2      | AOI 25, AOI 1, AOI 4.1 | NA                      | Units |
|------------------------|----------------|------------------------|-------------------------|-------|
| Sample Location:       | AOI 8.2.2      | AOI 25, AOI 1, AOI 4.1 | Trip Blank              |       |
| Sample Identification: | AOI 8.2.2      | AOI 25, AOI 1, AOI 4.1 | TB-017360-102215-MR-021 |       |
| Sample Date:           | 10/26/2015     | 10/26/2015             | 10/22/2015              |       |
| Sample Type:           | (other)        |                        |                         |       |
| Segment_Depth          | (14-19) ft BGS | (22-27) ft BGS         |                         |       |
| Metals                 |                |                        |                         |       |
| Antimony               |                |                        | ---                     | ug/L  |
| Arsenic                |                |                        | ---                     | ug/L  |
| Barium                 |                |                        | ---                     | ug/L  |
| Beryllium              |                |                        | ---                     | ug/L  |
| Cadmium                |                |                        | ---                     | ug/L  |
| Chromium               |                |                        | ---                     | ug/L  |
| Cobalt                 |                |                        | ---                     | ug/L  |
| Copper                 |                |                        | ---                     | ug/L  |
| Iron                   |                |                        | ---                     | ug/L  |
| Lead                   |                |                        | ---                     | ug/L  |
| Manganese              |                |                        | ---                     | ug/L  |
| Mercury                |                |                        | ---                     | ug/L  |
| Molybdenum             |                |                        | ---                     | ug/L  |
| Nickel                 |                |                        | ---                     | ug/L  |
| Selenium               |                |                        | ---                     | ug/L  |
| Silver                 |                |                        | ---                     | ug/L  |
| Thallium               |                |                        | ---                     | ug/L  |
| Vanadium               |                |                        | ---                     | ug/L  |
| Zinc                   |                |                        | ---                     | ug/L  |



Table 2

Validated Analytical Summary Results  
2015 Monitoring Well and Culvert Sampling  
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| AOI                                                  | AOI 7.1, AOI 26.2<br>MW32-12<br>WG-017360-102615-MR-029<br>10/26/2015 | AOI 7.1, AOI 26.2<br>MW32-12<br>WG-017360-102615-MR-030<br>10/26/2015<br>Duplicate | AOI 25, AOI 4.1<br>MW33-12<br>WG-017360-102615-MR-028<br>10/26/2015 | AOI 1<br>MW49-13<br>WG-017360-102615-MR-022<br>10/26/2015 |
|------------------------------------------------------|-----------------------------------------------------------------------|------------------------------------------------------------------------------------|---------------------------------------------------------------------|-----------------------------------------------------------|
| Sample Location:                                     |                                                                       |                                                                                    |                                                                     |                                                           |
| Sample Identification:                               |                                                                       |                                                                                    |                                                                     |                                                           |
| Sample Date:                                         |                                                                       |                                                                                    |                                                                     |                                                           |
| Sample Type:                                         |                                                                       |                                                                                    |                                                                     |                                                           |
| Segment_Depth                                        | (13.9-23.9) ft BGS                                                    | (13.9-23.9) ft BGS                                                                 | (31-36) ft BGS                                                      | (34-39) ft BGS                                            |
| Units                                                |                                                                       |                                                                                    |                                                                     |                                                           |
| Volatile Organic Compounds                           |                                                                       |                                                                                    |                                                                     |                                                           |
| 1,1,1-Trichloroethane                                | 1.0 U                                                                 | 1.0 U                                                                              | 1.0 U                                                               | 1.0 U                                                     |
| 1,1,2,2-Tetrachloroethane                            | 1.0 U                                                                 | 1.0 U                                                                              | 1.0 U                                                               | 1.0 U                                                     |
| 1,1,2-Trichloroethane                                | 1.0 U                                                                 | 1.0 U                                                                              | 1.0 U                                                               | 1.0 U                                                     |
| 1,1-Dichloroethane                                   | 1.0 U                                                                 | 1.0 U                                                                              | 1.0 U                                                               | 1.0 U                                                     |
| 1,1-Dichloroethene                                   | 5.0 U                                                                 | 5.0 U                                                                              | 5.0 U                                                               | 5.0 U                                                     |
| 1,2,4-Trichlorobenzene                               | 1.0 U                                                                 | 1.0 U                                                                              | 1.0 U                                                               | 1.0 U                                                     |
| 1,2-Dibromo-3-chloropropane (DBCP)                   | 1.0 U                                                                 | 1.0 U                                                                              | 1.0 U                                                               | 1.0 U                                                     |
| 1,2-Dibromoethane (Ethylene dibromide)               | 1.0 U                                                                 | 1.0 U                                                                              | 1.0 U                                                               | 1.0 U                                                     |
| 1,2-Dichlorobenzene                                  | 1.0 U                                                                 | 1.0 U                                                                              | 1.0 U                                                               | 1.0 U                                                     |
| 1,2-Dichloroethane                                   | 1.0 U                                                                 | 1.0 U                                                                              | 1.0 U                                                               | 1.0 U                                                     |
| 1,2-Dichloropropane                                  | 1.0 U                                                                 | 1.0 U                                                                              | 1.0 U                                                               | 1.0 U                                                     |
| 1,3-Dichlorobenzene                                  | 1.0 U                                                                 | 1.0 U                                                                              | 1.0 U                                                               | 1.0 U                                                     |
| 1,4-Dichlorobenzene                                  | 25 U                                                                  | 25 U                                                                               | 25 U                                                                | 25 U                                                      |
| 2-Butanone (Methyl ethyl ketone) (MEK)               | 50 U                                                                  | 50 U                                                                               | 50 U                                                                | 50 U                                                      |
| 2-Hexanone                                           | 50 U                                                                  | 50 U                                                                               | 50 U                                                                | 50 U                                                      |
| 4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK) | 50 U                                                                  | 50 U                                                                               | 50 U                                                                | 50 U                                                      |
| Acetone                                              | 1.0 U                                                                 | 1.0 U                                                                              | 1.0 U                                                               | 1.0 U                                                     |
| Benzene                                              | 1.0 U                                                                 | 1.0 U                                                                              | 1.0 U                                                               | 1.0 U                                                     |
| Bromodichloromethane                                 | 1.0 U                                                                 | 1.0 U                                                                              | 1.0 U                                                               | 1.0 U                                                     |
| Bromoform                                            | 5.0 U                                                                 | 5.0 U                                                                              | 5.0 U                                                               | 5.0 U                                                     |
| Bromomethane (Methyl bromide)                        | 5.0 U                                                                 | 5.0 U                                                                              | 5.0 U                                                               | 5.0 U                                                     |
| Carbon disulfide                                     | 1.0 U                                                                 | 1.0 U                                                                              | 1.0 U                                                               | 1.0 U                                                     |
| Carbon tetrachloride                                 | 1.0 U                                                                 | 1.0 U                                                                              | 1.0 U                                                               | 1.0 U                                                     |
| Chlorobenzene                                        | 5.0 U                                                                 | 5.0 U                                                                              | 5.0 U                                                               | 5.0 U                                                     |
| Chloroethane                                         | 1.0 U                                                                 | 1.0 U                                                                              | 1.0 U                                                               | 1.0 U                                                     |
| Chloroform (Trichloromethane)                        | 5.0 U                                                                 | 5.0 U                                                                              | 5.0 U                                                               | 5.0 U                                                     |
| Chloromethane (Methyl chloride)                      | 1.0 U                                                                 | 1.0 U                                                                              | 1.0 U                                                               | 1.0 U                                                     |
| cis-1,2-Dichloroethene                               | 1.0 U                                                                 | 1.0 U                                                                              | 1.0 U                                                               | 1.0 U                                                     |
| cis-1,3-Dichloropropene                              | 1.0 U                                                                 | 1.0 U                                                                              | 1.0 U                                                               | 1.0 U                                                     |
| Cyclohexane                                          | 5.0 U                                                                 | 5.0 U                                                                              | 5.0 U                                                               | 5.0 U                                                     |
| Dibromochloromethane                                 | 5.0 U                                                                 | 5.0 U                                                                              | 5.0 U                                                               | 5.0 U                                                     |
| Dichlorodifluoromethane (CFC-12)                     | 5.0 U                                                                 | 5.0 U                                                                              | 5.0 U                                                               | 5.0 U                                                     |
| Ethylbenzene                                         | 1.0 U                                                                 | 1.0 U                                                                              | 1.0 U                                                               | 1.0 U                                                     |
| Isopropyl benzene                                    | 5.0 U                                                                 | 5.0 U                                                                              | 5.0 U                                                               | 5.0 U                                                     |

Table 2

Validated Analytical Summary Results  
2015 Monitoring Well and Culvert Sampling  
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Wyoming, Michigan  
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| AOI                                                         | AOI 7.1, AOI 26.2<br>MW32-12 | AOI 7.1, AOI 26.2<br>MW32-12 | AOI 25, AOI 4.1<br>MW33-12 | AOI 1<br>MW49-13         |
|-------------------------------------------------------------|------------------------------|------------------------------|----------------------------|--------------------------|
| Sample Location:                                            | WG-017360-102615-MIR-029     | WG-017360-102615-MIR-030     | WG-017360-102615-MIR-028   | WG-017360-102615-MIR-022 |
| Sample Identification:                                      | 10/26/2015                   | 10/26/2015                   | 10/26/2015                 | 10/26/2015               |
| Sample Date:                                                |                              |                              |                            |                          |
| Sample Type:                                                |                              | Duplicate                    |                            |                          |
| Segment_Depth                                               | (13.9-23.9) ft BGS           | (13.9-23.9) ft BGS           | (31-36) ft BGS             | (34-39) ft BGS           |
| Units                                                       |                              |                              |                            |                          |
| Volatile Organic Compounds                                  |                              |                              |                            |                          |
| Methyl acetate                                              | 10 U                         | 10 U                         | 10 U                       | 10 U                     |
| Methyl cyclohexane                                          | 1.0 U                        | 1.0 U                        | 1.0 U                      | 1.0 U                    |
| Methyl tert butyl ether (MTBE)                              | 5.0 U                        | 5.0 U                        | 5.0 U                      | 5.0 U                    |
| Methylene chloride                                          | 5.0 U                        | 5.0 U                        | 5.0 U                      | 5.0 U                    |
| Styrene                                                     | 1.0 U                        | 1.0 U                        | 1.0 U                      | 1.0 U                    |
| Tetrachloroethene                                           | 6.0                          | 6.3                          | 1.7                        | 200                      |
| Toluene                                                     | 1.0 U                        | 1.0 U                        | 1.0 U                      | 1.0 U                    |
| trans-1,2-Dichloroethene                                    | 1.0 U                        | 1.0 U                        | 1.0 U                      | 1.0 U                    |
| trans-1,3-Dichloropropene                                   | 1.0 U                        | 1.0 U                        | 1.0 U                      | 1.0 U                    |
| Trichloroethene                                             | 0.87 J                       | 0.88 J                       | 2.4                        | 1.8                      |
| Trichlorofluoromethane (CFC-11)                             | 1.0 U                        | 1.0 U                        | 1.0 U                      | 1.0 U                    |
| Trifluorotrchloroethane (CFC-113)                           | 1.0 U                        | 1.0 U                        | 1.0 U                      | 1.0 U                    |
| Vinyl chloride                                              | 1.0 U                        | 1.0 U                        | 1.0 U                      | 1.0 U                    |
| Xylenes (total)                                             | 3.0 U                        | 3.0 U                        | 3.0 U                      | 3.0 U                    |
| Semi-Volatile Organic Compounds                             |                              |                              |                            |                          |
| 2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether) | --                           | --                           | --                         | --                       |
| 2,4,5-Trichlorophenol                                       | --                           | --                           | --                         | --                       |
| 2,4,6-Trichlorophenol                                       | --                           | --                           | --                         | --                       |
| 2,4-Dichlorophenol                                          | --                           | --                           | --                         | --                       |
| 2,4-Dimethylphenol                                          | --                           | --                           | --                         | --                       |
| 2,4-Dinitrophenol                                           | --                           | --                           | --                         | --                       |
| 2,4-Dinitrotoluene                                          | --                           | --                           | --                         | --                       |
| 2,6-Dinitrotoluene                                          | --                           | --                           | --                         | --                       |
| 2-Chloronaphthalene                                         | --                           | --                           | --                         | --                       |
| 2-Chlorophenol                                              | --                           | --                           | --                         | --                       |
| 2-Methylnaphthalene                                         | --                           | --                           | --                         | --                       |
| 2-Methylphenol                                              | --                           | --                           | --                         | --                       |
| 2-Nitroaniline                                              | --                           | --                           | --                         | --                       |
| 2-Nitrophenol                                               | --                           | --                           | --                         | --                       |
| 3&4-Methylphenol                                            | --                           | --                           | --                         | --                       |
| 3,3'-Dichlorobenzidine                                      | --                           | --                           | --                         | --                       |
| 3-Nitroaniline                                              | --                           | --                           | --                         | --                       |
| 4,6-Dinitro-2-methylphenol                                  | --                           | --                           | --                         | --                       |
| 4-Bromophenyl phenyl ether                                  | --                           | --                           | --                         | --                       |
| 4-Chloro-3-methylphenol                                     | --                           | --                           | --                         | --                       |
| 4-Chloroaniline                                             | --                           | --                           | --                         | --                       |
| 4-Chlorophenyl phenyl ether                                 | --                           | --                           | --                         | --                       |
| 4-Nitroaniline                                              | --                           | --                           | --                         | --                       |
| 4-Nitrophenol                                               | --                           | --                           | --                         | --                       |
| Acenaphthene                                                | --                           | --                           | --                         | --                       |

Table 2

Validated Analytical Summary Results  
2015 Monitoring Well and Culvert Sampling  
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| AOI                               | AOI 7.1, AOI 26.2<br>MW32-12 | AOI 7.1, AOI 26.2<br>MW32-12 | AOI 25, AOI 4.1<br>MW33-12 | AOI 1<br>MW49-13        |
|-----------------------------------|------------------------------|------------------------------|----------------------------|-------------------------|
| Sample Location:                  | WG-017360-102615-MR-029      | WG-017360-102615-MR-030      | WG-017360-102615-MR-028    | WG-017360-102615-MR-022 |
| Sample Identification:            | 10/26/2015                   | 10/26/2015                   | 10/26/2015                 | 10/26/2015              |
| Sample Date:                      |                              |                              |                            |                         |
| Sample Type:                      |                              | Duplicate                    |                            |                         |
| Segment_Depth                     | (13.9-23.9) ft BGS           | (13.9-23.9) ft BGS           | (31-36) ft BGS             | (34-39) ft BGS          |
| Units                             |                              |                              |                            |                         |
| Semi-Volatile Organic Compounds   | ug/L                         | ug/L                         | ug/L                       | ug/L                    |
| Acenaphthylene                    | -                            | -                            | -                          | -                       |
| Acetophenone                      | -                            | -                            | -                          | -                       |
| Anthracene                        | -                            | -                            | -                          | -                       |
| Atrazine                          | -                            | -                            | -                          | -                       |
| Benzaldehyde                      | -                            | -                            | -                          | -                       |
| Benzo(a)anthracene                | -                            | -                            | -                          | -                       |
| Benzo(a)pyrene                    | -                            | -                            | -                          | -                       |
| Benzo(b)fluoranthene              | -                            | -                            | -                          | -                       |
| Benzo(g,h,i)perylene              | -                            | -                            | -                          | -                       |
| Benzo(k)fluoranthene              | -                            | -                            | -                          | -                       |
| Biphenyl (1,1-Biphenyl)           | -                            | -                            | -                          | -                       |
| bis(2-Chloroethoxy)methane        | -                            | -                            | -                          | -                       |
| bis(2-Chloroethoxy)ether          | -                            | -                            | -                          | -                       |
| bis(2-Ethylhexyl)phthalate (DEHP) | -                            | -                            | -                          | -                       |
| Butyl benzylphthalate (BBP)       | -                            | -                            | -                          | -                       |
| Caprolactam                       | -                            | -                            | -                          | -                       |
| Carbazole                         | -                            | -                            | -                          | -                       |
| Chrysene                          | -                            | -                            | -                          | -                       |
| Dibenz(a,h)anthracene             | -                            | -                            | -                          | -                       |
| Dibenzofuran                      | -                            | -                            | -                          | -                       |
| Diethyl phthalate                 | -                            | -                            | -                          | -                       |
| Dimethyl phthalate                | -                            | -                            | -                          | -                       |
| Di-n-butylphthalate (DBP)         | -                            | -                            | -                          | -                       |
| Di-n-octyl phthalate (DnOP)       | -                            | -                            | -                          | -                       |
| Fluoranthene                      | -                            | -                            | -                          | -                       |
| Fluorene                          | -                            | -                            | -                          | -                       |
| Hexachlorobenzene                 | -                            | -                            | -                          | -                       |
| Hexachlorobutadiene               | -                            | -                            | -                          | -                       |
| Hexachlorocyclopentadiene         | -                            | -                            | -                          | -                       |
| Hexachloroethane                  | -                            | -                            | -                          | -                       |
| Indeno(1,2,3-cd)pyrene            | -                            | -                            | -                          | -                       |
| Isophorone                        | -                            | -                            | -                          | -                       |
| Naphthalene                       | -                            | -                            | -                          | -                       |
| Nitrobenzene                      | -                            | -                            | -                          | -                       |
| N-Nitrosodi-n-propylamine         | -                            | -                            | -                          | -                       |
| N-Nitrosodiphenylamine            | -                            | -                            | -                          | -                       |
| Pentachlorophenol                 | -                            | -                            | -                          | -                       |
| Phenanthrene                      | -                            | -                            | -                          | -                       |
| Phenol                            | -                            | -                            | -                          | -                       |
| Pyrene                            | -                            | -                            | -                          | -                       |



