



Memorandum

July 12, 2016

To: Darlene Pearson, MDEQ
Matt Gamble, MDEQ

Ref. No.: 017360-T08Y16

From: *JQ* *EB*
Jeni Quigley/Earl Batenburg/85/Pwl.

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cc: Dave Favero, RACER Trust

Subject: Spring 2016 Semi-Annual Groundwater Monitoring Report
Former Grand Rapids Metal Plant
Wyoming, Michigan

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 36th Street SW in Wyoming, Michigan (Site). The samples were collected during the field event conducted between April 5 and April 18, 2016. 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 Spring 2016 Semi Annual Groundwater Monitoring activities.

1. Spring 2016 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 47 groundwater samples, including quality assurance/quality control (QA/QC) samples, were collected from 39 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 April 5 and April 18, 2016 for analysis of



TCL VOCs, TCL SVOCs, and/or TAL metals. Table 1 presents a summary of the samples collected during the Spring 2016 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 April 5, 2016. Figure 1 presents the approximate groundwater flow direction for April 5, 2016.

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 and outlying



matrix spike/matrix spike duplicate percent recovery and relative percent difference. 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 molybdenum for the groundwater sample collected from MW59-14 due to detection of these analytes in the method blank. Data was rejected for 3,3'-Dichlorobenzidine for the groundwater sample collected from MW46-12 due to outlying matrix spike/matrix spike duplicate results. Additional details regarding the qualified data are presented in the data validation memorandum included in Attachment B. 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 and tetrachloroethene (PCE) were detected in each of the surface water samples collected at culvert locations C-1, C-2, and C-3. Trichloroethene was detected in the surface water sample collected at culvert C-1. Vinyl chloride was detected in the surface water sample collected at culvert C 2. 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-2 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 MW35-12) have remained consistent indicating the stabilization of the recent increasing trend related to slab removal in 2011 and 2012. Groundwater TCE concentration contours are presented on Figure 4. 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. Groundwater PCE concentration contours are presented on Figure 5. Higher levels of PCE were also detected in MW17-06 consistent with previously conducted sampling, indicating the presence of another separate off-Site plume to the west of Cole Drain. 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 Fall 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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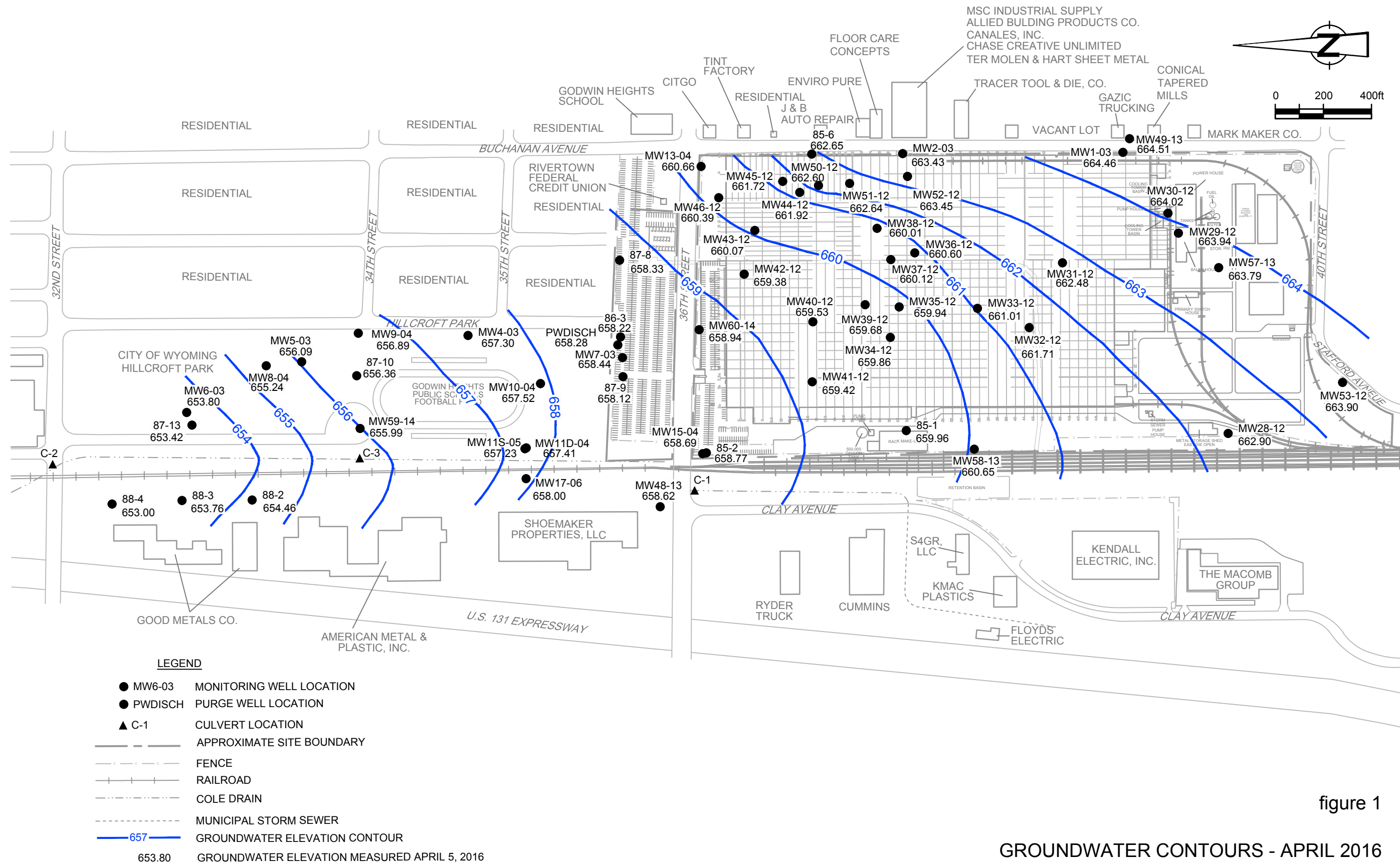
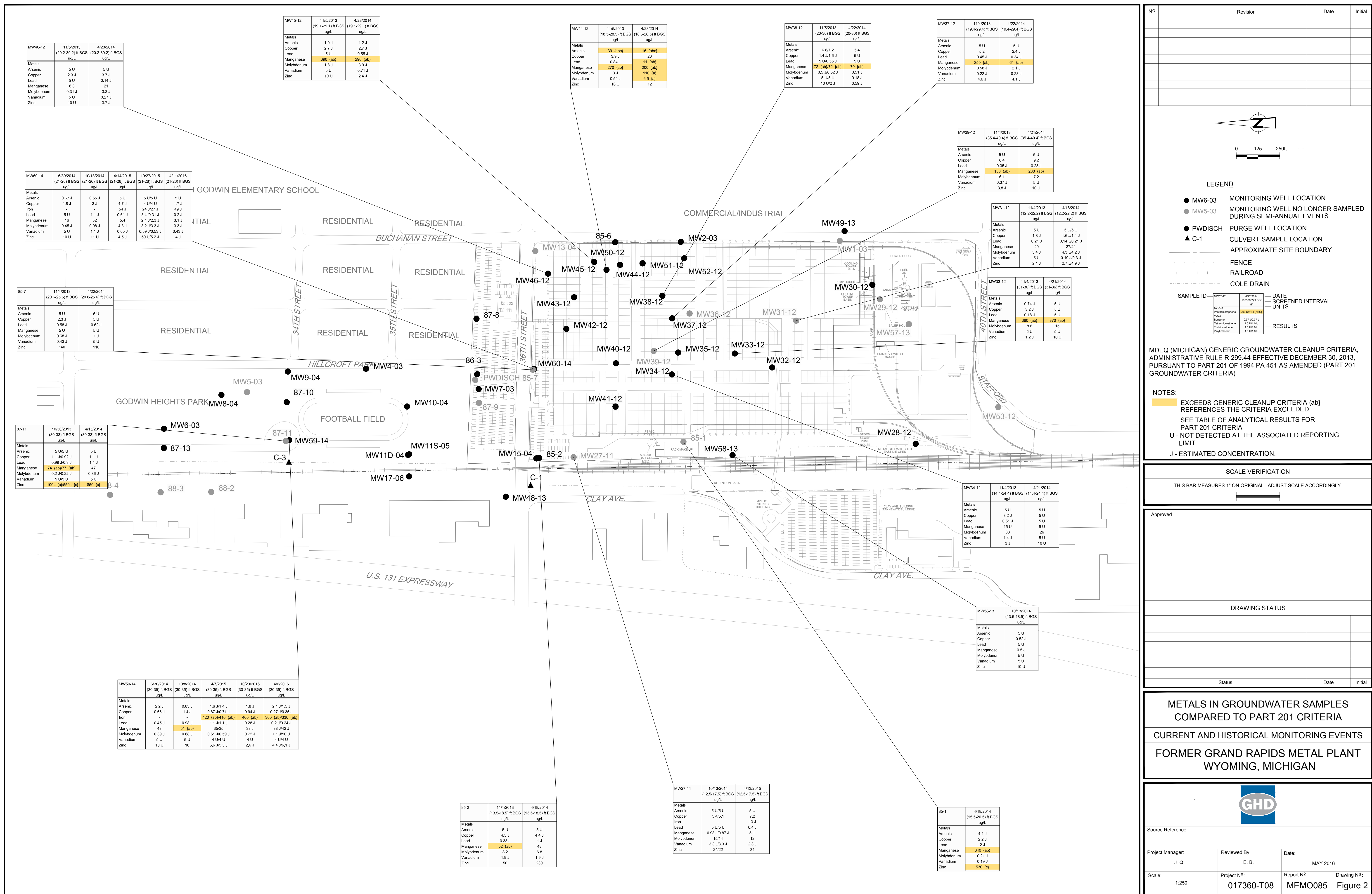
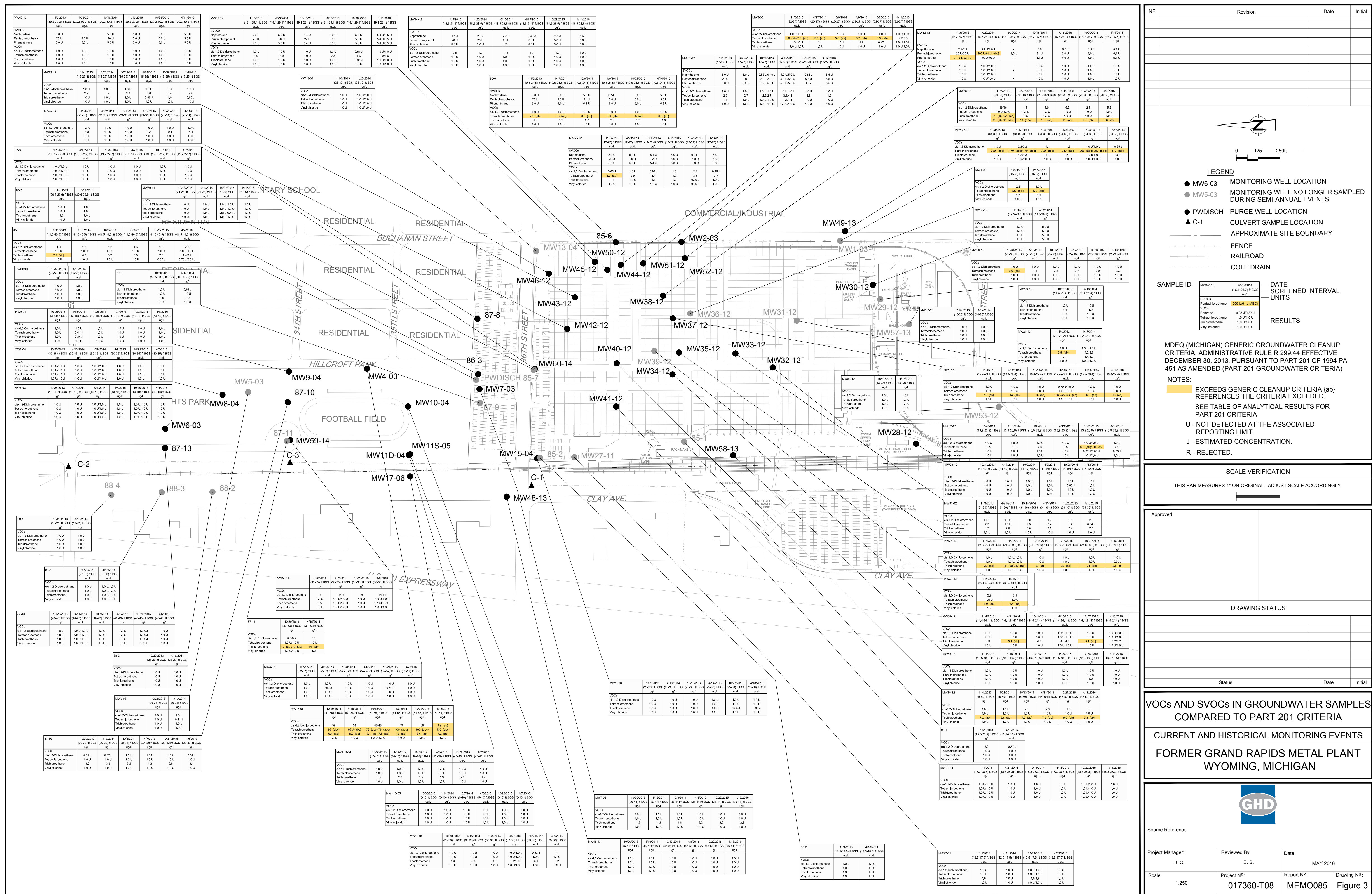


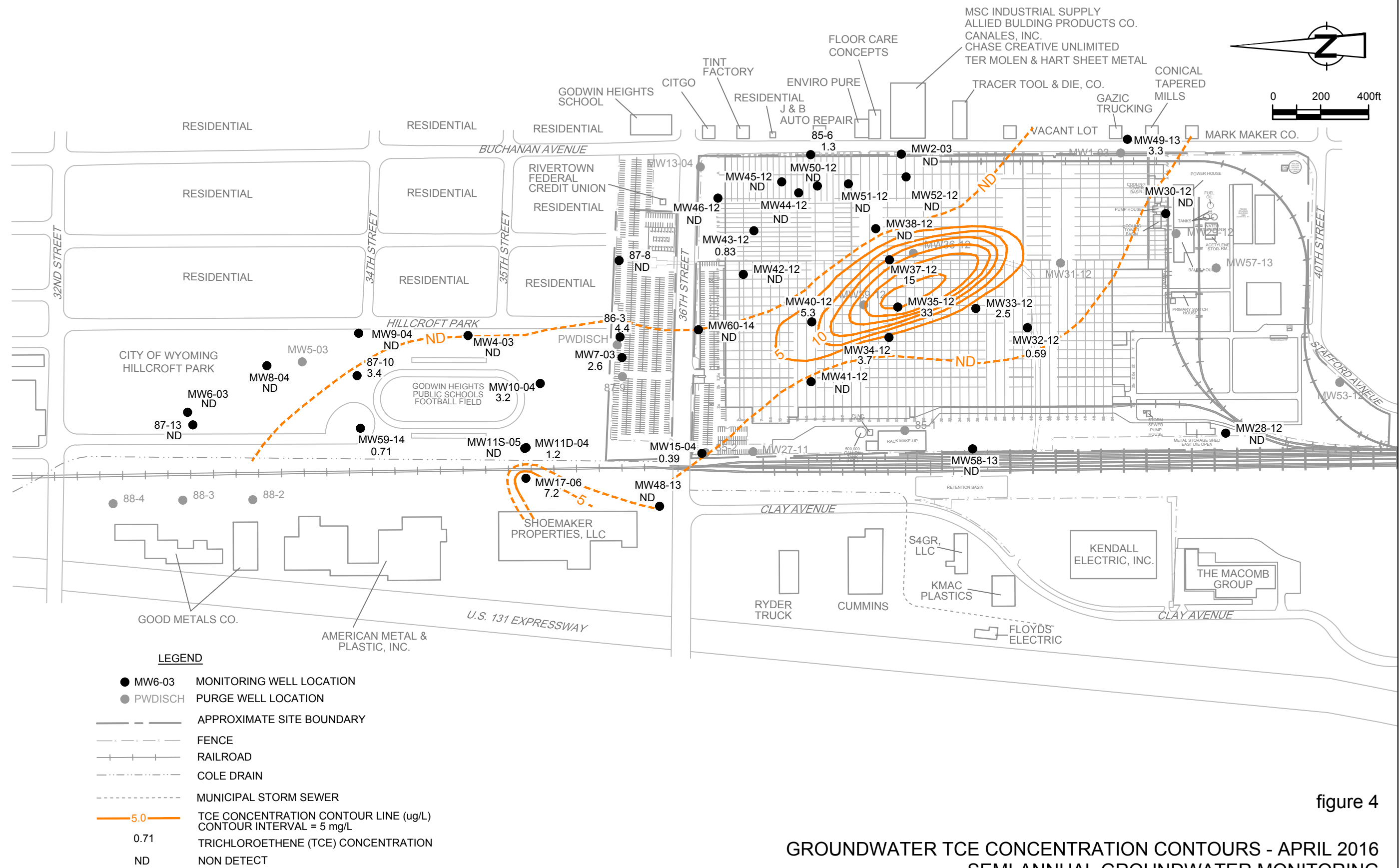
figure 1

GROUNDWATER CONTOURS - APRIL 2016
SEMI-ANNUAL GROUNDWATER MONITORING
FORMER GRAND RAPIDS METAL PLANT
Wyoming, Michigan









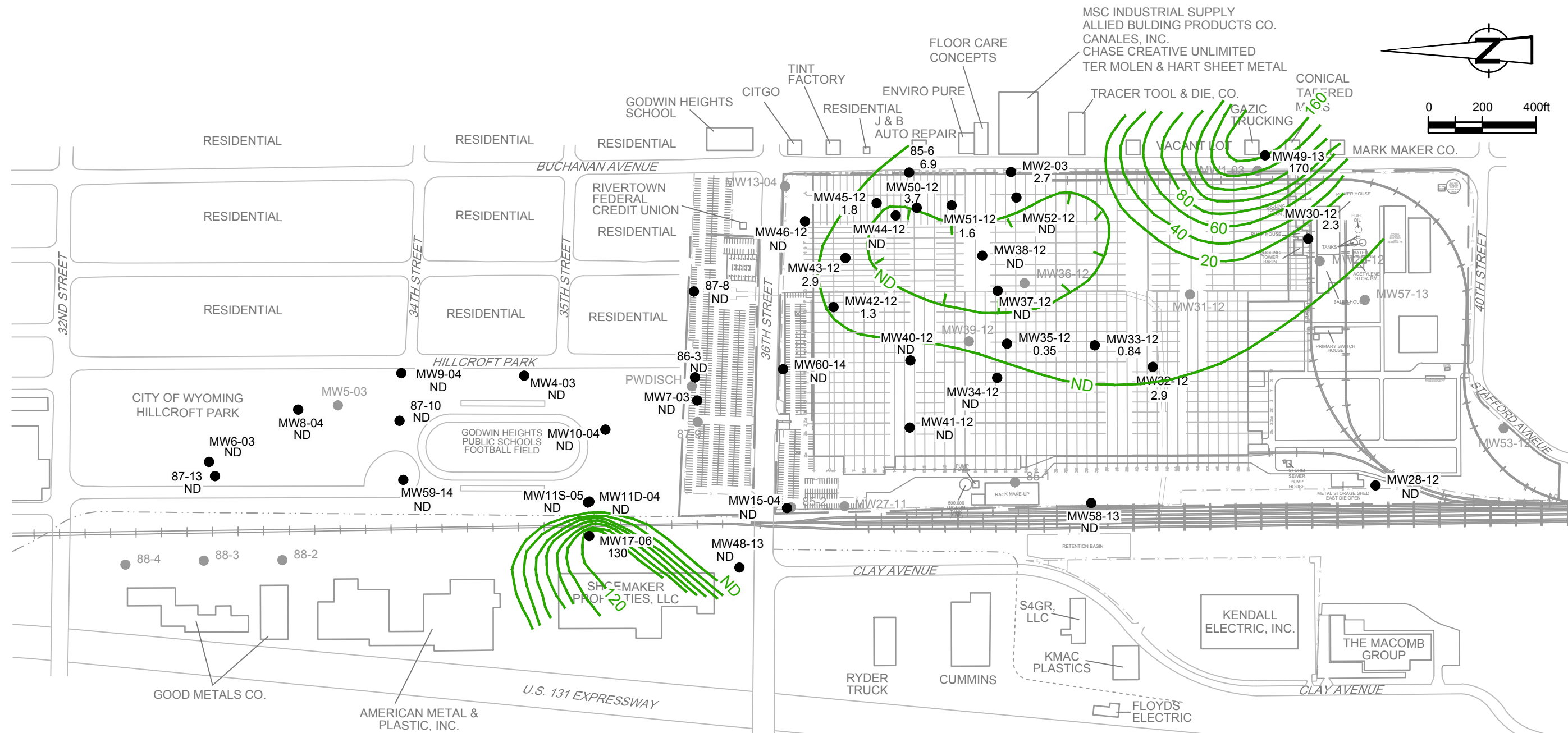


figure 5

GROUNDWATER PCE CONCENTRATION CONTOURS - APRIL 2016
SEMI-ANNUAL GROUNDWATER MONITORING
FORMER GRAND RAPIDS METAL PLANT
Wyoming, Michigan



Sample Summary
Spring 2016 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> <u>(ft bgs)</u>		<u>QC Sample</u>	<u>Analysis</u>
4/5/2016	SW-017360-040516-MR-001	C-2	Surface Water	--	to --		VOCs
4/5/2016	SW-017360-040516-MR-002	C-3	Surface Water	--	to --		VOCs
4/5/2016	SW-017360-040516-MR-003	C-1	Surface Water	--	to --		VOCs
4/6/2016	WG-017360-040616-MR-004	MW6-03	Groundwater	13	to 18		VOCs
4/6/2016	WG-017360-040616-MR-005	87-13	Groundwater	40	to 43		VOCs
4/6/2016	WG-017360-040616-MR-006	MW59-14	Groundwater	30	to 35		VOCs, Metals
4/6/2016	WG-017360-040616-MR-007	MW59-14	Groundwater	30	to 35	Duplicate (-006)	VOCs, Metals
4/6/2016	WG-017360-040616-MR-008	87-10	Groundwater	29	to 32		VOCs
4/6/2016	WG-017360-040616-MR-009	MW8-04	Groundwater	30	to 35		VOCs
4/6/2016	WG-017360-040616-MR-010	MW43-12	Groundwater	15	to 25		VOCs
4/6/2016	WG-017360-040616-MR-011	MW38-12	Groundwater	20	to 30		VOCs
4/7/2016	WG-017360-040716-MR-012	MW4-03	Groundwater	52	to 57	MS/MSD	VOCs
4/7/2016	WG-017360-040716-MR-013	MW9-04	Groundwater	43	to 48		VOCs
4/7/2016	WG-017360-040716-MR-014	MW10-04	Groundwater	33	to 38		VOCs
4/7/2016	WG-017360-040716-MR-015	MW11S-05	Groundwater	5	to 10		VOCs
4/7/2016	WG-017360-040716-MR-016	MW11D-04	Groundwater	40	to 45		VOCs
4/7/2016	WG-017360-040716-MR-017	87-8	Groundwater	19.7	to 22.7		VOCs
4/7/2016	WG-017360-040716-MR-018	86-3	Groundwater	41.5	to 46.5		VOCs
4/7/2016	WG-017360-040716-MR-019	86-3	Groundwater	41.5	to 46.5	Duplicate (-018)	VOCs
4/7/2016	TB-017360-040716-MR-020	Trip Blank	Groundwater	--	to --		VOCs
4/11/2016	WG-017360-041116-MR-021	MW46-12	Groundwater	20.2	to 30.2	MS/MSD	VOCs, SVOCs
4/11/2016	WG-017360-041116-MR-022	MW45-12	Groundwater	20.2	to 30.2		VOCs, SVOCs
4/11/2016	WG-017360-041116-MR-023	MW45-12	Groundwater	19.1	to 29.1	Duplicate (-022)	VOCs, SVOCs
4/11/2016	WG-017360-041116-MR-024	MW44-12	Groundwater	18.5	to 28.5		VOCs, SVOCs
4/11/2016	WG-017360-041116-MR-025	MW42-12	Groundwater	21	to 31		VOCs
4/11/2016	WG-017360-041116-MR-026	MW60-14	Groundwater	21	to 26	MS/MSD	VOCs, Metals
4/13/2016	WG-017360-041316-MR-027	MW7-03	Groundwater	36	to 41		VOCs
4/13/2016	WG-017360-041316-MR-028	MW48-13	Groundwater	46	to 51		VOCs
4/13/2016	WG-017360-041316-MR-029	MW17-06	Groundwater	51	to 56		VOCs
4/13/2016	WG-017360-041316-MR-030	MW58-13	Groundwater	13.5	to 18.5		VOCs
4/13/2016	WG-017360-041316-MR-031	MW28-12	Groundwater	14	to 19		VOCs
4/13/2016	WG-017360-041316-MR-032	MW30-12	Groundwater	25	to 30		VOCs
4/14/2016	WG-017360-041416-MR-033	85-6	Groundwater	19.5	to 24.5		VOCs, SVOCs
4/14/2016	WG-017360-041416-MR-034	MW2-03	Groundwater	22	to 27		VOCs
4/14/2016	WG-017360-041416-MR-035	MW2-03	Groundwater	22	to 27	Duplicate (-034)	VOCs
4/14/2016	WG-017360-041416-MR-036	MW49-13	Groundwater	34	to 39		VOCs
4/14/2016	WG-017360-041416-MR-037	MW52-12	Groundwater	16.7	to 26.7		VOCs, SVOCs
4/14/2016	WG-017360-041416-MR-038	MW51-12	Groundwater	17	to 27		VOCs, SVOCs
4/14/2016	WG-017360-041416-MR-039	MW50-12	Groundwater	17	to 27		VOCs, SVOCs
4/14/2016	WG-017360-041416-MR-040	MW37-12	Groundwater	19.4	to 29.4		VOCs

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4/14/2016	TB-017360-041416-MR-041	Trip Blank	Groundwater	-- to --		VOCs
4/18/2016	WG-017360-041816-MR-042	MW15-04	Groundwater	25 to 30		VOCs
4/18/2016	WG-017360-041816-MR-043	MW41-12	Groundwater	18.3 to 28.3		VOCs
4/18/2016	WG-017360-041816-MR-044	MW40-12	Groundwater	45 to 50	MS/MSD	VOCs
4/18/2016	WG-017360-041816-MR-045	MW34-12	Groundwater	14.4 to 24.4		VOCs
4/18/2016	WG-017360-041816-MR-046	MW34-12	Groundwater	14.4 to 24.4	Duplicate (-046)	VOCs
4/18/2016	WG-017360-041816-MR-047	MW35-12	Groundwater	24.6 to 29.6		VOCs
4/18/2016	WG-017360-041816-MR-048	MW33-12	Groundwater	31 to 36		VOCs
4/18/2016	WG-017360-041816-MR-049	MW32-12	Groundwater	13.9 to 23.9		VOCs
4/18/2016	TB-017360-041816-MR-050	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
Spring 2016 Semi-Annual Groundwater Monitoring Event
Former Grand Rapids Metal Plant
Wyoming, Michigan**

<i>Monitoring Well Location</i>	<i>Date</i>	<i>Time (hours:minutes)</i>	<i>Purge Rate (mL/per min.)</i>	<i>Water Level (ft. BTOR)</i>	<i>Temperature (°C)</i>	<i>Conductivity (mS/cm)</i>	<i>Turbidity (NTU)</i>	<i>DO (mg/L)</i>	<i>pH (Units)</i>	<i>ORP (mv)</i>
85-6	4/14/2016	10:35	110	16.55	11.41	2.133	3.69	6.78	7.44	38.8
		10:40	110	16.55	11.61	2.133	3.15	7.04	7.44	38.3
		10:40	110	16.55	11.70	2.133	2.70	7.05	7.44	37.8
86-3	4/7/2016	16:39	100	19.21	11.60	0.934	1.11	0.46	7.70	-19.9
		16:44	100	19.21	11.53	0.934	0.95	0.50	7.69	-20.1
		16:49	100	19.21	11.54	0.938	0.81	0.47	7.67	-22.1
87-8	4/7/2016	15:56	100	18.40	9.25	1.158	2.15	2.31	7.54	12.2
		16:01	100	18.40	9.20	1.161	1.85	2.33	7.51	15.6
		16:06	100	18.40	9.31	1.167	1.06	2.36	7.46	17.8
87-10	4/6/2016	13:15	120	11.49	10.66	1.372	3.22	0.44	7.42	19.2
		13:20	120	11.49	10.61	1.368	2.81	0.41	7.41	15.7
		13:25	120	11.49	10.52	1.367	2.66	0.44	7.40	17.9
87-13	4/6/2016	11:18	110	10.11	8.91	1.162	0.91	1.87	7.26	58.5
		11:23	110	10.11	8.87	1.161	1.08	1.83	7.26	57.1
		11:28	110	10.11	8.80	1.160	0.58	1.91	7.26	56.0
MW2-03	4/14/2016	11:30	100	16.78	12.27	2.550	1.59	6.53	7.40	36.9
		11:35	100	16.78	12.21	2.541	1.13	6.25	7.38	38.1
		11:40	100	16.78	12.47	2.547	1.01	6.20	7.40	37.9
MW4-03	4/7/2016	10:54	100	21.75	11.72	1.111	2.00	0.77	7.19	-16.1
		10:59	100	21.75	11.74	1.109	1.77	0.78	7.21	-16.4
		11:04	100	21.75	11.76	1.109	1.28	0.79	7.23	-17.7
MW6-03	4/6/2016	10:40	100	11.51	9.33	1.154	4.78	5.27	7.17	88.6
		10:45	100	11.51	9.32	1.152	4.11	5.25	7.18	88.4
		10:50	100	11.51	9.27	1.151	3.23	5.17	7.19	87.7

Table 2

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<i>Monitoring Well Location</i>	<i>Date</i>	<i>Time (hours:minutes)</i>	<i>Purge Rate (mL/per min.)</i>	<i>Water Level (ft. BTOR)</i>	<i>Temperature (°C)</i>	<i>Conductivity (mS/cm)</i>	<i>Turbidity (NTU)</i>	<i>DO (mg/L)</i>	<i>pH (Units)</i>	<i>ORP (mv)</i>
MW7-03	4/13/2016	11:23	100	16.18	13.39	1.574	2.89	2.83	7.36	22.0
		11:28	100	16.18	13.41	1.572	2.41	2.96	7.37	17.6
		11:33	100	16.18	13.52	1.567	1.40	2.72	7.37	15.5
MW8-04	4/6/2016	14:50	100	19.01	10.42	1.420	1.52	5.07	7.29	56.7
		14:55	100	19.01	10.24	1.417	1.77	5.16	7.32	56.6
		15:00	100	19.01	10.31	1.415	1.44	5.18	7.33	56.5
MW9-04	4/7/2016	11:48	110	21.32	11.28	0.565	6.46	9.85	7.47	61.6
		11:53	110	21.32	11.28	0.563	5.14	9.65	7.50	61.9
		11:58	110	21.32	11.18	0.560	4.49	9.58	7.49	63.0
MW10-04	4/7/2016	12:28	100	8.70	10.09	1.341	0.93	0.69	7.28	-1.7
		12:33	100	8.70	10.07	1.339	0.80	0.64	7.29	-6.2
		12:38	100	8.70	10.25	1.337	0.54	0.67	7.30	-6.8
MW11S-05	4/7/2016	13:43	120	6.31	9.94	1.306	2.66	1.62	6.96	17.6
		13:48	120	6.31	10.06	1.303	2.10	1.70	6.96	18.7
		13:53	120	6.31	9.99	1.301	1.18	1.77	6.95	19.7
MW11D-04	4/7/2016	14:30	100	5.80	10.90	2.184	3.18	1.05	7.15	-13.7
		14:35	100	5.80	10.85	2.189	3.04	1.07	7.15	-14.9
		14:40	100	5.80	10.90	2.187	2.67	1.11	7.15	-14.7
MW15-04	4/18/2016	10:44	120	12.89	14.03	1.580	2.64	5.37	7.37	-13.3
		10:49	120	12.89	14.17	1.579	2.13	5.47	7.38	-13.1
		10:54	120	12.89	14.29	1.580	1.11	5.17	7.39	-12.7
MW17-06	4/13/2016	14:03	120	6.65	12.89	2.535	0.94	0.17	7.24	10.4
		14:08	120	6.65	12.85	2.531	0.91	0.17	7.23	11.4
		14:13	120	6.65	13.05	2.532	0.68	0.16	7.24	17.1

**Groundwater Quality Parameters
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<i>Monitoring Well Location</i>	<i>Date</i>	<i>Time (hours:minutes)</i>	<i>Purge Rate (mL/per min.)</i>	<i>Water Level (ft. BTOR)</i>	<i>Temperature (°C)</i>	<i>Conductivity (mS/cm)</i>	<i>Turbidity (NTU)</i>	<i>DO (mg/L)</i>	<i>pH (Units)</i>	<i>ORP (mv)</i>
MW28-12	4/13/2016	16:53	100	13.41	11.00	0.800	2.88	8.39	7.41	57.5
		16:58	100	13.41	11.03	0.800	2.21	8.37	7.42	56.5
		17:03	100	13.41	11.04	0.801	1.26	8.37	7.43	57.3
MW30-12	4/13/2016	17:49	120	12.37	11.56	1.518	2.43	4.21	7.26	37.8
		17:54	120	12.37	11.54	1.519	1.78	4.03	7.26	37.3
		17:59	120	12.37	11.62	1.517	1.18	3.91	7.26	37.2
MW32-12	4/18/2016	15:17	130	13.71	14.46	0.453	1.51	7.94	8.10	17.4
		15:22	130	13.71	14.86	0.453	1.55	7.63	8.13	14.9
		15:27	130	13.71	14.60	0.452	1.35	8.04	8.13	16.5
MW33-12	4/18/2016	14:41	120	17.32	16.20	0.964	4.22	1.07	10.02	-40.0
		14:46	120	17.32	16.27	0.965	3.61	1.03	10.05	-41.8
		14:51	120	17.32	16.46	0.968	3.01	1.02	10.05	-41.3
MW34-12	4/18/2016	12:35	100	14.44	14.08	0.455	2.01	11.45	7.56	21.0
		12:40	100	14.44	14.09	0.454	1.40	11.64	7.54	23.9
		12:45	100	14.44	14.05	0.454	1.55	11.58	7.60	24.5
MW35-12	4/18/2016	13:46	130	16.81	16.62	0.591	4.03	7.84	7.76	12.9
		13:51	130	16.81	16.56	0.591	3.19	7.62	7.76	15.4
		13:56	130	16.81	16.68	0.595	2.15	7.54	7.75	16.6
MW37-12	4/14/2016	16:49	120	19.82	15.26	0.638	3.01	7.49	7.93	6.0
		16:54	120	19.82	15.36	0.638	2.71	7.85	7.94	6.0
		16:59	120	19.82	15.36	0.640	2.13	7.53	7.95	6.2
MW38-12	4/6/2016	16:59	100	20.45	11.04	1.413	1.98	0.44	7.47	-40.3
		17:04	100	20.45	10.92	1.421	1.59	0.41	7.46	-41.9
		17:09	100	20.45	11.00	1.420	1.33	0.43	7.45	-43.2

Table 2

**Groundwater Quality Parameters
Spring 2016 Semi-Annual Groundwater Monitoring Event
Former Grand Rapids Metal Plant
Wyoming, Michigan**

<i>Monitoring Well Location</i>	<i>Date</i>	<i>Time (hours:minutes)</i>	<i>Purge Rate (mL/per min.)</i>	<i>Water Level (ft. BTOR)</i>	<i>Temperature (°C)</i>	<i>Conductivity (mS/cm)</i>	<i>Turbidity (NTU)</i>	<i>DO (mg/L)</i>	<i>pH (Units)</i>	<i>ORP (mv)</i>
MW40-12	4/18/2016	12:00	120	21.41	18.40	1.126	2.43	0.75	7.68	-24.9
		12:05	120	21.41	18.59	1.120	2.50	0.73	7.68	-23.6
		12:10	120	21.41	18.56	1.122	2.09	0.70	7.67	-24.3
MW41-12	4/18/2016	11:18	130	18.21	13.97	1.496	3.37	1.14	6.83	-11.2
		11:23	130	18.21	14.17	1.496	3.04	1.15	6.86	-11.5
		11:28	130	18.21	14.11	1.499	2.88	1.18	6.88	-12.4
MW42-12	4/11/2016	15:30	200	21.35	10.49	1.003	4.71	6.79	7.29	37.1
		15:35	200	21.35	10.57	1.002	4.53	6.63	7.33	36.2
		15:40	200	21.35	10.44	1.004	3.97	6.50	7.33	35.6
MW43-12	4/6/2016	16:10	110	15.60	9.72	1.208	1.28	0.20	7.31	3.4
		16:15	110	15.60	9.76	1.206	0.95	0.18	7.31	0.7
		16:20	110	15.60	9.73	1.206	0.88	0.16	7.31	-0.3
MW44-12	4/11/2016	14:40	150	17.23	11.96	0.460	9.71	0.95	7.99	-58.2
		14:45	150	17.23	11.96	0.459	7.98	0.86	7.99	-52.7
		14:50	150	17.23	12.03	0.457	6.45	0.83	7.99	-56.3
MW45-12	4/11/2016	13:20	150	16.78	12.38	1.240	3.97	2.60	7.17	37.0
		13:25	150	16.78	12.44	1.239	3.41	2.56	7.17	32.3
		13:30	150	16.78	12.80	1.237	3.02	2.42	7.17	30.7
MW46-12	4/11/2016	12:35	200	19.57	11.49	0.905	2.83	8.40	7.06	94.5
		12:40	200	19.57	11.48	0.907	2.24	8.35	7.09	92.6
		12:45	200	19.57	11.43	0.907	2.31	8.29	7.09	90.6
MW48-13	4/13/2016	13:00	100	12.39	12.99	2.371	0.73	0.72	7.30	11.7
		13:05	100	12.39	13.14	2.369	0.80	0.71	7.31	11.4
		13:10	100	12.39	13.02	2.375	0.75	0.76	7.30	10.9

**Groundwater Quality Parameters
Spring 2016 Semi-Annual Groundwater Monitoring Event
Former Grand Rapids Metal Plant
Wyoming, Michigan**

<i>Monitoring Well Location</i>	<i>Date</i>	<i>Time (hours:minutes)</i>	<i>Purge Rate (mL/per min.)</i>	<i>Water Level (ft. BTOR)</i>	<i>Temperature (°C)</i>	<i>Conductivity (mS/cm)</i>	<i>Turbidity (NTU)</i>	<i>DO (mg/L)</i>	<i>pH (Units)</i>	<i>ORP (mv)</i>
MW49-13	4/14/2016	12:30	100	13.86	13.96	1.213	1.77	2.13	7.24	25.1
		12:35	100	13.86	14.01	1.210	1.11	2.12	7.25	24.8
		12:40	100	13.86	13.94	1.204	0.85	2.14	7.23	25.1
MW50-12	4/14/2016	15:59	110	17.16	13.06	1.455	2.31	0.70	7.44	-16.5
		16:04	110	17.16	12.98	1.452	2.00	0.71	7.43	-17.9
		16:09	110	17.16	12.94	1.454	1.76	0.76	7.42	-17.8
MW51-12	4/14/2016	15:05	120	17.42	13.39	0.906	10.9	1.65	9.96	-30.8
		15:10	120	17.42	13.45	0.907	10.7	1.64	9.97	-30.3
		15:15	120	17.42	13.47	0.906	10.5	1.69	9.98	-30.8
MW52-12	4/14/2016	14:08	100	15.89	15.11	1.501	6.86	1.46	7.52	-100.2
		14:13	100	15.89	15.10	1.501	5.43	1.44	7.51	-98.5
		14:18	100	15.89	15.14	1.502	4.69	1.38	7.50	-99.7
MW58-13	4/13/2016	16:06	110	14.40	11.28	0.555	0.68	8.88	7.10	64.3
		16:11	110	14.40	11.19	0.554	0.50	8.67	7.10	64.0
		16:16	110	14.40	11.19	0.552	0.33	8.63	7.11	64.0
MW59-14	4/6/2016	12:35	100	10.50	9.96	1.667	6.19	0.20	7.23	11.3
		12:40	100	10.50	9.89	1.666	5.41	0.19	7.23	4.7
		12:45	100	10.50	9.92	1.662	4.93	0.20	7.23	5.4
MW60-14	4/11/2016	16:20	200	18.63	12.75	0.868	3.12	5.08	7.64	24.1
		16:25	200	18.63	13.13	0.866	3.20	4.80	7.66	23.6
		16:30	200	18.63	13.04	0.867	2.86	5.05	7.66	22.4

Notes:

ft. BTOR - feet below top of riser

DO - dissolved oxygen

ORP - oxidation-reduction potential

Groundwater Elevation Data
Spring 2016 Semi-Annual Groundwater Monitoring Event
Former Grand Rapids Metal Plant
Wyoming, Michigan

<u>Location</u>	<u>LNAPL Thickness (ft.)</u>	<u>Groundwater Elevation</u> ⁽²⁾	<u>Depth Below Top of Riser (ft.)</u>
85-1		659.96	15.07
85-2		658.77	12.86
85-6	(1)	662.65	16.94
86-3		658.22	17.58
87-8		658.33	18.45
87-9		658.12	15.01
88-2		654.46	11.34
88-3		653.76	10.60
88-4		653.00	8.20
87-10		656.36	11.40
87-13		653.42	10.15
MW1-03		664.46	14.22
MW2-03		663.43	17.17
MW4-03		657.30	21.82
MW5-03		656.09	19.73
MW6-03		653.80	11.59
MW7-03		658.44	16.35
MW8-04		655.24	19.08
MW9-04		656.89	21.40
MW10-04		657.52	8.77
MW11D-04		657.41	5.86
MW11S-05		657.23	6.35
MW13-04		660.66	17.60
MW15-04		658.69	13.00
MW17-06		658.00	6.71
MW28-12		662.90	13.64
MW29-12		663.94	11.75
MW30-12		664.02	12.64
MW31-12		662.48	12.94
MW32-12		661.71	14.06
MW33-12		661.01	17.70
MW34-12		659.86	14.72
MW35-12		659.94	17.12
MW36-12		660.60	19.39
MW37-12		660.12	20.18
MW38-12		660.01	20.50
MW39-12		659.68	19.50
MW40-12		659.53	21.73
MW41-12		659.42	18.45
MW42-12		659.38	21.56
MW43-12		660.07	15.65
MW44-12	(1)	661.92	17.57
MW45-12	(1)	661.72	17.11
MW46-12	(1)	660.39	19.86
MW48-13		658.62	12.48
MW49-13		664.51	14.27
MW50-12	(1)	662.60	17.51
MW51-12	(1)	662.64	17.80
MW52-12	(1)	663.45	16.24
MW53-12		663.90	13.34
MW57-13		663.79	13.69
MW58-13		660.65	14.58
MW59-14		655.99	10.56
MW60-14		658.94	18.69
PWDISCH		658.28	19.51

Notes:

⁽¹⁾ No measurable LNAPL or sheen was identified in the wells.

⁽²⁾ Groundwater elevations measured in feet above mean sea level.

**Groundwater Sample Analytical Results
Spring 2016 Semi-Annual Groundwater Event
Former Grand Rapids Metal Plant
Wyoming, Michigan**

MDEQ Generic Groundwater Cleanup Criteria: Residential and Non-Residential ⁽¹⁾										
	Residential Drinking Water	Non-Residential Drinking Water	Groundwater Surface Water Interface ⁽²⁾	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 ⁽³⁾	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 ⁽⁴⁾	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 ⁽⁵⁾	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
Spring 2016 Semi-Annual Groundwater Event
Former Grand Rapids Metal Plant
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MDEQ Generic Groundwater Cleanup Criteria: Residential and Non-Residential ⁽⁴⁾										
	Residential Drinking Water	Non-Residential Drinking Water	Groundwater Surface Water Interface ⁽²⁾	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										
VOCs (continued)										
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
Semi-Volatile Organic Compounds (SVOCs)										
2,2'-Oxybis(1-chloropropane) ⁽⁶⁾	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
Spring 2016 Semi-Annual Groundwater Event
Former Grand Rapids Metal Plant
Wyoming, Michigan**

		<i>MDEQ Generic Groundwater Cleanup Criteria: Residential and Non-Residential</i> ⁽⁴⁾								
		Residential Drinking Water	Non-Residential Drinking Water	Groundwater Surface Water Interface ⁽²⁾	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										
SVOCs (continued)										
bis(2-Chloroethoxy)methane	ug/L	NA	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
Metals										
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

**Groundwater Sample Analytical Results
Spring 2016 Semi-Annual Groundwater Event
Former Grand Rapids Metal Plant
Wyoming, Michigan**

	<i>MDEQ Generic Groundwater Cleanup Criteria: Residential and Non-Residential</i> ⁽⁴⁾									
	Residential Drinking Water	Non-Residential Drinking Water	Groundwater Surface Water Interface ⁽²⁾	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	
	<i>Units</i>									
<i>Metals (continued)</i>										
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:

⁽¹⁾ 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.

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

⁽³⁾ 1,2-Dibromoethane also known as ethylene dibromide

⁽⁴⁾ 2-butanone also known as methyl ethyl ketone (MEK)

⁽⁵⁾ 4-methyl-2-pentanone also known as methyl isobutyl ketone (MIBK)

⁽⁶⁾ 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.

Table 4

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

Sample Location:		85-6	86-3	86-3	87-8	87-10
Sample Identification:		WG-017360-041416-MR-033	WG-017360-040716-MR-018	WG-017360-040716-MR-019	WG-017360-040716-MR-017	WG-017360-040616-MR-008
Sample Date:		4/14/2016	4/7/2016	4/7/2016	4/7/2016	4/6/2016
Sample Type:				Duplicate		
		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 ⁽³⁾	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 ⁽⁴⁾	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 ⁽⁵⁾	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	1.0 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	2.2	2.0	1.0 U	0.61 J
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	6.9 ^{ab}	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	0.62 J	0.52 J	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

Table 4

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

Sample Location: Sample Identification: Sample Date: Sample Type:		85-6 WG-017360-041416-MR-033 4/14/2016	86-3 WG-017360-040716-MR-018 4/7/2016	86-3 WG-017360-040716-MR-019 4/7/2016 Duplicate	87-8 WG-017360-040716-MR-017 4/7/2016	87-10 WG-017360-040616-MR-008 4/6/2016
Units						
VOCs (continued)						
Trichloroethene	ug/L	1.3	4.4	3.9	1.0 U	3.4
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	0.73 J	0.61 J	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) ⁽⁶⁾	ug/L	5.6 U	-	-	-	-
2,4,5-Trichlorophenol	ug/L	5.6 U	-	-	-	-
2,4,6-Trichlorophenol	ug/L	5.6 U	-	-	-	-
2,4-Dichlorophenol	ug/L	5.6 U	-	-	-	-
2,4-Dimethylphenol	ug/L	5.6 U	-	-	-	-
2,4-Dinitrophenol	ug/L	5.6 U	-	-	-	-
2,4-Dinitrotoluene	ug/L	5.6 U	-	-	-	-
2,6-Dinitrotoluene	ug/L	5.6 U	-	-	-	-
2-Chloronaphthalene	ug/L	5.6 U	-	-	-	-
2-Chlorophenol	ug/L	5.6 U	-	-	-	-
2-Methylnaphthalene	ug/L	5.6 U	-	-	-	-
2-Methylphenol	ug/L	5.6 U	-	-	-	-
2-Nitroaniline	ug/L	5.6 U	-	-	-	-
2-Nitrophenol	ug/L	5.6 U	-	-	-	-
3&4-Methylphenol	ug/L	5.6 U	-	-	-	-
3,3'-Dichlorobenzidine	ug/L	5.6 U	-	-	-	-
3-Nitroaniline	ug/L	5.6 U	-	-	-	-
4,6-Dinitro-2-methylphenol	ug/L	5.6 U	-	-	-	-
4-Bromophenyl phenyl ether	ug/L	5.6 U	-	-	-	-
4-Chloro-3-methylphenol	ug/L	5.6 U	-	-	-	-
4-Chloroaniline	ug/L	5.6 U	-	-	-	-
4-Chlorophenyl phenyl ether	ug/L	5.6 U	-	-	-	-
4-Nitroaniline	ug/L	5.6 U	-	-	-	-
4-Nitrophenol	ug/L	5.6 U	-	-	-	-
Acenaphthene	ug/L	5.6 U	-	-	-	-
Acenaphthylene	ug/L	5.6 U	-	-	-	-
Acetophenone	ug/L	1.1 U	-	-	-	-
Anthracene	ug/L	5.6 U	-	-	-	-
Atrazine	ug/L	1.1 U	-	-	-	-
Benzaldehyde	ug/L	1.1 U	-	-	-	-
Benzo(a)anthracene	ug/L	5.6 U	-	-	-	-
Benzo(a)pyrene	ug/L	5.6 U	-	-	-	-
Benzo(b)fluoranthene	ug/L	5.6 U	-	-	-	-
Benzo(g,h,i)perylene	ug/L	5.6 U	-	-	-	-
Benzo(k)fluoranthene	ug/L	5.6 U	-	-	-	-
Biphenyl (1,1-Biphenyl)	ug/L	5.6 U	-	-	-	-

Table 4

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

Sample Location: Sample Identification: Sample Date: Sample Type:		85-6 WG-017360-041416-MR-033 4/14/2016	86-3 WG-017360-040716-MR-018 4/7/2016	86-3 WG-017360-040716-MR-019 4/7/2016 Duplicate	87-8 WG-017360-040716-MR-017 4/7/2016	87-10 WG-017360-040616-MR-008 4/6/2016
Units						
SVOCs (continued)						
bis(2-Chloroethoxy)methane	ug/L	5.6 U	-	-	-	-
bis(2-Chloroethyl)ether	ug/L	5.6 U	-	-	-	-
bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	5.6 U	-	-	-	-
Butyl benzylphthalate (BBP)	ug/L	5.6 U	-	-	-	-
Caprolactam	ug/L	11 U	-	-	-	-
Carbazole	ug/L	5.6 U	-	-	-	-
Chrysene	ug/L	5.6 U	-	-	-	-
Dibenz(a,h)anthracene	ug/L	5.6 U	-	-	-	-
Dibenzofuran	ug/L	5.6 U	-	-	-	-
Diethyl phthalate	ug/L	5.6 U	-	-	-	-
Dimethyl phthalate	ug/L	5.6 U	-	-	-	-
Di-n-butylphthalate (DBP)	ug/L	5.6 U	-	-	-	-
Di-n-octyl phthalate (DnOP)	ug/L	5.6 U	-	-	-	-
Fluoranthene	ug/L	5.6 U	-	-	-	-
Fluorene	ug/L	5.6 U	-	-	-	-
Hexachlorobenzene	ug/L	5.6 U	-	-	-	-
Hexachlorobutadiene	ug/L	5.6 U	-	-	-	-
Hexachlorocyclopentadiene	ug/L	5.6 U	-	-	-	-
Hexachloroethane	ug/L	5.6 U	-	-	-	-
Indeno(1,2,3-cd)pyrene	ug/L	5.6 U	-	-	-	-
Isophorone	ug/L	5.6 U	-	-	-	-
Naphthalene	ug/L	5.6 U	-	-	-	-
Nitrobenzene	ug/L	5.6 U	-	-	-	-
N-Nitrosodi-n-propylamine	ug/L	5.6 U	-	-	-	-
N-Nitrosodiphenylamine	ug/L	5.6 U	-	-	-	-
Pentachlorophenol	ug/L	5.6 U	-	-	-	-
Phenanthrene	ug/L	5.6 U	-	-	-	-
Phenol	ug/L	5.6 U	-	-	-	-
Pyrene	ug/L	5.6 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	-	-	-	-	-

Table 4

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

<i>Sample Location:</i>		85-6	86-3	86-3	87-8	87-10
<i>Sample Identification:</i>		WG-017360-041416-MR-033	WG-017360-040716-MR-018	WG-017360-040716-MR-019	WG-017360-040716-MR-017	WG-017360-040616-MR-008
<i>Sample Date:</i>		4/14/2016	4/7/2016	4/7/2016	4/7/2016	4/6/2016
<i>Sample Type:</i>				Duplicate		
		<i>Units</i>				
<i>Metals (continued)</i>						
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 4

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

Sample Location:	87-13	MW2-03	MW2-03	MW4-03	MW6-03
Sample Identification:	WG-017360-040616-MR-005	WG-017360-041416-MR-034	WG-017360-041416-MR-035	WG-017360-040716-MR-012	WG-017360-040616-MR-004
Sample Date:	4/6/2016	4/14/2016	4/14/2016	4/7/2016	4/6/2016
Sample Type:					
	Units				
Volatile Organic Compounds (VOCs)					
1,1,1-Trichloroethane	ug/L	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
1,1,2-Trichloroethane	ug/L	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
1,1-Dichloroethene	ug/L	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
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane ⁽³⁾	ug/L	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
1,2-Dichloroethane	ug/L	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
1,3-Dichlorobenzene	ug/L	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
2-Butanone ⁽⁴⁾	ug/L	25 U	25 U	25 U	25 U
2-Hexanone	ug/L	50 U	50 U	50 U	50 U
4-Methyl-2-pentanone ⁽⁵⁾	ug/L	50 U	50 U	50 U	50 U
Acetone	ug/L	50 U	50 U	50 U	50 U
Benzene	ug/L	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
Bromoform	ug/L	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
Carbon disulfide	ug/L	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
Chlorobenzene	ug/L	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
Chloroform (Trichloromethane)	ug/L	1.0 U	1.0 U	1.0 U	0.55 J
Chloromethane (Methyl chloride)	ug/L	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
cis-1,3-Dichloropropene	ug/L	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
Dibromochloromethane	ug/L	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
Ethylbenzene	ug/L	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
Methyl acetate	ug/L	10 U	10 U	10 U	10 U
Methyl cyclohexane	ug/L	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
Methylene chloride	ug/L	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
Tetrachloroethene	ug/L	1.0 U	2.7	1.0 U	1.0 U
Toluene	ug/L	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
trans-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U

Table 4

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

Sample Location: Sample Identification: Sample Date: Sample Type:		87-13 WG-017360-040616-MR-005 4/6/2016	MW2-03 WG-017360-041416-MR-034 4/14/2016	MW2-03 WG-017360-041416-MR-035 4/14/2016	MW4-03 WG-017360-040716-MR-012 4/7/2016	MW6-03 WG-017360-040616-MR-004 4/6/2016
Units						
VOCs (continued)						
Trichloroethene	ug/L	1.0 U	1.0 U	1.0 U	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	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) ⁽⁶⁾	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
Former Grand Rapids Metal Plant
Wyoming, Michigan

<i>Sample Location:</i>		87-13	MW2-03	MW2-03	MW4-03	MW6-03
<i>Sample Identification:</i>		WG-017360-040616-MR-005	WG-017360-041416-MR-034	WG-017360-041416-MR-035	WG-017360-040716-MR-012	WG-017360-040616-MR-004
<i>Sample Date:</i>		4/6/2016	4/14/2016	4/14/2016	4/7/2016	4/6/2016
<i>Sample Type:</i>						
		<i>Units</i>				
SVOCs (continued)						
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
Former Grand Rapids Metal Plant
Wyoming, Michigan

Sample Location:		87-13	MW2-03	MW2-03	MW4-03	MW6-03
Sample Identification:		WG-017360-040616-MR-005	WG-017360-041416-MR-034	WG-017360-041416-MR-035	WG-017360-040716-MR-012	WG-017360-040616-MR-004
Sample Date:		4/6/2016	4/14/2016	4/14/2016	4/7/2016	4/6/2016
Sample Type:						
		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:	MW7-03	MW8-04	MW9-04	MW10-04	MW11D-04
Sample Identification:	WG-017360-041316-MR-027	WG-017360-040616-MR-009	WG-017360-040716-MR-013	WG-017360-040716-MR-014	WG-017360-040716-MR-016
Sample Date:	4/13/2016	4/6/2016	4/7/2016	4/7/2016	4/7/2016
Sample Type:					
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 ⁽³⁾	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 ⁽⁴⁾	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 ⁽⁵⁾	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	1.8	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	5.5	19	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	1.1	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	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

Sample Location:		MW7-03	MW8-04	MW9-04	MW10-04	MW11D-04
Sample Identification:		WG-017360-041316-MR-027	WG-017360-040616-MR-009	WG-017360-040716-MR-013	WG-017360-040716-MR-014	WG-017360-040716-MR-016
Sample Date:		4/13/2016	4/6/2016	4/7/2016	4/7/2016	4/7/2016
Sample Type:						
Units						
VOCs (continued)						
Trichloroethene	ug/L	2.6	1.0 U	1.0 U	3.2	1.2
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	0.32 J	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) ⁽⁶⁾	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
Former Grand Rapids Metal Plant
Wyoming, Michigan

Sample Location:	MW7-03	MW8-04	MW9-04	MW10-04	MW11D-04
Sample Identification:	WG-017360-041316-MR-027	WG-017360-040616-MR-009	WG-017360-040716-MR-013	WG-017360-040716-MR-014	WG-017360-040716-MR-016
Sample Date:	4/13/2016	4/6/2016	4/7/2016	4/7/2016	4/7/2016
Sample Type:					
	Units				
SVOCs (continued)					
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
Former Grand Rapids Metal Plant
Wyoming, Michigan

Sample Location:		MW7-03	MW8-04	MW9-04	MW10-04	MW11D-04
Sample Identification:		WG-017360-041316-MR-027	WG-017360-040616-MR-009	WG-017360-040716-MR-013	WG-017360-040716-MR-014	WG-017360-040716-MR-016
Sample Date:		4/13/2016	4/6/2016	4/7/2016	4/7/2016	4/7/2016
Sample Type:						
		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	-	-	-	-	-

Table 4

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

Sample Location:		MW11S-05	MW15-04	MW17-06	MW28-12	MW30-12
Sample Identification:		WG-017360-040716-MR-015	WG-017360-041816-MR-042	WG-017360-041316-MR-029	WG-017360-041316-MR-031	WG-017360-041316-MR-032
Sample Date:		4/7/2016	4/18/2016	4/13/2016	4/13/2016	4/13/2016
Sample Type:						
	Units					
Volatile Organic Compounds (VOCs)						
1,1,1-Trichloroethane	ug/L	1.0 U	1.1	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 ⁽³⁾	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 ⁽⁴⁾	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 ⁽⁵⁾	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	1.2	1.0 U	1.7	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	89 ^{ab}	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	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	130 ^{abc}	1.0 U	2.3
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	1.7	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

Table 4

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

Sample Location:	MW11S-05	MW15-04	MW17-06	MW28-12	MW30-12
Sample Identification:	WG-017360-040716-MR-015	WG-017360-041816-MR-042	WG-017360-041316-MR-029	WG-017360-041316-MR-031	WG-017360-041316-MR-032
Sample Date:	4/7/2016	4/18/2016	4/13/2016	4/13/2016	4/13/2016
Sample Type:					
	Units				
VOCs (continued)					
Trichloroethene	ug/L	1.0 U	0.39 J	7.2 ^{ab}	1.0 U
Trichlorofluoromethane (CFC-11)	ug/L	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
Vinyl chloride	ug/L	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
Semi-Volatile Organic Compounds (SVOCs)					
2,2'-Oxybis(1-chloropropane) ⁽⁶⁾	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
Former Grand Rapids Metal Plant
Wyoming, Michigan

Sample Location:	MW11S-05	MW15-04	MW17-06	MW28-12	MW30-12
Sample Identification:	WG-017360-040716-MR-015	WG-017360-041816-MR-042	WG-017360-041316-MR-029	WG-017360-041316-MR-031	WG-017360-041316-MR-032
Sample Date:	4/7/2016	4/18/2016	4/13/2016	4/13/2016	4/13/2016
Sample Type:					
	Units				
SVOCs (continued)					
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
Former Grand Rapids Metal Plant
Wyoming, Michigan

Sample Location:		MW11S-05	MW15-04	MW17-06	MW28-12	MW30-12
Sample Identification:		WG-017360-040716-MR-015	WG-017360-041816-MR-042	WG-017360-041316-MR-029	WG-017360-041316-MR-031	WG-017360-041316-MR-032
Sample Date:		4/7/2016	4/18/2016	4/13/2016	4/13/2016	4/13/2016
Sample Type:						
		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:		MW32-12	MW33-12	MW34-12	MW34-12	MW35-12
Sample Identification:		WG-017360-041816-MR-049	WG-017360-041816-MR-048	WG-017360-041816-MR-045	WG-017360-041816-MR-046	WG-017360-041816-MR-047
Sample Date:		4/18/2016	4/18/2016	4/18/2016	4/18/2016	4/18/2016
Sample Type:					Duplicate	
		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 ⁽³⁾	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 ⁽⁴⁾	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 ⁽⁵⁾	ug/L	50 U	2.2 J	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	1.0 U	1.0 U	0.26 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	2.3	1.0 U	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	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	2.9	0.84 J	1.0 U	1.0 U	0.35 J
Toluene	ug/L	1.0 U	0.21 J	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	1.0 U	0.32 J	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

Sample Location:	MW32-12	MW33-12	MW34-12	MW34-12	MW35-12
Sample Identification:	WG-017360-041816-MR-049	WG-017360-041816-MR-048	WG-017360-041816-MR-045	WG-017360-041816-MR-046	WG-017360-041816-MR-047
Sample Date:	4/18/2016	4/18/2016	4/18/2016	4/18/2016	4/18/2016
Sample Type:				Duplicate	
	Units				
VOCs (continued)					
Trichloroethene	ug/L	0.59 J	2.5	3.7	3.7
Trichlorofluoromethane (CFC-11)	ug/L	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
Vinyl chloride	ug/L	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
Semi-Volatile Organic Compounds (SVOCs)					
2,2'-Oxybis(1-chloropropane) ⁽⁶⁾	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
Former Grand Rapids Metal Plant
Wyoming, Michigan

Sample Location:	MW32-12	MW33-12	MW34-12	MW34-12	MW35-12
Sample Identification:	WG-017360-041816-MR-049	WG-017360-041816-MR-048	WG-017360-041816-MR-045	WG-017360-041816-MR-046	WG-017360-041816-MR-047
Sample Date:	4/18/2016	4/18/2016	4/18/2016	4/18/2016	4/18/2016
Sample Type:				Duplicate	
	Units				
SVOCs (continued)					
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
Former Grand Rapids Metal Plant
Wyoming, Michigan

Sample Location:		MW32-12	MW33-12	MW34-12	MW34-12	MW35-12
Sample Identification:		WG-017360-041816-MR-049	WG-017360-041816-MR-048	WG-017360-041816-MR-045	WG-017360-041816-MR-046	WG-017360-041816-MR-047
Sample Date:		4/18/2016	4/18/2016	4/18/2016	4/18/2016	4/18/2016
Sample Type:					Duplicate	
		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:	MW37-12	MW38-12	MW40-12	MW41-12	MW42-12
Sample Identification:	WG-017360-041416-MR-040	WG-017360-040616-MR-011	WG-017360-041816-MR-044	WG-017360-041816-MR-043	WG-017360-041116-MR-025
Sample Date:	4/14/2016	4/6/2016	4/18/2016	4/18/2016	4/11/2016
Sample Type:					
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	0.92 J	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 ⁽³⁾	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 ⁽⁴⁾	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 ⁽⁵⁾	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	0.41 J	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	1.0 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	5.2	1.5	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	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	1.3
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	0.39 J	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

Table 4

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

Sample Location:	MW37-12	MW38-12	MW40-12	MW41-12	MW42-12
Sample Identification:	WG-017360-041416-MR-040	WG-017360-040616-MR-011	WG-017360-041816-MR-044	WG-017360-041816-MR-043	WG-017360-041116-MR-025
Sample Date:	4/14/2016	4/6/2016	4/18/2016	4/18/2016	4/11/2016
Sample Type:					
Units					
VOCs (continued)					
Trichloroethene	ug/L	15 ^{ab}	1.0 U	5.3 ^{ab}	1.0 U
Trichlorofluoromethane (CFC-11)	ug/L	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
Vinyl chloride	ug/L	1.0 U	9.8 ^{ab}	1.0 U	1.0 U
Xylenes (total)	ug/L	3.0 U	3.0 U	3.0 U	3.0 U
Semi-Volatile Organic Compounds (SVOCs)					
2,2'-Oxybis(1-chloropropane) ⁽⁶⁾	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
Former Grand Rapids Metal Plant
Wyoming, Michigan

Sample Location: Sample Identification: Sample Date: Sample Type:	MW37-12 WG-017360-041416-MR-040 4/14/2016	MW38-12 WG-017360-040616-MR-011 4/6/2016	MW40-12 WG-017360-041816-MR-044 4/18/2016	MW41-12 WG-017360-041816-MR-043 4/18/2016	MW42-12 WG-017360-041116-MR-025 4/11/2016
SVOCs (continued)	Units				
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
Former Grand Rapids Metal Plant
Wyoming, Michigan

Sample Location:		MW37-12	MW38-12	MW40-12	MW41-12	MW42-12
Sample Identification:		WG-017360-041416-MR-040	WG-017360-040616-MR-011	WG-017360-041816-MR-044	WG-017360-041816-MR-043	WG-017360-041116-MR-025
Sample Date:		4/14/2016	4/6/2016	4/18/2016	4/18/2016	4/11/2016
Sample Type:						
		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:	MW43-12	MW44-12	MW45-12	MW45-12	MW46-12
Sample Identification:	WG-017360-040616-MR-010	WG-017360-041116-MR-024	WG-017360-041116-MR-022	WG-017360-041116-MR-023	WG-017360-041116-MR-021
Sample Date:	4/6/2016	4/11/2016	4/11/2016	4/11/2016	4/11/2016
Sample Type:				Duplicate	
	Units				
Volatile Organic Compounds (VOCs)					
1,1,1-Trichloroethane	ug/L	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
1,1,2-Trichloroethane	ug/L	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
1,1-Dichloroethene	ug/L	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
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane ⁽³⁾	ug/L	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
1,2-Dichloroethane	ug/L	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
1,3-Dichlorobenzene	ug/L	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
2-Butanone ⁽⁴⁾	ug/L	25 U	25 U	25 U	25 U
2-Hexanone	ug/L	50 U	50 U	50 U	50 U
4-Methyl-2-pentanone ⁽⁵⁾	ug/L	50 U	50 U	50 U	50 U
Acetone	ug/L	50 U	50 U	8.1 J	50 U
Benzene	ug/L	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
Bromoform	ug/L	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
Carbon disulfide	ug/L	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
Chlorobenzene	ug/L	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
Chloroform (Trichloromethane)	ug/L	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
cis-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L	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
Dibromochloromethane	ug/L	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
Ethylbenzene	ug/L	1.0 U	0.90 J	1.0 U	1.0 U
Isopropyl benzene	ug/L	5.0 U	1.8 J	5.0 U	5.0 U
Methyl acetate	ug/L	10 U	10 U	10 U	10 U
Methyl cyclohexane	ug/L	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
Methylene chloride	ug/L	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
Tetrachloroethene	ug/L	2.9	1.0 U	1.6	1.0 U
Toluene	ug/L	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
trans-1,3-Dichloropropene	ug/L	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:		MW43-12	MW44-12	MW45-12	MW45-12	MW46-12
Sample Identification:		WG-017360-040616-MR-010	WG-017360-041116-MR-024	WG-017360-041116-MR-022	WG-017360-041116-MR-023	WG-017360-041116-MR-021
Sample Date:		4/6/2016	4/11/2016	4/11/2016	4/11/2016	4/11/2016
Sample Type:					Duplicate	
		Units				
VOCs (continued)						
Trichloroethene	ug/L	0.83 J	1.0 U	1.0 U	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	1.0 U
Xylenes (total)	ug/L	3.0 U	4.2	3.0 U	3.0 U	3.0 U
Semi-Volatile Organic Compounds (SVOCs)						
2,2'-Oxybis(1-chloropropane) ⁽⁶⁾	ug/L	-	5.6 U	5.4 U	5.5 U	5.6 U
2,4,5-Trichlorophenol	ug/L	-	5.6 U	5.4 U	5.5 U	5.6 U
2,4,6-Trichlorophenol	ug/L	-	5.6 U	5.4 U	5.5 U	5.6 U
2,4-Dichlorophenol	ug/L	-	5.6 U	5.4 U	5.5 U	5.6 U
2,4-Dimethylphenol	ug/L	-	5.6 U	5.4 U	5.5 U	5.6 U
2,4-Dinitrophenol	ug/L	-	5.6 U	5.4 U	5.5 U	5.6 U
2,4-Dinitrotoluene	ug/L	-	5.6 U	5.4 U	5.5 U	5.6 U
2,6-Dinitrotoluene	ug/L	-	5.6 U	5.4 U	5.5 U	5.6 U
2-Chloronaphthalene	ug/L	-	5.6 U	5.4 U	5.5 U	5.6 U
2-Chlorophenol	ug/L	-	5.6 U	5.4 U	5.5 U	5.6 U
2-Methylnaphthalene	ug/L	-	5.6 U	5.4 U	5.5 U	5.6 U
2-Methylphenol	ug/L	-	1.0 J	5.4 U	5.5 U	5.6 U
2-Nitroaniline	ug/L	-	5.6 U	5.4 U	5.5 U	5.6 U
2-Nitrophenol	ug/L	-	5.6 U	5.4 U	5.5 U	5.6 U
3&4-Methylphenol	ug/L	-	2.1 J	5.4 U	5.5 U	5.6 U
3,3'-Dichlorobenzidine	ug/L	-	5.6 U	5.4 U	5.5 U	R
3-Nitroaniline	ug/L	-	5.6 U	5.4 U	5.5 U	5.6 U
4,6-Dinitro-2-methylphenol	ug/L	-	5.6 U	5.4 U	5.5 U	5.6 U
4-Bromophenyl phenyl ether	ug/L	-	5.6 U	5.4 U	5.5 U	5.6 U
4-Chloro-3-methylphenol	ug/L	-	5.6 U	5.4 U	5.5 U	5.6 U
4-Chloroaniline	ug/L	-	5.6 U	5.4 U	5.5 U	5.6 U
4-Chlorophenyl phenyl ether	ug/L	-	5.6 U	5.4 U	5.5 U	5.6 U
4-Nitroaniline	ug/L	-	5.6 U	5.4 U	5.5 U	5.6 U
4-Nitrophenol	ug/L	-	5.6 U	5.4 U	5.5 U	5.6 U
Acenaphthene	ug/L	-	5.6 U	5.4 U	5.5 U	5.6 U
Acenaphthylene	ug/L	-	5.6 U	5.4 U	5.5 U	5.6 U
Acetophenone	ug/L	-	1.1 U	1.1 U	1.1 U	1.1 U
Anthracene	ug/L	-	5.6 U	5.4 U	5.5 U	5.6 U
Atrazine	ug/L	-	1.1 U	1.1 U	1.1 U	1.1 U
Benzaldehyde	ug/L	-	1.1 U	1.1 U	1.1 U	1.1 U
Benzo(a)anthracene	ug/L	-	5.6 U	5.4 U	5.5 U	5.6 U
Benzo(a)pyrene	ug/L	-	5.6 U	5.4 U	5.5 U	5.6 U
Benzo(b)fluoranthene	ug/L	-	5.6 U	5.4 U	5.5 U	5.6 U
Benzo(g,h,i)perylene	ug/L	-	5.6 U	5.4 U	5.5 U	5.6 U
Benzo(k)fluoranthene	ug/L	-	5.6 U	5.4 U	5.5 U	5.6 U
Biphenyl (1,1-Biphenyl)	ug/L	-	5.6 U	5.4 U	5.5 U	5.6 U

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

Sample Location: Sample Identification: Sample Date: Sample Type:		MW43-12 WG-017360-040616-MR-010 4/6/2016	MW44-12 WG-017360-041116-MR-024 4/11/2016	MW45-12 WG-017360-041116-MR-022 4/11/2016	MW45-12 WG-017360-041116-MR-023 4/11/2016 Duplicate	MW46-12 WG-017360-041116-MR-021 4/11/2016
Units						
SVOCs (continued)						
bis(2-Chloroethoxy)methane	ug/L	-	5.6 U	5.4 U	5.5 U	5.6 U
bis(2-Chloroethyl)ether	ug/L	-	5.6 U	5.4 U	5.5 U	5.6 U
bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	-	5.6 U	5.4 U	5.5 U	5.6 U
Butyl benzylphthalate (BBP)	ug/L	-	5.6 U	5.4 U	5.5 U	5.6 U
Caprolactam	ug/L	-	11 U	11 U	11 U	11 U
Carbazole	ug/L	-	5.6 U	5.4 U	5.5 U	5.6 U
Chrysene	ug/L	-	5.6 U	5.4 U	5.5 U	5.6 U
Dibenz(a,h)anthracene	ug/L	-	5.6 U	5.4 U	5.5 U	5.6 U
Dibenzofuran	ug/L	-	5.6 U	5.4 U	5.5 U	5.6 U
Diethyl phthalate	ug/L	-	5.6 U	5.4 U	5.5 U	5.6 U
Dimethyl phthalate	ug/L	-	5.6 U	5.4 U	5.5 U	5.6 U
Di-n-butylphthalate (DBP)	ug/L	-	5.6 U	5.4 U	5.5 U	5.6 U
Di-n-octyl phthalate (DnOP)	ug/L	-	5.6 U	5.4 U	5.5 U	5.6 U
Fluoranthene	ug/L	-	5.6 U	5.4 U	5.5 U	5.6 U
Fluorene	ug/L	-	5.6 U	5.4 U	5.5 U	5.6 U
Hexachlorobenzene	ug/L	-	5.6 U	5.4 U	5.5 U	5.6 U
Hexachlorobutadiene	ug/L	-	5.6 U	5.4 U	5.5 U	5.6 U
Hexachlorocyclopentadiene	ug/L	-	5.6 U	5.4 U	5.5 U	5.6 U
Hexachloroethane	ug/L	-	5.6 U	5.4 U	5.5 U	5.6 U
Indeno(1,2,3-cd)pyrene	ug/L	-	5.6 U	5.4 U	5.5 U	5.6 U
Isophorone	ug/L	-	5.6 U	5.4 U	5.5 U	5.6 U
Naphthalene	ug/L	-	5.6 U	5.4 U	5.5 U	5.6 U
Nitrobenzene	ug/L	-	5.6 U	5.4 U	5.5 U	5.6 U
N-Nitrosodi-n-propylamine	ug/L	-	5.6 U	5.4 U	5.5 U	5.6 U
N-Nitrosodiphenylamine	ug/L	-	5.6 U	5.4 U	5.5 U	5.6 U
Pentachlorophenol	ug/L	-	5.6 U	5.4 U	5.5 U	5.6 U
Phenanthrene	ug/L	-	5.6 U	5.4 U	5.5 U	5.6 U
Phenol	ug/L	-	9.2	5.4 U	5.5 U	5.6 U
Pyrene	ug/L	-	5.6 U	5.4 U	5.5 U	5.6 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

Sample Location:		MW43-12	MW44-12	MW45-12	MW45-12	MW46-12
Sample Identification:		WG-017360-040616-MR-010	WG-017360-041116-MR-024	WG-017360-041116-MR-022	WG-017360-041116-MR-023	WG-017360-041116-MR-021
Sample Date:		4/6/2016	4/11/2016	4/11/2016	4/11/2016	4/11/2016
Sample Type:					Duplicate	
		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
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Wyoming, Michigan

Sample Location: Sample Identification: Sample Date: Sample Type:		MW48-13 WG-017360-041316-MR-028 4/13/2016	MW49-13 WG-017360-041416-MR-036 4/14/2016	MW50-12 WG-017360-041416-MR-039 4/14/2016	MW51-12 WG-017360-041416-MR-038 4/14/2016	MW52-12 WG-017360-041416-MR-037 4/14/2016
	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 ⁽³⁾	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 ⁽⁴⁾	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 ⁽⁵⁾	ug/L	50 U	50 U	50 U	50 U	50 U
Acetone	ug/L	50 U	50 U	50 U	13 J	13 J
Benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	0.39 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	1.3	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	0.85 J	0.85 J	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	2.0
Isopropyl benzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	1.3 J
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	0.68 J	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	0.64 J
Tetrachloroethene	ug/L	1.0 U	170 ^{abc}	3.7	1.6	1.0 U
Toluene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	0.49 J
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
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Sample Location: Sample Identification: Sample Date: Sample Type:		MW48-13 WG-017360-041316-MR-028 4/13/2016	MW49-13 WG-017360-041416-MR-036 4/14/2016	MW50-12 WG-017360-041416-MR-039 4/14/2016	MW51-12 WG-017360-041416-MR-038 4/14/2016	MW52-12 WG-017360-041416-MR-037 4/14/2016
Units						
VOCs (continued)						
Trichloroethene	ug/L	1.0 U	3.3	1.0 U	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	1.0 U
Xylenes (total)	ug/L	3.0 U	3.0 U	3.0 U	3.0 U	3.2
Semi-Volatile Organic Compounds (SVOCs)						
2,2'-Oxybis(1-chloropropane) ⁽⁶⁾	ug/L	-	-	5.6 U	5.5 U	5.4 U
2,4,5-Trichlorophenol	ug/L	-	-	5.6 U	5.5 U	5.4 U
2,4,6-Trichlorophenol	ug/L	-	-	5.6 U	5.5 U	5.4 U
2,4-Dichlorophenol	ug/L	-	-	5.6 U	5.5 U	5.4 U
2,4-Dimethylphenol	ug/L	-	-	5.6 U	5.5 U	5.4 U
2,4-Dinitrophenol	ug/L	-	-	5.6 U	5.5 U	5.4 U
2,4-Dinitrotoluene	ug/L	-	-	5.6 U	5.5 U	5.4 U
2,6-Dinitrotoluene	ug/L	-	-	5.6 U	5.5 U	5.4 U
2-Chloronaphthalene	ug/L	-	-	5.6 U	5.5 U	5.4 U
2-Chlorophenol	ug/L	-	-	5.6 U	5.5 U	5.4 U
2-Methylnaphthalene	ug/L	-	-	5.6 U	5.5 U	5.4 U
2-Methylphenol	ug/L	-	-	5.6 U	5.5 U	5.4 U
2-Nitroaniline	ug/L	-	-	5.6 U	5.5 U	5.4 U
2-Nitrophenol	ug/L	-	-	5.6 U	5.5 U	5.4 U
3&4-Methylphenol	ug/L	-	-	5.6 U	5.5 U	5.4 U
3,3'-Dichlorobenzidine	ug/L	-	-	5.6 U	5.5 U	5.4 U
3-Nitroaniline	ug/L	-	-	5.6 U	5.5 U	5.4 U
4,6-Dinitro-2-methylphenol	ug/L	-	-	5.6 U	5.5 U	5.4 U
4-Bromophenyl phenyl ether	ug/L	-	-	5.6 U	5.5 U	5.4 U
4-Chloro-3-methylphenol	ug/L	-	-	5.6 U	5.5 U	5.4 U
4-Chloroaniline	ug/L	-	-	5.6 U	5.5 U	5.4 U
4-Chlorophenyl phenyl ether	ug/L	-	-	5.6 U	5.5 U	5.4 U
4-Nitroaniline	ug/L	-	-	5.6 U	5.5 U	5.4 U
4-Nitrophenol	ug/L	-	-	5.6 U	5.5 U	5.4 U
Acenaphthene	ug/L	-	-	5.6 U	0.36 J	5.4 U
Acenaphthylene	ug/L	-	-	5.6 U	5.5 U	5.4 U
Acetophenone	ug/L	-	-	1.1 U	1.1 U	1.4
Anthracene	ug/L	-	-	5.6 U	5.5 U	5.4 U
Atrazine	ug/L	-	-	1.1 U	1.1 U	1.1 U
Benzaldehyde	ug/L	-	-	1.1 U	1.1 U	1.1 U
Benzo(a)anthracene	ug/L	-	-	5.6 U	5.5 U	5.4 U
Benzo(a)pyrene	ug/L	-	-	5.6 U	5.5 U	5.4 U
Benzo(b)fluoranthene	ug/L	-	-	5.6 U	5.5 U	5.4 U
Benzo(g,h,i)perylene	ug/L	-	-	5.6 U	5.5 U	5.4 U
Benzo(k)fluoranthene	ug/L	-	-	5.6 U	5.5 U	5.4 U
Biphenyl (1,1-Biphenyl)	ug/L	-	-	5.6 U	5.5 U	5.4 U

Groundwater Sample Analytical Results
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Sample Location: Sample Identification: Sample Date: Sample Type:	MW48-13 WG-017360-041316-MR-028 4/13/2016	MW49-13 WG-017360-041416-MR-036 4/14/2016	MW50-12 WG-017360-041416-MR-039 4/14/2016	MW51-12 WG-017360-041416-MR-038 4/14/2016	MW52-12 WG-017360-041416-MR-037 4/14/2016
SVOCs (continued)					
bis(2-Chloroethoxy)methane	ug/L	-	5.6 U	5.5 U	5.4 U
bis(2-Chloroethyl)ether	ug/L	-	5.6 U	5.5 U	5.4 U
bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	-	5.6 U	5.5 U	5.4 U
Butyl benzylphthalate (BBP)	ug/L	-	5.6 U	5.5 U	5.4 U
Caprolactam	ug/L	-	11 U	11 U	11 U
Carbazole	ug/L	-	5.6 U	5.5 U	5.4 U
Chrysene	ug/L	-	5.6 U	5.5 U	5.4 U
Dibenz(a,h)anthracene	ug/L	-	5.6 U	5.5 U	5.4 U
Dibenzofuran	ug/L	-	5.6 U	0.42 J	5.4 U
Diethyl phthalate	ug/L	-	5.6 U	5.5 U	5.4 U
Dimethyl phthalate	ug/L	-	5.6 U	5.5 U	5.4 U
Di-n-butylphthalate (DBP)	ug/L	-	0.47 J	5.5 U	5.4 U
Di-n-octyl phthalate (DnOP)	ug/L	-	5.6 U	5.5 U	5.4 U
Fluoranthene	ug/L	-	5.6 U	5.5 U	5.4 U
Fluorene	ug/L	-	5.6 U	0.44 J	5.4 U
Hexachlorobenzene	ug/L	-	5.6 U	5.5 U	5.4 U
Hexachlorobutadiene	ug/L	-	5.6 U	5.5 U	5.4 U
Hexachlorocyclopentadiene	ug/L	-	5.6 U	5.5 U	5.4 U
Hexachloroethane	ug/L	-	5.6 U	5.5 U	5.4 U
Indeno(1,2,3-cd)pyrene	ug/L	-	5.6 U	5.5 U	5.4 U
Isophorone	ug/L	-	5.6 U	5.5 U	5.4 U
Naphthalene	ug/L	-	5.6 U	5.5 U	5.4 U
Nitrobenzene	ug/L	-	5.6 U	5.5 U	5.4 U
N-Nitrosodi-n-propylamine	ug/L	-	5.6 U	5.5 U	5.4 U
N-Nitrosodiphenylamine	ug/L	-	5.6 U	5.5 U	5.4 U
Pentachlorophenol	ug/L	-	5.6 U	5.5 U	5.4 U
Phenanthrene	ug/L	-	5.6 U	5.5 U	5.4 U
Phenol	ug/L	-	5.6 U	5.5 U	5.4 U
Pyrene	ug/L	-	5.6 U	5.5 U	5.4 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

Sample Location:		MW48-13	MW49-13	MW50-12	MW51-12	MW52-12
Sample Identification:		WG-017360-041316-MR-028	WG-017360-041416-MR-036	WG-017360-041416-MR-039	WG-017360-041416-MR-038	WG-017360-041416-MR-037
Sample Date:		4/13/2016	4/14/2016	4/14/2016	4/14/2016	4/14/2016
Sample Type:						
		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:	MW58-13		MW59-14		MW59-14		MW60-14	
Sample Identification:	WG-017360-041316-MR-030		WG-017360-040616-MR-006		WG-017360-040616-MR-007		WG-017360-041116-MR-026	
Sample Date:	4/13/2016		4/6/2016		4/6/2016		4/11/2016	
Sample Type:					Duplicate			
	Units							
Volatile Organic Compounds (VOCs)								
1,1,1-Trichloroethane	ug/L	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
1,1,2-Trichloroethane	ug/L	1.0 U		1.0 U		1.0 U		1.0 U
1,1-Dichloroethane	ug/L	1.0 U		0.80 J		0.82 J		1.0 U
1,1-Dichloroethene	ug/L	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
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	1.0 U		1.0 U		1.0 U		1.0 U
1,2-Dibromoethane ⁽³⁾	ug/L	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
1,2-Dichloroethane	ug/L	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
1,3-Dichlorobenzene	ug/L	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
2-Butanone ⁽⁴⁾	ug/L	25 U		25 U		25 U		25 U
2-Hexanone	ug/L	50 U		50 U		50 U		50 U
4-Methyl-2-pentanone ⁽⁵⁾	ug/L	50 U		50 U		50 U		50 U
Acetone	ug/L	50 U		50 U		50 U		50 U
Benzene	ug/L	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
Bromoform	ug/L	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
Carbon disulfide	ug/L	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
Chlorobenzene	ug/L	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
Chloroform (Trichloromethane)	ug/L	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
cis-1,2-Dichloroethene	ug/L	1.0 U		14		14		1.0 U
cis-1,3-Dichloropropene	ug/L	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
Dibromochloromethane	ug/L	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
Ethylbenzene	ug/L	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
Methyl acetate	ug/L	10 U		10 U		10 U		10 U
Methyl cyclohexane	ug/L	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
Methylene chloride	ug/L	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
Tetrachloroethene	ug/L	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
trans-1,2-Dichloroethene	ug/L	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

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

Sample Location:		MW58-13	MW59-14	MW59-14	MW60-14
Sample Identification:		WG-017360-041316-MR-030	WG-017360-040616-MR-006	WG-017360-040616-MR-007	WG-017360-041116-MR-026
Sample Date:		4/13/2016	4/6/2016	4/6/2016	4/11/2016
Sample Type:				Duplicate	
	Units				
VOCs (continued)					
Trichloroethene	ug/L	1.0 U	0.71 J	0.70 J	1.0 U
Trichlorofluoromethane (CFC-11)	ug/L	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
Vinyl chloride	ug/L	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
Semi-Volatile Organic Compounds (SVOCs)					
2,2'-Oxybis(1-chloropropane) ⁽⁶⁾	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

Sample Location:	MW58-13	MW59-14	MW59-14	MW60-14
Sample Identification:	WG-017360-041316-MR-030	WG-017360-040616-MR-006	WG-017360-040616-MR-007	WG-017360-041116-MR-026
Sample Date:	4/13/2016	4/6/2016	4/6/2016	4/11/2016
Sample Type:			Duplicate	

SVOCs (continued)		Units			
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		Units			
Antimony	ug/L	-	2 U	2 U	0.16 J
Arsenic	ug/L	-	1.5 J	2.4 J	5 U
Barium	ug/L	-	120	110	22 J
Beryllium	ug/L	-	1 U	1 U	1 U
Cadmium	ug/L	-	1 U	1 U	1 U
Chromium	ug/L	-	10 U	10 U	3.1 J
Cobalt	ug/L	-	20 U	20 U	2.1 J
Copper	ug/L	-	0.35 J	0.27 J	1.7 J
Iron	ug/L	-	330 ^{ab} 360 ^{ab}		49 J
Lead	ug/L	-	0.24 J	0.2 J	0.2 J
Manganese	ug/L	-	42 J	38 J	3.1 J

Table 4

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

Sample Location:	MW58-13	MW59-14	MW59-14	MW60-14
Sample Identification:	WG-017360-041316-MR-030	WG-017360-040616-MR-006	WG-017360-040616-MR-007	WG-017360-041116-MR-026
Sample Date:	4/13/2016	4/6/2016	4/6/2016	4/11/2016
Sample Type:			Duplicate	
	Units			
Metals (continued)				
Mercury	ug/L	-	0.2 U	0.2 U
Molybdenum	ug/L	-	50 U	1.1 J
Nickel	ug/L	-	2.3 J	2.8 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	-	4 U	4 U
Zinc	ug/L	-	6.1 J	4.4 J

**Surface Water Sample Analytical Results
Spring 2016 Semi-Annual Groundwater Event
Former Grand Rapids Metal Plant
Wyoming, Michigan**

Sample Location:	C-1	C-2	C-3
Sample Identification:	SW-017360-040516-MR-003	SW-017360-040516-MR-001	SW-017360-040516-MR-002
Sample Date:	4/5/2016	4/5/2016	4/5/2016

	<i>Units</i>			
Volatile Organic Compounds (VOCs)				
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 ⁽¹⁾	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 ⁽²⁾	ug/L	25 U	25 U	25 U
2-Hexanone	ug/L	50 U	50 U	50 U
4-Methyl-2-pentanone ⁽³⁾	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	0.81 J	1.0 U	0.37 J
Chloromethane (Methyl chloride)	ug/L	5.0 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	ug/L	1.4	1.3	0.96 J
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	4.3	1.6	1.8
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	1.2	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	0.44 J	1.0 U
Xylenes (total)	ug/L	3.0 U	3.0 U	3.0 U

Notes:

⁽¹⁾ 1,2-Dibromoethane also known as ethylene dibromide⁽²⁾ 2-butanone also known as methyl ethyl ketone (MEK)⁽³⁾ 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



20-Apr-2016

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

Re: **Former GRMP (17360)**

Work Order: **1604961**

Dear Rawa,

ALS Environmental received 9 samples on 19-Apr-2016 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 32.