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| AOI                    | AOI 7.1, AOI 26.2<br>MW32-12<br>WG-017360-102615-MR-029<br>10/26/2015<br>(13.9-23.9) ft BGS | AOI 7.1, AOI 26.2<br>MW32-12<br>WG-017360-102615-MR-030<br>10/26/2015<br>Duplicate<br>(13.9-23.9) ft BGS | AOI 25, AOI 4.1<br>MW33-12<br>WG-017360-102615-MR-028<br>10/26/2015<br>(31-36) ft BGS | AOI 1<br>MW49-13<br>WG-017360-102615-MR-022<br>10/26/2015<br>(34-39) ft BGS |
|------------------------|---------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| Sample Location:       |                                                                                             |                                                                                                          |                                                                                       |                                                                             |
| Sample Identification: |                                                                                             |                                                                                                          |                                                                                       |                                                                             |
| Sample Date:           |                                                                                             |                                                                                                          |                                                                                       |                                                                             |
| Sample Type:           |                                                                                             |                                                                                                          |                                                                                       |                                                                             |
| Segment_Depth          |                                                                                             |                                                                                                          |                                                                                       |                                                                             |
| Metals                 |                                                                                             |                                                                                                          |                                                                                       |                                                                             |
| Antimony               | ug/L                                                                                        | ---                                                                                                      | ---                                                                                   | ---                                                                         |
| Arsenic                | ug/L                                                                                        | ---                                                                                                      | ---                                                                                   | ---                                                                         |
| Barium                 | ug/L                                                                                        | ---                                                                                                      | ---                                                                                   | ---                                                                         |
| Beryllium              | ug/L                                                                                        | ---                                                                                                      | ---                                                                                   | ---                                                                         |
| Cadmium                | ug/L                                                                                        | ---                                                                                                      | ---                                                                                   | ---                                                                         |
| Chromium               | ug/L                                                                                        | ---                                                                                                      | ---                                                                                   | ---                                                                         |
| Cobalt                 | ug/L                                                                                        | ---                                                                                                      | ---                                                                                   | ---                                                                         |
| Copper                 | ug/L                                                                                        | ---                                                                                                      | ---                                                                                   | ---                                                                         |
| Iron                   | ug/L                                                                                        | ---                                                                                                      | ---                                                                                   | ---                                                                         |
| Lead                   | ug/L                                                                                        | ---                                                                                                      | ---                                                                                   | ---                                                                         |
| Manganese              | ug/L                                                                                        | ---                                                                                                      | ---                                                                                   | ---                                                                         |
| Mercury                | ug/L                                                                                        | ---                                                                                                      | ---                                                                                   | ---                                                                         |
| Molybdenum             | ug/L                                                                                        | ---                                                                                                      | ---                                                                                   | ---                                                                         |
| Nickel                 | ug/L                                                                                        | ---                                                                                                      | ---                                                                                   | ---                                                                         |
| Selenium               | ug/L                                                                                        | ---                                                                                                      | ---                                                                                   | ---                                                                         |
| Silver                 | ug/L                                                                                        | ---                                                                                                      | ---                                                                                   | ---                                                                         |
| Thallium               | ug/L                                                                                        | ---                                                                                                      | ---                                                                                   | ---                                                                         |
| Vanadium               | ug/L                                                                                        | ---                                                                                                      | ---                                                                                   | ---                                                                         |
| Zinc                   | ug/L                                                                                        | ---                                                                                                      | ---                                                                                   | ---                                                                         |

Table 2

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| AOI                                                  | AOI 1<br>MW49-13<br>WG-017360-102615-MR-023<br>10/26/2015 | AOI 4.1<br>MW58-13<br>WG-017360-102615-MR-027<br>10/26/2015 | AOI 25, AOI 4.1<br>MW15-04<br>WG-017360-102715-MR-031<br>10/27/2015 | AOI 25, AOI 4.1<br>MW34-12<br>WG-017360-102715-MR-037<br>10/27/2015 |
|------------------------------------------------------|-----------------------------------------------------------|-------------------------------------------------------------|---------------------------------------------------------------------|---------------------------------------------------------------------|
| Sample Location:                                     |                                                           |                                                             |                                                                     |                                                                     |
| Sample Identification:                               |                                                           |                                                             |                                                                     |                                                                     |
| Sample Date:                                         |                                                           |                                                             |                                                                     |                                                                     |
| Sample Type:                                         |                                                           |                                                             |                                                                     |                                                                     |
| Segment_Depth                                        | (34-39) ft BGS                                            | (13.5-18.5) ft BGS                                          | (25-30) ft BGS                                                      | (14.4-24.4) ft BGS                                                  |
| Units                                                | ug/L                                                      | ug/L                                                        | ug/L                                                                | ug/L                                                                |
| <b>Volatile Organic Compounds</b>                    |                                                           |                                                             |                                                                     |                                                                     |
| 1,1,1-Trichloroethane                                | 1.0 U                                                     | 1.0 U                                                       | 1.4                                                                 | 1.0 U                                                               |
| 1,1,2,2-Tetrachloroethane                            | 1.0 U                                                     | 1.0 U                                                       | 1.0 U                                                               | 1.0 U                                                               |
| 1,1,2-Trichloroethane                                | 1.0 U                                                     | 1.0 U                                                       | 1.0 U                                                               | 1.0 U                                                               |
| 1,1-Dichloroethane                                   | 1.0 U                                                     | 1.0 U                                                       | 1.0 U                                                               | 1.0 U                                                               |
| 1,1-Dichloroethene                                   | 5.0 U                                                     | 5.0 U                                                       | 5.0 U                                                               | 5.0 U                                                               |
| 1,2,4-Trichlorobenzene                               | 1.0 U                                                     | 1.0 U                                                       | 1.0 U                                                               | 1.0 U                                                               |
| 1,2-Dibromo-3-chloropropane (DBCP)                   | 1.0 U                                                     | 1.0 U                                                       | 1.0 U                                                               | 1.0 U                                                               |
| 1,2-Dibromoethane (Ethylene dibromide)               | 1.0 U                                                     | 1.0 U                                                       | 1.0 U                                                               | 1.0 U                                                               |
| 1,2-Dichloroethane                                   | 1.0 U                                                     | 1.0 U                                                       | 1.0 U                                                               | 1.0 U                                                               |
| 1,2-Dichloropropane                                  | 1.0 U                                                     | 1.0 U                                                       | 1.0 U                                                               | 1.0 U                                                               |
| 1,3-Dichlorobenzene                                  | 1.0 U                                                     | 1.0 U                                                       | 1.0 U                                                               | 1.0 U                                                               |
| 1,4-Dichlorobenzene                                  | 1.0 U                                                     | 1.0 U                                                       | 1.0 U                                                               | 1.0 U                                                               |
| 2-Butanone (Methyl ethyl ketone) (MEK)               | 25 U                                                      | 25 U                                                        | 25 U                                                                | 25 U                                                                |
| 2-Hexanone                                           | 50 U                                                      | 50 U                                                        | 50 U                                                                | 50 U                                                                |
| 4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK) | 50 U                                                      | 50 U                                                        | 50 U                                                                | 50 U                                                                |
| Acetone                                              | 1.0 U                                                     | 1.0 U                                                       | 1.0 U                                                               | 1.0 U                                                               |
| Benzene                                              | 1.0 U                                                     | 1.0 U                                                       | 1.0 U                                                               | 1.0 U                                                               |
| Bromodichloromethane                                 | 1.0 U                                                     | 1.0 U                                                       | 1.0 U                                                               | 1.0 U                                                               |
| Bromoform                                            | 5.0 U                                                     | 5.0 U                                                       | 5.0 U                                                               | 5.0 U                                                               |
| Bromomethane (Methyl bromide)                        | 5.0 U                                                     | 5.0 U                                                       | 5.0 U                                                               | 5.0 U                                                               |
| Carbon disulfide                                     | 1.0 U                                                     | 1.0 U                                                       | 1.0 U                                                               | 1.0 U                                                               |
| Carbon tetrachloride                                 | 1.0 U                                                     | 1.0 U                                                       | 1.0 U                                                               | 1.0 U                                                               |
| Chlorobenzene                                        | 5.0 U                                                     | 5.0 U                                                       | 5.0 U                                                               | 5.0 U                                                               |
| Chloroethane                                         | 1.0 U                                                     | 1.0 U                                                       | 1.1                                                                 | 1.0 U                                                               |
| Chloroform (Trichloromethane)                        | 5.0 U                                                     | 5.0 U                                                       | 5.0 U                                                               | 5.0 U                                                               |
| Chloromethane (Methyl chloride)                      | 1.0 U                                                     | 1.0 U                                                       | 1.0 U                                                               | 1.0 U                                                               |
| cis-1,2-Dichloroethene                               | 1.0 U                                                     | 1.0 U                                                       | 1.0 U                                                               | 1.0 U                                                               |
| cis-1,3-Dichloropropene                              | 1.0 U                                                     | 1.0 U                                                       | 1.0 U                                                               | 1.0 U                                                               |
| Cyclohexane                                          | 5.0 U                                                     | 5.0 U                                                       | 5.0 U                                                               | 5.0 U                                                               |
| Dibromochloromethane                                 | 5.0 U                                                     | 5.0 U                                                       | 5.0 U                                                               | 5.0 U                                                               |
| Dichlorodifluoromethane (CFC-12)                     | 1.0 U                                                     | 1.0 U                                                       | 1.0 U                                                               | 1.0 U                                                               |
| Ethylbenzene                                         | 5.0 U                                                     | 5.0 U                                                       | 5.0 U                                                               | 5.0 U                                                               |
| Isopropyl benzene                                    | 5.0 U                                                     | 5.0 U                                                       | 5.0 U                                                               | 5.0 U                                                               |

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| AOI                                                         | AOI 1<br>MW49-13<br>WG-017360-102615-MR-023<br>10/26/2015 | AOI 4.1<br>MW58-13<br>WG-017360-102615-MR-027<br>10/26/2015 | AOI 25, AOI 4.1<br>MW15-04<br>WG-017360-102715-MR-031<br>10/27/2015 | AOI 25, AOI 4.1<br>MW34-12<br>WG-017360-102715-MR-037<br>10/27/2015 |
|-------------------------------------------------------------|-----------------------------------------------------------|-------------------------------------------------------------|---------------------------------------------------------------------|---------------------------------------------------------------------|
| Sample Location:                                            |                                                           |                                                             |                                                                     |                                                                     |
| Sample Identification:                                      |                                                           |                                                             |                                                                     |                                                                     |
| Sample Date:                                                |                                                           |                                                             |                                                                     |                                                                     |
| Sample Type:                                                |                                                           |                                                             |                                                                     |                                                                     |
| Segment_Depth                                               | (34-39) ft BGS                                            | (13.5-18.5) ft BGS                                          | (25-30) ft BGS                                                      | (14.4-24.4) ft BGS                                                  |
| Units                                                       |                                                           |                                                             |                                                                     |                                                                     |
| <b>Volatile Organic Compounds</b>                           |                                                           |                                                             |                                                                     |                                                                     |
| Methyl acetate                                              | 10 U                                                      | 10 U                                                        | 10 U                                                                | 10 U                                                                |
| Methyl cyclohexane                                          | 1.0 U                                                     | 1.0 U                                                       | 1.0 U                                                               | 1.0 U                                                               |
| Methyl tert butyl ether (MTBE)                              | 5.0 U                                                     | 5.0 U                                                       | 5.0 U                                                               | 5.0 U                                                               |
| Methylene chloride                                          | 5.0 U                                                     | 5.0 U                                                       | 5.0 U                                                               | 5.0 U                                                               |
| Styrene                                                     | 1.0 U                                                     | 1.0 U                                                       | 1.0 U                                                               | 1.0 U                                                               |
| Tetrachloroethene                                           | 200                                                       | 1.0 U                                                       | 1.0 U                                                               | 1.0 U                                                               |
| Toluene                                                     | 1.0 U                                                     | 1.0 U                                                       | 1.0 U                                                               | 1.0 U                                                               |
| trans-1,2-Dichloroethene                                    | 1.0 U                                                     | 1.0 U                                                       | 1.0 U                                                               | 1.0 U                                                               |
| trans-1,3-Dichloropropene                                   | 1.0 U                                                     | 1.0 U                                                       | 1.0 U                                                               | 1.0 U                                                               |
| Trichloroethene                                             | 2.0                                                       | 1.0                                                         | 0.54 J                                                              | 5.1                                                                 |
| Trichlorofluoromethane (CFC-11)                             | 1.0 U                                                     | 1.0 U                                                       | 1.0 U                                                               | 1.0 U                                                               |
| Trifluorotrchloroethane (CFC-113)                           | 1.0 U                                                     | 1.0 U                                                       | 1.0 U                                                               | 1.0 U                                                               |
| Vinyl chloride                                              | 1.0 U                                                     | 1.0 U                                                       | 1.0 U                                                               | 1.0 U                                                               |
| Xylenes (total)                                             | 3.0 U                                                     | 3.0 U                                                       | 3.0 U                                                               | 3.0 U                                                               |
| <b>Semi-Volatile Organic Compounds</b>                      |                                                           |                                                             |                                                                     |                                                                     |
| 2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether) | --                                                        | --                                                          | --                                                                  | --                                                                  |
| 2,4,5-Trichlorophenol                                       | --                                                        | --                                                          | --                                                                  | --                                                                  |
| 2,4,6-Trichlorophenol                                       | --                                                        | --                                                          | --                                                                  | --                                                                  |
| 2,4-Dichlorophenol                                          | --                                                        | --                                                          | --                                                                  | --                                                                  |
| 2,4-Dimethylphenol                                          | --                                                        | --                                                          | --                                                                  | --                                                                  |
| 2,4-Dinitrophenol                                           | --                                                        | --                                                          | --                                                                  | --                                                                  |
| 2,4-Dinitrotoluene                                          | --                                                        | --                                                          | --                                                                  | --                                                                  |
| 2,6-Dinitrotoluene                                          | --                                                        | --                                                          | --                                                                  | --                                                                  |
| 2-Chloronaphthalene                                         | --                                                        | --                                                          | --                                                                  | --                                                                  |
| 2-Chlorophenol                                              | --                                                        | --                                                          | --                                                                  | --                                                                  |
| 2-Methylnaphthalene                                         | --                                                        | --                                                          | --                                                                  | --                                                                  |
| 2-Methylphenol                                              | --                                                        | --                                                          | --                                                                  | --                                                                  |
| 2-Nitroaniline                                              | --                                                        | --                                                          | --                                                                  | --                                                                  |
| 2-Nitrophenol                                               | --                                                        | --                                                          | --                                                                  | --                                                                  |
| 3&4-Methylphenol                                            | --                                                        | --                                                          | --                                                                  | --                                                                  |
| 3,3'-Dichlorobenzidine                                      | --                                                        | --                                                          | --                                                                  | --                                                                  |
| 3-Nitroaniline                                              | --                                                        | --                                                          | --                                                                  | --                                                                  |
| 4,6-Dinitro-2-methylphenol                                  | --                                                        | --                                                          | --                                                                  | --                                                                  |
| 4-Bromophenyl phenyl ether                                  | --                                                        | --                                                          | --                                                                  | --                                                                  |
| 4-Chloro-3-methylphenol                                     | --                                                        | --                                                          | --                                                                  | --                                                                  |
| 4-Chloroaniline                                             | --                                                        | --                                                          | --                                                                  | --                                                                  |
| 4-Chlorophenyl phenyl ether                                 | --                                                        | --                                                          | --                                                                  | --                                                                  |
| 4-Nitroaniline                                              | --                                                        | --                                                          | --                                                                  | --                                                                  |
| 4-Nitrophenol                                               | --                                                        | --                                                          | --                                                                  | --                                                                  |
| Acenaphthene                                                | --                                                        | --                                                          | --                                                                  | --                                                                  |

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| AOI                               | AOI 1<br>MW49-13<br>WG-017360-102615-MR-023<br>10/26/2015<br>(34-39) ft BGS | AOI 4.1<br>MW58-13<br>WG-017360-102615-MR-027<br>10/26/2015<br>(13.5-18.5) ft BGS | AOI 25, AOI 4.1<br>MW15-04<br>WG-017360-102715-MR-031<br>10/27/2015<br>(25-30) ft BGS | AOI 25, AOI 4.1<br>MW34-12<br>WG-017360-102715-MR-037<br>10/27/2015<br>(14.4-24.4) ft BGS |
|-----------------------------------|-----------------------------------------------------------------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|
| Sample Location:                  |                                                                             |                                                                                   |                                                                                       |                                                                                           |
| Sample Identification:            |                                                                             |                                                                                   |                                                                                       |                                                                                           |
| Sample Date:                      |                                                                             |                                                                                   |                                                                                       |                                                                                           |
| Sample Type:                      |                                                                             |                                                                                   |                                                                                       |                                                                                           |
| Segment_Depth                     |                                                                             |                                                                                   |                                                                                       |                                                                                           |
| Semi-Volatile Organic Compounds   |                                                                             |                                                                                   |                                                                                       |                                                                                           |
| Acenaphthylene                    | ug/L                                                                        | --                                                                                | --                                                                                    | --                                                                                        |
| Acetophenone                      | ug/L                                                                        | --                                                                                | --                                                                                    | --                                                                                        |
| Anthracene                        | ug/L                                                                        | --                                                                                | --                                                                                    | --                                                                                        |
| Atrazine                          | ug/L                                                                        | --                                                                                | --                                                                                    | --                                                                                        |
| Benzaldehyde                      | ug/L                                                                        | --                                                                                | --                                                                                    | --                                                                                        |
| Benzo(a)anthracene                | ug/L                                                                        | --                                                                                | --                                                                                    | --                                                                                        |
| Benzo(a)pyrene                    | ug/L                                                                        | --                                                                                | --                                                                                    | --                                                                                        |
| Benzo(b)fluoranthene              | ug/L                                                                        | --                                                                                | --                                                                                    | --                                                                                        |
| Benzo(g,h,i)perylene              | ug/L                                                                        | --                                                                                | --                                                                                    | --                                                                                        |
| Benzo(k)fluoranthene              | ug/L                                                                        | --                                                                                | --                                                                                    | --                                                                                        |
| Biphenyl (1,1-Biphenyl)           | ug/L                                                                        | --                                                                                | --                                                                                    | --                                                                                        |
| bis(2-Chloroethoxy)methane        | ug/L                                                                        | --                                                                                | --                                                                                    | --                                                                                        |
| bis(2-Chloroethyl)ether           | ug/L                                                                        | --                                                                                | --                                                                                    | --                                                                                        |
| bis(2-Ethylhexyl)phthalate (DEHP) | ug/L                                                                        | --                                                                                | --                                                                                    | --                                                                                        |
| Butyl benzylphthalate (BBP)       | ug/L                                                                        | --                                                                                | --                                                                                    | --                                                                                        |
| Caprolactam                       | ug/L                                                                        | --                                                                                | --                                                                                    | --                                                                                        |
| Carbazole                         | ug/L                                                                        | --                                                                                | --                                                                                    | --                                                                                        |
| Chrysene                          | ug/L                                                                        | --                                                                                | --                                                                                    | --                                                                                        |
| Dibenz(a,h)anthracene             | ug/L                                                                        | --                                                                                | --                                                                                    | --                                                                                        |
| Dibenzofuran                      | ug/L                                                                        | --                                                                                | --                                                                                    | --                                                                                        |
| Diethyl phthalate                 | ug/L                                                                        | --                                                                                | --                                                                                    | --                                                                                        |
| Dimethyl phthalate                | ug/L                                                                        | --                                                                                | --                                                                                    | --                                                                                        |
| Di-n-butylphthalate (DBP)         | ug/L                                                                        | --                                                                                | --                                                                                    | --                                                                                        |
| Di-n-octyl phthalate (DnOP)       | ug/L                                                                        | --                                                                                | --                                                                                    | --                                                                                        |
| Fluoranthene                      | ug/L                                                                        | --                                                                                | --                                                                                    | --                                                                                        |
| Fluorene                          | ug/L                                                                        | --                                                                                | --                                                                                    | --                                                                                        |
| Hexachlorobenzene                 | ug/L                                                                        | --                                                                                | --                                                                                    | --                                                                                        |
| Hexachlorobutadiene               | ug/L                                                                        | --                                                                                | --                                                                                    | --                                                                                        |
| Hexachlorocyclopentadiene         | ug/L                                                                        | --                                                                                | --                                                                                    | --                                                                                        |
| Hexachloroethane                  | ug/L                                                                        | --                                                                                | --                                                                                    | --                                                                                        |
| Indeno(1,2,3-cd)pyrene            | ug/L                                                                        | --                                                                                | --                                                                                    | --                                                                                        |
| Isophorone                        | ug/L                                                                        | --                                                                                | --                                                                                    | --                                                                                        |
| Naphthalene                       | ug/L                                                                        | --                                                                                | --                                                                                    | --                                                                                        |
| Nitrobenzene                      | ug/L                                                                        | --                                                                                | --                                                                                    | --                                                                                        |
| N-Nitrosodi-n-propylamine         | ug/L                                                                        | --                                                                                | --                                                                                    | --                                                                                        |
| N-Nitrosodiphenylamine            | ug/L                                                                        | --                                                                                | --                                                                                    | --                                                                                        |
| Pentachlorophenol                 | ug/L                                                                        | --                                                                                | --                                                                                    | --                                                                                        |
| Phenanthrene                      | ug/L                                                                        | --                                                                                | --                                                                                    | --                                                                                        |
| Phenol                            | ug/L                                                                        | --                                                                                | --                                                                                    | --                                                                                        |
| Pyrene                            | ug/L                                                                        | --                                                                                | --                                                                                    | --                                                                                        |

Table 2

Validated Analytical Summary Results  
2015 Monitoring Well and Culvert Sampling  
Racer Grand Rapids Stamping Site  
Wyoming, Michigan  
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| AOI                    | AOI 1                   | AOI 4.1                 | AOI 25, AOI 4.1         |                         |
|------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Sample Location:       | MW49-13                 | MW58-13                 | MW15-04                 | MW34-12                 |
| Sample Identification: | WG-017360-102615-MR-023 | WG-017360-102615-MR-027 | WG-017360-102715-MR-031 | WG-017360-102715-MR-037 |
| Sample Date:           | 10/26/2015              | 10/26/2015              | 10/27/2015              | 10/27/2015              |
| Sample Type:           |                         |                         |                         |                         |
| Segment_Depth          | (34-39) ft BGS          | (13.5-18.5) ft BGS      | (25-30) ft BGS          | (14.4-24.4) ft BGS      |
| Metals                 |                         |                         |                         |                         |
| Antimony               | ug/L                    | ug/L                    | ug/L                    | ug/L                    |
| Arsenic                | ug/L                    | ug/L                    | ug/L                    | ug/L                    |
| Barium                 | ug/L                    | ug/L                    | ug/L                    | ug/L                    |
| Beryllium              | ug/L                    | ug/L                    | ug/L                    | ug/L                    |
| Cadmium                | ug/L                    | ug/L                    | ug/L                    | ug/L                    |
| Chromium               | ug/L                    | ug/L                    | ug/L                    | ug/L                    |
| Cobalt                 | ug/L                    | ug/L                    | ug/L                    | ug/L                    |
| Copper                 | ug/L                    | ug/L                    | ug/L                    | ug/L                    |
| Iron                   | ug/L                    | ug/L                    | ug/L                    | ug/L                    |
| Lead                   | ug/L                    | ug/L                    | ug/L                    | ug/L                    |
| Manganese              | ug/L                    | ug/L                    | ug/L                    | ug/L                    |
| Mercury                | ug/L                    | ug/L                    | ug/L                    | ug/L                    |
| Molybdenum             | ug/L                    | ug/L                    | ug/L                    | ug/L                    |
| Nickel                 | ug/L                    | ug/L                    | ug/L                    | ug/L                    |
| Selenium               | ug/L                    | ug/L                    | ug/L                    | ug/L                    |
| Silver                 | ug/L                    | ug/L                    | ug/L                    | ug/L                    |
| Thallium               | ug/L                    | ug/L                    | ug/L                    | ug/L                    |
| Vanadium               | ug/L                    | ug/L                    | ug/L                    | ug/L                    |
| Zinc                   | ug/L                    | ug/L                    | ug/L                    | ug/L                    |



Table 2

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| AOI                                                  | AOI 25, AOI 4.1<br>MW35-12 | AOI 25, AOI 4.1<br>MW40-12 | AOI 11<br>MW41-12       | AOI 11<br>MW41-12               |
|------------------------------------------------------|----------------------------|----------------------------|-------------------------|---------------------------------|
| Sample Location:                                     | WG-017360-102715-MR-038    | WG-017360-102715-MR-034    | WG-017360-102715-MR-035 | WG-017360-102715-MR-036         |
| Sample Identification:                               | 10/27/2015                 | 10/27/2015                 | 10/27/2015              | 10/27/2015                      |
| Sample Date:                                         |                            |                            |                         |                                 |
| Sample Type:                                         |                            |                            |                         |                                 |
| Segment_Depth                                        | (24.6-29.6) ft BGS         | (45-50) ft BGS             | (18.3-28.3) ft BGS      | Duplicate<br>(18.3-28.3) ft BGS |
| Units                                                |                            |                            |                         |                                 |
| Volatiles Organic Compounds                          |                            |                            |                         |                                 |
| 1,1,1-Trichloroethane                                | 1.0 U                      | 1.0 U                      | 1.0 U                   | 1.0 U                           |
| 1,1,2,2-Tetrachloroethane                            | 1.0 U                      | 1.0 U                      | 1.0 U                   | 1.0 U                           |
| 1,1,2-Trichloroethane                                | 1.0 U                      | 1.0 U                      | 1.0 U                   | 1.0 U                           |
| 1,1-Dichloroethane                                   | 1.0 U                      | 1.0 U                      | 1.0 U                   | 1.0 U                           |
| 1,1-Dichloroethene                                   | 5.0 U                      | 5.0 U                      | 5.0 U                   | 5.0 U                           |
| 1,2,4-Trichlorobenzene                               | 1.0 U                      | 1.0 U                      | 1.0 U                   | 1.0 U                           |
| 1,2-Dibromo-3-chloropropane (DBCP)                   | 1.0 U                      | 1.0 U                      | 1.0 U                   | 1.0 U                           |
| 1,2-Dibromoethane (Ethylene dibromide)               | 1.0 U                      | 1.0 U                      | 1.0 U                   | 1.0 U                           |
| 1,2-Dichlorobenzene                                  | 1.0 U                      | 1.0 U                      | 1.0 U                   | 1.0 U                           |
| 1,2-Dichloroethane                                   | 1.0 U                      | 1.0 U                      | 1.0 U                   | 1.0 U                           |
| 1,2-Dichloropropane                                  | 1.0 U                      | 1.0 U                      | 1.0 U                   | 1.0 U                           |
| 1,3-Dichlorobenzene                                  | 1.0 U                      | 1.0 U                      | 1.0 U                   | 1.0 U                           |
| 1,4-Dichlorobenzene                                  | 1.0 U                      | 1.0 U                      | 1.0 U                   | 1.0 U                           |
| 2-Butanone (Methyl ethyl ketone) (MEK)               | 25 U                       | 25 U                       | 25 U                    | 25 U                            |
| 2-Hexanone                                           | 50 U                       | 50 U                       | 50 U                    | 50 U                            |
| 4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK) | 50 U                       | 50 U                       | 50 U                    | 50 U                            |
| Acetone                                              | 1.0 U                      | 1.0 U                      | 1.0 U                   | 1.0 U                           |
| Benzene                                              | 1.0 U                      | 1.0 U                      | 1.0 U                   | 1.0 U                           |
| Bromodichloromethane                                 | 1.0 U                      | 1.0 U                      | 1.0 U                   | 1.0 U                           |
| Bromoform                                            | 5.0 U                      | 5.0 U                      | 5.0 U                   | 5.0 U                           |
| Bromomethane (Methyl bromide)                        | 5.0 U                      | 5.0 U                      | 5.0 U                   | 5.0 U                           |
| Carbon disulfide                                     | 1.0 U                      | 1.0 U                      | 1.0 U                   | 1.0 U                           |
| Carbon tetrachloride                                 | 1.0 U                      | 1.0 U                      | 1.0 U                   | 1.0 U                           |
| Chlorobenzene                                        | 5.0 U                      | 5.0 U                      | 5.0 U                   | 5.0 U                           |
| Chloroethane                                         | 0.28 U                     | 1.0 U                      | 1.0 U                   | 1.0 U                           |
| Chloroform (Trichloromethane)                        | 5.0 U                      | 5.0 U                      | 5.0 U                   | 5.0 U                           |
| Chloromethane (Methyl chloride)                      | 1.0 U                      | 1.5                        | 1.0 U                   | 1.0 U                           |
| cis-1,2-Dichloroethene                               | 1.0 U                      | 1.0 U                      | 1.0 U                   | 1.0 U                           |
| cis-1,3-Dichloropropene                              | 1.0 U                      | 1.0 U                      | 1.0 U                   | 1.0 U                           |
| Cyclohexane                                          | 5.0 U                      | 5.0 U                      | 5.0 U                   | 5.0 U                           |
| Dibromochloromethane                                 | 5.0 U                      | 5.0 U                      | 5.0 U                   | 5.0 U                           |
| Dichlorodifluoromethane (CFC-12)                     | 5.0 U                      | 5.0 U                      | 5.0 U                   | 5.0 U                           |
| Ethylbenzene                                         | 1.0 U                      | 1.0 U                      | 1.0 U                   | 1.0 U                           |
| Isopropyl benzene                                    | 5.0 U                      | 5.0 U                      | 5.0 U                   | 5.0 U                           |

Table 2

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| AOI                                                         | AOI 25, AOI 4.1<br>MW35-12 | AOI 25, AOI 4.1<br>MW40-12 | AOI 11<br>MW41-12       | AOI 11<br>MW41-12       |
|-------------------------------------------------------------|----------------------------|----------------------------|-------------------------|-------------------------|
| Sample Location:                                            | WG-017360-102715-MR-038    | WG-017360-102715-MR-034    | WG-017360-102715-MR-035 | WG-017360-102715-MR-036 |
| Sample Identification:                                      | 10/27/2015                 | 10/27/2015                 | 10/27/2015              | 10/27/2015              |
| Sample Date:                                                |                            |                            |                         |                         |
| Sample Type:                                                |                            |                            |                         | Duplicate               |
| Segment_Depth                                               | (24.6-29.6) ft BGS         | (45-50) ft BGS             | (18.3-28.3) ft BGS      | (18.3-28.3) ft BGS      |
| Units                                                       |                            |                            |                         |                         |
| <b>Volatile Organic Compounds</b>                           |                            |                            |                         |                         |
| Methyl acetate                                              | 10 U                       | 10 U                       | 10 U                    | 10 U                    |
| Methyl cyclohexane                                          | 1.0 U                      | 1.0 U                      | 1.0 U                   | 1.0 U                   |
| Methyl tert butyl ether (MTBE)                              | 5.0 U                      | 5.0 U                      | 5.0 U                   | 5.0 U                   |
| Methylene chloride                                          | 5.0 U                      | 5.0 U                      | 5.0 U                   | 5.0 U                   |
| Styrene                                                     | 1.0 U                      | 1.0 U                      | 1.0 U                   | 1.0 U                   |
| Tetrachloroethene                                           | 1.0 U                      | 1.0 U                      | 1.0 U                   | 1.0 U                   |
| Toluene                                                     | 1.0 U                      | 1.0 U                      | 1.0 U                   | 1.0 U                   |
| trans-1,2-Dichloroethene                                    | 1.0 U                      | 1.0 U                      | 1.0 U                   | 1.0 U                   |
| trans-1,3-Dichloropropene                                   | 1.0 U                      | 1.0 U                      | 1.0 U                   | 1.0 U                   |
| Trichloroethene                                             | 31                         | 6.0                        | 1.0 U                   | 1.0 U                   |
| Trichlorofluoromethane (CFC-11)                             | 1.0 U                      | 1.0 U                      | 1.0 U                   | 1.0 U                   |
| Trifluorotrichloroethane (CFC-113)                          | 1.0 U                      | 1.0 U                      | 1.0 U                   | 1.0 U                   |
| Vinyl chloride                                              | 1.0 U                      | 1.0 U                      | 1.0 U                   | 1.0 U                   |
| Xylenes (total)                                             | 3.0 U                      | 3.0 U                      | 3.0 U                   | 3.0 U                   |
| <b>Semi-Volatile Organic Compounds</b>                      |                            |                            |                         |                         |
| 2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether) | --                         | --                         | --                      | --                      |
| 2,4,5-Trichlorophenol                                       | --                         | --                         | --                      | --                      |
| 2,4,6-Trichlorophenol                                       | --                         | --                         | --                      | --                      |
| 2,4-Dichlorophenol                                          | --                         | --                         | --                      | --                      |
| 2,4-Dimethylphenol                                          | --                         | --                         | --                      | --                      |
| 2,4-Dinitrophenol                                           | --                         | --                         | --                      | --                      |
| 2,4-Dinitrotoluene                                          | --                         | --                         | --                      | --                      |
| 2,6-Dinitrotoluene                                          | --                         | --                         | --                      | --                      |
| 2-Chloronaphthalene                                         | --                         | --                         | --                      | --                      |
| 2-Chlorophenol                                              | --                         | --                         | --                      | --                      |
| 2-Methylnaphthalene                                         | --                         | --                         | --                      | --                      |
| 2-Methylphenol                                              | --                         | --                         | --                      | --                      |
| 2-Nitroaniline                                              | --                         | --                         | --                      | --                      |
| 2-Nitrophenol                                               | --                         | --                         | --                      | --                      |
| 3,4-Methylphenol                                            | --                         | --                         | --                      | --                      |
| 3,3'-Dichlorobenzidine                                      | --                         | --                         | --                      | --                      |
| 3-Nitroaniline                                              | --                         | --                         | --                      | --                      |
| 4,6-Dinitro-2-methylphenol                                  | --                         | --                         | --                      | --                      |
| 4-Bromophenyl phenyl ether                                  | --                         | --                         | --                      | --                      |
| 4-Chloro-3-methylphenol                                     | --                         | --                         | --                      | --                      |
| 4-Chloroaniline                                             | --                         | --                         | --                      | --                      |
| 4-Chlorophenyl phenyl ether                                 | --                         | --                         | --                      | --                      |
| 4-Nitroaniline                                              | --                         | --                         | --                      | --                      |
| 4-Nitrophenol                                               | --                         | --                         | --                      | --                      |
| Acenaphthene                                                | --                         | --                         | --                      | --                      |