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

Sincerely,

A handwritten signature in black ink that reads "Alex Csaszar".

Electronically approved by: Alex Csaszar

Alex Csaszar
Project Manager



Certificate No: MI: 0022

Report of Laboratory Analysis

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

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RIGHT SOLUTIONS RIGHT PARTNER

Client: GHD Services Inc.
Project: Former GRMP (17360)
Work Order: 1604961

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>
1604961-01	WG-017360-041816-MR-042	Water		4/18/2016 10:54	4/19/2016 09:45	☐
1604961-02	WG-017360-041816-MR-043	Water		4/18/2016 11:28	4/19/2016 09:45	☐
1604961-03	WG-017360-041816-MR-044	Water		4/18/2016 12:10	4/19/2016 09:45	☐
1604961-04	WG-017360-041816-MR-045	Water		4/18/2016 12:45	4/19/2016 09:45	☐
1604961-05	WG-017360-041816-MR-046	Water		4/18/2016 13:00	4/19/2016 09:45	☐
1604961-06	WG-017360-041816-MR-047	Water		4/18/2016 13:56	4/19/2016 09:45	☐
1604961-07	WG-017360-041816-MR-048	Water		4/18/2016 14:51	4/19/2016 09:45	☐
1604961-08	WG-017360-041816-MR-049	Water		4/18/2016 15:22	4/19/2016 09:45	☐
1604961-09	TB-017360-041816-MR-050	Water		4/18/2016	4/19/2016 09:45	☐

Client: GHD Services Inc.
Project: Former GRMP (17360)
Work Order: 1604961

Case Narrative

Samples for the above noted Work Order were received on 04/19/2016. The attached "Sample Receipt Checklist" documents the status of custody seals, container integrity, preservation, and temperature compliance.

Samples were analyzed according to the analytical methodology previously transmitted in the "Work Order Acknowledgement". Methodologies are also documented in the "Analytical Result" section for each sample. Quality control results are listed in the "QC Report" section. Sample association for the reported quality control is located at the end of each batch summary. If applicable, results are appropriately qualified in the Analytical Result and QC Report sections. The "Qualifiers" section documents the various qualifiers, units, and acronyms utilized in reporting.

With the following exceptions, all sample analyses achieved analytical criteria.

Volatile Organics:

Batch R185700A, Method VOC_8260_W, Sample 1604961-03A MS: The matrix spike recovery was outside of the control limits for trans-1,3-Dichloropropene. However, the matrix spike duplicate recovery and the RPD between the MS and MSD were in control. No qualification is required for this analyte.

Client: GHD Services Inc.
Project: Former GRMP (17360)
WorkOrder: 1604961

QUALIFIERS, ACRONYMS, UNITS

<u>Qualifier</u>	<u>Description</u>
*	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.

<u>Acronym</u>	<u>Description</u>
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

<u>Units Reported</u>	<u>Description</u>
µg/L	Micrograms per Liter

ALS Group USA, Corp

Date: 20-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-041816-MR-042
Collection Date: 4/18/2016 10:54 AM

Work Order: 1604961
Lab ID: 1604961-01
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			Method: SW8260B			Analyst: AK	
1,1,1-Trichloroethane	1.1		0.19	1.0	µg/L	1	4/20/2016 02:40
1,1,2,2-Tetrachloroethane	U		0.34	1.0	µg/L	1	4/20/2016 02:40
1,1,2-Trichloroethane	U		0.25	1.0	µg/L	1	4/20/2016 02:40
1,1,2-Trichlorotrifluoroethane	U		0.47	1.0	µg/L	1	4/20/2016 02:40
1,1-Dichloroethane	U		0.21	1.0	µg/L	1	4/20/2016 02:40
1,1-Dichloroethene	U		0.24	1.0	µg/L	1	4/20/2016 02:40
1,2,4-Trichlorobenzene	U		0.19	5.0	µg/L	1	4/20/2016 02:40
1,2-Dibromo-3-chloropropane	U		0.42	1.0	µg/L	1	4/20/2016 02:40
1,2-Dibromoethane	U		0.34	1.0	µg/L	1	4/20/2016 02:40
1,2-Dichlorobenzene	U		0.22	1.0	µg/L	1	4/20/2016 02:40
1,2-Dichloroethane	U		0.26	1.0	µg/L	1	4/20/2016 02:40
1,2-Dichloropropane	U		0.26	1.0	µg/L	1	4/20/2016 02:40
1,3-Dichlorobenzene	U		0.21	1.0	µg/L	1	4/20/2016 02:40
1,4-Dichlorobenzene	U		0.20	1.0	µg/L	1	4/20/2016 02:40
2-Butanone	U		0.87	25	µg/L	1	4/20/2016 02:40
2-Hexanone	U		0.15	50	µg/L	1	4/20/2016 02:40
4-Methyl-2-pentanone	U		0.15	50	µg/L	1	4/20/2016 02:40
Acetone	U		3.1	50	µg/L	1	4/20/2016 02:40
Benzene	U		0.25	1.0	µg/L	1	4/20/2016 02:40
Bromodichloromethane	U		0.16	1.0	µg/L	1	4/20/2016 02:40
Bromoform	U		0.099	1.0	µg/L	1	4/20/2016 02:40
Bromomethane	U		1.0	5.0	µg/L	1	4/20/2016 02:40
Carbon disulfide	U		0.26	5.0	µg/L	1	4/20/2016 02:40
Carbon tetrachloride	U		0.14	1.0	µg/L	1	4/20/2016 02:40
Chlorobenzene	U		0.19	1.0	µg/L	1	4/20/2016 02:40
Chloroethane	U		0.21	5.0	µg/L	1	4/20/2016 02:40
Chloroform	1.2		0.25	1.0	µg/L	1	4/20/2016 02:40
Chloromethane	U		0.25	5.0	µg/L	1	4/20/2016 02:40
cis-1,2-Dichloroethene	U		0.25	1.0	µg/L	1	4/20/2016 02:40
cis-1,3-Dichloropropene	U		0.24	1.0	µg/L	1	4/20/2016 02:40
Cyclohexane	U		0.31	1.0	µg/L	1	4/20/2016 02:40
Dibromochloromethane	U		0.17	5.0	µg/L	1	4/20/2016 02:40
Dichlorodifluoromethane	U		0.41	5.0	µg/L	1	4/20/2016 02:40
Ethylbenzene	U		0.22	1.0	µg/L	1	4/20/2016 02:40
Isopropylbenzene	U		0.25	5.0	µg/L	1	4/20/2016 02:40
Methyl acetate	U		0.62	10	µg/L	1	4/20/2016 02:40
Methyl tert-butyl ether	U		0.12	5.0	µg/L	1	4/20/2016 02:40
Methylcyclohexane	U		0.32	1.0	µg/L	1	4/20/2016 02:40

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

ALS Group USA, Corp

Date: 20-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-041816-MR-042
Collection Date: 4/18/2016 10:54 AM

Work Order: 1604961
Lab ID: 1604961-01
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.64	5.0	µg/L	1	4/20/2016 02:40
Styrene	U		0.18	1.0	µg/L	1	4/20/2016 02:40
Tetrachloroethene	U		0.25	1.0	µg/L	1	4/20/2016 02:40
Toluene	U		0.20	1.0	µg/L	1	4/20/2016 02:40
trans-1,2-Dichloroethene	U		0.29	1.0	µg/L	1	4/20/2016 02:40
trans-1,3-Dichloropropene	U		0.19	1.0	µg/L	1	4/20/2016 02:40
Trichloroethene	0.39	J	0.34	1.0	µg/L	1	4/20/2016 02:40
Trichlorofluoromethane	U		0.39	1.0	µg/L	1	4/20/2016 02:40
Vinyl chloride	U		0.19	1.0	µg/L	1	4/20/2016 02:40
Xylenes, Total	U		0.62	3.0	µg/L	1	4/20/2016 02:40
Surr: 1,2-Dichloroethane-d4	92.5			75-120	%REC	1	4/20/2016 02:40
Surr: 4-Bromofluorobenzene	99.4			80-110	%REC	1	4/20/2016 02:40
Surr: Dibromofluoromethane	98.8			85-115	%REC	1	4/20/2016 02:40
Surr: Toluene-d8	90.8			85-110	%REC	1	4/20/2016 02:40

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

ALS Group USA, Corp

Date: 20-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-041816-MR-043
Collection Date: 4/18/2016 11:28 AM

Work Order: 1604961
Lab ID: 1604961-02
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			Method: SW8260B			Analyst: AK	
1,1,1-Trichloroethane	U		0.19	1.0	µg/L	1	4/20/2016 03:05
1,1,2,2-Tetrachloroethane	U		0.34	1.0	µg/L	1	4/20/2016 03:05
1,1,2-Trichloroethane	U		0.25	1.0	µg/L	1	4/20/2016 03:05
1,1,2-Trichlorotrifluoroethane	U		0.47	1.0	µg/L	1	4/20/2016 03:05
1,1-Dichloroethane	U		0.21	1.0	µg/L	1	4/20/2016 03:05
1,1-Dichloroethene	U		0.24	1.0	µg/L	1	4/20/2016 03:05
1,2,4-Trichlorobenzene	U		0.19	5.0	µg/L	1	4/20/2016 03:05
1,2-Dibromo-3-chloropropane	U		0.42	1.0	µg/L	1	4/20/2016 03:05
1,2-Dibromoethane	U		0.34	1.0	µg/L	1	4/20/2016 03:05
1,2-Dichlorobenzene	U		0.22	1.0	µg/L	1	4/20/2016 03:05
1,2-Dichloroethane	U		0.26	1.0	µg/L	1	4/20/2016 03:05
1,2-Dichloropropane	U		0.26	1.0	µg/L	1	4/20/2016 03:05
1,3-Dichlorobenzene	U		0.21	1.0	µg/L	1	4/20/2016 03:05
1,4-Dichlorobenzene	U		0.20	1.0	µg/L	1	4/20/2016 03:05
2-Butanone	U		0.87	25	µg/L	1	4/20/2016 03:05
2-Hexanone	U		0.15	50	µg/L	1	4/20/2016 03:05
4-Methyl-2-pentanone	U		0.15	50	µg/L	1	4/20/2016 03:05
Acetone	U		3.1	50	µg/L	1	4/20/2016 03:05
Benzene	U		0.25	1.0	µg/L	1	4/20/2016 03:05
Bromodichloromethane	U		0.16	1.0	µg/L	1	4/20/2016 03:05
Bromoform	U		0.099	1.0	µg/L	1	4/20/2016 03:05
Bromomethane	U		1.0	5.0	µg/L	1	4/20/2016 03:05
Carbon disulfide	U		0.26	5.0	µg/L	1	4/20/2016 03:05
Carbon tetrachloride	U		0.14	1.0	µg/L	1	4/20/2016 03:05
Chlorobenzene	U		0.19	1.0	µg/L	1	4/20/2016 03:05
Chloroethane	U		0.21	5.0	µg/L	1	4/20/2016 03:05
Chloroform	U		0.25	1.0	µg/L	1	4/20/2016 03:05
Chloromethane	U		0.25	5.0	µg/L	1	4/20/2016 03:05
cis-1,2-Dichloroethene	U		0.25	1.0	µg/L	1	4/20/2016 03:05
cis-1,3-Dichloropropene	U		0.24	1.0	µg/L	1	4/20/2016 03:05
Cyclohexane	U		0.31	1.0	µg/L	1	4/20/2016 03:05
Dibromochloromethane	U		0.17	5.0	µg/L	1	4/20/2016 03:05
Dichlorodifluoromethane	U		0.41	5.0	µg/L	1	4/20/2016 03:05
Ethylbenzene	U		0.22	1.0	µg/L	1	4/20/2016 03:05
Isopropylbenzene	U		0.25	5.0	µg/L	1	4/20/2016 03:05
Methyl acetate	U		0.62	10	µg/L	1	4/20/2016 03:05
Methyl tert-butyl ether	U		0.12	5.0	µg/L	1	4/20/2016 03:05
Methylcyclohexane	U		0.32	1.0	µg/L	1	4/20/2016 03:05

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

ALS Group USA, Corp

Date: 20-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-041816-MR-043
Collection Date: 4/18/2016 11:28 AM

Work Order: 1604961
Lab ID: 1604961-02
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.64	5.0	µg/L	1	4/20/2016 03:05
Styrene	U		0.18	1.0	µg/L	1	4/20/2016 03:05
Tetrachloroethene	U		0.25	1.0	µg/L	1	4/20/2016 03:05
Toluene	U		0.20	1.0	µg/L	1	4/20/2016 03:05
trans-1,2-Dichloroethene	U		0.29	1.0	µg/L	1	4/20/2016 03:05
trans-1,3-Dichloropropene	U		0.19	1.0	µg/L	1	4/20/2016 03:05
Trichloroethene	U		0.34	1.0	µg/L	1	4/20/2016 03:05
Trichlorofluoromethane	U		0.39	1.0	µg/L	1	4/20/2016 03:05
Vinyl chloride	U		0.19	1.0	µg/L	1	4/20/2016 03:05
Xylenes, Total	U		0.62	3.0	µg/L	1	4/20/2016 03:05
Surr: 1,2-Dichloroethane-d4	93.7			75-120	%REC	1	4/20/2016 03:05
Surr: 4-Bromofluorobenzene	100			80-110	%REC	1	4/20/2016 03:05
Surr: Dibromofluoromethane	96.8			85-115	%REC	1	4/20/2016 03:05
Surr: Toluene-d8	93.0			85-110	%REC	1	4/20/2016 03:05

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

ALS Group USA, Corp

Date: 20-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-041816-MR-044
Collection Date: 4/18/2016 12:10 PM

Work Order: 1604961
Lab ID: 1604961-03
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			Method: SW8260B			Analyst: AK	
1,1,1-Trichloroethane	U		0.19	1.0	µg/L	1	4/20/2016 03:30
1,1,2,2-Tetrachloroethane	U		0.34	1.0	µg/L	1	4/20/2016 03:30
1,1,2-Trichloroethane	U		0.25	1.0	µg/L	1	4/20/2016 03:30
1,1,2-Trichlorotrifluoroethane	U		0.47	1.0	µg/L	1	4/20/2016 03:30
1,1-Dichloroethane	U		0.21	1.0	µg/L	1	4/20/2016 03:30
1,1-Dichloroethene	U		0.24	1.0	µg/L	1	4/20/2016 03:30
1,2,4-Trichlorobenzene	U		0.19	5.0	µg/L	1	4/20/2016 03:30
1,2-Dibromo-3-chloropropane	U		0.42	1.0	µg/L	1	4/20/2016 03:30
1,2-Dibromoethane	U		0.34	1.0	µg/L	1	4/20/2016 03:30
1,2-Dichlorobenzene	U		0.22	1.0	µg/L	1	4/20/2016 03:30
1,2-Dichloroethane	U		0.26	1.0	µg/L	1	4/20/2016 03:30
1,2-Dichloropropane	U		0.26	1.0	µg/L	1	4/20/2016 03:30
1,3-Dichlorobenzene	U		0.21	1.0	µg/L	1	4/20/2016 03:30
1,4-Dichlorobenzene	U		0.20	1.0	µg/L	1	4/20/2016 03:30
2-Butanone	U		0.87	25	µg/L	1	4/20/2016 03:30
2-Hexanone	U		0.15	50	µg/L	1	4/20/2016 03:30
4-Methyl-2-pentanone	U		0.15	50	µg/L	1	4/20/2016 03:30
Acetone	U		3.1	50	µg/L	1	4/20/2016 03:30
Benzene	U		0.25	1.0	µg/L	1	4/20/2016 03:30
Bromodichloromethane	U		0.16	1.0	µg/L	1	4/20/2016 03:30
Bromoform	U		0.099	1.0	µg/L	1	4/20/2016 03:30
Bromomethane	U		1.0	5.0	µg/L	1	4/20/2016 03:30
Carbon disulfide	U		0.26	5.0	µg/L	1	4/20/2016 03:30
Carbon tetrachloride	U		0.14	1.0	µg/L	1	4/20/2016 03:30
Chlorobenzene	U		0.19	1.0	µg/L	1	4/20/2016 03:30
Chloroethane	U		0.21	5.0	µg/L	1	4/20/2016 03:30
Chloroform	U		0.25	1.0	µg/L	1	4/20/2016 03:30
Chloromethane	U		0.25	5.0	µg/L	1	4/20/2016 03:30
cis-1,2-Dichloroethene	1.5		0.25	1.0	µg/L	1	4/20/2016 03:30
cis-1,3-Dichloropropene	U		0.24	1.0	µg/L	1	4/20/2016 03:30
Cyclohexane	U		0.31	1.0	µg/L	1	4/20/2016 03:30
Dibromochloromethane	U		0.17	5.0	µg/L	1	4/20/2016 03:30
Dichlorodifluoromethane	U		0.41	5.0	µg/L	1	4/20/2016 03:30
Ethylbenzene	U		0.22	1.0	µg/L	1	4/20/2016 03:30
Isopropylbenzene	U		0.25	5.0	µg/L	1	4/20/2016 03:30
Methyl acetate	U		0.62	10	µg/L	1	4/20/2016 03:30
Methyl tert-butyl ether	U		0.12	5.0	µg/L	1	4/20/2016 03:30
Methylcyclohexane	U		0.32	1.0	µg/L	1	4/20/2016 03:30

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

ALS Group USA, Corp

Date: 20-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-041816-MR-044
Collection Date: 4/18/2016 12:10 PM

Work Order: 1604961
Lab ID: 1604961-03
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.64	5.0	µg/L	1	4/20/2016 03:30
Styrene	U		0.18	1.0	µg/L	1	4/20/2016 03:30
Tetrachloroethene	U		0.25	1.0	µg/L	1	4/20/2016 03:30
Toluene	U		0.20	1.0	µg/L	1	4/20/2016 03:30
trans-1,2-Dichloroethene	0.39	J	0.29	1.0	µg/L	1	4/20/2016 03:30
trans-1,3-Dichloropropene	U		0.19	1.0	µg/L	1	4/20/2016 03:30
Trichloroethene	5.3		0.34	1.0	µg/L	1	4/20/2016 03:30
Trichlorofluoromethane	U		0.39	1.0	µg/L	1	4/20/2016 03:30
Vinyl chloride	U		0.19	1.0	µg/L	1	4/20/2016 03:30
Xylenes, Total	U		0.62	3.0	µg/L	1	4/20/2016 03:30
Surr: 1,2-Dichloroethane-d4	91.4			75-120	%REC	1	4/20/2016 03:30
Surr: 4-Bromofluorobenzene	99.8			80-110	%REC	1	4/20/2016 03:30
Surr: Dibromofluoromethane	98.7			85-115	%REC	1	4/20/2016 03:30
Surr: Toluene-d8	91.2			85-110	%REC	1	4/20/2016 03:30

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

ALS Group USA, Corp

Date: 20-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-041816-MR-045
Collection Date: 4/18/2016 12:45 PM

Work Order: 1604961
Lab ID: 1604961-04
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			Method: SW8260B			Analyst: AK	
1,1,1-Trichloroethane	U		0.19	1.0	µg/L	1	4/20/2016 03:55
1,1,2,2-Tetrachloroethane	U		0.34	1.0	µg/L	1	4/20/2016 03:55
1,1,2-Trichloroethane	U		0.25	1.0	µg/L	1	4/20/2016 03:55
1,1,2-Trichlorotrifluoroethane	U		0.47	1.0	µg/L	1	4/20/2016 03:55
1,1-Dichloroethane	U		0.21	1.0	µg/L	1	4/20/2016 03:55
1,1-Dichloroethene	U		0.24	1.0	µg/L	1	4/20/2016 03:55
1,2,4-Trichlorobenzene	U		0.19	5.0	µg/L	1	4/20/2016 03:55
1,2-Dibromo-3-chloropropane	U		0.42	1.0	µg/L	1	4/20/2016 03:55
1,2-Dibromoethane	U		0.34	1.0	µg/L	1	4/20/2016 03:55
1,2-Dichlorobenzene	U		0.22	1.0	µg/L	1	4/20/2016 03:55
1,2-Dichloroethane	U		0.26	1.0	µg/L	1	4/20/2016 03:55
1,2-Dichloropropane	U		0.26	1.0	µg/L	1	4/20/2016 03:55
1,3-Dichlorobenzene	U		0.21	1.0	µg/L	1	4/20/2016 03:55
1,4-Dichlorobenzene	U		0.20	1.0	µg/L	1	4/20/2016 03:55
2-Butanone	U		0.87	25	µg/L	1	4/20/2016 03:55
2-Hexanone	U		0.15	50	µg/L	1	4/20/2016 03:55
4-Methyl-2-pentanone	U		0.15	50	µg/L	1	4/20/2016 03:55
Acetone	U		3.1	50	µg/L	1	4/20/2016 03:55
Benzene	U		0.25	1.0	µg/L	1	4/20/2016 03:55
Bromodichloromethane	U		0.16	1.0	µg/L	1	4/20/2016 03:55
Bromoform	U		0.099	1.0	µg/L	1	4/20/2016 03:55
Bromomethane	U		1.0	5.0	µg/L	1	4/20/2016 03:55
Carbon disulfide	U		0.26	5.0	µg/L	1	4/20/2016 03:55
Carbon tetrachloride	U		0.14	1.0	µg/L	1	4/20/2016 03:55
Chlorobenzene	U		0.19	1.0	µg/L	1	4/20/2016 03:55
Chloroethane	U		0.21	5.0	µg/L	1	4/20/2016 03:55
Chloroform	U		0.25	1.0	µg/L	1	4/20/2016 03:55
Chloromethane	U		0.25	5.0	µg/L	1	4/20/2016 03:55
cis-1,2-Dichloroethene	U		0.25	1.0	µg/L	1	4/20/2016 03:55
cis-1,3-Dichloropropene	U		0.24	1.0	µg/L	1	4/20/2016 03:55
Cyclohexane	U		0.31	1.0	µg/L	1	4/20/2016 03:55
Dibromochloromethane	U		0.17	5.0	µg/L	1	4/20/2016 03:55
Dichlorodifluoromethane	U		0.41	5.0	µg/L	1	4/20/2016 03:55
Ethylbenzene	U		0.22	1.0	µg/L	1	4/20/2016 03:55
Isopropylbenzene	U		0.25	5.0	µg/L	1	4/20/2016 03:55
Methyl acetate	U		0.62	10	µg/L	1	4/20/2016 03:55
Methyl tert-butyl ether	U		0.12	5.0	µg/L	1	4/20/2016 03:55
Methylcyclohexane	U		0.32	1.0	µg/L	1	4/20/2016 03:55

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

ALS Group USA, Corp

Date: 20-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-041816-MR-045
Collection Date: 4/18/2016 12:45 PM

Work Order: 1604961
Lab ID: 1604961-04
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.64	5.0	µg/L	1	4/20/2016 03:55
Styrene	U		0.18	1.0	µg/L	1	4/20/2016 03:55
Tetrachloroethene	U		0.25	1.0	µg/L	1	4/20/2016 03:55
Toluene	U		0.20	1.0	µg/L	1	4/20/2016 03:55
trans-1,2-Dichloroethene	U		0.29	1.0	µg/L	1	4/20/2016 03:55
trans-1,3-Dichloropropene	U		0.19	1.0	µg/L	1	4/20/2016 03:55
Trichloroethene	3.7		0.34	1.0	µg/L	1	4/20/2016 03:55
Trichlorofluoromethane	U		0.39	1.0	µg/L	1	4/20/2016 03:55
Vinyl chloride	U		0.19	1.0	µg/L	1	4/20/2016 03:55
Xylenes, Total	U		0.62	3.0	µg/L	1	4/20/2016 03:55
Surr: 1,2-Dichloroethane-d4	93.8			75-120	%REC	1	4/20/2016 03:55
Surr: 4-Bromofluorobenzene	101			80-110	%REC	1	4/20/2016 03:55
Surr: Dibromofluoromethane	98.6			85-115	%REC	1	4/20/2016 03:55
Surr: Toluene-d8	92.4			85-110	%REC	1	4/20/2016 03:55

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

ALS Group USA, Corp

Date: 20-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-041816-MR-046
Collection Date: 4/18/2016 01:00 PM

Work Order: 1604961
Lab ID: 1604961-05
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			Method: SW8260B			Analyst: AK	
1,1,1-Trichloroethane	U		0.19	1.0	µg/L	1	4/20/2016 04:21
1,1,2,2-Tetrachloroethane	U		0.34	1.0	µg/L	1	4/20/2016 04:21
1,1,2-Trichloroethane	U		0.25	1.0	µg/L	1	4/20/2016 04:21
1,1,2-Trichlorotrifluoroethane	U		0.47	1.0	µg/L	1	4/20/2016 04:21
1,1-Dichloroethane	U		0.21	1.0	µg/L	1	4/20/2016 04:21
1,1-Dichloroethene	U		0.24	1.0	µg/L	1	4/20/2016 04:21
1,2,4-Trichlorobenzene	U		0.19	5.0	µg/L	1	4/20/2016 04:21
1,2-Dibromo-3-chloropropane	U		0.42	1.0	µg/L	1	4/20/2016 04:21
1,2-Dibromoethane	U		0.34	1.0	µg/L	1	4/20/2016 04:21
1,2-Dichlorobenzene	U		0.22	1.0	µg/L	1	4/20/2016 04:21
1,2-Dichloroethane	U		0.26	1.0	µg/L	1	4/20/2016 04:21
1,2-Dichloropropane	U		0.26	1.0	µg/L	1	4/20/2016 04:21
1,3-Dichlorobenzene	U		0.21	1.0	µg/L	1	4/20/2016 04:21
1,4-Dichlorobenzene	U		0.20	1.0	µg/L	1	4/20/2016 04:21
2-Butanone	U		0.87	25	µg/L	1	4/20/2016 04:21
2-Hexanone	U		0.15	50	µg/L	1	4/20/2016 04:21
4-Methyl-2-pentanone	U		0.15	50	µg/L	1	4/20/2016 04:21
Acetone	U		3.1	50	µg/L	1	4/20/2016 04:21
Benzene	U		0.25	1.0	µg/L	1	4/20/2016 04:21
Bromodichloromethane	U		0.16	1.0	µg/L	1	4/20/2016 04:21
Bromoform	U		0.099	1.0	µg/L	1	4/20/2016 04:21
Bromomethane	U		1.0	5.0	µg/L	1	4/20/2016 04:21
Carbon disulfide	U		0.26	5.0	µg/L	1	4/20/2016 04:21
Carbon tetrachloride	U		0.14	1.0	µg/L	1	4/20/2016 04:21
Chlorobenzene	U		0.19	1.0	µg/L	1	4/20/2016 04:21
Chloroethane	U		0.21	5.0	µg/L	1	4/20/2016 04:21
Chloroform	U		0.25	1.0	µg/L	1	4/20/2016 04:21
Chloromethane	U		0.25	5.0	µg/L	1	4/20/2016 04:21
cis-1,2-Dichloroethene	U		0.25	1.0	µg/L	1	4/20/2016 04:21
cis-1,3-Dichloropropene	U		0.24	1.0	µg/L	1	4/20/2016 04:21
Cyclohexane	U		0.31	1.0	µg/L	1	4/20/2016 04:21
Dibromochloromethane	U		0.17	5.0	µg/L	1	4/20/2016 04:21
Dichlorodifluoromethane	U		0.41	5.0	µg/L	1	4/20/2016 04:21
Ethylbenzene	U		0.22	1.0	µg/L	1	4/20/2016 04:21
Isopropylbenzene	U		0.25	5.0	µg/L	1	4/20/2016 04:21
Methyl acetate	U		0.62	10	µg/L	1	4/20/2016 04:21
Methyl tert-butyl ether	U		0.12	5.0	µg/L	1	4/20/2016 04:21
Methylcyclohexane	U		0.32	1.0	µg/L	1	4/20/2016 04:21

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

ALS Group USA, Corp

Date: 20-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-041816-MR-046
Collection Date: 4/18/2016 01:00 PM

Work Order: 1604961
Lab ID: 1604961-05
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.64	5.0	µg/L	1	4/20/2016 04:21
Styrene	U		0.18	1.0	µg/L	1	4/20/2016 04:21
Tetrachloroethene	U		0.25	1.0	µg/L	1	4/20/2016 04:21
Toluene	U		0.20	1.0	µg/L	1	4/20/2016 04:21
trans-1,2-Dichloroethene	U		0.29	1.0	µg/L	1	4/20/2016 04:21
trans-1,3-Dichloropropene	U		0.19	1.0	µg/L	1	4/20/2016 04:21
Trichloroethene	3.7		0.34	1.0	µg/L	1	4/20/2016 04:21
Trichlorofluoromethane	U		0.39	1.0	µg/L	1	4/20/2016 04:21
Vinyl chloride	U		0.19	1.0	µg/L	1	4/20/2016 04:21
Xylenes, Total	U		0.62	3.0	µg/L	1	4/20/2016 04:21
Surr: 1,2-Dichloroethane-d4	92.2			75-120	%REC	1	4/20/2016 04:21
Surr: 4-Bromofluorobenzene	100			80-110	%REC	1	4/20/2016 04:21
Surr: Dibromofluoromethane	102			85-115	%REC	1	4/20/2016 04:21
Surr: Toluene-d8	90.4			85-110	%REC	1	4/20/2016 04:21

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

ALS Group USA, Corp

Date: 20-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-041816-MR-047
Collection Date: 4/18/2016 01:56 PM

Work Order: 1604961
Lab ID: 1604961-06
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			Method: SW8260B			Analyst: AK	
1,1,1-Trichloroethane	U		0.19	1.0	µg/L	1	4/20/2016 04:46
1,1,2,2-Tetrachloroethane	U		0.34	1.0	µg/L	1	4/20/2016 04:46
1,1,2-Trichloroethane	U		0.25	1.0	µg/L	1	4/20/2016 04:46
1,1,2-Trichlorotrifluoroethane	U		0.47	1.0	µg/L	1	4/20/2016 04:46
1,1-Dichloroethane	U		0.21	1.0	µg/L	1	4/20/2016 04:46
1,1-Dichloroethene	U		0.24	1.0	µg/L	1	4/20/2016 04:46
1,2,4-Trichlorobenzene	U		0.19	5.0	µg/L	1	4/20/2016 04:46
1,2-Dibromo-3-chloropropane	U		0.42	1.0	µg/L	1	4/20/2016 04:46
1,2-Dibromoethane	U		0.34	1.0	µg/L	1	4/20/2016 04:46
1,2-Dichlorobenzene	U		0.22	1.0	µg/L	1	4/20/2016 04:46
1,2-Dichloroethane	U		0.26	1.0	µg/L	1	4/20/2016 04:46
1,2-Dichloropropane	U		0.26	1.0	µg/L	1	4/20/2016 04:46
1,3-Dichlorobenzene	U		0.21	1.0	µg/L	1	4/20/2016 04:46
1,4-Dichlorobenzene	U		0.20	1.0	µg/L	1	4/20/2016 04:46
2-Butanone	U		0.87	25	µg/L	1	4/20/2016 04:46
2-Hexanone	U		0.15	50	µg/L	1	4/20/2016 04:46
4-Methyl-2-pentanone	U		0.15	50	µg/L	1	4/20/2016 04:46
Acetone	U		3.1	50	µg/L	1	4/20/2016 04:46
Benzene	U		0.25	1.0	µg/L	1	4/20/2016 04:46
Bromodichloromethane	U		0.16	1.0	µg/L	1	4/20/2016 04:46
Bromoform	U		0.099	1.0	µg/L	1	4/20/2016 04:46
Bromomethane	U		1.0	5.0	µg/L	1	4/20/2016 04:46
Carbon disulfide	U		0.26	5.0	µg/L	1	4/20/2016 04:46
Carbon tetrachloride	U		0.14	1.0	µg/L	1	4/20/2016 04:46
Chlorobenzene	U		0.19	1.0	µg/L	1	4/20/2016 04:46
Chloroethane	U		0.21	5.0	µg/L	1	4/20/2016 04:46
Chloroform	0.26	J	0.25	1.0	µg/L	1	4/20/2016 04:46
Chloromethane	U		0.25	5.0	µg/L	1	4/20/2016 04:46
cis-1,2-Dichloroethene	U		0.25	1.0	µg/L	1	4/20/2016 04:46
cis-1,3-Dichloropropene	U		0.24	1.0	µg/L	1	4/20/2016 04:46
Cyclohexane	U		0.31	1.0	µg/L	1	4/20/2016 04:46
Dibromochloromethane	U		0.17	5.0	µg/L	1	4/20/2016 04:46
Dichlorodifluoromethane	U		0.41	5.0	µg/L	1	4/20/2016 04:46
Ethylbenzene	U		0.22	1.0	µg/L	1	4/20/2016 04:46
Isopropylbenzene	U		0.25	5.0	µg/L	1	4/20/2016 04:46
Methyl acetate	U		0.62	10	µg/L	1	4/20/2016 04:46
Methyl tert-butyl ether	U		0.12	5.0	µg/L	1	4/20/2016 04:46
Methylcyclohexane	U		0.32	1.0	µg/L	1	4/20/2016 04:46

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

ALS Group USA, Corp

Date: 20-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-041816-MR-047
Collection Date: 4/18/2016 01:56 PM

Work Order: 1604961
Lab ID: 1604961-06
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.64	5.0	µg/L	1	4/20/2016 04:46
Styrene	U		0.18	1.0	µg/L	1	4/20/2016 04:46
Tetrachloroethene	0.35	J	0.25	1.0	µg/L	1	4/20/2016 04:46
Toluene	U		0.20	1.0	µg/L	1	4/20/2016 04:46
trans-1,2-Dichloroethene	U		0.29	1.0	µg/L	1	4/20/2016 04:46
trans-1,3-Dichloropropene	U		0.19	1.0	µg/L	1	4/20/2016 04:46
Trichloroethene	33		0.34	1.0	µg/L	1	4/20/2016 04:46
Trichlorofluoromethane	U		0.39	1.0	µg/L	1	4/20/2016 04:46
Vinyl chloride	U		0.19	1.0	µg/L	1	4/20/2016 04:46
Xylenes, Total	U		0.62	3.0	µg/L	1	4/20/2016 04:46
Surr: 1,2-Dichloroethane-d4	94.6			75-120	%REC	1	4/20/2016 04:46
Surr: 4-Bromofluorobenzene	100			80-110	%REC	1	4/20/2016 04:46
Surr: Dibromofluoromethane	99.1			85-115	%REC	1	4/20/2016 04:46
Surr: Toluene-d8	93.3			85-110	%REC	1	4/20/2016 04:46

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

ALS Group USA, Corp

Date: 20-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-041816-MR-048
Collection Date: 4/18/2016 02:51 PM

Work Order: 1604961
Lab ID: 1604961-07
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			Method: SW8260B			Analyst: AK	
1,1,1-Trichloroethane	U		0.19	1.0	µg/L	1	4/20/2016 05:11
1,1,2,2-Tetrachloroethane	U		0.34	1.0	µg/L	1	4/20/2016 05:11
1,1,2-Trichloroethane	U		0.25	1.0	µg/L	1	4/20/2016 05:11
1,1,2-Trichlorotrifluoroethane	U		0.47	1.0	µg/L	1	4/20/2016 05:11
1,1-Dichloroethane	U		0.21	1.0	µg/L	1	4/20/2016 05:11
1,1-Dichloroethene	U		0.24	1.0	µg/L	1	4/20/2016 05:11
1,2,4-Trichlorobenzene	U		0.19	5.0	µg/L	1	4/20/2016 05:11
1,2-Dibromo-3-chloropropane	U		0.42	1.0	µg/L	1	4/20/2016 05:11
1,2-Dibromoethane	U		0.34	1.0	µg/L	1	4/20/2016 05:11
1,2-Dichlorobenzene	U		0.22	1.0	µg/L	1	4/20/2016 05:11
1,2-Dichloroethane	U		0.26	1.0	µg/L	1	4/20/2016 05:11
1,2-Dichloropropane	U		0.26	1.0	µg/L	1	4/20/2016 05:11
1,3-Dichlorobenzene	U		0.21	1.0	µg/L	1	4/20/2016 05:11
1,4-Dichlorobenzene	U		0.20	1.0	µg/L	1	4/20/2016 05:11
2-Butanone	U		0.87	25	µg/L	1	4/20/2016 05:11
2-Hexanone	U		0.15	50	µg/L	1	4/20/2016 05:11
4-Methyl-2-pentanone	2.2	J	0.15	50	µg/L	1	4/20/2016 05:11
Acetone	U		3.1	50	µg/L	1	4/20/2016 05:11
Benzene	U		0.25	1.0	µg/L	1	4/20/2016 05:11
Bromodichloromethane	U		0.16	1.0	µg/L	1	4/20/2016 05:11
Bromoform	U		0.099	1.0	µg/L	1	4/20/2016 05:11
Bromomethane	U		1.0	5.0	µg/L	1	4/20/2016 05:11
Carbon disulfide	U		0.26	5.0	µg/L	1	4/20/2016 05:11
Carbon tetrachloride	U		0.14	1.0	µg/L	1	4/20/2016 05:11
Chlorobenzene	U		0.19	1.0	µg/L	1	4/20/2016 05:11
Chloroethane	U		0.21	5.0	µg/L	1	4/20/2016 05:11
Chloroform	U		0.25	1.0	µg/L	1	4/20/2016 05:11
Chloromethane	U		0.25	5.0	µg/L	1	4/20/2016 05:11
cis-1,2-Dichloroethene	2.3		0.25	1.0	µg/L	1	4/20/2016 05:11
cis-1,3-Dichloropropene	U		0.24	1.0	µg/L	1	4/20/2016 05:11
Cyclohexane	U		0.31	1.0	µg/L	1	4/20/2016 05:11
Dibromochloromethane	U		0.17	5.0	µg/L	1	4/20/2016 05:11
Dichlorodifluoromethane	U		0.41	5.0	µg/L	1	4/20/2016 05:11
Ethylbenzene	U		0.22	1.0	µg/L	1	4/20/2016 05:11
Isopropylbenzene	U		0.25	5.0	µg/L	1	4/20/2016 05:11
Methyl acetate	U		0.62	10	µg/L	1	4/20/2016 05:11
Methyl tert-butyl ether	U		0.12	5.0	µg/L	1	4/20/2016 05:11
Methylcyclohexane	U		0.32	1.0	µg/L	1	4/20/2016 05:11

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

ALS Group USA, Corp

Date: 20-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-041816-MR-048
Collection Date: 4/18/2016 02:51 PM

Work Order: 1604961
Lab ID: 1604961-07
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.64	5.0	µg/L	1	4/20/2016 05:11
Styrene	U		0.18	1.0	µg/L	1	4/20/2016 05:11
Tetrachloroethene	0.84	J	0.25	1.0	µg/L	1	4/20/2016 05:11
Toluene	0.21	J	0.20	1.0	µg/L	1	4/20/2016 05:11
trans-1,2-Dichloroethene	0.32	J	0.29	1.0	µg/L	1	4/20/2016 05:11
trans-1,3-Dichloropropene	U		0.19	1.0	µg/L	1	4/20/2016 05:11
Trichloroethene	2.5		0.34	1.0	µg/L	1	4/20/2016 05:11
Trichlorofluoromethane	U		0.39	1.0	µg/L	1	4/20/2016 05:11
Vinyl chloride	U		0.19	1.0	µg/L	1	4/20/2016 05:11
Xylenes, Total	U		0.62	3.0	µg/L	1	4/20/2016 05:11
Surr: 1,2-Dichloroethane-d4	92.6			75-120	%REC	1	4/20/2016 05:11
Surr: 4-Bromofluorobenzene	103			80-110	%REC	1	4/20/2016 05:11
Surr: Dibromofluoromethane	98.8			85-115	%REC	1	4/20/2016 05:11
Surr: Toluene-d8	93.1			85-110	%REC	1	4/20/2016 05:11

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

ALS Group USA, Corp

Date: 20-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-041816-MR-049
Collection Date: 4/18/2016 03:22 PM

Work Order: 1604961
Lab ID: 1604961-08
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			Method: SW8260B			Analyst: AK	
1,1,1-Trichloroethane	U		0.19	1.0	µg/L	1	4/20/2016 05:36
1,1,2,2-Tetrachloroethane	U		0.34	1.0	µg/L	1	4/20/2016 05:36
1,1,2-Trichloroethane	U		0.25	1.0	µg/L	1	4/20/2016 05:36
1,1,2-Trichlorotrifluoroethane	U		0.47	1.0	µg/L	1	4/20/2016 05:36
1,1-Dichloroethane	U		0.21	1.0	µg/L	1	4/20/2016 05:36
1,1-Dichloroethene	U		0.24	1.0	µg/L	1	4/20/2016 05:36
1,2,4-Trichlorobenzene	U		0.19	5.0	µg/L	1	4/20/2016 05:36
1,2-Dibromo-3-chloropropane	U		0.42	1.0	µg/L	1	4/20/2016 05:36
1,2-Dibromoethane	U		0.34	1.0	µg/L	1	4/20/2016 05:36
1,2-Dichlorobenzene	U		0.22	1.0	µg/L	1	4/20/2016 05:36
1,2-Dichloroethane	U		0.26	1.0	µg/L	1	4/20/2016 05:36
1,2-Dichloropropane	U		0.26	1.0	µg/L	1	4/20/2016 05:36
1,3-Dichlorobenzene	U		0.21	1.0	µg/L	1	4/20/2016 05:36
1,4-Dichlorobenzene	U		0.20	1.0	µg/L	1	4/20/2016 05:36
2-Butanone	U		0.87	25	µg/L	1	4/20/2016 05:36
2-Hexanone	U		0.15	50	µg/L	1	4/20/2016 05:36
4-Methyl-2-pentanone	U		0.15	50	µg/L	1	4/20/2016 05:36
Acetone	U		3.1	50	µg/L	1	4/20/2016 05:36
Benzene	U		0.25	1.0	µg/L	1	4/20/2016 05:36
Bromodichloromethane	U		0.16	1.0	µg/L	1	4/20/2016 05:36
Bromoform	U		0.099	1.0	µg/L	1	4/20/2016 05:36
Bromomethane	U		1.0	5.0	µg/L	1	4/20/2016 05:36
Carbon disulfide	U		0.26	5.0	µg/L	1	4/20/2016 05:36
Carbon tetrachloride	U		0.14	1.0	µg/L	1	4/20/2016 05:36
Chlorobenzene	U		0.19	1.0	µg/L	1	4/20/2016 05:36
Chloroethane	U		0.21	5.0	µg/L	1	4/20/2016 05:36
Chloroform	U		0.25	1.0	µg/L	1	4/20/2016 05:36
Chloromethane	U		0.25	5.0	µg/L	1	4/20/2016 05:36
cis-1,2-Dichloroethene	U		0.25	1.0	µg/L	1	4/20/2016 05:36
cis-1,3-Dichloropropene	U		0.24	1.0	µg/L	1	4/20/2016 05:36
Cyclohexane	U		0.31	1.0	µg/L	1	4/20/2016 05:36
Dibromochloromethane	U		0.17	5.0	µg/L	1	4/20/2016 05:36
Dichlorodifluoromethane	U		0.41	5.0	µg/L	1	4/20/2016 05:36
Ethylbenzene	U		0.22	1.0	µg/L	1	4/20/2016 05:36
Isopropylbenzene	U		0.25	5.0	µg/L	1	4/20/2016 05:36
Methyl acetate	U		0.62	10	µg/L	1	4/20/2016 05:36
Methyl tert-butyl ether	U		0.12	5.0	µg/L	1	4/20/2016 05:36
Methylcyclohexane	U		0.32	1.0	µg/L	1	4/20/2016 05:36

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

ALS Group USA, Corp

Date: 20-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-041816-MR-049
Collection Date: 4/18/2016 03:22 PM

Work Order: 1604961
Lab ID: 1604961-08
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.64	5.0	µg/L	1	4/20/2016 05:36
Styrene	U		0.18	1.0	µg/L	1	4/20/2016 05:36
Tetrachloroethene	2.9		0.25	1.0	µg/L	1	4/20/2016 05:36
Toluene	U		0.20	1.0	µg/L	1	4/20/2016 05:36
trans-1,2-Dichloroethene	U		0.29	1.0	µg/L	1	4/20/2016 05:36
trans-1,3-Dichloropropene	U		0.19	1.0	µg/L	1	4/20/2016 05:36
Trichloroethene	0.59	J	0.34	1.0	µg/L	1	4/20/2016 05:36
Trichlorofluoromethane	U		0.39	1.0	µg/L	1	4/20/2016 05:36
Vinyl chloride	U		0.19	1.0	µg/L	1	4/20/2016 05:36
Xylenes, Total	U		0.62	3.0	µg/L	1	4/20/2016 05:36
Surr: 1,2-Dichloroethane-d4	91.2			75-120	%REC	1	4/20/2016 05:36
Surr: 4-Bromofluorobenzene	100			80-110	%REC	1	4/20/2016 05:36
Surr: Dibromofluoromethane	97.8			85-115	%REC	1	4/20/2016 05:36
Surr: Toluene-d8	94.0			85-110	%REC	1	4/20/2016 05:36

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

ALS Group USA, Corp

Date: 20-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: TB-017360-041816-MR-050
Collection Date: 4/18/2016

Work Order: 1604961
Lab ID: 1604961-09
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			Method: SW8260B			Analyst: AK	
1,1,1-Trichloroethane	U		0.19	1.0	µg/L	1	4/20/2016 02:15
1,1,2,2-Tetrachloroethane	U		0.34	1.0	µg/L	1	4/20/2016 02:15
1,1,2-Trichloroethane	U		0.25	1.0	µg/L	1	4/20/2016 02:15
1,1,2-Trichlorotrifluoroethane	U		0.47	1.0	µg/L	1	4/20/2016 02:15
1,1-Dichloroethane	U		0.21	1.0	µg/L	1	4/20/2016 02:15
1,1-Dichloroethene	U		0.24	1.0	µg/L	1	4/20/2016 02:15
1,2,4-Trichlorobenzene	U		0.19	5.0	µg/L	1	4/20/2016 02:15
1,2-Dibromo-3-chloropropane	U		0.42	1.0	µg/L	1	4/20/2016 02:15
1,2-Dibromoethane	U		0.34	1.0	µg/L	1	4/20/2016 02:15
1,2-Dichlorobenzene	U		0.22	1.0	µg/L	1	4/20/2016 02:15
1,2-Dichloroethane	U		0.26	1.0	µg/L	1	4/20/2016 02:15
1,2-Dichloropropane	U		0.26	1.0	µg/L	1	4/20/2016 02:15
1,3-Dichlorobenzene	U		0.21	1.0	µg/L	1	4/20/2016 02:15
1,4-Dichlorobenzene	0.22	J	0.20	1.0	µg/L	1	4/20/2016 02:15
2-Butanone	U		0.87	25	µg/L	1	4/20/2016 02:15
2-Hexanone	U		0.15	50	µg/L	1	4/20/2016 02:15
4-Methyl-2-pentanone	U		0.15	50	µg/L	1	4/20/2016 02:15
Acetone	U		3.1	50	µg/L	1	4/20/2016 02:15
Benzene	U		0.25	1.0	µg/L	1	4/20/2016 02:15
Bromodichloromethane	U		0.16	1.0	µg/L	1	4/20/2016 02:15
Bromoform	U		0.099	1.0	µg/L	1	4/20/2016 02:15
Bromomethane	U		1.0	5.0	µg/L	1	4/20/2016 02:15
Carbon disulfide	U		0.26	5.0	µg/L	1	4/20/2016 02:15
Carbon tetrachloride	U		0.14	1.0	µg/L	1	4/20/2016 02:15
Chlorobenzene	U		0.19	1.0	µg/L	1	4/20/2016 02:15
Chloroethane	U		0.21	5.0	µg/L	1	4/20/2016 02:15
Chloroform	U		0.25	1.0	µg/L	1	4/20/2016 02:15
Chloromethane	U		0.25	5.0	µg/L	1	4/20/2016 02:15
cis-1,2-Dichloroethene	U		0.25	1.0	µg/L	1	4/20/2016 02:15
cis-1,3-Dichloropropene	U		0.24	1.0	µg/L	1	4/20/2016 02:15
Cyclohexane	U		0.31	1.0	µg/L	1	4/20/2016 02:15
Dibromochloromethane	U		0.17	5.0	µg/L	1	4/20/2016 02:15
Dichlorodifluoromethane	U		0.41	5.0	µg/L	1	4/20/2016 02:15
Ethylbenzene	U		0.22	1.0	µg/L	1	4/20/2016 02:15
Isopropylbenzene	U		0.25	5.0	µg/L	1	4/20/2016 02:15
Methyl acetate	U		0.62	10	µg/L	1	4/20/2016 02:15
Methyl tert-butyl ether	U		0.12	5.0	µg/L	1	4/20/2016 02:15
Methylcyclohexane	U		0.32	1.0	µg/L	1	4/20/2016 02:15

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

ALS Group USA, Corp

Date: 20-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: TB-017360-041816-MR-050
Collection Date: 4/18/2016

Work Order: 1604961
Lab ID: 1604961-09
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.64	5.0	µg/L	1	4/20/2016 02:15
Styrene	U		0.18	1.0	µg/L	1	4/20/2016 02:15
Tetrachloroethene	U		0.25	1.0	µg/L	1	4/20/2016 02:15
Toluene	U		0.20	1.0	µg/L	1	4/20/2016 02:15
trans-1,2-Dichloroethene	U		0.29	1.0	µg/L	1	4/20/2016 02:15
trans-1,3-Dichloropropene	U		0.19	1.0	µg/L	1	4/20/2016 02:15
Trichloroethene	U		0.34	1.0	µg/L	1	4/20/2016 02:15
Trichlorofluoromethane	U		0.39	1.0	µg/L	1	4/20/2016 02:15
Vinyl chloride	U		0.19	1.0	µg/L	1	4/20/2016 02:15
Xylenes, Total	U		0.62	3.0	µg/L	1	4/20/2016 02:15
Surr: 1,2-Dichloroethane-d4	93.7			75-120	%REC	1	4/20/2016 02:15
Surr: 4-Bromofluorobenzene	98.9			80-110	%REC	1	4/20/2016 02:15
Surr: Dibromofluoromethane	97.8			85-115	%REC	1	4/20/2016 02:15
Surr: Toluene-d8	92.6			85-110	%REC	1	4/20/2016 02:15

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

Client: GHD Services Inc.

Work Order: 1604961

Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: **R185700A**

Instrument ID **VMS7**

Method: **SW8260B**

MBLK		Sample ID: VBK2-160419-R185700A				Units: µg/L		Analysis Date: 4/20/2016 01:26 AM			
Client ID:		Run ID: VMS7_160419B				SeqNo: 3784573		Prep Date:		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	U	0.19	1.0								
1,1,2,2-Tetrachloroethane	U	0.34	1.0								
1,1,2-Trichloroethane	U	0.25	1.0								
1,1,2-Trichlorotrifluoroethane	U	0.47	1.0								
1,1-Dichloroethane	U	0.21	1.0								
1,1-Dichloroethene	U	0.24	1.0								
1,2,4-Trichlorobenzene	0.6	0.19	1.0								J
1,2-Dibromo-3-chloropropane	U	0.42	1.0								
1,2-Dibromoethane	U	0.34	1.0								
1,2-Dichlorobenzene	0.25	0.22	1.0								J
1,2-Dichloroethane	U	0.26	1.0								
1,2-Dichloropropane	U	0.26	1.0								
1,3-Dichlorobenzene	0.32	0.21	1.0								J
1,4-Dichlorobenzene	0.38	0.2	1.0								J
2-Butanone	U	0.87	5.0								
2-Hexanone	U	0.15	5.0								
4-Methyl-2-pentanone	U	0.15	1.0								
Acetone	U	3.1	10								
Benzene	U	0.25	1.0								
Bromodichloromethane	U	0.16	1.0								
Bromoform	U	0.099	1.0								
Bromomethane	U	1	1.0								
Carbon disulfide	U	0.26	1.0								
Carbon tetrachloride	U	0.14	1.0								
Chlorobenzene	0.19	0.19	1.0								J
Chloroethane	U	0.21	1.0								
Chloroform	U	0.25	1.0								
Chloromethane	U	0.25	1.0								
cis-1,2-Dichloroethene	U	0.25	1.0								
cis-1,3-Dichloropropene	U	0.24	1.0								
Cyclohexane	U	0.31	1.0								
Dibromochloromethane	U	0.17	1.0								
Dichlorodifluoromethane	U	0.41	1.0								
Ethylbenzene	U	0.22	1.0								
Isopropylbenzene	U	0.25	1.0								
Methyl acetate	U	0.62	2.0								
Methyl tert-butyl ether	U	0.12	1.0								
Methylcyclohexane	U	0.32	1.0								
Methylene chloride	U	0.64	5.0								
Styrene	U	0.18	1.0								
Tetrachloroethene	U	0.25	1.0								

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

Client: GHD Services Inc.
Work Order: 1604961
Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: R185700A		Instrument ID VMS7		Method: SW8260B	
Toluene	U	0.2	1.0		
trans-1,2-Dichloroethene	U	0.29	1.0		
trans-1,3-Dichloropropene	U	0.19	1.0		
Trichloroethene	U	0.34	1.0		
Trichlorofluoromethane	U	0.39	1.0		
Vinyl chloride	U	0.19	1.0		
Xylenes, Total	U	0.62	3.0		
Surr: 1,2-Dichloroethane-d4	18.03	0	0	20	0 90.2 75-120 0
Surr: 4-Bromofluorobenzene	20.49	0	0	20	0 102 80-110 0
Surr: Dibromofluoromethane	19.56	0	0	20	0 97.8 85-115 0
Surr: Toluene-d8	18.66	0	0	20	0 93.3 85-110 0

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

Client: GHD Services Inc.
 Work Order: 1604961
 Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: **R185700A** Instrument ID **VMS7** Method: **SW8260B**

LCS		Sample ID: VLCSW2-160419-R185700A				Units: µg/L		Analysis Date: 4/20/2016 12:10 PM			
Client ID:		Run ID: VMS7_160419B				SeqNo: 3784592		Prep Date:		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	21.03	0.19	1.0	20	0	105	75-130	0			
1,1,2,2-Tetrachloroethane	18.94	0.34	1.0	20	0	94.7	75-130	0			
1,1,2-Trichloroethane	18.25	0.25	1.0	20	0	91.2	75-125	0			
1,1-Dichloroethane	20.37	0.21	1.0	20	0	102	75-133	0			
1,1-Dichloroethene	20.58	0.24	1.0	20	0	103	70-145	0			
1,2,4-Trichlorobenzene	17.75	0.19	1.0	20	0	88.8	70-135	0			
1,2-Dibromo-3-chloropropane	20.71	0.42	1.0	20	0	104	60-130	0			
1,2-Dibromoethane	21.91	0.34	1.0	20	0	110	80-150	0			
1,2-Dichlorobenzene	18.87	0.22	1.0	20	0	94.4	70-130	0			
1,2-Dichloroethane	19.46	0.26	1.0	20	0	97.3	78-125	0			
1,2-Dichloropropane	20.46	0.26	1.0	20	0	102	75-125	0			
1,3-Dichlorobenzene	19.62	0.21	1.0	20	0	98.1	75-130	0			
1,4-Dichlorobenzene	18.74	0.2	1.0	20	0	93.7	75-130	0			
2-Butanone	17.37	0.87	5.0	20	0	86.8	55-150	0			
2-Hexanone	17.23	0.15	5.0	20	0	86.2	60-135	0			
4-Methyl-2-pentanone	22.53	0.15	1.0	20	0	113	77-178	0			
Acetone	20.28	3.1	10	20	0	101	60-160	0			
Benzene	20.23	0.25	1.0	20	0	101	85-125	0			
Bromodichloromethane	20.36	0.16	1.0	20	0	102	75-125	0			
Bromoform	19.1	0.099	1.0	20	0	95.5	60-125	0			
Bromomethane	23.38	1	1.0	20	0	117	30-185	0			
Carbon disulfide	21.97	0.26	1.0	20	0	110	60-165	0			
Carbon tetrachloride	21.24	0.14	1.0	20	0	106	65-140	0			
Chlorobenzene	19.19	0.19	1.0	20	0	96	80-120	0			
Chloroethane	20.3	0.21	1.0	20	0	102	50-140	0			
Chloroform	19.67	0.25	1.0	20	0	98.4	80-130	0			
Chloromethane	13.9	0.25	1.0	20	0	69.5	50-130	0			
cis-1,2-Dichloroethene	19.83	0.25	1.0	20	0	99.2	75-134	0			
cis-1,3-Dichloropropene	21.24	0.24	1.0	20	0	106	70-130	0			
Dibromochloromethane	19.33	0.17	1.0	20	0	96.6	60-115	0			
Dichlorodifluoromethane	16.74	0.41	1.0	20	0	83.7	20-120	0			
Ethylbenzene	18.82	0.22	1.0	20	0	94.1	85-125	0			
Isopropylbenzene	18.71	0.25	1.0	20	0	93.6	80-127	0			
Methyl tert-butyl ether	17.76	0.12	1.0	20	0	88.8	80-130	0			
Methylene chloride	20.58	0.64	5.0	20	0	103	75-140	0			
Styrene	20.42	0.18	1.0	20	0	102	85-125	0			
Tetrachloroethene	18.01	0.25	1.0	20	0	90	77-138	0			
Toluene	18.6	0.2	1.0	20	0	93	85-125	0			
trans-1,2-Dichloroethene	21.38	0.29	1.0	20	0	107	80-140	0			
trans-1,3-Dichloropropene	17.83	0.19	1.0	20	0	89.2	81-123	0			
Trichloroethene	19.73	0.34	1.0	20	0	98.6	84-130	0			
Trichlorofluoromethane	19.03	0.39	1.0	20	0	95.2	60-140	0			
Vinyl chloride	18.03	0.19	1.0	20	0	90.2	50-136	0			

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

Client: GHD Services Inc.
Work Order: 1604961
Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: R185700A		Instrument ID VMS7		Method: SW8260B					
Xylenes, Total	55.63	0.62	3.0	60	0	92.7	80-126	0	
Surr: 1,2-Dichloroethane-d4	18.74	0	0	20	0	93.7	75-120	0	
Surr: 4-Bromofluorobenzene	20.02	0	0	20	0	100	80-110	0	
Surr: Dibromofluoromethane	20.16	0	0	20	0	101	85-115	0	
Surr: Toluene-d8	18.5	0	0	20	0	92.5	85-110	0	

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

Client: GHD Services Inc.
Work Order: 1604961
Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: **R185700A** Instrument ID **VMS7** Method: **SW8260B**

MS Sample ID: 1604961-03A MS					Units: µg/L			Analysis Date: 4/20/2016 10:11 AM			
Client ID: WG-017360-041816-MR-044			Run ID: VMS7_160419B			SeqNo: 3784617		Prep Date:		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	24.47	0.19	1.0	20	0	122	75-130	0			
1,1,2,2-Tetrachloroethane	21.89	0.34	1.0	20	0	109	75-130	0			
1,1,2-Trichloroethane	20.8	0.25	1.0	20	0	104	75-125	0			
1,1-Dichloroethane	23.31	0.21	1.0	20	0	117	75-133	0			
1,1-Dichloroethene	23.8	0.24	1.0	20	0	119	70-145	0			
1,2,4-Trichlorobenzene	15.22	0.19	1.0	20	0	76.1	70-135	0			
1,2-Dibromo-3-chloropropane	21.55	0.42	1.0	20	0	108	60-130	0			
1,2-Dibromoethane	23.41	0.34	1.0	20	0	117	80-150	0			
1,2-Dichlorobenzene	19.4	0.22	1.0	20	0	97	70-130	0			
1,2-Dichloroethane	21.51	0.26	1.0	20	0	108	78-125	0			
1,2-Dichloropropane	22.86	0.26	1.0	20	0	114	75-125	0			
1,3-Dichlorobenzene	19.56	0.21	1.0	20	0	97.8	75-130	0			
1,4-Dichlorobenzene	19.23	0.2	1.0	20	0	96.2	75-130	0			
2-Butanone	19.09	0.87	5.0	20	0	95.4	55-150	0			
2-Hexanone	19.58	0.15	5.0	20	0	97.9	60-135	0			
4-Methyl-2-pentanone	26.31	0.15	1.0	20	0	132	77-178	0			
Acetone	25.97	3.1	10	20	1.04	125	60-160	0			
Benzene	23.2	0.25	1.0	20	0.12	115	85-125	0			
Bromodichloromethane	21.8	0.16	1.0	20	0	109	75-125	0			
Bromoform	17.11	0.099	1.0	20	0	85.6	60-125	0			
Bromomethane	20.74	1	1.0	20	0	104	30-185	0			
Carbon disulfide	23.83	0.26	1.0	20	0	119	60-165	0			
Carbon tetrachloride	24	0.14	1.0	20	0	120	65-140	0			
Chlorobenzene	20.93	0.19	1.0	20	0	105	80-120	0			
Chloroethane	23.94	0.21	1.0	20	0	120	50-140	0			
Chloroform	22.16	0.25	1.0	20	0	111	80-130	0			
Chloromethane	14.12	0.25	1.0	20	0	70.6	50-130	0			
cis-1,2-Dichloroethene	23.76	0.25	1.0	20	1.49	111	75-134	0			
cis-1,3-Dichloropropene	18.91	0.24	1.0	20	0	94.6	70-130	0			
Dibromochloromethane	18.69	0.17	1.0	20	0	93.4	60-115	0			
Dichlorodifluoromethane	16.69	0.41	1.0	20	0	83.4	20-120	0			
Ethylbenzene	21.23	0.22	1.0	20	0	106	85-125	0			
Isopropylbenzene	20.79	0.25	1.0	20	0	104	80-127	0			
Methyl tert-butyl ether	19.75	0.12	1.0	20	0	98.8	80-130	0			
Methylene chloride	21.95	0.64	5.0	20	0.25	108	75-140	0			
Styrene	21.63	0.18	1.0	20	0	108	85-125	0			
Tetrachloroethene	21.55	0.25	1.0	20	0	108	77-138	0			
Toluene	20.92	0.2	1.0	20	0.08	104	85-125	0			
trans-1,2-Dichloroethene	23.58	0.29	1.0	20	0.39	116	80-140	0			
trans-1,3-Dichloropropene	15.48	0.19	1.0	20	0	77.4	81-123	0			S
Trichloroethene	28.13	0.34	1.0	20	5.31	114	84-130	0			
Trichlorofluoromethane	21.53	0.39	1.0	20	0	108	60-140	0			
Vinyl chloride	19.61	0.19	1.0	20	0	98	50-136	0			

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

Client: GHD Services Inc.
Work Order: 1604961
Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: R185700A		Instrument ID VMS7		Method: SW8260B					
Xylenes, Total	62.45	0.62	3.0	60	0	104	80-126	0	
Surr: 1,2-Dichloroethane-d4	18.43	0	0	20	0	92.2	75-120	0	
Surr: 4-Bromofluorobenzene	20.3	0	0	20	0	102	80-110	0	
Surr: Dibromofluoromethane	19.97	0	0	20	0	99.8	85-115	0	
Surr: Toluene-d8	18.59	0	0	20	0	93	85-110	0	

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

Client: GHD Services Inc.
Work Order: 1604961
Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: **R185700A** Instrument ID **VMS7** Method: **SW8260B**

MSD					Sample ID: 1604961-03A MSD			Units: µg/L		Analysis Date: 4/20/2016 10:36 AM		
Client ID: WG-017360-041816-MR-044			Run ID: VMS7_160419B			SeqNo: 3784618		Prep Date:		DF: 1		
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
1,1,1-Trichloroethane	25.07	0.19	1.0	20	0	125	75-130	24.47	2.42	30		
1,1,2,2-Tetrachloroethane	22.56	0.34	1.0	20	0	113	75-130	21.89	3.01	30		
1,1,2-Trichloroethane	22.01	0.25	1.0	20	0	110	75-125	20.8	5.65	30		
1,1-Dichloroethane	23.62	0.21	1.0	20	0	118	75-133	23.31	1.32	30		
1,1-Dichloroethene	24.35	0.24	1.0	20	0	122	70-145	23.8	2.28	30		
1,2,4-Trichlorobenzene	17.5	0.19	1.0	20	0	87.5	70-135	15.22	13.9	30		
1,2-Dibromo-3-chloropropane	22.83	0.42	1.0	20	0	114	60-130	21.55	5.77	30		
1,2-Dibromoethane	24.33	0.34	1.0	20	0	122	80-150	23.41	3.85	30		
1,2-Dichlorobenzene	20	0.22	1.0	20	0	100	70-130	19.4	3.05	30		
1,2-Dichloroethane	21.93	0.26	1.0	20	0	110	78-125	21.51	1.93	30		
1,2-Dichloropropane	23.24	0.26	1.0	20	0	116	75-125	22.86	1.65	30		
1,3-Dichlorobenzene	21.24	0.21	1.0	20	0	106	75-130	19.56	8.24	30		
1,4-Dichlorobenzene	20.21	0.2	1.0	20	0	101	75-130	19.23	4.97	30		
2-Butanone	21.07	0.87	5.0	20	0	105	55-150	19.09	9.86	30		
2-Hexanone	21.23	0.15	5.0	20	0	106	60-135	19.58	8.09	30		
4-Methyl-2-pentanone	27.61	0.15	1.0	20	0	138	77-178	26.31	4.82	30		
Acetone	27.37	3.1	10	20	1.04	132	60-160	25.97	5.25	30		
Benzene	23.46	0.25	1.0	20	0.12	117	85-125	23.2	1.11	30		
Bromodichloromethane	22.28	0.16	1.0	20	0	111	75-125	21.8	2.18	30		
Bromoform	17.37	0.099	1.0	20	0	86.8	60-125	17.11	1.51	30		
Bromomethane	22.25	1	1.0	20	0	111	30-185	20.74	7.02	30		
Carbon disulfide	24.91	0.26	1.0	20	0	125	60-165	23.83	4.43	30		
Carbon tetrachloride	24.41	0.14	1.0	20	0	122	65-140	24	1.69	30		
Chlorobenzene	21.74	0.19	1.0	20	0	109	80-120	20.93	3.8	30		
Chloroethane	23.83	0.21	1.0	20	0	119	50-140	23.94	0.461	30		
Chloroform	22.46	0.25	1.0	20	0	112	80-130	22.16	1.34	30		
Chloromethane	14.3	0.25	1.0	20	0	71.5	50-130	14.12	1.27	30		
cis-1,2-Dichloroethene	24.19	0.25	1.0	20	1.49	114	75-134	23.76	1.79	30		
cis-1,3-Dichloropropene	19.41	0.24	1.0	20	0	97	70-130	18.91	2.61	30		
Dibromochloromethane	19.34	0.17	1.0	20	0	96.7	60-115	18.69	3.42	30		
Dichlorodifluoromethane	17.48	0.41	1.0	20	0	87.4	20-120	16.69	4.62	30		
Ethylbenzene	21.84	0.22	1.0	20	0	109	85-125	21.23	2.83	30		
Isopropylbenzene	21.57	0.25	1.0	20	0	108	80-127	20.79	3.68	30		
Methyl tert-butyl ether	20.57	0.12	1.0	20	0	103	80-130	19.75	4.07	30		
Methylene chloride	22.52	0.64	5.0	20	0.25	111	75-140	21.95	2.56	30		
Styrene	22.38	0.18	1.0	20	0	112	85-125	21.63	3.41	30		
Tetrachloroethene	21.83	0.25	1.0	20	0	109	77-138	21.55	1.29	30		
Toluene	21.49	0.2	1.0	20	0.08	107	85-125	20.92	2.69	30		
trans-1,2-Dichloroethene	24.3	0.29	1.0	20	0.39	120	80-140	23.58	3.01	30		
trans-1,3-Dichloropropene	16.73	0.19	1.0	20	0	83.6	81-123	15.48	7.76	30		
Trichloroethene	28.8	0.34	1.0	20	5.31	117	84-130	28.13	2.35	30		
Trichlorofluoromethane	22.19	0.39	1.0	20	0	111	60-140	21.53	3.02	30		
Vinyl chloride	20.24	0.19	1.0	20	0	101	50-136	19.61	3.16	30		

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

Client: GHD Services Inc.
Work Order: 1604961
Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: R185700A		Instrument ID VMS7			Method: SW8260B					
Xylenes, Total	63.95	0.62	3.0	60	0	107	80-126	62.45	2.37	30
Surr: 1,2-Dichloroethane-d4	18.09	0	0	20	0	90.4	75-120	18.43	1.86	30
Surr: 4-Bromofluorobenzene	20.41	0	0	20	0	102	80-110	20.3	0.54	30
Surr: Dibromofluoromethane	19.83	0	0	20	0	99.2	85-115	19.97	0.704	30
Surr: Toluene-d8	18.91	0	0	20	0	94.6	85-110	18.59	1.71	30

The following samples were analyzed in this batch:

1604961-01A	1604961-02A	1604961-03A
1604961-04A	1604961-05A	1604961-06A
1604961-07A	1604961-08A	1604961-09A

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



Environmental

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Chain of Custody Form

Page 1 of 1

COC ID: 31671

Houston, TX
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Middletown, PA
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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			Parameter/Method Request for Analysis															
Purchase Order		Project Name	GR Metal Plant			A	VOCs														
Work Order		Project Number	017360-78916-02716			B	MS/MSD														
Company Name	GHD	Bill To Company				C															
Send Report To	Rana Fleisher	Invoice Attn	See as customer info			D															
Address	1496 Sheldon Rd.	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@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 - 017360-041816-MR-042	4/18/16	1054	Water	1	3	X										
2	WG - " -043		1128			3											
3	WG - " -044		1210			9		X									
4	WG - " -045		1245			3											
5	WG - " -046		1300			3											
6	WG - " -047		1356			3											
7	WG - " -048		1451			3											
8	WG - " -049		1527			3											
9	TB - " -050					1											
10																	

Sampler(s) Please Print & Sign Matt Ramsey		Shipment Method Drop off		Turnaround Time in Business Days (BD) ☐ 10 BD ☐ 5 BD ☐ 3 BD ☐ 2 BD ☐ 1 BD				Other: <u>Standard</u>		Results Due Date:	
Relinquished by: <u>[Signature]</u>		Date: <u>4/19/16</u> Time: <u>945</u>		Received by: <u>[Signature]</u>				Notes: <u>SSOW# 17360-035</u>			
Relinquished by: <u>[Signature]</u>		Date: <u>4/19/16</u> Time: <u>0945</u>		Received by (Laboratory): <u>[Signature]</u>				Cooler ID:		Cooler Temp: <u>GOC</u>	
Logged by (Laboratory): <u>MB</u>		Date: <u>4/19/16</u> Time: <u>1254</u>		Checked by (Laboratory): <u>[Signature]</u>				QC Package: (Check One Box Below)			
								☐ Level II Std QC ☐ TRRP Checklist ☐ Level III Std QC/Raw Data ☐ TRRP Level IV ☐ Level IV SW846/CLP ☐ Other:			

Preservative Key: 1-HCl 2-HNO₃ 3-H₂SO₄ 4-NaOH 5-Na₂S₂O₃ 6-NaHSO₄ 7-Other 8-4°C 9-5035

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
3. The Chain of Custody is a legal document. All information must be completed accurately.

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Sample Receipt Checklist

Client Name: **GHD - PLYMOUTH**

Date/Time Received: **19-Apr-16 09:45**

Work Order: **1604961**

Received by: **MEB**

Checklist completed by Meghan Broadbent
eSignature

19-Apr-16
Date

Reviewed by: Alex Coaszar
eSignature

19-Apr-16
Date

Matrices: water

Carrier name: Client

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☒
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☒
Chain of custody present?	Yes ☒	No ☐	
Chain of custody signed when relinquished and received?	Yes ☒	No ☐	
Chain of custody agrees with sample labels?	Yes ☒	No ☐	
Samples in proper container/bottle?	Yes ☒	No ☐	
Sample containers intact?	Yes ☒	No ☐	
Sufficient sample volume for indicated test?	Yes ☒	No ☐	
All samples received within holding time?	Yes ☒	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☒	No ☐	
Sample(s) received on ice?	Yes ☒	No ☐	
Temperature(s)/Thermometer(s):	<u>6.0/6.0</u> <u>SR2</u>		
Cooler(s)/Kit(s):	<u></u>		
Date/Time sample(s) sent to storage:	<u>4/19/2016 1:01:19 PM</u>		
Water - VOA vials have zero headspace?	Yes ☒	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☒
pH adjusted?	Yes ☐	No ☐	N/A ☒
pH adjusted by:	<u>-</u>		

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:



25-Apr-2016

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

Re: **Former GRMP (17360)**

Work Order: **1604836**

Dear Rawa,

ALS Environmental received 21 samples on 15-Apr-2016 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 129.

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

Sincerely,

A handwritten signature in black ink that reads "Alex Csaszar".

Electronically approved by: Alex Csaszar

Alex Csaszar
Project Manager



Certificate No: MI: 0022

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: 1604836

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>
1604836-01	WG-017360-041116-MR-021	Water		4/11/2016 12:48	4/15/2016 10:45	☐
1604836-02	WG-017360-041116-MR-022	Water		4/11/2016 13:35	4/15/2016 10:45	☐
1604836-03	WG-017360-041116-MR-023	Water		4/11/2016 13:50	4/15/2016 10:45	☐
1604836-04	WG-017360-041116-MR-024	Water		4/11/2016 14:50	4/15/2016 10:45	☐
1604836-05	WG-017360-041116-MR-025	Water		4/11/2016 15:40	4/15/2016 10:45	☐
1604836-06	WG-017360-041116-MR-026	Water		4/11/2016 16:30	4/15/2016 10:45	☐
1604836-07	WG-017360-041316-MR-027	Water		4/13/2016 11:33	4/15/2016 10:45	☐
1604836-08	WG-017360-041316-MR-028	Water		4/13/2016 13:10	4/15/2016 10:45	☐
1604836-09	WG-017360-041316-MR-029	Water		4/13/2016 14:13	4/15/2016 10:45	☐
1604836-10	WG-017360-041316-MR-030	Water		4/13/2016 16:16	4/15/2016 10:45	☐
1604836-11	WG-017360-041316-MR-031	Water		4/13/2016 17:03	4/15/2016 10:45	☐
1604836-12	WG-017360-041316-MR-032	Water		4/13/2016 17:59	4/15/2016 10:45	☐
1604836-13	WG-017360-041416-MR-033	Water		4/14/2016 10:45	4/15/2016 10:45	☐
1604836-14	WG-017360-041416-MR-034	Water		4/14/2016 11:40	4/15/2016 10:45	☐
1604836-15	WG-017360-041416-MR-035	Water		4/14/2016 12:00	4/15/2016 10:45	☐
1604836-16	WG-017360-041416-MR-036	Water		4/14/2016 12:40	4/15/2016 10:45	☐
1604836-17	WG-017360-041416-MR-037	Water		4/14/2016 14:18	4/15/2016 10:45	☐
1604836-18	WG-017360-041416-MR-038	Water		4/14/2016 15:15	4/15/2016 10:45	☐
1604836-19	WG-017360-041416-MR-039	Water		4/14/2016 16:09	4/15/2016 10:45	☐
1604836-20	WG-017360-041416-MR-040	Water		4/14/2016 16:59	4/15/2016 10:45	☐
1604836-21	TB-017360-041416-MR-041	Water		4/14/2016	4/15/2016 10:45	☐

Client: GHD Services Inc.
Project: Former GRMP (17360)
Work Order: 1604836

Case Narrative

Samples for the above noted Work Order were received on 04/15/2016. The attached "Sample Receipt Checklist" documents the status of custody seals, container integrity, preservation, and temperature compliance.

Samples were analyzed according to the analytical methodology previously transmitted in the "Work Order Acknowledgement". Methodologies are also documented in the "Analytical Result" section for each sample. Quality control results are listed in the "QC Report" section. Sample association for the reported quality control is located at the end of each batch summary. If applicable, results are appropriately qualified in the Analytical Result and QC Report sections. The "Qualifiers" section documents the various qualifiers, units, and acronyms utilized in reporting.

With the following exceptions, all sample analyses achieved analytical criteria.

Volatile Organics:

Batch R185633, Method VOC_8260_W, Sample VLCSW1-160419: The LCS recoveries were above the upper control limits for 1,2-Dibromoethane and Hexachlorobutadiene. All the sample results in the batch were non-detect. No qualification is necessary for these analytes.

Batch R185699, Method VOC_8260_W, Samples 1604836-01A MS and MSD: The MS and MSD recoveries were above the upper control limits for Tetrachloroethene. The reported result in the parent sample was non-detect, therefore no qualification is necessary for this analyte.

Batch R185778, Method VOC_8260_W, Samples 1604836-01A MS and MSD: The MS and MSD recoveries were above the upper control limits for Acetone. The reported result in the parent sample was non-detect, therefore no qualification is necessary.

Batch R185778, Method VOC_8260_W, Sample 1604836-01A MS: The MS recovery was below the lower control limits for trans-1,3-Dichloropropene. The reported result in the parent sample may be biased low for this analyte.

Batch R185778, Method VOC_8260_W, Sample 1604836-07A: Verification of sample preservation indicated a pH >2.

Batch R185836, Method VOC_8260_W, Sample 1604836-03A MSD: The MSD recovery was below the lower control limits for trans-1,3-Dichloropropene. The reported result in the parent sample may be biased low for this analyte.

Client: GHD Services Inc.
Project: Former GRMP (17360)
Work Order: 1604836

Case Narrative

Batch R185836, Method VOC_8260_W, Sample 1604836-03A MSD: The RPD between the MS and MSD was outside the control limits for Bromomethane. The reported result in the parent sample should be considered estimated for this analyte.

Batch R185836, Method VOC_8260_W, Sample 1604836-17A: Surrogate high due to matrix interference. This was confirmed by a second run.

Extractable Organics:

Batch 84803, Method SVO_8270_W, Sample SLCSW1-84803: The LCS recoveries were above the upper control limits for 3,3'-Dichlorobenzidine, 4-Nitrophenol, Fluoranthene, and Penol. All the sample results in the batch were non-detect. No qualification is necessary for these analytes.

Batch 84803, Method SVO_8270_W, Samples 1604836-01B MS and MSD: The MS and MSD recoveries were above the upper control limits for Pentachlorophenol. The reported result in the parent sample was non-detect, therefore no qualification is necessary.

Batch 84803, Method SVO_8270_W, Samples 1604836-01B MS and MSD: The MS and MSD recoveries were below the lower control limit for 3,3'-Dichlorobenzidine. The reported result in the parent sample may be biased low for this analyte.

Metals:

No other deviations or anomalies were noted.

Wet Chemistry:

No other deviations or anomalies were noted.

Client: GHD Services Inc.
Project: Former GRMP (17360)
WorkOrder: 1604836

QUALIFIERS, ACRONYMS, UNITS

<u>Qualifier</u>	<u>Description</u>
*	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.

<u>Acronym</u>	<u>Description</u>
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

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

ALS Group USA, Corp

Date: 25-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-041116-MR-021
Collection Date: 4/11/2016 12:48 PM

Work Order: 1604836
Lab ID: 1604836-01
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
SEMI-VOLATILE ORGANIC COMPOUNDS			Method: SW846 8270D	Prep: SW3510 / 4/18/16		Analyst: JF	
1,1'-Biphenyl	U		0.24	5.6	µg/L	1	4/18/2016 17:45
2,4,5-Trichlorophenol	U		0.32	5.6	µg/L	1	4/18/2016 17:45
2,4,6-Trichlorophenol	U		0.28	5.6	µg/L	1	4/18/2016 17:45
2,4-Dichlorophenol	U		0.19	5.6	µg/L	1	4/18/2016 17:45
2,4-Dimethylphenol	U		0.20	5.6	µg/L	1	4/18/2016 17:45
2,4-Dinitrophenol	U		1.6	5.6	µg/L	1	4/18/2016 17:45
2,4-Dinitrotoluene	U		0.16	5.6	µg/L	1	4/18/2016 17:45
2,6-Dinitrotoluene	U		0.22	5.6	µg/L	1	4/18/2016 17:45
2-Chloronaphthalene	U		0.033	5.6	µg/L	1	4/18/2016 17:45
2-Chlorophenol	U		0.32	5.6	µg/L	1	4/18/2016 17:45
2-Methylnaphthalene	U		0.11	5.6	µg/L	1	4/18/2016 17:45
2-Methylphenol	U		0.16	5.6	µg/L	1	4/18/2016 17:45
2-Nitroaniline	U		0.27	5.6	µg/L	1	4/18/2016 17:45
2-Nitrophenol	U		0.30	5.6	µg/L	1	4/18/2016 17:45
3&4-Methylphenol	U		0.27	5.6	µg/L	1	4/18/2016 17:45
3,3'-Dichlorobenzidine	U		0.78	5.6	µg/L	1	4/18/2016 17:45
3-Nitroaniline	U		0.27	5.6	µg/L	1	4/18/2016 17:45
4,6-Dinitro-2-methylphenol	U		0.13	5.6	µg/L	1	4/18/2016 17:45
4-Bromophenyl phenyl ether	U		0.32	5.6	µg/L	1	4/18/2016 17:45
4-Chloro-3-methylphenol	U		0.18	5.6	µg/L	1	4/18/2016 17:45
4-Chloroaniline	U		0.24	5.6	µg/L	1	4/18/2016 17:45
4-Chlorophenyl phenyl ether	U		0.22	5.6	µg/L	1	4/18/2016 17:45
4-Nitroaniline	U		0.14	5.6	µg/L	1	4/18/2016 17:45
4-Nitrophenol	U		0.69	5.6	µg/L	1	4/18/2016 17:45
Acenaphthene	U		0.046	5.6	µg/L	1	4/18/2016 17:45
Acenaphthylene	U		0.043	5.6	µg/L	1	4/18/2016 17:45
Acetophenone	U		0.41	1.1	µg/L	1	4/18/2016 17:45
Anthracene	U		0.031	5.6	µg/L	1	4/18/2016 17:45
Atrazine	U		0.18	1.1	µg/L	1	4/18/2016 17:45
Benzaldehyde	U		0.28	1.1	µg/L	1	4/18/2016 17:45
Benzo(a)anthracene	U		0.080	5.6	µg/L	1	4/18/2016 17:45
Benzo(a)pyrene	U		0.040	5.6	µg/L	1	4/18/2016 17:45
Benzo(b)fluoranthene	U		0.048	5.6	µg/L	1	4/18/2016 17:45
Benzo(g,h,i)perylene	U		0.078	5.6	µg/L	1	4/18/2016 17:45
Benzo(k)fluoranthene	U		0.069	5.6	µg/L	1	4/18/2016 17:45
Bis(2-chloroethoxy)methane	U		0.26	5.6	µg/L	1	4/18/2016 17:45
Bis(2-chloroethyl)ether	U		0.18	5.6	µg/L	1	4/18/2016 17:45
Bis(2-chloroisopropyl)ether	U		0.21	5.6	µg/L	1	4/18/2016 17:45

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

ALS Group USA, Corp

Date: 25-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-041116-MR-021
Collection Date: 4/11/2016 12:48 PM

Work Order: 1604836
Lab ID: 1604836-01
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Bis(2-ethylhexyl)phthalate	U		0.20	5.6	µg/L	1	4/18/2016 17:45
Butyl benzyl phthalate	U		0.13	5.6	µg/L	1	4/18/2016 17:45
Caprolactam	U		1.1	11	µg/L	1	4/18/2016 17:45
Carbazole	U		0.13	5.6	µg/L	1	4/18/2016 17:45
Chrysene	U		0.047	5.6	µg/L	1	4/18/2016 17:45
Dibenzo(a,h)anthracene	U		0.082	5.6	µg/L	1	4/18/2016 17:45
Dibenzofuran	U		0.26	5.6	µg/L	1	4/18/2016 17:45
Diethyl phthalate	U		0.19	5.6	µg/L	1	4/18/2016 17:45
Dimethyl phthalate	U		0.17	5.6	µg/L	1	4/18/2016 17:45
Di-n-butyl phthalate	U		0.17	5.6	µg/L	1	4/18/2016 17:45
Di-n-octyl phthalate	U		0.17	5.6	µg/L	1	4/18/2016 17:45
Fluoranthene	U		0.052	5.6	µg/L	1	4/18/2016 17:45
Fluorene	U		0.040	5.6	µg/L	1	4/18/2016 17:45
Hexachlorobenzene	U		0.26	5.6	µg/L	1	4/18/2016 17:45
Hexachlorobutadiene	U		0.41	5.6	µg/L	1	4/18/2016 17:45
Hexachlorocyclopentadiene	U		0.20	5.6	µg/L	1	4/18/2016 17:45
Hexachloroethane	U		0.52	5.6	µg/L	1	4/18/2016 17:45
Indeno(1,2,3-cd)pyrene	U		0.071	5.6	µg/L	1	4/18/2016 17:45
Isophorone	U		0.28	5.6	µg/L	1	4/18/2016 17:45
Naphthalene	U		0.056	5.6	µg/L	1	4/18/2016 17:45
Nitrobenzene	U		0.26	5.6	µg/L	1	4/18/2016 17:45
N-Nitrosodi-n-propylamine	U		0.27	5.6	µg/L	1	4/18/2016 17:45
N-Nitrosodiphenylamine	U		0.27	5.6	µg/L	1	4/18/2016 17:45
Pentachlorophenol	U		0.58	5.6	µg/L	1	4/18/2016 17:45
Phenanthrene	U		0.060	5.6	µg/L	1	4/18/2016 17:45
Phenol	U		0.14	5.6	µg/L	1	4/18/2016 17:45
Pyrene	U		0.077	5.6	µg/L	1	4/18/2016 17:45
Surr: 2,4,6-Tribromophenol	76.9			38-115	%REC	1	4/18/2016 17:45
Surr: 2-Fluorobiphenyl	47.8			32-100	%REC	1	4/18/2016 17:45
Surr: 2-Fluorophenol	24.6			22-59	%REC	1	4/18/2016 17:45
Surr: 4-Terphenyl-d14	83.4			23-112	%REC	1	4/18/2016 17:45
Surr: Nitrobenzene-d5	41.4			31-93	%REC	1	4/18/2016 17:45
Surr: Phenol-d6	20.0			13-36	%REC	1	4/18/2016 17:45
VOLATILE ORGANIC COMPOUNDS			Method: SW8260B				Analyst: BG
1,1,1-Trichloroethane	U		0.19	1.0	µg/L	1	4/21/2016 04:25
1,1,2,2-Tetrachloroethane	U		0.34	1.0	µg/L	1	4/21/2016 04:25
1,1,2-Trichloroethane	U		0.25	1.0	µg/L	1	4/21/2016 04:25
1,1,2-Trichlorotrifluoroethane	U		0.47	1.0	µg/L	1	4/21/2016 04:25
1,1-Dichloroethane	U		0.21	1.0	µg/L	1	4/21/2016 04:25

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

ALS Group USA, Corp

Date: 25-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-041116-MR-021
Collection Date: 4/11/2016 12:48 PM

Work Order: 1604836
Lab ID: 1604836-01
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,1-Dichloroethene	U		0.24	1.0	µg/L	1	4/21/2016 04:25
1,2,4-Trichlorobenzene	U		0.19	5.0	µg/L	1	4/21/2016 04:25
1,2-Dibromo-3-chloropropane	U		0.42	1.0	µg/L	1	4/21/2016 04:25
1,2-Dibromoethane	U		0.34	1.0	µg/L	1	4/21/2016 04:25
1,2-Dichlorobenzene	U		0.22	1.0	µg/L	1	4/21/2016 04:25
1,2-Dichloroethane	U		0.26	1.0	µg/L	1	4/21/2016 04:25
1,2-Dichloropropane	U		0.26	1.0	µg/L	1	4/21/2016 04:25
1,3-Dichlorobenzene	U		0.21	1.0	µg/L	1	4/21/2016 04:25
1,4-Dichlorobenzene	U		0.20	1.0	µg/L	1	4/21/2016 04:25
2-Butanone	U		0.87	25	µg/L	1	4/21/2016 04:25
2-Hexanone	U		0.15	50	µg/L	1	4/21/2016 04:25
4-Methyl-2-pentanone	U		0.15	50	µg/L	1	4/21/2016 04:25
Acetone	U		3.1	50	µg/L	1	4/21/2016 04:25
Benzene	U		0.25	1.0	µg/L	1	4/21/2016 04:25
Bromodichloromethane	U		0.16	1.0	µg/L	1	4/21/2016 04:25
Bromoform	U		0.099	1.0	µg/L	1	4/21/2016 04:25
Bromomethane	U		1.0	5.0	µg/L	1	4/21/2016 04:25
Carbon disulfide	U		0.26	5.0	µg/L	1	4/21/2016 04:25
Carbon tetrachloride	U		0.14	1.0	µg/L	1	4/21/2016 04:25
Chlorobenzene	U		0.19	1.0	µg/L	1	4/21/2016 04:25
Chloroethane	U		0.21	5.0	µg/L	1	4/21/2016 04:25
Chloroform	U		0.25	1.0	µg/L	1	4/21/2016 04:25
Chloromethane	U		0.25	5.0	µg/L	1	4/21/2016 04:25
cis-1,2-Dichloroethene	U		0.25	1.0	µg/L	1	4/21/2016 04:25
cis-1,3-Dichloropropene	U		0.24	1.0	µg/L	1	4/21/2016 04:25
Cyclohexane	U		0.31	1.0	µg/L	1	4/21/2016 04:25
Dibromochloromethane	U		0.17	5.0	µg/L	1	4/21/2016 04:25
Dichlorodifluoromethane	U		0.41	5.0	µg/L	1	4/21/2016 04:25
Ethylbenzene	U		0.22	1.0	µg/L	1	4/21/2016 04:25
Isopropylbenzene	U		0.25	5.0	µg/L	1	4/21/2016 04:25
Methyl acetate	U		0.62	10	µg/L	1	4/21/2016 04:25
Methyl tert-butyl ether	U		0.12	5.0	µg/L	1	4/21/2016 04:25
Methylcyclohexane	U		0.32	1.0	µg/L	1	4/21/2016 04:25
Methylene chloride	U		0.64	5.0	µg/L	1	4/21/2016 04:25
Styrene	U		0.18	1.0	µg/L	1	4/21/2016 04:25
Tetrachloroethene	U		0.25	1.0	µg/L	1	4/21/2016 04:25
Toluene	U		0.20	1.0	µg/L	1	4/21/2016 04:25
trans-1,2-Dichloroethene	U		0.29	1.0	µg/L	1	4/21/2016 04:25
trans-1,3-Dichloropropene	U		0.19	1.0	µg/L	1	4/21/2016 04:25
Trichloroethene	U		0.34	1.0	µg/L	1	4/21/2016 04:25

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

ALS Group USA, Corp**Date:** 25-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-041116-MR-021
Collection Date: 4/11/2016 12:48 PM

Work Order: 1604836
Lab ID: 1604836-01
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Trichlorofluoromethane	U		0.39	1.0	µg/L	1	4/21/2016 04:25
Vinyl chloride	U		0.19	1.0	µg/L	1	4/21/2016 04:25
Xylenes, Total	U		0.62	3.0	µg/L	1	4/21/2016 04:25
Surr: 1,2-Dichloroethane-d4	106			75-120	%REC	1	4/21/2016 04:25
Surr: 4-Bromofluorobenzene	91.0			80-110	%REC	1	4/21/2016 04:25
Surr: Dibromofluoromethane	102			85-115	%REC	1	4/21/2016 04:25
Surr: Toluene-d8	96.5			85-110	%REC	1	4/21/2016 04:25

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

ALS Group USA, Corp

Date: 25-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-041116-MR-022
Collection Date: 4/11/2016 01:35 PM

Work Order: 1604836
Lab ID: 1604836-02
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
SEMI-VOLATILE ORGANIC COMPOUNDS			Method: SW846 8270D	Prep: SW3510 / 4/18/16		Analyst: RM	
1,1'-Biphenyl	U		0.24	5.4	µg/L	1	4/20/2016 03:24
2,4,5-Trichlorophenol	U		0.32	5.4	µg/L	1	4/20/2016 03:24
2,4,6-Trichlorophenol	U		0.27	5.4	µg/L	1	4/20/2016 03:24
2,4-Dichlorophenol	U		0.18	5.4	µg/L	1	4/20/2016 03:24
2,4-Dimethylphenol	U		0.20	5.4	µg/L	1	4/20/2016 03:24
2,4-Dinitrophenol	U		1.6	5.4	µg/L	1	4/20/2016 03:24
2,4-Dinitrotoluene	U		0.15	5.4	µg/L	1	4/20/2016 03:24
2,6-Dinitrotoluene	U		0.22	5.4	µg/L	1	4/20/2016 03:24
2-Chloronaphthalene	U		0.033	5.4	µg/L	1	4/20/2016 03:24
2-Chlorophenol	U		0.32	5.4	µg/L	1	4/20/2016 03:24
2-Methylnaphthalene	U		0.11	5.4	µg/L	1	4/20/2016 03:24
2-Methylphenol	U		0.15	5.4	µg/L	1	4/20/2016 03:24
2-Nitroaniline	U		0.26	5.4	µg/L	1	4/20/2016 03:24
2-Nitrophenol	U		0.29	5.4	µg/L	1	4/20/2016 03:24
3&4-Methylphenol	U		0.26	5.4	µg/L	1	4/20/2016 03:24
3,3'-Dichlorobenzidine	U		0.76	5.4	µg/L	1	4/20/2016 03:24
3-Nitroaniline	U		0.26	5.4	µg/L	1	4/20/2016 03:24
4,6-Dinitro-2-methylphenol	U		0.13	5.4	µg/L	1	4/20/2016 03:24
4-Bromophenyl phenyl ether	U		0.32	5.4	µg/L	1	4/20/2016 03:24
4-Chloro-3-methylphenol	U		0.17	5.4	µg/L	1	4/20/2016 03:24
4-Chloroaniline	U		0.24	5.4	µg/L	1	4/20/2016 03:24
4-Chlorophenyl phenyl ether	U		0.22	5.4	µg/L	1	4/20/2016 03:24
4-Nitroaniline	U		0.14	5.4	µg/L	1	4/20/2016 03:24
4-Nitrophenol	U		0.67	5.4	µg/L	1	4/20/2016 03:24
Acenaphthene	U		0.045	5.4	µg/L	1	4/20/2016 03:24
Acenaphthylene	U		0.042	5.4	µg/L	1	4/20/2016 03:24
Acetophenone	U		0.40	1.1	µg/L	1	4/20/2016 03:24
Anthracene	U		0.030	5.4	µg/L	1	4/20/2016 03:24
Atrazine	U		0.17	1.1	µg/L	1	4/20/2016 03:24
Benzaldehyde	U		0.27	1.1	µg/L	1	4/20/2016 03:24
Benzo(a)anthracene	U		0.078	5.4	µg/L	1	4/20/2016 03:24
Benzo(a)pyrene	U		0.039	5.4	µg/L	1	4/20/2016 03:24
Benzo(b)fluoranthene	U		0.047	5.4	µg/L	1	4/20/2016 03:24
Benzo(g,h,i)perylene	U		0.076	5.4	µg/L	1	4/20/2016 03:24
Benzo(k)fluoranthene	U		0.067	5.4	µg/L	1	4/20/2016 03:24
Bis(2-chloroethoxy)methane	U		0.25	5.4	µg/L	1	4/20/2016 03:24
Bis(2-chloroethyl)ether	U		0.17	5.4	µg/L	1	4/20/2016 03:24
Bis(2-chloroisopropyl)ether	U		0.21	5.4	µg/L	1	4/20/2016 03:24

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

ALS Group USA, Corp

Date: 25-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-041116-MR-022
Collection Date: 4/11/2016 01:35 PM

Work Order: 1604836
Lab ID: 1604836-02
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Bis(2-ethylhexyl)phthalate	U		0.20	5.4	µg/L	1	4/20/2016 03:24
Butyl benzyl phthalate	U		0.13	5.4	µg/L	1	4/20/2016 03:24
Caprolactam	U		1.0	11	µg/L	1	4/20/2016 03:24
Carbazole	U		0.13	5.4	µg/L	1	4/20/2016 03:24
Chrysene	U		0.046	5.4	µg/L	1	4/20/2016 03:24
Dibenzo(a,h)anthracene	U		0.080	5.4	µg/L	1	4/20/2016 03:24
Dibenzofuran	U		0.25	5.4	µg/L	1	4/20/2016 03:24
Diethyl phthalate	U		0.18	5.4	µg/L	1	4/20/2016 03:24
Dimethyl phthalate	U		0.16	5.4	µg/L	1	4/20/2016 03:24
Di-n-butyl phthalate	U		0.16	5.4	µg/L	1	4/20/2016 03:24
Di-n-octyl phthalate	U		0.16	5.4	µg/L	1	4/20/2016 03:24
Fluoranthene	U		0.051	5.4	µg/L	1	4/20/2016 03:24
Fluorene	U		0.039	5.4	µg/L	1	4/20/2016 03:24
Hexachlorobenzene	U		0.25	5.4	µg/L	1	4/20/2016 03:24
Hexachlorobutadiene	U		0.40	5.4	µg/L	1	4/20/2016 03:24
Hexachlorocyclopentadiene	U		0.20	5.4	µg/L	1	4/20/2016 03:24
Hexachloroethane	U		0.51	5.4	µg/L	1	4/20/2016 03:24
Indeno(1,2,3-cd)pyrene	U		0.070	5.4	µg/L	1	4/20/2016 03:24
Isophorone	U		0.27	5.4	µg/L	1	4/20/2016 03:24
Naphthalene	U		0.054	5.4	µg/L	1	4/20/2016 03:24
Nitrobenzene	U		0.25	5.4	µg/L	1	4/20/2016 03:24
N-Nitrosodi-n-propylamine	U		0.26	5.4	µg/L	1	4/20/2016 03:24
N-Nitrosodiphenylamine	U		0.26	5.4	µg/L	1	4/20/2016 03:24
Pentachlorophenol	U		0.57	5.4	µg/L	1	4/20/2016 03:24
Phenanthrene	U		0.059	5.4	µg/L	1	4/20/2016 03:24
Phenol	U		0.14	5.4	µg/L	1	4/20/2016 03:24
Pyrene	U		0.075	5.4	µg/L	1	4/20/2016 03:24
Surr: 2,4,6-Tribromophenol	86.4			38-115	%REC	1	4/20/2016 03:24
Surr: 2-Fluorobiphenyl	66.1			32-100	%REC	1	4/20/2016 03:24
Surr: 2-Fluorophenol	38.1			22-59	%REC	1	4/20/2016 03:24
Surr: 4-Terphenyl-d14	71.1			23-112	%REC	1	4/20/2016 03:24
Surr: Nitrobenzene-d5	69.3			31-93	%REC	1	4/20/2016 03:24
Surr: Phenol-d6	26.5			13-36	%REC	1	4/20/2016 03:24
VOLATILE ORGANIC COMPOUNDS			Method: SW8260B				Analyst: BG
1,1,1-Trichloroethane	U		0.19	1.0	µg/L	1	4/21/2016 18:47
1,1,2,2-Tetrachloroethane	U		0.34	1.0	µg/L	1	4/21/2016 18:47
1,1,2-Trichloroethane	U		0.25	1.0	µg/L	1	4/21/2016 18:47
1,1,2-Trichlorotrifluoroethane	U		0.47	1.0	µg/L	1	4/21/2016 18:47
1,1-Dichloroethane	U		0.21	1.0	µg/L	1	4/21/2016 18:47

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

ALS Group USA, Corp

Date: 25-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-041116-MR-022
Collection Date: 4/11/2016 01:35 PM

Work Order: 1604836
Lab ID: 1604836-02
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,1-Dichloroethene	U		0.24	1.0	µg/L	1	4/21/2016 18:47
1,2,4-Trichlorobenzene	U		0.19	5.0	µg/L	1	4/21/2016 18:47
1,2-Dibromo-3-chloropropane	U		0.42	1.0	µg/L	1	4/21/2016 18:47
1,2-Dibromoethane	U		0.34	1.0	µg/L	1	4/21/2016 18:47
1,2-Dichlorobenzene	U		0.22	1.0	µg/L	1	4/21/2016 18:47
1,2-Dichloroethane	U		0.26	1.0	µg/L	1	4/21/2016 18:47
1,2-Dichloropropane	U		0.26	1.0	µg/L	1	4/21/2016 18:47
1,3-Dichlorobenzene	U		0.21	1.0	µg/L	1	4/21/2016 18:47
1,4-Dichlorobenzene	U		0.20	1.0	µg/L	1	4/21/2016 18:47
2-Butanone	U		0.87	25	µg/L	1	4/21/2016 18:47
2-Hexanone	U		0.15	50	µg/L	1	4/21/2016 18:47
4-Methyl-2-pentanone	U		0.15	50	µg/L	1	4/21/2016 18:47
Acetone	U		3.1	50	µg/L	1	4/21/2016 18:47
Benzene	U		0.25	1.0	µg/L	1	4/21/2016 18:47
Bromodichloromethane	U		0.16	1.0	µg/L	1	4/21/2016 18:47
Bromoform	U		0.099	1.0	µg/L	1	4/21/2016 18:47
Bromomethane	U		1.0	5.0	µg/L	1	4/21/2016 18:47
Carbon disulfide	U		0.26	5.0	µg/L	1	4/21/2016 18:47
Carbon tetrachloride	U		0.14	1.0	µg/L	1	4/21/2016 18:47
Chlorobenzene	U		0.19	1.0	µg/L	1	4/21/2016 18:47
Chloroethane	U		0.21	5.0	µg/L	1	4/21/2016 18:47
Chloroform	U		0.25	1.0	µg/L	1	4/21/2016 18:47
Chloromethane	U		0.25	5.0	µg/L	1	4/21/2016 18:47
cis-1,2-Dichloroethene	U		0.25	1.0	µg/L	1	4/21/2016 18:47
cis-1,3-Dichloropropene	U		0.24	1.0	µg/L	1	4/21/2016 18:47
Cyclohexane	U		0.31	1.0	µg/L	1	4/21/2016 18:47
Dibromochloromethane	U		0.17	5.0	µg/L	1	4/21/2016 18:47
Dichlorodifluoromethane	U		0.41	5.0	µg/L	1	4/21/2016 18:47
Ethylbenzene	U		0.22	1.0	µg/L	1	4/21/2016 18:47
Isopropylbenzene	U		0.25	5.0	µg/L	1	4/21/2016 18:47
Methyl acetate	U		0.62	10	µg/L	1	4/21/2016 18:47
Methyl tert-butyl ether	U		0.12	5.0	µg/L	1	4/21/2016 18:47
Methylcyclohexane	U		0.32	1.0	µg/L	1	4/21/2016 18:47
Methylene chloride	U		0.64	5.0	µg/L	1	4/21/2016 18:47
Styrene	U		0.18	1.0	µg/L	1	4/21/2016 18:47
Tetrachloroethene	1.6		0.25	1.0	µg/L	1	4/21/2016 18:47
Toluene	U		0.20	1.0	µg/L	1	4/21/2016 18:47
trans-1,2-Dichloroethene	U		0.29	1.0	µg/L	1	4/21/2016 18:47
trans-1,3-Dichloropropene	U		0.19	1.0	µg/L	1	4/21/2016 18:47
Trichloroethene	U		0.34	1.0	µg/L	1	4/21/2016 18:47

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

ALS Group USA, Corp

Date: 25-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-041116-MR-022
Collection Date: 4/11/2016 01:35 PM

Work Order: 1604836
Lab ID: 1604836-02
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Trichlorofluoromethane	U		0.39	1.0	µg/L	1	4/21/2016 18:47
Vinyl chloride	U		0.19	1.0	µg/L	1	4/21/2016 18:47
Xylenes, Total	U		0.62	3.0	µg/L	1	4/21/2016 18:47
Surr: 1,2-Dichloroethane-d4	119			75-120	%REC	1	4/21/2016 18:47
Surr: 4-Bromofluorobenzene	93.1			80-110	%REC	1	4/21/2016 18:47
Surr: Dibromofluoromethane	108			85-115	%REC	1	4/21/2016 18:47
Surr: Toluene-d8	102			85-110	%REC	1	4/21/2016 18:47

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

ALS Group USA, Corp

Date: 25-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-041116-MR-023
Collection Date: 4/11/2016 01:50 PM

Work Order: 1604836
Lab ID: 1604836-03
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
SEMI-VOLATILE ORGANIC COMPOUNDS			Method: SW846 8270D		Prep: SW3510 / 4/18/16		Analyst: RM
1,1'-Biphenyl	U		0.24	5.5	µg/L	1	4/20/2016 03:45
2,4,5-Trichlorophenol	U		0.32	5.5	µg/L	1	4/20/2016 03:45
2,4,6-Trichlorophenol	U		0.27	5.5	µg/L	1	4/20/2016 03:45
2,4-Dichlorophenol	U		0.19	5.5	µg/L	1	4/20/2016 03:45
2,4-Dimethylphenol	U		0.20	5.5	µg/L	1	4/20/2016 03:45
2,4-Dinitrophenol	U		1.6	5.5	µg/L	1	4/20/2016 03:45
2,4-Dinitrotoluene	U		0.15	5.5	µg/L	1	4/20/2016 03:45
2,6-Dinitrotoluene	U		0.22	5.5	µg/L	1	4/20/2016 03:45
2-Chloronaphthalene	U		0.033	5.5	µg/L	1	4/20/2016 03:45
2-Chlorophenol	U		0.32	5.5	µg/L	1	4/20/2016 03:45
2-Methylnaphthalene	U		0.11	5.5	µg/L	1	4/20/2016 03:45
2-Methylphenol	U		0.15	5.5	µg/L	1	4/20/2016 03:45
2-Nitroaniline	U		0.26	5.5	µg/L	1	4/20/2016 03:45
2-Nitrophenol	U		0.30	5.5	µg/L	1	4/20/2016 03:45
3&4-Methylphenol	U		0.26	5.5	µg/L	1	4/20/2016 03:45
3,3'-Dichlorobenzidine	U		0.77	5.5	µg/L	1	4/20/2016 03:45
3-Nitroaniline	U		0.26	5.5	µg/L	1	4/20/2016 03:45
4,6-Dinitro-2-methylphenol	U		0.13	5.5	µg/L	1	4/20/2016 03:45
4-Bromophenyl phenyl ether	U		0.32	5.5	µg/L	1	4/20/2016 03:45
4-Chloro-3-methylphenol	U		0.17	5.5	µg/L	1	4/20/2016 03:45
4-Chloroaniline	U		0.24	5.5	µg/L	1	4/20/2016 03:45
4-Chlorophenyl phenyl ether	U		0.22	5.5	µg/L	1	4/20/2016 03:45
4-Nitroaniline	U		0.14	5.5	µg/L	1	4/20/2016 03:45
4-Nitrophenol	U		0.68	5.5	µg/L	1	4/20/2016 03:45
Acenaphthene	U		0.045	5.5	µg/L	1	4/20/2016 03:45
Acenaphthylene	U		0.043	5.5	µg/L	1	4/20/2016 03:45
Acetophenone	U		0.40	1.1	µg/L	1	4/20/2016 03:45
Anthracene	U		0.031	5.5	µg/L	1	4/20/2016 03:45
Atrazine	U		0.17	1.1	µg/L	1	4/20/2016 03:45
Benzaldehyde	U		0.27	1.1	µg/L	1	4/20/2016 03:45
Benzo(a)anthracene	U		0.079	5.5	µg/L	1	4/20/2016 03:45
Benzo(a)pyrene	U		0.039	5.5	µg/L	1	4/20/2016 03:45
Benzo(b)fluoranthene	U		0.047	5.5	µg/L	1	4/20/2016 03:45
Benzo(g,h,i)perylene	U		0.077	5.5	µg/L	1	4/20/2016 03:45
Benzo(k)fluoranthene	U		0.068	5.5	µg/L	1	4/20/2016 03:45
Bis(2-chloroethoxy)methane	U		0.25	5.5	µg/L	1	4/20/2016 03:45
Bis(2-chloroethyl)ether	U		0.17	5.5	µg/L	1	4/20/2016 03:45
Bis(2-chloroisopropyl)ether	U		0.21	5.5	µg/L	1	4/20/2016 03:45

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

ALS Group USA, Corp

Date: 25-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-041116-MR-023
Collection Date: 4/11/2016 01:50 PM

Work Order: 1604836
Lab ID: 1604836-03
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Bis(2-ethylhexyl)phthalate	U		0.20	5.5	µg/L	1	4/20/2016 03:45
Butyl benzyl phthalate	U		0.13	5.5	µg/L	1	4/20/2016 03:45
Caprolactam	U		1.0	11	µg/L	1	4/20/2016 03:45
Carbazole	U		0.13	5.5	µg/L	1	4/20/2016 03:45
Chrysene	U		0.046	5.5	µg/L	1	4/20/2016 03:45
Dibenzo(a,h)anthracene	U		0.081	5.5	µg/L	1	4/20/2016 03:45
Dibenzofuran	U		0.25	5.5	µg/L	1	4/20/2016 03:45
Diethyl phthalate	U		0.19	5.5	µg/L	1	4/20/2016 03:45
Dimethyl phthalate	U		0.16	5.5	µg/L	1	4/20/2016 03:45
Di-n-butyl phthalate	U		0.16	5.5	µg/L	1	4/20/2016 03:45
Di-n-octyl phthalate	U		0.16	5.5	µg/L	1	4/20/2016 03:45
Fluoranthene	U		0.051	5.5	µg/L	1	4/20/2016 03:45
Fluorene	U		0.039	5.5	µg/L	1	4/20/2016 03:45
Hexachlorobenzene	U		0.25	5.5	µg/L	1	4/20/2016 03:45
Hexachlorobutadiene	U		0.40	5.5	µg/L	1	4/20/2016 03:45
Hexachlorocyclopentadiene	U		0.20	5.5	µg/L	1	4/20/2016 03:45
Hexachloroethane	U		0.51	5.5	µg/L	1	4/20/2016 03:45
Indeno(1,2,3-cd)pyrene	U		0.070	5.5	µg/L	1	4/20/2016 03:45
Isophorone	U		0.27	5.5	µg/L	1	4/20/2016 03:45
Naphthalene	U		0.055	5.5	µg/L	1	4/20/2016 03:45
Nitrobenzene	U		0.25	5.5	µg/L	1	4/20/2016 03:45
N-Nitrosodi-n-propylamine	U		0.26	5.5	µg/L	1	4/20/2016 03:45
N-Nitrosodiphenylamine	U		0.26	5.5	µg/L	1	4/20/2016 03:45
Pentachlorophenol	U		0.57	5.5	µg/L	1	4/20/2016 03:45
Phenanthrene	U		0.059	5.5	µg/L	1	4/20/2016 03:45
Phenol	U		0.14	5.5	µg/L	1	4/20/2016 03:45
Pyrene	U		0.075	5.5	µg/L	1	4/20/2016 03:45
Surr: 2,4,6-Tribromophenol	82.0			38-115	%REC	1	4/20/2016 03:45
Surr: 2-Fluorobiphenyl	63.6			32-100	%REC	1	4/20/2016 03:45
Surr: 2-Fluorophenol	34.7			22-59	%REC	1	4/20/2016 03:45
Surr: 4-Terphenyl-d14	68.1			23-112	%REC	1	4/20/2016 03:45
Surr: Nitrobenzene-d5	63.0			31-93	%REC	1	4/20/2016 03:45
Surr: Phenol-d6	24.6			13-36	%REC	1	4/20/2016 03:45
VOLATILE ORGANIC COMPOUNDS			Method: SW8260B				Analyst: BG
1,1,1-Trichloroethane	U		0.19	1.0	µg/L	1	4/21/2016 19:13
1,1,2,2-Tetrachloroethane	U		0.34	1.0	µg/L	1	4/21/2016 19:13
1,1,2-Trichloroethane	U		0.25	1.0	µg/L	1	4/21/2016 19:13
1,1,2-Trichlorotrifluoroethane	U		0.47	1.0	µg/L	1	4/21/2016 19:13
1,1-Dichloroethane	U		0.21	1.0	µg/L	1	4/21/2016 19:13

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

ALS Group USA, Corp

Date: 25-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-041116-MR-023
Collection Date: 4/11/2016 01:50 PM

Work Order: 1604836
Lab ID: 1604836-03
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,1-Dichloroethene	U		0.24	1.0	µg/L	1	4/21/2016 19:13
1,2,4-Trichlorobenzene	U		0.19	5.0	µg/L	1	4/21/2016 19:13
1,2-Dibromo-3-chloropropane	U		0.42	1.0	µg/L	1	4/21/2016 19:13
1,2-Dibromoethane	U		0.34	1.0	µg/L	1	4/21/2016 19:13
1,2-Dichlorobenzene	U		0.22	1.0	µg/L	1	4/21/2016 19:13
1,2-Dichloroethane	U		0.26	1.0	µg/L	1	4/21/2016 19:13
1,2-Dichloropropane	U		0.26	1.0	µg/L	1	4/21/2016 19:13
1,3-Dichlorobenzene	U		0.21	1.0	µg/L	1	4/21/2016 19:13
1,4-Dichlorobenzene	U		0.20	1.0	µg/L	1	4/21/2016 19:13
2-Butanone	U		0.87	25	µg/L	1	4/21/2016 19:13
2-Hexanone	U		0.15	50	µg/L	1	4/21/2016 19:13
4-Methyl-2-pentanone	U		0.15	50	µg/L	1	4/21/2016 19:13
Acetone	8.1	J	3.1	50	µg/L	1	4/21/2016 19:13
Benzene	U		0.25	1.0	µg/L	1	4/21/2016 19:13
Bromodichloromethane	U		0.16	1.0	µg/L	1	4/21/2016 19:13
Bromoform	U		0.099	1.0	µg/L	1	4/21/2016 19:13
Bromomethane	U		1.0	5.0	µg/L	1	4/21/2016 19:13
Carbon disulfide	U		0.26	5.0	µg/L	1	4/21/2016 19:13
Carbon tetrachloride	U		0.14	1.0	µg/L	1	4/21/2016 19:13
Chlorobenzene	U		0.19	1.0	µg/L	1	4/21/2016 19:13
Chloroethane	U		0.21	5.0	µg/L	1	4/21/2016 19:13
Chloroform	U		0.25	1.0	µg/L	1	4/21/2016 19:13
Chloromethane	U		0.25	5.0	µg/L	1	4/21/2016 19:13
cis-1,2-Dichloroethene	U		0.25	1.0	µg/L	1	4/21/2016 19:13
cis-1,3-Dichloropropene	U		0.24	1.0	µg/L	1	4/21/2016 19:13
Cyclohexane	U		0.31	1.0	µg/L	1	4/21/2016 19:13
Dibromochloromethane	U		0.17	5.0	µg/L	1	4/21/2016 19:13
Dichlorodifluoromethane	U		0.41	5.0	µg/L	1	4/21/2016 19:13
Ethylbenzene	U		0.22	1.0	µg/L	1	4/21/2016 19:13
Isopropylbenzene	U		0.25	5.0	µg/L	1	4/21/2016 19:13
Methyl acetate	U		0.62	10	µg/L	1	4/21/2016 19:13
Methyl tert-butyl ether	U		0.12	5.0	µg/L	1	4/21/2016 19:13
Methylcyclohexane	U		0.32	1.0	µg/L	1	4/21/2016 19:13
Methylene chloride	U		0.64	5.0	µg/L	1	4/21/2016 19:13
Styrene	U		0.18	1.0	µg/L	1	4/21/2016 19:13
Tetrachloroethene	1.8		0.25	1.0	µg/L	1	4/21/2016 19:13
Toluene	U		0.20	1.0	µg/L	1	4/21/2016 19:13
trans-1,2-Dichloroethene	U		0.29	1.0	µg/L	1	4/21/2016 19:13
trans-1,3-Dichloropropene	U		0.19	1.0	µg/L	1	4/21/2016 19:13
Trichloroethene	U		0.34	1.0	µg/L	1	4/21/2016 19:13

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

ALS Group USA, Corp

Date: 25-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-041116-MR-023
Collection Date: 4/11/2016 01:50 PM

Work Order: 1604836
Lab ID: 1604836-03
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Trichlorofluoromethane	U		0.39	1.0	µg/L	1	4/21/2016 19:13
Vinyl chloride	U		0.19	1.0	µg/L	1	4/21/2016 19:13
Xylenes, Total	U		0.62	3.0	µg/L	1	4/21/2016 19:13
Surr: 1,2-Dichloroethane-d4	120			75-120	%REC	1	4/21/2016 19:13
Surr: 4-Bromofluorobenzene	89.8			80-110	%REC	1	4/21/2016 19:13
Surr: Dibromofluoromethane	109			85-115	%REC	1	4/21/2016 19:13
Surr: Toluene-d8	98.7			85-110	%REC	1	4/21/2016 19:13

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

ALS Group USA, Corp

Date: 25-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-041116-MR-024
Collection Date: 4/11/2016 02:50 PM

Work Order: 1604836
Lab ID: 1604836-04
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
SEMI-VOLATILE ORGANIC COMPOUNDS			Method: SW846 8270D		Prep: SW3510 / 4/18/16		Analyst: RM
1,1'-Biphenyl	U		0.25	5.6	µg/L	1	4/20/2016 04:05
2,4,5-Trichlorophenol	U		0.33	5.6	µg/L	1	4/20/2016 04:05
2,4,6-Trichlorophenol	U		0.28	5.6	µg/L	1	4/20/2016 04:05
2,4-Dichlorophenol	U		0.19	5.6	µg/L	1	4/20/2016 04:05
2,4-Dimethylphenol	U		0.20	5.6	µg/L	1	4/20/2016 04:05
2,4-Dinitrophenol	U		1.7	5.6	µg/L	1	4/20/2016 04:05
2,4-Dinitrotoluene	U		0.16	5.6	µg/L	1	4/20/2016 04:05
2,6-Dinitrotoluene	U		0.23	5.6	µg/L	1	4/20/2016 04:05
2-Chloronaphthalene	U		0.034	5.6	µg/L	1	4/20/2016 04:05
2-Chlorophenol	U		0.33	5.6	µg/L	1	4/20/2016 04:05
2-Methylnaphthalene	U		0.11	5.6	µg/L	1	4/20/2016 04:05
2-Methylphenol	1.0	J	0.16	5.6	µg/L	1	4/20/2016 04:05
2-Nitroaniline	U		0.27	5.6	µg/L	1	4/20/2016 04:05
2-Nitrophenol	U		0.31	5.6	µg/L	1	4/20/2016 04:05
3&4-Methylphenol	2.1	J	0.27	5.6	µg/L	1	4/20/2016 04:05
3,3'-Dichlorobenzidine	U		0.79	5.6	µg/L	1	4/20/2016 04:05
3-Nitroaniline	U		0.27	5.6	µg/L	1	4/20/2016 04:05
4,6-Dinitro-2-methylphenol	U		0.14	5.6	µg/L	1	4/20/2016 04:05
4-Bromophenyl phenyl ether	U		0.33	5.6	µg/L	1	4/20/2016 04:05
4-Chloro-3-methylphenol	U		0.18	5.6	µg/L	1	4/20/2016 04:05
4-Chloroaniline	U		0.25	5.6	µg/L	1	4/20/2016 04:05
4-Chlorophenyl phenyl ether	U		0.23	5.6	µg/L	1	4/20/2016 04:05
4-Nitroaniline	U		0.15	5.6	µg/L	1	4/20/2016 04:05
4-Nitrophenol	U		0.70	5.6	µg/L	1	4/20/2016 04:05
Acenaphthene	U		0.046	5.6	µg/L	1	4/20/2016 04:05
Acenaphthylene	U		0.044	5.6	µg/L	1	4/20/2016 04:05
Acetophenone	U		0.42	1.1	µg/L	1	4/20/2016 04:05
Anthracene	U		0.032	5.6	µg/L	1	4/20/2016 04:05
Atrazine	U		0.18	1.1	µg/L	1	4/20/2016 04:05
Benzaldehyde	U		0.28	1.1	µg/L	1	4/20/2016 04:05
Benzo(a)anthracene	U		0.081	5.6	µg/L	1	4/20/2016 04:05
Benzo(a)pyrene	U		0.041	5.6	µg/L	1	4/20/2016 04:05
Benzo(b)fluoranthene	U		0.049	5.6	µg/L	1	4/20/2016 04:05
Benzo(g,h,i)perylene	U		0.079	5.6	µg/L	1	4/20/2016 04:05
Benzo(k)fluoranthene	U		0.070	5.6	µg/L	1	4/20/2016 04:05
Bis(2-chloroethoxy)methane	U		0.26	5.6	µg/L	1	4/20/2016 04:05
Bis(2-chloroethyl)ether	U		0.18	5.6	µg/L	1	4/20/2016 04:05
Bis(2-chloroisopropyl)ether	U		0.21	5.6	µg/L	1	4/20/2016 04:05

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

ALS Group USA, Corp

Date: 25-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-041116-MR-024
Collection Date: 4/11/2016 02:50 PM

Work Order: 1604836
Lab ID: 1604836-04
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Bis(2-ethylhexyl)phthalate	U		0.20	5.6	µg/L	1	4/20/2016 04:05
Butyl benzyl phthalate	U		0.14	5.6	µg/L	1	4/20/2016 04:05
Caprolactam	U		1.1	11	µg/L	1	4/20/2016 04:05
Carbazole	U		0.14	5.6	µg/L	1	4/20/2016 04:05
Chrysene	U		0.047	5.6	µg/L	1	4/20/2016 04:05
Dibenzo(a,h)anthracene	U		0.084	5.6	µg/L	1	4/20/2016 04:05
Dibenzofuran	U		0.26	5.6	µg/L	1	4/20/2016 04:05
Diethyl phthalate	U		0.19	5.6	µg/L	1	4/20/2016 04:05
Dimethyl phthalate	U		0.17	5.6	µg/L	1	4/20/2016 04:05
Di-n-butyl phthalate	U		0.17	5.6	µg/L	1	4/20/2016 04:05
Di-n-octyl phthalate	U		0.17	5.6	µg/L	1	4/20/2016 04:05
Fluoranthene	U		0.053	5.6	µg/L	1	4/20/2016 04:05
Fluorene	U		0.041	5.6	µg/L	1	4/20/2016 04:05
Hexachlorobenzene	U		0.26	5.6	µg/L	1	4/20/2016 04:05
Hexachlorobutadiene	U		0.42	5.6	µg/L	1	4/20/2016 04:05
Hexachlorocyclopentadiene	U		0.20	5.6	µg/L	1	4/20/2016 04:05
Hexachloroethane	U		0.53	5.6	µg/L	1	4/20/2016 04:05
Indeno(1,2,3-cd)pyrene	U		0.072	5.6	µg/L	1	4/20/2016 04:05
Isophorone	U		0.28	5.6	µg/L	1	4/20/2016 04:05
Naphthalene	U		0.056	5.6	µg/L	1	4/20/2016 04:05
Nitrobenzene	U		0.26	5.6	µg/L	1	4/20/2016 04:05
N-Nitrosodi-n-propylamine	U		0.27	5.6	µg/L	1	4/20/2016 04:05
N-Nitrosodiphenylamine	U		0.27	5.6	µg/L	1	4/20/2016 04:05
Pentachlorophenol	U		0.59	5.6	µg/L	1	4/20/2016 04:05
Phenanthrene	U		0.061	5.6	µg/L	1	4/20/2016 04:05
Phenol	9.2		0.15	5.6	µg/L	1	4/20/2016 04:05
Pyrene	U		0.078	5.6	µg/L	1	4/20/2016 04:05
Surr: 2,4,6-Tribromophenol	87.3			38-115	%REC	1	4/20/2016 04:05
Surr: 2-Fluorobiphenyl	64.3			32-100	%REC	1	4/20/2016 04:05
Surr: 2-Fluorophenol	39.5			22-59	%REC	1	4/20/2016 04:05
Surr: 4-Terphenyl-d14	76.3			23-112	%REC	1	4/20/2016 04:05
Surr: Nitrobenzene-d5	72.8			31-93	%REC	1	4/20/2016 04:05
Surr: Phenol-d6	27.8			13-36	%REC	1	4/20/2016 04:05
VOLATILE ORGANIC COMPOUNDS			Method: SW8260B				Analyst: BG
1,1,1-Trichloroethane	U		0.19	1.0	µg/L	1	4/21/2016 19:39
1,1,2,2-Tetrachloroethane	U		0.34	1.0	µg/L	1	4/21/2016 19:39
1,1,2-Trichloroethane	U		0.25	1.0	µg/L	1	4/21/2016 19:39
1,1,2-Trichlorotrifluoroethane	U		0.47	1.0	µg/L	1	4/21/2016 19:39
1,1-Dichloroethane	U		0.21	1.0	µg/L	1	4/21/2016 19:39

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

ALS Group USA, Corp

Date: 25-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-041116-MR-024
Collection Date: 4/11/2016 02:50 PM

Work Order: 1604836
Lab ID: 1604836-04
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,1-Dichloroethene	U		0.24	1.0	µg/L	1	4/21/2016 19:39
1,2,4-Trichlorobenzene	U		0.19	5.0	µg/L	1	4/21/2016 19:39
1,2-Dibromo-3-chloropropane	U		0.42	1.0	µg/L	1	4/21/2016 19:39
1,2-Dibromoethane	U		0.34	1.0	µg/L	1	4/21/2016 19:39
1,2-Dichlorobenzene	U		0.22	1.0	µg/L	1	4/21/2016 19:39
1,2-Dichloroethane	U		0.26	1.0	µg/L	1	4/21/2016 19:39
1,2-Dichloropropane	U		0.26	1.0	µg/L	1	4/21/2016 19:39
1,3-Dichlorobenzene	U		0.21	1.0	µg/L	1	4/21/2016 19:39
1,4-Dichlorobenzene	U		0.20	1.0	µg/L	1	4/21/2016 19:39
2-Butanone	U		0.87	25	µg/L	1	4/21/2016 19:39
2-Hexanone	U		0.15	50	µg/L	1	4/21/2016 19:39
4-Methyl-2-pentanone	U		0.15	50	µg/L	1	4/21/2016 19:39
Acetone	U		3.1	50	µg/L	1	4/21/2016 19:39
Benzene	U		0.25	1.0	µg/L	1	4/21/2016 19:39
Bromodichloromethane	U		0.16	1.0	µg/L	1	4/21/2016 19:39
Bromoform	U		0.099	1.0	µg/L	1	4/21/2016 19:39
Bromomethane	U		1.0	5.0	µg/L	1	4/21/2016 19:39
Carbon disulfide	U		0.26	5.0	µg/L	1	4/21/2016 19:39
Carbon tetrachloride	U		0.14	1.0	µg/L	1	4/21/2016 19:39
Chlorobenzene	U		0.19	1.0	µg/L	1	4/21/2016 19:39
Chloroethane	U		0.21	5.0	µg/L	1	4/21/2016 19:39
Chloroform	U		0.25	1.0	µg/L	1	4/21/2016 19:39
Chloromethane	U		0.25	5.0	µg/L	1	4/21/2016 19:39
cis-1,2-Dichloroethene	U		0.25	1.0	µg/L	1	4/21/2016 19:39
cis-1,3-Dichloropropene	U		0.24	1.0	µg/L	1	4/21/2016 19:39
Cyclohexane	U		0.31	1.0	µg/L	1	4/21/2016 19:39
Dibromochloromethane	U		0.17	5.0	µg/L	1	4/21/2016 19:39
Dichlorodifluoromethane	U		0.41	5.0	µg/L	1	4/21/2016 19:39
Ethylbenzene	0.90	J	0.22	1.0	µg/L	1	4/21/2016 19:39
Isopropylbenzene	1.8	J	0.25	5.0	µg/L	1	4/21/2016 19:39
Methyl acetate	U		0.62	10	µg/L	1	4/21/2016 19:39
Methyl tert-butyl ether	U		0.12	5.0	µg/L	1	4/21/2016 19:39
Methylcyclohexane	U		0.32	1.0	µg/L	1	4/21/2016 19:39
Methylene chloride	U		0.64	5.0	µg/L	1	4/21/2016 19:39
Styrene	U		0.18	1.0	µg/L	1	4/21/2016 19:39
Tetrachloroethene	U		0.25	1.0	µg/L	1	4/21/2016 19:39
Toluene	U		0.20	1.0	µg/L	1	4/21/2016 19:39
trans-1,2-Dichloroethene	U		0.29	1.0	µg/L	1	4/21/2016 19:39
trans-1,3-Dichloropropene	U		0.19	1.0	µg/L	1	4/21/2016 19:39
Trichloroethene	U		0.34	1.0	µg/L	1	4/21/2016 19:39

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

ALS Group USA, Corp

Date: 25-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-041116-MR-024
Collection Date: 4/11/2016 02:50 PM

Work Order: 1604836
Lab ID: 1604836-04
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Trichlorofluoromethane	U		0.39	1.0	µg/L	1	4/21/2016 19:39
Vinyl chloride	U		0.19	1.0	µg/L	1	4/21/2016 19:39
Xylenes, Total	4.2		0.62	3.0	µg/L	1	4/21/2016 19:39
Surr: 1,2-Dichloroethane-d4	112			75-120	%REC	1	4/21/2016 19:39
Surr: 4-Bromofluorobenzene	93.0			80-110	%REC	1	4/21/2016 19:39
Surr: Dibromofluoromethane	108			85-115	%REC	1	4/21/2016 19:39
Surr: Toluene-d8	98.3			85-110	%REC	1	4/21/2016 19:39

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

ALS Group USA, Corp

Date: 25-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-041116-MR-025
Collection Date: 4/11/2016 03:40 PM

Work Order: 1604836
Lab ID: 1604836-05
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			Method: SW8260B			Analyst: BG	
1,1,1-Trichloroethane	U		0.19	1.0	µg/L	1	4/21/2016 20:05
1,1,2,2-Tetrachloroethane	U		0.34	1.0	µg/L	1	4/21/2016 20:05
1,1,2-Trichloroethane	U		0.25	1.0	µg/L	1	4/21/2016 20:05
1,1,2-Trichlorotrifluoroethane	U		0.47	1.0	µg/L	1	4/21/2016 20:05
1,1-Dichloroethane	U		0.21	1.0	µg/L	1	4/21/2016 20:05
1,1-Dichloroethene	U		0.24	1.0	µg/L	1	4/21/2016 20:05
1,2,4-Trichlorobenzene	U		0.19	5.0	µg/L	1	4/21/2016 20:05
1,2-Dibromo-3-chloropropane	U		0.42	1.0	µg/L	1	4/21/2016 20:05
1,2-Dibromoethane	U		0.34	1.0	µg/L	1	4/21/2016 20:05
1,2-Dichlorobenzene	U		0.22	1.0	µg/L	1	4/21/2016 20:05
1,2-Dichloroethane	U		0.26	1.0	µg/L	1	4/21/2016 20:05
1,2-Dichloropropane	U		0.26	1.0	µg/L	1	4/21/2016 20:05
1,3-Dichlorobenzene	U		0.21	1.0	µg/L	1	4/21/2016 20:05
1,4-Dichlorobenzene	U		0.20	1.0	µg/L	1	4/21/2016 20:05
2-Butanone	U		0.87	25	µg/L	1	4/21/2016 20:05
2-Hexanone	U		0.15	50	µg/L	1	4/21/2016 20:05
4-Methyl-2-pentanone	U		0.15	50	µg/L	1	4/21/2016 20:05
Acetone	U		3.1	50	µg/L	1	4/21/2016 20:05
Benzene	U		0.25	1.0	µg/L	1	4/21/2016 20:05
Bromodichloromethane	U		0.16	1.0	µg/L	1	4/21/2016 20:05
Bromoform	U		0.099	1.0	µg/L	1	4/21/2016 20:05
Bromomethane	U		1.0	5.0	µg/L	1	4/21/2016 20:05
Carbon disulfide	U		0.26	5.0	µg/L	1	4/21/2016 20:05
Carbon tetrachloride	U		0.14	1.0	µg/L	1	4/21/2016 20:05
Chlorobenzene	U		0.19	1.0	µg/L	1	4/21/2016 20:05
Chloroethane	U		0.21	5.0	µg/L	1	4/21/2016 20:05
Chloroform	U		0.25	1.0	µg/L	1	4/21/2016 20:05
Chloromethane	U		0.25	5.0	µg/L	1	4/21/2016 20:05
cis-1,2-Dichloroethene	U		0.25	1.0	µg/L	1	4/21/2016 20:05
cis-1,3-Dichloropropene	U		0.24	1.0	µg/L	1	4/21/2016 20:05
Cyclohexane	U		0.31	1.0	µg/L	1	4/21/2016 20:05
Dibromochloromethane	U		0.17	5.0	µg/L	1	4/21/2016 20:05
Dichlorodifluoromethane	U		0.41	5.0	µg/L	1	4/21/2016 20:05
Ethylbenzene	U		0.22	1.0	µg/L	1	4/21/2016 20:05
Isopropylbenzene	U		0.25	5.0	µg/L	1	4/21/2016 20:05
Methyl acetate	U		0.62	10	µg/L	1	4/21/2016 20:05
Methyl tert-butyl ether	U		0.12	5.0	µg/L	1	4/21/2016 20:05
Methylcyclohexane	U		0.32	1.0	µg/L	1	4/21/2016 20:05

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

ALS Group USA, Corp

Date: 25-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-041116-MR-025
Collection Date: 4/11/2016 03:40 PM

Work Order: 1604836
Lab ID: 1604836-05
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.64	5.0	µg/L	1	4/21/2016 20:05
Styrene	U		0.18	1.0	µg/L	1	4/21/2016 20:05
Tetrachloroethene	1.3		0.25	1.0	µg/L	1	4/21/2016 20:05
Toluene	U		0.20	1.0	µg/L	1	4/21/2016 20:05
trans-1,2-Dichloroethene	U		0.29	1.0	µg/L	1	4/21/2016 20:05
trans-1,3-Dichloropropene	U		0.19	1.0	µg/L	1	4/21/2016 20:05
Trichloroethene	U		0.34	1.0	µg/L	1	4/21/2016 20:05
Trichlorofluoromethane	U		0.39	1.0	µg/L	1	4/21/2016 20:05
Vinyl chloride	U		0.19	1.0	µg/L	1	4/21/2016 20:05
Xylenes, Total	U		0.62	3.0	µg/L	1	4/21/2016 20:05
Surr: 1,2-Dichloroethane-d4	108			75-120	%REC	1	4/21/2016 20:05
Surr: 4-Bromofluorobenzene	92.2			80-110	%REC	1	4/21/2016 20:05
Surr: Dibromofluoromethane	107			85-115	%REC	1	4/21/2016 20:05
Surr: Toluene-d8	98.3			85-110	%REC	1	4/21/2016 20:05

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

ALS Group USA, Corp

Date: 25-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-041116-MR-026
Collection Date: 4/11/2016 04:30 PM

Work Order: 1604836
Lab ID: 1604836-06
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY BY CVAA							
			Method: SW7470A			Prep: SW7470 / 4/18/16	Analyst: RG
Mercury	U		0.000018	0.00020	mg/L	1	4/18/2016 20:08
METALS BY ICP-MS							
			Method: SW6020A			Prep: SW3005A / 4/18/16	Analyst: ML
Antimony	0.00016	J	0.00010	0.0020	mg/L	1	4/18/2016 14:31
Arsenic	U		0.00070	0.0050	mg/L	1	4/18/2016 14:31
Barium	0.022	J	0.00020	0.10	mg/L	1	4/18/2016 14:31
Beryllium	U		0.00020	0.0010	mg/L	1	4/18/2016 14:31
Cadmium	U		0.00010	0.0010	mg/L	1	4/18/2016 14:31
Chromium	0.0031	J	0.00010	0.010	mg/L	1	4/18/2016 14:31
Cobalt	0.0021	J	0.00020	0.020	mg/L	1	4/18/2016 14:31
Copper	0.0017	J	0.00020	0.0040	mg/L	1	4/18/2016 14:31
Iron	0.049	J	0.010	0.20	mg/L	1	4/18/2016 14:31
Lead	0.00020	J	0.00010	0.0030	mg/L	1	4/18/2016 14:31
Manganese	0.0031	J	0.00020	0.050	mg/L	1	4/18/2016 14:31
Molybdenum	0.0033	J	0.00020	0.050	mg/L	1	4/18/2016 14:31
Nickel	0.0020	J	0.00040	0.020	mg/L	1	4/18/2016 14:31
Selenium	0.0010	J	0.0010	0.0050	mg/L	1	4/18/2016 14:31
Silver	U		0.00010	0.00020	mg/L	1	4/18/2016 14:31
Thallium	U		0.00040	0.0020	mg/L	1	4/18/2016 14:31
Vanadium	0.00043	J	0.00040	0.0040	mg/L	1	4/18/2016 14:31
Zinc	0.0040	J	0.0024	0.050	mg/L	1	4/18/2016 14:31
VOLATILE ORGANIC COMPOUNDS							
			Method: SW8260B				Analyst: BG
1,1,1-Trichloroethane	U		0.19	1.0	µg/L	1	4/21/2016 20:31
1,1,2,2-Tetrachloroethane	U		0.34	1.0	µg/L	1	4/21/2016 20:31
1,1,2-Trichloroethane	U		0.25	1.0	µg/L	1	4/21/2016 20:31
1,1,2-Trichlorotrifluoroethane	U		0.47	1.0	µg/L	1	4/21/2016 20:31
1,1-Dichloroethane	U		0.21	1.0	µg/L	1	4/21/2016 20:31
1,1-Dichloroethene	U		0.24	1.0	µg/L	1	4/21/2016 20:31
1,2,4-Trichlorobenzene	U		0.19	5.0	µg/L	1	4/21/2016 20:31
1,2-Dibromo-3-chloropropane	U		0.42	1.0	µg/L	1	4/21/2016 20:31
1,2-Dibromoethane	U		0.34	1.0	µg/L	1	4/21/2016 20:31
1,2-Dichlorobenzene	U		0.22	1.0	µg/L	1	4/21/2016 20:31
1,2-Dichloroethane	U		0.26	1.0	µg/L	1	4/21/2016 20:31
1,2-Dichloropropane	U		0.26	1.0	µg/L	1	4/21/2016 20:31
1,3-Dichlorobenzene	U		0.21	1.0	µg/L	1	4/21/2016 20:31
1,4-Dichlorobenzene	U		0.20	1.0	µg/L	1	4/21/2016 20:31
2-Butanone	U		0.87	25	µg/L	1	4/21/2016 20:31
2-Hexanone	U		0.15	50	µg/L	1	4/21/2016 20:31

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

ALS Group USA, Corp

Date: 25-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-041116-MR-026
Collection Date: 4/11/2016 04:30 PM

Work Order: 1604836
Lab ID: 1604836-06
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
4-Methyl-2-pentanone	U		0.15	50	µg/L	1	4/21/2016 20:31
Acetone	U		3.1	50	µg/L	1	4/21/2016 20:31
Benzene	U		0.25	1.0	µg/L	1	4/21/2016 20:31
Bromodichloromethane	U		0.16	1.0	µg/L	1	4/21/2016 20:31
Bromoform	U		0.099	1.0	µg/L	1	4/21/2016 20:31
Bromomethane	U		1.0	5.0	µg/L	1	4/21/2016 20:31
Carbon disulfide	U		0.26	5.0	µg/L	1	4/21/2016 20:31
Carbon tetrachloride	U		0.14	1.0	µg/L	1	4/21/2016 20:31
Chlorobenzene	U		0.19	1.0	µg/L	1	4/21/2016 20:31
Chloroethane	U		0.21	5.0	µg/L	1	4/21/2016 20:31
Chloroform	U		0.25	1.0	µg/L	1	4/21/2016 20:31
Chloromethane	U		0.25	5.0	µg/L	1	4/21/2016 20:31
cis-1,2-Dichloroethene	U		0.25	1.0	µg/L	1	4/21/2016 20:31
cis-1,3-Dichloropropene	U		0.24	1.0	µg/L	1	4/21/2016 20:31
Cyclohexane	U		0.31	1.0	µg/L	1	4/21/2016 20:31
Dibromochloromethane	U		0.17	5.0	µg/L	1	4/21/2016 20:31
Dichlorodifluoromethane	U		0.41	5.0	µg/L	1	4/21/2016 20:31
Ethylbenzene	U		0.22	1.0	µg/L	1	4/21/2016 20:31
Isopropylbenzene	U		0.25	5.0	µg/L	1	4/21/2016 20:31
Methyl acetate	U		0.62	10	µg/L	1	4/21/2016 20:31
Methyl tert-butyl ether	U		0.12	5.0	µg/L	1	4/21/2016 20:31
Methylcyclohexane	U		0.32	1.0	µg/L	1	4/21/2016 20:31
Methylene chloride	U		0.64	5.0	µg/L	1	4/21/2016 20:31
Styrene	U		0.18	1.0	µg/L	1	4/21/2016 20:31
Tetrachloroethene	U		0.25	1.0	µg/L	1	4/21/2016 20:31
Toluene	U		0.20	1.0	µg/L	1	4/21/2016 20:31
trans-1,2-Dichloroethene	U		0.29	1.0	µg/L	1	4/21/2016 20:31
trans-1,3-Dichloropropene	U		0.19	1.0	µg/L	1	4/21/2016 20:31
Trichloroethene	U		0.34	1.0	µg/L	1	4/21/2016 20:31
Trichlorofluoromethane	U		0.39	1.0	µg/L	1	4/21/2016 20:31
Vinyl chloride	U		0.19	1.0	µg/L	1	4/21/2016 20:31
Xylenes, Total	U		0.62	3.0	µg/L	1	4/21/2016 20:31
Surr: 1,2-Dichloroethane-d4	109			75-120	%REC	1	4/21/2016 20:31
Surr: 4-Bromofluorobenzene	91.6			80-110	%REC	1	4/21/2016 20:31
Surr: Dibromofluoromethane	107			85-115	%REC	1	4/21/2016 20:31
Surr: Toluene-d8	97.5			85-110	%REC	1	4/21/2016 20:31

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

ALS Group USA, Corp

Date: 25-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-041316-MR-027
Collection Date: 4/13/2016 11:33 AM

Work Order: 1604836
Lab ID: 1604836-07
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			Method: SW8260B			Analyst: BG	
1,1,1-Trichloroethane	U		0.19	1.0	µg/L	1	4/21/2016 04:51
1,1,2,2-Tetrachloroethane	U		0.34	1.0	µg/L	1	4/21/2016 04:51
1,1,2-Trichloroethane	U		0.25	1.0	µg/L	1	4/21/2016 04:51
1,1,2-Trichlorotrifluoroethane	U		0.47	1.0	µg/L	1	4/21/2016 04:51
1,1-Dichloroethane	U		0.21	1.0	µg/L	1	4/21/2016 04:51
1,1-Dichloroethene	U		0.24	1.0	µg/L	1	4/21/2016 04:51
1,2,4-Trichlorobenzene	U		0.19	5.0	µg/L	1	4/21/2016 04:51
1,2-Dibromo-3-chloropropane	U		0.42	1.0	µg/L	1	4/21/2016 04:51
1,2-Dibromoethane	U		0.34	1.0	µg/L	1	4/21/2016 04:51
1,2-Dichlorobenzene	U		0.22	1.0	µg/L	1	4/21/2016 04:51
1,2-Dichloroethane	U		0.26	1.0	µg/L	1	4/21/2016 04:51
1,2-Dichloropropane	U		0.26	1.0	µg/L	1	4/21/2016 04:51
1,3-Dichlorobenzene	U		0.21	1.0	µg/L	1	4/21/2016 04:51
1,4-Dichlorobenzene	U		0.20	1.0	µg/L	1	4/21/2016 04:51
2-Butanone	U		0.87	25	µg/L	1	4/21/2016 04:51
2-Hexanone	U		0.15	50	µg/L	1	4/21/2016 04:51
4-Methyl-2-pentanone	U		0.15	50	µg/L	1	4/21/2016 04:51
Acetone	U		3.1	50	µg/L	1	4/21/2016 04:51
Benzene	U		0.25	1.0	µg/L	1	4/21/2016 04:51
Bromodichloromethane	U		0.16	1.0	µg/L	1	4/21/2016 04:51
Bromoform	U		0.099	1.0	µg/L	1	4/21/2016 04:51
Bromomethane	U		1.0	5.0	µg/L	1	4/21/2016 04:51
Carbon disulfide	U		0.26	5.0	µg/L	1	4/21/2016 04:51
Carbon tetrachloride	U		0.14	1.0	µg/L	1	4/21/2016 04:51
Chlorobenzene	U		0.19	1.0	µg/L	1	4/21/2016 04:51
Chloroethane	U		0.21	5.0	µg/L	1	4/21/2016 04:51
Chloroform	U		0.25	1.0	µg/L	1	4/21/2016 04:51
Chloromethane	U		0.25	5.0	µg/L	1	4/21/2016 04:51
cis-1,2-Dichloroethene	U		0.25	1.0	µg/L	1	4/21/2016 04:51
cis-1,3-Dichloropropene	U		0.24	1.0	µg/L	1	4/21/2016 04:51
Cyclohexane	U		0.31	1.0	µg/L	1	4/21/2016 04:51
Dibromochloromethane	U		0.17	5.0	µg/L	1	4/21/2016 04:51
Dichlorodifluoromethane	U		0.41	5.0	µg/L	1	4/21/2016 04:51
Ethylbenzene	U		0.22	1.0	µg/L	1	4/21/2016 04:51
Isopropylbenzene	U		0.25	5.0	µg/L	1	4/21/2016 04:51
Methyl acetate	U		0.62	10	µg/L	1	4/21/2016 04:51
Methyl tert-butyl ether	U		0.12	5.0	µg/L	1	4/21/2016 04:51
Methylcyclohexane	U		0.32	1.0	µg/L	1	4/21/2016 04:51

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

ALS Group USA, Corp

Date: 25-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-041316-MR-027
Collection Date: 4/13/2016 11:33 AM

Work Order: 1604836
Lab ID: 1604836-07
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.64	5.0	µg/L	1	4/21/2016 04:51
Styrene	U		0.18	1.0	µg/L	1	4/21/2016 04:51
Tetrachloroethene	U		0.25	1.0	µg/L	1	4/21/2016 04:51
Toluene	U		0.20	1.0	µg/L	1	4/21/2016 04:51
trans-1,2-Dichloroethene	U		0.29	1.0	µg/L	1	4/21/2016 04:51
trans-1,3-Dichloropropene	U		0.19	1.0	µg/L	1	4/21/2016 04:51
Trichloroethene	2.6		0.34	1.0	µg/L	1	4/21/2016 04:51
Trichlorofluoromethane	U		0.39	1.0	µg/L	1	4/21/2016 04:51
Vinyl chloride	U		0.19	1.0	µg/L	1	4/21/2016 04:51
Xylenes, Total	U		0.62	3.0	µg/L	1	4/21/2016 04:51
Surr: 1,2-Dichloroethane-d4	105			75-120	%REC	1	4/21/2016 04:51
Surr: 4-Bromofluorobenzene	93.2			80-110	%REC	1	4/21/2016 04:51
Surr: Dibromofluoromethane	103			85-115	%REC	1	4/21/2016 04:51
Surr: Toluene-d8	96.2			85-110	%REC	1	4/21/2016 04:51

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

ALS Group USA, Corp

Date: 25-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-041316-MR-028
Collection Date: 4/13/2016 01:10 PM

Work Order: 1604836
Lab ID: 1604836-08
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			Method: SW8260B			Analyst: BG	
1,1,1-Trichloroethane	U		0.19	1.0	µg/L	1	4/21/2016 05:16
1,1,2,2-Tetrachloroethane	U		0.34	1.0	µg/L	1	4/21/2016 05:16
1,1,2-Trichloroethane	U		0.25	1.0	µg/L	1	4/21/2016 05:16
1,1,2-Trichlorotrifluoroethane	U		0.47	1.0	µg/L	1	4/21/2016 05:16
1,1-Dichloroethane	U		0.21	1.0	µg/L	1	4/21/2016 05:16
1,1-Dichloroethene	U		0.24	1.0	µg/L	1	4/21/2016 05:16
1,2,4-Trichlorobenzene	U		0.19	5.0	µg/L	1	4/21/2016 05:16
1,2-Dibromo-3-chloropropane	U		0.42	1.0	µg/L	1	4/21/2016 05:16
1,2-Dibromoethane	U		0.34	1.0	µg/L	1	4/21/2016 05:16
1,2-Dichlorobenzene	U		0.22	1.0	µg/L	1	4/21/2016 05:16
1,2-Dichloroethane	U		0.26	1.0	µg/L	1	4/21/2016 05:16
1,2-Dichloropropane	U		0.26	1.0	µg/L	1	4/21/2016 05:16
1,3-Dichlorobenzene	U		0.21	1.0	µg/L	1	4/21/2016 05:16
1,4-Dichlorobenzene	U		0.20	1.0	µg/L	1	4/21/2016 05:16
2-Butanone	U		0.87	25	µg/L	1	4/21/2016 05:16
2-Hexanone	U		0.15	50	µg/L	1	4/21/2016 05:16
4-Methyl-2-pentanone	U		0.15	50	µg/L	1	4/21/2016 05:16
Acetone	U		3.1	50	µg/L	1	4/21/2016 05:16
Benzene	U		0.25	1.0	µg/L	1	4/21/2016 05:16
Bromodichloromethane	U		0.16	1.0	µg/L	1	4/21/2016 05:16
Bromoform	U		0.099	1.0	µg/L	1	4/21/2016 05:16
Bromomethane	U		1.0	5.0	µg/L	1	4/21/2016 05:16
Carbon disulfide	U		0.26	5.0	µg/L	1	4/21/2016 05:16
Carbon tetrachloride	U		0.14	1.0	µg/L	1	4/21/2016 05:16
Chlorobenzene	U		0.19	1.0	µg/L	1	4/21/2016 05:16
Chloroethane	U		0.21	5.0	µg/L	1	4/21/2016 05:16
Chloroform	U		0.25	1.0	µg/L	1	4/21/2016 05:16
Chloromethane	U		0.25	5.0	µg/L	1	4/21/2016 05:16
cis-1,2-Dichloroethene	U		0.25	1.0	µg/L	1	4/21/2016 05:16
cis-1,3-Dichloropropene	U		0.24	1.0	µg/L	1	4/21/2016 05:16
Cyclohexane	U		0.31	1.0	µg/L	1	4/21/2016 05:16
Dibromochloromethane	U		0.17	5.0	µg/L	1	4/21/2016 05:16
Dichlorodifluoromethane	U		0.41	5.0	µg/L	1	4/21/2016 05:16
Ethylbenzene	U		0.22	1.0	µg/L	1	4/21/2016 05:16
Isopropylbenzene	U		0.25	5.0	µg/L	1	4/21/2016 05:16
Methyl acetate	U		0.62	10	µg/L	1	4/21/2016 05:16
Methyl tert-butyl ether	0.68	J	0.12	5.0	µg/L	1	4/21/2016 05:16
Methylcyclohexane	U		0.32	1.0	µg/L	1	4/21/2016 05:16