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| AOI                               | AOI 25, AOI 4.1<br>MW35-12 | AOI 25, AOI 4.1<br>MW40-12 | AOI 11<br>MW41-12        | AOI 11<br>MW41-12        |
|-----------------------------------|----------------------------|----------------------------|--------------------------|--------------------------|
| Sample Location:                  | WG-017360-102715-MIR-038   | WG-017360-102715-MIR-034   | WG-017360-102715-MIR-035 | WG-017360-102715-MIR-036 |
| Sample Identification:            | 10/27/2015                 | 10/27/2015                 | 10/27/2015               | 10/27/2015               |
| Sample Date:                      |                            |                            |                          |                          |
| Sample Type:                      |                            |                            |                          | Duplicate                |
| Segment_Depth                     | (24.6-29.6) ft BGS         | (45-50) ft BGS             | (18.3-28.3) ft BGS       | (18.3-28.3) ft BGS       |
| Semi-Volatile Organic Compounds   |                            |                            |                          |                          |
| Acenaphthylene                    | ug/L                       | ug/L                       | ug/L                     | ug/L                     |
| Acetophenone                      | ug/L                       | ug/L                       | ug/L                     | ug/L                     |
| Anthracene                        | ug/L                       | ug/L                       | ug/L                     | ug/L                     |
| Atrazine                          | ug/L                       | ug/L                       | ug/L                     | ug/L                     |
| Benzaldehyde                      | ug/L                       | ug/L                       | ug/L                     | ug/L                     |
| Benzo(a)anthracene                | ug/L                       | ug/L                       | ug/L                     | ug/L                     |
| Benzo(a)pyrene                    | ug/L                       | ug/L                       | ug/L                     | ug/L                     |
| Benzo(b)fluoranthene              | ug/L                       | ug/L                       | ug/L                     | ug/L                     |
| Benzo(g,h,i)perylene              | ug/L                       | ug/L                       | ug/L                     | ug/L                     |
| Benzo(k)fluoranthene              | ug/L                       | ug/L                       | ug/L                     | ug/L                     |
| Biphenyl (1,1-Biphenyl)           | ug/L                       | ug/L                       | ug/L                     | ug/L                     |
| bis(2-Chloroethoxy)methane        | ug/L                       | ug/L                       | ug/L                     | ug/L                     |
| bis(2-Ethylhexyl)phthalate (DEHP) | ug/L                       | ug/L                       | ug/L                     | ug/L                     |
| bis(2-Ethylhexyl)phthalate (DEHP) | ug/L                       | ug/L                       | ug/L                     | ug/L                     |
| Butyl benzylphthalate (BBP)       | ug/L                       | ug/L                       | ug/L                     | ug/L                     |
| Caprolactam                       | ug/L                       | ug/L                       | ug/L                     | ug/L                     |
| Carbazole                         | ug/L                       | ug/L                       | ug/L                     | ug/L                     |
| Chrysene                          | ug/L                       | ug/L                       | ug/L                     | ug/L                     |
| Dibenz(a,h)anthracene             | ug/L                       | ug/L                       | ug/L                     | ug/L                     |
| Dibenzofuran                      | ug/L                       | ug/L                       | ug/L                     | ug/L                     |
| Diethyl phthalate                 | ug/L                       | ug/L                       | ug/L                     | ug/L                     |
| Dimethyl phthalate                | ug/L                       | ug/L                       | ug/L                     | ug/L                     |
| Di-n-butylphthalate (DBP)         | ug/L                       | ug/L                       | ug/L                     | ug/L                     |
| Di-n-octyl phthalate (DnOP)       | ug/L                       | ug/L                       | ug/L                     | ug/L                     |
| Fluoranthene                      | ug/L                       | ug/L                       | ug/L                     | ug/L                     |
| Fluorene                          | ug/L                       | ug/L                       | ug/L                     | ug/L                     |
| Hexachlorobenzene                 | ug/L                       | ug/L                       | ug/L                     | ug/L                     |
| Hexachlorobutadiene               | ug/L                       | ug/L                       | ug/L                     | ug/L                     |
| Hexachlorocyclopentadiene         | ug/L                       | ug/L                       | ug/L                     | ug/L                     |
| Hexachloroethane                  | ug/L                       | ug/L                       | ug/L                     | ug/L                     |
| Indeno(1,2,3-cd)pyrene            | ug/L                       | ug/L                       | ug/L                     | ug/L                     |
| Isophorone                        | ug/L                       | ug/L                       | ug/L                     | ug/L                     |
| Naphthalene                       | ug/L                       | ug/L                       | ug/L                     | ug/L                     |
| Nitrobenzene                      | ug/L                       | ug/L                       | ug/L                     | ug/L                     |
| N-Nitrosodi-n-propylamine         | ug/L                       | ug/L                       | ug/L                     | ug/L                     |
| N-Nitrosodiphenylamine            | ug/L                       | ug/L                       | ug/L                     | ug/L                     |
| Pentachlorophenol                 | ug/L                       | ug/L                       | ug/L                     | ug/L                     |
| Phenanthrene                      | ug/L                       | ug/L                       | ug/L                     | ug/L                     |
| Phenol                            | ug/L                       | ug/L                       | ug/L                     | ug/L                     |
| Pyrene                            | ug/L                       | ug/L                       | ug/L                     | ug/L                     |



Table 2

Validated Analytical Summary Results  
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| AOI                    | AOI 25, AOI 4.1<br>MW35-12 | AOI 25, AOI 4.1<br>MW40-12 | AOI 11<br>MW41-12       | AOI 11<br>MW41-12       |
|------------------------|----------------------------|----------------------------|-------------------------|-------------------------|
| Sample Location:       | WG-017360-102715-MR-038    | WG-017360-102715-MR-034    | WG-017360-102715-MR-035 | WG-017360-102715-MR-036 |
| Sample Identification: | 10/27/2015                 | 10/27/2015                 | 10/27/2015              | 10/27/2015              |
| Sample Date:           |                            |                            |                         |                         |
| Sample Type:           |                            |                            |                         | Duplicate               |
| Segment_Depth          | (24.6-29.6) ft BGS         | (45-50) ft BGS             | (18.3-28.3) ft BGS      | (18.3-28.3) ft BGS      |
| Metals                 |                            |                            |                         |                         |
| Antimony               | ug/L                       | ug/L                       | ug/L                    | ug/L                    |
| Arsenic                | ug/L                       | ug/L                       | ug/L                    | ug/L                    |
| Barium                 | ug/L                       | ug/L                       | ug/L                    | ug/L                    |
| Beryllium              | ug/L                       | ug/L                       | ug/L                    | ug/L                    |
| Cadmium                | ug/L                       | ug/L                       | ug/L                    | ug/L                    |
| Chromium               | ug/L                       | ug/L                       | ug/L                    | ug/L                    |
| Cobalt                 | ug/L                       | ug/L                       | ug/L                    | ug/L                    |
| Copper                 | ug/L                       | ug/L                       | ug/L                    | ug/L                    |
| Iron                   | ug/L                       | ug/L                       | ug/L                    | ug/L                    |
| Lead                   | ug/L                       | ug/L                       | ug/L                    | ug/L                    |
| Manganese              | ug/L                       | ug/L                       | ug/L                    | ug/L                    |
| Mercury                | ug/L                       | ug/L                       | ug/L                    | ug/L                    |
| Molybdenum             | ug/L                       | ug/L                       | ug/L                    | ug/L                    |
| Nickel                 | ug/L                       | ug/L                       | ug/L                    | ug/L                    |
| Selenium               | ug/L                       | ug/L                       | ug/L                    | ug/L                    |
| Silver                 | ug/L                       | ug/L                       | ug/L                    | ug/L                    |
| Thallium               | ug/L                       | ug/L                       | ug/L                    | ug/L                    |
| Vanadium               | ug/L                       | ug/L                       | ug/L                    | ug/L                    |
| Zinc                   | ug/L                       | ug/L                       | ug/L                    | ug/L                    |

Table 2

Validated Analytical Summary Results  
2015 Monitoring Well and Culvert Sampling  
Racer Grand Rapids Stamping Site  
Wyoming, Michigan  
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| AOI                                                  | UNKNOWN<br>MW60-14<br>WG-017360-102715-MR-032<br>10/27/2015 | UNKNOWN<br>MW60-14<br>WG-017360-102715-MR-033<br>10/27/2015 | AOI 25, AOI 4.1<br>MW37-12<br>WG-017360-102815-MR-040<br>10/28/2015 | AOI 19<br>MW38-12<br>WG-017360-102815-MR-041<br>10/28/2015 |
|------------------------------------------------------|-------------------------------------------------------------|-------------------------------------------------------------|---------------------------------------------------------------------|------------------------------------------------------------|
| Sample Location:                                     |                                                             |                                                             |                                                                     |                                                            |
| Sample Identification:                               |                                                             |                                                             |                                                                     |                                                            |
| Sample Date:                                         |                                                             |                                                             |                                                                     |                                                            |
| Sample Type:                                         |                                                             |                                                             |                                                                     |                                                            |
| Segment_Depth                                        | (21-26) ft BGS                                              | Duplicate<br>(21-26) ft BGS                                 | (19.4-29.4) ft BGS                                                  | (20-30) ft BGS                                             |
| Units                                                |                                                             |                                                             |                                                                     |                                                            |
| <b>Volatile Organic Compounds</b>                    |                                                             |                                                             |                                                                     |                                                            |
| 1,1,1-Trichloroethane                                | 1.0 U                                                       | 1.0 U                                                       | 1.0 U                                                               | 1.0 U                                                      |
| 1,1,2,2-Tetrachloroethane                            | 1.0 U                                                       | 1.0 U                                                       | 1.0 U                                                               | 1.0 U                                                      |
| 1,1,2-Trichloroethane                                | 1.0 U                                                       | 1.0 U                                                       | 1.0 U                                                               | 1.0 U                                                      |
| 1,1-Dichloroethane                                   | 1.0 U                                                       | 1.0 U                                                       | 1.0 U                                                               | 1.0 U                                                      |
| 1,1-Dichloroethene                                   | 5.0 U                                                       | 5.0 U                                                       | 5.0 U                                                               | 5.0 U                                                      |
| 1,2,4-Trichlorobenzene                               | 1.0 U                                                       | 1.0 U                                                       | 1.0 U                                                               | 1.0 U                                                      |
| 1,2-Dibromo-3-chloropropane (DBCP)                   | 1.0 U                                                       | 1.0 U                                                       | 1.0 U                                                               | 1.0 U                                                      |
| 1,2-Dibromoethane (Ethylene dibromide)               | 1.0 U                                                       | 1.0 U                                                       | 1.0 U                                                               | 1.0 U                                                      |
| 1,2-Dichlorobenzene                                  | 1.0 U                                                       | 1.0 U                                                       | 1.0 U                                                               | 1.0 U                                                      |
| 1,2-Dichloroethane                                   | 1.0 U                                                       | 1.0 U                                                       | 1.0 U                                                               | 1.0 U                                                      |
| 1,2-Dichloropropane                                  | 1.0 U                                                       | 1.0 U                                                       | 1.0 U                                                               | 1.0 U                                                      |
| 1,3-Dichlorobenzene                                  | 1.0 U                                                       | 1.0 U                                                       | 1.0 U                                                               | 1.0 U                                                      |
| 1,4-Dichlorobenzene                                  | 1.0 U                                                       | 1.0 U                                                       | 1.0 U                                                               | 1.0 U                                                      |
| 2-Butanone (Methyl ethyl ketone) (MEK)               | 25 U                                                        | 25 U                                                        | 25 U                                                                | 25 U                                                       |
| 2-Hexanone                                           | 50 U                                                        | 50 U                                                        | 50 U                                                                | 50 U                                                       |
| 4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK) | 50 U                                                        | 50 U                                                        | 50 U                                                                | 50 U                                                       |
| Acetone                                              | 1.0 U                                                       | 1.0 U                                                       | 1.0 U                                                               | 0.41 J                                                     |
| Benzene                                              | 1.0 U                                                       | 1.0 U                                                       | 1.0 U                                                               | 1.0 U                                                      |
| Bromodichloromethane                                 | 1.0 U                                                       | 1.0 U                                                       | 1.0 U                                                               | 1.0 U                                                      |
| Bromoform                                            | 5.0 U                                                       | 5.0 U                                                       | 5.0 U                                                               | 5.0 U                                                      |
| Bromomethane (Methyl bromide)                        | 5.0 U                                                       | 5.0 U                                                       | 5.0 U                                                               | 5.0 U                                                      |
| Carbon disulfide                                     | 1.0 U                                                       | 1.0 U                                                       | 1.0 U                                                               | 1.0 U                                                      |
| Carbon tetrachloride                                 | 1.0 U                                                       | 1.0 U                                                       | 1.0 U                                                               | 1.0 U                                                      |
| Chlorobenzene                                        | 5.0 U                                                       | 5.0 U                                                       | 5.0 U                                                               | 5.0 U                                                      |
| Chloroethane                                         | 1.0 U                                                       | 1.0 U                                                       | 1.0 U                                                               | 1.0 U                                                      |
| Chloroform (Trichloromethane)                        | 5.0 U                                                       | 5.0 U                                                       | 5.0 U                                                               | 5.0 U                                                      |
| Chloromethane (Methyl chloride)                      | 1.0 U                                                       | 1.0 U                                                       | 1.0 U                                                               | 2.8                                                        |
| cis-1,2-Dichloroethene                               | 1.0 U                                                       | 1.0 U                                                       | 1.0 U                                                               | 1.0 U                                                      |
| cis-1,3-Dichloropropene                              | 1.0 U                                                       | 1.0 U                                                       | 1.0 U                                                               | 1.0 U                                                      |
| Cyclohexane                                          | 5.0 U                                                       | 5.0 U                                                       | 5.0 U                                                               | 5.0 U                                                      |
| Dibromochloromethane                                 | 5.0 U                                                       | 5.0 U                                                       | 5.0 U                                                               | 5.0 U                                                      |
| Dichlorodifluoromethane (CFC-12)                     | 1.0 U                                                       | 1.0 U                                                       | 1.0 U                                                               | 1.0 U                                                      |
| Ethylbenzene                                         | 5.0 U                                                       | 5.0 U                                                       | 5.0 U                                                               | 5.0 U                                                      |
| Isopropyl benzene                                    | 5.0 U                                                       | 5.0 U                                                       | 5.0 U                                                               | 5.0 U                                                      |

Table 2

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2015 Monitoring Well and Culvert Sampling  
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| AOI                                                         | UNKNOWN<br>MW60-14<br>WG-017360-102715-MIR-032<br>10/27/2015 | UNKNOWN<br>MW60-14<br>WG-017360-102715-MIR-033<br>10/27/2015<br>Duplicate | AOI 25, AOI 4.1<br>MW37-12<br>WG-017360-102815-MIR-040<br>10/28/2015 | AOI 19<br>MW38-12<br>WG-017360-102815-MIR-041<br>10/28/2015 |
|-------------------------------------------------------------|--------------------------------------------------------------|---------------------------------------------------------------------------|----------------------------------------------------------------------|-------------------------------------------------------------|
| Sample Location:                                            |                                                              |                                                                           |                                                                      |                                                             |
| Sample Identification:                                      |                                                              |                                                                           |                                                                      |                                                             |
| Sample Date:                                                |                                                              |                                                                           |                                                                      |                                                             |
| Sample Type:                                                |                                                              |                                                                           |                                                                      |                                                             |
| Segment_Depth                                               | (21-26) ft BGS                                               | (21-26) ft BGS                                                            | (19.4-29.4) ft BGS                                                   | (20-30) ft BGS                                              |
| <b>Volatile Organic Compounds</b>                           | Units                                                        |                                                                           |                                                                      |                                                             |
| Methyl acetate                                              | 10 U                                                         | 10 U                                                                      | 10 U                                                                 | 10 U                                                        |
| Methyl cyclohexane                                          | 1.0 U                                                        | 1.0 U                                                                     | 1.0 U                                                                | 1.0 U                                                       |
| Methyl tert butyl ether (MTBE)                              | 5.0 U                                                        | 5.0 U                                                                     | 5.0 U                                                                | 5.0 U                                                       |
| Methylene chloride                                          | 5.0 U                                                        | 5.0 U                                                                     | 5.0 U                                                                | 5.0 U                                                       |
| Styrene                                                     | 1.0 U                                                        | 1.0 U                                                                     | 1.0 U                                                                | 1.0 U                                                       |
| Tetrachloroethene                                           | 1.0 U                                                        | 1.0 U                                                                     | 1.0 U                                                                | 1.0 U                                                       |
| Toluene                                                     | 1.0 U                                                        | 1.0 U                                                                     | 1.0 U                                                                | 1.0 U                                                       |
| trans-1,2-Dichloroethene                                    | 1.0 U                                                        | 1.0 U                                                                     | 1.0 U                                                                | 1.0 U                                                       |
| trans-1,3-Dichloropropene                                   | 1.0 U                                                        | 1.0 U                                                                     | 1.0 U                                                                | 1.0 U                                                       |
| Trichloroethene                                             | 0.51 J                                                       | 0.51 J                                                                    | 6.8                                                                  | 1.0 U                                                       |
| Trichlorofluoromethane (CFC-11)                             | 1.0 U                                                        | 1.0 U                                                                     | 1.0 U                                                                | 1.0 U                                                       |
| Trifluorotrichloroethane (CFC-113)                          | 1.0 U                                                        | 1.0 U                                                                     | 1.0 U                                                                | 1.0 U                                                       |
| Vinyl chloride                                              | 1.0 U                                                        | 1.0 U                                                                     | 1.0 U                                                                | 9.1                                                         |
| Xylenes (total)                                             | 3.0 U                                                        | 3.0 U                                                                     | 3.0 U                                                                | 3.0 U                                                       |
| <b>Semi-Volatile Organic Compounds</b>                      |                                                              |                                                                           |                                                                      |                                                             |
| 2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether) | --                                                           | --                                                                        | --                                                                   | --                                                          |
| 2,4,5-Trichlorophenol                                       | --                                                           | --                                                                        | --                                                                   | --                                                          |
| 2,4,6-Trichlorophenol                                       | --                                                           | --                                                                        | --                                                                   | --                                                          |
| 2,4-Dichlorophenol                                          | --                                                           | --                                                                        | --                                                                   | --                                                          |
| 2,4-Dimethylphenol                                          | --                                                           | --                                                                        | --                                                                   | --                                                          |
| 2,4-Dinitrophenol                                           | --                                                           | --                                                                        | --                                                                   | --                                                          |
| 2,4-Dinitrotoluene                                          | --                                                           | --                                                                        | --                                                                   | --                                                          |
| 2,6-Dinitrotoluene                                          | --                                                           | --                                                                        | --                                                                   | --                                                          |
| 2-Chloronaphthalene                                         | --                                                           | --                                                                        | --                                                                   | --                                                          |
| 2-Chlorophenol                                              | --                                                           | --                                                                        | --                                                                   | --                                                          |
| 2-Methylnaphthalene                                         | --                                                           | --                                                                        | --                                                                   | --                                                          |
| 2-Methylphenol                                              | --                                                           | --                                                                        | --                                                                   | --                                                          |
| 2-Nitroaniline                                              | --                                                           | --                                                                        | --                                                                   | --                                                          |
| 2-Nitrophenol                                               | --                                                           | --                                                                        | --                                                                   | --                                                          |
| 3&4-Methylphenol                                            | --                                                           | --                                                                        | --                                                                   | --                                                          |
| 3,3'-Dichlorobenzidine                                      | --                                                           | --                                                                        | --                                                                   | --                                                          |
| 3-Nitroaniline                                              | --                                                           | --                                                                        | --                                                                   | --                                                          |
| 4,6-Dinitro-2-methylphenol                                  | --                                                           | --                                                                        | --                                                                   | --                                                          |
| 4-Bromophenyl phenyl ether                                  | --                                                           | --                                                                        | --                                                                   | --                                                          |
| 4-Chloro-3-methylphenol                                     | --                                                           | --                                                                        | --                                                                   | --                                                          |
| 4-Chloroaniline                                             | --                                                           | --                                                                        | --                                                                   | --                                                          |
| 4-Chlorophenyl phenyl ether                                 | --                                                           | --                                                                        | --                                                                   | --                                                          |
| 4-Nitroaniline                                              | --                                                           | --                                                                        | --                                                                   | --                                                          |
| 4-Nitrophenol                                               | --                                                           | --                                                                        | --                                                                   | --                                                          |
| Acenaphthene                                                | --                                                           | --                                                                        | --                                                                   | --                                                          |