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

ALS Group USA, Corp

Date: 25-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-041316-MR-028
Collection Date: 4/13/2016 01:10 PM

Work Order: 1604836
Lab ID: 1604836-08
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.64	5.0	µg/L	1	4/21/2016 05:16
Styrene	U		0.18	1.0	µg/L	1	4/21/2016 05:16
Tetrachloroethene	U		0.25	1.0	µg/L	1	4/21/2016 05:16
Toluene	U		0.20	1.0	µg/L	1	4/21/2016 05:16
trans-1,2-Dichloroethene	U		0.29	1.0	µg/L	1	4/21/2016 05:16
trans-1,3-Dichloropropene	U		0.19	1.0	µg/L	1	4/21/2016 05:16
Trichloroethene	U		0.34	1.0	µg/L	1	4/21/2016 05:16
Trichlorofluoromethane	U		0.39	1.0	µg/L	1	4/21/2016 05:16
Vinyl chloride	U		0.19	1.0	µg/L	1	4/21/2016 05:16
Xylenes, Total	U		0.62	3.0	µg/L	1	4/21/2016 05:16
Surr: 1,2-Dichloroethane-d4	104			75-120	%REC	1	4/21/2016 05:16
Surr: 4-Bromofluorobenzene	92.1			80-110	%REC	1	4/21/2016 05:16
Surr: Dibromofluoromethane	103			85-115	%REC	1	4/21/2016 05:16
Surr: Toluene-d8	95.1			85-110	%REC	1	4/21/2016 05:16

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

ALS Group USA, Corp

Date: 25-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-041316-MR-029
Collection Date: 4/13/2016 02:13 PM

Work Order: 1604836
Lab ID: 1604836-09
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			Method: SW8260B			Analyst: BG	
1,1,1-Trichloroethane	U		0.19	1.0	µg/L	1	4/21/2016 05:42
1,1,2,2-Tetrachloroethane	U		0.34	1.0	µg/L	1	4/21/2016 05:42
1,1,2-Trichloroethane	U		0.25	1.0	µg/L	1	4/21/2016 05:42
1,1,2-Trichlorotrifluoroethane	U		0.47	1.0	µg/L	1	4/21/2016 05:42
1,1-Dichloroethane	U		0.21	1.0	µg/L	1	4/21/2016 05:42
1,1-Dichloroethene	U		0.24	1.0	µg/L	1	4/21/2016 05:42
1,2,4-Trichlorobenzene	U		0.19	5.0	µg/L	1	4/21/2016 05:42
1,2-Dibromo-3-chloropropane	U		0.42	1.0	µg/L	1	4/21/2016 05:42
1,2-Dibromoethane	U		0.34	1.0	µg/L	1	4/21/2016 05:42
1,2-Dichlorobenzene	U		0.22	1.0	µg/L	1	4/21/2016 05:42
1,2-Dichloroethane	U		0.26	1.0	µg/L	1	4/21/2016 05:42
1,2-Dichloropropane	U		0.26	1.0	µg/L	1	4/21/2016 05:42
1,3-Dichlorobenzene	U		0.21	1.0	µg/L	1	4/21/2016 05:42
1,4-Dichlorobenzene	U		0.20	1.0	µg/L	1	4/21/2016 05:42
2-Butanone	U		0.87	25	µg/L	1	4/21/2016 05:42
2-Hexanone	U		0.15	50	µg/L	1	4/21/2016 05:42
4-Methyl-2-pentanone	U		0.15	50	µg/L	1	4/21/2016 05:42
Acetone	U		3.1	50	µg/L	1	4/21/2016 05:42
Benzene	U		0.25	1.0	µg/L	1	4/21/2016 05:42
Bromodichloromethane	U		0.16	1.0	µg/L	1	4/21/2016 05:42
Bromoform	U		0.099	1.0	µg/L	1	4/21/2016 05:42
Bromomethane	U		1.0	5.0	µg/L	1	4/21/2016 05:42
Carbon disulfide	U		0.26	5.0	µg/L	1	4/21/2016 05:42
Carbon tetrachloride	U		0.14	1.0	µg/L	1	4/21/2016 05:42
Chlorobenzene	U		0.19	1.0	µg/L	1	4/21/2016 05:42
Chloroethane	U		0.21	5.0	µg/L	1	4/21/2016 05:42
Chloroform	U		0.25	1.0	µg/L	1	4/21/2016 05:42
Chloromethane	U		0.25	5.0	µg/L	1	4/21/2016 05:42
cis-1,2-Dichloroethene	89		0.25	1.0	µg/L	1	4/21/2016 05:42
cis-1,3-Dichloropropene	U		0.24	1.0	µg/L	1	4/21/2016 05:42
Cyclohexane	U		0.31	1.0	µg/L	1	4/21/2016 05:42
Dibromochloromethane	U		0.17	5.0	µg/L	1	4/21/2016 05:42
Dichlorodifluoromethane	U		0.41	5.0	µg/L	1	4/21/2016 05:42
Ethylbenzene	U		0.22	1.0	µg/L	1	4/21/2016 05:42
Isopropylbenzene	U		0.25	5.0	µg/L	1	4/21/2016 05:42
Methyl acetate	U		0.62	10	µg/L	1	4/21/2016 05:42
Methyl tert-butyl ether	U		0.12	5.0	µg/L	1	4/21/2016 05:42
Methylcyclohexane	U		0.32	1.0	µg/L	1	4/21/2016 05:42

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

ALS Group USA, Corp

Date: 25-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-041316-MR-029
Collection Date: 4/13/2016 02:13 PM

Work Order: 1604836
Lab ID: 1604836-09
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.64	5.0	µg/L	1	4/21/2016 05:42
Styrene	U		0.18	1.0	µg/L	1	4/21/2016 05:42
Tetrachloroethene	130		1.2	5.0	µg/L	5	4/20/2016 05:11
Toluene	U		0.20	1.0	µg/L	1	4/21/2016 05:42
trans-1,2-Dichloroethene	1.7		0.29	1.0	µg/L	1	4/21/2016 05:42
trans-1,3-Dichloropropene	U		0.19	1.0	µg/L	1	4/21/2016 05:42
Trichloroethene	7.2		0.34	1.0	µg/L	1	4/21/2016 05:42
Trichlorofluoromethane	U		0.39	1.0	µg/L	1	4/21/2016 05:42
Vinyl chloride	U		0.19	1.0	µg/L	1	4/21/2016 05:42
Xylenes, Total	U		0.62	3.0	µg/L	1	4/21/2016 05:42
Surr: 1,2-Dichloroethane-d4	109			75-120	%REC	5	4/20/2016 05:11
Surr: 1,2-Dichloroethane-d4	107			75-120	%REC	1	4/21/2016 05:42
Surr: 4-Bromofluorobenzene	92.0			80-110	%REC	5	4/20/2016 05:11
Surr: 4-Bromofluorobenzene	93.2			80-110	%REC	1	4/21/2016 05:42
Surr: Dibromofluoromethane	90.4			85-115	%REC	5	4/20/2016 05:11
Surr: Dibromofluoromethane	103			85-115	%REC	1	4/21/2016 05:42
Surr: Toluene-d8	97.8			85-110	%REC	5	4/20/2016 05:11
Surr: Toluene-d8	91.8			85-110	%REC	1	4/21/2016 05:42

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

ALS Group USA, Corp

Date: 25-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-041316-MR-030
Collection Date: 4/13/2016 04:16 PM

Work Order: 1604836
Lab ID: 1604836-10
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			Method: SW8260B			Analyst: BG	
1,1,1-Trichloroethane	U		0.19	1.0	µg/L	1	4/21/2016 06:08
1,1,2,2-Tetrachloroethane	U		0.34	1.0	µg/L	1	4/21/2016 06:08
1,1,2-Trichloroethane	U		0.25	1.0	µg/L	1	4/21/2016 06:08
1,1,2-Trichlorotrifluoroethane	U		0.47	1.0	µg/L	1	4/21/2016 06:08
1,1-Dichloroethane	U		0.21	1.0	µg/L	1	4/21/2016 06:08
1,1-Dichloroethene	U		0.24	1.0	µg/L	1	4/21/2016 06:08
1,2,4-Trichlorobenzene	U		0.19	5.0	µg/L	1	4/21/2016 06:08
1,2-Dibromo-3-chloropropane	U		0.42	1.0	µg/L	1	4/21/2016 06:08
1,2-Dibromoethane	U		0.34	1.0	µg/L	1	4/21/2016 06:08
1,2-Dichlorobenzene	U		0.22	1.0	µg/L	1	4/21/2016 06:08
1,2-Dichloroethane	U		0.26	1.0	µg/L	1	4/21/2016 06:08
1,2-Dichloropropane	U		0.26	1.0	µg/L	1	4/21/2016 06:08
1,3-Dichlorobenzene	U		0.21	1.0	µg/L	1	4/21/2016 06:08
1,4-Dichlorobenzene	U		0.20	1.0	µg/L	1	4/21/2016 06:08
2-Butanone	U		0.87	25	µg/L	1	4/21/2016 06:08
2-Hexanone	U		0.15	50	µg/L	1	4/21/2016 06:08
4-Methyl-2-pentanone	U		0.15	50	µg/L	1	4/21/2016 06:08
Acetone	U		3.1	50	µg/L	1	4/21/2016 06:08
Benzene	U		0.25	1.0	µg/L	1	4/21/2016 06:08
Bromodichloromethane	U		0.16	1.0	µg/L	1	4/21/2016 06:08
Bromoform	U		0.099	1.0	µg/L	1	4/21/2016 06:08
Bromomethane	U		1.0	5.0	µg/L	1	4/21/2016 06:08
Carbon disulfide	U		0.26	5.0	µg/L	1	4/21/2016 06:08
Carbon tetrachloride	U		0.14	1.0	µg/L	1	4/21/2016 06:08
Chlorobenzene	U		0.19	1.0	µg/L	1	4/21/2016 06:08
Chloroethane	U		0.21	5.0	µg/L	1	4/21/2016 06:08
Chloroform	U		0.25	1.0	µg/L	1	4/21/2016 06:08
Chloromethane	U		0.25	5.0	µg/L	1	4/21/2016 06:08
cis-1,2-Dichloroethene	U		0.25	1.0	µg/L	1	4/21/2016 06:08
cis-1,3-Dichloropropene	U		0.24	1.0	µg/L	1	4/21/2016 06:08
Cyclohexane	U		0.31	1.0	µg/L	1	4/21/2016 06:08
Dibromochloromethane	U		0.17	5.0	µg/L	1	4/21/2016 06:08
Dichlorodifluoromethane	U		0.41	5.0	µg/L	1	4/21/2016 06:08
Ethylbenzene	U		0.22	1.0	µg/L	1	4/21/2016 06:08
Isopropylbenzene	U		0.25	5.0	µg/L	1	4/21/2016 06:08
Methyl acetate	U		0.62	10	µg/L	1	4/21/2016 06:08
Methyl tert-butyl ether	U		0.12	5.0	µg/L	1	4/21/2016 06:08
Methylcyclohexane	U		0.32	1.0	µg/L	1	4/21/2016 06:08

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

ALS Group USA, Corp

Date: 25-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-041316-MR-030
Collection Date: 4/13/2016 04:16 PM

Work Order: 1604836
Lab ID: 1604836-10
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.64	5.0	µg/L	1	4/21/2016 06:08
Styrene	U		0.18	1.0	µg/L	1	4/21/2016 06:08
Tetrachloroethene	U		0.25	1.0	µg/L	1	4/21/2016 06:08
Toluene	U		0.20	1.0	µg/L	1	4/21/2016 06:08
trans-1,2-Dichloroethene	U		0.29	1.0	µg/L	1	4/21/2016 06:08
trans-1,3-Dichloropropene	U		0.19	1.0	µg/L	1	4/21/2016 06:08
Trichloroethene	U		0.34	1.0	µg/L	1	4/21/2016 06:08
Trichlorofluoromethane	U		0.39	1.0	µg/L	1	4/21/2016 06:08
Vinyl chloride	U		0.19	1.0	µg/L	1	4/21/2016 06:08
Xylenes, Total	U		0.62	3.0	µg/L	1	4/21/2016 06:08
Surr: 1,2-Dichloroethane-d4	105			75-120	%REC	1	4/21/2016 06:08
Surr: 4-Bromofluorobenzene	94.2			80-110	%REC	1	4/21/2016 06:08
Surr: Dibromofluoromethane	102			85-115	%REC	1	4/21/2016 06:08
Surr: Toluene-d8	96.6			85-110	%REC	1	4/21/2016 06:08

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

ALS Group USA, Corp

Date: 25-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-041316-MR-031
Collection Date: 4/13/2016 05:03 PM

Work Order: 1604836
Lab ID: 1604836-11
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			Method: SW8260B			Analyst: BG	
1,1,1-Trichloroethane	U		0.19	1.0	µg/L	1	4/21/2016 17:53
1,1,2,2-Tetrachloroethane	U		0.34	1.0	µg/L	1	4/21/2016 17:53
1,1,2-Trichloroethane	U		0.25	1.0	µg/L	1	4/21/2016 17:53
1,1,2-Trichlorotrifluoroethane	U		0.47	1.0	µg/L	1	4/21/2016 17:53
1,1-Dichloroethane	U		0.21	1.0	µg/L	1	4/21/2016 17:53
1,1-Dichloroethene	U		0.24	1.0	µg/L	1	4/21/2016 17:53
1,2,4-Trichlorobenzene	U		0.19	5.0	µg/L	1	4/21/2016 17:53
1,2-Dibromo-3-chloropropane	U		0.42	1.0	µg/L	1	4/21/2016 17:53
1,2-Dibromoethane	U		0.34	1.0	µg/L	1	4/21/2016 17:53
1,2-Dichlorobenzene	U		0.22	1.0	µg/L	1	4/21/2016 17:53
1,2-Dichloroethane	U		0.26	1.0	µg/L	1	4/21/2016 17:53
1,2-Dichloropropane	U		0.26	1.0	µg/L	1	4/21/2016 17:53
1,3-Dichlorobenzene	U		0.21	1.0	µg/L	1	4/21/2016 17:53
1,4-Dichlorobenzene	U		0.20	1.0	µg/L	1	4/21/2016 17:53
2-Butanone	U		0.87	25	µg/L	1	4/21/2016 17:53
2-Hexanone	U		0.15	50	µg/L	1	4/21/2016 17:53
4-Methyl-2-pentanone	U		0.15	50	µg/L	1	4/21/2016 17:53
Acetone	U		3.1	50	µg/L	1	4/21/2016 17:53
Benzene	U		0.25	1.0	µg/L	1	4/21/2016 17:53
Bromodichloromethane	U		0.16	1.0	µg/L	1	4/21/2016 17:53
Bromoform	U		0.099	1.0	µg/L	1	4/21/2016 17:53
Bromomethane	U		1.0	5.0	µg/L	1	4/21/2016 17:53
Carbon disulfide	U		0.26	5.0	µg/L	1	4/21/2016 17:53
Carbon tetrachloride	U		0.14	1.0	µg/L	1	4/21/2016 17:53
Chlorobenzene	U		0.19	1.0	µg/L	1	4/21/2016 17:53
Chloroethane	U		0.21	5.0	µg/L	1	4/21/2016 17:53
Chloroform	1.7		0.25	1.0	µg/L	1	4/21/2016 17:53
Chloromethane	U		0.25	5.0	µg/L	1	4/21/2016 17:53
cis-1,2-Dichloroethene	U		0.25	1.0	µg/L	1	4/21/2016 17:53
cis-1,3-Dichloropropene	U		0.24	1.0	µg/L	1	4/21/2016 17:53
Cyclohexane	U		0.31	1.0	µg/L	1	4/21/2016 17:53
Dibromochloromethane	U		0.17	5.0	µg/L	1	4/21/2016 17:53
Dichlorodifluoromethane	U		0.41	5.0	µg/L	1	4/21/2016 17:53
Ethylbenzene	U		0.22	1.0	µg/L	1	4/21/2016 17:53
Isopropylbenzene	U		0.25	5.0	µg/L	1	4/21/2016 17:53
Methyl acetate	U		0.62	10	µg/L	1	4/21/2016 17:53
Methyl tert-butyl ether	U		0.12	5.0	µg/L	1	4/21/2016 17:53
Methylcyclohexane	U		0.32	1.0	µg/L	1	4/21/2016 17:53

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

ALS Group USA, Corp

Date: 25-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-041316-MR-031
Collection Date: 4/13/2016 05:03 PM

Work Order: 1604836
Lab ID: 1604836-11
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.64	5.0	µg/L	1	4/21/2016 17:53
Styrene	U		0.18	1.0	µg/L	1	4/21/2016 17:53
Tetrachloroethene	U		0.25	1.0	µg/L	1	4/21/2016 17:53
Toluene	U		0.20	1.0	µg/L	1	4/21/2016 17:53
trans-1,2-Dichloroethene	U		0.29	1.0	µg/L	1	4/21/2016 17:53
trans-1,3-Dichloropropene	U		0.19	1.0	µg/L	1	4/21/2016 17:53
Trichloroethene	U		0.34	1.0	µg/L	1	4/21/2016 17:53
Trichlorofluoromethane	U		0.39	1.0	µg/L	1	4/21/2016 17:53
Vinyl chloride	U		0.19	1.0	µg/L	1	4/21/2016 17:53
Xylenes, Total	U		0.62	3.0	µg/L	1	4/21/2016 17:53
Surr: 1,2-Dichloroethane-d4	102			75-120	%REC	1	4/21/2016 17:53
Surr: 4-Bromofluorobenzene	95.8			80-110	%REC	1	4/21/2016 17:53
Surr: Dibromofluoromethane	91.6			85-115	%REC	1	4/21/2016 17:53
Surr: Toluene-d8	100			85-110	%REC	1	4/21/2016 17:53

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

ALS Group USA, Corp

Date: 25-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-041316-MR-032
Collection Date: 4/13/2016 05:59 PM

Work Order: 1604836
Lab ID: 1604836-12
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			Method: SW8260B			Analyst: BG	
1,1,1-Trichloroethane	U		0.19	1.0	µg/L	1	4/21/2016 18:17
1,1,2,2-Tetrachloroethane	U		0.34	1.0	µg/L	1	4/21/2016 18:17
1,1,2-Trichloroethane	U		0.25	1.0	µg/L	1	4/21/2016 18:17
1,1,2-Trichlorotrifluoroethane	U		0.47	1.0	µg/L	1	4/21/2016 18:17
1,1-Dichloroethane	U		0.21	1.0	µg/L	1	4/21/2016 18:17
1,1-Dichloroethene	U		0.24	1.0	µg/L	1	4/21/2016 18:17
1,2,4-Trichlorobenzene	U		0.19	5.0	µg/L	1	4/21/2016 18:17
1,2-Dibromo-3-chloropropane	U		0.42	1.0	µg/L	1	4/21/2016 18:17
1,2-Dibromoethane	U		0.34	1.0	µg/L	1	4/21/2016 18:17
1,2-Dichlorobenzene	U		0.22	1.0	µg/L	1	4/21/2016 18:17
1,2-Dichloroethane	U		0.26	1.0	µg/L	1	4/21/2016 18:17
1,2-Dichloropropane	U		0.26	1.0	µg/L	1	4/21/2016 18:17
1,3-Dichlorobenzene	U		0.21	1.0	µg/L	1	4/21/2016 18:17
1,4-Dichlorobenzene	U		0.20	1.0	µg/L	1	4/21/2016 18:17
2-Butanone	U		0.87	25	µg/L	1	4/21/2016 18:17
2-Hexanone	U		0.15	50	µg/L	1	4/21/2016 18:17
4-Methyl-2-pentanone	U		0.15	50	µg/L	1	4/21/2016 18:17
Acetone	U		3.1	50	µg/L	1	4/21/2016 18:17
Benzene	U		0.25	1.0	µg/L	1	4/21/2016 18:17
Bromodichloromethane	U		0.16	1.0	µg/L	1	4/21/2016 18:17
Bromoform	U		0.099	1.0	µg/L	1	4/21/2016 18:17
Bromomethane	U		1.0	5.0	µg/L	1	4/21/2016 18:17
Carbon disulfide	U		0.26	5.0	µg/L	1	4/21/2016 18:17
Carbon tetrachloride	U		0.14	1.0	µg/L	1	4/21/2016 18:17
Chlorobenzene	U		0.19	1.0	µg/L	1	4/21/2016 18:17
Chloroethane	U		0.21	5.0	µg/L	1	4/21/2016 18:17
Chloroform	U		0.25	1.0	µg/L	1	4/21/2016 18:17
Chloromethane	U		0.25	5.0	µg/L	1	4/21/2016 18:17
cis-1,2-Dichloroethene	U		0.25	1.0	µg/L	1	4/21/2016 18:17
cis-1,3-Dichloropropene	U		0.24	1.0	µg/L	1	4/21/2016 18:17
Cyclohexane	U		0.31	1.0	µg/L	1	4/21/2016 18:17
Dibromochloromethane	U		0.17	5.0	µg/L	1	4/21/2016 18:17
Dichlorodifluoromethane	U		0.41	5.0	µg/L	1	4/21/2016 18:17
Ethylbenzene	U		0.22	1.0	µg/L	1	4/21/2016 18:17
Isopropylbenzene	U		0.25	5.0	µg/L	1	4/21/2016 18:17
Methyl acetate	U		0.62	10	µg/L	1	4/21/2016 18:17
Methyl tert-butyl ether	U		0.12	5.0	µg/L	1	4/21/2016 18:17
Methylcyclohexane	U		0.32	1.0	µg/L	1	4/21/2016 18:17

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

ALS Group USA, Corp

Date: 25-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-041316-MR-032
Collection Date: 4/13/2016 05:59 PM

Work Order: 1604836
Lab ID: 1604836-12
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.64	5.0	µg/L	1	4/21/2016 18:17
Styrene	U		0.18	1.0	µg/L	1	4/21/2016 18:17
Tetrachloroethene	2.3		0.25	1.0	µg/L	1	4/21/2016 18:17
Toluene	U		0.20	1.0	µg/L	1	4/21/2016 18:17
trans-1,2-Dichloroethene	U		0.29	1.0	µg/L	1	4/21/2016 18:17
trans-1,3-Dichloropropene	U		0.19	1.0	µg/L	1	4/21/2016 18:17
Trichloroethene	U		0.34	1.0	µg/L	1	4/21/2016 18:17
Trichlorofluoromethane	U		0.39	1.0	µg/L	1	4/21/2016 18:17
Vinyl chloride	U		0.19	1.0	µg/L	1	4/21/2016 18:17
Xylenes, Total	U		0.62	3.0	µg/L	1	4/21/2016 18:17
Surr: 1,2-Dichloroethane-d4	100			75-120	%REC	1	4/21/2016 18:17
Surr: 4-Bromofluorobenzene	96.8			80-110	%REC	1	4/21/2016 18:17
Surr: Dibromofluoromethane	91.9			85-115	%REC	1	4/21/2016 18:17
Surr: Toluene-d8	99.8			85-110	%REC	1	4/21/2016 18:17

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

ALS Group USA, Corp

Date: 25-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-041416-MR-033
Collection Date: 4/14/2016 10:45 AM

Work Order: 1604836
Lab ID: 1604836-13
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
SEMI-VOLATILE ORGANIC COMPOUNDS			Method: SW846 8270D	Prep: SW3510 / 4/21/16		Analyst: JF	
1,1'-Biphenyl	U		0.24	5.6	µg/L	1	4/21/2016 20:12
2,4,5-Trichlorophenol	U		0.32	5.6	µg/L	1	4/21/2016 20:12
2,4,6-Trichlorophenol	U		0.28	5.6	µg/L	1	4/21/2016 20:12
2,4-Dichlorophenol	U		0.19	5.6	µg/L	1	4/21/2016 20:12
2,4-Dimethylphenol	U		0.20	5.6	µg/L	1	4/21/2016 20:12
2,4-Dinitrophenol	U		1.6	5.6	µg/L	1	4/21/2016 20:12
2,4-Dinitrotoluene	U		0.16	5.6	µg/L	1	4/21/2016 20:12
2,6-Dinitrotoluene	U		0.22	5.6	µg/L	1	4/21/2016 20:12
2-Chloronaphthalene	U		0.033	5.6	µg/L	1	4/21/2016 20:12
2-Chlorophenol	U		0.32	5.6	µg/L	1	4/21/2016 20:12
2-Methylnaphthalene	U		0.11	5.6	µg/L	1	4/21/2016 20:12
2-Methylphenol	U		0.16	5.6	µg/L	1	4/21/2016 20:12
2-Nitroaniline	U		0.27	5.6	µg/L	1	4/21/2016 20:12
2-Nitrophenol	U		0.30	5.6	µg/L	1	4/21/2016 20:12
3&4-Methylphenol	U		0.27	5.6	µg/L	1	4/21/2016 20:12
3,3'-Dichlorobenzidine	U		0.78	5.6	µg/L	1	4/21/2016 20:12
3-Nitroaniline	U		0.27	5.6	µg/L	1	4/21/2016 20:12
4,6-Dinitro-2-methylphenol	U		0.13	5.6	µg/L	1	4/21/2016 20:12
4-Bromophenyl phenyl ether	U		0.32	5.6	µg/L	1	4/21/2016 20:12
4-Chloro-3-methylphenol	U		0.18	5.6	µg/L	1	4/21/2016 20:12
4-Chloroaniline	U		0.24	5.6	µg/L	1	4/21/2016 20:12
4-Chlorophenyl phenyl ether	U		0.22	5.6	µg/L	1	4/21/2016 20:12
4-Nitroaniline	U		0.14	5.6	µg/L	1	4/21/2016 20:12
4-Nitrophenol	U		0.69	5.6	µg/L	1	4/21/2016 20:12
Acenaphthene	U		0.046	5.6	µg/L	1	4/21/2016 20:12
Acenaphthylene	U		0.043	5.6	µg/L	1	4/21/2016 20:12
Acetophenone	U		0.41	1.1	µg/L	1	4/21/2016 20:12
Anthracene	U		0.031	5.6	µg/L	1	4/21/2016 20:12
Atrazine	U		0.18	1.1	µg/L	1	4/21/2016 20:12
Benzaldehyde	U		0.28	1.1	µg/L	1	4/21/2016 20:12
Benzo(a)anthracene	U		0.080	5.6	µg/L	1	4/21/2016 20:12
Benzo(a)pyrene	U		0.040	5.6	µg/L	1	4/21/2016 20:12
Benzo(b)fluoranthene	U		0.048	5.6	µg/L	1	4/21/2016 20:12
Benzo(g,h,i)perylene	U		0.078	5.6	µg/L	1	4/21/2016 20:12
Benzo(k)fluoranthene	U		0.069	5.6	µg/L	1	4/21/2016 20:12
Bis(2-chloroethoxy)methane	U		0.26	5.6	µg/L	1	4/21/2016 20:12
Bis(2-chloroethyl)ether	U		0.18	5.6	µg/L	1	4/21/2016 20:12
Bis(2-chloroisopropyl)ether	U		0.21	5.6	µg/L	1	4/21/2016 20:12

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

ALS Group USA, Corp

Date: 25-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-041416-MR-033
Collection Date: 4/14/2016 10:45 AM

Work Order: 1604836
Lab ID: 1604836-13
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Bis(2-ethylhexyl)phthalate	U		0.20	5.6	µg/L	1	4/21/2016 20:12
Butyl benzyl phthalate	U		0.13	5.6	µg/L	1	4/21/2016 20:12
Caprolactam	U		1.1	11	µg/L	1	4/21/2016 20:12
Carbazole	U		0.13	5.6	µg/L	1	4/21/2016 20:12
Chrysene	U		0.047	5.6	µg/L	1	4/21/2016 20:12
Dibenzo(a,h)anthracene	U		0.082	5.6	µg/L	1	4/21/2016 20:12
Dibenzofuran	U		0.26	5.6	µg/L	1	4/21/2016 20:12
Diethyl phthalate	U		0.19	5.6	µg/L	1	4/21/2016 20:12
Dimethyl phthalate	U		0.17	5.6	µg/L	1	4/21/2016 20:12
Di-n-butyl phthalate	U		0.17	5.6	µg/L	1	4/21/2016 20:12
Di-n-octyl phthalate	U		0.17	5.6	µg/L	1	4/21/2016 20:12
Fluoranthene	U		0.052	5.6	µg/L	1	4/21/2016 20:12
Fluorene	U		0.040	5.6	µg/L	1	4/21/2016 20:12
Hexachlorobenzene	U		0.26	5.6	µg/L	1	4/21/2016 20:12
Hexachlorobutadiene	U		0.41	5.6	µg/L	1	4/21/2016 20:12
Hexachlorocyclopentadiene	U		0.20	5.6	µg/L	1	4/21/2016 20:12
Hexachloroethane	U		0.52	5.6	µg/L	1	4/21/2016 20:12
Indeno(1,2,3-cd)pyrene	U		0.071	5.6	µg/L	1	4/21/2016 20:12
Isophorone	U		0.28	5.6	µg/L	1	4/21/2016 20:12
Naphthalene	U		0.056	5.6	µg/L	1	4/21/2016 20:12
Nitrobenzene	U		0.26	5.6	µg/L	1	4/21/2016 20:12
N-Nitrosodi-n-propylamine	U		0.27	5.6	µg/L	1	4/21/2016 20:12
N-Nitrosodiphenylamine	U		0.27	5.6	µg/L	1	4/21/2016 20:12
Pentachlorophenol	U		0.58	5.6	µg/L	1	4/21/2016 20:12
Phenanthrene	U		0.060	5.6	µg/L	1	4/21/2016 20:12
Phenol	U		0.14	5.6	µg/L	1	4/21/2016 20:12
Pyrene	U		0.077	5.6	µg/L	1	4/21/2016 20:12
Surr: 2,4,6-Tribromophenol	79.6			38-115	%REC	1	4/21/2016 20:12
Surr: 2-Fluorobiphenyl	64.8			32-100	%REC	1	4/21/2016 20:12
Surr: 2-Fluorophenol	38.1			22-59	%REC	1	4/21/2016 20:12
Surr: 4-Terphenyl-d14	96.5			23-112	%REC	1	4/21/2016 20:12
Surr: Nitrobenzene-d5	65.0			31-93	%REC	1	4/21/2016 20:12
Surr: Phenol-d6	21.1			13-36	%REC	1	4/21/2016 20:12
VOLATILE ORGANIC COMPOUNDS			Method: SW8260B				Analyst: BG
1,1,1-Trichloroethane	U		0.19	1.0	µg/L	1	4/21/2016 18:41
1,1,2,2-Tetrachloroethane	U		0.34	1.0	µg/L	1	4/21/2016 18:41
1,1,2-Trichloroethane	U		0.25	1.0	µg/L	1	4/21/2016 18:41
1,1,2-Trichlorotrifluoroethane	U		0.47	1.0	µg/L	1	4/21/2016 18:41
1,1-Dichloroethane	U		0.21	1.0	µg/L	1	4/21/2016 18:41

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

ALS Group USA, Corp

Date: 25-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-041416-MR-033
Collection Date: 4/14/2016 10:45 AM

Work Order: 1604836
Lab ID: 1604836-13
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,1-Dichloroethene	U		0.24	1.0	µg/L	1	4/21/2016 18:41
1,2,4-Trichlorobenzene	U		0.19	5.0	µg/L	1	4/21/2016 18:41
1,2-Dibromo-3-chloropropane	U		0.42	1.0	µg/L	1	4/21/2016 18:41
1,2-Dibromoethane	U		0.34	1.0	µg/L	1	4/21/2016 18:41
1,2-Dichlorobenzene	U		0.22	1.0	µg/L	1	4/21/2016 18:41
1,2-Dichloroethane	U		0.26	1.0	µg/L	1	4/21/2016 18:41
1,2-Dichloropropane	U		0.26	1.0	µg/L	1	4/21/2016 18:41
1,3-Dichlorobenzene	U		0.21	1.0	µg/L	1	4/21/2016 18:41
1,4-Dichlorobenzene	U		0.20	1.0	µg/L	1	4/21/2016 18:41
2-Butanone	U		0.87	25	µg/L	1	4/21/2016 18:41
2-Hexanone	U		0.15	50	µg/L	1	4/21/2016 18:41
4-Methyl-2-pentanone	U		0.15	50	µg/L	1	4/21/2016 18:41
Acetone	U		3.1	50	µg/L	1	4/21/2016 18:41
Benzene	U		0.25	1.0	µg/L	1	4/21/2016 18:41
Bromodichloromethane	U		0.16	1.0	µg/L	1	4/21/2016 18:41
Bromoform	U		0.099	1.0	µg/L	1	4/21/2016 18:41
Bromomethane	U		1.0	5.0	µg/L	1	4/21/2016 18:41
Carbon disulfide	U		0.26	5.0	µg/L	1	4/21/2016 18:41
Carbon tetrachloride	U		0.14	1.0	µg/L	1	4/21/2016 18:41
Chlorobenzene	U		0.19	1.0	µg/L	1	4/21/2016 18:41
Chloroethane	U		0.21	5.0	µg/L	1	4/21/2016 18:41
Chloroform	U		0.25	1.0	µg/L	1	4/21/2016 18:41
Chloromethane	U		0.25	5.0	µg/L	1	4/21/2016 18:41
cis-1,2-Dichloroethene	U		0.25	1.0	µg/L	1	4/21/2016 18:41
cis-1,3-Dichloropropene	U		0.24	1.0	µg/L	1	4/21/2016 18:41
Cyclohexane	U		0.31	1.0	µg/L	1	4/21/2016 18:41
Dibromochloromethane	U		0.17	5.0	µg/L	1	4/21/2016 18:41
Dichlorodifluoromethane	U		0.41	5.0	µg/L	1	4/21/2016 18:41
Ethylbenzene	U		0.22	1.0	µg/L	1	4/21/2016 18:41
Isopropylbenzene	U		0.25	5.0	µg/L	1	4/21/2016 18:41
Methyl acetate	U		0.62	10	µg/L	1	4/21/2016 18:41
Methyl tert-butyl ether	U		0.12	5.0	µg/L	1	4/21/2016 18:41
Methylcyclohexane	U		0.32	1.0	µg/L	1	4/21/2016 18:41
Methylene chloride	U		0.64	5.0	µg/L	1	4/21/2016 18:41
Styrene	U		0.18	1.0	µg/L	1	4/21/2016 18:41
Tetrachloroethene	6.9		0.25	1.0	µg/L	1	4/21/2016 18:41
Toluene	U		0.20	1.0	µg/L	1	4/21/2016 18:41
trans-1,2-Dichloroethene	U		0.29	1.0	µg/L	1	4/21/2016 18:41
trans-1,3-Dichloropropene	U		0.19	1.0	µg/L	1	4/21/2016 18:41
Trichloroethene	1.3		0.34	1.0	µg/L	1	4/21/2016 18:41

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

ALS Group USA, Corp**Date:** 25-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-041416-MR-033
Collection Date: 4/14/2016 10:45 AM

Work Order: 1604836
Lab ID: 1604836-13
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Trichlorofluoromethane	U		0.39	1.0	µg/L	1	4/21/2016 18:41
Vinyl chloride	U		0.19	1.0	µg/L	1	4/21/2016 18:41
Xylenes, Total	U		0.62	3.0	µg/L	1	4/21/2016 18:41
Surr: 1,2-Dichloroethane-d4	101			75-120	%REC	1	4/21/2016 18:41
Surr: 4-Bromofluorobenzene	97.0			80-110	%REC	1	4/21/2016 18:41
Surr: Dibromofluoromethane	94.4			85-115	%REC	1	4/21/2016 18:41
Surr: Toluene-d8	99.6			85-110	%REC	1	4/21/2016 18:41

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

ALS Group USA, Corp

Date: 25-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-041416-MR-034
Collection Date: 4/14/2016 11:40 AM

Work Order: 1604836
Lab ID: 1604836-14
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			Method: SW8260B			Analyst: BG	
1,1,1-Trichloroethane	U		0.19	1.0	µg/L	1	4/21/2016 20:57
1,1,2,2-Tetrachloroethane	U		0.34	1.0	µg/L	1	4/21/2016 20:57
1,1,2-Trichloroethane	U		0.25	1.0	µg/L	1	4/21/2016 20:57
1,1,2-Trichlorotrifluoroethane	U		0.47	1.0	µg/L	1	4/21/2016 20:57
1,1-Dichloroethane	U		0.21	1.0	µg/L	1	4/21/2016 20:57
1,1-Dichloroethene	U		0.24	1.0	µg/L	1	4/21/2016 20:57
1,2,4-Trichlorobenzene	U		0.19	5.0	µg/L	1	4/21/2016 20:57
1,2-Dibromo-3-chloropropane	U		0.42	1.0	µg/L	1	4/21/2016 20:57
1,2-Dibromoethane	U		0.34	1.0	µg/L	1	4/21/2016 20:57
1,2-Dichlorobenzene	U		0.22	1.0	µg/L	1	4/21/2016 20:57
1,2-Dichloroethane	U		0.26	1.0	µg/L	1	4/21/2016 20:57
1,2-Dichloropropane	U		0.26	1.0	µg/L	1	4/21/2016 20:57
1,3-Dichlorobenzene	U		0.21	1.0	µg/L	1	4/21/2016 20:57
1,4-Dichlorobenzene	U		0.20	1.0	µg/L	1	4/21/2016 20:57
2-Butanone	U		0.87	25	µg/L	1	4/21/2016 20:57
2-Hexanone	U		0.15	50	µg/L	1	4/21/2016 20:57
4-Methyl-2-pentanone	U		0.15	50	µg/L	1	4/21/2016 20:57
Acetone	U		3.1	50	µg/L	1	4/21/2016 20:57
Benzene	U		0.25	1.0	µg/L	1	4/21/2016 20:57
Bromodichloromethane	U		0.16	1.0	µg/L	1	4/21/2016 20:57
Bromoform	U		0.099	1.0	µg/L	1	4/21/2016 20:57
Bromomethane	U		1.0	5.0	µg/L	1	4/21/2016 20:57
Carbon disulfide	U		0.26	5.0	µg/L	1	4/21/2016 20:57
Carbon tetrachloride	U		0.14	1.0	µg/L	1	4/21/2016 20:57
Chlorobenzene	U		0.19	1.0	µg/L	1	4/21/2016 20:57
Chloroethane	U		0.21	5.0	µg/L	1	4/21/2016 20:57
Chloroform	U		0.25	1.0	µg/L	1	4/21/2016 20:57
Chloromethane	U		0.25	5.0	µg/L	1	4/21/2016 20:57
cis-1,2-Dichloroethene	U		0.25	1.0	µg/L	1	4/21/2016 20:57
cis-1,3-Dichloropropene	U		0.24	1.0	µg/L	1	4/21/2016 20:57
Cyclohexane	U		0.31	1.0	µg/L	1	4/21/2016 20:57
Dibromochloromethane	U		0.17	5.0	µg/L	1	4/21/2016 20:57
Dichlorodifluoromethane	U		0.41	5.0	µg/L	1	4/21/2016 20:57
Ethylbenzene	U		0.22	1.0	µg/L	1	4/21/2016 20:57
Isopropylbenzene	U		0.25	5.0	µg/L	1	4/21/2016 20:57
Methyl acetate	U		0.62	10	µg/L	1	4/21/2016 20:57
Methyl tert-butyl ether	U		0.12	5.0	µg/L	1	4/21/2016 20:57
Methylcyclohexane	U		0.32	1.0	µg/L	1	4/21/2016 20:57

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

ALS Group USA, Corp

Date: 25-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-041416-MR-034
Collection Date: 4/14/2016 11:40 AM

Work Order: 1604836
Lab ID: 1604836-14
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.64	5.0	µg/L	1	4/21/2016 20:57
Styrene	U		0.18	1.0	µg/L	1	4/21/2016 20:57
Tetrachloroethene	2.8		0.25	1.0	µg/L	1	4/21/2016 20:57
Toluene	U		0.20	1.0	µg/L	1	4/21/2016 20:57
trans-1,2-Dichloroethene	U		0.29	1.0	µg/L	1	4/21/2016 20:57
trans-1,3-Dichloropropene	U		0.19	1.0	µg/L	1	4/21/2016 20:57
Trichloroethene	U		0.34	1.0	µg/L	1	4/21/2016 20:57
Trichlorofluoromethane	U		0.39	1.0	µg/L	1	4/21/2016 20:57
Vinyl chloride	U		0.19	1.0	µg/L	1	4/21/2016 20:57
Xylenes, Total	U		0.62	3.0	µg/L	1	4/21/2016 20:57
Surr: 1,2-Dichloroethane-d4	113			75-120	%REC	1	4/21/2016 20:57
Surr: 4-Bromofluorobenzene	89.2			80-110	%REC	1	4/21/2016 20:57
Surr: Dibromofluoromethane	109			85-115	%REC	1	4/21/2016 20:57
Surr: Toluene-d8	96.8			85-110	%REC	1	4/21/2016 20:57

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

ALS Group USA, Corp

Date: 25-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-041416-MR-035
Collection Date: 4/14/2016 12:00 PM

Work Order: 1604836
Lab ID: 1604836-15
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			Method: SW8260B			Analyst: BG	
1,1,1-Trichloroethane	U		0.19	1.0	µg/L	1	4/21/2016 21:22
1,1,2,2-Tetrachloroethane	U		0.34	1.0	µg/L	1	4/21/2016 21:22
1,1,2-Trichloroethane	U		0.25	1.0	µg/L	1	4/21/2016 21:22
1,1,2-Trichlorotrifluoroethane	U		0.47	1.0	µg/L	1	4/21/2016 21:22
1,1-Dichloroethane	U		0.21	1.0	µg/L	1	4/21/2016 21:22
1,1-Dichloroethene	U		0.24	1.0	µg/L	1	4/21/2016 21:22
1,2,4-Trichlorobenzene	U		0.19	5.0	µg/L	1	4/21/2016 21:22
1,2-Dibromo-3-chloropropane	U		0.42	1.0	µg/L	1	4/21/2016 21:22
1,2-Dibromoethane	U		0.34	1.0	µg/L	1	4/21/2016 21:22
1,2-Dichlorobenzene	U		0.22	1.0	µg/L	1	4/21/2016 21:22
1,2-Dichloroethane	U		0.26	1.0	µg/L	1	4/21/2016 21:22
1,2-Dichloropropane	U		0.26	1.0	µg/L	1	4/21/2016 21:22
1,3-Dichlorobenzene	U		0.21	1.0	µg/L	1	4/21/2016 21:22
1,4-Dichlorobenzene	U		0.20	1.0	µg/L	1	4/21/2016 21:22
2-Butanone	U		0.87	25	µg/L	1	4/21/2016 21:22
2-Hexanone	U		0.15	50	µg/L	1	4/21/2016 21:22
4-Methyl-2-pentanone	U		0.15	50	µg/L	1	4/21/2016 21:22
Acetone	U		3.1	50	µg/L	1	4/21/2016 21:22
Benzene	U		0.25	1.0	µg/L	1	4/21/2016 21:22
Bromodichloromethane	U		0.16	1.0	µg/L	1	4/21/2016 21:22
Bromoform	U		0.099	1.0	µg/L	1	4/21/2016 21:22
Bromomethane	U		1.0	5.0	µg/L	1	4/21/2016 21:22
Carbon disulfide	U		0.26	5.0	µg/L	1	4/21/2016 21:22
Carbon tetrachloride	U		0.14	1.0	µg/L	1	4/21/2016 21:22
Chlorobenzene	U		0.19	1.0	µg/L	1	4/21/2016 21:22
Chloroethane	U		0.21	5.0	µg/L	1	4/21/2016 21:22
Chloroform	U		0.25	1.0	µg/L	1	4/21/2016 21:22
Chloromethane	U		0.25	5.0	µg/L	1	4/21/2016 21:22
cis-1,2-Dichloroethene	U		0.25	1.0	µg/L	1	4/21/2016 21:22
cis-1,3-Dichloropropene	U		0.24	1.0	µg/L	1	4/21/2016 21:22
Cyclohexane	U		0.31	1.0	µg/L	1	4/21/2016 21:22
Dibromochloromethane	U		0.17	5.0	µg/L	1	4/21/2016 21:22
Dichlorodifluoromethane	U		0.41	5.0	µg/L	1	4/21/2016 21:22
Ethylbenzene	U		0.22	1.0	µg/L	1	4/21/2016 21:22
Isopropylbenzene	U		0.25	5.0	µg/L	1	4/21/2016 21:22
Methyl acetate	U		0.62	10	µg/L	1	4/21/2016 21:22
Methyl tert-butyl ether	U		0.12	5.0	µg/L	1	4/21/2016 21:22
Methylcyclohexane	U		0.32	1.0	µg/L	1	4/21/2016 21:22

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

ALS Group USA, Corp

Date: 25-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-041416-MR-035
Collection Date: 4/14/2016 12:00 PM

Work Order: 1604836
Lab ID: 1604836-15
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.64	5.0	µg/L	1	4/21/2016 21:22
Styrene	U		0.18	1.0	µg/L	1	4/21/2016 21:22
Tetrachloroethene	2.7		0.25	1.0	µg/L	1	4/21/2016 21:22
Toluene	U		0.20	1.0	µg/L	1	4/21/2016 21:22
trans-1,2-Dichloroethene	U		0.29	1.0	µg/L	1	4/21/2016 21:22
trans-1,3-Dichloropropene	U		0.19	1.0	µg/L	1	4/21/2016 21:22
Trichloroethene	U		0.34	1.0	µg/L	1	4/21/2016 21:22
Trichlorofluoromethane	U		0.39	1.0	µg/L	1	4/21/2016 21:22
Vinyl chloride	U		0.19	1.0	µg/L	1	4/21/2016 21:22
Xylenes, Total	U		0.62	3.0	µg/L	1	4/21/2016 21:22
Surr: 1,2-Dichloroethane-d4	108			75-120	%REC	1	4/21/2016 21:22
Surr: 4-Bromofluorobenzene	89.1			80-110	%REC	1	4/21/2016 21:22
Surr: Dibromofluoromethane	108			85-115	%REC	1	4/21/2016 21:22
Surr: Toluene-d8	96.0			85-110	%REC	1	4/21/2016 21:22

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

ALS Group USA, Corp

Date: 25-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-041416-MR-036
Collection Date: 4/14/2016 12:40 PM

Work Order: 1604836
Lab ID: 1604836-16
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			Method: SW8260B			Analyst: BG	
1,1,1-Trichloroethane	U		0.19	1.0	µg/L	1	4/21/2016 10:27
1,1,2,2-Tetrachloroethane	U		0.34	1.0	µg/L	1	4/21/2016 10:27
1,1,2-Trichloroethane	U		0.25	1.0	µg/L	1	4/21/2016 10:27
1,1,2-Trichlorotrifluoroethane	U		0.47	1.0	µg/L	1	4/21/2016 10:27
1,1-Dichloroethane	U		0.21	1.0	µg/L	1	4/21/2016 10:27
1,1-Dichloroethene	U		0.24	1.0	µg/L	1	4/21/2016 10:27
1,2,4-Trichlorobenzene	U		0.19	5.0	µg/L	1	4/21/2016 10:27
1,2-Dibromo-3-chloropropane	U		0.42	1.0	µg/L	1	4/21/2016 10:27
1,2-Dibromoethane	U		0.34	1.0	µg/L	1	4/21/2016 10:27
1,2-Dichlorobenzene	U		0.22	1.0	µg/L	1	4/21/2016 10:27
1,2-Dichloroethane	U		0.26	1.0	µg/L	1	4/21/2016 10:27
1,2-Dichloropropane	U		0.26	1.0	µg/L	1	4/21/2016 10:27
1,3-Dichlorobenzene	U		0.21	1.0	µg/L	1	4/21/2016 10:27
1,4-Dichlorobenzene	U		0.20	1.0	µg/L	1	4/21/2016 10:27
2-Butanone	U		0.87	25	µg/L	1	4/21/2016 10:27
2-Hexanone	U		0.15	50	µg/L	1	4/21/2016 10:27
4-Methyl-2-pentanone	U		0.15	50	µg/L	1	4/21/2016 10:27
Acetone	U		3.1	50	µg/L	1	4/21/2016 10:27
Benzene	U		0.25	1.0	µg/L	1	4/21/2016 10:27
Bromodichloromethane	U		0.16	1.0	µg/L	1	4/21/2016 10:27
Bromoform	U		0.099	1.0	µg/L	1	4/21/2016 10:27
Bromomethane	U		1.0	5.0	µg/L	1	4/21/2016 10:27
Carbon disulfide	U		0.26	5.0	µg/L	1	4/21/2016 10:27
Carbon tetrachloride	U		0.14	1.0	µg/L	1	4/21/2016 10:27
Chlorobenzene	U		0.19	1.0	µg/L	1	4/21/2016 10:27
Chloroethane	U		0.21	5.0	µg/L	1	4/21/2016 10:27
Chloroform	U		0.25	1.0	µg/L	1	4/21/2016 10:27
Chloromethane	U		0.25	5.0	µg/L	1	4/21/2016 10:27
cis-1,2-Dichloroethene	0.85	J	0.25	1.0	µg/L	1	4/21/2016 10:27
cis-1,3-Dichloropropene	U		0.24	1.0	µg/L	1	4/21/2016 10:27
Cyclohexane	U		0.31	1.0	µg/L	1	4/21/2016 10:27
Dibromochloromethane	U		0.17	5.0	µg/L	1	4/21/2016 10:27
Dichlorodifluoromethane	U		0.41	5.0	µg/L	1	4/21/2016 10:27
Ethylbenzene	U		0.22	1.0	µg/L	1	4/21/2016 10:27
Isopropylbenzene	U		0.25	5.0	µg/L	1	4/21/2016 10:27
Methyl acetate	U		0.62	10	µg/L	1	4/21/2016 10:27
Methyl tert-butyl ether	U		0.12	5.0	µg/L	1	4/21/2016 10:27
Methylcyclohexane	U		0.32	1.0	µg/L	1	4/21/2016 10:27

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

ALS Group USA, Corp

Date: 25-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-041416-MR-036
Collection Date: 4/14/2016 12:40 PM

Work Order: 1604836
Lab ID: 1604836-16
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.64	5.0	µg/L	1	4/21/2016 10:27
Styrene	U		0.18	1.0	µg/L	1	4/21/2016 10:27
Tetrachloroethene	170		1.2	5.0	µg/L	5	4/20/2016 21:40
Toluene	U		0.20	1.0	µg/L	1	4/21/2016 10:27
trans-1,2-Dichloroethene	U		0.29	1.0	µg/L	1	4/21/2016 10:27
trans-1,3-Dichloropropene	U		0.19	1.0	µg/L	1	4/21/2016 10:27
Trichloroethene	3.3		0.34	1.0	µg/L	1	4/21/2016 10:27
Trichlorofluoromethane	U		0.39	1.0	µg/L	1	4/21/2016 10:27
Vinyl chloride	U		0.19	1.0	µg/L	1	4/21/2016 10:27
Xylenes, Total	U		0.62	3.0	µg/L	1	4/21/2016 10:27
Surr: 1,2-Dichloroethane-d4	98.6			75-120	%REC	5	4/20/2016 21:40
Surr: 1,2-Dichloroethane-d4	107			75-120	%REC	1	4/21/2016 10:27
Surr: 4-Bromofluorobenzene	97.4			80-110	%REC	5	4/20/2016 21:40
Surr: 4-Bromofluorobenzene	88.4			80-110	%REC	1	4/21/2016 10:27
Surr: Dibromofluoromethane	97.6			85-115	%REC	5	4/20/2016 21:40
Surr: Dibromofluoromethane	103			85-115	%REC	1	4/21/2016 10:27
Surr: Toluene-d8	97.6			85-110	%REC	5	4/20/2016 21:40
Surr: Toluene-d8	92.1			85-110	%REC	1	4/21/2016 10:27

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

ALS Group USA, Corp

Date: 25-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-041416-MR-037
Collection Date: 4/14/2016 02:18 PM

Work Order: 1604836
Lab ID: 1604836-17
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
SEMI-VOLATILE ORGANIC COMPOUNDS			Method: SW846 8270D		Prep: SW3510 / 4/20/16		Analyst: JF
1,1'-Biphenyl	U		0.24	5.4	µg/L	1	4/20/2016 21:31
2,4,5-Trichlorophenol	U		0.32	5.4	µg/L	1	4/20/2016 21:31
2,4,6-Trichlorophenol	U		0.27	5.4	µg/L	1	4/20/2016 21:31
2,4-Dichlorophenol	U		0.18	5.4	µg/L	1	4/20/2016 21:31
2,4-Dimethylphenol	U		0.20	5.4	µg/L	1	4/20/2016 21:31
2,4-Dinitrophenol	U		1.6	5.4	µg/L	1	4/20/2016 21:31
2,4-Dinitrotoluene	U		0.15	5.4	µg/L	1	4/20/2016 21:31
2,6-Dinitrotoluene	U		0.22	5.4	µg/L	1	4/20/2016 21:31
2-Chloronaphthalene	U		0.033	5.4	µg/L	1	4/20/2016 21:31
2-Chlorophenol	U		0.32	5.4	µg/L	1	4/20/2016 21:31
2-Methylnaphthalene	U		0.11	5.4	µg/L	1	4/20/2016 21:31
2-Methylphenol	U		0.15	5.4	µg/L	1	4/20/2016 21:31
2-Nitroaniline	U		0.26	5.4	µg/L	1	4/20/2016 21:31
2-Nitrophenol	U		0.29	5.4	µg/L	1	4/20/2016 21:31
3&4-Methylphenol	U		0.26	5.4	µg/L	1	4/20/2016 21:31
3,3'-Dichlorobenzidine	U		0.76	5.4	µg/L	1	4/20/2016 21:31
3-Nitroaniline	U		0.26	5.4	µg/L	1	4/20/2016 21:31
4,6-Dinitro-2-methylphenol	U		0.13	5.4	µg/L	1	4/20/2016 21:31
4-Bromophenyl phenyl ether	U		0.32	5.4	µg/L	1	4/20/2016 21:31
4-Chloro-3-methylphenol	U		0.17	5.4	µg/L	1	4/20/2016 21:31
4-Chloroaniline	U		0.24	5.4	µg/L	1	4/20/2016 21:31
4-Chlorophenyl phenyl ether	U		0.22	5.4	µg/L	1	4/20/2016 21:31
4-Nitroaniline	U		0.14	5.4	µg/L	1	4/20/2016 21:31
4-Nitrophenol	U		0.67	5.4	µg/L	1	4/20/2016 21:31
Acenaphthene	U		0.045	5.4	µg/L	1	4/20/2016 21:31
Acenaphthylene	U		0.042	5.4	µg/L	1	4/20/2016 21:31
Acetophenone	1.4		0.40	1.1	µg/L	1	4/20/2016 21:31
Anthracene	U		0.030	5.4	µg/L	1	4/20/2016 21:31
Atrazine	U		0.17	1.1	µg/L	1	4/20/2016 21:31
Benzaldehyde	U		0.27	1.1	µg/L	1	4/20/2016 21:31
Benzo(a)anthracene	U		0.078	5.4	µg/L	1	4/20/2016 21:31
Benzo(a)pyrene	U		0.039	5.4	µg/L	1	4/20/2016 21:31
Benzo(b)fluoranthene	U		0.047	5.4	µg/L	1	4/20/2016 21:31
Benzo(g,h,i)perylene	U		0.076	5.4	µg/L	1	4/20/2016 21:31
Benzo(k)fluoranthene	U		0.067	5.4	µg/L	1	4/20/2016 21:31
Bis(2-chloroethoxy)methane	U		0.25	5.4	µg/L	1	4/20/2016 21:31
Bis(2-chloroethyl)ether	U		0.17	5.4	µg/L	1	4/20/2016 21:31
Bis(2-chloroisopropyl)ether	U		0.21	5.4	µg/L	1	4/20/2016 21:31

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

ALS Group USA, Corp

Date: 25-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-041416-MR-037
Collection Date: 4/14/2016 02:18 PM

Work Order: 1604836
Lab ID: 1604836-17
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Bis(2-ethylhexyl)phthalate	U		0.20	5.4	µg/L	1	4/20/2016 21:31
Butyl benzyl phthalate	U		0.13	5.4	µg/L	1	4/20/2016 21:31
Caprolactam	U		1.0	11	µg/L	1	4/20/2016 21:31
Carbazole	U		0.13	5.4	µg/L	1	4/20/2016 21:31
Chrysene	U		0.046	5.4	µg/L	1	4/20/2016 21:31
Dibenzo(a,h)anthracene	U		0.080	5.4	µg/L	1	4/20/2016 21:31
Dibenzofuran	U		0.25	5.4	µg/L	1	4/20/2016 21:31
Diethyl phthalate	U		0.18	5.4	µg/L	1	4/20/2016 21:31
Dimethyl phthalate	U		0.16	5.4	µg/L	1	4/20/2016 21:31
Di-n-butyl phthalate	U		0.16	5.4	µg/L	1	4/20/2016 21:31
Di-n-octyl phthalate	U		0.16	5.4	µg/L	1	4/20/2016 21:31
Fluoranthene	U		0.051	5.4	µg/L	1	4/20/2016 21:31
Fluorene	U		0.039	5.4	µg/L	1	4/20/2016 21:31
Hexachlorobenzene	U		0.25	5.4	µg/L	1	4/20/2016 21:31
Hexachlorobutadiene	U		0.40	5.4	µg/L	1	4/20/2016 21:31
Hexachlorocyclopentadiene	U		0.20	5.4	µg/L	1	4/20/2016 21:31
Hexachloroethane	U		0.51	5.4	µg/L	1	4/20/2016 21:31
Indeno(1,2,3-cd)pyrene	U		0.070	5.4	µg/L	1	4/20/2016 21:31
Isophorone	U		0.27	5.4	µg/L	1	4/20/2016 21:31
Naphthalene	U		0.054	5.4	µg/L	1	4/20/2016 21:31
Nitrobenzene	U		0.25	5.4	µg/L	1	4/20/2016 21:31
N-Nitrosodi-n-propylamine	U		0.26	5.4	µg/L	1	4/20/2016 21:31
N-Nitrosodiphenylamine	U		0.26	5.4	µg/L	1	4/20/2016 21:31
Pentachlorophenol	U		0.57	5.4	µg/L	1	4/20/2016 21:31
Phenanthrene	U		0.059	5.4	µg/L	1	4/20/2016 21:31
Phenol	U		0.14	5.4	µg/L	1	4/20/2016 21:31
Pyrene	U		0.075	5.4	µg/L	1	4/20/2016 21:31
Surr: 2,4,6-Tribromophenol	82.6			38-115	%REC	1	4/20/2016 21:31
Surr: 2-Fluorobiphenyl	62.8			32-100	%REC	1	4/20/2016 21:31
Surr: 2-Fluorophenol	32.7			22-59	%REC	1	4/20/2016 21:31
Surr: 4-Terphenyl-d14	86.9			23-112	%REC	1	4/20/2016 21:31
Surr: Nitrobenzene-d5	56.2			31-93	%REC	1	4/20/2016 21:31
Surr: Phenol-d6	22.8			13-36	%REC	1	4/20/2016 21:31
VOLATILE ORGANIC COMPOUNDS			Method: SW8260B				Analyst: BG
1,1,1-Trichloroethane	U		0.19	1.0	µg/L	1	4/21/2016 21:48
1,1,2,2-Tetrachloroethane	U		0.34	1.0	µg/L	1	4/21/2016 21:48
1,1,2-Trichloroethane	U		0.25	1.0	µg/L	1	4/21/2016 21:48
1,1,2-Trichlorotrifluoroethane	U		0.47	1.0	µg/L	1	4/21/2016 21:48
1,1-Dichloroethane	U		0.21	1.0	µg/L	1	4/21/2016 21:48

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

ALS Group USA, Corp

Date: 25-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-041416-MR-037
Collection Date: 4/14/2016 02:18 PM

Work Order: 1604836
Lab ID: 1604836-17
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,1-Dichloroethene	U		0.24	1.0	µg/L	1	4/21/2016 21:48
1,2,4-Trichlorobenzene	U		0.19	5.0	µg/L	1	4/21/2016 21:48
1,2-Dibromo-3-chloropropane	U		0.42	1.0	µg/L	1	4/21/2016 21:48
1,2-Dibromoethane	U		0.34	1.0	µg/L	1	4/21/2016 21:48
1,2-Dichlorobenzene	U		0.22	1.0	µg/L	1	4/21/2016 21:48
1,2-Dichloroethane	U		0.26	1.0	µg/L	1	4/21/2016 21:48
1,2-Dichloropropane	U		0.26	1.0	µg/L	1	4/21/2016 21:48
1,3-Dichlorobenzene	U		0.21	1.0	µg/L	1	4/21/2016 21:48
1,4-Dichlorobenzene	U		0.20	1.0	µg/L	1	4/21/2016 21:48
2-Butanone	U		0.87	25	µg/L	1	4/21/2016 21:48
2-Hexanone	U		0.15	50	µg/L	1	4/21/2016 21:48
4-Methyl-2-pentanone	U		0.15	50	µg/L	1	4/21/2016 21:48
Acetone	13	J	3.1	50	µg/L	1	4/21/2016 21:48
Benzene	0.39	J	0.25	1.0	µg/L	1	4/21/2016 21:48
Bromodichloromethane	U		0.16	1.0	µg/L	1	4/21/2016 21:48
Bromoform	U		0.099	1.0	µg/L	1	4/21/2016 21:48
Bromomethane	U		1.0	5.0	µg/L	1	4/21/2016 21:48
Carbon disulfide	U		0.26	5.0	µg/L	1	4/21/2016 21:48
Carbon tetrachloride	U		0.14	1.0	µg/L	1	4/21/2016 21:48
Chlorobenzene	U		0.19	1.0	µg/L	1	4/21/2016 21:48
Chloroethane	U		0.21	5.0	µg/L	1	4/21/2016 21:48
Chloroform	U		0.25	1.0	µg/L	1	4/21/2016 21:48
Chloromethane	U		0.25	5.0	µg/L	1	4/21/2016 21:48
cis-1,2-Dichloroethene	U		0.25	1.0	µg/L	1	4/21/2016 21:48
cis-1,3-Dichloropropene	U		0.24	1.0	µg/L	1	4/21/2016 21:48
Cyclohexane	U		0.31	1.0	µg/L	1	4/21/2016 21:48
Dibromochloromethane	U		0.17	5.0	µg/L	1	4/21/2016 21:48
Dichlorodifluoromethane	U		0.41	5.0	µg/L	1	4/21/2016 21:48
Ethylbenzene	2.0		0.22	1.0	µg/L	1	4/21/2016 21:48
Isopropylbenzene	1.3	J	0.25	5.0	µg/L	1	4/21/2016 21:48
Methyl acetate	U		0.62	10	µg/L	1	4/21/2016 21:48
Methyl tert-butyl ether	U		0.12	5.0	µg/L	1	4/21/2016 21:48
Methylcyclohexane	U		0.32	1.0	µg/L	1	4/21/2016 21:48
Methylene chloride	U		0.64	5.0	µg/L	1	4/21/2016 21:48
Styrene	0.64	J	0.18	1.0	µg/L	1	4/21/2016 21:48
Tetrachloroethene	U		0.25	1.0	µg/L	1	4/21/2016 21:48
Toluene	0.49	J	0.20	1.0	µg/L	1	4/21/2016 21:48
trans-1,2-Dichloroethene	U		0.29	1.0	µg/L	1	4/21/2016 21:48
trans-1,3-Dichloropropene	U		0.19	1.0	µg/L	1	4/21/2016 21:48
Trichloroethene	U		0.34	1.0	µg/L	1	4/21/2016 21:48

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

ALS Group USA, Corp

Date: 25-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-041416-MR-037
Collection Date: 4/14/2016 02:18 PM

Work Order: 1604836
Lab ID: 1604836-17
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Trichlorofluoromethane	U		0.39	1.0	µg/L	1	4/21/2016 21:48
Vinyl chloride	U		0.19	1.0	µg/L	1	4/21/2016 21:48
Xylenes, Total	3.2		0.62	3.0	µg/L	1	4/21/2016 21:48
Surr: 1,2-Dichloroethane-d4	120	S		75-120	%REC	1	4/21/2016 21:48
Surr: 4-Bromofluorobenzene	95.6			80-110	%REC	1	4/21/2016 21:48
Surr: Dibromofluoromethane	108			85-115	%REC	1	4/21/2016 21:48
Surr: Toluene-d8	103			85-110	%REC	1	4/21/2016 21:48

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

ALS Group USA, Corp

Date: 25-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-041416-MR-038
Collection Date: 4/14/2016 03:15 PM

Work Order: 1604836
Lab ID: 1604836-18
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
SEMI-VOLATILE ORGANIC COMPOUNDS			Method: SW846 8270D		Prep: SW3510 / 4/20/16		Analyst: JF
1,1'-Biphenyl	U		0.24	5.5	µg/L	1	4/20/2016 21:55
2,4,5-Trichlorophenol	U		0.32	5.5	µg/L	1	4/20/2016 21:55
2,4,6-Trichlorophenol	U		0.27	5.5	µg/L	1	4/20/2016 21:55
2,4-Dichlorophenol	U		0.19	5.5	µg/L	1	4/20/2016 21:55
2,4-Dimethylphenol	U		0.20	5.5	µg/L	1	4/20/2016 21:55
2,4-Dinitrophenol	U		1.6	5.5	µg/L	1	4/20/2016 21:55
2,4-Dinitrotoluene	U		0.15	5.5	µg/L	1	4/20/2016 21:55
2,6-Dinitrotoluene	U		0.22	5.5	µg/L	1	4/20/2016 21:55
2-Chloronaphthalene	U		0.033	5.5	µg/L	1	4/20/2016 21:55
2-Chlorophenol	U		0.32	5.5	µg/L	1	4/20/2016 21:55
2-Methylnaphthalene	U		0.11	5.5	µg/L	1	4/20/2016 21:55
2-Methylphenol	U		0.15	5.5	µg/L	1	4/20/2016 21:55
2-Nitroaniline	U		0.26	5.5	µg/L	1	4/20/2016 21:55
2-Nitrophenol	U		0.30	5.5	µg/L	1	4/20/2016 21:55
3&4-Methylphenol	U		0.26	5.5	µg/L	1	4/20/2016 21:55
3,3'-Dichlorobenzidine	U		0.77	5.5	µg/L	1	4/20/2016 21:55
3-Nitroaniline	U		0.26	5.5	µg/L	1	4/20/2016 21:55
4,6-Dinitro-2-methylphenol	U		0.13	5.5	µg/L	1	4/20/2016 21:55
4-Bromophenyl phenyl ether	U		0.32	5.5	µg/L	1	4/20/2016 21:55
4-Chloro-3-methylphenol	U		0.18	5.5	µg/L	1	4/20/2016 21:55
4-Chloroaniline	U		0.24	5.5	µg/L	1	4/20/2016 21:55
4-Chlorophenyl phenyl ether	U		0.22	5.5	µg/L	1	4/20/2016 21:55
4-Nitroaniline	U		0.14	5.5	µg/L	1	4/20/2016 21:55
4-Nitrophenol	U		0.68	5.5	µg/L	1	4/20/2016 21:55
Acenaphthene	0.36	J	0.045	5.5	µg/L	1	4/20/2016 21:55
Acenaphthylene	U		0.043	5.5	µg/L	1	4/20/2016 21:55
Acetophenone	U		0.41	1.1	µg/L	1	4/20/2016 21:55
Anthracene	U		0.031	5.5	µg/L	1	4/20/2016 21:55
Atrazine	U		0.18	1.1	µg/L	1	4/20/2016 21:55
Benzaldehyde	U		0.27	1.1	µg/L	1	4/20/2016 21:55
Benzo(a)anthracene	U		0.079	5.5	µg/L	1	4/20/2016 21:55
Benzo(a)pyrene	U		0.040	5.5	µg/L	1	4/20/2016 21:55
Benzo(b)fluoranthene	U		0.047	5.5	µg/L	1	4/20/2016 21:55
Benzo(g,h,i)perylene	U		0.077	5.5	µg/L	1	4/20/2016 21:55
Benzo(k)fluoranthene	U		0.068	5.5	µg/L	1	4/20/2016 21:55
Bis(2-chloroethoxy)methane	U		0.25	5.5	µg/L	1	4/20/2016 21:55
Bis(2-chloroethyl)ether	U		0.18	5.5	µg/L	1	4/20/2016 21:55
Bis(2-chloroisopropyl)ether	U		0.21	5.5	µg/L	1	4/20/2016 21:55

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

ALS Group USA, Corp

Date: 25-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-041416-MR-038
Collection Date: 4/14/2016 03:15 PM

Work Order: 1604836
Lab ID: 1604836-18
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Bis(2-ethylhexyl)phthalate	U		0.20	5.5	µg/L	1	4/20/2016 21:55
Butyl benzyl phthalate	U		0.13	5.5	µg/L	1	4/20/2016 21:55
Caprolactam	U		1.1	11	µg/L	1	4/20/2016 21:55
Carbazole	U		0.13	5.5	µg/L	1	4/20/2016 21:55
Chrysene	U		0.046	5.5	µg/L	1	4/20/2016 21:55
Dibenzo(a,h)anthracene	U		0.081	5.5	µg/L	1	4/20/2016 21:55
Dibenzofuran	0.42	J	0.25	5.5	µg/L	1	4/20/2016 21:55
Diethyl phthalate	U		0.19	5.5	µg/L	1	4/20/2016 21:55
Dimethyl phthalate	U		0.16	5.5	µg/L	1	4/20/2016 21:55
Di-n-butyl phthalate	U		0.16	5.5	µg/L	1	4/20/2016 21:55
Di-n-octyl phthalate	U		0.16	5.5	µg/L	1	4/20/2016 21:55
Fluoranthene	U		0.052	5.5	µg/L	1	4/20/2016 21:55
Fluorene	0.44	J	0.040	5.5	µg/L	1	4/20/2016 21:55
Hexachlorobenzene	U		0.25	5.5	µg/L	1	4/20/2016 21:55
Hexachlorobutadiene	U		0.41	5.5	µg/L	1	4/20/2016 21:55
Hexachlorocyclopentadiene	U		0.20	5.5	µg/L	1	4/20/2016 21:55
Hexachloroethane	U		0.52	5.5	µg/L	1	4/20/2016 21:55
Indeno(1,2,3-cd)pyrene	U		0.070	5.5	µg/L	1	4/20/2016 21:55
Isophorone	U		0.27	5.5	µg/L	1	4/20/2016 21:55
Naphthalene	U		0.055	5.5	µg/L	1	4/20/2016 21:55
Nitrobenzene	U		0.25	5.5	µg/L	1	4/20/2016 21:55
N-Nitrosodi-n-propylamine	U		0.26	5.5	µg/L	1	4/20/2016 21:55
N-Nitrosodiphenylamine	U		0.26	5.5	µg/L	1	4/20/2016 21:55
Pentachlorophenol	U		0.57	5.5	µg/L	1	4/20/2016 21:55
Phenanthrene	U		0.059	5.5	µg/L	1	4/20/2016 21:55
Phenol	U		0.14	5.5	µg/L	1	4/20/2016 21:55
Pyrene	U		0.076	5.5	µg/L	1	4/20/2016 21:55
Surr: 2,4,6-Tribromophenol	78.5			38-115	%REC	1	4/20/2016 21:55
Surr: 2-Fluorobiphenyl	59.2			32-100	%REC	1	4/20/2016 21:55
Surr: 2-Fluorophenol	26.2			22-59	%REC	1	4/20/2016 21:55
Surr: 4-Terphenyl-d14	86.4			23-112	%REC	1	4/20/2016 21:55
Surr: Nitrobenzene-d5	47.9			31-93	%REC	1	4/20/2016 21:55
Surr: Phenol-d6	18.0			13-36	%REC	1	4/20/2016 21:55
VOLATILE ORGANIC COMPOUNDS			Method: SW8260B				Analyst: BG
1,1,1-Trichloroethane	U		0.19	1.0	µg/L	1	4/21/2016 22:14
1,1,2,2-Tetrachloroethane	U		0.34	1.0	µg/L	1	4/21/2016 22:14
1,1,2-Trichloroethane	U		0.25	1.0	µg/L	1	4/21/2016 22:14
1,1,2-Trichlorotrifluoroethane	U		0.47	1.0	µg/L	1	4/21/2016 22:14
1,1-Dichloroethane	U		0.21	1.0	µg/L	1	4/21/2016 22:14

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

ALS Group USA, Corp

Date: 25-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-041416-MR-038
Collection Date: 4/14/2016 03:15 PM

Work Order: 1604836
Lab ID: 1604836-18
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,1-Dichloroethene	U		0.24	1.0	µg/L	1	4/21/2016 22:14
1,2,4-Trichlorobenzene	U		0.19	5.0	µg/L	1	4/21/2016 22:14
1,2-Dibromo-3-chloropropane	U		0.42	1.0	µg/L	1	4/21/2016 22:14
1,2-Dibromoethane	U		0.34	1.0	µg/L	1	4/21/2016 22:14
1,2-Dichlorobenzene	U		0.22	1.0	µg/L	1	4/21/2016 22:14
1,2-Dichloroethane	U		0.26	1.0	µg/L	1	4/21/2016 22:14
1,2-Dichloropropane	U		0.26	1.0	µg/L	1	4/21/2016 22:14
1,3-Dichlorobenzene	U		0.21	1.0	µg/L	1	4/21/2016 22:14
1,4-Dichlorobenzene	U		0.20	1.0	µg/L	1	4/21/2016 22:14
2-Butanone	U		0.87	25	µg/L	1	4/21/2016 22:14
2-Hexanone	U		0.15	50	µg/L	1	4/21/2016 22:14
4-Methyl-2-pentanone	U		0.15	50	µg/L	1	4/21/2016 22:14
Acetone	13	J	3.1	50	µg/L	1	4/21/2016 22:14
Benzene	U		0.25	1.0	µg/L	1	4/21/2016 22:14
Bromodichloromethane	U		0.16	1.0	µg/L	1	4/21/2016 22:14
Bromoform	U		0.099	1.0	µg/L	1	4/21/2016 22:14
Bromomethane	U		1.0	5.0	µg/L	1	4/21/2016 22:14
Carbon disulfide	U		0.26	5.0	µg/L	1	4/21/2016 22:14
Carbon tetrachloride	U		0.14	1.0	µg/L	1	4/21/2016 22:14
Chlorobenzene	U		0.19	1.0	µg/L	1	4/21/2016 22:14
Chloroethane	U		0.21	5.0	µg/L	1	4/21/2016 22:14
Chloroform	U		0.25	1.0	µg/L	1	4/21/2016 22:14
Chloromethane	U		0.25	5.0	µg/L	1	4/21/2016 22:14
cis-1,2-Dichloroethene	U		0.25	1.0	µg/L	1	4/21/2016 22:14
cis-1,3-Dichloropropene	U		0.24	1.0	µg/L	1	4/21/2016 22:14
Cyclohexane	U		0.31	1.0	µg/L	1	4/21/2016 22:14
Dibromochloromethane	U		0.17	5.0	µg/L	1	4/21/2016 22:14
Dichlorodifluoromethane	U		0.41	5.0	µg/L	1	4/21/2016 22:14
Ethylbenzene	U		0.22	1.0	µg/L	1	4/21/2016 22:14
Isopropylbenzene	U		0.25	5.0	µg/L	1	4/21/2016 22:14
Methyl acetate	U		0.62	10	µg/L	1	4/21/2016 22:14
Methyl tert-butyl ether	U		0.12	5.0	µg/L	1	4/21/2016 22:14
Methylcyclohexane	U		0.32	1.0	µg/L	1	4/21/2016 22:14
Methylene chloride	U		0.64	5.0	µg/L	1	4/21/2016 22:14
Styrene	U		0.18	1.0	µg/L	1	4/21/2016 22:14
Tetrachloroethene	1.6		0.25	1.0	µg/L	1	4/21/2016 22:14
Toluene	U		0.20	1.0	µg/L	1	4/21/2016 22:14
trans-1,2-Dichloroethene	U		0.29	1.0	µg/L	1	4/21/2016 22:14
trans-1,3-Dichloropropene	U		0.19	1.0	µg/L	1	4/21/2016 22:14
Trichloroethene	U		0.34	1.0	µg/L	1	4/21/2016 22:14

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

ALS Group USA, Corp

Date: 25-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-041416-MR-038
Collection Date: 4/14/2016 03:15 PM

Work Order: 1604836
Lab ID: 1604836-18
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Trichlorofluoromethane	U		0.39	1.0	µg/L	1	4/21/2016 22:14
Vinyl chloride	U		0.19	1.0	µg/L	1	4/21/2016 22:14
Xylenes, Total	U		0.62	3.0	µg/L	1	4/21/2016 22:14
Surr: 1,2-Dichloroethane-d4	107			75-120	%REC	1	4/21/2016 22:14
Surr: 4-Bromofluorobenzene	92.3			80-110	%REC	1	4/21/2016 22:14
Surr: Dibromofluoromethane	106			85-115	%REC	1	4/21/2016 22:14
Surr: Toluene-d8	95.5			85-110	%REC	1	4/21/2016 22:14

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

ALS Group USA, Corp

Date: 25-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-041416-MR-039
Collection Date: 4/14/2016 04:09 PM

Work Order: 1604836
Lab ID: 1604836-19
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
SEMI-VOLATILE ORGANIC COMPOUNDS			Method: SW846 8270D		Prep: SW3510 / 4/20/16		Analyst: JF
1,1'-Biphenyl	U		0.24	5.6	µg/L	1	4/20/2016 22:19
2,4,5-Trichlorophenol	U		0.32	5.6	µg/L	1	4/20/2016 22:19
2,4,6-Trichlorophenol	U		0.28	5.6	µg/L	1	4/20/2016 22:19
2,4-Dichlorophenol	U		0.19	5.6	µg/L	1	4/20/2016 22:19
2,4-Dimethylphenol	U		0.20	5.6	µg/L	1	4/20/2016 22:19
2,4-Dinitrophenol	U		1.6	5.6	µg/L	1	4/20/2016 22:19
2,4-Dinitrotoluene	U		0.16	5.6	µg/L	1	4/20/2016 22:19
2,6-Dinitrotoluene	U		0.22	5.6	µg/L	1	4/20/2016 22:19
2-Chloronaphthalene	U		0.033	5.6	µg/L	1	4/20/2016 22:19
2-Chlorophenol	U		0.32	5.6	µg/L	1	4/20/2016 22:19
2-Methylnaphthalene	U		0.11	5.6	µg/L	1	4/20/2016 22:19
2-Methylphenol	U		0.16	5.6	µg/L	1	4/20/2016 22:19
2-Nitroaniline	U		0.27	5.6	µg/L	1	4/20/2016 22:19
2-Nitrophenol	U		0.30	5.6	µg/L	1	4/20/2016 22:19
3&4-Methylphenol	U		0.27	5.6	µg/L	1	4/20/2016 22:19
3,3'-Dichlorobenzidine	U		0.78	5.6	µg/L	1	4/20/2016 22:19
3-Nitroaniline	U		0.27	5.6	µg/L	1	4/20/2016 22:19
4,6-Dinitro-2-methylphenol	U		0.13	5.6	µg/L	1	4/20/2016 22:19
4-Bromophenyl phenyl ether	U		0.32	5.6	µg/L	1	4/20/2016 22:19
4-Chloro-3-methylphenol	U		0.18	5.6	µg/L	1	4/20/2016 22:19
4-Chloroaniline	U		0.24	5.6	µg/L	1	4/20/2016 22:19
4-Chlorophenyl phenyl ether	U		0.22	5.6	µg/L	1	4/20/2016 22:19
4-Nitroaniline	U		0.14	5.6	µg/L	1	4/20/2016 22:19
4-Nitrophenol	U		0.69	5.6	µg/L	1	4/20/2016 22:19
Acenaphthene	U		0.046	5.6	µg/L	1	4/20/2016 22:19
Acenaphthylene	U		0.043	5.6	µg/L	1	4/20/2016 22:19
Acetophenone	U		0.41	1.1	µg/L	1	4/20/2016 22:19
Anthracene	U		0.031	5.6	µg/L	1	4/20/2016 22:19
Atrazine	U		0.18	1.1	µg/L	1	4/20/2016 22:19
Benzaldehyde	U		0.28	1.1	µg/L	1	4/20/2016 22:19
Benzo(a)anthracene	U		0.080	5.6	µg/L	1	4/20/2016 22:19
Benzo(a)pyrene	U		0.040	5.6	µg/L	1	4/20/2016 22:19
Benzo(b)fluoranthene	U		0.048	5.6	µg/L	1	4/20/2016 22:19
Benzo(g,h,i)perylene	U		0.078	5.6	µg/L	1	4/20/2016 22:19
Benzo(k)fluoranthene	U		0.069	5.6	µg/L	1	4/20/2016 22:19
Bis(2-chloroethoxy)methane	U		0.26	5.6	µg/L	1	4/20/2016 22:19
Bis(2-chloroethyl)ether	U		0.18	5.6	µg/L	1	4/20/2016 22:19
Bis(2-chloroisopropyl)ether	U		0.21	5.6	µg/L	1	4/20/2016 22:19

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

ALS Group USA, Corp

Date: 25-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-041416-MR-039
Collection Date: 4/14/2016 04:09 PM

Work Order: 1604836
Lab ID: 1604836-19
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Bis(2-ethylhexyl)phthalate	U		0.20	5.6	µg/L	1	4/20/2016 22:19
Butyl benzyl phthalate	U		0.13	5.6	µg/L	1	4/20/2016 22:19
Caprolactam	U		1.1	11	µg/L	1	4/20/2016 22:19
Carbazole	U		0.13	5.6	µg/L	1	4/20/2016 22:19
Chrysene	U		0.047	5.6	µg/L	1	4/20/2016 22:19
Dibenzo(a,h)anthracene	U		0.082	5.6	µg/L	1	4/20/2016 22:19
Dibenzofuran	U		0.26	5.6	µg/L	1	4/20/2016 22:19
Diethyl phthalate	U		0.19	5.6	µg/L	1	4/20/2016 22:19
Dimethyl phthalate	U		0.17	5.6	µg/L	1	4/20/2016 22:19
Di-n-butyl phthalate	0.47	J	0.17	5.6	µg/L	1	4/20/2016 22:19
Di-n-octyl phthalate	U		0.17	5.6	µg/L	1	4/20/2016 22:19
Fluoranthene	U		0.052	5.6	µg/L	1	4/20/2016 22:19
Fluorene	U		0.040	5.6	µg/L	1	4/20/2016 22:19
Hexachlorobenzene	U		0.26	5.6	µg/L	1	4/20/2016 22:19
Hexachlorobutadiene	U		0.41	5.6	µg/L	1	4/20/2016 22:19
Hexachlorocyclopentadiene	U		0.20	5.6	µg/L	1	4/20/2016 22:19
Hexachloroethane	U		0.52	5.6	µg/L	1	4/20/2016 22:19
Indeno(1,2,3-cd)pyrene	U		0.071	5.6	µg/L	1	4/20/2016 22:19
Isophorone	U		0.28	5.6	µg/L	1	4/20/2016 22:19
Naphthalene	U		0.056	5.6	µg/L	1	4/20/2016 22:19
Nitrobenzene	U		0.26	5.6	µg/L	1	4/20/2016 22:19
N-Nitrosodi-n-propylamine	U		0.27	5.6	µg/L	1	4/20/2016 22:19
N-Nitrosodiphenylamine	U		0.27	5.6	µg/L	1	4/20/2016 22:19
Pentachlorophenol	U		0.58	5.6	µg/L	1	4/20/2016 22:19
Phenanthrene	U		0.060	5.6	µg/L	1	4/20/2016 22:19
Phenol	U		0.14	5.6	µg/L	1	4/20/2016 22:19
Pyrene	U		0.077	5.6	µg/L	1	4/20/2016 22:19
Surr: 2,4,6-Tribromophenol	66.0			38-115	%REC	1	4/20/2016 22:19
Surr: 2-Fluorobiphenyl	45.9			32-100	%REC	1	4/20/2016 22:19
Surr: 2-Fluorophenol	29.9			22-59	%REC	1	4/20/2016 22:19
Surr: 4-Terphenyl-d14	76.8			23-112	%REC	1	4/20/2016 22:19
Surr: Nitrobenzene-d5	46.0			31-93	%REC	1	4/20/2016 22:19
Surr: Phenol-d6	16.0			13-36	%REC	1	4/20/2016 22:19
VOLATILE ORGANIC COMPOUNDS			Method: SW8260B				Analyst: BG
1,1,1-Trichloroethane	U		0.19	1.0	µg/L	1	4/21/2016 09:35
1,1,2,2-Tetrachloroethane	U		0.34	1.0	µg/L	1	4/21/2016 09:35
1,1,2-Trichloroethane	U		0.25	1.0	µg/L	1	4/21/2016 09:35
1,1,2-Trichlorotrifluoroethane	U		0.47	1.0	µg/L	1	4/21/2016 09:35
1,1-Dichloroethane	U		0.21	1.0	µg/L	1	4/21/2016 09:35

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

ALS Group USA, Corp

Date: 25-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-041416-MR-039
Collection Date: 4/14/2016 04:09 PM

Work Order: 1604836
Lab ID: 1604836-19
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,1-Dichloroethene	U		0.24	1.0	µg/L	1	4/21/2016 09:35
1,2,4-Trichlorobenzene	U		0.19	5.0	µg/L	1	4/21/2016 09:35
1,2-Dibromo-3-chloropropane	U		0.42	1.0	µg/L	1	4/21/2016 09:35
1,2-Dibromoethane	U		0.34	1.0	µg/L	1	4/21/2016 09:35
1,2-Dichlorobenzene	U		0.22	1.0	µg/L	1	4/21/2016 09:35
1,2-Dichloroethane	U		0.26	1.0	µg/L	1	4/21/2016 09:35
1,2-Dichloropropane	U		0.26	1.0	µg/L	1	4/21/2016 09:35
1,3-Dichlorobenzene	U		0.21	1.0	µg/L	1	4/21/2016 09:35
1,4-Dichlorobenzene	U		0.20	1.0	µg/L	1	4/21/2016 09:35
2-Butanone	U		0.87	25	µg/L	1	4/21/2016 09:35
2-Hexanone	U		0.15	50	µg/L	1	4/21/2016 09:35
4-Methyl-2-pentanone	U		0.15	50	µg/L	1	4/21/2016 09:35
Acetone	U		3.1	50	µg/L	1	4/21/2016 09:35
Benzene	U		0.25	1.0	µg/L	1	4/21/2016 09:35
Bromodichloromethane	U		0.16	1.0	µg/L	1	4/21/2016 09:35
Bromoform	U		0.099	1.0	µg/L	1	4/21/2016 09:35
Bromomethane	U		1.0	5.0	µg/L	1	4/21/2016 09:35
Carbon disulfide	U		0.26	5.0	µg/L	1	4/21/2016 09:35
Carbon tetrachloride	U		0.14	1.0	µg/L	1	4/21/2016 09:35
Chlorobenzene	U		0.19	1.0	µg/L	1	4/21/2016 09:35
Chloroethane	U		0.21	5.0	µg/L	1	4/21/2016 09:35
Chloroform	1.3		0.25	1.0	µg/L	1	4/21/2016 09:35
Chloromethane	U		0.25	5.0	µg/L	1	4/21/2016 09:35
cis-1,2-Dichloroethene	0.85	J	0.25	1.0	µg/L	1	4/21/2016 09:35
cis-1,3-Dichloropropene	U		0.24	1.0	µg/L	1	4/21/2016 09:35
Cyclohexane	U		0.31	1.0	µg/L	1	4/21/2016 09:35
Dibromochloromethane	U		0.17	5.0	µg/L	1	4/21/2016 09:35
Dichlorodifluoromethane	U		0.41	5.0	µg/L	1	4/21/2016 09:35
Ethylbenzene	U		0.22	1.0	µg/L	1	4/21/2016 09:35
Isopropylbenzene	U		0.25	5.0	µg/L	1	4/21/2016 09:35
Methyl acetate	U		0.62	10	µg/L	1	4/21/2016 09:35
Methyl tert-butyl ether	U		0.12	5.0	µg/L	1	4/21/2016 09:35
Methylcyclohexane	U		0.32	1.0	µg/L	1	4/21/2016 09:35
Methylene chloride	U		0.64	5.0	µg/L	1	4/21/2016 09:35
Styrene	U		0.18	1.0	µg/L	1	4/21/2016 09:35
Tetrachloroethene	3.7		0.25	1.0	µg/L	1	4/21/2016 09:35
Toluene	U		0.20	1.0	µg/L	1	4/21/2016 09:35
trans-1,2-Dichloroethene	U		0.29	1.0	µg/L	1	4/21/2016 09:35
trans-1,3-Dichloropropene	U		0.19	1.0	µg/L	1	4/21/2016 09:35
Trichloroethene	U		0.34	1.0	µg/L	1	4/21/2016 09:35

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

ALS Group USA, Corp

Date: 25-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-041416-MR-039
Collection Date: 4/14/2016 04:09 PM

Work Order: 1604836
Lab ID: 1604836-19
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Trichlorofluoromethane	U		0.39	1.0	µg/L	1	4/21/2016 09:35
Vinyl chloride	U		0.19	1.0	µg/L	1	4/21/2016 09:35
Xylenes, Total	U		0.62	3.0	µg/L	1	4/21/2016 09:35
Surr: 1,2-Dichloroethane-d4	106			75-120	%REC	1	4/21/2016 09:35
Surr: 4-Bromofluorobenzene	91.7			80-110	%REC	1	4/21/2016 09:35
Surr: Dibromofluoromethane	104			85-115	%REC	1	4/21/2016 09:35
Surr: Toluene-d8	94.6			85-110	%REC	1	4/21/2016 09:35

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

ALS Group USA, Corp

Date: 25-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-041416-MR-040
Collection Date: 4/14/2016 04:59 PM

Work Order: 1604836
Lab ID: 1604836-20
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			Method: SW8260B			Analyst: BG	
1,1,1-Trichloroethane	U		0.19	1.0	µg/L	1	4/21/2016 10:01
1,1,2,2-Tetrachloroethane	U		0.34	1.0	µg/L	1	4/21/2016 10:01
1,1,2-Trichloroethane	U		0.25	1.0	µg/L	1	4/21/2016 10:01
1,1,2-Trichlorotrifluoroethane	U		0.47	1.0	µg/L	1	4/21/2016 10:01
1,1-Dichloroethane	U		0.21	1.0	µg/L	1	4/21/2016 10:01
1,1-Dichloroethene	U		0.24	1.0	µg/L	1	4/21/2016 10:01
1,2,4-Trichlorobenzene	U		0.19	5.0	µg/L	1	4/21/2016 10:01
1,2-Dibromo-3-chloropropane	U		0.42	1.0	µg/L	1	4/21/2016 10:01
1,2-Dibromoethane	U		0.34	1.0	µg/L	1	4/21/2016 10:01
1,2-Dichlorobenzene	U		0.22	1.0	µg/L	1	4/21/2016 10:01
1,2-Dichloroethane	U		0.26	1.0	µg/L	1	4/21/2016 10:01
1,2-Dichloropropane	U		0.26	1.0	µg/L	1	4/21/2016 10:01
1,3-Dichlorobenzene	U		0.21	1.0	µg/L	1	4/21/2016 10:01
1,4-Dichlorobenzene	U		0.20	1.0	µg/L	1	4/21/2016 10:01
2-Butanone	U		0.87	25	µg/L	1	4/21/2016 10:01
2-Hexanone	U		0.15	50	µg/L	1	4/21/2016 10:01
4-Methyl-2-pentanone	U		0.15	50	µg/L	1	4/21/2016 10:01
Acetone	U		3.1	50	µg/L	1	4/21/2016 10:01
Benzene	U		0.25	1.0	µg/L	1	4/21/2016 10:01
Bromodichloromethane	U		0.16	1.0	µg/L	1	4/21/2016 10:01
Bromoform	U		0.099	1.0	µg/L	1	4/21/2016 10:01
Bromomethane	U		1.0	5.0	µg/L	1	4/21/2016 10:01
Carbon disulfide	U		0.26	5.0	µg/L	1	4/21/2016 10:01
Carbon tetrachloride	U		0.14	1.0	µg/L	1	4/21/2016 10:01
Chlorobenzene	U		0.19	1.0	µg/L	1	4/21/2016 10:01
Chloroethane	U		0.21	5.0	µg/L	1	4/21/2016 10:01
Chloroform	U		0.25	1.0	µg/L	1	4/21/2016 10:01
Chloromethane	U		0.25	5.0	µg/L	1	4/21/2016 10:01
cis-1,2-Dichloroethene	U		0.25	1.0	µg/L	1	4/21/2016 10:01
cis-1,3-Dichloropropene	U		0.24	1.0	µg/L	1	4/21/2016 10:01
Cyclohexane	U		0.31	1.0	µg/L	1	4/21/2016 10:01
Dibromochloromethane	U		0.17	5.0	µg/L	1	4/21/2016 10:01
Dichlorodifluoromethane	U		0.41	5.0	µg/L	1	4/21/2016 10:01
Ethylbenzene	U		0.22	1.0	µg/L	1	4/21/2016 10:01
Isopropylbenzene	U		0.25	5.0	µg/L	1	4/21/2016 10:01
Methyl acetate	U		0.62	10	µg/L	1	4/21/2016 10:01
Methyl tert-butyl ether	U		0.12	5.0	µg/L	1	4/21/2016 10:01
Methylcyclohexane	U		0.32	1.0	µg/L	1	4/21/2016 10:01

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

ALS Group USA, Corp

Date: 25-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-041416-MR-040
Collection Date: 4/14/2016 04:59 PM

Work Order: 1604836
Lab ID: 1604836-20
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.64	5.0	µg/L	1	4/21/2016 10:01
Styrene	U		0.18	1.0	µg/L	1	4/21/2016 10:01
Tetrachloroethene	U		0.25	1.0	µg/L	1	4/21/2016 10:01
Toluene	U		0.20	1.0	µg/L	1	4/21/2016 10:01
trans-1,2-Dichloroethene	U		0.29	1.0	µg/L	1	4/21/2016 10:01
trans-1,3-Dichloropropene	U		0.19	1.0	µg/L	1	4/21/2016 10:01
Trichloroethene	15		0.34	1.0	µg/L	1	4/21/2016 10:01
Trichlorofluoromethane	U		0.39	1.0	µg/L	1	4/21/2016 10:01
Vinyl chloride	U		0.19	1.0	µg/L	1	4/21/2016 10:01
Xylenes, Total	U		0.62	3.0	µg/L	1	4/21/2016 10:01
Surr: 1,2-Dichloroethane-d4	104			75-120	%REC	1	4/21/2016 10:01
Surr: 4-Bromofluorobenzene	92.2			80-110	%REC	1	4/21/2016 10:01
Surr: Dibromofluoromethane	104			85-115	%REC	1	4/21/2016 10:01
Surr: Toluene-d8	95.8			85-110	%REC	1	4/21/2016 10:01

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

ALS Group USA, Corp

Date: 25-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: TB-017360-041416-MR-041
Collection Date: 4/14/2016

Work Order: 1604836
Lab ID: 1604836-21
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			Method: SW8260B			Analyst: AK	
1,1,1-Trichloroethane	U		0.19	1.0	µg/L	1	4/19/2016 16:08
1,1,2,2-Tetrachloroethane	U		0.34	1.0	µg/L	1	4/19/2016 16:08
1,1,2-Trichloroethane	U		0.25	1.0	µg/L	1	4/19/2016 16:08
1,1,2-Trichlorotrifluoroethane	U		0.47	1.0	µg/L	1	4/19/2016 16:08
1,1-Dichloroethane	U		0.21	1.0	µg/L	1	4/19/2016 16:08
1,1-Dichloroethene	U		0.24	1.0	µg/L	1	4/19/2016 16:08
1,2,4-Trichlorobenzene	U		0.19	5.0	µg/L	1	4/19/2016 16:08
1,2-Dibromo-3-chloropropane	U		0.42	1.0	µg/L	1	4/19/2016 16:08
1,2-Dibromoethane	U		0.34	1.0	µg/L	1	4/19/2016 16:08
1,2-Dichlorobenzene	U		0.22	1.0	µg/L	1	4/19/2016 16:08
1,2-Dichloroethane	U		0.26	1.0	µg/L	1	4/19/2016 16:08
1,2-Dichloropropane	U		0.26	1.0	µg/L	1	4/19/2016 16:08
1,3-Dichlorobenzene	U		0.21	1.0	µg/L	1	4/19/2016 16:08
1,4-Dichlorobenzene	U		0.20	1.0	µg/L	1	4/19/2016 16:08
2-Butanone	U		0.87	25	µg/L	1	4/19/2016 16:08
2-Hexanone	U		0.15	50	µg/L	1	4/19/2016 16:08
4-Methyl-2-pentanone	U		0.15	50	µg/L	1	4/19/2016 16:08
Acetone	U		3.1	50	µg/L	1	4/19/2016 16:08
Benzene	U		0.25	1.0	µg/L	1	4/19/2016 16:08
Bromodichloromethane	U		0.16	1.0	µg/L	1	4/19/2016 16:08
Bromoform	U		0.099	1.0	µg/L	1	4/19/2016 16:08
Bromomethane	U		1.0	5.0	µg/L	1	4/19/2016 16:08
Carbon disulfide	U		0.26	5.0	µg/L	1	4/19/2016 16:08
Carbon tetrachloride	U		0.14	1.0	µg/L	1	4/19/2016 16:08
Chlorobenzene	U		0.19	1.0	µg/L	1	4/19/2016 16:08
Chloroethane	U		0.21	5.0	µg/L	1	4/19/2016 16:08
Chloroform	U		0.25	1.0	µg/L	1	4/19/2016 16:08
Chloromethane	U		0.25	5.0	µg/L	1	4/19/2016 16:08
cis-1,2-Dichloroethene	U		0.25	1.0	µg/L	1	4/19/2016 16:08
cis-1,3-Dichloropropene	U		0.24	1.0	µg/L	1	4/19/2016 16:08
Cyclohexane	U		0.31	1.0	µg/L	1	4/19/2016 16:08
Dibromochloromethane	U		0.17	5.0	µg/L	1	4/19/2016 16:08
Dichlorodifluoromethane	U		0.41	5.0	µg/L	1	4/19/2016 16:08
Ethylbenzene	U		0.22	1.0	µg/L	1	4/19/2016 16:08
Isopropylbenzene	U		0.25	5.0	µg/L	1	4/19/2016 16:08
Methyl acetate	U		0.62	10	µg/L	1	4/19/2016 16:08
Methyl tert-butyl ether	U		0.12	5.0	µg/L	1	4/19/2016 16:08
Methylcyclohexane	U		0.32	1.0	µg/L	1	4/19/2016 16:08

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

ALS Group USA, Corp

Date: 25-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: TB-017360-041416-MR-041
Collection Date: 4/14/2016

Work Order: 1604836
Lab ID: 1604836-21
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.64	5.0	µg/L	1	4/19/2016 16:08
Styrene	U		0.18	1.0	µg/L	1	4/19/2016 16:08
Tetrachloroethene	U		0.25	1.0	µg/L	1	4/19/2016 16:08
Toluene	U		0.20	1.0	µg/L	1	4/19/2016 16:08
trans-1,2-Dichloroethene	U		0.29	1.0	µg/L	1	4/19/2016 16:08
trans-1,3-Dichloropropene	U		0.19	1.0	µg/L	1	4/19/2016 16:08
Trichloroethene	U		0.34	1.0	µg/L	1	4/19/2016 16:08
Trichlorofluoromethane	U		0.39	1.0	µg/L	1	4/19/2016 16:08
Vinyl chloride	U		0.19	1.0	µg/L	1	4/19/2016 16:08
Xylenes, Total	U		0.62	3.0	µg/L	1	4/19/2016 16:08
Surr: 1,2-Dichloroethane-d4	106			75-120	%REC	1	4/19/2016 16:08
Surr: 4-Bromofluorobenzene	92.5			80-110	%REC	1	4/19/2016 16:08
Surr: Dibromofluoromethane	102			85-115	%REC	1	4/19/2016 16:08
Surr: Toluene-d8	99.4			85-110	%REC	1	4/19/2016 16:08

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

Client: GHD Services Inc.
Work Order: 1604836
Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: **84828** Instrument ID **HG1** Method: **SW7470A**

MBLK		Sample ID: MBLK-84828-84828				Units: mg/L		Analysis Date: 4/18/2016 07:37 PM			
Client ID:		Run ID: HG1_160418B				SeqNo: 3781769		Prep Date: 4/18/2016		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	U	0.000018	0.00020								

LCS		Sample ID: LCS-84828-84828				Units: mg/L		Analysis Date: 4/18/2016 07:39 PM			
Client ID:		Run ID: HG1_160418B				SeqNo: 3781770		Prep Date: 4/18/2016		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00205	0.000018	0.00020	0.002	0	102	80-120	0			

MS		Sample ID: 1604679-02AMS				Units: mg/L		Analysis Date: 4/18/2016 07:50 PM			
Client ID:		Run ID: HG1_160418B				SeqNo: 3781775		Prep Date: 4/18/2016		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.0199	0.00018	0.00020	0.02	-0.00013	100	75-125	0			

MS		Sample ID: 1604836-06BMS				Units: mg/L		Analysis Date: 4/18/2016 08:10 PM			
Client ID: WG-017360-041116-MR-026		Run ID: HG1_160418B				SeqNo: 3781784		Prep Date: 4/18/2016		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00203	0.000018	0.00020	0.002	-0.00002	102	75-125	0			

MSD		Sample ID: 1604679-02AMSD				Units: mg/L		Analysis Date: 4/18/2016 07:52 PM			
Client ID:		Run ID: HG1_160418B				SeqNo: 3781776		Prep Date: 4/18/2016		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.0201	0.00018	0.00020	0.02	-0.00013	101	75-125	0.0199	1	20	

MSD		Sample ID: 1604836-06BMSD				Units: mg/L		Analysis Date: 4/18/2016 08:19 PM			
Client ID: WG-017360-041116-MR-026		Run ID: HG1_160418B				SeqNo: 3781788		Prep Date: 4/18/2016		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00203	0.000018	0.00020	0.002	-0.00002	102	75-125	0.00203	0	20	

The following samples were analyzed in this batch: | 1604836-06B |

Client: GHD Services Inc.
Work Order: 1604836
Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: **84822** Instrument ID **ICPMS1** Method: **SW6020A**

MBLK		Sample ID: MBLK-84822-84822				Units: mg/L		Analysis Date: 4/18/2016 02:19 PM			
Client ID:		Run ID: ICPMS1_160418A				SeqNo: 3781195		Prep Date: 4/18/2016		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Antimony	U	0.0001	0.0050								
Arsenic	U	0.0007	0.0050								
Barium	U	0.0002	0.0050								
Beryllium	U	0.0002	0.0020								
Cadmium	U	0.0001	0.0020								
Chromium	0.0001382	0.0001	0.0050								J
Cobalt	U	0.0002	0.0050								
Copper	U	0.0002	0.0050								
Iron	U	0.01	0.080								
Lead	U	0.0001	0.0050								
Manganese	U	0.0002	0.0050								
Molybdenum	U	0.0002	0.0050								
Nickel	U	0.0004	0.0050								
Selenium	U	0.001	0.0050								
Silver	U	0.0001	0.0050								
Thallium	U	0.0004	0.0050								
Vanadium	U	0.0004	0.0050								
Zinc	U	0.0024	0.010								

LCS		Sample ID: LCS-84822-84822				Units: mg/L		Analysis Date: 4/18/2016 02:25 PM			
Client ID:		Run ID: ICPMS1_160418A				SeqNo: 3781196		Prep Date: 4/18/2016		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Antimony	0.09776	0.0001	0.0050	0.1	0	97.8	80-120	0			
Arsenic	0.09629	0.0007	0.0050	0.1	0	96.3	80-120	0			
Barium	0.09722	0.0002	0.0050	0.1	0	97.2	80-120	0			
Beryllium	0.09865	0.0002	0.0020	0.1	0	98.6	80-120	0			
Cadmium	0.0967	0.0001	0.0020	0.1	0	96.7	80-120	0			
Chromium	0.09676	0.0001	0.0050	0.1	0	96.8	80-120	0			
Cobalt	0.09534	0.0002	0.0050	0.1	0	95.3	80-120	0			
Copper	0.09727	0.0002	0.0050	0.1	0	97.3	80-120	0			
Iron	9.762	0.01	0.080	10	0	97.6	80-120	0			
Lead	0.09483	0.0001	0.0050	0.1	0	94.8	80-120	0			
Manganese	0.09636	0.0002	0.0050	0.1	0	96.4	80-120	0			
Molybdenum	0.09643	0.0002	0.0050	0.1	0	96.4	80-120	0			
Nickel	0.09606	0.0004	0.0050	0.1	0	96.1	80-120	0			
Selenium	0.09608	0.001	0.0050	0.1	0	96.1	80-120	0			
Silver	0.09754	0.0001	0.0050	0.1	0	97.5	80-120	0			
Thallium	0.09166	0.0004	0.0050	0.1	0	91.7	80-120	0			
Vanadium	0.09738	0.0004	0.0050	0.1	0	97.4	80-120	0			
Zinc	0.09866	0.0024	0.010	0.1	0	98.7	80-120	0			

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

Client: GHD Services Inc.
Work Order: 1604836
Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: **84822** Instrument ID **ICPMS1** Method: **SW6020A**

MS					Units: mg/L			Analysis Date: 4/18/2016 02:37 PM			
Client ID: WG-017360-041116-MR-026			Run ID: ICPMS1_160418A		SeqNo: 3781198		Prep Date: 4/18/2016		DF: 1		
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Antimony	0.09637	0.0001	0.0050	0.1	0.0001579	96.2	75-125	0			
Arsenic	0.09734	0.0007	0.0050	0.1	0.000216	97.1	75-125	0			
Barium	0.1186	0.0002	0.0050	0.1	0.02233	96.3	75-125	0			
Beryllium	0.09559	0.0002	0.0020	0.1	0.00006793	95.5	75-125	0			
Cadmium	0.09447	0.0001	0.0020	0.1	0.00008178	94.4	75-125	0			
Chromium	0.09829	0.0001	0.0050	0.1	0.003089	95.2	75-125	0			
Cobalt	0.09516	0.0002	0.0050	0.1	0.002075	93.1	75-125	0			
Copper	0.09399	0.0002	0.0050	0.1	0.00174	92.2	75-125	0			
Iron	9.536	0.01	0.080	10	0.04891	94.9	75-125	0			
Lead	0.09626	0.0001	0.0050	0.1	0.0001977	96.1	75-125	0			
Manganese	0.09884	0.0002	0.0050	0.1	0.003105	95.7	75-125	0			
Molybdenum	0.09935	0.0002	0.0050	0.1	0.003322	96	75-125	0			
Nickel	0.09388	0.0004	0.0050	0.1	0.002015	91.9	75-125	0			
Selenium	0.0953	0.001	0.0050	0.1	0.001002	94.3	75-125	0			
Silver	0.09143	0.0001	0.0050	0.1	0.00001303	91.4	75-125	0			
Thallium	0.09258	0.0004	0.0050	0.1	0.0001084	92.5	75-125	0			
Vanadium	0.09936	0.0004	0.0050	0.1	0.0004348	98.9	75-125	0			
Zinc	0.09755	0.0024	0.010	0.1	0.003999	93.6	75-125	0			

MSD					Units: mg/L			Analysis Date: 4/18/2016 02:44 PM			
Client ID: WG-017360-041116-MR-026			Run ID: ICPMS1_160418A		SeqNo: 3781199		Prep Date: 4/18/2016		DF: 1		
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Antimony	0.09736	0.0001	0.0050	0.1	0.0001579	97.2	75-125	0.09637	1.02	20	
Arsenic	0.09879	0.0007	0.0050	0.1	0.000216	98.6	75-125	0.09734	1.48	20	
Barium	0.1197	0.0002	0.0050	0.1	0.02233	97.4	75-125	0.1186	0.923	20	
Beryllium	0.09638	0.0002	0.0020	0.1	0.00006793	96.3	75-125	0.09559	0.823	20	
Cadmium	0.0957	0.0001	0.0020	0.1	0.00008178	95.6	75-125	0.09447	1.29	20	
Chromium	0.09872	0.0001	0.0050	0.1	0.003089	95.6	75-125	0.09829	0.437	20	
Cobalt	0.09508	0.0002	0.0050	0.1	0.002075	93	75-125	0.09516	0.0841	20	
Copper	0.09452	0.0002	0.0050	0.1	0.00174	92.8	75-125	0.09399	0.562	20	
Iron	9.562	0.01	0.080	10	0.04891	95.1	75-125	9.536	0.272	20	
Lead	0.0972	0.0001	0.0050	0.1	0.0001977	97	75-125	0.09626	0.972	20	
Manganese	0.09963	0.0002	0.0050	0.1	0.003105	96.5	75-125	0.09884	0.796	20	
Molybdenum	0.1009	0.0002	0.0050	0.1	0.003322	97.6	75-125	0.09935	1.55	20	
Nickel	0.09556	0.0004	0.0050	0.1	0.002015	93.5	75-125	0.09388	1.77	20	
Selenium	0.0933	0.001	0.0050	0.1	0.001002	92.3	75-125	0.0953	2.12	20	
Silver	0.09172	0.0001	0.0050	0.1	0.00001303	91.7	75-125	0.09143	0.317	20	
Thallium	0.0939	0.0004	0.0050	0.1	0.0001084	93.8	75-125	0.09258	1.42	20	
Vanadium	0.09896	0.0004	0.0050	0.1	0.0004348	98.5	75-125	0.09936	0.403	20	
Zinc	0.0949	0.0024	0.010	0.1	0.003999	90.9	75-125	0.09755	2.75	20	

The following samples were analyzed in this batch: 1604836-06B

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

Client: GHD Services Inc.
Work Order: 1604836
Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: **84803** Instrument ID **SVMS5** Method: **SW846 8270D**

MBLK		Sample ID: SBLKW1-84803-84803				Units: µg/L		Analysis Date: 4/18/2016 03:23 PM			
Client ID:		Run ID: SVMS5_160418A				SeqNo: 3782087		Prep Date: 4/18/2016		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1'-Biphenyl	U	0.22	5.0								
2,4,5-Trichlorophenol	U	0.29	5.0								
2,4,6-Trichlorophenol	U	0.25	5.0								
2,4-Dichlorophenol	U	0.17	5.0								
2,4-Dimethylphenol	U	0.18	5.0								
2,4-Dinitrophenol	U	1.5	5.0								
2,4-Dinitrotoluene	U	0.14	5.0								
2,6-Dinitrotoluene	U	0.2	5.0								
2-Chloronaphthalene	U	0.03	5.0								
2-Chlorophenol	U	0.29	5.0								
2-Methylnaphthalene	U	0.099	5.0								
2-Methylphenol	U	0.14	5.0								
2-Nitroaniline	U	0.24	5.0								
2-Nitrophenol	U	0.27	5.0								
3&4-Methylphenol	U	0.24	5.0								
3,3'-Dichlorobenzidine	U	0.7	5.0								
3-Nitroaniline	U	0.24	5.0								
4,6-Dinitro-2-methylphenol	U	0.12	5.0								
4-Bromophenyl phenyl ether	U	0.29	5.0								
4-Chloro-3-methylphenol	U	0.16	5.0								
4-Chloroaniline	U	0.22	5.0								
4-Chlorophenyl phenyl ether	U	0.2	5.0								
4-Nitroaniline	U	0.13	5.0								
4-Nitrophenol	U	0.62	5.0								
Acenaphthene	U	0.041	5.0								
Acenaphthylene	U	0.039	5.0								
Acetophenone	U	0.37	1.0								
Anthracene	U	0.028	5.0								
Atrazine	U	0.16	1.0								
Benzaldehyde	U	0.25	1.0								
Benzo(a)anthracene	U	0.072	5.0								
Benzo(a)pyrene	U	0.036	5.0								
Benzo(b)fluoranthene	U	0.043	5.0								
Benzo(g,h,i)perylene	U	0.07	5.0								
Benzo(k)fluoranthene	U	0.062	5.0								
Bis(2-chloroethoxy)methane	U	0.23	5.0								
Bis(2-chloroethyl)ether	U	0.16	5.0								
Bis(2-chloroisopropyl)ether	U	0.19	5.0								
Bis(2-ethylhexyl)phthalate	U	0.18	5.0								
Butyl benzyl phthalate	U	0.12	5.0								
Caprolactam	U	0.96	10								
Carbazole	U	0.12	5.0								
Chrysene	U	0.042	5.0								

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

Client: GHD Services Inc.
Work Order: 1604836
Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: 84803		Instrument ID SVMS5		Method: SW846 8270D	
Dibenzo(a,h)anthracene	U	0.074	5.0		
Dibenzofuran	U	0.23	5.0		
Diethyl phthalate	U	0.17	5.0		
Dimethyl phthalate	U	0.15	5.0		
Di-n-butyl phthalate	U	0.15	5.0		
Di-n-octyl phthalate	U	0.15	5.0		
Fluoranthene	U	0.047	5.0		
Fluorene	U	0.036	5.0		
Hexachlorobenzene	U	0.23	5.0		
Hexachlorobutadiene	U	0.37	5.0		
Hexachlorocyclopentadiene	U	0.18	5.0		
Hexachloroethane	U	0.47	5.0		
Indeno(1,2,3-cd)pyrene	U	0.064	5.0		
Isophorone	U	0.25	5.0		
Naphthalene	U	0.05	5.0		
Nitrobenzene	U	0.23	5.0		
N-Nitrosodi-n-propylamine	U	0.24	5.0		
N-Nitrosodiphenylamine	U	0.24	5.0		
Pentachlorophenol	U	0.52	5.0		
Phenanthrene	U	0.054	5.0		
Phenol	U	0.13	5.0		
Pyrene	U	0.069	5.0		
<i>Surr: 2,4,6-Tribromophenol</i>	<i>35.32</i>	<i>0</i>	<i>0</i>	<i>50</i>	<i>0 70.6 38-115 0</i>
<i>Surr: 2-Fluorobiphenyl</i>	<i>32.91</i>	<i>0</i>	<i>0</i>	<i>50</i>	<i>0 65.8 32-100 0</i>
<i>Surr: 2-Fluorophenol</i>	<i>18.58</i>	<i>0</i>	<i>0</i>	<i>50</i>	<i>0 37.2 22-59 0</i>
<i>Surr: 4-Terphenyl-d14</i>	<i>42.12</i>	<i>0</i>	<i>0</i>	<i>50</i>	<i>0 84.2 23-112 0</i>
<i>Surr: Nitrobenzene-d5</i>	<i>32.52</i>	<i>0</i>	<i>0</i>	<i>50</i>	<i>0 65 31-93 0</i>
<i>Surr: Phenol-d6</i>	<i>10.73</i>	<i>0</i>	<i>0</i>	<i>50</i>	<i>0 21.5 13-36 0</i>

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

Client: GHD Services Inc.
Work Order: 1604836
Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: **84803** Instrument ID **SVMS5** Method: **SW846 8270D**

LCS		Sample ID: SLCSW1-84803-84803				Units: µg/L		Analysis Date: 4/18/2016 03:46 PM			
Client ID:		Run ID: SVMS5_160418A				SeqNo: 3782091		Prep Date: 4/18/2016		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1'-Biphenyl	20.98	0.22	5.0	20	0	105	30-120	0			
2,4,5-Trichlorophenol	16.51	0.29	5.0	20	0	82.6	50-110	0			
2,4,6-Trichlorophenol	17.12	0.25	5.0	20	0	85.6	50-115	0			
2,4-Dichlorophenol	17.83	0.17	5.0	20	0	89.2	50-105	0			
2,4-Dimethylphenol	14.49	0.18	5.0	20	0	72.4	30-110	0			
2,4-Dinitrophenol	12.61	1.5	5.0	20	0	63	15-140	0			
2,4-Dinitrotoluene	17.48	0.14	5.0	20	0	87.4	50-120	0			
2,6-Dinitrotoluene	17.48	0.2	5.0	20	0	87.4	50-115	0			
2-Chloronaphthalene	15.39	0.03	5.0	20	0	77	50-105	0			
2-Chlorophenol	15.73	0.29	5.0	20	0	78.6	35-105	0			
2-Methylnaphthalene	19.27	0.099	5.0	20	0	96.4	45-105	0			
2-Methylphenol	15.14	0.14	5.0	20	0	75.7	40-110	0			
2-Nitroaniline	13.76	0.24	5.0	20	0	68.8	50-115	0			
2-Nitrophenol	16.97	0.27	5.0	20	0	84.8	40-115	0			
3&4-Methylphenol	13.24	0.24	5.0	20	0	66.2	30-110	0			
3,3'-Dichlorobenzidine	24.11	0.7	5.0	20	0	121	30-120	0			S
3-Nitroaniline	13.1	0.24	5.0	20	0	65.5	20-125	0			
4,6-Dinitro-2-methylphenol	18.06	0.12	5.0	20	0	90.3	40-130	0			
4-Bromophenyl phenyl ether	20.18	0.29	5.0	20	0	101	50-115	0			
4-Chloro-3-methylphenol	18.83	0.16	5.0	20	0	94.2	45-110	0			
4-Chloroaniline	15.8	0.22	5.0	20	0	79	15-110	0			
4-Chlorophenyl phenyl ether	19.28	0.2	5.0	20	0	96.4	50-110	0			
4-Nitroaniline	14.17	0.13	5.0	20	0	70.8	35-150	0			
4-Nitrophenol	12.89	0.62	5.0	20	0	64.4	10-58	0			S
Acenaphthene	15.76	0.041	5.0	20	0	78.8	45-110	0			
Acenaphthylene	16.37	0.039	5.0	20	0	81.8	50-105	0			
Acetophenone	16.71	0.37	1.0	20	0	83.6	30-120	0			
Anthracene	20.73	0.028	5.0	20	0	104	55-110	0			
Atrazine	22.89	0.16	1.0	20	0	114	30-120	0			
Benzaldehyde	15.12	0.25	1.0	20	0	75.6	30-120	0			
Benzo(a)anthracene	20.89	0.072	5.0	20	0	104	55-110	0			
Benzo(a)pyrene	20.18	0.036	5.0	20	0	101	55-110	0			
Benzo(b)fluoranthene	22.23	0.043	5.0	20	0	111	45-120	0			
Benzo(g,h,i)perylene	21.14	0.07	5.0	20	0	106	40-125	0			
Benzo(k)fluoranthene	21.87	0.062	5.0	20	0	109	45-125	0			
Bis(2-chloroethoxy)methane	16.9	0.23	5.0	20	0	84.5	45-105	0			
Bis(2-chloroethyl)ether	19.2	0.16	5.0	20	0	96	35-110	0			
Bis(2-chloroisopropyl)ether	14.83	0.19	5.0	20	0	74.2	25-130	0			
Bis(2-ethylhexyl)phthalate	20.32	0.18	5.0	20	0	102	40-125	0			
Butyl benzyl phthalate	19.16	0.12	5.0	20	0	95.8	45-115	0			
Carbazole	22.51	0.12	5.0	20	0	113	50-150	0			
Chrysene	21.05	0.042	5.0	20	0	105	55-110	0			
Dibenzo(a,h)anthracene	21.72	0.074	5.0	20	0	109	40-125	0			

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

Client: GHD Services Inc.
Work Order: 1604836
Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: 84803		Instrument ID SVMS5		Method: SW846 8270D				
Dibenzofuran	17.17	0.23	5.0	20	0	85.8	55-105	0
Diethyl phthalate	19.22	0.17	5.0	20	0	96.1	40-120	0
Dimethyl phthalate	19.13	0.15	5.0	20	0	95.6	25-125	0
Di-n-butyl phthalate	22.3	0.15	5.0	20	0	112	55-115	0
Di-n-octyl phthalate	19.79	0.15	5.0	20	0	99	35-135	0
Fluoranthene	24.02	0.047	5.0	20	0	120	55-115	0 S
Fluorene	17.7	0.036	5.0	20	0	88.5	50-110	0
Hexachlorobenzene	20.38	0.23	5.0	20	0	102	50-110	0
Hexachlorobutadiene	20.54	0.37	5.0	20	0	103	25-105	0
Hexachlorocyclopentadiene	11.58	0.18	5.0	20	0	57.9	25-105	0
Hexachloroethane	15	0.47	5.0	20	0	75	30-95	0
Indeno(1,2,3-cd)pyrene	18.79	0.064	5.0	20	0	94	45-125	0
Isophorone	18.75	0.25	5.0	20	0	93.8	50-110	0
Naphthalene	15.32	0.05	5.0	20	0	76.6	40-100	0
Nitrobenzene	16.2	0.23	5.0	20	0	81	45-110	0
N-Nitrosodi-n-propylamine	20.11	0.24	5.0	20	0	101	35-130	0
N-Nitrosodiphenylamine	18.06	0.24	5.0	20	0	90.3	50-110	0
Pentachlorophenol	16.67	0.52	5.0	20	0	83.4	40-115	0
Phenanthrene	19.52	0.054	5.0	20	0	97.6	50-115	0
Phenol	8.73	0.13	5.0	20	0	43.6	12-43	0 S
Pyrene	21.02	0.069	5.0	20	0	105	50-130	0
<i>Surr: 2,4,6-Tribromophenol</i>	<i>43.27</i>	<i>0</i>	<i>0</i>	<i>50</i>	<i>0</i>	<i>86.5</i>	<i>38-115</i>	<i>0</i>
<i>Surr: 2-Fluorobiphenyl</i>	<i>36.1</i>	<i>0</i>	<i>0</i>	<i>50</i>	<i>0</i>	<i>72.2</i>	<i>32-100</i>	<i>0</i>
<i>Surr: 2-Fluorophenol</i>	<i>20.12</i>	<i>0</i>	<i>0</i>	<i>50</i>	<i>0</i>	<i>40.2</i>	<i>22-59</i>	<i>0</i>
<i>Surr: 4-Terphenyl-d14</i>	<i>46.1</i>	<i>0</i>	<i>0</i>	<i>50</i>	<i>0</i>	<i>92.2</i>	<i>23-112</i>	<i>0</i>
<i>Surr: Nitrobenzene-d5</i>	<i>35.26</i>	<i>0</i>	<i>0</i>	<i>50</i>	<i>0</i>	<i>70.5</i>	<i>31-93</i>	<i>0</i>
<i>Surr: Phenol-d6</i>	<i>13.26</i>	<i>0</i>	<i>0</i>	<i>50</i>	<i>0</i>	<i>26.5</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: 1604836
Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: **84803** Instrument ID **SVMS5** Method: **SW846 8270D**

MS					Sample ID: 1604836-01B MS			Units: µg/L		Analysis Date: 4/18/2016 04:57 PM		
Client ID: WG-017360-041116-MR-021			Run ID: SVMS5_160418A			SeqNo: 3782094		Prep Date: 4/18/2016		DF: 1		
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
1,1`-Biphenyl	19.1	0.22	5.0	20	0	95.5	30-120	0				
2,4,5-Trichlorophenol	16.79	0.29	5.0	20	0	84	50-110	0				
2,4,6-Trichlorophenol	16.2	0.25	5.0	20	0	81	50-115	0				
2,4-Dichlorophenol	17.98	0.17	5.0	20	0	89.9	50-105	0				
2,4-Dimethylphenol	16.39	0.18	5.0	20	0	82	30-110	0				
2,4-Dinitrophenol	14.77	1.5	5.0	20	0	73.8	15-140	0				
2,4-Dinitrotoluene	15.17	0.14	5.0	20	0	75.8	50-120	0				
2,6-Dinitrotoluene	15.17	0.2	5.0	20	0	75.8	50-115	0				
2-Chloronaphthalene	12.95	0.03	5.0	20	0	64.8	50-105	0				
2-Chlorophenol	13.79	0.29	5.0	20	0	69	35-105	0				
2-Methylnaphthalene	16.58	0.099	5.0	20	0	82.9	45-105	0				
2-Methylphenol	13.38	0.14	5.0	20	0	66.9	40-110	0				
2-Nitroaniline	13.43	0.24	5.0	20	0	67.2	50-115	0				
2-Nitrophenol	14.49	0.27	5.0	20	0	72.4	40-115	0				
3&4-Methylphenol	12.61	0.24	5.0	20	0	63	30-110	0				
3,3`-Dichlorobenzidine	0.85	0.7	5.0	20	0	4.25	30-120	0			JS	
3-Nitroaniline	13.3	0.24	5.0	20	0	66.5	20-125	0				
4,6-Dinitro-2-methylphenol	17.53	0.12	5.0	20	0	87.6	40-130	0				
4-Bromophenyl phenyl ether	18.24	0.29	5.0	20	0	91.2	50-115	0				
4-Chloro-3-methylphenol	19.63	0.16	5.0	20	0	98.2	45-110	0				
4-Chloroaniline	15.38	0.22	5.0	20	0	76.9	15-110	0				
4-Chlorophenyl phenyl ether	17.34	0.2	5.0	20	0	86.7	50-110	0				
4-Nitroaniline	14.35	0.13	5.0	20	0	71.8	35-150	0				
4-Nitrophenol	7.54	0.62	5.0	20	0	37.7	1-58	0				
Acenaphthene	14.29	0.041	5.0	20	0	71.4	45-110	0				
Acenaphthylene	14.18	0.039	5.0	20	0	70.9	50-105	0				
Acetophenone	14.95	0.37	1.0	20	0	74.8	30-120	0				
Anthracene	18.75	0.028	5.0	20	0	93.8	55-110	0				
Atrazine	20.7	0.16	1.0	20	0	104	30-120	0				
Benzaldehyde	13.71	0.25	1.0	20	0	68.6	30-120	0				
Benzo(a)anthracene	18.41	0.072	5.0	20	0	92	55-110	0				
Benzo(a)pyrene	17.5	0.036	5.0	20	0	87.5	55-110	0				
Benzo(b)fluoranthene	19.44	0.043	5.0	20	0	97.2	45-120	0				
Benzo(g,h,i)perylene	16.3	0.07	5.0	20	0	81.5	40-125	0				
Benzo(k)fluoranthene	19.45	0.062	5.0	20	0	97.2	45-125	0				
Bis(2-chloroethoxy)methane	14.53	0.23	5.0	20	0	72.6	45-105	0				
Bis(2-chloroethyl)ether	16.26	0.16	5.0	20	0	81.3	35-110	0				
Bis(2-chloroisopropyl)ether	12.68	0.19	5.0	20	0	63.4	25-130	0				
Bis(2-ethylhexyl)phthalate	18.43	0.18	5.0	20	0	92.2	40-125	0				
Butyl benzyl phthalate	17.32	0.12	5.0	20	0	86.6	45-115	0				
Carbazole	20.47	0.12	5.0	20	0	102	50-150	0				
Chrysene	18.21	0.042	5.0	20	0	91	55-110	0				
Dibenzo(a,h)anthracene	16.64	0.074	5.0	20	0	83.2	40-125	0				

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

Client: GHD Services Inc.
Work Order: 1604836
Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: 84803		Instrument ID SVMS5		Method: SW846 8270D				
Dibenzofuran	15.48	0.23	5.0	20	0	77.4	55-105	0
Diethyl phthalate	16.79	0.17	5.0	20	0.1	83.4	40-120	0
Dimethyl phthalate	16.52	0.15	5.0	20	0	82.6	25-125	0
Di-n-butyl phthalate	19.43	0.15	5.0	20	0	97.2	55-115	0
Di-n-octyl phthalate	17.7	0.15	5.0	20	0	88.5	35-135	0
Fluoranthene	21.31	0.047	5.0	20	0	107	55-115	0
Fluorene	15.86	0.036	5.0	20	0	79.3	50-110	0
Hexachlorobenzene	17.36	0.23	5.0	20	0	86.8	50-110	0
Hexachlorobutadiene	17.33	0.37	5.0	20	0	86.6	25-105	0
Hexachlorocyclopentadiene	11.42	0.18	5.0	20	0	57.1	25-105	0
Hexachloroethane	12.3	0.47	5.0	20	0	61.5	30-95	0
Indeno(1,2,3-cd)pyrene	16.23	0.064	5.0	20	0	81.2	45-125	0
Isophorone	16.61	0.25	5.0	20	0	83	50-110	0
Naphthalene	13.22	0.05	5.0	20	0	66.1	40-100	0
Nitrobenzene	13.84	0.23	5.0	20	0	69.2	45-110	0
N-Nitrosodi-n-propylamine	16.94	0.24	5.0	20	0	84.7	35-130	0
N-Nitrosodiphenylamine	16.32	0.24	5.0	20	0	81.6	50-110	0
Pentachlorophenol	23.02	0.52	5.0	20	0	115	40-115	0
Phenanthrene	17.31	0.054	5.0	20	0	86.6	50-115	0
Phenol	8.39	0.13	5.0	20	0	42	12-43	0
Pyrene	18.28	0.069	5.0	20	0	91.4	50-130	0
<i>Surr: 2,4,6-Tribromophenol</i>	<i>40.23</i>	<i>0</i>	<i>0</i>	<i>50</i>	<i>0</i>	<i>80.5</i>	<i>38-115</i>	<i>0</i>
<i>Surr: 2-Fluorobiphenyl</i>	<i>31.12</i>	<i>0</i>	<i>0</i>	<i>50</i>	<i>0</i>	<i>62.2</i>	<i>32-100</i>	<i>0</i>
<i>Surr: 2-Fluorophenol</i>	<i>17.8</i>	<i>0</i>	<i>0</i>	<i>50</i>	<i>0</i>	<i>35.6</i>	<i>22-59</i>	<i>0</i>
<i>Surr: 4-Terphenyl-d14</i>	<i>40.32</i>	<i>0</i>	<i>0</i>	<i>50</i>	<i>0</i>	<i>80.6</i>	<i>23-112</i>	<i>0</i>
<i>Surr: Nitrobenzene-d5</i>	<i>30.85</i>	<i>0</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>12.89</i>	<i>0</i>	<i>0</i>	<i>50</i>	<i>0</i>	<i>25.8</i>	<i>13-36</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: 1604836
Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: **84803** Instrument ID **SVMS5** Method: **SW846 8270D**

MSD					Units: µg/L			Analysis Date: 4/18/2016 05:21 PM			
Sample ID: 1604836-01B MSD					SeqNo: 3782097			Prep Date: 4/18/2016		DF: 1	
Client ID: WG-017360-041116-MR-021					Run ID: SVMS5_160418A						
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1'-Biphenyl	18.14	0.24	5.4	21.74	0	83.4	30-120	19.1	5.15	30	
2,4,5-Trichlorophenol	17.07	0.32	5.4	21.74	0	78.5	50-110	16.79	1.63	30	
2,4,6-Trichlorophenol	17.13	0.27	5.4	21.74	0	78.8	50-115	16.2	5.58	30	
2,4-Dichlorophenol	17.9	0.18	5.4	21.74	0	82.4	50-105	17.98	0.434	30	
2,4-Dimethylphenol	15.08	0.2	5.4	21.74	0	69.4	30-110	16.39	8.35	30	
2,4-Dinitrophenol	18.55	1.6	5.4	21.74	0	85.4	15-140	14.77	22.7	30	
2,4-Dinitrotoluene	16.12	0.15	5.4	21.74	0	74.2	50-120	15.17	6.07	30	
2,6-Dinitrotoluene	16.12	0.22	5.4	21.74	0	74.2	50-115	15.17	6.07	30	
2-Chloronaphthalene	12.9	0.033	5.4	21.74	0	59.4	50-105	12.95	0.37	30	
2-Chlorophenol	12.9	0.32	5.4	21.74	0	59.4	35-105	13.79	6.65	30	
2-Methylnaphthalene	15.51	0.11	5.4	21.74	0	71.4	45-105	16.58	6.66	30	
2-Methylphenol	12.28	0.15	5.4	21.74	0	56.5	40-110	13.38	8.55	30	
2-Nitroaniline	13.78	0.26	5.4	21.74	0	63.4	50-115	13.43	2.59	30	
2-Nitrophenol	13.9	0.29	5.4	21.74	0	64	40-115	14.49	4.14	30	
3&4-Methylphenol	11.98	0.26	5.4	21.74	0	55.1	30-110	12.61	5.14	30	
3,3'-Dichlorobenzidine	0.8804	0.76	5.4	21.74	0	4.05	30-120	0.85	0	30	JS
3-Nitroaniline	13.76	0.26	5.4	21.74	0	63.3	20-125	13.3	3.41	30	
4,6-Dinitro-2-methylphenol	18.78	0.13	5.4	21.74	0	86.4	40-130	17.53	6.9	30	
4-Bromophenyl phenyl ether	18.99	0.32	5.4	21.74	0	87.4	50-115	18.24	4.02	30	
4-Chloro-3-methylphenol	20.25	0.17	5.4	21.74	0	93.2	45-110	19.63	3.11	30	
4-Chloroaniline	14.26	0.24	5.4	21.74	0	65.6	15-110	15.38	7.55	30	
4-Chlorophenyl phenyl ether	18	0.22	5.4	21.74	0	82.8	50-110	17.34	3.74	30	
4-Nitroaniline	14.98	0.14	5.4	21.74	0	68.9	35-150	14.35	4.28	30	
4-Nitrophenol	8.402	0.67	5.4	21.74	0	38.6	1-58	7.54	10.8	30	
Acenaphthene	13.95	0.045	5.4	21.74	0	64.2	45-110	14.29	2.44	30	
Acenaphthylene	14.59	0.042	5.4	21.74	0	67.1	50-105	14.18	2.83	30	
Acetophenone	13.3	0.4	1.1	21.74	0	61.2	30-120	14.95	11.6	30	
Anthracene	19.86	0.03	5.4	21.74	0	91.4	55-110	18.75	5.74	30	
Atrazine	21.52	0.17	1.1	21.74	0	99	30-120	20.7	3.89	30	
Benzaldehyde	12.92	0.27	1.1	21.74	0	59.4	30-120	13.71	5.9	30	
Benzo(a)anthracene	19.89	0.078	5.4	21.74	0	91.5	55-110	18.41	7.74	30	
Benzo(a)pyrene	18.82	0.039	5.4	21.74	0	86.6	55-110	17.5	7.24	30	
Benzo(b)fluoranthene	21.12	0.047	5.4	21.74	0	97.2	45-120	19.44	8.28	30	
Benzo(g,h,i)perylene	15.77	0.076	5.4	21.74	0	72.6	40-125	16.3	3.29	30	
Benzo(k)fluoranthene	21.64	0.067	5.4	21.74	0	99.6	45-125	19.45	10.7	30	
Bis(2-chloroethoxy)methane	13.33	0.25	5.4	21.74	0	61.3	45-105	14.53	8.64	30	
Bis(2-chloroethyl)ether	14.42	0.17	5.4	21.74	0	66.4	35-110	16.26	12	30	
Bis(2-chloroisopropyl)ether	11.36	0.21	5.4	21.74	0	52.2	25-130	12.68	11	30	
Bis(2-ethylhexyl)phthalate	19.97	0.2	5.4	21.74	0	91.8	40-125	18.43	8.01	30	
Butyl benzyl phthalate	18.77	0.13	5.4	21.74	0	86.4	45-115	17.32	8.04	30	
Carbazole	21.38	0.13	5.4	21.74	0	98.4	50-150	20.47	4.35	30	
Chrysene	19.95	0.046	5.4	21.74	0	91.8	55-110	18.21	9.1	30	
Dibenzo(a,h)anthracene	16.85	0.08	5.4	21.74	0	77.5	40-125	16.64	1.24	30	

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

Client: GHD Services Inc.
Work Order: 1604836
Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: 84803		Instrument ID SVMS5		Method: SW846 8270D						
Dibenzofuran	15.68	0.25	5.4	21.74	0	72.2	55-105	15.48	1.31	30
Diethyl phthalate	18.02	0.18	5.4	21.74	0.1	82.4	40-120	16.79	7.08	30
Dimethyl phthalate	17.47	0.16	5.4	21.74	0	80.4	25-125	16.52	5.57	30
Di-n-butyl phthalate	20.66	0.16	5.4	21.74	0	95	55-115	19.43	6.15	30
Di-n-octyl phthalate	20.86	0.16	5.4	21.74	0	96	35-135	17.7	16.4	30
Fluoranthene	22.76	0.051	5.4	21.74	0	105	55-115	21.31	6.58	30
Fluorene	16.55	0.039	5.4	21.74	0	76.2	50-110	15.86	4.28	30
Hexachlorobenzene	18.5	0.25	5.4	21.74	0	85.1	50-110	17.36	6.36	30
Hexachlorobutadiene	15.29	0.4	5.4	21.74	0	70.4	25-105	17.33	12.5	30
Hexachlorocyclopentadiene	12.25	0.2	5.4	21.74	0	56.4	25-105	11.42	7.01	30
Hexachloroethane	11.41	0.51	5.4	21.74	0	52.5	30-95	12.3	7.48	30
Indeno(1,2,3-cd)pyrene	16.7	0.07	5.4	21.74	0	76.8	45-125	16.23	2.83	30
Isophorone	15.27	0.27	5.4	21.74	0	70.2	50-110	16.61	8.4	30
Naphthalene	11.89	0.054	5.4	21.74	0	54.7	40-100	13.22	10.6	30
Nitrobenzene	12.37	0.25	5.4	21.74	0	56.9	45-110	13.84	11.2	30
N-Nitrosodi-n-propylamine	15.93	0.26	5.4	21.74	0	73.3	35-130	16.94	6.12	30
N-Nitrosodiphenylamine	17.86	0.26	5.4	21.74	0	82.2	50-110	16.32	9	30
Pentachlorophenol	25.1	0.57	5.4	21.74	0	115	40-115	23.02	8.64	30 S
Phenanthrene	18.32	0.059	5.4	21.74	0	84.2	50-115	17.31	5.64	30
Phenol	7.228	0.14	5.4	21.74	0	33.2	12-43	8.39	14.9	30
Pyrene	20.75	0.075	5.4	21.74	0	95.4	50-130	18.28	12.7	30
<i>Surr: 2,4,6-Tribromophenol</i>	<i>44.02</i>	<i>0</i>	<i>0</i>	<i>54.35</i>	<i>0</i>	<i>81</i>	<i>38-115</i>	<i>40.23</i>	<i>9</i>	<i>40</i>
<i>Surr: 2-Fluorobiphenyl</i>	<i>29.7</i>	<i>0</i>	<i>0</i>	<i>54.35</i>	<i>0</i>	<i>54.6</i>	<i>32-100</i>	<i>31.12</i>	<i>4.68</i>	<i>40</i>
<i>Surr: 2-Fluorophenol</i>	<i>16.01</i>	<i>0</i>	<i>0</i>	<i>54.35</i>	<i>0</i>	<i>29.5</i>	<i>22-59</i>	<i>17.8</i>	<i>10.6</i>	<i>40</i>
<i>Surr: 4-Terphenyl-d14</i>	<i>41.8</i>	<i>0</i>	<i>0</i>	<i>54.35</i>	<i>0</i>	<i>76.9</i>	<i>23-112</i>	<i>40.32</i>	<i>3.61</i>	<i>40</i>
<i>Surr: Nitrobenzene-d5</i>	<i>28.49</i>	<i>0</i>	<i>0</i>	<i>54.35</i>	<i>0</i>	<i>52.4</i>	<i>31-93</i>	<i>30.85</i>	<i>7.96</i>	<i>40</i>
<i>Surr: Phenol-d6</i>	<i>11.45</i>	<i>0</i>	<i>0</i>	<i>54.35</i>	<i>0</i>	<i>21.1</i>	<i>13-36</i>	<i>12.89</i>	<i>11.9</i>	<i>40</i>

The following samples were analyzed in this batch:

1604836-01B	1604836-02B	1604836-03B
1604836-04B		

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

Client: GHD Services Inc.
Work Order: 1604836
Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: **84906** Instrument ID **SVMS5** Method: **SW846 8270D**

MBLK		Sample ID: SBLKW1-84906-84906				Units: µg/L		Analysis Date: 4/20/2016 03:03 PM			
Client ID:		Run ID: SVMS5_160420A				SeqNo: 3786594		Prep Date: 4/20/2016		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1'-Biphenyl	U	0.22	5.0								
2,4,5-Trichlorophenol	U	0.29	5.0								
2,4,6-Trichlorophenol	U	0.25	5.0								
2,4-Dichlorophenol	U	0.17	5.0								
2,4-Dimethylphenol	U	0.18	5.0								
2,4-Dinitrophenol	U	1.5	5.0								
2,4-Dinitrotoluene	U	0.14	5.0								
2,6-Dinitrotoluene	U	0.2	5.0								
2-Chloronaphthalene	U	0.03	5.0								
2-Chlorophenol	U	0.29	5.0								
2-Methylnaphthalene	U	0.099	5.0								
2-Methylphenol	U	0.14	5.0								
2-Nitroaniline	U	0.24	5.0								
2-Nitrophenol	U	0.27	5.0								
3&4-Methylphenol	U	0.24	5.0								
3,3'-Dichlorobenzidine	U	0.7	5.0								
3-Nitroaniline	U	0.24	5.0								
4,6-Dinitro-2-methylphenol	U	0.12	5.0								
4-Bromophenyl phenyl ether	U	0.29	5.0								
4-Chloro-3-methylphenol	U	0.16	5.0								
4-Chloroaniline	U	0.22	5.0								
4-Chlorophenyl phenyl ether	U	0.2	5.0								
4-Nitroaniline	U	0.13	5.0								
4-Nitrophenol	U	0.62	5.0								
Acenaphthene	U	0.041	5.0								
Acenaphthylene	U	0.039	5.0								
Acetophenone	U	0.37	1.0								
Anthracene	U	0.028	5.0								
Atrazine	U	0.16	1.0								
Benzaldehyde	U	0.25	1.0								
Benzo(a)anthracene	U	0.072	5.0								
Benzo(a)pyrene	U	0.036	5.0								
Benzo(b)fluoranthene	U	0.043	5.0								
Benzo(g,h,i)perylene	U	0.07	5.0								
Benzo(k)fluoranthene	U	0.062	5.0								
Bis(2-chloroethoxy)methane	U	0.23	5.0								
Bis(2-chloroethyl)ether	U	0.16	5.0								
Bis(2-chloroisopropyl)ether	U	0.19	5.0								
Bis(2-ethylhexyl)phthalate	U	0.18	5.0								
Butyl benzyl phthalate	U	0.12	5.0								
Caprolactam	U	0.96	10								
Carbazole	U	0.12	5.0								
Chrysene	U	0.042	5.0								

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

Client: GHD Services Inc.
Work Order: 1604836
Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: 84906		Instrument ID SVMS5		Method: SW846 8270D	
Dibenzo(a,h)anthracene	U	0.074	5.0		
Dibenzofuran	U	0.23	5.0		
Diethyl phthalate	U	0.17	5.0		
Dimethyl phthalate	U	0.15	5.0		
Di-n-butyl phthalate	U	0.15	5.0		
Di-n-octyl phthalate	U	0.15	5.0		
Fluoranthene	U	0.047	5.0		
Fluorene	U	0.036	5.0		
Hexachlorobenzene	U	0.23	5.0		
Hexachlorobutadiene	U	0.37	5.0		
Hexachlorocyclopentadiene	U	0.18	5.0		
Hexachloroethane	U	0.47	5.0		
Indeno(1,2,3-cd)pyrene	U	0.064	5.0		
Isophorone	U	0.25	5.0		
Naphthalene	U	0.05	5.0		
Nitrobenzene	U	0.23	5.0		
N-Nitrosodi-n-propylamine	U	0.24	5.0		
N-Nitrosodiphenylamine	U	0.24	5.0		
Pentachlorophenol	U	0.52	5.0		
Phenanthrene	U	0.054	5.0		
Phenol	U	0.13	5.0		
Pyrene	U	0.069	5.0		
<i>Surr: 2,4,6-Tribromophenol</i>	<i>29.27</i>	<i>0</i>	<i>0</i>	<i>50</i>	<i>0 58.5 38-115 0</i>
<i>Surr: 2-Fluorobiphenyl</i>	<i>28.4</i>	<i>0</i>	<i>0</i>	<i>50</i>	<i>0 56.8 32-100 0</i>
<i>Surr: 2-Fluorophenol</i>	<i>17.24</i>	<i>0</i>	<i>0</i>	<i>50</i>	<i>0 34.5 22-59 0</i>
<i>Surr: 4-Terphenyl-d14</i>	<i>44.72</i>	<i>0</i>	<i>0</i>	<i>50</i>	<i>0 89.4 23-112 0</i>
<i>Surr: Nitrobenzene-d5</i>	<i>28.72</i>	<i>0</i>	<i>0</i>	<i>50</i>	<i>0 57.4 31-93 0</i>
<i>Surr: Phenol-d6</i>	<i>9.48</i>	<i>0</i>	<i>0</i>	<i>50</i>	<i>0 19 13-36 0</i>

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

Client: GHD Services Inc.
 Work Order: 1604836
 Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: 84906

Instrument ID SVMS5

Method: SW846 8270D

LCS		Sample ID: SLCSW1-84906-84906				Units: µg/L		Analysis Date: 4/20/2016 03:27 PM			
Client ID:		Run ID: SVMS5_160420A				SeqNo: 3786595		Prep Date: 4/20/2016		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1'-Biphenyl	16.58	0.22	5.0	20	0	82.9	30-120	0			
2,4,5-Trichlorophenol	13.89	0.29	5.0	20	0	69.4	50-110	0			
2,4,6-Trichlorophenol	13.17	0.25	5.0	20	0	65.8	50-115	0			
2,4-Dichlorophenol	14.88	0.17	5.0	20	0	74.4	50-105	0			
2,4-Dimethylphenol	13.09	0.18	5.0	20	0	65.4	30-110	0			
2,4-Dinitrophenol	13.6	1.5	5.0	20	0	68	15-140	0			
2,4-Dinitrotoluene	13.63	0.14	5.0	20	0	68.2	50-120	0			
2,6-Dinitrotoluene	13.63	0.2	5.0	20	0	68.2	50-115	0			
2-Chloronaphthalene	12.2	0.03	5.0	20	0	61	50-105	0			
2-Chlorophenol	12.21	0.29	5.0	20	0	61	35-105	0			
2-Methylnaphthalene	15.42	0.099	5.0	20	0	77.1	45-105	0			
2-Methylphenol	11.08	0.14	5.0	20	0	55.4	40-110	0			
2-Nitroaniline	11.15	0.24	5.0	20	0	55.8	50-115	0			
2-Nitrophenol	13.6	0.27	5.0	20	0	68	40-115	0			
3&4-Methylphenol	10.24	0.24	5.0	20	0	51.2	30-110	0			
3,3'-Dichlorobenzidine	17.07	0.7	5.0	20	0	85.4	30-120	0			
3-Nitroaniline	10.57	0.24	5.0	20	0	52.8	20-125	0			
4,6-Dinitro-2-methylphenol	16.29	0.12	5.0	20	0	81.4	40-130	0			
4-Bromophenyl phenyl ether	16.07	0.29	5.0	20	0	80.4	50-115	0			
4-Chloro-3-methylphenol	15.07	0.16	5.0	20	0	75.4	45-110	0			
4-Chloroaniline	13.55	0.22	5.0	20	0	67.8	15-110	0			
4-Chlorophenyl phenyl ether	15.42	0.2	5.0	20	0	77.1	50-110	0			
4-Nitroaniline	11.93	0.13	5.0	20	0	59.6	35-150	0			
4-Nitrophenol	5.06	0.62	5.0	20	0	25.3	10-58	0			
Acenaphthene	12.48	0.041	5.0	20	0	62.4	45-110	0			
Acenaphthylene	12.87	0.039	5.0	20	0	64.4	50-105	0			
Acetophenone	13.27	0.37	1.0	20	0	66.4	30-120	0			
Anthracene	16.44	0.028	5.0	20	0	82.2	55-110	0			
Atrazine	17.76	0.16	1.0	20	0	88.8	30-120	0			
Benzaldehyde	12.88	0.25	1.0	20	0	64.4	30-120	0			
Benzo(a)anthracene	16.22	0.072	5.0	20	0	81.1	55-110	0			
Benzo(a)pyrene	15.98	0.036	5.0	20	0	79.9	55-110	0			
Benzo(b)fluoranthene	17.21	0.043	5.0	20	0	86	45-120	0			
Benzo(g,h,i)perylene	14.77	0.07	5.0	20	0	73.8	40-125	0			
Benzo(k)fluoranthene	17.28	0.062	5.0	20	0	86.4	45-125	0			
Bis(2-chloroethoxy)methane	12.97	0.23	5.0	20	0	64.8	45-105	0			
Bis(2-chloroethyl)ether	11.68	0.16	5.0	20	0	58.4	35-110	0			
Bis(2-chloroisopropyl)ether	11.38	0.19	5.0	20	0	56.9	25-130	0			
Bis(2-ethylhexyl)phthalate	14.97	0.18	5.0	20	0	74.8	40-125	0			
Butyl benzyl phthalate	14.53	0.12	5.0	20	0	72.6	45-115	0			
Carbazole	17.04	0.12	5.0	20	0	85.2	50-150	0			
Chrysene	16.46	0.042	5.0	20	0	82.3	55-110	0			
Dibenzo(a,h)anthracene	14.79	0.074	5.0	20	0	74	40-125	0			

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

Client: GHD Services Inc.
Work Order: 1604836
Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: 84906		Instrument ID SVMS5		Method: SW846 8270D				
Dibenzofuran	13.49	0.23	5.0	20	0	67.4	55-105	0
Diethyl phthalate	14.65	0.17	5.0	20	0	73.2	40-120	0
Dimethyl phthalate	14.43	0.15	5.0	20	0	72.2	25-125	0
Di-n-butyl phthalate	17.08	0.15	5.0	20	0	85.4	55-115	0
Di-n-octyl phthalate	15.68	0.15	5.0	20	0	78.4	35-135	0
Fluoranthene	18.59	0.047	5.0	20	0	93	55-115	0
Fluorene	13.81	0.036	5.0	20	0	69	50-110	0
Hexachlorobenzene	16.32	0.23	5.0	20	0	81.6	50-110	0
Hexachlorobutadiene	17.14	0.37	5.0	20	0	85.7	25-105	0
Hexachlorocyclopentadiene	9.02	0.18	5.0	20	0	45.1	25-105	0
Hexachloroethane	11.97	0.47	5.0	20	0	59.8	30-95	0
Indeno(1,2,3-cd)pyrene	18.33	0.064	5.0	20	0	91.6	45-125	0
Isophorone	15.22	0.25	5.0	20	0	76.1	50-110	0
Naphthalene	12.08	0.05	5.0	20	0	60.4	40-100	0
Nitrobenzene	12.72	0.23	5.0	20	0	63.6	45-110	0
N-Nitrosodi-n-propylamine	15.25	0.24	5.0	20	0	76.2	35-130	0
N-Nitrosodiphenylamine	14.77	0.24	5.0	20	0	73.8	50-110	0
Pentachlorophenol	16.27	0.52	5.0	20	0	81.4	40-115	0
Phenanthrene	15.17	0.054	5.0	20	0	75.8	50-115	0
Phenol	6.92	0.13	5.0	20	0	34.6	12-43	0
Pyrene	16.58	0.069	5.0	20	0	82.9	50-130	0
<i>Surr: 2,4,6-Tribromophenol</i>	36.55	0	0	50	0	73.1	38-115	0
<i>Surr: 2-Fluorobiphenyl</i>	31.01	0	0	50	0	62	32-100	0
<i>Surr: 2-Fluorophenol</i>	17.68	0	0	50	0	35.4	22-59	0
<i>Surr: 4-Terphenyl-d14</i>	40.99	0	0	50	0	82	23-112	0
<i>Surr: Nitrobenzene-d5</i>	30.89	0	0	50	0	61.8	31-93	0
<i>Surr: Phenol-d6</i>	11.48	0	0	50	0	23	13-36	0

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

Client: GHD Services Inc.
Work Order: 1604836
Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: **84906** Instrument ID **SVMS5** Method: **SW846 8270D**

MS Sample ID: 1604873-35A MS					Units: µg/L			Analysis Date: 4/20/2016 07:10 PM			
Client ID:		Run ID: SVMS5_160420A			SeqNo: 3786601		Prep Date: 4/20/2016		DF: 1		
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1'-Biphenyl	345.8	4.4	100	400	0	86.4	30-120	0			
2,4,5-Trichlorophenol	316.4	5.8	100	400	0	79.1	50-110	0			
2,4,6-Trichlorophenol	308.8	5	100	400	0	77.2	50-115	0			
2,4-Dichlorophenol	317.6	3.4	100	400	0	79.4	50-105	0			
2,4-Dimethylphenol	257	3.6	100	400	0	64.2	30-110	0			
2,4-Dinitrophenol	319.6	30	100	400	0	79.9	15-140	0			
2,4-Dinitrotoluene	301.4	2.8	100	400	0	75.4	50-120	0			
2,6-Dinitrotoluene	301.4	4	100	400	0	75.4	50-115	0			
2-Chloronaphthalene	268.4	0.6	100	400	0	67.1	50-105	0			
2-Chlorophenol	275	5.8	100	400	0	68.8	35-105	0			
2-Methylnaphthalene	321.2	2	100	400	0	80.3	45-105	0			
2-Methylphenol	226.4	2.8	100	400	0	56.6	40-110	0			
2-Nitroaniline	245.2	4.8	100	400	0	61.3	50-115	0			
2-Nitrophenol	294.4	5.4	100	400	0	73.6	40-115	0			
3&4-Methylphenol	203.4	4.8	100	400	0	50.8	30-110	0			
3,3'-Dichlorobenzidine	389.8	14	100	400	0	97.4	30-120	0			
3-Nitroaniline	228.8	4.8	100	400	0	57.2	20-125	0			
4,6-Dinitro-2-methylphenol	313.4	2.4	100	400	0	78.4	40-130	0			
4-Bromophenyl phenyl ether	356.2	5.8	100	400	0	89	50-115	0			
4-Chloro-3-methylphenol	307.4	3.2	100	400	0	76.8	45-110	0			
4-Chloroaniline	271.6	4.4	100	400	0	67.9	15-110	0			
4-Chlorophenyl phenyl ether	341	4	100	400	0	85.2	50-110	0			
4-Nitroaniline	254	2.6	100	400	0	63.5	35-150	0			
4-Nitrophenol	82.6	12	100	400	0	20.6	1-58	0			J
Acenaphthene	273.6	0.82	100	400	0	68.4	45-110	0			
Acenaphthylene	279.2	0.78	100	400	0	69.8	50-105	0			
Acetophenone	270.4	7.4	20	400	0	67.6	30-120	0			
Anthracene	354	0.56	100	400	0	88.5	55-110	0			
Atrazine	354.2	3.2	20	400	0	88.6	30-120	0			
Benzaldehyde	274	5	20	400	0	68.5	30-120	0			
Benzo(a)anthracene	354	1.4	100	400	0	88.5	55-110	0			
Benzo(a)pyrene	340.8	0.72	100	400	0	85.2	55-110	0			
Benzo(b)fluoranthene	363.8	0.86	100	400	0	91	45-120	0			
Benzo(g,h,i)perylene	348.6	1.4	100	400	0	87.2	40-125	0			
Benzo(k)fluoranthene	381.2	1.2	100	400	0	95.3	45-125	0			
Bis(2-chloroethoxy)methane	290.8	4.6	100	400	0	72.7	45-105	0			
Bis(2-chloroethyl)ether	260.2	3.2	100	400	0	65	35-110	0			
Bis(2-chloroisopropyl)ether	235	3.8	100	400	0	58.8	25-130	0			
Bis(2-ethylhexyl)phthalate	329.8	3.6	100	400	0	82.4	40-125	0			
Butyl benzyl phthalate	324.8	2.4	100	400	0	81.2	45-115	0			
Carbazole	358.2	2.4	100	400	0	89.6	50-150	0			
Chrysene	361.8	0.84	100	400	0	90.4	55-110	0			
Dibenzo(a,h)anthracene	351	1.5	100	400	0	87.8	40-125	0			

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

Client: GHD Services Inc.
Work Order: 1604836
Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: 84906		Instrument ID SVMS5		Method: SW846 8270D				
Dibenzofuran	294	4.6	100	400	0	73.5	55-105	0
Diethyl phthalate	305.8	3.4	100	400	0	76.4	40-120	0
Dimethyl phthalate	309.2	3	100	400	0	77.3	25-125	0
Di-n-butyl phthalate	354.2	3	100	400	0	88.6	55-115	0
Di-n-octyl phthalate	334.6	3	100	400	0	83.6	35-135	0
Fluoranthene	374.4	0.94	100	400	0	93.6	55-115	0
Fluorene	292.4	0.72	100	400	0	73.1	50-110	0
Hexachlorobenzene	360.8	4.6	100	400	0	90.2	50-110	0
Hexachlorobutadiene	352.8	7.4	100	400	0	88.2	25-105	0
Hexachlorocyclopentadiene	215	3.6	100	400	0	53.8	25-105	0
Hexachloroethane	255.2	9.4	100	400	0	63.8	30-95	0
Indeno(1,2,3-cd)pyrene	431.2	1.3	100	400	0	108	45-125	0
Isophorone	316.4	5	100	400	0	79.1	50-110	0
Naphthalene	261.4	1	100	400	0	65.4	40-100	0
Nitrobenzene	272.8	4.6	100	400	0	68.2	45-110	0
N-Nitrosodi-n-propylamine	302.2	4.8	100	400	0	75.6	35-130	0
N-Nitrosodiphenylamine	318.2	4.8	100	400	0	79.6	50-110	0
Pentachlorophenol	352.6	10	100	400	0	88.2	40-115	0
Phenanthrene	327.2	1.1	100	400	0	81.8	50-115	0
Phenol	144	2.6	100	400	0	36	12-43	0
Pyrene	383.2	1.4	100	400	0	95.8	50-130	0
<i>Surr: 2,4,6-Tribromophenol</i>	802.8	0	0	1000	0	80.3	38-115	0
<i>Surr: 2-Fluorobiphenyl</i>	696.6	0	0	1000	0	69.7	32-100	0
<i>Surr: 2-Fluorophenol</i>	389	0	0	1000	0	38.9	22-59	0
<i>Surr: 4-Terphenyl-d14</i>	903.6	0	0	1000	0	90.4	23-112	0
<i>Surr: Nitrobenzene-d5</i>	661.4	0	0	1000	0	66.1	31-93	0
<i>Surr: Phenol-d6</i>	233.8	0	0	1000	0	23.4	13-36	0

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

Client: GHD Services Inc.
 Work Order: 1604836
 Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: 84906 Instrument ID SVMS5 Method: SW846 8270D