Table 2

Validated Analytical Summary Results  
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Wyoming, Michigan  
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| AOI                               | UNKNOWN<br>MW60-14<br>WG-017360-102715-MR-032<br>10/27/2015<br>(21-26) ft BGS | UNKNOWN<br>MW60-14<br>WG-017360-102715-MR-033<br>10/27/2015<br>Duplicate<br>(21-26) ft BGS | AOI 25, AOI 4.1<br>MW37-12<br>WG-017360-102815-MR-040<br>10/28/2015<br>(19.4-29.4) ft BGS | AOI 19<br>MW38-12<br>WG-017360-102815-MR-041<br>10/28/2015<br>(20-30) ft BGS |
|-----------------------------------|-------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|
| Sample Location:                  |                                                                               |                                                                                            |                                                                                           |                                                                              |
| Sample Identification:            |                                                                               |                                                                                            |                                                                                           |                                                                              |
| Sample Date:                      |                                                                               |                                                                                            |                                                                                           |                                                                              |
| Sample Type:                      |                                                                               |                                                                                            |                                                                                           |                                                                              |
| Segment_Depth                     |                                                                               |                                                                                            |                                                                                           |                                                                              |
| Semi-Volatile Organic Compounds   |                                                                               |                                                                                            |                                                                                           |                                                                              |
| Acenaphthylene                    | ug/L                                                                          | --                                                                                         | --                                                                                        | --                                                                           |
| Acetophenone                      | ug/L                                                                          | --                                                                                         | --                                                                                        | --                                                                           |
| Anthracene                        | ug/L                                                                          | --                                                                                         | --                                                                                        | --                                                                           |
| Atrazine                          | ug/L                                                                          | --                                                                                         | --                                                                                        | --                                                                           |
| Benzo(a)anthracene                | ug/L                                                                          | --                                                                                         | --                                                                                        | --                                                                           |
| Benzo(a)pyrene                    | ug/L                                                                          | --                                                                                         | --                                                                                        | --                                                                           |
| Benzo(b)fluoranthene              | ug/L                                                                          | --                                                                                         | --                                                                                        | --                                                                           |
| Benzo(g,h,i)perylene              | ug/L                                                                          | --                                                                                         | --                                                                                        | --                                                                           |
| Benzo(k)fluoranthene              | ug/L                                                                          | --                                                                                         | --                                                                                        | --                                                                           |
| Biphenyl (1,1-Biphenyl)           | ug/L                                                                          | --                                                                                         | --                                                                                        | --                                                                           |
| bis(2-Chloroethoxy)methane        | ug/L                                                                          | --                                                                                         | --                                                                                        | --                                                                           |
| bis(2-Chloroethoxy)ether          | ug/L                                                                          | --                                                                                         | --                                                                                        | --                                                                           |
| bis(2-Ethylhexyl)phthalate (DEHP) | ug/L                                                                          | --                                                                                         | --                                                                                        | --                                                                           |
| bis(2-Ethylhexyl)phthalate (DEHP) | ug/L                                                                          | --                                                                                         | --                                                                                        | --                                                                           |
| Butyl benzylphthalate (BBP)       | ug/L                                                                          | --                                                                                         | --                                                                                        | --                                                                           |
| Caprolactam                       | ug/L                                                                          | --                                                                                         | --                                                                                        | --                                                                           |
| Carbazole                         | ug/L                                                                          | --                                                                                         | --                                                                                        | --                                                                           |
| Chrysene                          | ug/L                                                                          | --                                                                                         | --                                                                                        | --                                                                           |
| Dibenz(a,h)anthracene             | ug/L                                                                          | --                                                                                         | --                                                                                        | --                                                                           |
| Dibenzofuran                      | ug/L                                                                          | --                                                                                         | --                                                                                        | --                                                                           |
| Diethyl phthalate                 | ug/L                                                                          | --                                                                                         | --                                                                                        | --                                                                           |
| Dimethyl phthalate                | ug/L                                                                          | --                                                                                         | --                                                                                        | --                                                                           |
| Di-n-butylphthalate (DBP)         | ug/L                                                                          | --                                                                                         | --                                                                                        | --                                                                           |
| Di-n-octyl phthalate (DnOP)       | ug/L                                                                          | --                                                                                         | --                                                                                        | --                                                                           |
| Fluoranthene                      | ug/L                                                                          | --                                                                                         | --                                                                                        | --                                                                           |
| Fluorene                          | ug/L                                                                          | --                                                                                         | --                                                                                        | --                                                                           |
| Hexachlorobenzene                 | ug/L                                                                          | --                                                                                         | --                                                                                        | --                                                                           |
| Hexachlorobutadiene               | ug/L                                                                          | --                                                                                         | --                                                                                        | --                                                                           |
| Hexachlorocyclopentadiene         | ug/L                                                                          | --                                                                                         | --                                                                                        | --                                                                           |
| Hexachloroethane                  | ug/L                                                                          | --                                                                                         | --                                                                                        | --                                                                           |
| Indeno(1,2,3-cd)pyrene            | ug/L                                                                          | --                                                                                         | --                                                                                        | --                                                                           |
| Isophorone                        | ug/L                                                                          | --                                                                                         | --                                                                                        | --                                                                           |
| Naphthalene                       | ug/L                                                                          | --                                                                                         | --                                                                                        | --                                                                           |
| Nitrobenzene                      | ug/L                                                                          | --                                                                                         | --                                                                                        | --                                                                           |
| N-Nitrosodi-n-propylamine         | ug/L                                                                          | --                                                                                         | --                                                                                        | --                                                                           |
| N-Nitrosodiphenylamine            | ug/L                                                                          | --                                                                                         | --                                                                                        | --                                                                           |
| Pentachlorophenol                 | ug/L                                                                          | --                                                                                         | --                                                                                        | --                                                                           |
| Phenanthrene                      | ug/L                                                                          | --                                                                                         | --                                                                                        | --                                                                           |
| Phenol                            | ug/L                                                                          | --                                                                                         | --                                                                                        | --                                                                           |
| Pyrene                            | ug/L                                                                          | --                                                                                         | --                                                                                        | --                                                                           |

Table 2

Validated Analytical Summary Results  
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| AOI              | UNKNOWN<br>MW60-14<br>WG-017360-102715-MR-032<br>10/27/2015 | UNKNOWN<br>MW60-14<br>WG-017360-102715-MR-033<br>10/27/2015<br>Duplicate | AOI 25, AOI 4.1<br>MW37-12<br>WG-017360-102815-MR-040<br>10/28/2015 | AOI 19<br>MW38-12<br>WG-017360-102815-MR-041<br>10/28/2015 |
|------------------|-------------------------------------------------------------|--------------------------------------------------------------------------|---------------------------------------------------------------------|------------------------------------------------------------|
| Sample Location: |                                                             |                                                                          |                                                                     |                                                            |
| Sample Date:     |                                                             |                                                                          |                                                                     |                                                            |
| Sample Type:     |                                                             |                                                                          |                                                                     |                                                            |
| Segment_Depth    | (21-26) ft BGS                                              | (21-26) ft BGS                                                           | (19.4-29.4) ft BGS                                                  | (20-30) ft BGS                                             |
| Metals           | Units                                                       |                                                                          |                                                                     |                                                            |
| Antimony         | ug/L                                                        | 0.12 J                                                                   |                                                                     | --                                                         |
| Arsenic          | ug/L                                                        | 5 U                                                                      |                                                                     | --                                                         |
| Barium           | ug/L                                                        | 23 J                                                                     |                                                                     | --                                                         |
| Beryllium        | ug/L                                                        | 1 U                                                                      |                                                                     | --                                                         |
| Cadmium          | ug/L                                                        | 1 U                                                                      |                                                                     | --                                                         |
| Chromium         | ug/L                                                        | 10 U                                                                     |                                                                     | --                                                         |
| Cobalt           | ug/L                                                        | 2.6 J                                                                    |                                                                     | --                                                         |
| Copper           | ug/L                                                        | 4 U                                                                      |                                                                     | --                                                         |
| Iron             | ug/L                                                        | 27 J                                                                     |                                                                     | --                                                         |
| Lead             | ug/L                                                        | 0.31 J                                                                   |                                                                     | --                                                         |
| Manganese        | ug/L                                                        | 2.3 J                                                                    |                                                                     | --                                                         |
| Mercury          | ug/L                                                        | 0.2 U                                                                    |                                                                     | --                                                         |
| Molybdenum       | ug/L                                                        | 3.3 J                                                                    |                                                                     | --                                                         |
| Nickel           | ug/L                                                        | 2.8 J                                                                    |                                                                     | --                                                         |
| Selenium         | ug/L                                                        | 5 U                                                                      |                                                                     | --                                                         |
| Silver           | ug/L                                                        | 0.2 U                                                                    |                                                                     | --                                                         |
| Thallium         | ug/L                                                        | 2 U                                                                      |                                                                     | --                                                         |
| Vanadium         | ug/L                                                        | 0.53 J                                                                   |                                                                     | --                                                         |
| Zinc             | ug/L                                                        | 5.2 J                                                                    |                                                                     | --                                                         |



Table 2

Validated Analytical Summary Results  
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| AOI                                                  | AOI 16.1<br>MW42-12<br>WG-017360-102815-MR-039<br>10/28/2015 | AOI 17.1<br>MW43-12<br>WG-017360-102815-MR-043<br>10/28/2015 | AOI 6<br>MW45-12<br>WG-017360-102815-MR-044<br>10/28/2015 | AOI 6, AOI 25, AOI 4.1<br>MW46-12<br>WG-017360-102815-MR-042<br>10/28/2015 |
|------------------------------------------------------|--------------------------------------------------------------|--------------------------------------------------------------|-----------------------------------------------------------|----------------------------------------------------------------------------|
| Sample Location:                                     |                                                              |                                                              |                                                           |                                                                            |
| Sample Identification:                               |                                                              |                                                              |                                                           |                                                                            |
| Sample Date:                                         |                                                              |                                                              |                                                           |                                                                            |
| Sample Type:                                         |                                                              |                                                              |                                                           |                                                                            |
| Segment_Depth                                        |                                                              |                                                              |                                                           |                                                                            |
|                                                      | (21-31) ft BGS                                               | (15-25) ft BGS                                               | (19.1-29.1) ft BGS                                        | (20.2-30.2) ft BGS                                                         |
| Units                                                |                                                              |                                                              |                                                           |                                                                            |
| <b>Volatile Organic Compounds</b>                    |                                                              |                                                              |                                                           |                                                                            |
| 1,1,1-Trichloroethane                                | 1.0 U                                                        | 1.0 U                                                        | 1.0 U                                                     | 1.0 U                                                                      |
| 1,1,2,2-Tetrachloroethane                            | 1.0 U                                                        | 1.0 U                                                        | 1.0 U                                                     | 1.0 U                                                                      |
| 1,1,2-Trichloroethane                                | 1.0 U                                                        | 1.0 U                                                        | 1.0 U                                                     | 1.0 U                                                                      |
| 1,1-Dichloroethane                                   | 1.0 U                                                        | 1.0 U                                                        | 1.0 U                                                     | 1.0 U                                                                      |
| 1,1-Dichloroethene                                   | 1.0 U                                                        | 1.0 U                                                        | 1.0 U                                                     | 1.0 U                                                                      |
| 1,2,4-Trichlorobenzene                               | 5.0 U                                                        | 5.0 U                                                        | 5.0 U                                                     | 5.0 U                                                                      |
| 1,2-Dibromo-3-chloropropane (DBCP)                   | 1.0 U                                                        | 1.0 U                                                        | 1.0 U                                                     | 1.0 U                                                                      |
| 1,2-Dibromoethane (Ethylene dibromide)               | 1.0 U                                                        | 1.0 U                                                        | 1.0 U                                                     | 1.0 U                                                                      |
| 1,2-Dichlorobenzene                                  | 1.0 U                                                        | 1.0 U                                                        | 1.0 U                                                     | 1.0 U                                                                      |
| 1,2-Dichloropropane                                  | 1.0 U                                                        | 1.0 U                                                        | 1.0 U                                                     | 1.0 U                                                                      |
| 1,3-Dichlorobenzene                                  | 1.0 U                                                        | 1.0 U                                                        | 1.0 U                                                     | 1.0 U                                                                      |
| 1,4-Dichlorobenzene                                  | 1.0 U                                                        | 1.0 U                                                        | 1.0 U                                                     | 1.0 U                                                                      |
| 2-Butanone (Methyl ethyl ketone) (MEK)               | 25 U                                                         | 25 U                                                         | 25 U                                                      | 25 U                                                                       |
| 2-Hexanone                                           | 50 U                                                         | 50 U                                                         | 50 U                                                      | 50 U                                                                       |
| 4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK) | 50 U                                                         | 50 U                                                         | 50 U                                                      | 50 U                                                                       |
| Acetone                                              | 1.0 U                                                        | 1.0 U                                                        | 1.0 U                                                     | 1.0 U                                                                      |
| Benzene                                              | 1.0 U                                                        | 1.0 U                                                        | 1.0 U                                                     | 1.0 U                                                                      |
| Bromodichloromethane                                 | 1.0 U                                                        | 1.0 U                                                        | 1.0 U                                                     | 1.0 U                                                                      |
| Bromoform                                            | 5.0 U                                                        | 5.0 U                                                        | 5.0 U                                                     | 5.0 U                                                                      |
| Bromomethane (Methyl bromide)                        | 5.0 U                                                        | 5.0 U                                                        | 5.0 U                                                     | 5.0 U                                                                      |
| Carbon disulfide                                     | 1.0 U                                                        | 1.0 U                                                        | 1.0 U                                                     | 1.0 U                                                                      |
| Carbon tetrachloride                                 | 1.0 U                                                        | 1.0 U                                                        | 1.0 U                                                     | 1.0 U                                                                      |
| Chlorobenzene                                        | 5.0 U                                                        | 5.0 U                                                        | 5.0 U                                                     | 5.0 U                                                                      |
| Chloroethane                                         | 1.0 U                                                        | 1.0 U                                                        | 1.0 U                                                     | 1.0 U                                                                      |
| Chloroform (Trichloromethane)                        | 5.0 U                                                        | 5.0 U                                                        | 5.0 U                                                     | 5.0 U                                                                      |
| Chloromethane (Methyl chloride)                      | 1.0 U                                                        | 1.0 U                                                        | 0.51 J                                                    | 1.0 U                                                                      |
| cis-1,2-Dichloroethene                               | 1.0 U                                                        | 1.0 U                                                        | 1.0 U                                                     | 1.0 U                                                                      |
| cis-1,3-Dichloropropene                              | 1.0 U                                                        | 1.0 U                                                        | 1.0 U                                                     | 1.0 U                                                                      |
| Cyclohexane                                          | 5.0 U                                                        | 5.0 U                                                        | 5.0 U                                                     | 5.0 U                                                                      |
| Dibromochloromethane                                 | 5.0 U                                                        | 5.0 U                                                        | 5.0 U                                                     | 5.0 U                                                                      |
| Dichlorodifluoromethane (CFC-12)                     | 5.0 U                                                        | 5.0 U                                                        | 5.0 U                                                     | 5.0 U                                                                      |
| Ethylbenzene                                         | 1.0 U                                                        | 1.0 U                                                        | 1.0 U                                                     | 1.0 U                                                                      |
| Isopropyl benzene                                    | 5.0 U                                                        | 5.0 U                                                        | 5.0 U                                                     | 5.0 U                                                                      |