MSD					Sample ID: 1604873-35A MSD			Units: µg/L		Analysis Date: 4/20/2016 07:33 PM		
Client ID:			Run ID: SVMS5_160420A			SeqNo: 3786602		Prep Date: 4/20/2016		DF: 1		
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
1,1`-Biphenyl	301.8	4.4	100	400	0	75.4	30-120	345.8	13.6	30		
2,4,5-Trichlorophenol	258.6	5.8	100	400	0	64.6	50-110	316.4	20.1	30		
2,4,6-Trichlorophenol	259	5	100	400	0	64.8	50-115	308.8	17.5	30		
2,4-Dichlorophenol	271.8	3.4	100	400	0	68	50-105	317.6	15.5	30		
2,4-Dimethylphenol	224.8	3.6	100	400	0	56.2	30-110	257	13.4	30		
2,4-Dinitrophenol	263.4	30	100	400	0	65.8	15-140	319.6	19.3	30		
2,4-Dinitrotoluene	257.8	2.8	100	400	0	64.4	50-120	301.4	15.6	30		
2,6-Dinitrotoluene	257.8	4	100	400	0	64.4	50-115	301.4	15.6	30		
2-Chloronaphthalene	222	0.6	100	400	0	55.5	50-105	268.4	18.9	30		
2-Chlorophenol	238.8	5.8	100	400	0	59.7	35-105	275	14.1	30		
2-Methylnaphthalene	279.6	2	100	400	0	69.9	45-105	321.2	13.8	30		
2-Methylphenol	206.4	2.8	100	400	0	51.6	40-110	226.4	9.24	30		
2-Nitroaniline	209.4	4.8	100	400	0	52.4	50-115	245.2	15.8	30		
2-Nitrophenol	254	5.4	100	400	0	63.5	40-115	294.4	14.7	30		
3&4-Methylphenol	193.4	4.8	100	400	0	48.4	30-110	203.4	5.04	30		
3,3`-Dichlorobenzidine	321.8	14	100	400	0	80.4	30-120	389.8	19.1	30		
3-Nitroaniline	219.8	4.8	100	400	0	55	20-125	228.8	4.01	30		
4,6-Dinitro-2-methylphenol	286.2	2.4	100	400	0	71.6	40-130	313.4	9.07	30		
4-Bromophenyl phenyl ether	303.4	5.8	100	400	0	75.8	50-115	356.2	16	30		
4-Chloro-3-methylphenol	286.2	3.2	100	400	0	71.6	45-110	307.4	7.14	30		
4-Chloroaniline	263.2	4.4	100	400	0	65.8	15-110	271.6	3.14	30		
4-Chlorophenyl phenyl ether	283.8	4	100	400	0	71	50-110	341	18.3	30		
4-Nitroaniline	246	2.6	100	400	0	61.5	35-150	254	3.2	30		
4-Nitrophenol	76	12	100	400	0	19	1-58	82.6	0	30	J	
Acenaphthene	232.6	0.82	100	400	0	58.2	45-110	273.6	16.2	30		
Acenaphthylene	237.8	0.78	100	400	0	59.4	50-105	279.2	16	30		
Acetophenone	241.4	7.4	20	400	0	60.4	30-120	270.4	11.3	30		
Anthracene	307	0.56	100	400	0	76.8	55-110	354	14.2	30		
Atrazine	305.4	3.2	20	400	0	76.4	30-120	354.2	14.8	30		
Benzaldehyde	240.6	5	20	400	0	60.2	30-120	274	13	30		
Benzo(a)anthracene	308.6	1.4	100	400	0	77.2	55-110	354	13.7	30		
Benzo(a)pyrene	298	0.72	100	400	0	74.5	55-110	340.8	13.4	30		
Benzo(b)fluoranthene	320.2	0.86	100	400	0	80	45-120	363.8	12.7	30		
Benzo(g,h,i)perylene	285.2	1.4	100	400	0	71.3	40-125	348.6	20	30		
Benzo(k)fluoranthene	337	1.2	100	400	0	84.2	45-125	381.2	12.3	30		
Bis(2-chloroethoxy)methane	242.8	4.6	100	400	0	60.7	45-105	290.8	18	30		
Bis(2-chloroethyl)ether	259	3.2	100	400	0	64.8	35-110	260.2	0.462	30		
Bis(2-chloroisopropyl)ether	208.2	3.8	100	400	0	52	25-130	235	12.1	30		
Bis(2-ethylhexyl)phthalate	276.6	3.6	100	400	0	69.2	40-125	329.8	17.5	30		
Butyl benzyl phthalate	283	2.4	100	400	0	70.8	45-115	324.8	13.8	30		
Carbazole	305.8	2.4	100	400	0	76.4	50-150	358.2	15.8	30		
Chrysene	311.6	0.84	100	400	0	77.9	55-110	361.8	14.9	30		
Dibenzo(a,h)anthracene	292.8	1.5	100	400	0	73.2	40-125	351	18.1	30		

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

Client: GHD Services Inc.
Work Order: 1604836
Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: 84906		Instrument ID SVMS5			Method: SW846 8270D					
Dibenzofuran	255.2	4.6	100	400	0	63.8	55-105	294	14.1	30
Diethyl phthalate	272.4	3.4	100	400	0	68.1	40-120	305.8	11.6	30
Dimethyl phthalate	270.4	3	100	400	0	67.6	25-125	309.2	13.4	30
Di-n-butyl phthalate	315.8	3	100	400	0	79	55-115	354.2	11.5	30
Di-n-octyl phthalate	298.2	3	100	400	0	74.6	35-135	334.6	11.5	30
Fluoranthene	329.2	0.94	100	400	0	82.3	55-115	374.4	12.8	30
Fluorene	250.6	0.72	100	400	0	62.6	50-110	292.4	15.4	30
Hexachlorobenzene	304	4.6	100	400	0	76	50-110	360.8	17.1	30
Hexachlorobutadiene	315	7.4	100	400	0	78.8	25-105	352.8	11.3	30
Hexachlorocyclopentadiene	186.6	3.6	100	400	0	46.6	25-105	215	14.1	30
Hexachloroethane	240.6	9.4	100	400	0	60.2	30-95	255.2	5.89	30
Indeno(1,2,3-cd)pyrene	346.6	1.3	100	400	0	86.6	45-125	431.2	21.8	30
Isophorone	274	5	100	400	0	68.5	50-110	316.4	14.4	30
Naphthalene	229	1	100	400	0	57.2	40-100	261.4	13.2	30
Nitrobenzene	242.8	4.6	100	400	0	60.7	45-110	272.8	11.6	30
N-Nitrosodi-n-propylamine	285.4	4.8	100	400	0	71.4	35-130	302.2	5.72	30
N-Nitrosodiphenylamine	270.4	4.8	100	400	0	67.6	50-110	318.2	16.2	30
Pentachlorophenol	318	10	100	400	0	79.5	40-115	352.6	10.3	30
Phenanthrene	279.8	1.1	100	400	0	70	50-115	327.2	15.6	30
Phenol	127.2	2.6	100	400	0	31.8	12-43	144	12.4	30
Pyrene	333.2	1.4	100	400	0	83.3	50-130	383.2	14	30
<i>Surr: 2,4,6-Tribromophenol</i>	706.6	0	0	1000	0	70.7	38-115	802.8	12.7	40
<i>Surr: 2-Fluorobiphenyl</i>	573	0	0	1000	0	57.3	32-100	696.6	19.5	40
<i>Surr: 2-Fluorophenol</i>	345.6	0	0	1000	0	34.6	22-59	389	11.8	40
<i>Surr: 4-Terphenyl-d14</i>	803.8	0	0	1000	0	80.4	23-112	903.6	11.7	40
<i>Surr: Nitrobenzene-d5</i>	565.8	0	0	1000	0	56.6	31-93	661.4	15.6	40
<i>Surr: Phenol-d6</i>	215.8	0	0	1000	0	21.6	13-36	233.8	8.01	40

The following samples were analyzed in this batch:

1604836-17B	1604836-18B	1604836-19B

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

Client: GHD Services Inc.
Work Order: 1604836
Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: **84984** Instrument ID **SVMS5** Method: **SW846 8270D**

MBLK		Sample ID: SBLKW1-84984-84984				Units: µg/L		Analysis Date: 4/21/2016 03:40 PM			
Client ID:		Run ID: SVMS5_160421A				SeqNo: 3789148		Prep Date: 4/21/2016		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1'-Biphenyl	U	0.22	5.0								
2,4,5-Trichlorophenol	U	0.29	5.0								
2,4,6-Trichlorophenol	U	0.25	5.0								
2,4-Dichlorophenol	U	0.17	5.0								
2,4-Dimethylphenol	U	0.18	5.0								
2,4-Dinitrophenol	U	1.5	5.0								
2,4-Dinitrotoluene	U	0.14	5.0								
2,6-Dinitrotoluene	U	0.2	5.0								
2-Chloronaphthalene	U	0.03	5.0								
2-Chlorophenol	U	0.29	5.0								
2-Methylnaphthalene	U	0.099	5.0								
2-Methylphenol	U	0.14	5.0								
2-Nitroaniline	U	0.24	5.0								
2-Nitrophenol	U	0.27	5.0								
3&4-Methylphenol	U	0.24	5.0								
3,3'-Dichlorobenzidine	U	0.7	5.0								
3-Nitroaniline	U	0.24	5.0								
4,6-Dinitro-2-methylphenol	U	0.12	5.0								
4-Bromophenyl phenyl ether	U	0.29	5.0								
4-Chloro-3-methylphenol	U	0.16	5.0								
4-Chloroaniline	U	0.22	5.0								
4-Chlorophenyl phenyl ether	U	0.2	5.0								
4-Nitroaniline	U	0.13	5.0								
4-Nitrophenol	U	0.62	5.0								
Acenaphthene	U	0.041	5.0								
Acenaphthylene	U	0.039	5.0								
Acetophenone	U	0.37	1.0								
Anthracene	U	0.028	5.0								
Atrazine	U	0.16	1.0								
Benzaldehyde	U	0.25	1.0								
Benzo(a)anthracene	U	0.072	5.0								
Benzo(a)pyrene	U	0.036	5.0								
Benzo(b)fluoranthene	U	0.043	5.0								
Benzo(g,h,i)perylene	U	0.07	5.0								
Benzo(k)fluoranthene	U	0.062	5.0								
Bis(2-chloroethoxy)methane	U	0.23	5.0								
Bis(2-chloroethyl)ether	U	0.16	5.0								
Bis(2-chloroisopropyl)ether	U	0.19	5.0								
Bis(2-ethylhexyl)phthalate	U	0.18	5.0								
Butyl benzyl phthalate	U	0.12	5.0								
Caprolactam	U	0.96	10								
Carbazole	U	0.12	5.0								
Chrysene	U	0.042	5.0								

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

Client: GHD Services Inc.
Work Order: 1604836
Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: 84984		Instrument ID SVMS5		Method: SW846 8270D	
Dibenzo(a,h)anthracene	U	0.074	5.0		
Dibenzofuran	U	0.23	5.0		
Diethyl phthalate	U	0.17	5.0		
Dimethyl phthalate	U	0.15	5.0		
Di-n-butyl phthalate	U	0.15	5.0		
Di-n-octyl phthalate	U	0.15	5.0		
Fluoranthene	U	0.047	5.0		
Fluorene	U	0.036	5.0		
Hexachlorobenzene	U	0.23	5.0		
Hexachlorobutadiene	U	0.37	5.0		
Hexachlorocyclopentadiene	U	0.18	5.0		
Hexachloroethane	U	0.47	5.0		
Indeno(1,2,3-cd)pyrene	U	0.064	5.0		
Isophorone	U	0.25	5.0		
Naphthalene	U	0.05	5.0		
Nitrobenzene	U	0.23	5.0		
N-Nitrosodi-n-propylamine	U	0.24	5.0		
N-Nitrosodiphenylamine	U	0.24	5.0		
Pentachlorophenol	U	0.52	5.0		
Phenanthrene	U	0.054	5.0		
Phenol	U	0.13	5.0		
Pyrene	U	0.069	5.0		
<i>Surr: 2,4,6-Tribromophenol</i>	<i>39.21</i>	<i>0</i>	<i>0</i>	<i>50</i>	<i>0 78.4 38-115 0</i>
<i>Surr: 2-Fluorobiphenyl</i>	<i>38.08</i>	<i>0</i>	<i>0</i>	<i>50</i>	<i>0 76.2 32-100 0</i>
<i>Surr: 2-Fluorophenol</i>	<i>22.17</i>	<i>0</i>	<i>0</i>	<i>50</i>	<i>0 44.3 22-59 0</i>
<i>Surr: 4-Terphenyl-d14</i>	<i>52.88</i>	<i>0</i>	<i>0</i>	<i>50</i>	<i>0 106 23-112 0</i>
<i>Surr: Nitrobenzene-d5</i>	<i>37.77</i>	<i>0</i>	<i>0</i>	<i>50</i>	<i>0 75.5 31-93 0</i>
<i>Surr: Phenol-d6</i>	<i>12.77</i>	<i>0</i>	<i>0</i>	<i>50</i>	<i>0 25.5 13-36 0</i>

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

Client: GHD Services Inc.
 Work Order: 1604836
 Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: **84984** Instrument ID **SVMS5** Method: **SW846 8270D**

LCS		Sample ID: SLCSW1-84984-84984				Units: µg/L		Analysis Date: 4/22/2016 04:06 PM			
Client ID:		Run ID: SVMS5_160422A				SeqNo: 3789581		Prep Date: 4/21/2016		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1'-Biphenyl	15.31	0.22	5.0	20	0	76.6	30-120	0			
2,4,5-Trichlorophenol	13.89	0.29	5.0	20	0	69.4	50-110	0			
2,4,6-Trichlorophenol	13.52	0.25	5.0	20	0	67.6	50-115	0			
2,4-Dichlorophenol	14.35	0.17	5.0	20	0	71.8	50-105	0			
2,4-Dimethylphenol	11.15	0.18	5.0	20	0	55.8	30-110	0			
2,4-Dinitrophenol	9.49	1.5	5.0	20	0	47.4	15-140	0			
2,4-Dinitrotoluene	12.88	0.14	5.0	20	0	64.4	50-120	0			
2,6-Dinitrotoluene	12.88	0.2	5.0	20	0	64.4	50-115	0			
2-Chloronaphthalene	11.83	0.03	5.0	20	0	59.2	50-105	0			
2-Chlorophenol	12.54	0.29	5.0	20	0	62.7	35-105	0			
2-Methylnaphthalene	14.37	0.099	5.0	20	0	71.8	45-105	0			
2-Methylphenol	10.36	0.14	5.0	20	0	51.8	40-110	0			
2-Nitroaniline	10.92	0.24	5.0	20	0	54.6	50-115	0			
2-Nitrophenol	13.65	0.27	5.0	20	0	68.2	40-115	0			
3&4-Methylphenol	8.9	0.24	5.0	20	0	44.5	30-110	0			
3,3'-Dichlorobenzidine	18.78	0.7	5.0	20	0	93.9	30-120	0			
3-Nitroaniline	10.43	0.24	5.0	20	0	52.2	20-125	0			
4,6-Dinitro-2-methylphenol	13.02	0.12	5.0	20	0	65.1	40-130	0			
4-Bromophenyl phenyl ether	15.74	0.29	5.0	20	0	78.7	50-115	0			
4-Chloro-3-methylphenol	13.77	0.16	5.0	20	0	68.8	45-110	0			
4-Chloroaniline	12.76	0.22	5.0	20	0	63.8	15-110	0			
4-Chlorophenyl phenyl ether	14.88	0.2	5.0	20	0	74.4	50-110	0			
4-Nitroaniline	11.81	0.13	5.0	20	0	59	35-150	0			
4-Nitrophenol	3.42	0.62	5.0	20	0	17.1	10-58	0			J
Acenaphthene	11.9	0.041	5.0	20	0	59.5	45-110	0			
Acenaphthylene	12.23	0.039	5.0	20	0	61.2	50-105	0			
Acetophenone	13.25	0.37	1.0	20	0	66.2	30-120	0			
Anthracene	15.33	0.028	5.0	20	0	76.6	55-110	0			
Atrazine	15.92	0.16	1.0	20	0	79.6	30-120	0			
Benzaldehyde	12.75	0.25	1.0	20	0	63.8	30-120	0			
Benzo(a)anthracene	16.35	0.072	5.0	20	0	81.8	55-110	0			
Benzo(a)pyrene	15.3	0.036	5.0	20	0	76.5	55-110	0			
Benzo(b)fluoranthene	16.86	0.043	5.0	20	0	84.3	45-120	0			
Benzo(g,h,i)perylene	15.69	0.07	5.0	20	0	78.4	40-125	0			
Benzo(k)fluoranthene	15.87	0.062	5.0	20	0	79.4	45-125	0			
Bis(2-chloroethoxy)methane	12.74	0.23	5.0	20	0	63.7	45-105	0			
Bis(2-chloroethyl)ether	11.77	0.16	5.0	20	0	58.8	35-110	0			
Bis(2-chloroisopropyl)ether	10.35	0.19	5.0	20	0	51.8	25-130	0			
Bis(2-ethylhexyl)phthalate	15.83	0.18	5.0	20	0	79.2	40-125	0			
Butyl benzyl phthalate	14.93	0.12	5.0	20	0	74.6	45-115	0			
Carbazole	16.06	0.12	5.0	20	0	80.3	50-150	0			
Chrysene	16.09	0.042	5.0	20	0	80.4	55-110	0			
Dibenzo(a,h)anthracene	15.8	0.074	5.0	20	0	79	40-125	0			

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

Client: GHD Services Inc.
Work Order: 1604836
Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: 84984		Instrument ID SVMS5		Method: SW846 8270D				
Dibenzofuran	12.9	0.23	5.0	20	0	64.5	55-105	0
Diethyl phthalate	13.95	0.17	5.0	20	0	69.8	40-120	0
Dimethyl phthalate	14.16	0.15	5.0	20	0	70.8	25-125	0
Di-n-butyl phthalate	16.06	0.15	5.0	20	0	80.3	55-115	0
Di-n-octyl phthalate	16.09	0.15	5.0	20	0	80.4	35-135	0
Fluoranthene	17.09	0.047	5.0	20	0	85.4	55-115	0
Fluorene	12.74	0.036	5.0	20	0	63.7	50-110	0
Hexachlorobenzene	16.38	0.23	5.0	20	0	81.9	50-110	0
Hexachlorobutadiene	17.59	0.37	5.0	20	0	88	25-105	0
Hexachlorocyclopentadiene	8.47	0.18	5.0	20	0	42.4	25-105	0
Hexachloroethane	12.17	0.47	5.0	20	0	60.8	30-95	0
Indeno(1,2,3-cd)pyrene	14.45	0.064	5.0	20	0	72.2	45-125	0
Isophorone	14.37	0.25	5.0	20	0	71.8	50-110	0
Naphthalene	12.23	0.05	5.0	20	0	61.2	40-100	0
Nitrobenzene	13.39	0.23	5.0	20	0	67	45-110	0
N-Nitrosodi-n-propylamine	13.34	0.24	5.0	20	0	66.7	35-130	0
N-Nitrosodiphenylamine	13.68	0.24	5.0	20	0	68.4	50-110	0
Pentachlorophenol	12.19	0.52	5.0	20	0	61	40-115	0
Phenanthrene	14.85	0.054	5.0	20	0	74.2	50-115	0
Phenol	5.88	0.13	5.0	20	0	29.4	12-43	0
Pyrene	16.99	0.069	5.0	20	0	85	50-130	0
<i>Surr: 2,4,6-Tribromophenol</i>	<i>34.57</i>	<i>0</i>	<i>0</i>	<i>50</i>	<i>0</i>	<i>69.1</i>	<i>38-115</i>	<i>0</i>
<i>Surr: 2-Fluorobiphenyl</i>	<i>30.3</i>	<i>0</i>	<i>0</i>	<i>50</i>	<i>0</i>	<i>60.6</i>	<i>32-100</i>	<i>0</i>
<i>Surr: 2-Fluorophenol</i>	<i>17.88</i>	<i>0</i>	<i>0</i>	<i>50</i>	<i>0</i>	<i>35.8</i>	<i>22-59</i>	<i>0</i>
<i>Surr: 4-Terphenyl-d14</i>	<i>40.76</i>	<i>0</i>	<i>0</i>	<i>50</i>	<i>0</i>	<i>81.5</i>	<i>23-112</i>	<i>0</i>
<i>Surr: Nitrobenzene-d5</i>	<i>30.9</i>	<i>0</i>	<i>0</i>	<i>50</i>	<i>0</i>	<i>61.8</i>	<i>31-93</i>	<i>0</i>
<i>Surr: Phenol-d6</i>	<i>10.95</i>	<i>0</i>	<i>0</i>	<i>50</i>	<i>0</i>	<i>21.9</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: 1604836
Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: **84984** Instrument ID **SVMS5** Method: **SW846 8270D**

MS					Units: µg/L			Analysis Date: 4/21/2016 07:01 PM			
Client ID:		Run ID: SVMS5_160421A			SeqNo: 3789150		Prep Date: 4/21/2016		DF: 1		
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1'-Biphenyl	416	4.4	100	400	0	104	30-120	0			
2,4,5-Trichlorophenol	368.2	5.8	100	400	0	92	50-110	0			
2,4,6-Trichlorophenol	358.8	5	100	400	0	89.7	50-115	0			
2,4-Dichlorophenol	371.6	3.4	100	400	0	92.9	50-105	0			
2,4-Dimethylphenol	308.6	3.6	100	400	0	77.2	30-110	0			
2,4-Dinitrophenol	346.8	30	100	400	0	86.7	15-140	0			
2,4-Dinitrotoluene	336.8	2.8	100	400	0	84.2	50-120	0			
2,6-Dinitrotoluene	336.8	4	100	400	0	84.2	50-115	0			
2-Chloronaphthalene	306.8	0.6	100	400	0	76.7	50-105	0			
2-Chlorophenol	306.6	5.8	100	400	0	76.6	35-105	0			
2-Methylnaphthalene	384.4	2	100	400	0	96.1	45-105	0			
2-Methylphenol	264.6	2.8	100	400	0	66.2	40-110	0			
2-Nitroaniline	277.8	4.8	100	400	0	69.4	50-115	0			
2-Nitrophenol	350.6	5.4	100	400	0	87.6	40-115	0			
3&4-Methylphenol	236.8	4.8	100	400	0	59.2	30-110	0			
3,3'-Dichlorobenzidine	507.6	14	100	400	0	127	30-120	0			S
3-Nitroaniline	270.2	4.8	100	400	0	67.6	20-125	0			
4,6-Dinitro-2-methylphenol	403.4	2.4	100	400	0	101	40-130	0			
4-Bromophenyl phenyl ether	395.6	5.8	100	400	0	98.9	50-115	0			
4-Chloro-3-methylphenol	370	3.2	100	400	0	92.5	45-110	0			
4-Chloroaniline	308	4.4	100	400	0	77	15-110	0			
4-Chlorophenyl phenyl ether	393.6	4	100	400	0	98.4	50-110	0			
4-Nitroaniline	290.8	2.6	100	400	0	72.7	35-150	0			
4-Nitrophenol	146	12	100	400	0	36.5	1-58	0			
Acenaphthene	310.2	0.82	100	400	0	77.6	45-110	0			
Acenaphthylene	324.4	0.78	100	400	0	81.1	50-105	0			
Acetophenone	336.8	7.4	20	400	0	84.2	30-120	0			
Anthracene	409.8	0.56	100	400	0	102	55-110	0			
Atrazine	454.6	3.2	20	400	0	114	30-120	0			
Benzaldehyde	355	5	20	400	0	88.8	30-120	0			
Benzo(a)anthracene	410.4	1.4	100	400	0	103	55-110	0			
Benzo(a)pyrene	398.6	0.72	100	400	11.4	96.8	55-110	0			
Benzo(b)fluoranthene	433	0.86	100	400	2.6	108	45-120	0			
Benzo(g,h,i)perylene	372.6	1.4	100	400	0	93.2	40-125	0			
Benzo(k)fluoranthene	434.8	1.2	100	400	3.2	108	45-125	0			
Bis(2-chloroethoxy)methane	330.4	4.6	100	400	0	82.6	45-105	0			
Bis(2-chloroethyl)ether	382.4	3.2	100	400	0	95.6	35-110	0			
Bis(2-chloroisopropyl)ether	269.2	3.8	100	400	0	67.3	25-130	0			
Bis(2-ethylhexyl)phthalate	391.6	3.6	100	400	0	97.9	40-125	0			
Butyl benzyl phthalate	383.8	2.4	100	400	0	96	45-115	0			
Carbazole	425	2.4	100	400	0	106	50-150	0			
Chrysene	404.2	0.84	100	400	0	101	55-110	0			
Dibenzo(a,h)anthracene	387	1.5	100	400	0	96.8	40-125	0			

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

Client: GHD Services Inc.
Work Order: 1604836
Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: 84984		Instrument ID SVMS5		Method: SW846 8270D				
Dibenzofuran	335	4.6	100	400	0	83.8	55-105	0
Diethyl phthalate	353.8	3.4	100	400	0	88.4	40-120	0
Dimethyl phthalate	350.2	3	100	400	0	87.6	25-125	0
Di-n-butyl phthalate	424.2	3	100	400	0	106	55-115	0
Di-n-octyl phthalate	418	3	100	400	0	104	35-135	0
Fluoranthene	457.6	0.94	100	400	0	114	55-115	0
Fluorene	333	0.72	100	400	0	83.2	50-110	0
Hexachlorobenzene	411.4	4.6	100	400	0	103	50-110	0
Hexachlorobutadiene	428.8	7.4	100	400	0	107	25-105	0
Hexachlorocyclopentadiene	228.6	3.6	100	400	0	57.2	25-105	0
Hexachloroethane	304.4	9.4	100	400	0	76.1	30-95	0
Indeno(1,2,3-cd)pyrene	460.4	1.3	100	400	0	115	45-125	0
Isophorone	369	5	100	400	0	92.2	50-110	0
Naphthalene	308.8	1	100	400	0	77.2	40-100	0
Nitrobenzene	313.6	4.6	100	400	0	78.4	45-110	0
N-Nitrosodi-n-propylamine	377	4.8	100	400	0	94.2	35-130	0
N-Nitrosodiphenylamine	369.2	4.8	100	400	0	92.3	50-110	0
Pentachlorophenol	401	10	100	400	0	100	40-115	0
Phenanthrene	378.4	1.1	100	400	0	94.6	50-115	0
Phenol	158.4	2.6	100	400	0	39.6	12-43	0
Pyrene	419.2	1.4	100	400	0	105	50-130	0
<i>Surr: 2,4,6-Tribromophenol</i>	<i>915</i>	<i>0</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>91.5</i>	<i>38-115</i>	<i>0</i>
<i>Surr: 2-Fluorobiphenyl</i>	<i>754.6</i>	<i>0</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>75.5</i>	<i>32-100</i>	<i>0</i>
<i>Surr: 2-Fluorophenol</i>	<i>395.8</i>	<i>0</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>39.6</i>	<i>22-59</i>	<i>0</i>
<i>Surr: 4-Terphenyl-d14</i>	<i>981.4</i>	<i>0</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>98.1</i>	<i>23-112</i>	<i>0</i>
<i>Surr: Nitrobenzene-d5</i>	<i>763.4</i>	<i>0</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>76.3</i>	<i>31-93</i>	<i>0</i>
<i>Surr: Phenol-d6</i>	<i>248</i>	<i>0</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>24.8</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: 1604836
Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: **84984** Instrument ID **SVMS5** Method: **SW846 8270D**

MS Sample ID: 1604887-02A MS					Units: µg/L			Analysis Date: 4/22/2016 05:18 PM			
Client ID:		Run ID: SVMS5_160422A			SeqNo: 3791792		Prep Date: 4/21/2016		DF: 1		
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1'-Biphenyl	394.4	4.4	100	400	0	98.6	30-120	0			
2,4,5-Trichlorophenol	356	5.8	100	400	0	89	50-110	0			
2,4,6-Trichlorophenol	347.8	5	100	400	0	87	50-115	0			
2,4-Dichlorophenol	357.8	3.4	100	400	0	89.4	50-105	0			
2,4-Dimethylphenol	272	3.6	100	400	0	68	30-110	0			
2,4-Dinitrophenol	248.4	30	100	400	0	62.1	15-140	0			
2,4-Dinitrotoluene	324.8	2.8	100	400	0	81.2	50-120	0			
2,6-Dinitrotoluene	324.8	4	100	400	0	81.2	50-115	0			
2-Chloronaphthalene	300.8	0.6	100	400	0	75.2	50-105	0			
2-Chlorophenol	311.2	5.8	100	400	0	77.8	35-105	0			
2-Methylnaphthalene	362.4	2	100	400	0	90.6	45-105	0			
2-Methylphenol	253.2	2.8	100	400	0	63.3	40-110	0			
2-Nitroaniline	265	4.8	100	400	0	66.2	50-115	0			
2-Nitrophenol	349	5.4	100	400	0	87.2	40-115	0			
3&4-Methylphenol	212	4.8	100	400	0	53	30-110	0			
3,3'-Dichlorobenzidine	491	14	100	400	0	123	30-120	0			S
3-Nitroaniline	248	4.8	100	400	0	62	20-125	0			
4,6-Dinitro-2-methylphenol	362.6	2.4	100	400	0	90.6	40-130	0			
4-Bromophenyl phenyl ether	412.4	5.8	100	400	0	103	50-115	0			
4-Chloro-3-methylphenol	342.4	3.2	100	400	0	85.6	45-110	0			
4-Chloroaniline	281.8	4.4	100	400	0	70.4	15-110	0			
4-Chlorophenyl phenyl ether	365	4	100	400	0	91.2	50-110	0			
4-Nitroaniline	269.8	2.6	100	400	0	67.4	35-150	0			
4-Nitrophenol	168	12	100	400	0	42	1-58	0			
Acenaphthene	297.2	0.82	100	400	0	74.3	45-110	0			
Acenaphthylene	310.2	0.78	100	400	0	77.6	50-105	0			
Acetophenone	315.8	7.4	20	400	0	79	30-120	0			
Anthracene	392.8	0.56	100	400	0	98.2	55-110	0			
Atrazine	410.4	3.2	20	400	0	103	30-120	0			
Benzaldehyde	342.4	5	20	400	0	85.6	30-120	0			
Benzo(a)anthracene	405.4	1.4	100	400	0	101	55-110	0			
Benzo(a)pyrene	395.8	0.72	100	400	0	99	55-110	0			
Benzo(b)fluoranthene	426.6	0.86	100	400	0	107	45-120	0			
Benzo(g,h,i)perylene	412	1.4	100	400	0	103	40-125	0			
Benzo(k)fluoranthene	409.6	1.2	100	400	0	102	45-125	0			
Bis(2-chloroethoxy)methane	318	4.6	100	400	0	79.5	45-105	0			
Bis(2-chloroethyl)ether	303.8	3.2	100	400	0	76	35-110	0			
Bis(2-chloroisopropyl)ether	269.4	3.8	100	400	0	67.4	25-130	0			
Bis(2-ethylhexyl)phthalate	394.4	3.6	100	400	0	98.6	40-125	0			
Butyl benzyl phthalate	383.2	2.4	100	400	0	95.8	45-115	0			
Carbazole	404.8	2.4	100	400	0	101	50-150	0			
Chrysene	404	0.84	100	400	0	101	55-110	0			
Dibenzo(a,h)anthracene	417.6	1.5	100	400	0	104	40-125	0			

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

Client: GHD Services Inc.
Work Order: 1604836
Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: 84984		Instrument ID SVMS5		Method: SW846 8270D				
Dibenzofuran	328.2	4.6	100	400	0	82	55-105	0
Diethyl phthalate	334.2	3.4	100	400	0	83.6	40-120	0
Dimethyl phthalate	335.4	3	100	400	0	83.8	25-125	0
Di-n-butyl phthalate	411.4	3	100	400	0	103	55-115	0
Di-n-octyl phthalate	396.8	3	100	400	0	99.2	35-135	0
Fluoranthene	431.6	0.94	100	400	0	108	55-115	0
Fluorene	320.4	0.72	100	400	0	80.1	50-110	0
Hexachlorobenzene	417.6	4.6	100	400	0	104	50-110	0
Hexachlorobutadiene	440.4	7.4	100	400	0	110	25-105	0
Hexachlorocyclopentadiene	220.6	3.6	100	400	0	55.2	25-105	0
Hexachloroethane	315.4	9.4	100	400	0	78.8	30-95	0
Indeno(1,2,3-cd)pyrene	336	1.3	100	400	0	84	45-125	0
Isophorone	353.2	5	100	400	0	88.3	50-110	0
Naphthalene	311	1	100	400	0	77.8	40-100	0
Nitrobenzene	325	4.6	100	400	0	81.2	45-110	0
N-Nitrosodi-n-propylamine	354.4	4.8	100	400	0	88.6	35-130	0
N-Nitrosodiphenylamine	376	4.8	100	400	0	94	50-110	0
Pentachlorophenol	334	10	100	400	0	83.5	40-115	0
Phenanthrene	372.8	1.1	100	400	0	93.2	50-115	0
Phenol	148	2.6	100	400	0	37	12-43	0
Pyrene	430.6	1.4	100	400	0	108	50-130	0
<i>Surr: 2,4,6-Tribromophenol</i>	900.6	0	0	1000	0	90.1	38-115	0
<i>Surr: 2-Fluorobiphenyl</i>	751.2	0	0	1000	0	75.1	32-100	0
<i>Surr: 2-Fluorophenol</i>	397.8	0	0	1000	0	39.8	22-59	0
<i>Surr: 4-Terphenyl-d14</i>	1019	0	0	1000	0	102	23-112	0
<i>Surr: Nitrobenzene-d5</i>	774.6	0	0	1000	0	77.5	31-93	0
<i>Surr: Phenol-d6</i>	241	0	0	1000	0	24.1	13-36	0

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

Client: GHD Services Inc.
 Work Order: 1604836
 Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: **84984** Instrument ID **SVMS5** Method: **SW846 8270D**

MSD					Sample ID: 1604887-02A MSD			Units: µg/L		Analysis Date: 4/22/2016 05:42 PM	
Client ID:		Run ID: SVMS5_160422A			SeqNo: 3791793		Prep Date: 4/21/2016		DF: 1		
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1'-Biphenyl	413.8	4.4	100	400	0	103	30-120	394.4	4.8	30	
2,4,5-Trichlorophenol	369.2	5.8	100	400	0	92.3	50-110	356	3.64	30	
2,4,6-Trichlorophenol	363.2	5	100	400	0	90.8	50-115	347.8	4.33	30	
2,4-Dichlorophenol	372.2	3.4	100	400	0	93	50-105	357.8	3.95	30	
2,4-Dimethylphenol	282.6	3.6	100	400	0	70.6	30-110	272	3.82	30	
2,4-Dinitrophenol	288	30	100	400	0	72	15-140	248.4	14.8	30	
2,4-Dinitrotoluene	340	2.8	100	400	0	85	50-120	324.8	4.57	30	
2,6-Dinitrotoluene	340	4	100	400	0	85	50-115	324.8	4.57	30	
2-Chloronaphthalene	302.4	0.6	100	400	0	75.6	50-105	300.8	0.531	30	
2-Chlorophenol	308.2	5.8	100	400	0	77	35-105	311.2	0.969	30	
2-Methylnaphthalene	372.2	2	100	400	0	93	45-105	362.4	2.67	30	
2-Methylphenol	260.8	2.8	100	400	0	65.2	40-110	253.2	2.96	30	
2-Nitroaniline	277.6	4.8	100	400	0	69.4	50-115	265	4.64	30	
2-Nitrophenol	355	5.4	100	400	0	88.8	40-115	349	1.7	30	
3&4-Methylphenol	228.6	4.8	100	400	0	57.2	30-110	212	7.54	30	
3,3'-Dichlorobenzidine	500.6	14	100	400	0	125	30-120	491	1.94	30	S
3-Nitroaniline	272.2	4.8	100	400	0	68	20-125	248	9.3	30	
4,6-Dinitro-2-methylphenol	382.4	2.4	100	400	0	95.6	40-130	362.6	5.32	30	
4-Bromophenyl phenyl ether	420.2	5.8	100	400	0	105	50-115	412.4	1.87	30	
4-Chloro-3-methylphenol	371.2	3.2	100	400	0	92.8	45-110	342.4	8.07	30	
4-Chloroaniline	300.8	4.4	100	400	0	75.2	15-110	281.8	6.52	30	
4-Chlorophenyl phenyl ether	380.4	4	100	400	0	95.1	50-110	365	4.13	30	
4-Nitroaniline	286.2	2.6	100	400	0	71.6	35-150	269.8	5.9	30	
4-Nitrophenol	181.2	12	100	400	0	45.3	1-58	168	7.56	30	
Acenaphthene	301.2	0.82	100	400	0	75.3	45-110	297.2	1.34	30	
Acenaphthylene	318.8	0.78	100	400	0	79.7	50-105	310.2	2.73	30	
Acetophenone	318.6	7.4	20	400	0	79.6	30-120	315.8	0.883	30	
Anthracene	412	0.56	100	400	0	103	55-110	392.8	4.77	30	
Atrazine	469.8	3.2	20	400	0	117	30-120	410.4	13.5	30	
Benzaldehyde	372.6	5	20	400	0	93.2	30-120	342.4	8.45	30	
Benzo(a)anthracene	425.2	1.4	100	400	0	106	55-110	405.4	4.77	30	
Benzo(a)pyrene	414.2	0.72	100	400	0	104	55-110	395.8	4.54	30	
Benzo(b)fluoranthene	444.6	0.86	100	400	0	111	45-120	426.6	4.13	30	
Benzo(g,h,i)perylene	398.6	1.4	100	400	0	99.6	40-125	412	3.31	30	
Benzo(k)fluoranthene	426.6	1.2	100	400	0	107	45-125	409.6	4.07	30	
Bis(2-chloroethoxy)methane	326.6	4.6	100	400	0	81.6	45-105	318	2.67	30	
Bis(2-chloroethyl)ether	285.6	3.2	100	400	0	71.4	35-110	303.8	6.18	30	
Bis(2-chloroisopropyl)ether	262.4	3.8	100	400	0	65.6	25-130	269.4	2.63	30	
Bis(2-ethylhexyl)phthalate	404.8	3.6	100	400	0	101	40-125	394.4	2.6	30	
Butyl benzyl phthalate	402.8	2.4	100	400	0	101	45-115	383.2	4.99	30	
Carbazole	435.4	2.4	100	400	0	109	50-150	404.8	7.28	30	
Chrysene	420.6	0.84	100	400	0	105	55-110	404	4.03	30	
Dibenzo(a,h)anthracene	413.8	1.5	100	400	0	103	40-125	417.6	0.914	30	

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

Client: GHD Services Inc.
Work Order: 1604836
Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: 84984		Instrument ID SVMS5			Method: SW846 8270D					
Dibenzofuran	331.8	4.6	100	400	0	83	55-105	328.2	1.09	30
Diethyl phthalate	357.6	3.4	100	400	0	89.4	40-120	334.2	6.76	30
Dimethyl phthalate	349.8	3	100	400	0	87.4	25-125	335.4	4.2	30
Di-n-butyl phthalate	434.6	3	100	400	0	109	55-115	411.4	5.48	30
Di-n-octyl phthalate	416.6	3	100	400	0	104	35-135	396.8	4.87	30
Fluoranthene	457.8	0.94	100	400	0	114	55-115	431.6	5.89	30
Fluorene	331.4	0.72	100	400	0	82.8	50-110	320.4	3.38	30
Hexachlorobenzene	421.4	4.6	100	400	0	105	50-110	417.6	0.906	30
Hexachlorobutadiene	456.8	7.4	100	400	0	114	25-105	440.4	3.66	30 S
Hexachlorocyclopentadiene	226.2	3.6	100	400	0	56.6	25-105	220.6	2.51	30
Hexachloroethane	319.8	9.4	100	400	0	80	30-95	315.4	1.39	30
Indeno(1,2,3-cd)pyrene	336	1.3	100	400	0	84	45-125	336	0	30
Isophorone	368.4	5	100	400	0	92.1	50-110	353.2	4.21	30
Naphthalene	315.8	1	100	400	0	79	40-100	311	1.53	30
Nitrobenzene	339	4.6	100	400	0	84.8	45-110	325	4.22	30
N-Nitrosodi-n-propylamine	357.8	4.8	100	400	0	89.4	35-130	354.4	0.955	30
N-Nitrosodiphenylamine	376.4	4.8	100	400	0	94.1	50-110	376	0.106	30
Pentachlorophenol	361.4	10	100	400	0	90.4	40-115	334	7.88	30
Phenanthrene	387.8	1.1	100	400	0	97	50-115	372.8	3.94	30
Phenol	167.6	2.6	100	400	0	41.9	12-43	148	12.4	30
Pyrene	444.6	1.4	100	400	0	111	50-130	430.6	3.2	30
<i>Surr: 2,4,6-Tribromophenol</i>	<i>927</i>	<i>0</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>92.7</i>	<i>38-115</i>	<i>900.6</i>	<i>2.89</i>	<i>40</i>
<i>Surr: 2-Fluorobiphenyl</i>	<i>747</i>	<i>0</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>74.7</i>	<i>32-100</i>	<i>751.2</i>	<i>0.561</i>	<i>40</i>
<i>Surr: 2-Fluorophenol</i>	<i>446</i>	<i>0</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>44.6</i>	<i>22-59</i>	<i>397.8</i>	<i>11.4</i>	<i>40</i>
<i>Surr: 4-Terphenyl-d14</i>	<i>1058</i>	<i>0</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>106</i>	<i>23-112</i>	<i>1019</i>	<i>3.79</i>	<i>40</i>
<i>Surr: Nitrobenzene-d5</i>	<i>768.4</i>	<i>0</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>76.8</i>	<i>31-93</i>	<i>774.6</i>	<i>0.804</i>	<i>40</i>
<i>Surr: Phenol-d6</i>	<i>266.2</i>	<i>0</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>26.6</i>	<i>13-36</i>	<i>241</i>	<i>9.94</i>	<i>40</i>

The following samples were analyzed in this batch:

1604836-13B

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

Client: GHD Services Inc.
Work Order: 1604836
Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: **R185633** Instrument ID **VMS8** Method: **SW8260B**

MBLK		Sample ID: VLKW1-160419-R185633				Units: µg/L		Analysis Date: 4/19/2016 01:34 PM			
Client ID:		Run ID: VMS8_160419A				SeqNo: 3783946		Prep Date:		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	U	0.19	1.0								
1,1,2,2-Tetrachloroethane	U	0.34	1.0								
1,1,2-Trichloroethane	U	0.25	1.0								
1,1,2-Trichlorotrifluoroethane	U	0.47	1.0								
1,1-Dichloroethane	U	0.21	1.0								
1,1-Dichloroethene	U	0.24	1.0								
1,2,4-Trichlorobenzene	U	0.19	1.0								
1,2-Dibromo-3-chloropropane	U	0.42	1.0								
1,2-Dibromoethane	U	0.34	1.0								
1,2-Dichlorobenzene	U	0.22	1.0								
1,2-Dichloroethane	U	0.26	1.0								
1,2-Dichloropropane	U	0.26	1.0								
1,3-Dichlorobenzene	U	0.21	1.0								
1,4-Dichlorobenzene	U	0.2	1.0								
2-Butanone	U	0.87	5.0								
2-Hexanone	U	0.15	5.0								
4-Methyl-2-pentanone	U	0.15	1.0								
Acetone	U	3.1	10								
Benzene	U	0.25	1.0								
Bromodichloromethane	U	0.16	1.0								
Bromoform	U	0.099	1.0								
Bromomethane	U	1	1.0								
Carbon disulfide	U	0.26	1.0								
Carbon tetrachloride	U	0.14	1.0								
Chlorobenzene	U	0.19	1.0								
Chloroethane	U	0.21	1.0								
Chloroform	U	0.25	1.0								
Chloromethane	U	0.25	1.0								
cis-1,2-Dichloroethene	U	0.25	1.0								
cis-1,3-Dichloropropene	U	0.24	1.0								
Cyclohexane	U	0.31	1.0								
Dibromochloromethane	U	0.17	1.0								
Dichlorodifluoromethane	U	0.41	1.0								
Ethylbenzene	U	0.22	1.0								
Isopropylbenzene	U	0.25	1.0								
Methyl acetate	U	0.62	2.0								
Methyl tert-butyl ether	U	0.12	1.0								
Methylcyclohexane	U	0.32	1.0								
Methylene chloride	U	0.64	5.0								
Styrene	U	0.18	1.0								
Tetrachloroethene	U	0.25	1.0								
Toluene	U	0.2	1.0								
trans-1,2-Dichloroethene	U	0.29	1.0								

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

Client: GHD Services Inc.
Work Order: 1604836
Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: R185633		Instrument ID VMS8		Method: SW8260B	
trans-1,3-Dichloropropene	U	0.19	1.0		
Trichloroethene	U	0.34	1.0		
Trichlorofluoromethane	U	0.39	1.0		
Vinyl chloride	U	0.19	1.0		
Xylenes, Total	U	0.62	3.0		
Surr: 1,2-Dichloroethane-d4	21.08	0	0	20	0 105 75-120 0
Surr: 4-Bromofluorobenzene	18.25	0	0	20	0 91.2 80-110 0
Surr: Dibromofluoromethane	19.5	0	0	20	0 97.5 85-115 0
Surr: Toluene-d8	19.75	0	0	20	0 98.8 85-110 0

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

Client: GHD Services Inc.
 Work Order: 1604836
 Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: **R185633** Instrument ID **VMS8** Method: **SW8260B**

LCS		Sample ID: VLCSW1-160419-R185633				Units: µg/L		Analysis Date: 4/19/2016 11:55 AM			
Client ID:		Run ID: VMS8_160419A				SeqNo: 3783945		Prep Date:		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	22.77	0.19	1.0	20	0	114	75-130	0			
1,1,2,2-Tetrachloroethane	20.98	0.34	1.0	20	0	105	75-130	0			
1,1,2-Trichloroethane	22.32	0.25	1.0	20	0	112	75-125	0			
1,1-Dichloroethane	22.66	0.21	1.0	20	0	113	75-133	0			
1,1-Dichloroethene	22.9	0.24	1.0	20	0	114	70-145	0			
1,2,4-Trichlorobenzene	25.1	0.19	1.0	20	0	126	70-135	0			
1,2-Dibromo-3-chloropropane	20.8	0.42	1.0	20	0	104	60-130	0			
1,2-Dibromoethane	41.75	0.34	1.0	20	0	209	80-150	0			S
1,2-Dichlorobenzene	23.41	0.22	1.0	20	0	117	70-130	0			
1,2-Dichloroethane	20.91	0.26	1.0	20	0	105	78-125	0			
1,2-Dichloropropane	22.87	0.26	1.0	20	0	114	75-125	0			
1,3-Dichlorobenzene	25.03	0.21	1.0	20	0	125	75-130	0			
1,4-Dichlorobenzene	24.38	0.2	1.0	20	0	122	75-130	0			
2-Butanone	16.67	0.87	5.0	20	0	83.4	55-150	0			
2-Hexanone	16.13	0.15	5.0	20	0	80.6	60-135	0			
4-Methyl-2-pentanone	20.9	0.15	1.0	20	0	104	77-178	0			
Acetone	19.05	3.1	10	20	0	95.2	60-160	0			
Benzene	22.39	0.25	1.0	20	0	112	85-125	0			
Bromodichloromethane	21.87	0.16	1.0	20	0	109	75-125	0			
Bromoform	19.57	0.099	1.0	20	0	97.8	60-125	0			
Bromomethane	20.84	1	1.0	20	0	104	30-185	0			
Carbon disulfide	23.59	0.26	1.0	20	0	118	60-165	0			
Carbon tetrachloride	24.18	0.14	1.0	20	0	121	65-140	0			
Chlorobenzene	23.08	0.19	1.0	20	0	115	80-120	0			
Chloroethane	24.84	0.21	1.0	20	0	124	50-140	0			
Chloroform	23.09	0.25	1.0	20	0	115	80-130	0			
Chloromethane	22.46	0.25	1.0	20	0	112	50-130	0			
cis-1,2-Dichloroethene	23.01	0.25	1.0	20	0	115	75-134	0			
cis-1,3-Dichloropropene	22.73	0.24	1.0	20	0	114	70-130	0			
Dibromochloromethane	21.31	0.17	1.0	20	0	107	60-115	0			
Dichlorodifluoromethane	24.71	0.41	1.0	20	0	124	20-120	0			S
Ethylbenzene	23.23	0.22	1.0	20	0	116	85-125	0			
Isopropylbenzene	23.58	0.25	1.0	20	0	118	80-127	0			
Methyl tert-butyl ether	19.91	0.12	1.0	20	0	99.6	80-130	0			
Methylene chloride	24.99	0.64	5.0	20	0	125	75-140	0			
Styrene	21.98	0.18	1.0	20	0	110	85-125	0			
Tetrachloroethene	25.74	0.25	1.0	20	0	129	77-138	0			
Toluene	24.03	0.2	1.0	20	0	120	85-125	0			
trans-1,2-Dichloroethene	23.42	0.29	1.0	20	0	117	80-140	0			
trans-1,3-Dichloropropene	22.23	0.19	1.0	20	0	111	81-123	0			
Trichloroethene	22.17	0.34	1.0	20	0	111	84-130	0			
Trichlorofluoromethane	22.07	0.39	1.0	20	0	110	60-140	0			
Vinyl chloride	23.67	0.19	1.0	20	0	118	50-136	0			

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

Client: GHD Services Inc.
Work Order: 1604836
Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: R185633		Instrument ID VMS8		Method: SW8260B					
Xylenes, Total	68.61	0.62	3.0	60	0	114	80-126	0	
Surr: 1,2-Dichloroethane-d4	20.23	0	0	20	0	101	75-120	0	
Surr: 4-Bromofluorobenzene	20.44	0	0	20	0	102	80-110	0	
Surr: Dibromofluoromethane	19.72	0	0	20	0	98.6	85-115	0	
Surr: Toluene-d8	20.67	0	0	20	0	103	85-110	0	

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

Client: GHD Services Inc.
Work Order: 1604836
Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: **R185633** Instrument ID **VMS8** Method: **SW8260B**

MS					Units: µg/L			Analysis Date: 4/19/2016 09:51 PM			
Client ID:		Run ID: VMS8_160419A			SeqNo: 3783952		Prep Date:		DF: 5		
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	103	0.96	5.0	100	0	103	75-130	0			
1,1,2,2-Tetrachloroethane	91.05	1.7	5.0	100	0	91	75-130	0			
1,1,2-Trichloroethane	95.2	1.3	5.0	100	0	95.2	75-125	0			
1,1-Dichloroethane	95.1	1.1	5.0	100	0	95.1	75-133	0			
1,1-Dichloroethene	101.2	1.2	5.0	100	0	101	70-145	0			
1,2,4-Trichlorobenzene	87.9	0.96	5.0	100	0	87.9	70-135	0			
1,2-Dibromo-3-chloropropane	85.1	2.1	5.0	100	0	85.1	60-130	0			
1,2-Dibromoethane	168.6	1.7	5.0	100	0	169	80-150	0			S
1,2-Dichlorobenzene	97.3	1.1	5.0	100	0	97.3	70-130	0			
1,2-Dichloroethane	94.2	1.3	5.0	100	0	94.2	78-125	0			
1,2-Dichloropropane	103	1.3	5.0	100	0	103	75-125	0			
1,3-Dichlorobenzene	102.4	1	5.0	100	0	102	75-130	0			
1,4-Dichlorobenzene	96.9	1	5.0	100	0	96.9	75-130	0			
2-Butanone	73.8	4.3	25	100	0	73.8	55-150	0			
2-Hexanone	76.2	0.76	25	100	0	76.2	60-135	0			
4-Methyl-2-pentanone	99.15	0.74	5.0	100	0	99.2	77-178	0			
Acetone	84.95	16	50	100	0	85	60-160	0			
Benzene	1282	1.3	5.0	100	1299	-17.2	85-125	0			SEO
Bromodichloromethane	94.6	0.8	5.0	100	0	94.6	75-125	0			
Bromoform	78.05	0.5	5.0	100	0	78	60-125	0			
Bromomethane	74.55	5	5.0	100	0	74.6	30-185	0			
Carbon disulfide	98.8	1.3	5.0	100	0	98.8	60-165	0			
Carbon tetrachloride	108.1	0.69	5.0	100	0	108	65-140	0			
Chlorobenzene	99.25	0.94	5.0	100	0	99.2	80-120	0			
Chloroethane	105	1.1	5.0	100	0	105	50-140	0			
Chloroform	99.75	1.2	5.0	100	0	99.8	80-130	0			
Chloromethane	95	1.3	5.0	100	0	95	50-130	0			
cis-1,2-Dichloroethene	97.95	1.2	5.0	100	0	98	75-134	0			
cis-1,3-Dichloropropene	96.3	1.2	5.0	100	0	96.3	70-130	0			
Dibromochloromethane	86	0.83	5.0	100	0	86	60-115	0			
Dichlorodifluoromethane	95.9	2	5.0	100	0	95.9	20-120	0			
Ethylbenzene	288.5	1.1	5.0	100	204.4	84.2	85-125	0			S
Isopropylbenzene	102.4	1.3	5.0	100	9	93.4	80-127	0			
Methyl tert-butyl ether	136.6	0.59	5.0	100	54.75	81.8	80-130	0			
Methylene chloride	103.6	3.2	25	100	1.45	102	75-140	0			
Styrene	94.65	0.88	5.0	100	0	94.6	85-125	0			
Tetrachloroethene	105.9	1.2	5.0	100	0	106	77-138	0			
Toluene	111.6	0.98	5.0	100	9.8	102	85-125	0			
trans-1,2-Dichloroethene	96	1.4	5.0	100	0	96	80-140	0			
trans-1,3-Dichloropropene	88.9	0.94	5.0	100	0	88.9	81-123	0			
Trichloroethene	99	1.7	5.0	100	0	99	84-130	0			
Trichlorofluoromethane	94	1.9	5.0	100	0	94	60-140	0			
Vinyl chloride	103.1	0.95	5.0	100	0	103	50-136	0			

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

Client: GHD Services Inc.
Work Order: 1604836
Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: R185633		Instrument ID VMS8		Method: SW8260B				
Xylenes, Total	496.2	3.1	15	300	217.2	93	80-126	0
Surr: 1,2-Dichloroethane-d4	97.45	0	0	100	0	97.4	75-120	0
Surr: 4-Bromofluorobenzene	101	0	0	100	0	101	80-110	0
Surr: Dibromofluoromethane	94.5	0	0	100	0	94.5	85-115	0
Surr: Toluene-d8	99.5	0	0	100	0	99.5	85-110	0

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

Client: GHD Services Inc.
Work Order: 1604836
Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: **R185633** Instrument ID **VMS8** Method: **SW8260B**

MSD					Sample ID: 1604769-02A MSD			Units: µg/L		Analysis Date: 4/19/2016 10:15 PM		
Client ID:					Run ID: VMS8_160419A			SeqNo: 3783953		Prep Date:		DF: 5
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
1,1,1-Trichloroethane	113.6	0.96	5.0	100	0	114	75-130	103	9.79	30		
1,1,2,2-Tetrachloroethane	105.4	1.7	5.0	100	0	105	75-130	91.05	14.6	30		
1,1,2-Trichloroethane	102	1.3	5.0	100	0	102	75-125	95.2	6.85	30		
1,1-Dichloroethane	102.4	1.1	5.0	100	0	102	75-133	95.1	7.39	30		
1,1-Dichloroethene	113.4	1.2	5.0	100	0	113	70-145	101.2	11.4	30		
1,2,4-Trichlorobenzene	100.6	0.96	5.0	100	0	101	70-135	87.9	13.5	30		
1,2-Dibromo-3-chloropropane	101.6	2.1	5.0	100	0	102	60-130	85.1	17.6	30		
1,2-Dibromoethane	197.6	1.7	5.0	100	0	198	80-150	168.6	15.8	30	S	
1,2-Dichlorobenzene	100.9	1.1	5.0	100	0	101	70-130	97.3	3.63	30		
1,2-Dichloroethane	101.4	1.3	5.0	100	0	101	78-125	94.2	7.31	30		
1,2-Dichloropropane	109.4	1.3	5.0	100	0	109	75-125	103	6.12	30		
1,3-Dichlorobenzene	107.6	1	5.0	100	0	108	75-130	102.4	4.9	30		
1,4-Dichlorobenzene	100.2	1	5.0	100	0	100	75-130	96.9	3.4	30		
2-Butanone	92.55	4.3	25	100	0	92.6	55-150	73.8	22.5	30		
2-Hexanone	94.1	0.76	25	100	0	94.1	60-135	76.2	21	30		
4-Methyl-2-pentanone	112.4	0.74	5.0	100	0	112	77-178	99.15	12.5	30		
Acetone	110.4	16	50	100	0	110	60-160	84.95	26.1	30		
Benzene	1399	1.3	5.0	100	1299	99.6	85-125	1282	8.71	30	EO	
Bromodichloromethane	103.1	0.8	5.0	100	0	103	75-125	94.6	8.6	30		
Bromoform	90.35	0.5	5.0	100	0	90.4	60-125	78.05	14.6	30		
Bromomethane	82.75	5	5.0	100	0	82.8	30-185	74.55	10.4	30		
Carbon disulfide	110.4	1.3	5.0	100	0	110	60-165	98.8	11	30		
Carbon tetrachloride	117.1	0.69	5.0	100	0	117	65-140	108.1	7.99	30		
Chlorobenzene	108	0.94	5.0	100	0	108	80-120	99.25	8.4	30		
Chloroethane	115.1	1.1	5.0	100	0	115	50-140	105	9.13	30		
Chloroform	110.7	1.2	5.0	100	0	111	80-130	99.75	10.4	30		
Chloromethane	102.4	1.3	5.0	100	0	102	50-130	95	7.55	30		
cis-1,2-Dichloroethene	107.9	1.2	5.0	100	0	108	75-134	97.95	9.67	30		
cis-1,3-Dichloropropene	106.2	1.2	5.0	100	0	106	70-130	96.3	9.73	30		
Dibromochloromethane	93.35	0.83	5.0	100	0	93.4	60-115	86	8.2	30		
Dichlorodifluoromethane	98.5	2	5.0	100	0	98.5	20-120	95.9	2.67	30		
Ethylbenzene	314	1.1	5.0	100	204.4	110	85-125	288.5	8.48	30		
Isopropylbenzene	109.4	1.3	5.0	100	9	100	80-127	102.4	6.56	30		
Methyl tert-butyl ether	152.9	0.59	5.0	100	54.75	98.2	80-130	136.6	11.3	30		
Methylene chloride	113.4	3.2	25	100	1.45	112	75-140	103.6	9.12	30		
Styrene	101.2	0.88	5.0	100	0	101	85-125	94.65	6.69	30		
Tetrachloroethene	111.8	1.2	5.0	100	0	112	77-138	105.9	5.42	30		
Toluene	119	0.98	5.0	100	9.8	109	85-125	111.6	6.37	30		
trans-1,2-Dichloroethene	107	1.4	5.0	100	0	107	80-140	96	10.8	30		
trans-1,3-Dichloropropene	100.1	0.94	5.0	100	0	100	81-123	88.9	11.9	30		
Trichloroethene	110.2	1.7	5.0	100	0	110	84-130	99	10.8	30		
Trichlorofluoromethane	103.8	1.9	5.0	100	0	104	60-140	94	9.91	30		
Vinyl chloride	111.2	0.95	5.0	100	0	111	50-136	103.1	7.51	30		

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

Client: GHD Services Inc.
Work Order: 1604836
Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: R185633		Instrument ID VMS8		Method: SW8260B						
Xylenes, Total	523.4	3.1	15	300	217.2	102	80-126	496.2	5.33	30
Surr: 1,2-Dichloroethane-d4	101	0	0	100	0	101	75-120	97.45	3.58	30
Surr: 4-Bromofluorobenzene	101.2	0	0	100	0	101	80-110	101	0.297	30
Surr: Dibromofluoromethane	98	0	0	100	0	98	85-115	94.5	3.64	30
Surr: Toluene-d8	99.75	0	0	100	0	99.8	85-110	99.5	0.251	30

The following samples were analyzed in this batch:

1604836-21A

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

Client: GHD Services Inc.
 Work Order: 1604836
 Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: **R185699** Instrument ID **VMS8** Method: **SW8260B**

MBLK Sample ID: VBLKW2-160419-R185699					Units: µg/L		Analysis Date: 4/20/2016 01:31 AM				
Client ID:		Run ID: VMS8_160419B			SeqNo: 3784084		Prep Date:		DF: 1		
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Tetrachloroethene	U	0.25	1.0								
Surr: 1,2-Dichloroethane-d4	20.57	0	0	20	0	103	75-120	0			
Surr: 4-Bromofluorobenzene	18.91	0	0	20	0	94.6	80-110	0			
Surr: Dibromofluoromethane	19.79	0	0	20	0	99	85-115	0			
Surr: Toluene-d8	19.61	0	0	20	0	98	85-110	0			

LCS Sample ID: VLCSW2-160419-R185699					Units: µg/L		Analysis Date: 4/20/2016 12:18 PM				
Client ID:		Run ID: VMS8_160419B			SeqNo: 3784104		Prep Date:		DF: 1		
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Tetrachloroethene	22.67	0.25	1.0	20	0	113	77-138	0			
Surr: 1,2-Dichloroethane-d4	19.27	0	0	20	0	96.4	75-120	0			
Surr: 4-Bromofluorobenzene	20.55	0	0	20	0	103	80-110	0			
Surr: Dibromofluoromethane	19.01	0	0	20	0	95	85-115	0			
Surr: Toluene-d8	20.02	0	0	20	0	100	85-110	0			

MS Sample ID: 1604836-01A MS					Units: µg/L		Analysis Date: 4/20/2016 08:51 AM				
Client ID: WG-017360-041116-MR-021		Run ID: VMS8_160419B			SeqNo: 3784102		Prep Date:		DF: 5		
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Tetrachloroethene	156	1.2	5.0	100	0	156	77-138	0			S
Surr: 1,2-Dichloroethane-d4	109.2	0	0	100	0	109	75-120	0			
Surr: 4-Bromofluorobenzene	102.5	0	0	100	0	102	80-110	0			
Surr: Dibromofluoromethane	99.15	0	0	100	0	99.2	85-115	0			
Surr: Toluene-d8	100.4	0	0	100	0	100	85-110	0			

MSD Sample ID: 1604836-01A MSD					Units: µg/L		Analysis Date: 4/20/2016 09:16 AM				
Client ID: WG-017360-041116-MR-021		Run ID: VMS8_160419B			SeqNo: 3784103		Prep Date:		DF: 5		
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Tetrachloroethene	174.7	1.2	5.0	100	0	175	77-138	156	11.3	30	S
Surr: 1,2-Dichloroethane-d4	103.1	0	0	100	0	103	75-120	109.2	5.75	30	
Surr: 4-Bromofluorobenzene	104.6	0	0	100	0	105	80-110	102.5	1.98	30	
Surr: Dibromofluoromethane	94.4	0	0	100	0	94.4	85-115	99.15	4.91	30	
Surr: Toluene-d8	102.1	0	0	100	0	102	85-110	100.4	1.63	30	

The following samples were analyzed in this batch:

1604836-01A	1604836-02A	1604836-03A
1604836-04A	1604836-05A	1604836-06A
1604836-07A	1604836-08A	1604836-09A
1604836-10A	1604836-11A	1604836-12A
1604836-13A	1604836-14A	1604836-15A
1604836-16A	1604836-17A	

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

Client: GHD Services Inc.
 Work Order: 1604836
 Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: **R185750** Instrument ID **VMS7** Method: **SW8260B**

MBLK Sample ID: VBLKW1-160420-R185750					Units: µg/L		Analysis Date: 4/20/2016 02:33 PM				
Client ID:		Run ID: VMS7_160420A			SeqNo: 3785444		Prep Date:		DF: 1		
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Tetrachloroethene	U	0.25	1.0								
Surr: 1,2-Dichloroethane-d4	18.7	0	0	20	0	93.5	75-120	0			
Surr: 4-Bromofluorobenzene	20.11	0	0	20	0	101	80-110	0			
Surr: Dibromofluoromethane	20.11	0	0	20	0	101	85-115	0			
Surr: Toluene-d8	18.62	0	0	20	0	93.1	85-110	0			

LCS Sample ID: VLCSW1-160420-R185750					Units: µg/L		Analysis Date: 4/20/2016 01:18 PM				
Client ID:		Run ID: VMS7_160420A			SeqNo: 3785443		Prep Date:		DF: 1		
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Tetrachloroethene	18.46	0.25	1.0	20	0	92.3	77-138	0			
Surr: 1,2-Dichloroethane-d4	18.71	0	0	20	0	93.6	75-120	0			
Surr: 4-Bromofluorobenzene	20.04	0	0	20	0	100	80-110	0			
Surr: Dibromofluoromethane	20.34	0	0	20	0	102	85-115	0			
Surr: Toluene-d8	19.3	0	0	20	0	96.5	85-110	0			

MS Sample ID: 1604906-04A MS					Units: µg/L		Analysis Date: 4/20/2016 10:30 PM				
Client ID:		Run ID: VMS7_160420A			SeqNo: 3785460		Prep Date:		DF: 25		
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Tetrachloroethene	491	6.2	25	500	0	98.2	77-138	0			
Surr: 1,2-Dichloroethane-d4	460.8	0	0	500	0	92.2	75-120	0			
Surr: 4-Bromofluorobenzene	514.2	0	0	500	0	103	80-110	0			
Surr: Dibromofluoromethane	500.2	0	0	500	0	100	85-115	0			
Surr: Toluene-d8	483	0	0	500	0	96.6	85-110	0			

MSD Sample ID: 1604906-04A MSD					Units: µg/L		Analysis Date: 4/20/2016 10:55 PM				
Client ID:		Run ID: VMS7_160420A			SeqNo: 3785461		Prep Date:		DF: 25		
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Tetrachloroethene	439.5	6.2	25	500	0	87.9	77-138	491	11.1	30	
Surr: 1,2-Dichloroethane-d4	463.2	0	0	500	0	92.6	75-120	460.8	0.541	30	
Surr: 4-Bromofluorobenzene	516.2	0	0	500	0	103	80-110	514.2	0.388	30	
Surr: Dibromofluoromethane	503.5	0	0	500	0	101	85-115	500.2	0.648	30	
Surr: Toluene-d8	482.5	0	0	500	0	96.5	85-110	483	0.104	30	

The following samples were analyzed in this batch:

1604836-16A

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

Client: GHD Services Inc.
Work Order: 1604836
Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: **R185778** Instrument ID **VMS9** Method: **SW8260B**

MBLK		Sample ID: VLKW2-160420-R185778				Units: µg/L		Analysis Date: 4/21/2016 01:50 AM			
Client ID:		Run ID: VMS9_160420B				SeqNo: 3785477		Prep Date:		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	U	0.19	1.0								
1,1,2,2-Tetrachloroethane	U	0.34	1.0								
1,1,2-Trichloroethane	U	0.25	1.0								
1,1,2-Trichlorotrifluoroethane	U	0.47	1.0								
1,1-Dichloroethane	U	0.21	1.0								
1,1-Dichloroethene	U	0.24	1.0								
1,2,4-Trichlorobenzene	U	0.19	1.0								
1,2-Dibromo-3-chloropropane	U	0.42	1.0								
1,2-Dibromoethane	U	0.34	1.0								
1,2-Dichlorobenzene	U	0.22	1.0								
1,2-Dichloroethane	U	0.26	1.0								
1,2-Dichloropropane	U	0.26	1.0								
1,3-Dichlorobenzene	U	0.21	1.0								
1,4-Dichlorobenzene	U	0.2	1.0								
2-Butanone	U	0.87	5.0								
2-Hexanone	U	0.15	5.0								
4-Methyl-2-pentanone	U	0.15	1.0								
Acetone	U	3.1	10								
Benzene	U	0.25	1.0								
Bromodichloromethane	U	0.16	1.0								
Bromoform	U	0.099	1.0								
Bromomethane	U	1	1.0								
Carbon disulfide	U	0.26	1.0								
Carbon tetrachloride	U	0.14	1.0								
Chlorobenzene	U	0.19	1.0								
Chloroethane	U	0.21	1.0								
Chloroform	U	0.25	1.0								
Chloromethane	U	0.25	1.0								
cis-1,2-Dichloroethene	U	0.25	1.0								
cis-1,3-Dichloropropene	U	0.24	1.0								
Cyclohexane	U	0.31	1.0								
Dibromochloromethane	U	0.17	1.0								
Dichlorodifluoromethane	U	0.41	1.0								
Ethylbenzene	U	0.22	1.0								
Isopropylbenzene	U	0.25	1.0								
Methyl acetate	U	0.62	2.0								
Methyl tert-butyl ether	U	0.12	1.0								
Methylcyclohexane	U	0.32	1.0								
Methylene chloride	U	0.64	5.0								
Styrene	U	0.18	1.0								
Tetrachloroethene	U	0.25	1.0								
Toluene	U	0.2	1.0								
trans-1,2-Dichloroethene	U	0.29	1.0								

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

Client: GHD Services Inc.
Work Order: 1604836
Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: R185778		Instrument ID VMS9		Method: SW8260B	
trans-1,3-Dichloropropene	U	0.19	1.0		
Trichloroethene	U	0.34	1.0		
Trichlorofluoromethane	U	0.39	1.0		
Vinyl chloride	U	0.19	1.0		
Xylenes, Total	U	0.62	3.0		
Surr: 1,2-Dichloroethane-d4	20.2	0	0	20	0 101 75-120 0
Surr: 4-Bromofluorobenzene	18.29	0	0	20	0 91.4 80-110 0
Surr: Dibromofluoromethane	20.57	0	0	20	0 103 85-115 0
Surr: Toluene-d8	18.74	0	0	20	0 93.7 85-110 0

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

Client: GHD Services Inc.
 Work Order: 1604836
 Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: **R185778** Instrument ID **VMS9** Method: **SW8260B**

LCS		Sample ID: VLCSW2-160420-R185778				Units: µg/L		Analysis Date: 4/21/2016 12:32 PM			
Client ID:		Run ID: VMS9_160420B				SeqNo: 3785478		Prep Date:		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	21.21	0.19	1.0	20	0	106	75-130	0			
1,1,2,2-Tetrachloroethane	18.22	0.34	1.0	20	0	91.1	75-130	0			
1,1,2-Trichloroethane	18.93	0.25	1.0	20	0	94.6	75-125	0			
1,1-Dichloroethane	19.5	0.21	1.0	20	0	97.5	75-133	0			
1,1-Dichloroethene	20.98	0.24	1.0	20	0	105	70-145	0			
1,2,4-Trichlorobenzene	19.42	0.19	1.0	20	0	97.1	70-135	0			
1,2-Dibromo-3-chloropropane	16.86	0.42	1.0	20	0	84.3	60-130	0			
1,2-Dibromoethane	19.76	0.34	1.0	20	0	98.8	80-150	0			
1,2-Dichlorobenzene	19.25	0.22	1.0	20	0	96.2	70-130	0			
1,2-Dichloroethane	20.4	0.26	1.0	20	0	102	78-125	0			
1,2-Dichloropropane	20.23	0.26	1.0	20	0	101	75-125	0			
1,3-Dichlorobenzene	20.23	0.21	1.0	20	0	101	75-130	0			
1,4-Dichlorobenzene	19.01	0.2	1.0	20	0	95	75-130	0			
2-Butanone	20.63	0.87	5.0	20	0	103	55-150	0			
2-Hexanone	19.51	0.15	5.0	20	0	97.6	60-135	0			
4-Methyl-2-pentanone	24.52	0.15	1.0	20	0	123	77-178	0			
Acetone	25.52	3.1	10	20	0	128	60-160	0			
Benzene	20.19	0.25	1.0	20	0	101	85-125	0			
Bromodichloromethane	18.8	0.16	1.0	20	0	94	75-125	0			
Bromoform	17.82	0.099	1.0	20	0	89.1	60-125	0			
Bromomethane	19.66	1	1.0	20	0	98.3	30-185	0			
Carbon disulfide	20.3	0.26	1.0	20	0	102	60-165	0			
Carbon tetrachloride	20.56	0.14	1.0	20	0	103	65-140	0			
Chlorobenzene	19.86	0.19	1.0	20	0	99.3	80-120	0			
Chloroethane	19.69	0.21	1.0	20	0	98.4	50-140	0			
Chloroform	19.12	0.25	1.0	20	0	95.6	80-130	0			
Chloromethane	19.6	0.25	1.0	20	0	98	50-130	0			
cis-1,2-Dichloroethene	18.62	0.25	1.0	20	0	93.1	75-134	0			
cis-1,3-Dichloropropene	19.65	0.24	1.0	20	0	98.2	70-130	0			
Dibromochloromethane	18.01	0.17	1.0	20	0	90	60-115	0			
Dichlorodifluoromethane	19.47	0.41	1.0	20	0	97.4	20-120	0			
Ethylbenzene	19.78	0.22	1.0	20	0	98.9	85-125	0			
Isopropylbenzene	21.08	0.25	1.0	20	0	105	80-127	0			
Methyl tert-butyl ether	18.54	0.12	1.0	20	0	92.7	80-130	0			
Methylene chloride	19.64	0.64	5.0	20	0	98.2	75-140	0			
Styrene	21.04	0.18	1.0	20	0	105	85-125	0			
Tetrachloroethene	22.83	0.25	1.0	20	0	114	77-138	0			
Toluene	19.57	0.2	1.0	20	0	97.8	85-125	0			
trans-1,2-Dichloroethene	19.88	0.29	1.0	20	0	99.4	80-140	0			
trans-1,3-Dichloropropene	16.86	0.19	1.0	20	0	84.3	81-123	0			
Trichloroethene	21.21	0.34	1.0	20	0	106	84-130	0			
Trichlorofluoromethane	18.6	0.39	1.0	20	0	93	60-140	0			
Vinyl chloride	20.76	0.19	1.0	20	0	104	50-136	0			

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

Client: GHD Services Inc.
Work Order: 1604836
Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: R185778		Instrument ID VMS9		Method: SW8260B					
Xylenes, Total	59.8	0.62	3.0	60	0	99.7	80-126	0	
Surr: 1,2-Dichloroethane-d4	20.32	0	0	20	0	102	75-120	0	
Surr: 4-Bromofluorobenzene	20.25	0	0	20	0	101	80-110	0	
Surr: Dibromofluoromethane	19.89	0	0	20	0	99.4	85-115	0	
Surr: Toluene-d8	19.5	0	0	20	0	97.5	85-110	0	

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

Client: GHD Services Inc.
Work Order: 1604836
Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: **R185778** Instrument ID **VMS9** Method: **SW8260B**

MS					Units: µg/L			Analysis Date: 4/21/2016 10:53 AM			
Sample ID: 1604836-01A MS					SeqNo: 3786775			Prep Date:		DF: 1	
Client ID: WG-017360-041116-MR-021					Run ID: VMS9_160420B						
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	21.55	0.19	1.0	20	0	108	75-130	0			
1,1,2,2-Tetrachloroethane	18.37	0.34	1.0	20	0	91.8	75-130	0			
1,1,2-Trichloroethane	18.72	0.25	1.0	20	0	93.6	75-125	0			
1,1-Dichloroethane	19.44	0.21	1.0	20	0	97.2	75-133	0			
1,1-Dichloroethene	20.81	0.24	1.0	20	0	104	70-145	0			
1,2,4-Trichlorobenzene	16.42	0.19	1.0	20	0	82.1	70-135	0			
1,2-Dibromo-3-chloropropane	17.75	0.42	1.0	20	0	88.8	60-130	0			
1,2-Dibromoethane	20.01	0.34	1.0	20	0	100	80-150	0			
1,2-Dichlorobenzene	18.18	0.22	1.0	20	0	90.9	70-130	0			
1,2-Dichloroethane	20.62	0.26	1.0	20	0	103	78-125	0			
1,2-Dichloropropane	19.47	0.26	1.0	20	0	97.4	75-125	0			
1,3-Dichlorobenzene	18.88	0.21	1.0	20	0	94.4	75-130	0			
1,4-Dichlorobenzene	17.93	0.2	1.0	20	0	89.6	75-130	0			
2-Butanone	21.86	0.87	5.0	20	0	109	55-150	0			
2-Hexanone	21.76	0.15	5.0	20	0	109	60-135	0			
4-Methyl-2-pentanone	25.52	0.15	1.0	20	0	128	77-178	0			
Acetone	33.58	3.1	10	20	0	168	60-160	0			S
Benzene	20.89	0.25	1.0	20	0	104	85-125	0			
Bromodichloromethane	19.19	0.16	1.0	20	0	96	75-125	0			
Bromoform	17.7	0.099	1.0	20	0	88.5	60-125	0			
Bromomethane	16.38	1	1.0	20	0	81.9	30-185	0			
Carbon disulfide	18.85	0.26	1.0	20	0	94.2	60-165	0			
Carbon tetrachloride	21.11	0.14	1.0	20	0	106	65-140	0			
Chlorobenzene	19.06	0.19	1.0	20	0	95.3	80-120	0			
Chloroethane	16.58	0.21	1.0	20	0	82.9	50-140	0			
Chloroform	19.49	0.25	1.0	20	0	97.4	80-130	0			
Chloromethane	15.86	0.25	1.0	20	0	79.3	50-130	0			
cis-1,2-Dichloroethene	18.17	0.25	1.0	20	0	90.8	75-134	0			
cis-1,3-Dichloropropene	17.71	0.24	1.0	20	0	88.6	70-130	0			
Dibromochloromethane	17.49	0.17	1.0	20	0	87.4	60-115	0			
Dichlorodifluoromethane	16.73	0.41	1.0	20	0	83.6	20-120	0			
Ethylbenzene	18.71	0.22	1.0	20	0	93.6	85-125	0			
Isopropylbenzene	19.86	0.25	1.0	20	0	99.3	80-127	0			
Methyl tert-butyl ether	18.04	0.12	1.0	20	0	90.2	80-130	0			
Methylene chloride	19.6	0.64	5.0	20	0	98	75-140	0			
Styrene	20.09	0.18	1.0	20	0	100	85-125	0			
Tetrachloroethene	22.91	0.25	1.0	20	0	115	77-138	0			
Toluene	19.22	0.2	1.0	20	0	96.1	85-125	0			
trans-1,2-Dichloroethene	19.55	0.29	1.0	20	0	97.8	80-140	0			
trans-1,3-Dichloropropene	15.93	0.19	1.0	20	0	79.6	81-123	0			S
Trichloroethene	20.14	0.34	1.0	20	0	101	84-130	0			
Trichlorofluoromethane	17.41	0.39	1.0	20	0	87	60-140	0			
Vinyl chloride	17.58	0.19	1.0	20	0	87.9	50-136	0			

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

Client: GHD Services Inc.
Work Order: 1604836
Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: R185778		Instrument ID VMS9		Method: SW8260B					
Xylenes, Total	57.23	0.62	3.0	60	0	95.4	80-126	0	
Surr: 1,2-Dichloroethane-d4	21.15	0	0	20	0	106	75-120	0	
Surr: 4-Bromofluorobenzene	20.1	0	0	20	0	100	80-110	0	
Surr: Dibromofluoromethane	21.38	0	0	20	0	107	85-115	0	
Surr: Toluene-d8	19.62	0	0	20	0	98.1	85-110	0	

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

Client: GHD Services Inc.
 Work Order: 1604836
 Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: **R185778** Instrument ID **VMS9** Method: **SW8260B**

MSD					Sample ID: 1604836-01A MSD			Units: µg/L		Analysis Date: 4/21/2016 11:18 AM		
Client ID: WG-017360-041116-MR-021					Run ID: VMS9_160420B			SeqNo: 3786776		Prep Date:		DF: 1
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
1,1,1-Trichloroethane	22.25	0.19	1.0	20	0	111	75-130	21.55	3.2	30		
1,1,2,2-Tetrachloroethane	19.95	0.34	1.0	20	0	99.8	75-130	18.37	8.25	30		
1,1,2-Trichloroethane	19.53	0.25	1.0	20	0	97.6	75-125	18.72	4.24	30		
1,1-Dichloroethane	20.67	0.21	1.0	20	0	103	75-133	19.44	6.13	30		
1,1-Dichloroethene	21.52	0.24	1.0	20	0	108	70-145	20.81	3.35	30		
1,2,4-Trichlorobenzene	18.21	0.19	1.0	20	0	91	70-135	16.42	10.3	30		
1,2-Dibromo-3-chloropropane	18.44	0.42	1.0	20	0	92.2	60-130	17.75	3.81	30		
1,2-Dibromoethane	20.83	0.34	1.0	20	0	104	80-150	20.01	4.02	30		
1,2-Dichlorobenzene	19.06	0.22	1.0	20	0	95.3	70-130	18.18	4.73	30		
1,2-Dichloroethane	22.7	0.26	1.0	20	0	114	78-125	20.62	9.6	30		
1,2-Dichloropropane	20.16	0.26	1.0	20	0	101	75-125	19.47	3.48	30		
1,3-Dichlorobenzene	19.99	0.21	1.0	20	0	100	75-130	18.88	5.71	30		
1,4-Dichlorobenzene	18.97	0.2	1.0	20	0	94.8	75-130	17.93	5.64	30		
2-Butanone	23.11	0.87	5.0	20	0	116	55-150	21.86	5.56	30		
2-Hexanone	23.22	0.15	5.0	20	0	116	60-135	21.76	6.49	30		
4-Methyl-2-pentanone	28.7	0.15	1.0	20	0	144	77-178	25.52	11.7	30		
Acetone	33.09	3.1	10	20	0	165	60-160	33.58	1.47	30	S	
Benzene	21.84	0.25	1.0	20	0	109	85-125	20.89	4.45	30		
Bromodichloromethane	20.12	0.16	1.0	20	0	101	75-125	19.19	4.73	30		
Bromoform	18.91	0.099	1.0	20	0	94.6	60-125	17.7	6.61	30		
Bromomethane	17.24	1	1.0	20	0	86.2	30-185	16.38	5.12	30		
Carbon disulfide	20.06	0.26	1.0	20	0	100	60-165	18.85	6.22	30		
Carbon tetrachloride	21.88	0.14	1.0	20	0	109	65-140	21.11	3.58	30		
Chlorobenzene	20.1	0.19	1.0	20	0	100	80-120	19.06	5.31	30		
Chloroethane	16.86	0.21	1.0	20	0	84.3	50-140	16.58	1.67	30		
Chloroform	19.98	0.25	1.0	20	0	99.9	80-130	19.49	2.48	30		
Chloromethane	16.32	0.25	1.0	20	0	81.6	50-130	15.86	2.86	30		
cis-1,2-Dichloroethene	18.83	0.25	1.0	20	0	94.2	75-134	18.17	3.57	30		
cis-1,3-Dichloropropene	18.81	0.24	1.0	20	0	94	70-130	17.71	6.02	30		
Dibromochloromethane	18.48	0.17	1.0	20	0	92.4	60-115	17.49	5.5	30		
Dichlorodifluoromethane	17.56	0.41	1.0	20	0	87.8	20-120	16.73	4.84	30		
Ethylbenzene	20.42	0.22	1.0	20	0	102	85-125	18.71	8.74	30		
Isopropylbenzene	21.49	0.25	1.0	20	0	107	80-127	19.86	7.88	30		
Methyl tert-butyl ether	18.81	0.12	1.0	20	0	94	80-130	18.04	4.18	30		
Methylene chloride	20.22	0.64	5.0	20	0	101	75-140	19.6	3.11	30		
Styrene	21.68	0.18	1.0	20	0	108	85-125	20.09	7.61	30		
Tetrachloroethene	23.26	0.25	1.0	20	0	116	77-138	22.91	1.52	30		
Toluene	20.56	0.2	1.0	20	0	103	85-125	19.22	6.74	30		
trans-1,2-Dichloroethene	20.58	0.29	1.0	20	0	103	80-140	19.55	5.13	30		
trans-1,3-Dichloropropene	16.7	0.19	1.0	20	0	83.5	81-123	15.93	4.72	30		
Trichloroethene	21.77	0.34	1.0	20	0	109	84-130	20.14	7.78	30		
Trichlorofluoromethane	18.6	0.39	1.0	20	0	93	60-140	17.41	6.61	30		
Vinyl chloride	18.1	0.19	1.0	20	0	90.5	50-136	17.58	2.91	30		