Table 2

Validated Analytical Summary Results  
2015 Monitoring Well and Culvert Sampling  
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Wyoming, Michigan  
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| AOI                                                         | AOI 16.1<br>MW42-12<br>WG-017360-102815-MR-039<br>10/28/2015 | AOI 17.1<br>MW43-12<br>WG-017360-102815-MR-043<br>10/28/2015 | AOI 6<br>MW45-12<br>WG-017360-102815-MR-044<br>10/28/2015 | AOI 6, AOI 25, AOI 4.1<br>MW46-12<br>WG-017360-102815-MR-042<br>10/28/2015 |
|-------------------------------------------------------------|--------------------------------------------------------------|--------------------------------------------------------------|-----------------------------------------------------------|----------------------------------------------------------------------------|
| Sample Location:                                            |                                                              |                                                              |                                                           |                                                                            |
| Sample Identification:                                      |                                                              |                                                              |                                                           |                                                                            |
| Sample Date:                                                |                                                              |                                                              |                                                           |                                                                            |
| Sample Type:                                                |                                                              |                                                              |                                                           |                                                                            |
| Segment Depth                                               | (21-31) ft BGS                                               | (15-25) ft BGS                                               | (19.1-29.1) ft BGS                                        | (20.2-30.2) ft BGS                                                         |
| Units                                                       |                                                              |                                                              |                                                           |                                                                            |
| <b>Volatile Organic Compounds</b>                           |                                                              |                                                              |                                                           |                                                                            |
| Methyl acetate                                              | 10 U                                                         | 10 U                                                         | 10 U                                                      | 10 U                                                                       |
| Methyl cyclohexane                                          | 1.0 U                                                        | 1.0 U                                                        | 1.0 U                                                     | 1.0 U                                                                      |
| Methyl tert butyl ether (MTBE)                              | 5.0 U                                                        | 5.0 U                                                        | 5.0 U                                                     | 5.0 U                                                                      |
| Methylene chloride                                          | 5.0 U                                                        | 5.0 U                                                        | 5.0 U                                                     | 5.0 U                                                                      |
| Styrene                                                     | 1.0 U                                                        | 1.0 U                                                        | 1.0 U                                                     | 1.0 U                                                                      |
| Tetrachloroethene                                           | 2.1                                                          | 3.4                                                          | 1.6                                                       | 1.0 U                                                                      |
| Toluene                                                     | 1.0 U                                                        | 1.0 U                                                        | 1.0 U                                                     | 1.0 U                                                                      |
| trans-1,2-Dichloroethene                                    | 1.0 U                                                        | 1.0 U                                                        | 1.0 U                                                     | 1.0 U                                                                      |
| trans-1,3-Dichloropropene                                   | 1.0 U                                                        | 1.0 U                                                        | 1.0 U                                                     | 1.0 U                                                                      |
| Trichloroethene                                             | 1.0 U                                                        | 1.0                                                          | 0.96 J                                                    | 1.0 U                                                                      |
| Trichlorofluoromethane (CFC-11)                             | 1.0 U                                                        | 1.0 U                                                        | 1.0 U                                                     | 1.0 U                                                                      |
| Trifluorotrichloroethane (CFC-113)                          | 1.0 U                                                        | 1.0 U                                                        | 1.0 U                                                     | 1.0 U                                                                      |
| Vinyl chloride                                              | 1.0 U                                                        | 1.0 U                                                        | 1.0 U                                                     | 1.0 U                                                                      |
| Xylenes (total)                                             | 3.0 U                                                        | 3.0 U                                                        | 3.0 U                                                     | 3.0 U                                                                      |
| <b>Semi-Volatile Organic Compounds</b>                      |                                                              |                                                              |                                                           |                                                                            |
| 2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether) |                                                              |                                                              | 5.0 U                                                     | 5.0 U                                                                      |
| 2,4,5-Trichlorophenol                                       |                                                              |                                                              | 5.0 U                                                     | 5.0 U                                                                      |
| 2,4,6-Trichlorophenol                                       |                                                              |                                                              | 5.0 U                                                     | 5.0 U                                                                      |
| 2,4-Dichlorophenol                                          |                                                              |                                                              | 5.0 U                                                     | 5.0 U                                                                      |
| 2,4-Dimethylphenol                                          |                                                              |                                                              | 0.41 J                                                    | 5.0 U                                                                      |
| 2,4-Dinitrophenol                                           |                                                              |                                                              | 5.0 U                                                     | 5.0 U                                                                      |
| 2,4-Dinitrotoluene                                          |                                                              |                                                              | 5.0 U                                                     | 5.0 U                                                                      |
| 2,6-Dinitrotoluene                                          |                                                              |                                                              | 5.0 U                                                     | 5.0 U                                                                      |
| 2-Chloronaphthalene                                         |                                                              |                                                              | 5.0 U                                                     | 5.0 U                                                                      |
| 2-Chlorophenol                                              |                                                              |                                                              | 5.0 U                                                     | 5.0 U                                                                      |
| 2-Methylnaphthalene                                         |                                                              |                                                              | 5.0 U                                                     | 5.0 U                                                                      |
| 2-Methylphenol                                              |                                                              |                                                              | 5.0 U                                                     | 5.0 U                                                                      |
| 2-Nitroaniline                                              |                                                              |                                                              | 5.0 U                                                     | 5.0 U                                                                      |
| 2-Nitrophenol                                               |                                                              |                                                              | 5.0 U                                                     | 5.0 U                                                                      |
| 3,4,4-Methylphenol                                          |                                                              |                                                              | 5.0 U                                                     | 5.0 U                                                                      |
| 3,3'-Dichlorobenzidine                                      |                                                              |                                                              | 5.0 U                                                     | 5.0 U                                                                      |
| 3-Nitroaniline                                              |                                                              |                                                              | 5.0 U                                                     | 5.0 U                                                                      |
| 4,6-Dinitro-2-methylphenol                                  |                                                              |                                                              | 5.0 U                                                     | 5.0 U                                                                      |
| 4-Bromophenyl phenyl ether                                  |                                                              |                                                              | 5.0 U                                                     | 5.0 U                                                                      |
| 4-Chloro-3-methylphenol                                     |                                                              |                                                              | 5.0 U                                                     | 5.0 U                                                                      |
| 4-Chloroaniline                                             |                                                              |                                                              | 5.0 U                                                     | 5.0 U                                                                      |
| 4-Chlorophenyl phenyl ether                                 |                                                              |                                                              | 5.0 U                                                     | 5.0 U                                                                      |
| 4-Nitroaniline                                              |                                                              |                                                              | 5.0 U                                                     | 5.0 U                                                                      |
| 4-Nitrophenol                                               |                                                              |                                                              | 5.0 U                                                     | 5.0 U                                                                      |
| Acenaphthene                                                |                                                              |                                                              | 5.0 U                                                     | 5.0 U                                                                      |

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| AOI                               | AOI 16.1<br>MW42-12<br>WG-017360-102815-MR-039<br>10/28/2015 | AOI 17.1<br>MW43-12<br>WG-017360-102815-MR-043<br>10/28/2015 | AOI 6<br>MW45-12<br>WG-017360-102815-MR-044<br>10/28/2015 | AOI 6, AOI 25, AOI 4.1<br>MW46-12<br>WG-017360-102815-MR-042<br>10/28/2015 |
|-----------------------------------|--------------------------------------------------------------|--------------------------------------------------------------|-----------------------------------------------------------|----------------------------------------------------------------------------|
| Sample Location:                  |                                                              |                                                              |                                                           |                                                                            |
| Sample Identification:            |                                                              |                                                              |                                                           |                                                                            |
| Sample Date:                      |                                                              |                                                              |                                                           |                                                                            |
| Sample Type:                      |                                                              |                                                              |                                                           |                                                                            |
| Segment_Depth                     | (21-31') ft BGS                                              | (15-25') ft BGS                                              | (19.1-29.1') ft BGS                                       | (20.2-30.2') ft BGS                                                        |
| Semi-Volatile Organic Compounds   |                                                              |                                                              |                                                           |                                                                            |
| Acenaphthylene                    | ug/L                                                         | --                                                           | --                                                        | 5.0 U                                                                      |
| Acetophenone                      | ug/L                                                         | --                                                           | --                                                        | 1.0 U                                                                      |
| Anthracene                        | ug/L                                                         | --                                                           | --                                                        | 5.0 U                                                                      |
| Atrazine                          | ug/L                                                         | --                                                           | --                                                        | 1.0 U                                                                      |
| Benzaldehyde                      | ug/L                                                         | --                                                           | --                                                        | 1.0 U                                                                      |
| Benzo(a)anthracene                | ug/L                                                         | --                                                           | --                                                        | 5.0 U                                                                      |
| Benzo(a)pyrene                    | ug/L                                                         | --                                                           | --                                                        | 5.0 U                                                                      |
| Benzo(b)fluoranthene              | ug/L                                                         | --                                                           | --                                                        | 5.0 U                                                                      |
| Benzo(g,h,i)perylene              | ug/L                                                         | --                                                           | --                                                        | 5.0 U                                                                      |
| Benzo(k)fluoranthene              | ug/L                                                         | --                                                           | --                                                        | 5.0 U                                                                      |
| Biphenyl (1,1-Biphenyl)           | ug/L                                                         | --                                                           | --                                                        | 5.0 U                                                                      |
| bis(2-Chloroethoxy)methane        | ug/L                                                         | --                                                           | --                                                        | 5.0 U                                                                      |
| bis(2-Chloroethoxy)ether          | ug/L                                                         | --                                                           | --                                                        | 5.0 U                                                                      |
| bis(2-Ethylhexyl)phthalate (DEHP) | ug/L                                                         | --                                                           | --                                                        | 5.0 U                                                                      |
| Butyl benzylphthalate (BBP)       | ug/L                                                         | --                                                           | --                                                        | 5.0 U                                                                      |
| Caprolactam                       | ug/L                                                         | --                                                           | --                                                        | 10 U                                                                       |
| Carbazole                         | ug/L                                                         | --                                                           | --                                                        | 5.0 U                                                                      |
| Chrysene                          | ug/L                                                         | --                                                           | --                                                        | 5.0 U                                                                      |
| Dibenz(a,h)anthracene             | ug/L                                                         | --                                                           | --                                                        | 5.0 U                                                                      |
| Dibenzofuran                      | ug/L                                                         | --                                                           | --                                                        | 5.0 U                                                                      |
| Diethyl phthalate                 | ug/L                                                         | --                                                           | --                                                        | 5.0 U                                                                      |
| Dimethyl phthalate                | ug/L                                                         | --                                                           | --                                                        | 5.0 U                                                                      |
| Di-n-butylphthalate (DBP)         | ug/L                                                         | --                                                           | --                                                        | 5.0 U                                                                      |
| Di-n-octyl phthalate (DnOP)       | ug/L                                                         | --                                                           | --                                                        | 5.0 U                                                                      |
| Fluoranthene                      | ug/L                                                         | --                                                           | --                                                        | 5.0 U                                                                      |
| Fluorene                          | ug/L                                                         | --                                                           | --                                                        | 5.0 U                                                                      |
| Hexachlorobenzene                 | ug/L                                                         | --                                                           | --                                                        | 5.0 U                                                                      |
| Hexachlorobutadiene               | ug/L                                                         | --                                                           | --                                                        | 5.0 U                                                                      |
| Hexachlorocyclopentadiene         | ug/L                                                         | --                                                           | --                                                        | 5.0 U                                                                      |
| Hexachloroethane                  | ug/L                                                         | --                                                           | --                                                        | 5.0 U                                                                      |
| Indeno(1,2,3-cd)pyrene            | ug/L                                                         | --                                                           | --                                                        | 5.0 U                                                                      |
| Isophorone                        | ug/L                                                         | --                                                           | --                                                        | 5.0 U                                                                      |
| Naphthalene                       | ug/L                                                         | --                                                           | --                                                        | 5.0 U                                                                      |
| Nitrobenzene                      | ug/L                                                         | --                                                           | --                                                        | 5.0 U                                                                      |
| N-Nitrosodi-n-propylamine         | ug/L                                                         | --                                                           | --                                                        | 5.0 U                                                                      |
| N-Nitrosodiphenylamine            | ug/L                                                         | --                                                           | --                                                        | 5.0 U                                                                      |
| Pentachlorophenol                 | ug/L                                                         | --                                                           | --                                                        | 5.0 U                                                                      |
| Phenanthrene                      | ug/L                                                         | --                                                           | --                                                        | 5.0 U                                                                      |
| Phenol                            | ug/L                                                         | --                                                           | --                                                        | 5.0 U                                                                      |
| Pyrene                            | ug/L                                                         | --                                                           | --                                                        | 5.0 U                                                                      |



Table 2

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| AOI                    | AOI 16.1                | AOI 17.1                | AOI 6                   | AOI 6, AOI 25, AOI 4.1  |
|------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Sample Location:       | MW42-12                 | MW43-12                 | MW45-12                 | MW46-12                 |
| Sample Identification: | WG-017360-102815-MR-039 | WG-017360-102815-MR-043 | WG-017360-102815-MR-044 | WG-017360-102815-MR-042 |
| Sample Date:           | 10/28/2015              | 10/28/2015              | 10/28/2015              | 10/28/2015              |
| Sample Type:           |                         |                         |                         |                         |
| Segment_Depth          | (21-31) ft BGS          | (15-25) ft BGS          | (19.1-29.1) ft BGS      | (20.2-30.2) ft BGS      |
| Metals                 |                         |                         |                         |                         |
| Antimony               | ug/L                    | ug/L                    | ug/L                    | ug/L                    |
| Arsenic                | ug/L                    | ug/L                    | ug/L                    | ug/L                    |
| Barium                 | ug/L                    | ug/L                    | ug/L                    | ug/L                    |
| Beryllium              | ug/L                    | ug/L                    | ug/L                    | ug/L                    |
| Cadmium                | ug/L                    | ug/L                    | ug/L                    | ug/L                    |
| Chromium               | ug/L                    | ug/L                    | ug/L                    | ug/L                    |
| Cobalt                 | ug/L                    | ug/L                    | ug/L                    | ug/L                    |
| Copper                 | ug/L                    | ug/L                    | ug/L                    | ug/L                    |
| Iron                   | ug/L                    | ug/L                    | ug/L                    | ug/L                    |
| Lead                   | ug/L                    | ug/L                    | ug/L                    | ug/L                    |
| Manganese              | ug/L                    | ug/L                    | ug/L                    | ug/L                    |
| Mercury                | ug/L                    | ug/L                    | ug/L                    | ug/L                    |
| Molybdenum             | ug/L                    | ug/L                    | ug/L                    | ug/L                    |
| Nickel                 | ug/L                    | ug/L                    | ug/L                    | ug/L                    |
| Selenium               | ug/L                    | ug/L                    | ug/L                    | ug/L                    |
| Silver                 | ug/L                    | ug/L                    | ug/L                    | ug/L                    |
| Thallium               | ug/L                    | ug/L                    | ug/L                    | ug/L                    |
| Vanadium               | ug/L                    | ug/L                    | ug/L                    | ug/L                    |
| Zinc                   | ug/L                    | ug/L                    | ug/L                    | ug/L                    |

Table 2

Validated Analytical Summary Results  
2015 Monitoring Well and Culvert Sampling  
Racer Grand Rapids Stamping Site  
Wyoming, Michigan  
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| AOI                                                  | AOI 6, AOI 25, AOI 19, AOI 4,1 | AOI 6                   | AOI 6                   | AOI 6                   |
|------------------------------------------------------|--------------------------------|-------------------------|-------------------------|-------------------------|
| Sample Location:                                     | Sample Location:               | MW50-12                 | MW51-12                 | MW52-12                 |
| Sample Identification:                               | Sample Identification:         | WG-017360-102915-MR-045 | WG-017360-102915-MR-046 | WG-017360-102915-MR-048 |
| Sample Date:                                         | Sample Date:                   | 10/29/2015              | 10/29/2015              | 10/29/2015              |
| Sample Type:                                         | Sample Type:                   |                         |                         |                         |
| Segment_Depth                                        | (18.5-28.5) ft BGS             | (17-27) ft BGS          | (17-27) ft BGS          | (16.7-26.7) ft BGS      |
| Volatile Organic Compounds                           |                                |                         |                         |                         |
| 1,1,1-Trichloroethane                                | 1.0 U                          | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,1,2,2-Tetrachloroethane                            | 1.0 U                          | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,1,2-Trichloroethane                                | 1.0 U                          | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,1-Dichloroethane                                   | 1.0 U                          | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,1-Dichloroethene                                   | 1.0 U                          | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,2,4-Trichlorobenzene                               | 5.0 U                          | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| 1,2-Dibromo-3-chloropropane (DBCP)                   | 1.0 U                          | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,2-Dibromoethane (Ethylene dibromide)               | 1.0 U                          | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,2-Dichlorobenzene                                  | 1.5                            | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,2-Dichloroethane                                   | 1.0 U                          | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,2-Dichloropropane                                  | 1.0 U                          | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,3-Dichlorobenzene                                  | 1.0 U                          | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 1,4-Dichlorobenzene                                  | 1.0 U                          | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| 2-Butanone (Methyl ethyl ketone) (MEK)               | 25 U                           | 25 U                    | 2.6 J                   | 25 U                    |
| 2-Hexanone                                           | 50 U                           | 50 U                    | 50 U                    | 50 U                    |
| 4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK) | 2.2 J                          | 50 U                    | 50 U                    | 50 U                    |
| Acetone                                              | 50 U                           | 50 U                    | 11 J                    | 50 U                    |
| Benzene                                              | 1.0 U                          | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Bromodichloromethane                                 | 1.0 U                          | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Bromoform                                            | 1.0 U                          | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Bromomethane (Methyl bromide)                        | 5.0 U                          | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| Carbon disulfide                                     | 5.0 U                          | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| Carbon tetrachloride                                 | 1.0 U                          | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Chlorobenzene                                        | 1.0 U                          | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Chloroethane                                         | 5.0 U                          | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| Chloroform (Trichloromethane)                        | 1.0 U                          | 1.9                     | 1.0 U                   | 1.0 U                   |
| Chloromethane (Methyl chloride)                      | 5.0 U                          | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| cis-1,2-Dichloroethene                               | 1.2                            | 2.2                     | 1.0 U                   | 1.0 U                   |
| cis-1,3-Dichloropropene                              | 1.0 U                          | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Cyclohexane                                          | 1.0 U                          | 1.0 U                   | 1.0 U                   | 1.0 U                   |
| Dibromochloromethane                                 | 5.0 U                          | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| Dichlorodifluoromethane (CFC-12)                     | 5.0 U                          | 5.0 U                   | 5.0 U                   | 5.0 U                   |
| Ethylbenzene                                         | 2.5 J                          | 1.0 U                   | 1.0 U                   | 3.3                     |
| Isopropyl benzene                                    | 2.8 J                          | 5.0 U                   | 5.0 U                   | 3.4 J                   |

Table 2

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| AOI                                                         | AOI 6, AOI 25, AOI 19, AOI 4.1<br>MW44-12<br>WG-017360-102915-MR-045<br>10/29/2015 | AOI 6<br>MW50-12<br>WG-017360-102915-MR-046<br>10/29/2015 | AOI 6<br>MW51-12<br>WG-017360-102915-MR-047<br>10/29/2015 | AOI 6<br>MW52-12<br>WG-017360-102915-MR-048<br>10/29/2015 |
|-------------------------------------------------------------|------------------------------------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------|
| Sample Location:                                            |                                                                                    |                                                           |                                                           |                                                           |
| Sample Identification:                                      |                                                                                    |                                                           |                                                           |                                                           |
| Sample Date:                                                |                                                                                    |                                                           |                                                           |                                                           |
| Sample Type:                                                |                                                                                    |                                                           |                                                           |                                                           |
| Segment_Depth                                               |                                                                                    |                                                           |                                                           |                                                           |
|                                                             | (18.5-28.5) ft BGS                                                                 | (17-27) ft BGS                                            | (17-27) ft BGS                                            | (16.7-26.7) ft BGS                                        |
| Units                                                       |                                                                                    |                                                           |                                                           |                                                           |
| <b>Volatile Organic Compounds</b>                           |                                                                                    |                                                           |                                                           |                                                           |
| Methyl acetate                                              | 10 U                                                                               | 10 U                                                      | 10 U                                                      | 10 U                                                      |
| Methyl cyclohexane                                          | 1.0 U                                                                              | 1.0 U                                                     | 1.0 U                                                     | 1.0 U                                                     |
| Methyl tert butyl ether (MTBE)                              | 5.0 U                                                                              | 5.0 U                                                     | 5.0 U                                                     | 5.0 U                                                     |
| Methylene chloride                                          | 5.0 U                                                                              | 5.0 U                                                     | 5.0 U                                                     | 5.0 U                                                     |
| Styrene                                                     | 1.0 UJ                                                                             | 1.0 U                                                     | 1.0 U                                                     | 1.0 U                                                     |
| Tetrachloroethene                                           | 1.0 U                                                                              | 3.8                                                       | 2.8                                                       | 1.0 U                                                     |
| Toluene                                                     | 1.0 U                                                                              | 1.0 U                                                     | 1.0 U                                                     | 1.0 U                                                     |
| trans-1,2-Dichloroethene                                    | 1.0 U                                                                              | 1.0 U                                                     | 1.0 U                                                     | 1.0 U                                                     |
| trans-1,3-Dichloropropene                                   | 1.0 UJ                                                                             | 1.0 U                                                     | 1.0 U                                                     | 1.0 U                                                     |
| Trichloroethene                                             | 1.0 U                                                                              | 0.99 J                                                    | 1.0 U                                                     | 1.0 U                                                     |
| Trichlorofluoromethane (CFC-11)                             | 1.0 U                                                                              | 1.0 U                                                     | 1.0 U                                                     | 1.0 U                                                     |
| Trifluorotrchloroethane (CFC-113)                           | 1.0 U                                                                              | 0.99 J                                                    | 1.0 U                                                     | 1.0 U                                                     |
| Vinyl chloride                                              | 1.0 U                                                                              | 0.99 J                                                    | 1.0 U                                                     | 1.0 U                                                     |
| Xylenes (total)                                             | 8.7                                                                                | 2.0 J                                                     | 1.5 J                                                     | 5.9                                                       |
| <b>Semi-Volatile Organic Compounds</b>                      |                                                                                    |                                                           |                                                           |                                                           |
| 2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether) | 5.0 U                                                                              | 5.0 U                                                     | 5.3 U                                                     | 5.0 U                                                     |
| 2,4,5-Trichlorophenol                                       | 5.0 U                                                                              | 5.0 U                                                     | 5.3 U                                                     | 5.0 U                                                     |
| 2,4,6-Trichlorophenol                                       | 5.0 U                                                                              | 5.0 U                                                     | 5.3 U                                                     | 5.0 U                                                     |
| 2,4-Dichlorophenol                                          | 5.0 U                                                                              | 5.0 U                                                     | 5.3 U                                                     | 5.0 U                                                     |
| 2,4-Dimethylphenol                                          | 3.8 J                                                                              | 5.0 U                                                     | 0.71 J                                                    | 1.3 J                                                     |
| 2,4-Dinitrophenol                                           | 5.0 U                                                                              | 5.0 U                                                     | 5.3 U                                                     | 5.0 U                                                     |
| 2,4-Dinitrotoluene                                          | 5.0 U                                                                              | 5.0 U                                                     | 5.3 U                                                     | 5.0 U                                                     |
| 2,6-Dinitrotoluene                                          | 5.0 U                                                                              | 5.0 U                                                     | 5.3 U                                                     | 5.0 U                                                     |
| 2-Chloronaphthalene                                         | 5.0 U                                                                              | 5.0 U                                                     | 5.3 U                                                     | 5.0 U                                                     |
| 2-Chlorophenol                                              | 5.0 U                                                                              | 5.0 U                                                     | 5.3 U                                                     | 5.0 U                                                     |
| 2-Methylnaphthalene                                         | 5.0 U                                                                              | 5.0 U                                                     | 0.26 J                                                    | 5.0 U                                                     |
| 2-Methylphenol                                              | 5.0 U                                                                              | 5.0 U                                                     | 5.3 U                                                     | 5.0 U                                                     |
| 2-Nitroaniline                                              | 5.0 U                                                                              | 5.0 U                                                     | 5.3 U                                                     | 5.0 U                                                     |
| 2-Nitrophenol                                               | 5.0 U                                                                              | 5.0 U                                                     | 5.3 U                                                     | 5.0 U                                                     |
| 3,4-Methylphenol                                            | 5.0 U                                                                              | 5.0 U                                                     | 0.63 J                                                    | 5.0 U                                                     |
| 3,3'-Dichlorobenzidine                                      | R                                                                                  | 5.0 U                                                     | 5.3 U                                                     | 5.0 U                                                     |
| 3-Nitroaniline                                              | 5.0 U                                                                              | 5.0 U                                                     | 5.3 U                                                     | 5.0 U                                                     |
| 4,6-Dinitro-2-methylphenol                                  | 5.0 U                                                                              | 5.0 U                                                     | 5.3 U                                                     | 5.0 U                                                     |
| 4-Bromophenyl phenyl ether                                  | 5.0 U                                                                              | 5.0 U                                                     | 5.3 U                                                     | 5.0 U                                                     |
| 4-Chloro-3-methylphenol                                     | 5.0 U                                                                              | 5.0 U                                                     | 5.3 U                                                     | 5.0 U                                                     |
| 4-Chloroaniline                                             | 5.0 U                                                                              | 5.0 U                                                     | 5.3 U                                                     | 5.0 U                                                     |
| 4-Chlorophenyl phenyl ether                                 | 5.0 U                                                                              | 5.0 U                                                     | 5.3 U                                                     | 5.0 U                                                     |
| 4-Nitroaniline                                              | 5.0 U                                                                              | 5.0 U                                                     | 5.3 U                                                     | 5.0 U                                                     |
| 4-Nitrophenol                                               | 5.0 U                                                                              | 5.0 U                                                     | 5.3 U                                                     | 5.0 U                                                     |
| Acenaphthene                                                | 5.0 U                                                                              | 0.38 J                                                    | 0.38 J                                                    | 0.94 J                                                    |

Table 2

Validated Analytical Summary Results  
2015 Monitoring Well and Culvert Sampling  
Racer Grand Rapids Stamping Site  
Wyoming, Michigan  
October 2015

| AOI                               | AOI 6, AOI 25, AOI 19, AOI 4.1 | AOI 6<br>MW44-12        | AOI 6<br>MW50-12        | AOI 6<br>MW51-12        | AOI 6<br>MW52-12 |
|-----------------------------------|--------------------------------|-------------------------|-------------------------|-------------------------|------------------|
| Sample Location:                  | WG-017360-102915-MR-045        | WG-017360-102915-MR-046 | WG-017360-102915-MR-047 | WG-017360-102915-MR-048 |                  |
| Sample Date:                      | 10/29/2015                     | 10/29/2015              | 10/29/2015              | 10/29/2015              | 10/29/2015       |
| Sample Type:                      |                                |                         |                         |                         |                  |
| Segment_Depth                     | (18.5-28.5) ft BGS             | (17-27) ft BGS          | (17-27) ft BGS          | (16.7-26.7) ft BGS      |                  |
| Units                             |                                |                         |                         |                         |                  |
| Semi-Volatile Organic Compounds   |                                |                         |                         |                         |                  |
| Acenaphthylene                    | 5.0 U                          | 5.0 U                   | 5.3 U                   | 5.0 U                   | 5.0 U            |
| Acetophenone                      | 1.0 U                          | 1.0 U                   | 1.1 U                   | 1.0 U                   | 1.0 U            |
| Anthracene                        | 5.0 U                          | 5.0 U                   | 0.37 J                  | 5.0 U                   | 5.0 U            |
| Atrazine                          | 1.0 U                          | 1.0 U                   | 1.1 U                   | 1.0 U                   | 1.0 U            |
| Benzaldehyde                      | 1.0 U                          | 1.0 U                   | 1.1 U                   | 1.0 U                   | 1.0 U            |
| Benzo(a)anthracene                | 5.0 U                          | 5.0 U                   | 5.3 U                   | 5.0 U                   | 5.0 U            |
| Benzo(a)pyrene                    | 5.0 U                          | 5.0 U                   | 5.3 U                   | 5.0 U                   | 5.0 U            |
| Benzo(b)fluoranthene              | 5.0 U                          | 5.0 U                   | 5.3 U                   | 5.0 U                   | 5.0 U            |
| Benzo(g,h,i)perylene              | 5.0 U                          | 5.0 U                   | 5.3 U                   | 5.0 U                   | 5.0 U            |
| Benzo(k)fluoranthene              | 5.0 U                          | 5.0 U                   | 5.3 U                   | 5.0 U                   | 5.0 U            |
| Biphenyl (1,1-Biphenyl)           | 5.0 U                          | 5.0 U                   | 5.3 U                   | 5.0 U                   | 5.0 U            |
| bis(2-Chloroethoxy)methane        | 5.0 U                          | 5.0 U                   | 5.3 U                   | 5.0 U                   | 5.0 U            |
| bis(2-Chloroethoxy)ether          | 5.0 U                          | 5.0 U                   | 5.3 U                   | 5.0 U                   | 5.0 U            |
| bis(2-Ethylhexyl)phthalate (DEHP) | 5.0 U                          | 5.0 U                   | 5.3 U                   | 5.0 U                   | 5.0 U            |
| Butyl benzylphthalate (BBP)       | 5.0 U                          | 5.0 U                   | 5.3 U                   | 5.0 U                   | 5.0 U            |
| Caprolactam                       | 10 U                           | 10 U                    | 11 U                    | 10 U                    | 10 U             |
| Carbazole                         | 5.0 U                          | 5.0 U                   | 0.78 J                  | 5.0 U                   | 5.0 U            |
| Chrysene                          | 5.0 U                          | 5.0 U                   | 5.3 U                   | 5.0 U                   | 5.0 U            |
| Dibenz(a,h)anthracene             | 5.0 U                          | 5.0 U                   | 5.3 U                   | 5.0 U                   | 5.0 U            |
| Dibenzofuran                      | 5.0 U                          | 5.0 U                   | 5.3 U                   | 5.0 U                   | 5.0 U            |
| Diethyl phthalate                 | 5.0 U                          | 5.0 U                   | 5.3 U                   | 5.0 U                   | 5.0 U            |
| Dimethyl phthalate                | 5.0 U                          | 5.0 U                   | 5.3 U                   | 5.0 U                   | 5.0 U            |
| Di-n-butylphthalate (DBP)         | 5.0 U                          | 5.0 U                   | 5.3 U                   | 5.0 U                   | 5.0 U            |
| Di-n-octyl phthalate (DnOP)       | 5.0 U                          | 5.0 U                   | 5.3 U                   | 5.0 U                   | 5.0 U            |
| Fluoranthene                      | 5.0 U                          | 5.0 U                   | 0.40 J                  | 5.0 U                   | 5.0 U            |
| Fluorene                          | 5.0 U                          | 5.0 U                   | 0.46 J                  | 5.0 U                   | 5.0 U            |
| Hexachlorobenzene                 | 5.0 U                          | 5.0 U                   | 5.3 U                   | 5.0 U                   | 5.0 U            |
| Hexachlorobutadiene               | 5.0 U                          | 5.0 U                   | 5.3 U                   | 5.0 U                   | 5.0 U            |
| Hexachlorocyclopentadiene         | 5.0 U                          | 5.0 U                   | 5.3 U                   | 5.0 U                   | 5.0 U            |
| Hexachloroethane                  | 5.0 U                          | 5.0 U                   | 5.3 U                   | 5.0 U                   | 5.0 U            |
| Indeno(1,2,3-cd)pyrene            | 5.0 U                          | 5.0 U                   | 5.3 U                   | 5.0 U                   | 5.0 U            |
| Isophorone                        | 5.0 U                          | 5.0 U                   | 5.3 U                   | 5.0 U                   | 5.0 U            |
| Naphthalene                       | 2.5 J                          | 0.24 J                  | 0.86 J                  | 1.9 J                   | 1.9 J            |
| Nitrobenzene                      | 5.0 U                          | 5.0 U                   | 5.3 U                   | 5.0 U                   | 5.0 U            |
| N-Nitrosodi-n-propylamine         | 5.0 U                          | 5.0 U                   | 5.3 U                   | 5.0 U                   | 5.0 U            |
| N-Nitrosodiphenylamine            | 5.0 U                          | 5.0 U                   | 5.3 U                   | 5.0 U                   | 5.0 U            |
| Pentachlorophenol                 | 5.0 U                          | 5.0 U                   | 5.3 U                   | 5.0 U                   | 5.0 U            |
| Phenanthrene                      | 5.0 U                          | 5.0 U                   | 1.0 J                   | 5.0 U                   | 5.0 U            |
| Phenol                            | 5.0 U                          | 5.0 U                   | 1.3 J                   | 5.0 U                   | 5.0 U            |
| Pyrene                            | 5.0 U                          | 5.0 U                   | 0.22 J                  | 5.0 U                   | 5.0 U            |

Table 2

Validated Analytical Summary Results  
2015 Monitoring Well and Culvert Sampling  
Racer Grand Rapids Stamping Site  
Wyoming, Michigan  
October 2015

| AOI              | AOI 6, AOI 25, AOI 19, AOI 4.1 | AOI 6                   | AOI 6                   | AOI 6                   |
|------------------|--------------------------------|-------------------------|-------------------------|-------------------------|
| Sample Location: | MW44-12                        | MW50-12                 | MW51-12                 | MW52-12                 |
| Sample Date:     | WG-017360-102915-MR-045        | WG-017360-102915-MR-046 | WG-017360-102915-MR-047 | WG-017360-102915-MR-048 |
| Sample Type:     | 10/29/2015                     | 10/29/2015              | 10/29/2015              | 10/29/2015              |
| Segment_Depth    | (18.5-28.5) ft BGS             | (17-27) ft BGS          | (17-27) ft BGS          | (16.7-26.7) ft BGS      |
| Metals           | Units                          |                         |                         |                         |
| Antimony         | ug/L                           | --                      | --                      | --                      |
| Arsenic          | ug/L                           | --                      | --                      | --                      |
| Barium           | ug/L                           | --                      | --                      | --                      |
| Beryllium        | ug/L                           | --                      | --                      | --                      |
| Cadmium          | ug/L                           | --                      | --                      | --                      |
| Chromium         | ug/L                           | --                      | --                      | --                      |
| Cobalt           | ug/L                           | --                      | --                      | --                      |
| Copper           | ug/L                           | --                      | --                      | --                      |
| Iron             | ug/L                           | --                      | --                      | --                      |
| Lead             | ug/L                           | --                      | --                      | --                      |
| Manganese        | ug/L                           | --                      | --                      | --                      |
| Mercury          | ug/L                           | --                      | --                      | --                      |
| Molybdenum       | ug/L                           | --                      | --                      | --                      |
| Nickel           | ug/L                           | --                      | --                      | --                      |
| Selenium         | ug/L                           | --                      | --                      | --                      |
| Silver           | ug/L                           | --                      | --                      | --                      |
| Thallium         | ug/L                           | --                      | --                      | --                      |
| Vanadium         | ug/L                           | --                      | --                      | --                      |
| Zinc             | ug/L                           | --                      | --                      | --                      |



Table 2

Validated Analytical Summary Results  
2015 Monitoring Well and Culvert Sampling  
Racer Grand Rapids Stamping Site  
Wyoming, Michigan  
October 2015

|                                                      |                         |
|------------------------------------------------------|-------------------------|
| AOI                                                  | NA                      |
| Sample Location:                                     | Trip Blank              |
| Sample Identification:                               | TB-017360-102915-MR-049 |
| Sample Date:                                         | 10/29/2015              |
| Sample Type:                                         |                         |
| Segment_Depth                                        |                         |
| Volatile Organic Compounds                           | Units                   |
| 1,1,1-Trichloroethane                                | ug/L 1.0 U              |
| 1,1,2,2-Tetrachloroethane                            | ug/L 1.0 U              |
| 1,1,2-Trichloroethane                                | ug/L 1.0 U              |
| 1,1-Dichloroethane                                   | ug/L 1.0 U              |
| 1,1-Dichloroethene                                   | ug/L 1.0 U              |
| 1,2,4-Trichlorobenzene                               | ug/L 5.0 U              |
| 1,2-Dibromo-3-chloropropane (DBCP)                   | ug/L 1.0 U              |
| 1,2-Dibromoethane (Ethylene dibromide)               | ug/L 1.0 U              |
| 1,2-Dichlorobenzene                                  | ug/L 1.0 U              |
| 1,2-Dichloroethane                                   | ug/L 1.0 U              |
| 1,2-Dichloropropane                                  | ug/L 1.0 U              |
| 1,3-Dichlorobenzene                                  | ug/L 1.0 U              |
| 1,4-Dichlorobenzene                                  | ug/L 1.0 U              |
| 2-Hexanone                                           | ug/L 25 U               |
| 2-Butanone (Methyl ethyl ketone) (MEK)               | ug/L 50 U               |
| 4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK) | ug/L 50 U               |
| Acetone                                              | ug/L 50 U               |
| Benzene                                              | ug/L 1.0 U              |
| Bromodichloromethane                                 | ug/L 1.0 U              |
| Bromoform                                            | ug/L 1.0 U              |
| Bromomethane (Methyl bromide)                        | ug/L 5.0 U              |
| Carbon disulfide                                     | ug/L 5.0 U              |
| Carbon tetrachloride                                 | ug/L 1.0 U              |
| Chlorobenzene                                        | ug/L 1.0 U              |
| Chloroethane                                         | ug/L 5.0 U              |
| Chloroform (Trichloromethane)                        | ug/L 1.0 U              |
| Chloromethane (Methyl chloride)                      | ug/L 5.0 U              |
| dis-1,2-Dichloroethene                               | ug/L 1.0 U              |
| dis-1,3-Dichloropropene                              | ug/L 1.0 U              |
| Cyclohexane                                          | ug/L 1.0 U              |
| Dibromochloromethane                                 | ug/L 5.0 U              |
| Dichlorodifluoromethane (CFC-12)                     | ug/L 5.0 U              |
| Ethylbenzene                                         | ug/L 1.0 U              |
| Isopropyl benzene                                    | ug/L 5.0 U              |