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

Client: GHD Services Inc.
Work Order: 1604836
Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: R185778	Instrument ID VMS9			Method: SW8260B						
Xylenes, Total	61.08	0.62	3.0	60	0	102	80-126	57.23	6.51	30
Surr: 1,2-Dichloroethane-d4	20.83	0	0	20	0	104	75-120	21.15	1.52	30
Surr: 4-Bromofluorobenzene	20.51	0	0	20	0	103	80-110	20.1	2.02	30
Surr: Dibromofluoromethane	20.99	0	0	20	0	105	85-115	21.38	1.84	30
Surr: Toluene-d8	19.89	0	0	20	0	99.4	85-110	19.62	1.37	30

The following samples were analyzed in this batch:

1604836-01A	1604836-07A	1604836-08A
1604836-09A	1604836-10A	1604836-16A
1604836-19A	1604836-20A	

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

Client: GHD Services Inc.
Work Order: 1604836
Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: **R185811** Instrument ID **VMS10** Method: **SW8260B**

MBLK		Sample ID: VLKW1-160421-R185811				Units: µg/L		Analysis Date: 4/21/2016 12:14 PM			
Client ID:		Run ID: VMS10_160421A				SeqNo: 3787349		Prep Date:		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	U	0.19	1.0								
1,1,2,2-Tetrachloroethane	U	0.34	1.0								
1,1,2-Trichloroethane	U	0.25	1.0								
1,1,2-Trichlorotrifluoroethane	U	0.47	1.0								
1,1-Dichloroethane	U	0.21	1.0								
1,1-Dichloroethene	U	0.24	1.0								
1,2,4-Trichlorobenzene	U	0.19	1.0								
1,2-Dibromo-3-chloropropane	U	0.42	1.0								
1,2-Dibromoethane	U	0.34	1.0								
1,2-Dichlorobenzene	U	0.22	1.0								
1,2-Dichloroethane	U	0.26	1.0								
1,2-Dichloropropane	U	0.26	1.0								
1,3-Dichlorobenzene	U	0.21	1.0								
1,4-Dichlorobenzene	U	0.2	1.0								
2-Butanone	U	0.87	5.0								
2-Hexanone	U	0.15	5.0								
4-Methyl-2-pentanone	U	0.15	1.0								
Acetone	U	3.1	10								
Benzene	U	0.25	1.0								
Bromodichloromethane	U	0.16	1.0								
Bromoform	U	0.099	1.0								
Bromomethane	U	1	1.0								
Carbon disulfide	U	0.26	1.0								
Carbon tetrachloride	U	0.14	1.0								
Chlorobenzene	U	0.19	1.0								
Chloroethane	U	0.21	1.0								
Chloroform	U	0.25	1.0								
Chloromethane	U	0.25	1.0								
cis-1,2-Dichloroethene	U	0.25	1.0								
cis-1,3-Dichloropropene	U	0.24	1.0								
Cyclohexane	U	0.31	1.0								
Dibromochloromethane	U	0.17	1.0								
Dichlorodifluoromethane	U	0.41	1.0								
Ethylbenzene	U	0.22	1.0								
Isopropylbenzene	U	0.25	1.0								
Methyl acetate	U	0.62	2.0								
Methyl tert-butyl ether	U	0.12	1.0								
Methylcyclohexane	U	0.32	1.0								
Methylene chloride	U	0.64	5.0								
Styrene	U	0.18	1.0								
Tetrachloroethene	U	0.25	1.0								
Toluene	U	0.2	1.0								
trans-1,2-Dichloroethene	U	0.29	1.0								

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

Client: GHD Services Inc.
Work Order: 1604836
Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: R185811		Instrument ID VMS10		Method: SW8260B	
trans-1,3-Dichloropropene	U	0.19	1.0		
Trichloroethene	U	0.34	1.0		
Trichlorofluoromethane	U	0.39	1.0		
Vinyl chloride	U	0.19	1.0		
Xylenes, Total	U	0.62	3.0		
Surr: 1,2-Dichloroethane-d4	19.87	0	0	20	0 99.4 75-120 0
Surr: 4-Bromofluorobenzene	19.43	0	0	20	0 97.2 80-110 0
Surr: Dibromofluoromethane	18.52	0	0	20	0 92.6 85-115 0
Surr: Toluene-d8	19.95	0	0	20	0 99.8 85-110 0

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

Client: GHD Services Inc.
Work Order: 1604836
Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: **R185811** Instrument ID **VMS10** Method: **SW8260B**

LCS		Sample ID: VLCSW1-160421-R185811				Units: µg/L		Analysis Date: 4/21/2016 10:13 AM			
Client ID:		Run ID: VMS10_160421A				SeqNo: 3787348		Prep Date:		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	19.15	0.19	1.0	20	0	95.8	75-130	0			
1,1,2,2-Tetrachloroethane	18.67	0.34	1.0	20	0	93.4	75-130	0			
1,1,2-Trichloroethane	18.51	0.25	1.0	20	0	92.6	75-125	0			
1,1-Dichloroethane	18.92	0.21	1.0	20	0	94.6	75-133	0			
1,1-Dichloroethene	19.7	0.24	1.0	20	0	98.5	70-145	0			
1,2,4-Trichlorobenzene	19.93	0.19	1.0	20	0	99.6	70-135	0			
1,2-Dibromo-3-chloropropane	15.18	0.42	1.0	20	0	75.9	60-130	0			
1,2-Dibromoethane	20.58	0.34	1.0	20	0	103	80-150	0			
1,2-Dichlorobenzene	20.09	0.22	1.0	20	0	100	70-130	0			
1,2-Dichloroethane	20.06	0.26	1.0	20	0	100	78-125	0			
1,2-Dichloropropane	19.81	0.26	1.0	20	0	99	75-125	0			
1,3-Dichlorobenzene	20.33	0.21	1.0	20	0	102	75-130	0			
1,4-Dichlorobenzene	20.07	0.2	1.0	20	0	100	75-130	0			
2-Butanone	16.83	0.87	5.0	20	0	84.2	55-150	0			
2-Hexanone	16.39	0.15	5.0	20	0	82	60-135	0			
4-Methyl-2-pentanone	21.57	0.15	1.0	20	0	108	77-178	0			
Acetone	16.68	3.1	10	20	0	83.4	60-160	0			
Benzene	19.61	0.25	1.0	20	0	98	85-125	0			
Bromodichloromethane	18.05	0.16	1.0	20	0	90.2	75-125	0			
Bromoform	14.63	0.099	1.0	20	0	73.2	60-125	0			
Bromomethane	27.85	1	1.0	20	0	139	30-185	0			
Carbon disulfide	18.7	0.26	1.0	20	0	93.5	60-165	0			
Carbon tetrachloride	19	0.14	1.0	20	0	95	65-140	0			
Chlorobenzene	20.23	0.19	1.0	20	0	101	80-120	0			
Chloroethane	21.38	0.21	1.0	20	0	107	50-140	0			
Chloroform	19.05	0.25	1.0	20	0	95.2	80-130	0			
Chloromethane	21.38	0.25	1.0	20	0	107	50-130	0			
cis-1,2-Dichloroethene	19.85	0.25	1.0	20	0	99.2	75-134	0			
cis-1,3-Dichloropropene	19.15	0.24	1.0	20	0	95.8	70-130	0			
Dibromochloromethane	16.76	0.17	1.0	20	0	83.8	60-115	0			
Dichlorodifluoromethane	22.77	0.41	1.0	20	0	114	20-120	0			
Ethylbenzene	19.67	0.22	1.0	20	0	98.4	85-125	0			
Isopropylbenzene	20.3	0.25	1.0	20	0	102	80-127	0			
Methyl tert-butyl ether	17.32	0.12	1.0	20	0	86.6	80-130	0			
Methylene chloride	20.05	0.64	5.0	20	0	100	75-140	0			
Styrene	19.72	0.18	1.0	20	0	98.6	85-125	0			
Tetrachloroethene	20.66	0.25	1.0	20	0	103	77-138	0			
Toluene	20.07	0.2	1.0	20	0	100	85-125	0			
trans-1,2-Dichloroethene	19.86	0.29	1.0	20	0	99.3	80-140	0			
trans-1,3-Dichloropropene	18.36	0.19	1.0	20	0	91.8	81-123	0			
Trichloroethene	20	0.34	1.0	20	0	100	84-130	0			
Trichlorofluoromethane	20.74	0.39	1.0	20	0	104	60-140	0			
Vinyl chloride	20.8	0.19	1.0	20	0	104	50-136	0			

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

Client: GHD Services Inc.
Work Order: 1604836
Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: R185811		Instrument ID VMS10		Method: SW8260B					
Xylenes, Total	59.33	0.62	3.0	60	0	98.9	80-126	0	
Surr: 1,2-Dichloroethane-d4	20.01	0	0	20	0	100	75-120	0	
Surr: 4-Bromofluorobenzene	19.55	0	0	20	0	97.8	80-110	0	
Surr: Dibromofluoromethane	19.64	0	0	20	0	98.2	85-115	0	
Surr: Toluene-d8	20.09	0	0	20	0	100	85-110	0	

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

Client: GHD Services Inc.
Work Order: 1604836
Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: **R185811** Instrument ID **VMS10** Method: **SW8260B**

MS Sample ID: 16041095-01A MS					Units: µg/L			Analysis Date: 4/21/2016 07:54 PM			
Client ID:		Run ID: VMS10_160421A			SeqNo: 3787367		Prep Date:		DF: 5		
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	96.85	0.96	5.0	100	0	96.8	75-130	0			
1,1,2,2-Tetrachloroethane	96.6	1.7	5.0	100	0	96.6	75-130	0			
1,1,2-Trichloroethane	92.9	1.3	5.0	100	0	92.9	75-125	0			
1,1-Dichloroethane	101.2	1.1	5.0	100	0	101	75-133	0			
1,1-Dichloroethene	101	1.2	5.0	100	0	101	70-145	0			
1,2,4-Trichlorobenzene	91.9	0.96	5.0	100	0	91.9	70-135	0			
1,2-Dibromo-3-chloropropane	71.6	2.1	5.0	100	0	71.6	60-130	0			
1,2-Dibromoethane	103	1.7	5.0	100	0	103	80-150	0			
1,2-Dichlorobenzene	97.1	1.1	5.0	100	0	97.1	70-130	0			
1,2-Dichloroethane	101.2	1.3	5.0	100	0	101	78-125	0			
1,2-Dichloropropane	98.25	1.3	5.0	100	0	98.2	75-125	0			
1,3-Dichlorobenzene	99.15	1	5.0	100	0	99.2	75-130	0			
1,4-Dichlorobenzene	96.8	1	5.0	100	0	96.8	75-130	0			
2-Butanone	96.35	4.3	25	100	3.9	92.4	55-150	0			
2-Hexanone	86.35	0.76	25	100	0	86.4	60-135	0			
4-Methyl-2-pentanone	112.5	0.74	5.0	100	0	112	77-178	0			
Acetone	111.2	16	50	100	8.5	103	60-160	0			
Benzene	100.4	1.3	5.0	100	0	100	85-125	0			
Bromodichloromethane	86.95	0.8	5.0	100	0	87	75-125	0			
Bromoform	68.8	0.5	5.0	100	0	68.8	60-125	0			
Bromomethane	154.4	5	5.0	100	0	154	30-185	0			
Carbon disulfide	82.9	1.3	5.0	100	0	82.9	60-165	0			
Carbon tetrachloride	93.55	0.69	5.0	100	0	93.6	65-140	0			
Chlorobenzene	101.6	0.94	5.0	100	0	102	80-120	0			
Chloroethane	112.4	1.1	5.0	100	0	112	50-140	0			
Chloroform	111.6	1.2	5.0	100	13.95	97.6	80-130	0			
Chloromethane	108.4	1.3	5.0	100	0	108	50-130	0			
cis-1,2-Dichloroethene	108.8	1.2	5.0	100	7.95	101	75-134	0			
cis-1,3-Dichloropropene	90.45	1.2	5.0	100	0	90.4	70-130	0			
Dibromochloromethane	76.85	0.83	5.0	100	0	76.8	60-115	0			
Dichlorodifluoromethane	108.9	2	5.0	100	0	109	20-120	0			
Ethylbenzene	99.3	1.1	5.0	100	0	99.3	85-125	0			
Isopropylbenzene	102.3	1.3	5.0	100	0	102	80-127	0			
Methyl tert-butyl ether	85.35	0.59	5.0	100	0	85.4	80-130	0			
Methylene chloride	106.5	3.2	25	100	4.35	102	75-140	0			
Styrene	85.1	0.88	5.0	100	0	85.1	85-125	0			
Tetrachloroethene	764.4	1.2	5.0	100	649.8	115	77-138	0			EO
Toluene	102	0.98	5.0	100	1.25	101	85-125	0			
trans-1,2-Dichloroethene	101	1.4	5.0	100	0	101	80-140	0			
trans-1,3-Dichloropropene	85.3	0.94	5.0	100	0	85.3	81-123	0			
Trichloroethene	111.7	1.7	5.0	100	11.35	100	84-130	0			
Trichlorofluoromethane	107.2	1.9	5.0	100	0	107	60-140	0			
Vinyl chloride	106.4	0.95	5.0	100	0	106	50-136	0			

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

Client: GHD Services Inc.
Work Order: 1604836
Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: R185811		Instrument ID VMS10		Method: SW8260B				
Xylenes, Total	294.4	3.1	15	300	0	98.2	80-126	0
Surr: 1,2-Dichloroethane-d4	100.9	0	0	100	0	101	75-120	0
Surr: 4-Bromofluorobenzene	99.6	0	0	100	0	99.6	80-110	0
Surr: Dibromofluoromethane	98.55	0	0	100	0	98.6	85-115	0
Surr: Toluene-d8	100.4	0	0	100	0	100	85-110	0

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

Client: GHD Services Inc.
Work Order: 1604836
Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: **R185811** Instrument ID **VMS10** Method: **SW8260B**

MSD					Sample ID: 16041095-01A MSD			Units: µg/L		Analysis Date: 4/21/2016 08:18 PM		
Client ID:					Run ID: VMS10_160421A			SeqNo: 3787368		Prep Date:		DF: 5
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
1,1,1-Trichloroethane	92.75	0.96	5.0	100	0	92.8	75-130	96.85	4.32	30		
1,1,2,2-Tetrachloroethane	90.4	1.7	5.0	100	0	90.4	75-130	96.6	6.63	30		
1,1,2-Trichloroethane	87.45	1.3	5.0	100	0	87.4	75-125	92.9	6.04	30		
1,1-Dichloroethane	93.8	1.1	5.0	100	0	93.8	75-133	101.2	7.54	30		
1,1-Dichloroethene	96.1	1.2	5.0	100	0	96.1	70-145	101	5.02	30		
1,2,4-Trichlorobenzene	88	0.96	5.0	100	0	88	70-135	91.9	4.34	30		
1,2-Dibromo-3-chloropropane	68.75	2.1	5.0	100	0	68.8	60-130	71.6	4.06	30		
1,2-Dibromoethane	99.75	1.7	5.0	100	0	99.8	80-150	103	3.25	30		
1,2-Dichlorobenzene	92.8	1.1	5.0	100	0	92.8	70-130	97.1	4.53	30		
1,2-Dichloroethane	96.2	1.3	5.0	100	0	96.2	78-125	101.2	5.02	30		
1,2-Dichloropropane	93.15	1.3	5.0	100	0	93.2	75-125	98.25	5.33	30		
1,3-Dichlorobenzene	94.8	1	5.0	100	0	94.8	75-130	99.15	4.49	30		
1,4-Dichlorobenzene	92.95	1	5.0	100	0	93	75-130	96.8	4.06	30		
2-Butanone	92.95	4.3	25	100	3.9	89	55-150	96.35	3.59	30		
2-Hexanone	81.9	0.76	25	100	0	81.9	60-135	86.35	5.29	30		
4-Methyl-2-pentanone	107	0.74	5.0	100	0	107	77-178	112.5	5.01	30		
Acetone	101.1	16	50	100	8.5	92.6	60-160	111.2	9.47	30		
Benzene	94.4	1.3	5.0	100	0	94.4	85-125	100.4	6.21	30		
Bromodichloromethane	82.45	0.8	5.0	100	0	82.4	75-125	86.95	5.31	30		
Bromoform	66.35	0.5	5.0	100	0	66.4	60-125	68.8	3.63	30		
Bromomethane	137.6	5	5.0	100	0	138	30-185	154.4	11.4	30		
Carbon disulfide	80.9	1.3	5.0	100	0	80.9	60-165	82.9	2.44	30		
Carbon tetrachloride	89.7	0.69	5.0	100	0	89.7	65-140	93.55	4.2	30		
Chlorobenzene	96.2	0.94	5.0	100	0	96.2	80-120	101.6	5.41	30		
Chloroethane	105.4	1.1	5.0	100	0	105	50-140	112.4	6.42	30		
Chloroform	104.8	1.2	5.0	100	13.95	90.9	80-130	111.6	6.24	30		
Chloromethane	101.6	1.3	5.0	100	0	102	50-130	108.4	6.43	30		
cis-1,2-Dichloroethene	101.6	1.2	5.0	100	7.95	93.6	75-134	108.8	6.8	30		
cis-1,3-Dichloropropene	86.5	1.2	5.0	100	0	86.5	70-130	90.45	4.46	30		
Dibromochloromethane	74.2	0.83	5.0	100	0	74.2	60-115	76.85	3.51	30		
Dichlorodifluoromethane	102.4	2	5.0	100	0	102	20-120	108.9	6.1	30		
Ethylbenzene	94.1	1.1	5.0	100	0	94.1	85-125	99.3	5.38	30		
Isopropylbenzene	97.5	1.3	5.0	100	0	97.5	80-127	102.3	4.8	30		
Methyl tert-butyl ether	80.15	0.59	5.0	100	0	80.2	80-130	85.35	6.28	30		
Methylene chloride	99.15	3.2	25	100	4.35	94.8	75-140	106.5	7.15	30		
Styrene	82.8	0.88	5.0	100	0	82.8	85-125	85.1	2.74	30	S	
Tetrachloroethene	743.8	1.2	5.0	100	649.8	94	77-138	764.4	2.73	30	EO	
Toluene	97.4	0.98	5.0	100	1.25	96.2	85-125	102	4.61	30		
trans-1,2-Dichloroethene	94.7	1.4	5.0	100	0	94.7	80-140	101	6.49	30		
trans-1,3-Dichloropropene	81.5	0.94	5.0	100	0	81.5	81-123	85.3	4.56	30		
Trichloroethene	105.4	1.7	5.0	100	11.35	94.1	84-130	111.7	5.76	30		
Trichlorofluoromethane	100.2	1.9	5.0	100	0	100	60-140	107.2	6.75	30		
Vinyl chloride	101.2	0.95	5.0	100	0	101	50-136	106.4	4.91	30		

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

Client: GHD Services Inc.
Work Order: 1604836
Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: R185811		Instrument ID VMS10		Method: SW8260B						
Xylenes, Total	280.9	3.1	15	300	0	93.6	80-126	294.4	4.71	30
Surr: 1,2-Dichloroethane-d4	101.4	0	0	100	0	101	75-120	100.9	0.494	30
Surr: 4-Bromofluorobenzene	98.1	0	0	100	0	98.1	80-110	99.6	1.52	30
Surr: Dibromofluoromethane	98.9	0	0	100	0	98.9	85-115	98.55	0.355	30
Surr: Toluene-d8	100.8	0	0	100	0	101	85-110	100.4	0.298	30

The following samples were analyzed in this batch:

1604836-11A	1604836-12A	1604836-13A

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

Client: GHD Services Inc.
Work Order: 1604836
Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: **R185836** Instrument ID **VMS9** Method: **SW8260B**

MBLK		Sample ID: VLKW1-160421-R185836				Units: µg/L		Analysis Date: 4/21/2016 05:04 PM			
Client ID:		Run ID: VMS9_160421A				SeqNo: 3787308		Prep Date:		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	U	0.19	1.0								
1,1,2,2-Tetrachloroethane	U	0.34	1.0								
1,1,2-Trichloroethane	U	0.25	1.0								
1,1,2-Trichlorotrifluoroethane	U	0.47	1.0								
1,1-Dichloroethane	U	0.21	1.0								
1,1-Dichloroethene	U	0.24	1.0								
1,2,4-Trichlorobenzene	U	0.19	1.0								
1,2-Dibromo-3-chloropropane	U	0.42	1.0								
1,2-Dibromoethane	U	0.34	1.0								
1,2-Dichlorobenzene	U	0.22	1.0								
1,2-Dichloroethane	U	0.26	1.0								
1,2-Dichloropropane	U	0.26	1.0								
1,3-Dichlorobenzene	U	0.21	1.0								
1,4-Dichlorobenzene	U	0.2	1.0								
2-Butanone	U	0.87	5.0								
2-Hexanone	U	0.15	5.0								
4-Methyl-2-pentanone	U	0.15	1.0								
Acetone	U	3.1	10								
Benzene	U	0.25	1.0								
Bromodichloromethane	U	0.16	1.0								
Bromoform	U	0.099	1.0								
Bromomethane	U	1	1.0								
Carbon disulfide	U	0.26	1.0								
Carbon tetrachloride	U	0.14	1.0								
Chlorobenzene	U	0.19	1.0								
Chloroethane	U	0.21	1.0								
Chloroform	U	0.25	1.0								
Chloromethane	U	0.25	1.0								
cis-1,2-Dichloroethene	U	0.25	1.0								
cis-1,3-Dichloropropene	U	0.24	1.0								
Cyclohexane	U	0.31	1.0								
Dibromochloromethane	U	0.17	1.0								
Dichlorodifluoromethane	U	0.41	1.0								
Ethylbenzene	U	0.22	1.0								
Isopropylbenzene	U	0.25	1.0								
Methyl acetate	U	0.62	2.0								
Methyl tert-butyl ether	U	0.12	1.0								
Methylcyclohexane	U	0.32	1.0								
Methylene chloride	U	0.64	5.0								
Styrene	U	0.18	1.0								
Tetrachloroethene	U	0.25	1.0								
Toluene	U	0.2	1.0								
trans-1,2-Dichloroethene	U	0.29	1.0								

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

Client: GHD Services Inc.
Work Order: 1604836
Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: R185836		Instrument ID VMS9		Method: SW8260B						
trans-1,3-Dichloropropene	U	0.19	1.0							
Trichloroethene	U	0.34	1.0							
Trichlorofluoromethane	U	0.39	1.0							
Vinyl chloride	U	0.19	1.0							
Xylenes, Total	U	0.62	3.0							
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>21.58</i>	<i>0</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>108</i>	<i>75-120</i>	<i>0</i>		
<i>Surr: 4-Bromofluorobenzene</i>	<i>18.36</i>	<i>0</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>91.8</i>	<i>80-110</i>	<i>0</i>		
<i>Surr: Dibromofluoromethane</i>	<i>20.41</i>	<i>0</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>102</i>	<i>85-115</i>	<i>0</i>		
<i>Surr: Toluene-d8</i>	<i>19.52</i>	<i>0</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>97.6</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: 1604836
Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: **R185836** Instrument ID **VMS9** Method: **SW8260B**

LCS		Sample ID: VLCSW1-160421-R185836				Units: µg/L		Analysis Date: 4/21/2016 03:20 PM			
Client ID:		Run ID: VMS9_160421A				SeqNo: 3787307		Prep Date:		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	18.69	0.19	1.0	20	0	93.4	75-130	0			
1,1,2,2-Tetrachloroethane	18.24	0.34	1.0	20	0	91.2	75-130	0			
1,1,2-Trichloroethane	17.92	0.25	1.0	20	0	89.6	75-125	0			
1,1-Dichloroethane	18.11	0.21	1.0	20	0	90.6	75-133	0			
1,1-Dichloroethene	19.06	0.24	1.0	20	0	95.3	70-145	0			
1,2,4-Trichlorobenzene	18.45	0.19	1.0	20	0	92.2	70-135	0			
1,2-Dibromo-3-chloropropane	15.55	0.42	1.0	20	0	77.8	60-130	0			
1,2-Dibromoethane	18.78	0.34	1.0	20	0	93.9	80-150	0			
1,2-Dichlorobenzene	18	0.22	1.0	20	0	90	70-130	0			
1,2-Dichloroethane	19.04	0.26	1.0	20	0	95.2	78-125	0			
1,2-Dichloropropane	17.6	0.26	1.0	20	0	88	75-125	0			
1,3-Dichlorobenzene	18.74	0.21	1.0	20	0	93.7	75-130	0			
1,4-Dichlorobenzene	18.1	0.2	1.0	20	0	90.5	75-130	0			
2-Butanone	19.96	0.87	5.0	20	0	99.8	55-150	0			
2-Hexanone	20.09	0.15	5.0	20	0	100	60-135	0			
4-Methyl-2-pentanone	18.52	0.15	1.0	20	0	92.6	77-178	0			
Acetone	23.46	3.1	10	20	0	117	60-160	0			
Benzene	19.06	0.25	1.0	20	0	95.3	85-125	0			
Bromodichloromethane	16.21	0.16	1.0	20	0	81	75-125	0			
Bromoform	15.58	0.099	1.0	20	0	77.9	60-125	0			
Bromomethane	17.06	1	1.0	20	0	85.3	30-185	0			
Carbon disulfide	17.22	0.26	1.0	20	0	86.1	60-165	0			
Carbon tetrachloride	17.98	0.14	1.0	20	0	89.9	65-140	0			
Chlorobenzene	18.38	0.19	1.0	20	0	91.9	80-120	0			
Chloroethane	17	0.21	1.0	20	0	85	50-140	0			
Chloroform	17.37	0.25	1.0	20	0	86.8	80-130	0			
Chloromethane	16.42	0.25	1.0	20	0	82.1	50-130	0			
cis-1,2-Dichloroethene	17.37	0.25	1.0	20	0	86.8	75-134	0			
cis-1,3-Dichloropropene	17.72	0.24	1.0	20	0	88.6	70-130	0			
Dibromochloromethane	16.36	0.17	1.0	20	0	81.8	60-115	0			
Dichlorodifluoromethane	16.03	0.41	1.0	20	0	80.2	20-120	0			
Ethylbenzene	18.6	0.22	1.0	20	0	93	85-125	0			
Isopropylbenzene	19.58	0.25	1.0	20	0	97.9	80-127	0			
Methyl tert-butyl ether	16.89	0.12	1.0	20	0	84.4	80-130	0			
Methylene chloride	18.09	0.64	5.0	20	0	90.4	75-140	0			
Styrene	19.41	0.18	1.0	20	0	97	85-125	0			
Tetrachloroethene	20.74	0.25	1.0	20	0	104	77-138	0			
Toluene	18.51	0.2	1.0	20	0	92.6	85-125	0			
trans-1,2-Dichloroethene	17.88	0.29	1.0	20	0	89.4	80-140	0			
trans-1,3-Dichloropropene	16.32	0.19	1.0	20	0	81.6	81-123	0			
Trichloroethene	18.09	0.34	1.0	20	0	90.4	84-130	0			
Trichlorofluoromethane	16.3	0.39	1.0	20	0	81.5	60-140	0			
Vinyl chloride	16.12	0.19	1.0	20	0	80.6	50-136	0			

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

Client: GHD Services Inc.
Work Order: 1604836
Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: R185836		Instrument ID VMS9		Method: SW8260B					
Xylenes, Total	55.76	0.62	3.0	60	0	92.9	80-126	0	
Surr: 1,2-Dichloroethane-d4	20.49	0	0	20	0	102	75-120	0	
Surr: 4-Bromofluorobenzene	20.32	0	0	20	0	102	80-110	0	
Surr: Dibromofluoromethane	20.21	0	0	20	0	101	85-115	0	
Surr: Toluene-d8	20.23	0	0	20	0	101	85-110	0	

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

Client: GHD Services Inc.
Work Order: 1604836
Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: **R185836** Instrument ID **VMS9** Method: **SW8260B**

MS					Sample ID: 1604836-03A MS			Units: µg/L		Analysis Date: 4/22/2016 12:50 PM		
Client ID: WG-017360-041116-MR-023			Run ID: VMS9_160421A			SeqNo: 3787319		Prep Date:		DF: 10		
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
1,1,1-Trichloroethane	202.6	1.9	10	200	0	101	75-130	0				
1,1,2,2-Tetrachloroethane	198.2	3.4	10	200	0	99.1	75-130	0				
1,1,2-Trichloroethane	190.9	2.5	10	200	0	95.4	75-125	0				
1,1-Dichloroethane	200.4	2.1	10	200	0	100	75-133	0				
1,1-Dichloroethene	205.3	2.4	10	200	0	103	70-145	0				
1,2,4-Trichlorobenzene	182.9	1.9	10	200	0	91.4	70-135	0				
1,2-Dibromo-3-chloropropane	180.1	4.2	10	200	0	90	60-130	0				
1,2-Dibromoethane	199.9	3.4	10	200	0	100	80-150	0				
1,2-Dichlorobenzene	190.5	2.2	10	200	0	95.2	70-130	0				
1,2-Dichloroethane	209.2	2.6	10	200	0	105	78-125	0				
1,2-Dichloropropane	197.2	2.6	10	200	0	98.6	75-125	0				
1,3-Dichlorobenzene	192.2	2.1	10	200	0	96.1	75-130	0				
1,4-Dichlorobenzene	184.4	2	10	200	0	92.2	75-130	0				
2-Butanone	229.2	8.7	50	200	0	115	55-150	0				
2-Hexanone	243.7	1.5	50	200	0	122	60-135	0				
4-Methyl-2-pentanone	232.8	1.5	10	200	0	116	77-178	0				
Acetone	292.4	31	100	200	8.14	142	60-160	0				
Benzene	213.2	2.5	10	200	0	107	85-125	0				
Bromodichloromethane	180.8	1.6	10	200	0	90.4	75-125	0				
Bromoform	161.3	0.99	10	200	0	80.6	60-125	0				
Bromomethane	98.4	10	10	200	0	49.2	30-185	0				
Carbon disulfide	181	2.6	10	200	0	90.5	60-165	0				
Carbon tetrachloride	198.9	1.4	10	200	0	99.4	65-140	0				
Chlorobenzene	194.9	1.9	10	200	0	97.4	80-120	0				
Chloroethane	171.5	2.1	10	200	0	85.8	50-140	0				
Chloroform	190	2.5	10	200	0	95	80-130	0				
Chloromethane	165.1	2.5	10	200	0	82.6	50-130	0				
cis-1,2-Dichloroethene	189.3	2.5	10	200	0	94.6	75-134	0				
cis-1,3-Dichloropropene	185	2.4	10	200	0	92.5	70-130	0				
Dibromochloromethane	163.9	1.7	10	200	0	82	60-115	0				
Dichlorodifluoromethane	163.8	4.1	10	200	0	81.9	20-120	0				
Ethylbenzene	197.9	2.2	10	200	0	99	85-125	0				
Isopropylbenzene	209.2	2.5	10	200	0	105	80-127	0				
Methyl tert-butyl ether	182.7	1.2	10	200	0	91.4	80-130	0				
Methylene chloride	207.6	6.4	50	200	0	104	75-140	0				
Styrene	209.7	1.8	10	200	0	105	85-125	0				
Tetrachloroethene	217.1	2.5	10	200	1.77	108	77-138	0				
Toluene	200.7	2	10	200	0	100	85-125	0				
trans-1,2-Dichloroethene	203.5	2.9	10	200	0	102	80-140	0				
trans-1,3-Dichloropropene	163.7	1.9	10	200	0	81.8	81-123	0				
Trichloroethene	195.9	3.4	10	200	0	98	84-130	0				
Trichlorofluoromethane	167	3.9	10	200	0	83.5	60-140	0				
Vinyl chloride	181.2	1.9	10	200	0	90.6	50-136	0				

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

Client: GHD Services Inc.
Work Order: 1604836
Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: R185836		Instrument ID VMS9		Method: SW8260B					
Xylenes, Total		592.2	6.2	30	600	0	98.7	80-126	0
Surr: 1,2-Dichloroethane-d4		209	0	0	200	0	104	75-120	0
Surr: 4-Bromofluorobenzene		201.6	0	0	200	0	101	80-110	0
Surr: Dibromofluoromethane		209.1	0	0	200	0	105	85-115	0
Surr: Toluene-d8		203.3	0	0	200	0	102	85-110	0

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

Client: GHD Services Inc.
 Work Order: 1604836
 Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: **R185836** Instrument ID **VMS9** Method: **SW8260B**

MSD					Sample ID: 1604836-03A MSD			Units: µg/L		Analysis Date: 4/22/2016 01:16 AM	
Client ID: WG-017360-041116-MR-023					Run ID: VMS9_160421A			SeqNo: 3787318		Prep Date:	
										DF: 10	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	196.8	1.9	10	200	0	98.4	75-130	202.6	2.9	30	
1,1,2,2-Tetrachloroethane	191.8	3.4	10	200	0	95.9	75-130	198.2	3.28	30	
1,1,2-Trichloroethane	182.3	2.5	10	200	0	91.2	75-125	190.9	4.61	30	
1,1-Dichloroethane	190.1	2.1	10	200	0	95	75-133	200.4	5.28	30	
1,1-Dichloroethene	193.5	2.4	10	200	0	96.8	70-145	205.3	5.92	30	
1,2,4-Trichlorobenzene	178.7	1.9	10	200	0	89.4	70-135	182.9	2.32	30	
1,2-Dibromo-3-chloropropane	173.7	4.2	10	200	0	86.8	60-130	180.1	3.62	30	
1,2-Dibromoethane	195.4	3.4	10	200	0	97.7	80-150	199.9	2.28	30	
1,2-Dichlorobenzene	183.8	2.2	10	200	0	91.9	70-130	190.5	3.58	30	
1,2-Dichloroethane	198.7	2.6	10	200	0	99.4	78-125	209.2	5.15	30	
1,2-Dichloropropane	190	2.6	10	200	0	95	75-125	197.2	3.72	30	
1,3-Dichlorobenzene	188.6	2.1	10	200	0	94.3	75-130	192.2	1.89	30	
1,4-Dichlorobenzene	179.2	2	10	200	0	89.6	75-130	184.4	2.86	30	
2-Butanone	239.7	8.7	50	200	0	120	55-150	229.2	4.48	30	
2-Hexanone	230.8	1.5	50	200	0	115	60-135	243.7	5.44	30	
4-Methyl-2-pentanone	224	1.5	10	200	0	112	77-178	232.8	3.85	30	
Acetone	278.1	31	100	200	8.14	135	60-160	292.4	5.01	30	
Benzene	201.3	2.5	10	200	0	101	85-125	213.2	5.74	30	
Bromodichloromethane	166.7	1.6	10	200	0	83.4	75-125	180.8	8.12	30	
Bromoform	162.6	0.99	10	200	0	81.3	60-125	161.3	0.803	30	
Bromomethane	168.4	10	10	200	0	84.2	30-185	98.4	52.5	30	R
Carbon disulfide	176.1	2.6	10	200	0	88	60-165	181	2.74	30	
Carbon tetrachloride	183	1.4	10	200	0	91.5	65-140	198.9	8.33	30	
Chlorobenzene	187.4	1.9	10	200	0	93.7	80-120	194.9	3.92	30	
Chloroethane	171.3	2.1	10	200	0	85.6	50-140	171.5	0.117	30	
Chloroform	175.2	2.5	10	200	0	87.6	80-130	190	8.11	30	
Chloromethane	151	2.5	10	200	0	75.5	50-130	165.1	8.92	30	
cis-1,2-Dichloroethene	178	2.5	10	200	0	89	75-134	189.3	6.15	30	
cis-1,3-Dichloropropene	180.9	2.4	10	200	0	90.4	70-130	185	2.24	30	
Dibromochloromethane	160.2	1.7	10	200	0	80.1	60-115	163.9	2.28	30	
Dichlorodifluoromethane	148.9	4.1	10	200	0	74.4	20-120	163.8	9.53	30	
Ethylbenzene	186.3	2.2	10	200	0	93.2	85-125	197.9	6.04	30	
Isopropylbenzene	197.3	2.5	10	200	0	98.6	80-127	209.2	5.85	30	
Methyl tert-butyl ether	174.1	1.2	10	200	0	87	80-130	182.7	4.82	30	
Methylene chloride	194.5	6.4	50	200	0	97.2	75-140	207.6	6.52	30	
Styrene	195.2	1.8	10	200	0	97.6	85-125	209.7	7.16	30	
Tetrachloroethene	211.5	2.5	10	200	1.77	105	77-138	217.1	2.61	30	
Toluene	191.1	2	10	200	0	95.6	85-125	200.7	4.9	30	
trans-1,2-Dichloroethene	189.5	2.9	10	200	0	94.8	80-140	203.5	7.12	30	
trans-1,3-Dichloropropene	159.9	1.9	10	200	0	80	81-123	163.7	2.35	30	S
Trichloroethene	190	3.4	10	200	0	95	84-130	195.9	3.06	30	
Trichlorofluoromethane	160.6	3.9	10	200	0	80.3	60-140	167	3.91	30	
Vinyl chloride	165.5	1.9	10	200	0	82.8	50-136	181.2	9.06	30	

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

Client: GHD Services Inc.
Work Order: 1604836
Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: R185836	Instrument ID VMS9	Method: SW8260B								
Xylenes, Total	564.8	6.2	30	600	0	94.1	80-126	592.2	4.74	30
Surr: 1,2-Dichloroethane-d4	213.7	0	0	200	0	107	75-120	209	2.22	30
Surr: 4-Bromofluorobenzene	206	0	0	200	0	103	80-110	201.6	2.16	30
Surr: Dibromofluoromethane	209.5	0	0	200	0	105	85-115	209.1	0.191	30
Surr: Toluene-d8	206.9	0	0	200	0	103	85-110	203.3	1.76	30

The following samples were analyzed in this batch:

1604836-02A	1604836-03A	1604836-04A
1604836-05A	1604836-06A	1604836-14A
1604836-15A	1604836-17A	1604836-18A

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



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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	GR Metal Plant				A	VOCs												
Work Order		Project Number	017360-708416-02416				B	SVOCs												
Company Name	GHD	Bill To Company					C	Metals & Mercury												
Send Report To	Raven Fleisher	Invoice Attn	Same as customer info				D	MS/MSD												
Address	14496 Sheldon Rd	Address					E	MS/MSD - metals & mercury only												
City/State/Zip	Plymouth, MI 48170	City/State/Zip					F													
Phone	734-453-5123	Phone					G													
Fax		Fax					H													
e-Mail Address	ra.v.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	W6-017360-041116-MR-021	4/11/16	1248	Water	1	13	X	X		X							
2	W6- " -022		1335		1	5	X	X									
3	W6- " -023		1350		1	5	X	X									
4	W6- " -024		1450		1	5	X	X									
5	W6- " -025		1540		1	3	X										
6	W6- " -026		1630		1,2	5	X		X	X							
7	W6-017360-041316-MR-027	4/13/16	1133		1	3	X										
8	W6- " -028		1310		1	3	X										
9	W6- " -029		1413		1	3	X										
10	W6- " -030		1616		1	3	X										

Sampler(s) Please Print & Sign Matt Ramsey		Shipment Method Drop off		Turnaround Time in Business Days (BD) ☒ 10 BD ☐ 5 BD ☐ 3 BD ☐ 2 BD ☐ 1 BD				Results Due Date:	
Relinquished by Matt Ramsey		Date: 4/15/16	Time: 1045	Received by:		Notes: SSOW # 17360-035			
Relinquished by:		Date: 4/15/16	Time: 1045	Received by (Laboratory):		Cooler ID: Cooler Temp: QC Package: (Check One Box Below)			
Logged by (Laboratory):		Date: 4/15/16	Time: 1900	Checked by (Laboratory):		☐ Level II Std QC ☐ TARP Checklist ☐ Level III Std QC/Raw Data ☐ TARP Level IV ☐ Level IV SW846/CLP ☐ Other			

Preservative Key: 1-HCl 2-HNO₃ 3-H₂SO₄ 4-NaOH 5-Na₂S₂O₃ 6-NaHSO₄ 7-Other 8-4°C 9-5035

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
3. The Chain of Custody is a legal document. All information must be completed accurately.



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Chain of Custody Form

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COC ID: 31681

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: <u>Chris Whelton</u> ALS Work Order #: <u>1604836</u>															
						Parameter/Method Request for Analysis															
Purchase Order		Project Name	G-R Metal Plant			A	VOCs														
Work Order		Project Number	017360-TO8Y16-02Y16			B	SVOCs														
Company Name	GHD	Bill To Company				C															
Send Report To	Rana Fleisher	Invoice Attn	Same as customer info			D															
Address	14496 Sheldon Rd	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@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				
11	WG-017360-041316-MR-031	4/13/16	1703	Water	1	3	X														
12	WG- " -032	↓	1759		1	3	X														
13	WG-017360-041416-MR-033	4/14/16	1045		1	5	X	X													
14	WG- " -034	↓	1140		1	3	X														
15	WG- " -035		1200		1	3	X														
16	WG- " -036		1240		1	3	X														
17	WG- " -037		1418		1	5	X	X													
18	WG- " -038		1515		1	5	X	X													
19	WG- " -039		1609		1	5	X	X													
20	WG- " -040		1659		1	3	X														
Sampler(s) Please Print & Sign		Shipment Method		Turnaround Time in Business Days (BD)				Other				Results Due Date:									
Matt Ramsey		Drop off		10 BD 5 BD 3 BD 2 BD 1 BD				Standard													
Relinquished by:	Date:	Time:	Received by:				Notes:														
Relinquished by:	Date:	Time:	Received by (Laboratory):				SSOW # 17360-035														
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):				Cooler ID	Cooler Temp	QC Package: (Check One Box Below)												
									☐ Level II Std QC ☐ TRRP Checklist ☐ Level III Std QC/Raw Data ☐ TRRP Level IV ☐ Level IV SW846/CLP ☐ Other												
Preservative Key: 1-HCl 2-HNO ₃ 3-H ₂ SO ₄ 4-NaOH 5-Na ₂ S ₂ O ₃ 6-NaHSO ₄ 7-Other 8-4°C 9-5035																					

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
3. The Chain of Custody is a legal document. All information must be completed accurately.

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Sample Receipt Checklist

Client Name: **GHD - PLYMOUTH**

Date/Time Received: **15-Apr-16 10:45**

Work Order: **1604836**

Received by: **KRW**

Checklist completed by Keith Wurenga
eSignature

15-Apr-16
Date

Reviewed by: Alex Coaszar
eSignature

15-Apr-16
Date

Matrices: **Water**

Carrier name: **Client**

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☒
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☒
Chain of custody present?	Yes ☒	No ☐	
Chain of custody signed when relinquished and received?	Yes ☒	No ☐	
Chain of custody agrees with sample labels?	Yes ☒	No ☐	
Samples in proper container/bottle?	Yes ☒	No ☐	
Sample containers intact?	Yes ☒	No ☐	
Sufficient sample volume for indicated test?	Yes ☒	No ☐	
All samples received within holding time?	Yes ☒	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☒	No ☐	
Sample(s) received on ice?	Yes ☒	No ☐	
Temperature(s)/Thermometer(s):	<u>3.0/3.0 2.8/2.8 C</u>		<u>SR2</u>
Cooler(s)/Kit(s):	<u></u>		
Date/Time sample(s) sent to storage:	<u>4/15/2016 2:09:05 PM</u>		
Water - VOA vials have zero headspace?	Yes ☒	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☒	No ☐	N/A ☐
pH adjusted?	Yes ☐	No ☒	N/A ☐
pH adjusted by:	<u>-</u>		

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:



14-Apr-2016

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

Re: **Former GRMP (17360)**

Work Order: **1604460**

Dear Rawa,

ALS Environmental received 20 samples on 08-Apr-2016 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 61.

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

Sincerely,

A handwritten signature in black ink that reads "Alex Csaszar".

Electronically approved by: Alex Csaszar

Alex Csaszar
Project Manager



Certificate No: MI: 0022

Report of Laboratory Analysis

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

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RIGHT SOLUTIONS RIGHT PARTNER

Client: GHD Services Inc.
Project: Former GRMP (17360)
Work Order: 1604460

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>
1604460-01	SW-017360-040516-MR-001	Water		4/5/2016 15:55	4/8/2016 10:50	☐
1604460-02	SW-017360-040516-MR-002	Water		4/5/2016 16:10	4/8/2016 10:50	☐
1604460-03	SW-017360-040516-MR-003	Water		4/5/2016 16:20	4/8/2016 10:50	☐
1604460-04	WG-017360-040616-MR-004	Water		4/6/2016 10:50	4/8/2016 10:50	☐
1604460-05	WG-017360-040616-MR-005	Water		4/6/2016 11:28	4/8/2016 10:50	☐
1604460-06	WG-017360-040616-MR-006	Water		4/6/2016 12:45	4/8/2016 10:50	☐
1604460-06	WG-017360-040616-MR-006	Water		4/6/2016 12:45	4/8/2016 10:50	☐
1604460-07	WG-017360-040616-MR-007	Water		4/6/2016 13:00	4/8/2016 10:50	☐
1604460-07	WG-017360-040616-MR-007	Water		4/6/2016 13:00	4/8/2016 10:50	☐
1604460-08	WG-017360-040616-MR-008	Water		4/6/2016 13:25	4/8/2016 10:50	☐
1604460-09	WG-017360-040616-MR-009	Water		4/6/2016 15:00	4/8/2016 10:50	☐
1604460-10	WG-017360-040616-MR-010	Water		4/6/2016 16:20	4/8/2016 10:50	☐
1604460-11	WG-017360-040616-MR-011	Water		4/6/2016 17:09	4/8/2016 10:50	☐
1604460-12	WG-017360-040716-MR-012	Water		4/7/2016 11:04	4/8/2016 10:50	☐
1604460-13	WG-017360-040716-MR-013	Water		4/7/2016 11:58	4/8/2016 10:50	☐
1604460-14	WG-017360-040716-MR-014	Water		4/7/2016 12:38	4/8/2016 10:50	☐
1604460-15	WG-017360-040716-MR-015	Water		4/7/2016 13:53	4/8/2016 10:50	☐
1604460-16	WG-017360-040716-MR-016	Water		4/7/2016 14:40	4/8/2016 10:50	☐
1604460-17	WG-017360-040716-MR-017	Water		4/7/2016 16:06	4/8/2016 10:50	☐
1604460-18	WG-017360-040716-MR-018	Water		4/7/2016 16:49	4/8/2016 10:50	☐
1604460-19	WG-017360-040716-MR-019	Water		4/7/2016 17:05	4/8/2016 10:50	☐
1604460-20	TB-017360-040716-MR-020	Water		4/7/2016	4/8/2016 10:50	☐

Client: GHD Services Inc.
Project: Former GRMP (17360)
Work Order: 1604460

Case Narrative

Samples for the above noted Work Order were received on 04/08/2016. The attached "Sample Receipt Checklist" documents the status of custody seals, container integrity, preservation, and temperature compliance.

Samples were analyzed according to the analytical methodology previously transmitted in the "Work Order Acknowledgement". Methodologies are also documented in the "Analytical Result" section for each sample. Quality control results are listed in the "QC Report" section. Sample association for the reported quality control is located at the end of each batch summary. If applicable, results are appropriately qualified in the Analytical Result and QC Report sections. The "Qualifiers" section documents the various qualifiers, units, and acronyms utilized in reporting.

With the following exceptions, all sample analyses achieved analytical criteria.

Volatile Organics:

Batch R185251, Method VOC_8260_W, Sample 1604460-09A: Verification of sample preservation indicated a pH >2.

Batch R185251, Method VOC_8260_W, Sample VLCSW2-160412: The LCS recovery was above the upper control limits for 1,2-Dibromoethane. All the sample results in the batch were non-detect. No qualification is necessary for this analyte.

Batch R185251, Method VOC_8260_W, Samples 1604460-12A MS and MSD: The MS and MSD recoveries were above the upper control limits for 1,2-Dibromoethane. The reported results in the parent sample was non-detect, therefore no qualification is necessary.

Batch R185277, Method VOC_8260_W, Sample VLCSW1-160413: The LCS recovery was above the upper control limits for 1,2-Dibromoethane. All the sample results in the batch were non-detect. No qualification is necessary for this analyte.

Batch R185277, Method VOC_8260_W, Samples 1604460-12A MS and MSD: The MS and MSD recoveries were above the upper control limits for 1,2-Dibromoethane. The reported results in the parent sample was non-detect, therefore no qualification is necessary.

Client: GHD Services Inc.
Project: Former GRMP (17360)
WorkOrder: 1604460

QUALIFIERS, ACRONYMS, UNITS

<u>Qualifier</u>	<u>Description</u>
*	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.

<u>Acronym</u>	<u>Description</u>
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

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

ALS Group USA, Corp

Date: 14-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: SW-017360-040516-MR-001
Collection Date: 4/5/2016 03:55 PM

Work Order: 1604460
Lab ID: 1604460-01
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			Method: SW8260B			Analyst: AK	
1,1,1-Trichloroethane	U		0.19	1.0	µg/L	1	4/13/2016 13:19
1,1,2,2-Tetrachloroethane	U		0.34	1.0	µg/L	1	4/13/2016 13:19
1,1,2-Trichloroethane	U		0.25	1.0	µg/L	1	4/13/2016 13:19
1,1,2-Trichlorotrifluoroethane	U		0.47	1.0	µg/L	1	4/13/2016 13:19
1,1-Dichloroethane	U		0.21	1.0	µg/L	1	4/13/2016 13:19
1,1-Dichloroethene	U		0.24	1.0	µg/L	1	4/13/2016 13:19
1,2,4-Trichlorobenzene	U		0.19	5.0	µg/L	1	4/13/2016 13:19
1,2-Dibromo-3-chloropropane	U		0.42	1.0	µg/L	1	4/13/2016 13:19
1,2-Dibromoethane	U		0.34	1.0	µg/L	1	4/13/2016 13:19
1,2-Dichlorobenzene	U		0.22	1.0	µg/L	1	4/13/2016 13:19
1,2-Dichloroethane	U		0.26	1.0	µg/L	1	4/13/2016 13:19
1,2-Dichloropropane	U		0.26	1.0	µg/L	1	4/13/2016 13:19
1,3-Dichlorobenzene	U		0.21	1.0	µg/L	1	4/13/2016 13:19
1,4-Dichlorobenzene	U		0.20	1.0	µg/L	1	4/13/2016 13:19
2-Butanone	U		0.87	25	µg/L	1	4/13/2016 13:19
2-Hexanone	U		0.15	50	µg/L	1	4/13/2016 13:19
4-Methyl-2-pentanone	U		0.15	50	µg/L	1	4/13/2016 13:19
Acetone	U		3.1	50	µg/L	1	4/13/2016 13:19
Benzene	U		0.25	1.0	µg/L	1	4/13/2016 13:19
Bromodichloromethane	U		0.16	1.0	µg/L	1	4/13/2016 13:19
Bromoform	U		0.099	1.0	µg/L	1	4/13/2016 13:19
Bromomethane	U		1.0	5.0	µg/L	1	4/13/2016 13:19
Carbon disulfide	U		0.26	5.0	µg/L	1	4/13/2016 13:19
Carbon tetrachloride	U		0.14	1.0	µg/L	1	4/13/2016 13:19
Chlorobenzene	U		0.19	1.0	µg/L	1	4/13/2016 13:19
Chloroethane	U		0.21	5.0	µg/L	1	4/13/2016 13:19
Chloroform	U		0.25	1.0	µg/L	1	4/13/2016 13:19
Chloromethane	U		0.25	5.0	µg/L	1	4/13/2016 13:19
cis-1,2-Dichloroethene	1.3		0.25	1.0	µg/L	1	4/13/2016 13:19
cis-1,3-Dichloropropene	U		0.24	1.0	µg/L	1	4/13/2016 13:19
Cyclohexane	U		0.31	1.0	µg/L	1	4/13/2016 13:19
Dibromochloromethane	U		0.17	5.0	µg/L	1	4/13/2016 13:19
Dichlorodifluoromethane	U		0.41	5.0	µg/L	1	4/13/2016 13:19
Ethylbenzene	U		0.22	1.0	µg/L	1	4/13/2016 13:19
Isopropylbenzene	U		0.25	5.0	µg/L	1	4/13/2016 13:19
Methyl acetate	U		0.62	10	µg/L	1	4/13/2016 13:19
Methyl tert-butyl ether	U		0.12	5.0	µg/L	1	4/13/2016 13:19
Methylcyclohexane	U		0.32	1.0	µg/L	1	4/13/2016 13:19

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

ALS Group USA, Corp

Date: 14-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: SW-017360-040516-MR-001
Collection Date: 4/5/2016 03:55 PM

Work Order: 1604460
Lab ID: 1604460-01
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.64	5.0	µg/L	1	4/13/2016 13:19
Styrene	U		0.18	1.0	µg/L	1	4/13/2016 13:19
Tetrachloroethene	1.6		0.25	1.0	µg/L	1	4/13/2016 13:19
Toluene	U		0.20	1.0	µg/L	1	4/13/2016 13:19
trans-1,2-Dichloroethene	U		0.29	1.0	µg/L	1	4/13/2016 13:19
trans-1,3-Dichloropropene	U		0.19	1.0	µg/L	1	4/13/2016 13:19
Trichloroethene	U		0.34	1.0	µg/L	1	4/13/2016 13:19
Trichlorofluoromethane	U		0.39	1.0	µg/L	1	4/13/2016 13:19
Vinyl chloride	0.44	J	0.19	1.0	µg/L	1	4/13/2016 13:19
Xylenes, Total	U		0.62	3.0	µg/L	1	4/13/2016 13:19
Surr: 1,2-Dichloroethane-d4	105			75-120	%REC	1	4/13/2016 13:19
Surr: 4-Bromofluorobenzene	90.6			80-110	%REC	1	4/13/2016 13:19
Surr: Dibromofluoromethane	102			85-115	%REC	1	4/13/2016 13:19
Surr: Toluene-d8	97.8			85-110	%REC	1	4/13/2016 13:19

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

ALS Group USA, Corp

Date: 14-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: SW-017360-040516-MR-002
Collection Date: 4/5/2016 04:10 PM

Work Order: 1604460
Lab ID: 1604460-02
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			Method: SW8260B			Analyst: AK	
1,1,1-Trichloroethane	U		0.19	1.0	µg/L	1	4/13/2016 13:43
1,1,2,2-Tetrachloroethane	U		0.34	1.0	µg/L	1	4/13/2016 13:43
1,1,2-Trichloroethane	U		0.25	1.0	µg/L	1	4/13/2016 13:43
1,1,2-Trichlorotrifluoroethane	U		0.47	1.0	µg/L	1	4/13/2016 13:43
1,1-Dichloroethane	U		0.21	1.0	µg/L	1	4/13/2016 13:43
1,1-Dichloroethene	U		0.24	1.0	µg/L	1	4/13/2016 13:43
1,2,4-Trichlorobenzene	U		0.19	5.0	µg/L	1	4/13/2016 13:43
1,2-Dibromo-3-chloropropane	U		0.42	1.0	µg/L	1	4/13/2016 13:43
1,2-Dibromoethane	U		0.34	1.0	µg/L	1	4/13/2016 13:43
1,2-Dichlorobenzene	U		0.22	1.0	µg/L	1	4/13/2016 13:43
1,2-Dichloroethane	U		0.26	1.0	µg/L	1	4/13/2016 13:43
1,2-Dichloropropane	U		0.26	1.0	µg/L	1	4/13/2016 13:43
1,3-Dichlorobenzene	U		0.21	1.0	µg/L	1	4/13/2016 13:43
1,4-Dichlorobenzene	U		0.20	1.0	µg/L	1	4/13/2016 13:43
2-Butanone	U		0.87	25	µg/L	1	4/13/2016 13:43
2-Hexanone	U		0.15	50	µg/L	1	4/13/2016 13:43
4-Methyl-2-pentanone	U		0.15	50	µg/L	1	4/13/2016 13:43
Acetone	U		3.1	50	µg/L	1	4/13/2016 13:43
Benzene	U		0.25	1.0	µg/L	1	4/13/2016 13:43
Bromodichloromethane	U		0.16	1.0	µg/L	1	4/13/2016 13:43
Bromoform	U		0.099	1.0	µg/L	1	4/13/2016 13:43
Bromomethane	U		1.0	5.0	µg/L	1	4/13/2016 13:43
Carbon disulfide	U		0.26	5.0	µg/L	1	4/13/2016 13:43
Carbon tetrachloride	U		0.14	1.0	µg/L	1	4/13/2016 13:43
Chlorobenzene	U		0.19	1.0	µg/L	1	4/13/2016 13:43
Chloroethane	U		0.21	5.0	µg/L	1	4/13/2016 13:43
Chloroform	0.37	J	0.25	1.0	µg/L	1	4/13/2016 13:43
Chloromethane	U		0.25	5.0	µg/L	1	4/13/2016 13:43
cis-1,2-Dichloroethene	0.96	J	0.25	1.0	µg/L	1	4/13/2016 13:43
cis-1,3-Dichloropropene	U		0.24	1.0	µg/L	1	4/13/2016 13:43
Cyclohexane	U		0.31	1.0	µg/L	1	4/13/2016 13:43
Dibromochloromethane	U		0.17	5.0	µg/L	1	4/13/2016 13:43
Dichlorodifluoromethane	U		0.41	5.0	µg/L	1	4/13/2016 13:43
Ethylbenzene	U		0.22	1.0	µg/L	1	4/13/2016 13:43
Isopropylbenzene	U		0.25	5.0	µg/L	1	4/13/2016 13:43
Methyl acetate	U		0.62	10	µg/L	1	4/13/2016 13:43
Methyl tert-butyl ether	U		0.12	5.0	µg/L	1	4/13/2016 13:43
Methylcyclohexane	U		0.32	1.0	µg/L	1	4/13/2016 13:43

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

ALS Group USA, Corp

Date: 14-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: SW-017360-040516-MR-002
Collection Date: 4/5/2016 04:10 PM

Work Order: 1604460
Lab ID: 1604460-02
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.64	5.0	µg/L	1	4/13/2016 13:43
Styrene	U		0.18	1.0	µg/L	1	4/13/2016 13:43
Tetrachloroethene	1.8		0.25	1.0	µg/L	1	4/13/2016 13:43
Toluene	U		0.20	1.0	µg/L	1	4/13/2016 13:43
trans-1,2-Dichloroethene	U		0.29	1.0	µg/L	1	4/13/2016 13:43
trans-1,3-Dichloropropene	U		0.19	1.0	µg/L	1	4/13/2016 13:43
Trichloroethene	U		0.34	1.0	µg/L	1	4/13/2016 13:43
Trichlorofluoromethane	U		0.39	1.0	µg/L	1	4/13/2016 13:43
Vinyl chloride	U		0.19	1.0	µg/L	1	4/13/2016 13:43
Xylenes, Total	U		0.62	3.0	µg/L	1	4/13/2016 13:43
Surr: 1,2-Dichloroethane-d4	104			75-120	%REC	1	4/13/2016 13:43
Surr: 4-Bromofluorobenzene	93.2			80-110	%REC	1	4/13/2016 13:43
Surr: Dibromofluoromethane	98.8			85-115	%REC	1	4/13/2016 13:43
Surr: Toluene-d8	99.6			85-110	%REC	1	4/13/2016 13:43

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

ALS Group USA, Corp

Date: 14-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: SW-017360-040516-MR-003
Collection Date: 4/5/2016 04:20 PM

Work Order: 1604460
Lab ID: 1604460-03
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			Method: SW8260B			Analyst: AK	
1,1,1-Trichloroethane	U		0.19	1.0	µg/L	1	4/13/2016 14:08
1,1,2,2-Tetrachloroethane	U		0.34	1.0	µg/L	1	4/13/2016 14:08
1,1,2-Trichloroethane	U		0.25	1.0	µg/L	1	4/13/2016 14:08
1,1,2-Trichlorotrifluoroethane	U		0.47	1.0	µg/L	1	4/13/2016 14:08
1,1-Dichloroethane	U		0.21	1.0	µg/L	1	4/13/2016 14:08
1,1-Dichloroethene	U		0.24	1.0	µg/L	1	4/13/2016 14:08
1,2,4-Trichlorobenzene	U		0.19	5.0	µg/L	1	4/13/2016 14:08
1,2-Dibromo-3-chloropropane	U		0.42	1.0	µg/L	1	4/13/2016 14:08
1,2-Dibromoethane	U		0.34	1.0	µg/L	1	4/13/2016 14:08
1,2-Dichlorobenzene	U		0.22	1.0	µg/L	1	4/13/2016 14:08
1,2-Dichloroethane	U		0.26	1.0	µg/L	1	4/13/2016 14:08
1,2-Dichloropropane	U		0.26	1.0	µg/L	1	4/13/2016 14:08
1,3-Dichlorobenzene	U		0.21	1.0	µg/L	1	4/13/2016 14:08
1,4-Dichlorobenzene	U		0.20	1.0	µg/L	1	4/13/2016 14:08
2-Butanone	U		0.87	25	µg/L	1	4/13/2016 14:08
2-Hexanone	U		0.15	50	µg/L	1	4/13/2016 14:08
4-Methyl-2-pentanone	U		0.15	50	µg/L	1	4/13/2016 14:08
Acetone	U		3.1	50	µg/L	1	4/13/2016 14:08
Benzene	U		0.25	1.0	µg/L	1	4/13/2016 14:08
Bromodichloromethane	U		0.16	1.0	µg/L	1	4/13/2016 14:08
Bromoform	U		0.099	1.0	µg/L	1	4/13/2016 14:08
Bromomethane	U		1.0	5.0	µg/L	1	4/13/2016 14:08
Carbon disulfide	U		0.26	5.0	µg/L	1	4/13/2016 14:08
Carbon tetrachloride	U		0.14	1.0	µg/L	1	4/13/2016 14:08
Chlorobenzene	U		0.19	1.0	µg/L	1	4/13/2016 14:08
Chloroethane	U		0.21	5.0	µg/L	1	4/13/2016 14:08
Chloroform	0.81	J	0.25	1.0	µg/L	1	4/13/2016 14:08
Chloromethane	U		0.25	5.0	µg/L	1	4/13/2016 14:08
cis-1,2-Dichloroethene	1.4		0.25	1.0	µg/L	1	4/13/2016 14:08
cis-1,3-Dichloropropene	U		0.24	1.0	µg/L	1	4/13/2016 14:08
Cyclohexane	U		0.31	1.0	µg/L	1	4/13/2016 14:08
Dibromochloromethane	U		0.17	5.0	µg/L	1	4/13/2016 14:08
Dichlorodifluoromethane	U		0.41	5.0	µg/L	1	4/13/2016 14:08
Ethylbenzene	U		0.22	1.0	µg/L	1	4/13/2016 14:08
Isopropylbenzene	U		0.25	5.0	µg/L	1	4/13/2016 14:08
Methyl acetate	U		0.62	10	µg/L	1	4/13/2016 14:08
Methyl tert-butyl ether	U		0.12	5.0	µg/L	1	4/13/2016 14:08
Methylcyclohexane	U		0.32	1.0	µg/L	1	4/13/2016 14:08

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

ALS Group USA, Corp

Date: 14-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: SW-017360-040516-MR-003
Collection Date: 4/5/2016 04:20 PM

Work Order: 1604460
Lab ID: 1604460-03
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.64	5.0	µg/L	1	4/13/2016 14:08
Styrene	U		0.18	1.0	µg/L	1	4/13/2016 14:08
Tetrachloroethene	4.3		0.25	1.0	µg/L	1	4/13/2016 14:08
Toluene	U		0.20	1.0	µg/L	1	4/13/2016 14:08
trans-1,2-Dichloroethene	U		0.29	1.0	µg/L	1	4/13/2016 14:08
trans-1,3-Dichloropropene	U		0.19	1.0	µg/L	1	4/13/2016 14:08
Trichloroethene	1.2		0.34	1.0	µg/L	1	4/13/2016 14:08
Trichlorofluoromethane	U		0.39	1.0	µg/L	1	4/13/2016 14:08
Vinyl chloride	U		0.19	1.0	µg/L	1	4/13/2016 14:08
Xylenes, Total	U		0.62	3.0	µg/L	1	4/13/2016 14:08
Surr: 1,2-Dichloroethane-d4	105			75-120	%REC	1	4/13/2016 14:08
Surr: 4-Bromofluorobenzene	89.0			80-110	%REC	1	4/13/2016 14:08
Surr: Dibromofluoromethane	99.0			85-115	%REC	1	4/13/2016 14:08
Surr: Toluene-d8	98.8			85-110	%REC	1	4/13/2016 14:08

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

ALS Group USA, Corp

Date: 14-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-040616-MR-004
Collection Date: 4/6/2016 10:50 AM

Work Order: 1604460
Lab ID: 1604460-04
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			Method: SW8260B			Analyst: AK	
1,1,1-Trichloroethane	U		0.19	1.0	µg/L	1	4/13/2016 14:32
1,1,2,2-Tetrachloroethane	U		0.34	1.0	µg/L	1	4/13/2016 14:32
1,1,2-Trichloroethane	U		0.25	1.0	µg/L	1	4/13/2016 14:32
1,1,2-Trichlorotrifluoroethane	U		0.47	1.0	µg/L	1	4/13/2016 14:32
1,1-Dichloroethane	U		0.21	1.0	µg/L	1	4/13/2016 14:32
1,1-Dichloroethene	U		0.24	1.0	µg/L	1	4/13/2016 14:32
1,2,4-Trichlorobenzene	U		0.19	5.0	µg/L	1	4/13/2016 14:32
1,2-Dibromo-3-chloropropane	U		0.42	1.0	µg/L	1	4/13/2016 14:32
1,2-Dibromoethane	U		0.34	1.0	µg/L	1	4/13/2016 14:32
1,2-Dichlorobenzene	U		0.22	1.0	µg/L	1	4/13/2016 14:32
1,2-Dichloroethane	U		0.26	1.0	µg/L	1	4/13/2016 14:32
1,2-Dichloropropane	U		0.26	1.0	µg/L	1	4/13/2016 14:32
1,3-Dichlorobenzene	U		0.21	1.0	µg/L	1	4/13/2016 14:32
1,4-Dichlorobenzene	U		0.20	1.0	µg/L	1	4/13/2016 14:32
2-Butanone	U		0.87	25	µg/L	1	4/13/2016 14:32
2-Hexanone	U		0.15	50	µg/L	1	4/13/2016 14:32
4-Methyl-2-pentanone	U		0.15	50	µg/L	1	4/13/2016 14:32
Acetone	U		3.1	50	µg/L	1	4/13/2016 14:32
Benzene	U		0.25	1.0	µg/L	1	4/13/2016 14:32
Bromodichloromethane	U		0.16	1.0	µg/L	1	4/13/2016 14:32
Bromoform	U		0.099	1.0	µg/L	1	4/13/2016 14:32
Bromomethane	U		1.0	5.0	µg/L	1	4/13/2016 14:32
Carbon disulfide	U		0.26	5.0	µg/L	1	4/13/2016 14:32
Carbon tetrachloride	U		0.14	1.0	µg/L	1	4/13/2016 14:32
Chlorobenzene	U		0.19	1.0	µg/L	1	4/13/2016 14:32
Chloroethane	U		0.21	5.0	µg/L	1	4/13/2016 14:32
Chloroform	0.55	J	0.25	1.0	µg/L	1	4/13/2016 14:32
Chloromethane	U		0.25	5.0	µg/L	1	4/13/2016 14:32
cis-1,2-Dichloroethene	U		0.25	1.0	µg/L	1	4/13/2016 14:32
cis-1,3-Dichloropropene	U		0.24	1.0	µg/L	1	4/13/2016 14:32
Cyclohexane	U		0.31	1.0	µg/L	1	4/13/2016 14:32
Dibromochloromethane	U		0.17	5.0	µg/L	1	4/13/2016 14:32
Dichlorodifluoromethane	U		0.41	5.0	µg/L	1	4/13/2016 14:32
Ethylbenzene	U		0.22	1.0	µg/L	1	4/13/2016 14:32
Isopropylbenzene	U		0.25	5.0	µg/L	1	4/13/2016 14:32
Methyl acetate	U		0.62	10	µg/L	1	4/13/2016 14:32
Methyl tert-butyl ether	U		0.12	5.0	µg/L	1	4/13/2016 14:32
Methylcyclohexane	U		0.32	1.0	µg/L	1	4/13/2016 14:32

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

ALS Group USA, Corp

Date: 14-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-040616-MR-004
Collection Date: 4/6/2016 10:50 AM

Work Order: 1604460
Lab ID: 1604460-04
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.64	5.0	µg/L	1	4/13/2016 14:32
Styrene	U		0.18	1.0	µg/L	1	4/13/2016 14:32
Tetrachloroethene	U		0.25	1.0	µg/L	1	4/13/2016 14:32
Toluene	U		0.20	1.0	µg/L	1	4/13/2016 14:32
trans-1,2-Dichloroethene	U		0.29	1.0	µg/L	1	4/13/2016 14:32
trans-1,3-Dichloropropene	U		0.19	1.0	µg/L	1	4/13/2016 14:32
Trichloroethene	U		0.34	1.0	µg/L	1	4/13/2016 14:32
Trichlorofluoromethane	U		0.39	1.0	µg/L	1	4/13/2016 14:32
Vinyl chloride	U		0.19	1.0	µg/L	1	4/13/2016 14:32
Xylenes, Total	U		0.62	3.0	µg/L	1	4/13/2016 14:32
Surr: 1,2-Dichloroethane-d4	104			75-120	%REC	1	4/13/2016 14:32
Surr: 4-Bromofluorobenzene	94.8			80-110	%REC	1	4/13/2016 14:32
Surr: Dibromofluoromethane	102			85-115	%REC	1	4/13/2016 14:32
Surr: Toluene-d8	98.8			85-110	%REC	1	4/13/2016 14:32

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

ALS Group USA, Corp

Date: 14-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-040616-MR-005
Collection Date: 4/6/2016 11:28 AM

Work Order: 1604460
Lab ID: 1604460-05
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			Method: SW8260B			Analyst: AK	
1,1,1-Trichloroethane	U		0.19	1.0	µg/L	1	4/13/2016 14:57
1,1,2,2-Tetrachloroethane	U		0.34	1.0	µg/L	1	4/13/2016 14:57
1,1,2-Trichloroethane	U		0.25	1.0	µg/L	1	4/13/2016 14:57
1,1,2-Trichlorotrifluoroethane	U		0.47	1.0	µg/L	1	4/13/2016 14:57
1,1-Dichloroethane	U		0.21	1.0	µg/L	1	4/13/2016 14:57
1,1-Dichloroethene	U		0.24	1.0	µg/L	1	4/13/2016 14:57
1,2,4-Trichlorobenzene	U		0.19	5.0	µg/L	1	4/13/2016 14:57
1,2-Dibromo-3-chloropropane	U		0.42	1.0	µg/L	1	4/13/2016 14:57
1,2-Dibromoethane	U		0.34	1.0	µg/L	1	4/13/2016 14:57
1,2-Dichlorobenzene	U		0.22	1.0	µg/L	1	4/13/2016 14:57
1,2-Dichloroethane	U		0.26	1.0	µg/L	1	4/13/2016 14:57
1,2-Dichloropropane	U		0.26	1.0	µg/L	1	4/13/2016 14:57
1,3-Dichlorobenzene	U		0.21	1.0	µg/L	1	4/13/2016 14:57
1,4-Dichlorobenzene	U		0.20	1.0	µg/L	1	4/13/2016 14:57
2-Butanone	U		0.87	25	µg/L	1	4/13/2016 14:57
2-Hexanone	U		0.15	50	µg/L	1	4/13/2016 14:57
4-Methyl-2-pentanone	U		0.15	50	µg/L	1	4/13/2016 14:57
Acetone	U		3.1	50	µg/L	1	4/13/2016 14:57
Benzene	U		0.25	1.0	µg/L	1	4/13/2016 14:57
Bromodichloromethane	U		0.16	1.0	µg/L	1	4/13/2016 14:57
Bromoform	U		0.099	1.0	µg/L	1	4/13/2016 14:57
Bromomethane	U		1.0	5.0	µg/L	1	4/13/2016 14:57
Carbon disulfide	U		0.26	5.0	µg/L	1	4/13/2016 14:57
Carbon tetrachloride	U		0.14	1.0	µg/L	1	4/13/2016 14:57
Chlorobenzene	U		0.19	1.0	µg/L	1	4/13/2016 14:57
Chloroethane	U		0.21	5.0	µg/L	1	4/13/2016 14:57
Chloroform	U		0.25	1.0	µg/L	1	4/13/2016 14:57
Chloromethane	U		0.25	5.0	µg/L	1	4/13/2016 14:57
cis-1,2-Dichloroethene	U		0.25	1.0	µg/L	1	4/13/2016 14:57
cis-1,3-Dichloropropene	U		0.24	1.0	µg/L	1	4/13/2016 14:57
Cyclohexane	U		0.31	1.0	µg/L	1	4/13/2016 14:57
Dibromochloromethane	U		0.17	5.0	µg/L	1	4/13/2016 14:57
Dichlorodifluoromethane	U		0.41	5.0	µg/L	1	4/13/2016 14:57
Ethylbenzene	U		0.22	1.0	µg/L	1	4/13/2016 14:57
Isopropylbenzene	U		0.25	5.0	µg/L	1	4/13/2016 14:57
Methyl acetate	U		0.62	10	µg/L	1	4/13/2016 14:57
Methyl tert-butyl ether	U		0.12	5.0	µg/L	1	4/13/2016 14:57
Methylcyclohexane	U		0.32	1.0	µg/L	1	4/13/2016 14:57

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

ALS Group USA, Corp

Date: 14-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-040616-MR-005
Collection Date: 4/6/2016 11:28 AM

Work Order: 1604460
Lab ID: 1604460-05
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.64	5.0	µg/L	1	4/13/2016 14:57
Styrene	U		0.18	1.0	µg/L	1	4/13/2016 14:57
Tetrachloroethene	U		0.25	1.0	µg/L	1	4/13/2016 14:57
Toluene	U		0.20	1.0	µg/L	1	4/13/2016 14:57
trans-1,2-Dichloroethene	U		0.29	1.0	µg/L	1	4/13/2016 14:57
trans-1,3-Dichloropropene	U		0.19	1.0	µg/L	1	4/13/2016 14:57
Trichloroethene	U		0.34	1.0	µg/L	1	4/13/2016 14:57
Trichlorofluoromethane	U		0.39	1.0	µg/L	1	4/13/2016 14:57
Vinyl chloride	U		0.19	1.0	µg/L	1	4/13/2016 14:57
Xylenes, Total	U		0.62	3.0	µg/L	1	4/13/2016 14:57
Surr: 1,2-Dichloroethane-d4	103			75-120	%REC	1	4/13/2016 14:57
Surr: 4-Bromofluorobenzene	91.2			80-110	%REC	1	4/13/2016 14:57
Surr: Dibromofluoromethane	100			85-115	%REC	1	4/13/2016 14:57
Surr: Toluene-d8	97.4			85-110	%REC	1	4/13/2016 14:57

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

ALS Group USA, Corp

Date: 14-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-040616-MR-006
Collection Date: 4/6/2016 12:45 PM

Work Order: 1604460
Lab ID: 1604460-06
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY BY CVAA							
			Method: SW7470A			Prep: SW7470 / 4/11/16	Analyst: LR
Mercury	U		0.000018	0.00020	mg/L	1	4/11/2016 15:51
METALS BY ICP-MS							
			Method: SW6020A			Prep: SW3005A / 4/11/16	Analyst: ML
Antimony	U		0.00010	0.0020	mg/L	1	4/11/2016 16:51
Arsenic	0.0015	J	0.00070	0.0050	mg/L	1	4/11/2016 16:51
Barium	0.12		0.00020	0.10	mg/L	1	4/11/2016 16:51
Beryllium	U		0.00020	0.0010	mg/L	1	4/11/2016 16:51
Cadmium	U		0.00010	0.0010	mg/L	1	4/11/2016 16:51
Chromium	U		0.00010	0.010	mg/L	1	4/11/2016 16:51
Cobalt	U		0.00020	0.020	mg/L	1	4/11/2016 16:51
Copper	0.00035	J	0.00020	0.0040	mg/L	1	4/11/2016 16:51
Iron	0.33		0.010	0.20	mg/L	1	4/11/2016 16:51
Lead	0.00024	J	0.00010	0.0030	mg/L	1	4/11/2016 16:51
Manganese	0.042	J	0.00020	0.050	mg/L	1	4/11/2016 16:51
Molybdenum	0.0018	J	0.00020	0.050	mg/L	1	4/11/2016 16:51
Nickel	0.0023	J	0.00040	0.020	mg/L	1	4/11/2016 16:51
Selenium	U		0.0010	0.0050	mg/L	1	4/11/2016 16:51
Silver	U		0.00010	0.00020	mg/L	1	4/11/2016 16:51
Thallium	U		0.00040	0.0020	mg/L	1	4/11/2016 16:51
Vanadium	U		0.00040	0.0040	mg/L	1	4/11/2016 16:51
Zinc	0.0061	J	0.0024	0.050	mg/L	1	4/11/2016 16:51
VOLATILE ORGANIC COMPOUNDS							
			Method: SW8260B				Analyst: AK
1,1,1-Trichloroethane	U		0.19	1.0	µg/L	1	4/13/2016 15:21
1,1,2,2-Tetrachloroethane	U		0.34	1.0	µg/L	1	4/13/2016 15:21
1,1,2-Trichloroethane	U		0.25	1.0	µg/L	1	4/13/2016 15:21
1,1,2-Trichlorotrifluoroethane	U		0.47	1.0	µg/L	1	4/13/2016 15:21
1,1-Dichloroethane	0.80	J	0.21	1.0	µg/L	1	4/13/2016 15:21
1,1-Dichloroethene	U		0.24	1.0	µg/L	1	4/13/2016 15:21
1,2,4-Trichlorobenzene	U		0.19	5.0	µg/L	1	4/13/2016 15:21
1,2-Dibromo-3-chloropropane	U		0.42	1.0	µg/L	1	4/13/2016 15:21
1,2-Dibromoethane	U		0.34	1.0	µg/L	1	4/13/2016 15:21
1,2-Dichlorobenzene	U		0.22	1.0	µg/L	1	4/13/2016 15:21
1,2-Dichloroethane	U		0.26	1.0	µg/L	1	4/13/2016 15:21
1,2-Dichloropropane	U		0.26	1.0	µg/L	1	4/13/2016 15:21
1,3-Dichlorobenzene	U		0.21	1.0	µg/L	1	4/13/2016 15:21
1,4-Dichlorobenzene	U		0.20	1.0	µg/L	1	4/13/2016 15:21
2-Butanone	U		0.87	25	µg/L	1	4/13/2016 15:21
2-Hexanone	U		0.15	50	µg/L	1	4/13/2016 15:21