Table 2

Validated Analytical Summary Results  
2015 Monitoring Well and Culvert Sampling  
Racer Grand Rapids Stamping Site  
Wyoming, Michigan  
October 2015

|                                                            |                         |
|------------------------------------------------------------|-------------------------|
| AOI                                                        | NA                      |
| Sample Location:                                           | Trip Blank              |
| Sample Identification:                                     | TB-017360-102915-MR-049 |
| Sample Date:                                               | 10/29/2015              |
| Sample Type:                                               |                         |
| Segment_Depth                                              |                         |
| <b>Volatile Organic Compounds</b>                          |                         |
| Methyl acetate                                             | ug/L 10 U               |
| Methyl cyclohexane                                         | ug/L 1.0 U              |
| Methyl tert butyl ether (MTBE)                             | ug/L 5.0 U              |
| Methylene chloride                                         | ug/L 5.0 U              |
| Styrene                                                    | ug/L 1.0 U              |
| Tetrachloroethene                                          | ug/L 1.0 U              |
| Toluene                                                    | ug/L 1.0 U              |
| trans-1,2-Dichloroethene                                   | ug/L 1.0 U              |
| trans-1,3-Dichloropropene                                  | ug/L 1.0 U              |
| Trichloroethene                                            | ug/L 1.0 U              |
| Trichlorofluoromethane (CFC-11)                            | ug/L 1.0 U              |
| Trifluorotrichloroethane (CFC-113)                         | ug/L 1.0 U              |
| Vinyl chloride                                             | ug/L 1.0 U              |
| Xylenes (total)                                            | ug/L 3.0 U              |
| <b>Semi-Volatile Organic Compounds</b>                     |                         |
| 2,2-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether) | ug/L --                 |
| 2,4,5-Trichlorophenol                                      | ug/L --                 |
| 2,4,6-Trichlorophenol                                      | ug/L --                 |
| 2,4-Dichlorophenol                                         | ug/L --                 |
| 2,4-Dimethylphenol                                         | ug/L --                 |
| 2,4-Dinitrophenol                                          | ug/L --                 |
| 2,4-Dinitrotoluene                                         | ug/L --                 |
| 2,6-Dinitrotoluene                                         | ug/L --                 |
| 2-Chloronaphthalene                                        | ug/L --                 |
| 2-Chlorophenol                                             | ug/L --                 |
| 2-Methylnaphthalene                                        | ug/L --                 |
| 2-Methylphenol                                             | ug/L --                 |
| 2-Nitroaniline                                             | ug/L --                 |
| 2-Nitrophenol                                              | ug/L --                 |
| 3&4-Methylphenol                                           | ug/L --                 |
| 3,3'-Dichlorobenzidine                                     | ug/L --                 |
| 3-Nitroaniline                                             | ug/L --                 |
| 4,6-Dinitro-2-methylphenol                                 | ug/L --                 |
| 4-Bromophenyl phenyl ether                                 | ug/L --                 |
| 4-Chloro-3-methylphenol                                    | ug/L --                 |
| 4-Chloroaniline                                            | ug/L --                 |
| 4-Chlorophenyl phenyl ether                                | ug/L --                 |
| 4-Nitroaniline                                             | ug/L --                 |
| 4-Nitrophenol                                              | ug/L --                 |
| Acenaphthene                                               | ug/L --                 |

Table 2

Validated Analytical Summary Results  
2015 Monitoring Well and Culvert Sampling  
Racer Grand Rapids Stamping Site  
Wyoming, Michigan  
October 2015

|                                   |                         |
|-----------------------------------|-------------------------|
| AOI                               | NA                      |
| Sample Location:                  | Trip Blank              |
| Sample Identification:            | TB-017360-102915-MR-049 |
| Sample Date:                      | 10/29/2015              |
| Sample Type:                      |                         |
| Segment_Depth                     |                         |
| Semi-Volatile Organic Compounds   |                         |
| Acenaphthylene                    | ug/L                    |
| Acetophenone                      | ug/L                    |
| Anthracene                        | ug/L                    |
| Atrazine                          | ug/L                    |
| Benzaldehyde                      | ug/L                    |
| Benzo(a)anthracene                | ug/L                    |
| Benzo(a)pyrene                    | ug/L                    |
| Benzo(b)fluoranthene              | ug/L                    |
| Benzo(g,h,i)perylene              | ug/L                    |
| Benzo(k)fluoranthene              | ug/L                    |
| Biphenyl (1,1'-Biphenyl)          | ug/L                    |
| bis(2-Chloroethoxy)methane        | ug/L                    |
| bis(2-Chloroethyl)ether           | ug/L                    |
| bis(2-Ethylhexyl)phthalate (DEHP) | ug/L                    |
| Butyl benzylphthalate (BBP)       | ug/L                    |
| Caprolactam                       | ug/L                    |
| Carbazole                         | ug/L                    |
| Chrysene                          | ug/L                    |
| Dibenz(a,h)anthracene             | ug/L                    |
| Dibenzofuran                      | ug/L                    |
| Diethyl phthalate                 | ug/L                    |
| Dimethyl phthalate                | ug/L                    |
| Di-n-butylphthalate (DBP)         | ug/L                    |
| Di-n-octyl phthalate (DnOP)       | ug/L                    |
| Fluoranthene                      | ug/L                    |
| Fluorene                          | ug/L                    |
| Hexachlorobenzene                 | ug/L                    |
| Hexachlorobutadiene               | ug/L                    |
| Hexachlorocyclopentadiene         | ug/L                    |
| Hexachloroethane                  | ug/L                    |
| Indeno(1,2,3-cd)pyrene            | ug/L                    |
| Isophorone                        | ug/L                    |
| Naphthalene                       | ug/L                    |
| Nitrobenzene                      | ug/L                    |
| N-Nitrosodi-n-propylamine         | ug/L                    |
| N-Nitrosodiphenylamine            | ug/L                    |
| Pentachlorophenol                 | ug/L                    |
| Phenanthrene                      | ug/L                    |
| Phenol                            | ug/L                    |
| Pyrene                            | ug/L                    |



Table 2

Validated Analytical Summary Results  
2015 Monitoring Well and Culvert Sampling  
Racer Grand Rapids Stamping Site  
Wyoming, Michigan  
October 2015

|                        |                         |       |
|------------------------|-------------------------|-------|
| AOI                    | NA                      |       |
| Sample Location:       | Trip Blank              |       |
| Sample Identification: | TB-017360-102915-MR-049 |       |
| Sample Date:           | 10/29/2015              |       |
| Sample Type:           |                         |       |
| Segment_Depth          |                         |       |
| Metals                 |                         | Units |
| Antimony               | --                      | ug/L  |
| Arsenic                | --                      | ug/L  |
| Barium                 | --                      | ug/L  |
| Beryllium              | --                      | ug/L  |
| Cadmium                | --                      | ug/L  |
| Chromium               | --                      | ug/L  |
| Cobalt                 | --                      | ug/L  |
| Copper                 | --                      | ug/L  |
| Iron                   | --                      | ug/L  |
| Lead                   | --                      | ug/L  |
| Manganese              | --                      | ug/L  |
| Mercury                | --                      | ug/L  |
| Molybdenum             | --                      | ug/L  |
| Nickel                 | --                      | ug/L  |
| Selenium               | --                      | ug/L  |
| Silver                 | --                      | ug/L  |
| Thallium               | --                      | ug/L  |
| Vanadium               | --                      | ug/L  |
| Zinc                   | --                      | ug/L  |

Notes:

- U - Not detected at the associated reporting limit.
- J - Estimated concentration.
- UU - Not detected, associated reporting limit is estimated.
- R - Rejected.

Table 3

**Analytical Methods**  
**2015 Monitoring Well and Culvert Sampling**  
**Racer Grand Rapids Stamping Site**  
**Wyoming, Michigan**  
**October 2015**

| Parameter            | Method <sup>1</sup> | Matrix | Holding Time                          |                                                   |
|----------------------|---------------------|--------|---------------------------------------|---------------------------------------------------|
|                      |                     |        | Collection to<br>Extraction<br>(Days) | Collection or Extraction<br>to Analysis<br>(Days) |
| TCL VOCs             | SW 8260B            | water  | -                                     | 14                                                |
| TCL SVOCs            | SW 8270B            | water  | 7                                     | 40                                                |
| Site-Specific Metals | SW 6000/7000 series | water  | -                                     | 180 (Mercury - 28 days)                           |

## Notes:

<sup>1</sup> Method References:

SW-846 - "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, 1986, with subsequent revisions

SVOCs - Semi-Volatile Organic Compounds

VOCs - Volatile Organic Compounds

TCL - Target Compound List

Table 4

**Qualified Sample Results Due to Analyte Concentrations in the Method Blanks**  
**2015 Monitoring Well and Culvert Sampling**  
**Racer Grand Rapids Stamping Site**  
**Wyoming, Michigan**  
**October 2015**

| Parameter | Analyte  | Analysis Date | Blank Result | Sample ID               | Original Result | Qualified Result | Units |
|-----------|----------|---------------|--------------|-------------------------|-----------------|------------------|-------|
| Metals    | Chromium | 11/5/2015     | 0.0005603 J  | WG-017360-102715-MR-032 | 0.0023 JB       | 0.010 U          | mg/L  |
|           |          |               |              | WG-017360-102715-MR-033 | 0.0025 JB       | 0.010 U          | mg/L  |
| Metals    | Copper   | 11/5/2015     | 0.0005517 J  | WG-017360-102715-MR-032 | 0.0026 JB       | 0.0040 U         | mg/L  |
|           |          |               |              | WG-017360-102715-MR-033 | 0.0024 JB       | 0.0040 U         | mg/L  |

## Notes:

- U - Not detected at the associated reporting limit
- B - Laboratory qualifier - result detected in associated method blank
- J - Estimated concentration

Table 5

Qualified Sample Results Due to Outlying MS/MSD Results  
2015 Monitoring Well and Culvert Sampling  
Racer Grand Rapids Stamping Site  
Wyoming, Michigan  
October 2015

| Parameter | Batch   | Sample ID               | Analyte                                              | MS<br>% Recovery | MSD<br>% Recovery | RPD<br>(percent) | Control Limits |     | Qualified<br>Result | Units |
|-----------|---------|-------------------------|------------------------------------------------------|------------------|-------------------|------------------|----------------|-----|---------------------|-------|
|           |         |                         |                                                      |                  |                   |                  | % Recovery     | RPD |                     |       |
| TCL VOCs  | R175223 | WG-017360-102015-MR-003 | 1,1,1-Trichloroethane                                | 42.9             | 79.2              | 59.5             | 75-130         | 30  | 1.0 UJ              | ug/L  |
|           |         |                         | 1,1,2,2-Tetrachloroethane                            | 41               | 76.8              | 60.8             | 75-130         | 30  | 1.0 UJ              | ug/L  |
|           |         |                         | 1,1,2-Trichloroethane                                | 74.4             | 42.2              | 55.4             | 75-125         | 30  | 1.0 UJ              | ug/L  |
|           |         |                         | 1,1-Dichloroethane                                   | 48.4             | 90.4              | 60.7             | 75-133         | 30  | 1.0 UJ              | ug/L  |
|           |         |                         | 1,1-Dichloroethane                                   | 53.8             | 98.2              | 58.5             | 70-145         | 30  | 1.0 UJ              | ug/L  |
|           |         |                         | 1,2,4-Trichlorobenzene                               | 66               | 35.9              | 59.1             | 70-135         | 30  | 5.0 UJ              | ug/L  |
|           |         |                         | 1,2-Dibromo-3-chloropropane (DBCP)                   | 58.9             | 28.9              | 68.3             | 60-130         | 30  | 1.0 UJ              | ug/L  |
|           |         |                         | 1,2-Dibromoethane (Ethylene dibromide)               | 48.4             | 91.2              | 61.4             | 80-150         | 30  | 1.0 UJ              | ug/L  |
|           |         |                         | 1,2-Dichlorobenzene                                  | 36.6             | 70                | 62.7             | 70-130         | 30  | 1.0 UJ              | ug/L  |
|           |         |                         | 1,2-Dichloroethane                                   | 46.7             | 83.8              | 56.8             | 78-125         | 30  | 1.0 UJ              | ug/L  |
|           |         |                         | 1,2-Dichloropropane                                  | 44               | 83.5              | 62.1             | 75-125         | 30  | 1.0 UJ              | ug/L  |
|           |         |                         | 1,3-Dichlorobenzene                                  | 73.5             | 39.4              | 60.4             | 75-130         | 30  | 1.0 UJ              | ug/L  |
|           |         |                         | 1,4-Dichlorobenzene                                  | 38.4             | 75.4              | 65.1             | 75-130         | 30  | 1.0 UJ              | ug/L  |
|           |         |                         | 2-Butanone (Methyl ethyl ketone) (MEK)               | 35.9             | 80.6              | 76.7             | 55-150         | 30  | 25 UJ               | ug/L  |
|           |         |                         | 2-Hexanone                                           | 59.8             | 31.1              | 63.2             | 60-135         | 30  | 50 UJ               | ug/L  |
|           |         |                         | 4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK) | 40.8             | 78.5              | 63.3             | 77-178         | 30  | 50 UJ               | ug/L  |
|           |         |                         | Acetone                                              | 33.2             | 78.1              | 80.7             | 60-160         | 30  | 50 UJ               | ug/L  |
|           |         |                         | Benzene                                              | 84.2             | 45.2              | 60.1             | 85-125         | 30  | 1.0 UJ              | ug/L  |
|           |         |                         | Bromodichloromethane                                 | 74.8             | 40.8              | 59               | 75-125         | 30  | 1.0 UJ              | ug/L  |
|           |         |                         | Bromoform                                            | 56.4             | 29.8              | 61.5             | 60-125         | 30  | 1.0 UJ              | ug/L  |
|           |         |                         | Carbon disulfide                                     | 47.5             | 89.9              | 61.7             | 60-165         | 30  | 5.0 UJ              | ug/L  |
|           |         |                         | Carbon tetrachloride                                 | 42.6             | 79                | 59.8             | 65-140         | 30  | 1.0 UJ              | ug/L  |
|           |         |                         | Chlorobenzene                                        | 74.8             | 41.6              | 56.9             | 80-120         | 30  | 1.0 UJ              | ug/L  |
|           |         |                         | Chloroform (Trichloromethane)                        | 47.2             | 84.8              | 57.1             | 80-130         | 30  | 1.0 UJ              | ug/L  |
|           |         |                         | cis-1,2-Dichloroethene                               | 47.4             | 90.3              | 62.4             | 75-134         | 30  | 1.0 UJ              | ug/L  |
|           |         |                         | cis-1,3-Dichloropropene                              | 36.6             | 71                | 63.9             | 70-130         | 30  | 1.0 UJ              | ug/L  |
|           |         |                         | Dibromochloromethane                                 | 33.4             | 63.8              | 62.4             | 60-115         | 30  | 5.0 UJ              | ug/L  |
|           |         |                         | Ethylbenzene                                         | 71.3             | 37                | 63.3             | 85-125         | 30  | 1.0 UJ              | ug/L  |
|           |         |                         | Isopropyl benzene                                    | 72.4             | 36.2              | 66.7             | 80-127         | 30  | 5.0 UJ              | ug/L  |
|           |         |                         | Methyl tert butyl ether (MTBE)                       | 41               | 77                | 61               | 80-130         | 30  | 5.0 UJ              | ug/L  |
|           |         |                         | Methylene chloride                                   | 52.9             | 101               | 62.9             | 75-140         | 30  | 5.0 UJ              | ug/L  |
|           |         |                         | Styrene                                              | 36.7             | 69.6              | 62               | 85-125         | 30  | 1.0 UJ              | ug/L  |
|           |         |                         | Tetrachloroethene                                    | 45               | 80.5              | 56.5             | 77-138         | 30  | 1.0 UJ              | ug/L  |
|           |         |                         | Toluene                                              | 75.8             | 40.3              | 61.1             | 85-125         | 30  | 1.0 UJ              | ug/L  |
|           |         |                         | trans-1,2-Dichloroethene                             | 48.2             | 89.8              | 60.4             | 80-140         | 30  | 1.0 UJ              | ug/L  |
|           |         |                         | trans-1,3-Dichloropropene                            | 29.8             | 59.2              | 66.1             | 81-123         | 30  | 1.0 UJ              | ug/L  |
|           |         |                         | Trichloroethene                                      | 46.8             | 80.9              | 53.5             | 84-130         | 30  | 1.0 UJ              | ug/L  |
|           |         |                         | Trichlorofluoromethane (CFC-11)                      | 54.4             | 105               | 63.6             | 60-140         | 30  | 1.0 UJ              | ug/L  |
|           |         |                         | Xylenes (total)                                      | 36.9             | 70.8              | 62.8             | 80-126         | 30  | 3.0 UJ              | ug/L  |

Table 5

Qualified Sample Results Due to Outlying MS/MSD Results  
 2015 Monitoring Well and Culvert Sampling  
 Racer Grand Rapids Stamping Site  
 Wyoming, Michigan  
 October 2015

| Parameter | Batch   | Sample ID               | Analyte                   | MS<br>% Recovery | MSD<br>% Recovery | RPD<br>(percent) | Control Limits<br>% Recovery | RPD | Qualified<br>Result | Units |
|-----------|---------|-------------------------|---------------------------|------------------|-------------------|------------------|------------------------------|-----|---------------------|-------|
| TCL SVOCs | 78279   | WG-017360-102915-MR-045 | 3,3'-Dichlorobenzidine    | 0                | 0                 | 0                | 30-120                       | 120 | R                   | ug/L  |
| TCL VOCs  | R175624 | WG-017360-102915-MR-045 | Ethylbenzene              | 84.8             | 81.8              | 3.61             | 85-125                       | 30  | 2.51 J              | ug/L  |
|           |         |                         | Styrene                   | 82.5             | 84.4              | 2.28             | 85-125                       | 30  | 1.0 UU              | ug/L  |
|           |         |                         | trans-1,3-Dichloropropene | 75.8             | 73.8              | 2.74             | 81-123                       | 30  | 1.0 UU              | ug/L  |

## Notes:

- Matrix Spike
- Matrix Spike Duplicate
- Relative Percent Difference
- Semi-Volatile Organic Compounds
- Target Compound List
- Volatile Organic Compounds
- Estimated concentration
- Not detected; associated reporting limit is estimated
- Rejected

Table 6

**Qualified Sample Results Due to Analyte Concentrations in a Trip Blank**  
**2015 Monitoring Well and Culvert Sampling**  
**Racer Grand Rapids Stamping Site**  
**Wyoming, Michigan**  
**October 2015**

| Parameter | Blank Date | Analyte    | Blank Result | Sample ID               | Original Result | Qualified Result | Units |
|-----------|------------|------------|--------------|-------------------------|-----------------|------------------|-------|
| TCL VOCs  | 10/22/2015 | Chloroform | 0.64 J       | WG-017360-102115-MR-009 | 2.1             | 2.1 U            | ug/L  |
|           |            |            |              | WG-017360-102115-MR-013 | 0.29 J          | 1.0 U            | ug/L  |
|           |            |            |              | WG-017360-102215-MR-015 | 1.2             | 1.2 U            | ug/L  |

## Notes:

- TCL - Target Compound List
- VOCs - Volatile Organic Compounds
- J - Estimated concentration
- U - Not detected at the associated reporting limit