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

ALS Group USA, Corp

Date: 14-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-040616-MR-006
Collection Date: 4/6/2016 12:45 PM

Work Order: 1604460
Lab ID: 1604460-06
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
4-Methyl-2-pentanone	U		0.15	50	µg/L	1	4/13/2016 15:21
Acetone	U		3.1	50	µg/L	1	4/13/2016 15:21
Benzene	U		0.25	1.0	µg/L	1	4/13/2016 15:21
Bromodichloromethane	U		0.16	1.0	µg/L	1	4/13/2016 15:21
Bromoform	U		0.099	1.0	µg/L	1	4/13/2016 15:21
Bromomethane	U		1.0	5.0	µg/L	1	4/13/2016 15:21
Carbon disulfide	U		0.26	5.0	µg/L	1	4/13/2016 15:21
Carbon tetrachloride	U		0.14	1.0	µg/L	1	4/13/2016 15:21
Chlorobenzene	U		0.19	1.0	µg/L	1	4/13/2016 15:21
Chloroethane	U		0.21	5.0	µg/L	1	4/13/2016 15:21
Chloroform	U		0.25	1.0	µg/L	1	4/13/2016 15:21
Chloromethane	U		0.25	5.0	µg/L	1	4/13/2016 15:21
cis-1,2-Dichloroethene	14		0.25	1.0	µg/L	1	4/13/2016 15:21
cis-1,3-Dichloropropene	U		0.24	1.0	µg/L	1	4/13/2016 15:21
Cyclohexane	U		0.31	1.0	µg/L	1	4/13/2016 15:21
Dibromochloromethane	U		0.17	5.0	µg/L	1	4/13/2016 15:21
Dichlorodifluoromethane	U		0.41	5.0	µg/L	1	4/13/2016 15:21
Ethylbenzene	U		0.22	1.0	µg/L	1	4/13/2016 15:21
Isopropylbenzene	U		0.25	5.0	µg/L	1	4/13/2016 15:21
Methyl acetate	U		0.62	10	µg/L	1	4/13/2016 15:21
Methyl tert-butyl ether	U		0.12	5.0	µg/L	1	4/13/2016 15:21
Methylcyclohexane	U		0.32	1.0	µg/L	1	4/13/2016 15:21
Methylene chloride	U		0.64	5.0	µg/L	1	4/13/2016 15:21
Styrene	U		0.18	1.0	µg/L	1	4/13/2016 15:21
Tetrachloroethene	U		0.25	1.0	µg/L	1	4/13/2016 15:21
Toluene	U		0.20	1.0	µg/L	1	4/13/2016 15:21
trans-1,2-Dichloroethene	U		0.29	1.0	µg/L	1	4/13/2016 15:21
trans-1,3-Dichloropropene	U		0.19	1.0	µg/L	1	4/13/2016 15:21
Trichloroethene	0.71	J	0.34	1.0	µg/L	1	4/13/2016 15:21
Trichlorofluoromethane	U		0.39	1.0	µg/L	1	4/13/2016 15:21
Vinyl chloride	U		0.19	1.0	µg/L	1	4/13/2016 15:21
Xylenes, Total	U		0.62	3.0	µg/L	1	4/13/2016 15:21
Surr: 1,2-Dichloroethane-d4	109			75-120	%REC	1	4/13/2016 15:21
Surr: 4-Bromofluorobenzene	91.7			80-110	%REC	1	4/13/2016 15:21
Surr: Dibromofluoromethane	103			85-115	%REC	1	4/13/2016 15:21
Surr: Toluene-d8	96.8			85-110	%REC	1	4/13/2016 15:21

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

ALS Group USA, Corp

Date: 14-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-040616-MR-007
Collection Date: 4/6/2016 01:00 PM

Work Order: 1604460
Lab ID: 1604460-07
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY BY CVAA							
			Method: SW7470A			Prep: SW7470 / 4/11/16	Analyst: LR
Mercury	U		0.000018	0.00020	mg/L	1	4/11/2016 15:53
METALS BY ICP-MS							
			Method: SW6020A			Prep: SW3005A / 4/13/16	Analyst: ML
Antimony	U		0.00010	0.0020	mg/L	1	4/14/2016 00:05
Arsenic	0.0024	J	0.00070	0.0050	mg/L	1	4/14/2016 00:05
Barium	0.11		0.00020	0.10	mg/L	1	4/14/2016 00:05
Beryllium	U		0.00020	0.0010	mg/L	1	4/14/2016 00:05
Cadmium	U		0.00010	0.0010	mg/L	1	4/14/2016 00:05
Chromium	U		0.00010	0.010	mg/L	1	4/14/2016 00:05
Cobalt	U		0.00020	0.020	mg/L	1	4/14/2016 00:05
Copper	0.00027	J	0.00020	0.0040	mg/L	1	4/14/2016 00:05
Iron	0.36		0.010	0.20	mg/L	1	4/14/2016 00:05
Lead	0.00020	J	0.00010	0.0030	mg/L	1	4/14/2016 00:05
Manganese	0.038	J	0.00020	0.050	mg/L	1	4/14/2016 00:05
Molybdenum	0.0011	J	0.00020	0.050	mg/L	1	4/14/2016 00:05
Nickel	0.0028	J	0.00040	0.020	mg/L	1	4/14/2016 00:05
Selenium	U		0.0010	0.0050	mg/L	1	4/14/2016 00:05
Silver	U		0.00010	0.00020	mg/L	1	4/14/2016 00:05
Thallium	U		0.00040	0.0020	mg/L	1	4/14/2016 00:05
Vanadium	U		0.00040	0.0040	mg/L	1	4/14/2016 00:05
Zinc	0.0044	J	0.0024	0.050	mg/L	1	4/14/2016 00:05
VOLATILE ORGANIC COMPOUNDS							
			Method: SW8260B				Analyst: AK
1,1,1-Trichloroethane	U		0.19	1.0	µg/L	1	4/13/2016 15:46
1,1,2,2-Tetrachloroethane	U		0.34	1.0	µg/L	1	4/13/2016 15:46
1,1,2-Trichloroethane	U		0.25	1.0	µg/L	1	4/13/2016 15:46
1,1,2-Trichlorotrifluoroethane	U		0.47	1.0	µg/L	1	4/13/2016 15:46
1,1-Dichloroethane	0.82	J	0.21	1.0	µg/L	1	4/13/2016 15:46
1,1-Dichloroethene	U		0.24	1.0	µg/L	1	4/13/2016 15:46
1,2,4-Trichlorobenzene	U		0.19	5.0	µg/L	1	4/13/2016 15:46
1,2-Dibromo-3-chloropropane	U		0.42	1.0	µg/L	1	4/13/2016 15:46
1,2-Dibromoethane	U		0.34	1.0	µg/L	1	4/13/2016 15:46
1,2-Dichlorobenzene	U		0.22	1.0	µg/L	1	4/13/2016 15:46
1,2-Dichloroethane	U		0.26	1.0	µg/L	1	4/13/2016 15:46
1,2-Dichloropropane	U		0.26	1.0	µg/L	1	4/13/2016 15:46
1,3-Dichlorobenzene	U		0.21	1.0	µg/L	1	4/13/2016 15:46
1,4-Dichlorobenzene	U		0.20	1.0	µg/L	1	4/13/2016 15:46
2-Butanone	U		0.87	25	µg/L	1	4/13/2016 15:46
2-Hexanone	U		0.15	50	µg/L	1	4/13/2016 15:46

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

ALS Group USA, Corp

Date: 14-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-040616-MR-007
Collection Date: 4/6/2016 01:00 PM

Work Order: 1604460
Lab ID: 1604460-07
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
4-Methyl-2-pentanone	U		0.15	50	µg/L	1	4/13/2016 15:46
Acetone	U		3.1	50	µg/L	1	4/13/2016 15:46
Benzene	U		0.25	1.0	µg/L	1	4/13/2016 15:46
Bromodichloromethane	U		0.16	1.0	µg/L	1	4/13/2016 15:46
Bromoform	U		0.099	1.0	µg/L	1	4/13/2016 15:46
Bromomethane	U		1.0	5.0	µg/L	1	4/13/2016 15:46
Carbon disulfide	U		0.26	5.0	µg/L	1	4/13/2016 15:46
Carbon tetrachloride	U		0.14	1.0	µg/L	1	4/13/2016 15:46
Chlorobenzene	U		0.19	1.0	µg/L	1	4/13/2016 15:46
Chloroethane	U		0.21	5.0	µg/L	1	4/13/2016 15:46
Chloroform	U		0.25	1.0	µg/L	1	4/13/2016 15:46
Chloromethane	U		0.25	5.0	µg/L	1	4/13/2016 15:46
cis-1,2-Dichloroethene	14		0.25	1.0	µg/L	1	4/13/2016 15:46
cis-1,3-Dichloropropene	U		0.24	1.0	µg/L	1	4/13/2016 15:46
Cyclohexane	U		0.31	1.0	µg/L	1	4/13/2016 15:46
Dibromochloromethane	U		0.17	5.0	µg/L	1	4/13/2016 15:46
Dichlorodifluoromethane	U		0.41	5.0	µg/L	1	4/13/2016 15:46
Ethylbenzene	U		0.22	1.0	µg/L	1	4/13/2016 15:46
Isopropylbenzene	U		0.25	5.0	µg/L	1	4/13/2016 15:46
Methyl acetate	U		0.62	10	µg/L	1	4/13/2016 15:46
Methyl tert-butyl ether	U		0.12	5.0	µg/L	1	4/13/2016 15:46
Methylcyclohexane	U		0.32	1.0	µg/L	1	4/13/2016 15:46
Methylene chloride	U		0.64	5.0	µg/L	1	4/13/2016 15:46
Styrene	U		0.18	1.0	µg/L	1	4/13/2016 15:46
Tetrachloroethene	U		0.25	1.0	µg/L	1	4/13/2016 15:46
Toluene	U		0.20	1.0	µg/L	1	4/13/2016 15:46
trans-1,2-Dichloroethene	U		0.29	1.0	µg/L	1	4/13/2016 15:46
trans-1,3-Dichloropropene	U		0.19	1.0	µg/L	1	4/13/2016 15:46
Trichloroethene	0.70	J	0.34	1.0	µg/L	1	4/13/2016 15:46
Trichlorofluoromethane	U		0.39	1.0	µg/L	1	4/13/2016 15:46
Vinyl chloride	U		0.19	1.0	µg/L	1	4/13/2016 15:46
Xylenes, Total	U		0.62	3.0	µg/L	1	4/13/2016 15:46
Surr: 1,2-Dichloroethane-d4	105			75-120	%REC	1	4/13/2016 15:46
Surr: 4-Bromofluorobenzene	92.3			80-110	%REC	1	4/13/2016 15:46
Surr: Dibromofluoromethane	98.8			85-115	%REC	1	4/13/2016 15:46
Surr: Toluene-d8	98.2			85-110	%REC	1	4/13/2016 15:46

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

ALS Group USA, Corp

Date: 14-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-040616-MR-008
Collection Date: 4/6/2016 01:25 PM

Work Order: 1604460
Lab ID: 1604460-08
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			Method: SW8260B			Analyst: AK	
1,1,1-Trichloroethane	U		0.19	1.0	µg/L	1	4/13/2016 16:10
1,1,2,2-Tetrachloroethane	U		0.34	1.0	µg/L	1	4/13/2016 16:10
1,1,2-Trichloroethane	U		0.25	1.0	µg/L	1	4/13/2016 16:10
1,1,2-Trichlorotrifluoroethane	U		0.47	1.0	µg/L	1	4/13/2016 16:10
1,1-Dichloroethane	U		0.21	1.0	µg/L	1	4/13/2016 16:10
1,1-Dichloroethene	U		0.24	1.0	µg/L	1	4/13/2016 16:10
1,2,4-Trichlorobenzene	U		0.19	5.0	µg/L	1	4/13/2016 16:10
1,2-Dibromo-3-chloropropane	U		0.42	1.0	µg/L	1	4/13/2016 16:10
1,2-Dibromoethane	U		0.34	1.0	µg/L	1	4/13/2016 16:10
1,2-Dichlorobenzene	U		0.22	1.0	µg/L	1	4/13/2016 16:10
1,2-Dichloroethane	U		0.26	1.0	µg/L	1	4/13/2016 16:10
1,2-Dichloropropane	U		0.26	1.0	µg/L	1	4/13/2016 16:10
1,3-Dichlorobenzene	U		0.21	1.0	µg/L	1	4/13/2016 16:10
1,4-Dichlorobenzene	U		0.20	1.0	µg/L	1	4/13/2016 16:10
2-Butanone	U		0.87	25	µg/L	1	4/13/2016 16:10
2-Hexanone	U		0.15	50	µg/L	1	4/13/2016 16:10
4-Methyl-2-pentanone	U		0.15	50	µg/L	1	4/13/2016 16:10
Acetone	U		3.1	50	µg/L	1	4/13/2016 16:10
Benzene	U		0.25	1.0	µg/L	1	4/13/2016 16:10
Bromodichloromethane	U		0.16	1.0	µg/L	1	4/13/2016 16:10
Bromoform	U		0.099	1.0	µg/L	1	4/13/2016 16:10
Bromomethane	U		1.0	5.0	µg/L	1	4/13/2016 16:10
Carbon disulfide	U		0.26	5.0	µg/L	1	4/13/2016 16:10
Carbon tetrachloride	U		0.14	1.0	µg/L	1	4/13/2016 16:10
Chlorobenzene	U		0.19	1.0	µg/L	1	4/13/2016 16:10
Chloroethane	U		0.21	5.0	µg/L	1	4/13/2016 16:10
Chloroform	U		0.25	1.0	µg/L	1	4/13/2016 16:10
Chloromethane	U		0.25	5.0	µg/L	1	4/13/2016 16:10
cis-1,2-Dichloroethene	0.61	J	0.25	1.0	µg/L	1	4/13/2016 16:10
cis-1,3-Dichloropropene	U		0.24	1.0	µg/L	1	4/13/2016 16:10
Cyclohexane	U		0.31	1.0	µg/L	1	4/13/2016 16:10
Dibromochloromethane	U		0.17	5.0	µg/L	1	4/13/2016 16:10
Dichlorodifluoromethane	U		0.41	5.0	µg/L	1	4/13/2016 16:10
Ethylbenzene	U		0.22	1.0	µg/L	1	4/13/2016 16:10
Isopropylbenzene	U		0.25	5.0	µg/L	1	4/13/2016 16:10
Methyl acetate	U		0.62	10	µg/L	1	4/13/2016 16:10
Methyl tert-butyl ether	U		0.12	5.0	µg/L	1	4/13/2016 16:10
Methylcyclohexane	U		0.32	1.0	µg/L	1	4/13/2016 16:10

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

ALS Group USA, Corp

Date: 14-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-040616-MR-008
Collection Date: 4/6/2016 01:25 PM

Work Order: 1604460
Lab ID: 1604460-08
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.64	5.0	µg/L	1	4/13/2016 16:10
Styrene	U		0.18	1.0	µg/L	1	4/13/2016 16:10
Tetrachloroethene	U		0.25	1.0	µg/L	1	4/13/2016 16:10
Toluene	U		0.20	1.0	µg/L	1	4/13/2016 16:10
trans-1,2-Dichloroethene	U		0.29	1.0	µg/L	1	4/13/2016 16:10
trans-1,3-Dichloropropene	U		0.19	1.0	µg/L	1	4/13/2016 16:10
Trichloroethene	3.4		0.34	1.0	µg/L	1	4/13/2016 16:10
Trichlorofluoromethane	U		0.39	1.0	µg/L	1	4/13/2016 16:10
Vinyl chloride	U		0.19	1.0	µg/L	1	4/13/2016 16:10
Xylenes, Total	U		0.62	3.0	µg/L	1	4/13/2016 16:10
Surr: 1,2-Dichloroethane-d4	107			75-120	%REC	1	4/13/2016 16:10
Surr: 4-Bromofluorobenzene	89.3			80-110	%REC	1	4/13/2016 16:10
Surr: Dibromofluoromethane	105			85-115	%REC	1	4/13/2016 16:10
Surr: Toluene-d8	97.6			85-110	%REC	1	4/13/2016 16:10

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

ALS Group USA, Corp

Date: 14-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-040616-MR-009
Collection Date: 4/6/2016 03:00 PM

Work Order: 1604460
Lab ID: 1604460-09
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			Method: SW8260B			Analyst: AK	
1,1,1-Trichloroethane	U		0.19	1.0	µg/L	1	4/13/2016 16:35
1,1,2,2-Tetrachloroethane	U		0.34	1.0	µg/L	1	4/13/2016 16:35
1,1,2-Trichloroethane	U		0.25	1.0	µg/L	1	4/13/2016 16:35
1,1,2-Trichlorotrifluoroethane	U		0.47	1.0	µg/L	1	4/13/2016 16:35
1,1-Dichloroethane	U		0.21	1.0	µg/L	1	4/13/2016 16:35
1,1-Dichloroethene	U		0.24	1.0	µg/L	1	4/13/2016 16:35
1,2,4-Trichlorobenzene	U		0.19	5.0	µg/L	1	4/13/2016 16:35
1,2-Dibromo-3-chloropropane	U		0.42	1.0	µg/L	1	4/13/2016 16:35
1,2-Dibromoethane	U		0.34	1.0	µg/L	1	4/13/2016 16:35
1,2-Dichlorobenzene	U		0.22	1.0	µg/L	1	4/13/2016 16:35
1,2-Dichloroethane	U		0.26	1.0	µg/L	1	4/13/2016 16:35
1,2-Dichloropropane	U		0.26	1.0	µg/L	1	4/13/2016 16:35
1,3-Dichlorobenzene	U		0.21	1.0	µg/L	1	4/13/2016 16:35
1,4-Dichlorobenzene	U		0.20	1.0	µg/L	1	4/13/2016 16:35
2-Butanone	U		0.87	25	µg/L	1	4/13/2016 16:35
2-Hexanone	U		0.15	50	µg/L	1	4/13/2016 16:35
4-Methyl-2-pentanone	U		0.15	50	µg/L	1	4/13/2016 16:35
Acetone	U		3.1	50	µg/L	1	4/13/2016 16:35
Benzene	U		0.25	1.0	µg/L	1	4/13/2016 16:35
Bromodichloromethane	U		0.16	1.0	µg/L	1	4/13/2016 16:35
Bromoform	U		0.099	1.0	µg/L	1	4/13/2016 16:35
Bromomethane	U		1.0	5.0	µg/L	1	4/13/2016 16:35
Carbon disulfide	U		0.26	5.0	µg/L	1	4/13/2016 16:35
Carbon tetrachloride	U		0.14	1.0	µg/L	1	4/13/2016 16:35
Chlorobenzene	U		0.19	1.0	µg/L	1	4/13/2016 16:35
Chloroethane	U		0.21	5.0	µg/L	1	4/13/2016 16:35
Chloroform	5.5		0.25	1.0	µg/L	1	4/13/2016 16:35
Chloromethane	U		0.25	5.0	µg/L	1	4/13/2016 16:35
cis-1,2-Dichloroethene	U		0.25	1.0	µg/L	1	4/13/2016 16:35
cis-1,3-Dichloropropene	U		0.24	1.0	µg/L	1	4/13/2016 16:35
Cyclohexane	U		0.31	1.0	µg/L	1	4/13/2016 16:35
Dibromochloromethane	U		0.17	5.0	µg/L	1	4/13/2016 16:35
Dichlorodifluoromethane	U		0.41	5.0	µg/L	1	4/13/2016 16:35
Ethylbenzene	U		0.22	1.0	µg/L	1	4/13/2016 16:35
Isopropylbenzene	U		0.25	5.0	µg/L	1	4/13/2016 16:35
Methyl acetate	U		0.62	10	µg/L	1	4/13/2016 16:35
Methyl tert-butyl ether	U		0.12	5.0	µg/L	1	4/13/2016 16:35
Methylcyclohexane	U		0.32	1.0	µg/L	1	4/13/2016 16:35

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

ALS Group USA, Corp

Date: 14-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-040616-MR-009
Collection Date: 4/6/2016 03:00 PM

Work Order: 1604460
Lab ID: 1604460-09
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.64	5.0	µg/L	1	4/13/2016 16:35
Styrene	U		0.18	1.0	µg/L	1	4/13/2016 16:35
Tetrachloroethene	U		0.25	1.0	µg/L	1	4/13/2016 16:35
Toluene	U		0.20	1.0	µg/L	1	4/13/2016 16:35
trans-1,2-Dichloroethene	U		0.29	1.0	µg/L	1	4/13/2016 16:35
trans-1,3-Dichloropropene	U		0.19	1.0	µg/L	1	4/13/2016 16:35
Trichloroethene	U		0.34	1.0	µg/L	1	4/13/2016 16:35
Trichlorofluoromethane	U		0.39	1.0	µg/L	1	4/13/2016 16:35
Vinyl chloride	U		0.19	1.0	µg/L	1	4/13/2016 16:35
Xylenes, Total	U		0.62	3.0	µg/L	1	4/13/2016 16:35
Surr: 1,2-Dichloroethane-d4	104			75-120	%REC	1	4/13/2016 16:35
Surr: 4-Bromofluorobenzene	89.5			80-110	%REC	1	4/13/2016 16:35
Surr: Dibromofluoromethane	104			85-115	%REC	1	4/13/2016 16:35
Surr: Toluene-d8	99.8			85-110	%REC	1	4/13/2016 16:35

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

ALS Group USA, Corp

Date: 14-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-040616-MR-010
Collection Date: 4/6/2016 04:20 PM

Work Order: 1604460
Lab ID: 1604460-10
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			Method: SW8260B			Analyst: AK	
1,1,1-Trichloroethane	U		0.19	1.0	µg/L	1	4/13/2016 16:59
1,1,2,2-Tetrachloroethane	U		0.34	1.0	µg/L	1	4/13/2016 16:59
1,1,2-Trichloroethane	U		0.25	1.0	µg/L	1	4/13/2016 16:59
1,1,2-Trichlorotrifluoroethane	U		0.47	1.0	µg/L	1	4/13/2016 16:59
1,1-Dichloroethane	U		0.21	1.0	µg/L	1	4/13/2016 16:59
1,1-Dichloroethene	U		0.24	1.0	µg/L	1	4/13/2016 16:59
1,2,4-Trichlorobenzene	U		0.19	5.0	µg/L	1	4/13/2016 16:59
1,2-Dibromo-3-chloropropane	U		0.42	1.0	µg/L	1	4/13/2016 16:59
1,2-Dibromoethane	U		0.34	1.0	µg/L	1	4/13/2016 16:59
1,2-Dichlorobenzene	U		0.22	1.0	µg/L	1	4/13/2016 16:59
1,2-Dichloroethane	U		0.26	1.0	µg/L	1	4/13/2016 16:59
1,2-Dichloropropane	U		0.26	1.0	µg/L	1	4/13/2016 16:59
1,3-Dichlorobenzene	U		0.21	1.0	µg/L	1	4/13/2016 16:59
1,4-Dichlorobenzene	U		0.20	1.0	µg/L	1	4/13/2016 16:59
2-Butanone	U		0.87	25	µg/L	1	4/13/2016 16:59
2-Hexanone	U		0.15	50	µg/L	1	4/13/2016 16:59
4-Methyl-2-pentanone	U		0.15	50	µg/L	1	4/13/2016 16:59
Acetone	U		3.1	50	µg/L	1	4/13/2016 16:59
Benzene	U		0.25	1.0	µg/L	1	4/13/2016 16:59
Bromodichloromethane	U		0.16	1.0	µg/L	1	4/13/2016 16:59
Bromoform	U		0.099	1.0	µg/L	1	4/13/2016 16:59
Bromomethane	U		1.0	5.0	µg/L	1	4/13/2016 16:59
Carbon disulfide	U		0.26	5.0	µg/L	1	4/13/2016 16:59
Carbon tetrachloride	U		0.14	1.0	µg/L	1	4/13/2016 16:59
Chlorobenzene	U		0.19	1.0	µg/L	1	4/13/2016 16:59
Chloroethane	U		0.21	5.0	µg/L	1	4/13/2016 16:59
Chloroform	U		0.25	1.0	µg/L	1	4/13/2016 16:59
Chloromethane	U		0.25	5.0	µg/L	1	4/13/2016 16:59
cis-1,2-Dichloroethene	U		0.25	1.0	µg/L	1	4/13/2016 16:59
cis-1,3-Dichloropropene	U		0.24	1.0	µg/L	1	4/13/2016 16:59
Cyclohexane	U		0.31	1.0	µg/L	1	4/13/2016 16:59
Dibromochloromethane	U		0.17	5.0	µg/L	1	4/13/2016 16:59
Dichlorodifluoromethane	U		0.41	5.0	µg/L	1	4/13/2016 16:59
Ethylbenzene	U		0.22	1.0	µg/L	1	4/13/2016 16:59
Isopropylbenzene	U		0.25	5.0	µg/L	1	4/13/2016 16:59
Methyl acetate	U		0.62	10	µg/L	1	4/13/2016 16:59
Methyl tert-butyl ether	U		0.12	5.0	µg/L	1	4/13/2016 16:59
Methylcyclohexane	U		0.32	1.0	µg/L	1	4/13/2016 16:59

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

ALS Group USA, Corp

Date: 14-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-040616-MR-010
Collection Date: 4/6/2016 04:20 PM

Work Order: 1604460
Lab ID: 1604460-10
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.64	5.0	µg/L	1	4/13/2016 16:59
Styrene	U		0.18	1.0	µg/L	1	4/13/2016 16:59
Tetrachloroethene	2.9		0.25	1.0	µg/L	1	4/13/2016 16:59
Toluene	U		0.20	1.0	µg/L	1	4/13/2016 16:59
trans-1,2-Dichloroethene	U		0.29	1.0	µg/L	1	4/13/2016 16:59
trans-1,3-Dichloropropene	U		0.19	1.0	µg/L	1	4/13/2016 16:59
Trichloroethene	0.83	J	0.34	1.0	µg/L	1	4/13/2016 16:59
Trichlorofluoromethane	U		0.39	1.0	µg/L	1	4/13/2016 16:59
Vinyl chloride	U		0.19	1.0	µg/L	1	4/13/2016 16:59
Xylenes, Total	U		0.62	3.0	µg/L	1	4/13/2016 16:59
Surr: 1,2-Dichloroethane-d4	109			75-120	%REC	1	4/13/2016 16:59
Surr: 4-Bromofluorobenzene	90.0			80-110	%REC	1	4/13/2016 16:59
Surr: Dibromofluoromethane	107			85-115	%REC	1	4/13/2016 16:59
Surr: Toluene-d8	99.8			85-110	%REC	1	4/13/2016 16:59

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

ALS Group USA, Corp

Date: 14-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-040616-MR-011
Collection Date: 4/6/2016 05:09 PM

Work Order: 1604460
Lab ID: 1604460-11
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			Method: SW8260B			Analyst: AK	
1,1,1-Trichloroethane	U		0.19	1.0	µg/L	1	4/13/2016 17:24
1,1,2,2-Tetrachloroethane	U		0.34	1.0	µg/L	1	4/13/2016 17:24
1,1,2-Trichloroethane	U		0.25	1.0	µg/L	1	4/13/2016 17:24
1,1,2-Trichlorotrifluoroethane	U		0.47	1.0	µg/L	1	4/13/2016 17:24
1,1-Dichloroethane	0.92	J	0.21	1.0	µg/L	1	4/13/2016 17:24
1,1-Dichloroethene	U		0.24	1.0	µg/L	1	4/13/2016 17:24
1,2,4-Trichlorobenzene	U		0.19	5.0	µg/L	1	4/13/2016 17:24
1,2-Dibromo-3-chloropropane	U		0.42	1.0	µg/L	1	4/13/2016 17:24
1,2-Dibromoethane	U		0.34	1.0	µg/L	1	4/13/2016 17:24
1,2-Dichlorobenzene	U		0.22	1.0	µg/L	1	4/13/2016 17:24
1,2-Dichloroethane	U		0.26	1.0	µg/L	1	4/13/2016 17:24
1,2-Dichloropropane	U		0.26	1.0	µg/L	1	4/13/2016 17:24
1,3-Dichlorobenzene	U		0.21	1.0	µg/L	1	4/13/2016 17:24
1,4-Dichlorobenzene	U		0.20	1.0	µg/L	1	4/13/2016 17:24
2-Butanone	U		0.87	25	µg/L	1	4/13/2016 17:24
2-Hexanone	U		0.15	50	µg/L	1	4/13/2016 17:24
4-Methyl-2-pentanone	U		0.15	50	µg/L	1	4/13/2016 17:24
Acetone	U		3.1	50	µg/L	1	4/13/2016 17:24
Benzene	0.41	J	0.25	1.0	µg/L	1	4/13/2016 17:24
Bromodichloromethane	U		0.16	1.0	µg/L	1	4/13/2016 17:24
Bromoform	U		0.099	1.0	µg/L	1	4/13/2016 17:24
Bromomethane	U		1.0	5.0	µg/L	1	4/13/2016 17:24
Carbon disulfide	U		0.26	5.0	µg/L	1	4/13/2016 17:24
Carbon tetrachloride	U		0.14	1.0	µg/L	1	4/13/2016 17:24
Chlorobenzene	U		0.19	1.0	µg/L	1	4/13/2016 17:24
Chloroethane	U		0.21	5.0	µg/L	1	4/13/2016 17:24
Chloroform	U		0.25	1.0	µg/L	1	4/13/2016 17:24
Chloromethane	U		0.25	5.0	µg/L	1	4/13/2016 17:24
cis-1,2-Dichloroethene	5.2		0.25	1.0	µg/L	1	4/13/2016 17:24
cis-1,3-Dichloropropene	U		0.24	1.0	µg/L	1	4/13/2016 17:24
Cyclohexane	U		0.31	1.0	µg/L	1	4/13/2016 17:24
Dibromochloromethane	U		0.17	5.0	µg/L	1	4/13/2016 17:24
Dichlorodifluoromethane	U		0.41	5.0	µg/L	1	4/13/2016 17:24
Ethylbenzene	U		0.22	1.0	µg/L	1	4/13/2016 17:24
Isopropylbenzene	U		0.25	5.0	µg/L	1	4/13/2016 17:24
Methyl acetate	U		0.62	10	µg/L	1	4/13/2016 17:24
Methyl tert-butyl ether	U		0.12	5.0	µg/L	1	4/13/2016 17:24
Methylcyclohexane	U		0.32	1.0	µg/L	1	4/13/2016 17:24

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

ALS Group USA, Corp

Date: 14-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-040616-MR-011
Collection Date: 4/6/2016 05:09 PM

Work Order: 1604460
Lab ID: 1604460-11
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.64	5.0	µg/L	1	4/13/2016 17:24
Styrene	U		0.18	1.0	µg/L	1	4/13/2016 17:24
Tetrachloroethene	U		0.25	1.0	µg/L	1	4/13/2016 17:24
Toluene	U		0.20	1.0	µg/L	1	4/13/2016 17:24
trans-1,2-Dichloroethene	U		0.29	1.0	µg/L	1	4/13/2016 17:24
trans-1,3-Dichloropropene	U		0.19	1.0	µg/L	1	4/13/2016 17:24
Trichloroethene	U		0.34	1.0	µg/L	1	4/13/2016 17:24
Trichlorofluoromethane	U		0.39	1.0	µg/L	1	4/13/2016 17:24
Vinyl chloride	9.8		0.19	1.0	µg/L	1	4/13/2016 17:24
Xylenes, Total	U		0.62	3.0	µg/L	1	4/13/2016 17:24
Surr: 1,2-Dichloroethane-d4	107			75-120	%REC	1	4/13/2016 17:24
Surr: 4-Bromofluorobenzene	91.3			80-110	%REC	1	4/13/2016 17:24
Surr: Dibromofluoromethane	107			85-115	%REC	1	4/13/2016 17:24
Surr: Toluene-d8	98.2			85-110	%REC	1	4/13/2016 17:24

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

ALS Group USA, Corp

Date: 14-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-040716-MR-012
Collection Date: 4/7/2016 11:04 AM

Work Order: 1604460
Lab ID: 1604460-12
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			Method: SW8260B			Analyst: AK	
1,1,1-Trichloroethane	U		0.19	1.0	µg/L	1	4/13/2016 17:48
1,1,2,2-Tetrachloroethane	U		0.34	1.0	µg/L	1	4/13/2016 17:48
1,1,2-Trichloroethane	U		0.25	1.0	µg/L	1	4/13/2016 17:48
1,1,2-Trichlorotrifluoroethane	U		0.47	1.0	µg/L	1	4/13/2016 17:48
1,1-Dichloroethane	U		0.21	1.0	µg/L	1	4/13/2016 17:48
1,1-Dichloroethene	U		0.24	1.0	µg/L	1	4/13/2016 17:48
1,2,4-Trichlorobenzene	U		0.19	5.0	µg/L	1	4/13/2016 17:48
1,2-Dibromo-3-chloropropane	U		0.42	1.0	µg/L	1	4/13/2016 17:48
1,2-Dibromoethane	U		0.34	1.0	µg/L	1	4/13/2016 17:48
1,2-Dichlorobenzene	U		0.22	1.0	µg/L	1	4/13/2016 17:48
1,2-Dichloroethane	U		0.26	1.0	µg/L	1	4/13/2016 17:48
1,2-Dichloropropane	U		0.26	1.0	µg/L	1	4/13/2016 17:48
1,3-Dichlorobenzene	U		0.21	1.0	µg/L	1	4/13/2016 17:48
1,4-Dichlorobenzene	U		0.20	1.0	µg/L	1	4/13/2016 17:48
2-Butanone	U		0.87	25	µg/L	1	4/13/2016 17:48
2-Hexanone	U		0.15	50	µg/L	1	4/13/2016 17:48
4-Methyl-2-pentanone	U		0.15	50	µg/L	1	4/13/2016 17:48
Acetone	U		3.1	50	µg/L	1	4/13/2016 17:48
Benzene	U		0.25	1.0	µg/L	1	4/13/2016 17:48
Bromodichloromethane	U		0.16	1.0	µg/L	1	4/13/2016 17:48
Bromoform	U		0.099	1.0	µg/L	1	4/13/2016 17:48
Bromomethane	U		1.0	5.0	µg/L	1	4/13/2016 17:48
Carbon disulfide	U		0.26	5.0	µg/L	1	4/13/2016 17:48
Carbon tetrachloride	U		0.14	1.0	µg/L	1	4/13/2016 17:48
Chlorobenzene	U		0.19	1.0	µg/L	1	4/13/2016 17:48
Chloroethane	U		0.21	5.0	µg/L	1	4/13/2016 17:48
Chloroform	U		0.25	1.0	µg/L	1	4/13/2016 17:48
Chloromethane	U		0.25	5.0	µg/L	1	4/13/2016 17:48
cis-1,2-Dichloroethene	U		0.25	1.0	µg/L	1	4/13/2016 17:48
cis-1,3-Dichloropropene	U		0.24	1.0	µg/L	1	4/13/2016 17:48
Cyclohexane	U		0.31	1.0	µg/L	1	4/13/2016 17:48
Dibromochloromethane	U		0.17	5.0	µg/L	1	4/13/2016 17:48
Dichlorodifluoromethane	U		0.41	5.0	µg/L	1	4/13/2016 17:48
Ethylbenzene	U		0.22	1.0	µg/L	1	4/13/2016 17:48
Isopropylbenzene	U		0.25	5.0	µg/L	1	4/13/2016 17:48
Methyl acetate	U		0.62	10	µg/L	1	4/13/2016 17:48
Methyl tert-butyl ether	U		0.12	5.0	µg/L	1	4/13/2016 17:48
Methylcyclohexane	U		0.32	1.0	µg/L	1	4/13/2016 17:48

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

ALS Group USA, Corp

Date: 14-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-040716-MR-012
Collection Date: 4/7/2016 11:04 AM

Work Order: 1604460
Lab ID: 1604460-12
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.64	5.0	µg/L	1	4/13/2016 17:48
Styrene	U		0.18	1.0	µg/L	1	4/13/2016 17:48
Tetrachloroethene	U		0.25	1.0	µg/L	1	4/13/2016 17:48
Toluene	U		0.20	1.0	µg/L	1	4/13/2016 17:48
trans-1,2-Dichloroethene	U		0.29	1.0	µg/L	1	4/13/2016 17:48
trans-1,3-Dichloropropene	U		0.19	1.0	µg/L	1	4/13/2016 17:48
Trichloroethene	U		0.34	1.0	µg/L	1	4/13/2016 17:48
Trichlorofluoromethane	U		0.39	1.0	µg/L	1	4/13/2016 17:48
Vinyl chloride	U		0.19	1.0	µg/L	1	4/13/2016 17:48
Xylenes, Total	U		0.62	3.0	µg/L	1	4/13/2016 17:48
Surr: 1,2-Dichloroethane-d4	106			75-120	%REC	1	4/13/2016 17:48
Surr: 4-Bromofluorobenzene	90.6			80-110	%REC	1	4/13/2016 17:48
Surr: Dibromofluoromethane	106			85-115	%REC	1	4/13/2016 17:48
Surr: Toluene-d8	97.8			85-110	%REC	1	4/13/2016 17:48

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

ALS Group USA, Corp

Date: 14-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-040716-MR-013
Collection Date: 4/7/2016 11:58 AM

Work Order: 1604460
Lab ID: 1604460-13
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			Method: SW8260B			Analyst: AK	
1,1,1-Trichloroethane	U		0.19	1.0	µg/L	1	4/13/2016 18:13
1,1,2,2-Tetrachloroethane	U		0.34	1.0	µg/L	1	4/13/2016 18:13
1,1,2-Trichloroethane	U		0.25	1.0	µg/L	1	4/13/2016 18:13
1,1,2-Trichlorotrifluoroethane	U		0.47	1.0	µg/L	1	4/13/2016 18:13
1,1-Dichloroethane	U		0.21	1.0	µg/L	1	4/13/2016 18:13
1,1-Dichloroethene	U		0.24	1.0	µg/L	1	4/13/2016 18:13
1,2,4-Trichlorobenzene	U		0.19	5.0	µg/L	1	4/13/2016 18:13
1,2-Dibromo-3-chloropropane	U		0.42	1.0	µg/L	1	4/13/2016 18:13
1,2-Dibromoethane	U		0.34	1.0	µg/L	1	4/13/2016 18:13
1,2-Dichlorobenzene	U		0.22	1.0	µg/L	1	4/13/2016 18:13
1,2-Dichloroethane	U		0.26	1.0	µg/L	1	4/13/2016 18:13
1,2-Dichloropropane	U		0.26	1.0	µg/L	1	4/13/2016 18:13
1,3-Dichlorobenzene	U		0.21	1.0	µg/L	1	4/13/2016 18:13
1,4-Dichlorobenzene	U		0.20	1.0	µg/L	1	4/13/2016 18:13
2-Butanone	U		0.87	25	µg/L	1	4/13/2016 18:13
2-Hexanone	U		0.15	50	µg/L	1	4/13/2016 18:13
4-Methyl-2-pentanone	U		0.15	50	µg/L	1	4/13/2016 18:13
Acetone	U		3.1	50	µg/L	1	4/13/2016 18:13
Benzene	U		0.25	1.0	µg/L	1	4/13/2016 18:13
Bromodichloromethane	1.8		0.16	1.0	µg/L	1	4/13/2016 18:13
Bromoform	U		0.099	1.0	µg/L	1	4/13/2016 18:13
Bromomethane	U		1.0	5.0	µg/L	1	4/13/2016 18:13
Carbon disulfide	U		0.26	5.0	µg/L	1	4/13/2016 18:13
Carbon tetrachloride	U		0.14	1.0	µg/L	1	4/13/2016 18:13
Chlorobenzene	U		0.19	1.0	µg/L	1	4/13/2016 18:13
Chloroethane	U		0.21	5.0	µg/L	1	4/13/2016 18:13
Chloroform	19		0.25	1.0	µg/L	1	4/13/2016 18:13
Chloromethane	U		0.25	5.0	µg/L	1	4/13/2016 18:13
cis-1,2-Dichloroethene	U		0.25	1.0	µg/L	1	4/13/2016 18:13
cis-1,3-Dichloropropene	U		0.24	1.0	µg/L	1	4/13/2016 18:13
Cyclohexane	U		0.31	1.0	µg/L	1	4/13/2016 18:13
Dibromochloromethane	U		0.17	5.0	µg/L	1	4/13/2016 18:13
Dichlorodifluoromethane	U		0.41	5.0	µg/L	1	4/13/2016 18:13
Ethylbenzene	U		0.22	1.0	µg/L	1	4/13/2016 18:13
Isopropylbenzene	U		0.25	5.0	µg/L	1	4/13/2016 18:13
Methyl acetate	U		0.62	10	µg/L	1	4/13/2016 18:13
Methyl tert-butyl ether	U		0.12	5.0	µg/L	1	4/13/2016 18:13
Methylcyclohexane	U		0.32	1.0	µg/L	1	4/13/2016 18:13

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

ALS Group USA, Corp

Date: 14-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-040716-MR-013
Collection Date: 4/7/2016 11:58 AM

Work Order: 1604460
Lab ID: 1604460-13
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.64	5.0	µg/L	1	4/13/2016 18:13
Styrene	U		0.18	1.0	µg/L	1	4/13/2016 18:13
Tetrachloroethene	U		0.25	1.0	µg/L	1	4/13/2016 18:13
Toluene	U		0.20	1.0	µg/L	1	4/13/2016 18:13
trans-1,2-Dichloroethene	U		0.29	1.0	µg/L	1	4/13/2016 18:13
trans-1,3-Dichloropropene	U		0.19	1.0	µg/L	1	4/13/2016 18:13
Trichloroethene	U		0.34	1.0	µg/L	1	4/13/2016 18:13
Trichlorofluoromethane	U		0.39	1.0	µg/L	1	4/13/2016 18:13
Vinyl chloride	U		0.19	1.0	µg/L	1	4/13/2016 18:13
Xylenes, Total	U		0.62	3.0	µg/L	1	4/13/2016 18:13
Surr: 1,2-Dichloroethane-d4	111			75-120	%REC	1	4/13/2016 18:13
Surr: 4-Bromofluorobenzene	90.8			80-110	%REC	1	4/13/2016 18:13
Surr: Dibromofluoromethane	107			85-115	%REC	1	4/13/2016 18:13
Surr: Toluene-d8	97.6			85-110	%REC	1	4/13/2016 18:13

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

ALS Group USA, Corp

Date: 14-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-040716-MR-014
Collection Date: 4/7/2016 12:38 PM

Work Order: 1604460
Lab ID: 1604460-14
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			Method: SW8260B			Analyst: AK	
1,1,1-Trichloroethane	U		0.19	1.0	µg/L	1	4/13/2016 18:37
1,1,2,2-Tetrachloroethane	U		0.34	1.0	µg/L	1	4/13/2016 18:37
1,1,2-Trichloroethane	U		0.25	1.0	µg/L	1	4/13/2016 18:37
1,1,2-Trichlorotrifluoroethane	U		0.47	1.0	µg/L	1	4/13/2016 18:37
1,1-Dichloroethane	U		0.21	1.0	µg/L	1	4/13/2016 18:37
1,1-Dichloroethene	U		0.24	1.0	µg/L	1	4/13/2016 18:37
1,2,4-Trichlorobenzene	U		0.19	5.0	µg/L	1	4/13/2016 18:37
1,2-Dibromo-3-chloropropane	U		0.42	1.0	µg/L	1	4/13/2016 18:37
1,2-Dibromoethane	U		0.34	1.0	µg/L	1	4/13/2016 18:37
1,2-Dichlorobenzene	U		0.22	1.0	µg/L	1	4/13/2016 18:37
1,2-Dichloroethane	U		0.26	1.0	µg/L	1	4/13/2016 18:37
1,2-Dichloropropane	U		0.26	1.0	µg/L	1	4/13/2016 18:37
1,3-Dichlorobenzene	U		0.21	1.0	µg/L	1	4/13/2016 18:37
1,4-Dichlorobenzene	U		0.20	1.0	µg/L	1	4/13/2016 18:37
2-Butanone	U		0.87	25	µg/L	1	4/13/2016 18:37
2-Hexanone	U		0.15	50	µg/L	1	4/13/2016 18:37
4-Methyl-2-pentanone	U		0.15	50	µg/L	1	4/13/2016 18:37
Acetone	U		3.1	50	µg/L	1	4/13/2016 18:37
Benzene	U		0.25	1.0	µg/L	1	4/13/2016 18:37
Bromodichloromethane	U		0.16	1.0	µg/L	1	4/13/2016 18:37
Bromoform	U		0.099	1.0	µg/L	1	4/13/2016 18:37
Bromomethane	U		1.0	5.0	µg/L	1	4/13/2016 18:37
Carbon disulfide	U		0.26	5.0	µg/L	1	4/13/2016 18:37
Carbon tetrachloride	U		0.14	1.0	µg/L	1	4/13/2016 18:37
Chlorobenzene	U		0.19	1.0	µg/L	1	4/13/2016 18:37
Chloroethane	U		0.21	5.0	µg/L	1	4/13/2016 18:37
Chloroform	U		0.25	1.0	µg/L	1	4/13/2016 18:37
Chloromethane	U		0.25	5.0	µg/L	1	4/13/2016 18:37
cis-1,2-Dichloroethene	1.1		0.25	1.0	µg/L	1	4/13/2016 18:37
cis-1,3-Dichloropropene	U		0.24	1.0	µg/L	1	4/13/2016 18:37
Cyclohexane	U		0.31	1.0	µg/L	1	4/13/2016 18:37
Dibromochloromethane	U		0.17	5.0	µg/L	1	4/13/2016 18:37
Dichlorodifluoromethane	U		0.41	5.0	µg/L	1	4/13/2016 18:37
Ethylbenzene	U		0.22	1.0	µg/L	1	4/13/2016 18:37
Isopropylbenzene	U		0.25	5.0	µg/L	1	4/13/2016 18:37
Methyl acetate	U		0.62	10	µg/L	1	4/13/2016 18:37
Methyl tert-butyl ether	U		0.12	5.0	µg/L	1	4/13/2016 18:37
Methylcyclohexane	U		0.32	1.0	µg/L	1	4/13/2016 18:37

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

ALS Group USA, Corp

Date: 14-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-040716-MR-014
Collection Date: 4/7/2016 12:38 PM

Work Order: 1604460
Lab ID: 1604460-14
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.64	5.0	µg/L	1	4/13/2016 18:37
Styrene	U		0.18	1.0	µg/L	1	4/13/2016 18:37
Tetrachloroethene	U		0.25	1.0	µg/L	1	4/13/2016 18:37
Toluene	U		0.20	1.0	µg/L	1	4/13/2016 18:37
trans-1,2-Dichloroethene	U		0.29	1.0	µg/L	1	4/13/2016 18:37
trans-1,3-Dichloropropene	U		0.19	1.0	µg/L	1	4/13/2016 18:37
Trichloroethene	3.2		0.34	1.0	µg/L	1	4/13/2016 18:37
Trichlorofluoromethane	U		0.39	1.0	µg/L	1	4/13/2016 18:37
Vinyl chloride	0.32	J	0.19	1.0	µg/L	1	4/13/2016 18:37
Xylenes, Total	U		0.62	3.0	µg/L	1	4/13/2016 18:37
Surr: 1,2-Dichloroethane-d4	112			75-120	%REC	1	4/13/2016 18:37
Surr: 4-Bromofluorobenzene	89.1			80-110	%REC	1	4/13/2016 18:37
Surr: Dibromofluoromethane	106			85-115	%REC	1	4/13/2016 18:37
Surr: Toluene-d8	98.6			85-110	%REC	1	4/13/2016 18:37

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

ALS Group USA, Corp

Date: 14-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-040716-MR-015
Collection Date: 4/7/2016 01:53 PM

Work Order: 1604460
Lab ID: 1604460-15
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			Method: SW8260B			Analyst: AK	
1,1,1-Trichloroethane	U		0.19	1.0	µg/L	1	4/13/2016 19:02
1,1,2,2-Tetrachloroethane	U		0.34	1.0	µg/L	1	4/13/2016 19:02
1,1,2-Trichloroethane	U		0.25	1.0	µg/L	1	4/13/2016 19:02
1,1,2-Trichlorotrifluoroethane	U		0.47	1.0	µg/L	1	4/13/2016 19:02
1,1-Dichloroethane	U		0.21	1.0	µg/L	1	4/13/2016 19:02
1,1-Dichloroethene	U		0.24	1.0	µg/L	1	4/13/2016 19:02
1,2,4-Trichlorobenzene	U		0.19	5.0	µg/L	1	4/13/2016 19:02
1,2-Dibromo-3-chloropropane	U		0.42	1.0	µg/L	1	4/13/2016 19:02
1,2-Dibromoethane	U		0.34	1.0	µg/L	1	4/13/2016 19:02
1,2-Dichlorobenzene	U		0.22	1.0	µg/L	1	4/13/2016 19:02
1,2-Dichloroethane	U		0.26	1.0	µg/L	1	4/13/2016 19:02
1,2-Dichloropropane	U		0.26	1.0	µg/L	1	4/13/2016 19:02
1,3-Dichlorobenzene	U		0.21	1.0	µg/L	1	4/13/2016 19:02
1,4-Dichlorobenzene	U		0.20	1.0	µg/L	1	4/13/2016 19:02
2-Butanone	U		0.87	25	µg/L	1	4/13/2016 19:02
2-Hexanone	U		0.15	50	µg/L	1	4/13/2016 19:02
4-Methyl-2-pentanone	U		0.15	50	µg/L	1	4/13/2016 19:02
Acetone	U		3.1	50	µg/L	1	4/13/2016 19:02
Benzene	U		0.25	1.0	µg/L	1	4/13/2016 19:02
Bromodichloromethane	U		0.16	1.0	µg/L	1	4/13/2016 19:02
Bromoform	U		0.099	1.0	µg/L	1	4/13/2016 19:02
Bromomethane	U		1.0	5.0	µg/L	1	4/13/2016 19:02
Carbon disulfide	U		0.26	5.0	µg/L	1	4/13/2016 19:02
Carbon tetrachloride	U		0.14	1.0	µg/L	1	4/13/2016 19:02
Chlorobenzene	U		0.19	1.0	µg/L	1	4/13/2016 19:02
Chloroethane	U		0.21	5.0	µg/L	1	4/13/2016 19:02
Chloroform	U		0.25	1.0	µg/L	1	4/13/2016 19:02
Chloromethane	U		0.25	5.0	µg/L	1	4/13/2016 19:02
cis-1,2-Dichloroethene	U		0.25	1.0	µg/L	1	4/13/2016 19:02
cis-1,3-Dichloropropene	U		0.24	1.0	µg/L	1	4/13/2016 19:02
Cyclohexane	U		0.31	1.0	µg/L	1	4/13/2016 19:02
Dibromochloromethane	U		0.17	5.0	µg/L	1	4/13/2016 19:02
Dichlorodifluoromethane	U		0.41	5.0	µg/L	1	4/13/2016 19:02
Ethylbenzene	U		0.22	1.0	µg/L	1	4/13/2016 19:02
Isopropylbenzene	U		0.25	5.0	µg/L	1	4/13/2016 19:02
Methyl acetate	U		0.62	10	µg/L	1	4/13/2016 19:02
Methyl tert-butyl ether	U		0.12	5.0	µg/L	1	4/13/2016 19:02
Methylcyclohexane	U		0.32	1.0	µg/L	1	4/13/2016 19:02

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

ALS Group USA, Corp

Date: 14-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-040716-MR-015
Collection Date: 4/7/2016 01:53 PM

Work Order: 1604460
Lab ID: 1604460-15
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.64	5.0	µg/L	1	4/13/2016 19:02
Styrene	U		0.18	1.0	µg/L	1	4/13/2016 19:02
Tetrachloroethene	U		0.25	1.0	µg/L	1	4/13/2016 19:02
Toluene	U		0.20	1.0	µg/L	1	4/13/2016 19:02
trans-1,2-Dichloroethene	U		0.29	1.0	µg/L	1	4/13/2016 19:02
trans-1,3-Dichloropropene	U		0.19	1.0	µg/L	1	4/13/2016 19:02
Trichloroethene	U		0.34	1.0	µg/L	1	4/13/2016 19:02
Trichlorofluoromethane	U		0.39	1.0	µg/L	1	4/13/2016 19:02
Vinyl chloride	U		0.19	1.0	µg/L	1	4/13/2016 19:02
Xylenes, Total	U		0.62	3.0	µg/L	1	4/13/2016 19:02
Surr: 1,2-Dichloroethane-d4	108			75-120	%REC	1	4/13/2016 19:02
Surr: 4-Bromofluorobenzene	90.2			80-110	%REC	1	4/13/2016 19:02
Surr: Dibromofluoromethane	103			85-115	%REC	1	4/13/2016 19:02
Surr: Toluene-d8	97.8			85-110	%REC	1	4/13/2016 19:02

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

ALS Group USA, Corp

Date: 14-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-040716-MR-016
Collection Date: 4/7/2016 02:40 PM

Work Order: 1604460
Lab ID: 1604460-16
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			Method: SW8260B			Analyst: AK	
1,1,1-Trichloroethane	U		0.19	1.0	µg/L	1	4/13/2016 19:27
1,1,2,2-Tetrachloroethane	U		0.34	1.0	µg/L	1	4/13/2016 19:27
1,1,2-Trichloroethane	U		0.25	1.0	µg/L	1	4/13/2016 19:27
1,1,2-Trichlorotrifluoroethane	U		0.47	1.0	µg/L	1	4/13/2016 19:27
1,1-Dichloroethane	U		0.21	1.0	µg/L	1	4/13/2016 19:27
1,1-Dichloroethene	U		0.24	1.0	µg/L	1	4/13/2016 19:27
1,2,4-Trichlorobenzene	U		0.19	5.0	µg/L	1	4/13/2016 19:27
1,2-Dibromo-3-chloropropane	U		0.42	1.0	µg/L	1	4/13/2016 19:27
1,2-Dibromoethane	U		0.34	1.0	µg/L	1	4/13/2016 19:27
1,2-Dichlorobenzene	U		0.22	1.0	µg/L	1	4/13/2016 19:27
1,2-Dichloroethane	U		0.26	1.0	µg/L	1	4/13/2016 19:27
1,2-Dichloropropane	U		0.26	1.0	µg/L	1	4/13/2016 19:27
1,3-Dichlorobenzene	U		0.21	1.0	µg/L	1	4/13/2016 19:27
1,4-Dichlorobenzene	U		0.20	1.0	µg/L	1	4/13/2016 19:27
2-Butanone	U		0.87	25	µg/L	1	4/13/2016 19:27
2-Hexanone	U		0.15	50	µg/L	1	4/13/2016 19:27
4-Methyl-2-pentanone	U		0.15	50	µg/L	1	4/13/2016 19:27
Acetone	U		3.1	50	µg/L	1	4/13/2016 19:27
Benzene	U		0.25	1.0	µg/L	1	4/13/2016 19:27
Bromodichloromethane	U		0.16	1.0	µg/L	1	4/13/2016 19:27
Bromoform	U		0.099	1.0	µg/L	1	4/13/2016 19:27
Bromomethane	U		1.0	5.0	µg/L	1	4/13/2016 19:27
Carbon disulfide	U		0.26	5.0	µg/L	1	4/13/2016 19:27
Carbon tetrachloride	U		0.14	1.0	µg/L	1	4/13/2016 19:27
Chlorobenzene	U		0.19	1.0	µg/L	1	4/13/2016 19:27
Chloroethane	U		0.21	5.0	µg/L	1	4/13/2016 19:27
Chloroform	U		0.25	1.0	µg/L	1	4/13/2016 19:27
Chloromethane	U		0.25	5.0	µg/L	1	4/13/2016 19:27
cis-1,2-Dichloroethene	U		0.25	1.0	µg/L	1	4/13/2016 19:27
cis-1,3-Dichloropropene	U		0.24	1.0	µg/L	1	4/13/2016 19:27
Cyclohexane	U		0.31	1.0	µg/L	1	4/13/2016 19:27
Dibromochloromethane	U		0.17	5.0	µg/L	1	4/13/2016 19:27
Dichlorodifluoromethane	U		0.41	5.0	µg/L	1	4/13/2016 19:27
Ethylbenzene	U		0.22	1.0	µg/L	1	4/13/2016 19:27
Isopropylbenzene	U		0.25	5.0	µg/L	1	4/13/2016 19:27
Methyl acetate	U		0.62	10	µg/L	1	4/13/2016 19:27
Methyl tert-butyl ether	U		0.12	5.0	µg/L	1	4/13/2016 19:27
Methylcyclohexane	U		0.32	1.0	µg/L	1	4/13/2016 19:27

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

ALS Group USA, Corp

Date: 14-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-040716-MR-016
Collection Date: 4/7/2016 02:40 PM

Work Order: 1604460
Lab ID: 1604460-16
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.64	5.0	µg/L	1	4/13/2016 19:27
Styrene	U		0.18	1.0	µg/L	1	4/13/2016 19:27
Tetrachloroethene	U		0.25	1.0	µg/L	1	4/13/2016 19:27
Toluene	U		0.20	1.0	µg/L	1	4/13/2016 19:27
trans-1,2-Dichloroethene	U		0.29	1.0	µg/L	1	4/13/2016 19:27
trans-1,3-Dichloropropene	U		0.19	1.0	µg/L	1	4/13/2016 19:27
Trichloroethene	1.2		0.34	1.0	µg/L	1	4/13/2016 19:27
Trichlorofluoromethane	U		0.39	1.0	µg/L	1	4/13/2016 19:27
Vinyl chloride	U		0.19	1.0	µg/L	1	4/13/2016 19:27
Xylenes, Total	U		0.62	3.0	µg/L	1	4/13/2016 19:27
Surr: 1,2-Dichloroethane-d4	108			75-120	%REC	1	4/13/2016 19:27
Surr: 4-Bromofluorobenzene	88.9			80-110	%REC	1	4/13/2016 19:27
Surr: Dibromofluoromethane	104			85-115	%REC	1	4/13/2016 19:27
Surr: Toluene-d8	97.2			85-110	%REC	1	4/13/2016 19:27

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

ALS Group USA, Corp

Date: 14-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-040716-MR-017
Collection Date: 4/7/2016 04:06 PM

Work Order: 1604460
Lab ID: 1604460-17
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			Method: SW8260B			Analyst: AK	
1,1,1-Trichloroethane	U		0.19	1.0	µg/L	1	4/13/2016 19:51
1,1,2,2-Tetrachloroethane	U		0.34	1.0	µg/L	1	4/13/2016 19:51
1,1,2-Trichloroethane	U		0.25	1.0	µg/L	1	4/13/2016 19:51
1,1,2-Trichlorotrifluoroethane	U		0.47	1.0	µg/L	1	4/13/2016 19:51
1,1-Dichloroethane	U		0.21	1.0	µg/L	1	4/13/2016 19:51
1,1-Dichloroethene	U		0.24	1.0	µg/L	1	4/13/2016 19:51
1,2,4-Trichlorobenzene	U		0.19	5.0	µg/L	1	4/13/2016 19:51
1,2-Dibromo-3-chloropropane	U		0.42	1.0	µg/L	1	4/13/2016 19:51
1,2-Dibromoethane	U		0.34	1.0	µg/L	1	4/13/2016 19:51
1,2-Dichlorobenzene	U		0.22	1.0	µg/L	1	4/13/2016 19:51
1,2-Dichloroethane	U		0.26	1.0	µg/L	1	4/13/2016 19:51
1,2-Dichloropropane	U		0.26	1.0	µg/L	1	4/13/2016 19:51
1,3-Dichlorobenzene	U		0.21	1.0	µg/L	1	4/13/2016 19:51
1,4-Dichlorobenzene	U		0.20	1.0	µg/L	1	4/13/2016 19:51
2-Butanone	U		0.87	25	µg/L	1	4/13/2016 19:51
2-Hexanone	U		0.15	50	µg/L	1	4/13/2016 19:51
4-Methyl-2-pentanone	U		0.15	50	µg/L	1	4/13/2016 19:51
Acetone	U		3.1	50	µg/L	1	4/13/2016 19:51
Benzene	U		0.25	1.0	µg/L	1	4/13/2016 19:51
Bromodichloromethane	U		0.16	1.0	µg/L	1	4/13/2016 19:51
Bromoform	U		0.099	1.0	µg/L	1	4/13/2016 19:51
Bromomethane	U		1.0	5.0	µg/L	1	4/13/2016 19:51
Carbon disulfide	U		0.26	5.0	µg/L	1	4/13/2016 19:51
Carbon tetrachloride	U		0.14	1.0	µg/L	1	4/13/2016 19:51
Chlorobenzene	U		0.19	1.0	µg/L	1	4/13/2016 19:51
Chloroethane	U		0.21	5.0	µg/L	1	4/13/2016 19:51
Chloroform	U		0.25	1.0	µg/L	1	4/13/2016 19:51
Chloromethane	U		0.25	5.0	µg/L	1	4/13/2016 19:51
cis-1,2-Dichloroethene	U		0.25	1.0	µg/L	1	4/13/2016 19:51
cis-1,3-Dichloropropene	U		0.24	1.0	µg/L	1	4/13/2016 19:51
Cyclohexane	U		0.31	1.0	µg/L	1	4/13/2016 19:51
Dibromochloromethane	U		0.17	5.0	µg/L	1	4/13/2016 19:51
Dichlorodifluoromethane	U		0.41	5.0	µg/L	1	4/13/2016 19:51
Ethylbenzene	U		0.22	1.0	µg/L	1	4/13/2016 19:51
Isopropylbenzene	U		0.25	5.0	µg/L	1	4/13/2016 19:51
Methyl acetate	U		0.62	10	µg/L	1	4/13/2016 19:51
Methyl tert-butyl ether	U		0.12	5.0	µg/L	1	4/13/2016 19:51
Methylcyclohexane	U		0.32	1.0	µg/L	1	4/13/2016 19:51

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

ALS Group USA, Corp

Date: 14-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-040716-MR-017
Collection Date: 4/7/2016 04:06 PM

Work Order: 1604460
Lab ID: 1604460-17
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.64	5.0	µg/L	1	4/13/2016 19:51
Styrene	U		0.18	1.0	µg/L	1	4/13/2016 19:51
Tetrachloroethene	U		0.25	1.0	µg/L	1	4/13/2016 19:51
Toluene	U		0.20	1.0	µg/L	1	4/13/2016 19:51
trans-1,2-Dichloroethene	U		0.29	1.0	µg/L	1	4/13/2016 19:51
trans-1,3-Dichloropropene	U		0.19	1.0	µg/L	1	4/13/2016 19:51
Trichloroethene	U		0.34	1.0	µg/L	1	4/13/2016 19:51
Trichlorofluoromethane	U		0.39	1.0	µg/L	1	4/13/2016 19:51
Vinyl chloride	U		0.19	1.0	µg/L	1	4/13/2016 19:51
Xylenes, Total	U		0.62	3.0	µg/L	1	4/13/2016 19:51
Surr: 1,2-Dichloroethane-d4	110			75-120	%REC	1	4/13/2016 19:51
Surr: 4-Bromofluorobenzene	91.4			80-110	%REC	1	4/13/2016 19:51
Surr: Dibromofluoromethane	102			85-115	%REC	1	4/13/2016 19:51
Surr: Toluene-d8	98.8			85-110	%REC	1	4/13/2016 19:51

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

ALS Group USA, Corp

Date: 14-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-040716-MR-018
Collection Date: 4/7/2016 04:49 PM

Work Order: 1604460
Lab ID: 1604460-18
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			Method: SW8260B			Analyst: AK	
1,1,1-Trichloroethane	U		0.19	1.0	µg/L	1	4/13/2016 20:15
1,1,2,2-Tetrachloroethane	U		0.34	1.0	µg/L	1	4/13/2016 20:15
1,1,2-Trichloroethane	U		0.25	1.0	µg/L	1	4/13/2016 20:15
1,1,2-Trichlorotrifluoroethane	U		0.47	1.0	µg/L	1	4/13/2016 20:15
1,1-Dichloroethane	U		0.21	1.0	µg/L	1	4/13/2016 20:15
1,1-Dichloroethene	U		0.24	1.0	µg/L	1	4/13/2016 20:15
1,2,4-Trichlorobenzene	U		0.19	5.0	µg/L	1	4/13/2016 20:15
1,2-Dibromo-3-chloropropane	U		0.42	1.0	µg/L	1	4/13/2016 20:15
1,2-Dibromoethane	U		0.34	1.0	µg/L	1	4/13/2016 20:15
1,2-Dichlorobenzene	U		0.22	1.0	µg/L	1	4/13/2016 20:15
1,2-Dichloroethane	U		0.26	1.0	µg/L	1	4/13/2016 20:15
1,2-Dichloropropane	U		0.26	1.0	µg/L	1	4/13/2016 20:15
1,3-Dichlorobenzene	U		0.21	1.0	µg/L	1	4/13/2016 20:15
1,4-Dichlorobenzene	U		0.20	1.0	µg/L	1	4/13/2016 20:15
2-Butanone	U		0.87	25	µg/L	1	4/13/2016 20:15
2-Hexanone	U		0.15	50	µg/L	1	4/13/2016 20:15
4-Methyl-2-pentanone	U		0.15	50	µg/L	1	4/13/2016 20:15
Acetone	U		3.1	50	µg/L	1	4/13/2016 20:15
Benzene	U		0.25	1.0	µg/L	1	4/13/2016 20:15
Bromodichloromethane	U		0.16	1.0	µg/L	1	4/13/2016 20:15
Bromoform	U		0.099	1.0	µg/L	1	4/13/2016 20:15
Bromomethane	U		1.0	5.0	µg/L	1	4/13/2016 20:15
Carbon disulfide	U		0.26	5.0	µg/L	1	4/13/2016 20:15
Carbon tetrachloride	U		0.14	1.0	µg/L	1	4/13/2016 20:15
Chlorobenzene	U		0.19	1.0	µg/L	1	4/13/2016 20:15
Chloroethane	U		0.21	5.0	µg/L	1	4/13/2016 20:15
Chloroform	U		0.25	1.0	µg/L	1	4/13/2016 20:15
Chloromethane	U		0.25	5.0	µg/L	1	4/13/2016 20:15
cis-1,2-Dichloroethene	2.2		0.25	1.0	µg/L	1	4/13/2016 20:15
cis-1,3-Dichloropropene	U		0.24	1.0	µg/L	1	4/13/2016 20:15
Cyclohexane	U		0.31	1.0	µg/L	1	4/13/2016 20:15
Dibromochloromethane	U		0.17	5.0	µg/L	1	4/13/2016 20:15
Dichlorodifluoromethane	U		0.41	5.0	µg/L	1	4/13/2016 20:15
Ethylbenzene	U		0.22	1.0	µg/L	1	4/13/2016 20:15
Isopropylbenzene	U		0.25	5.0	µg/L	1	4/13/2016 20:15
Methyl acetate	U		0.62	10	µg/L	1	4/13/2016 20:15
Methyl tert-butyl ether	U		0.12	5.0	µg/L	1	4/13/2016 20:15
Methylcyclohexane	U		0.32	1.0	µg/L	1	4/13/2016 20:15

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

ALS Group USA, Corp

Date: 14-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-040716-MR-018
Collection Date: 4/7/2016 04:49 PM

Work Order: 1604460
Lab ID: 1604460-18
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.64	5.0	µg/L	1	4/13/2016 20:15
Styrene	U		0.18	1.0	µg/L	1	4/13/2016 20:15
Tetrachloroethene	U		0.25	1.0	µg/L	1	4/13/2016 20:15
Toluene	U		0.20	1.0	µg/L	1	4/13/2016 20:15
trans-1,2-Dichloroethene	0.62	J	0.29	1.0	µg/L	1	4/13/2016 20:15
trans-1,3-Dichloropropene	U		0.19	1.0	µg/L	1	4/13/2016 20:15
Trichloroethene	4.4		0.34	1.0	µg/L	1	4/13/2016 20:15
Trichlorofluoromethane	U		0.39	1.0	µg/L	1	4/13/2016 20:15
Vinyl chloride	0.73	J	0.19	1.0	µg/L	1	4/13/2016 20:15
Xylenes, Total	U		0.62	3.0	µg/L	1	4/13/2016 20:15
Surr: 1,2-Dichloroethane-d4	109			75-120	%REC	1	4/13/2016 20:15
Surr: 4-Bromofluorobenzene	86.2			80-110	%REC	1	4/13/2016 20:15
Surr: Dibromofluoromethane	106			85-115	%REC	1	4/13/2016 20:15
Surr: Toluene-d8	95.4			85-110	%REC	1	4/13/2016 20:15

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

ALS Group USA, Corp

Date: 14-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-040716-MR-019
Collection Date: 4/7/2016 05:05 PM

Work Order: 1604460
Lab ID: 1604460-19
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			Method: SW8260B			Analyst: AK	
1,1,1-Trichloroethane	U		0.19	1.0	µg/L	1	4/13/2016 20:40
1,1,2,2-Tetrachloroethane	U		0.34	1.0	µg/L	1	4/13/2016 20:40
1,1,2-Trichloroethane	U		0.25	1.0	µg/L	1	4/13/2016 20:40
1,1,2-Trichlorotrifluoroethane	U		0.47	1.0	µg/L	1	4/13/2016 20:40
1,1-Dichloroethane	U		0.21	1.0	µg/L	1	4/13/2016 20:40
1,1-Dichloroethene	U		0.24	1.0	µg/L	1	4/13/2016 20:40
1,2,4-Trichlorobenzene	U		0.19	5.0	µg/L	1	4/13/2016 20:40
1,2-Dibromo-3-chloropropane	U		0.42	1.0	µg/L	1	4/13/2016 20:40
1,2-Dibromoethane	U		0.34	1.0	µg/L	1	4/13/2016 20:40
1,2-Dichlorobenzene	U		0.22	1.0	µg/L	1	4/13/2016 20:40
1,2-Dichloroethane	U		0.26	1.0	µg/L	1	4/13/2016 20:40
1,2-Dichloropropane	U		0.26	1.0	µg/L	1	4/13/2016 20:40
1,3-Dichlorobenzene	U		0.21	1.0	µg/L	1	4/13/2016 20:40
1,4-Dichlorobenzene	U		0.20	1.0	µg/L	1	4/13/2016 20:40
2-Butanone	U		0.87	25	µg/L	1	4/13/2016 20:40
2-Hexanone	U		0.15	50	µg/L	1	4/13/2016 20:40
4-Methyl-2-pentanone	U		0.15	50	µg/L	1	4/13/2016 20:40
Acetone	U		3.1	50	µg/L	1	4/13/2016 20:40
Benzene	U		0.25	1.0	µg/L	1	4/13/2016 20:40
Bromodichloromethane	U		0.16	1.0	µg/L	1	4/13/2016 20:40
Bromoform	U		0.099	1.0	µg/L	1	4/13/2016 20:40
Bromomethane	U		1.0	5.0	µg/L	1	4/13/2016 20:40
Carbon disulfide	U		0.26	5.0	µg/L	1	4/13/2016 20:40
Carbon tetrachloride	U		0.14	1.0	µg/L	1	4/13/2016 20:40
Chlorobenzene	U		0.19	1.0	µg/L	1	4/13/2016 20:40
Chloroethane	U		0.21	5.0	µg/L	1	4/13/2016 20:40
Chloroform	U		0.25	1.0	µg/L	1	4/13/2016 20:40
Chloromethane	U		0.25	5.0	µg/L	1	4/13/2016 20:40
cis-1,2-Dichloroethene	2.0		0.25	1.0	µg/L	1	4/13/2016 20:40
cis-1,3-Dichloropropene	U		0.24	1.0	µg/L	1	4/13/2016 20:40
Cyclohexane	U		0.31	1.0	µg/L	1	4/13/2016 20:40
Dibromochloromethane	U		0.17	5.0	µg/L	1	4/13/2016 20:40
Dichlorodifluoromethane	U		0.41	5.0	µg/L	1	4/13/2016 20:40
Ethylbenzene	U		0.22	1.0	µg/L	1	4/13/2016 20:40
Isopropylbenzene	U		0.25	5.0	µg/L	1	4/13/2016 20:40
Methyl acetate	U		0.62	10	µg/L	1	4/13/2016 20:40
Methyl tert-butyl ether	U		0.12	5.0	µg/L	1	4/13/2016 20:40
Methylcyclohexane	U		0.32	1.0	µg/L	1	4/13/2016 20:40

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

ALS Group USA, Corp

Date: 14-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: WG-017360-040716-MR-019
Collection Date: 4/7/2016 05:05 PM

Work Order: 1604460
Lab ID: 1604460-19
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.64	5.0	µg/L	1	4/13/2016 20:40
Styrene	U		0.18	1.0	µg/L	1	4/13/2016 20:40
Tetrachloroethene	U		0.25	1.0	µg/L	1	4/13/2016 20:40
Toluene	U		0.20	1.0	µg/L	1	4/13/2016 20:40
trans-1,2-Dichloroethene	0.52	J	0.29	1.0	µg/L	1	4/13/2016 20:40
trans-1,3-Dichloropropene	U		0.19	1.0	µg/L	1	4/13/2016 20:40
Trichloroethene	3.9		0.34	1.0	µg/L	1	4/13/2016 20:40
Trichlorofluoromethane	U		0.39	1.0	µg/L	1	4/13/2016 20:40
Vinyl chloride	0.61	J	0.19	1.0	µg/L	1	4/13/2016 20:40
Xylenes, Total	U		0.62	3.0	µg/L	1	4/13/2016 20:40
Surr: 1,2-Dichloroethane-d4	109			75-120	%REC	1	4/13/2016 20:40
Surr: 4-Bromofluorobenzene	88.6			80-110	%REC	1	4/13/2016 20:40
Surr: Dibromofluoromethane	106			85-115	%REC	1	4/13/2016 20:40
Surr: Toluene-d8	97.4			85-110	%REC	1	4/13/2016 20:40

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

ALS Group USA, Corp

Date: 14-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: TB-017360-040716-MR-020
Collection Date: 4/7/2016

Work Order: 1604460
Lab ID: 1604460-20
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			Method: SW8260B			Analyst: AK	
1,1,1-Trichloroethane	U		0.19	1.0	µg/L	1	4/13/2016 12:54
1,1,2,2-Tetrachloroethane	U		0.34	1.0	µg/L	1	4/13/2016 12:54
1,1,2-Trichloroethane	U		0.25	1.0	µg/L	1	4/13/2016 12:54
1,1,2-Trichlorotrifluoroethane	U		0.47	1.0	µg/L	1	4/13/2016 12:54
1,1-Dichloroethane	U		0.21	1.0	µg/L	1	4/13/2016 12:54
1,1-Dichloroethene	U		0.24	1.0	µg/L	1	4/13/2016 12:54
1,2,4-Trichlorobenzene	U		0.19	5.0	µg/L	1	4/13/2016 12:54
1,2-Dibromo-3-chloropropane	U		0.42	1.0	µg/L	1	4/13/2016 12:54
1,2-Dibromoethane	U		0.34	1.0	µg/L	1	4/13/2016 12:54
1,2-Dichlorobenzene	U		0.22	1.0	µg/L	1	4/13/2016 12:54
1,2-Dichloroethane	U		0.26	1.0	µg/L	1	4/13/2016 12:54
1,2-Dichloropropane	U		0.26	1.0	µg/L	1	4/13/2016 12:54
1,3-Dichlorobenzene	U		0.21	1.0	µg/L	1	4/13/2016 12:54
1,4-Dichlorobenzene	U		0.20	1.0	µg/L	1	4/13/2016 12:54
2-Butanone	U		0.87	25	µg/L	1	4/13/2016 12:54
2-Hexanone	U		0.15	50	µg/L	1	4/13/2016 12:54
4-Methyl-2-pentanone	U		0.15	50	µg/L	1	4/13/2016 12:54
Acetone	U		3.1	50	µg/L	1	4/13/2016 12:54
Benzene	U		0.25	1.0	µg/L	1	4/13/2016 12:54
Bromodichloromethane	U		0.16	1.0	µg/L	1	4/13/2016 12:54
Bromoform	U		0.099	1.0	µg/L	1	4/13/2016 12:54
Bromomethane	U		1.0	5.0	µg/L	1	4/13/2016 12:54
Carbon disulfide	U		0.26	5.0	µg/L	1	4/13/2016 12:54
Carbon tetrachloride	U		0.14	1.0	µg/L	1	4/13/2016 12:54
Chlorobenzene	U		0.19	1.0	µg/L	1	4/13/2016 12:54
Chloroethane	U		0.21	5.0	µg/L	1	4/13/2016 12:54
Chloroform	U		0.25	1.0	µg/L	1	4/13/2016 12:54
Chloromethane	U		0.25	5.0	µg/L	1	4/13/2016 12:54
cis-1,2-Dichloroethene	U		0.25	1.0	µg/L	1	4/13/2016 12:54
cis-1,3-Dichloropropene	U		0.24	1.0	µg/L	1	4/13/2016 12:54
Cyclohexane	U		0.31	1.0	µg/L	1	4/13/2016 12:54
Dibromochloromethane	U		0.17	5.0	µg/L	1	4/13/2016 12:54
Dichlorodifluoromethane	U		0.41	5.0	µg/L	1	4/13/2016 12:54
Ethylbenzene	U		0.22	1.0	µg/L	1	4/13/2016 12:54
Isopropylbenzene	U		0.25	5.0	µg/L	1	4/13/2016 12:54
Methyl acetate	U		0.62	10	µg/L	1	4/13/2016 12:54
Methyl tert-butyl ether	U		0.12	5.0	µg/L	1	4/13/2016 12:54
Methylcyclohexane	U		0.32	1.0	µg/L	1	4/13/2016 12:54

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

ALS Group USA, Corp

Date: 14-Apr-16

Client: GHD Services Inc.
Project: Former GRMP (17360)
Sample ID: TB-017360-040716-MR-020
Collection Date: 4/7/2016

Work Order: 1604460
Lab ID: 1604460-20
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.64	5.0	µg/L	1	4/13/2016 12:54
Styrene	U		0.18	1.0	µg/L	1	4/13/2016 12:54
Tetrachloroethene	U		0.25	1.0	µg/L	1	4/13/2016 12:54
Toluene	U		0.20	1.0	µg/L	1	4/13/2016 12:54
trans-1,2-Dichloroethene	U		0.29	1.0	µg/L	1	4/13/2016 12:54
trans-1,3-Dichloropropene	U		0.19	1.0	µg/L	1	4/13/2016 12:54
Trichloroethene	U		0.34	1.0	µg/L	1	4/13/2016 12:54
Trichlorofluoromethane	U		0.39	1.0	µg/L	1	4/13/2016 12:54
Vinyl chloride	U		0.19	1.0	µg/L	1	4/13/2016 12:54
Xylenes, Total	U		0.62	3.0	µg/L	1	4/13/2016 12:54
Surr: 1,2-Dichloroethane-d4	101			75-120	%REC	1	4/13/2016 12:54
Surr: 4-Bromofluorobenzene	89.3			80-110	%REC	1	4/13/2016 12:54
Surr: Dibromofluoromethane	98.6			85-115	%REC	1	4/13/2016 12:54
Surr: Toluene-d8	96.6			85-110	%REC	1	4/13/2016 12:54

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

Client: GHD Services Inc.
Work Order: 1604460
Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: **84539** Instrument ID **HG1** Method: **SW7470A**

MBLK		Sample ID: MBLK-84539-84539				Units: mg/L		Analysis Date: 4/11/2016 03:31 PM			
Client ID:		Run ID: HG1_160411A				SeqNo: 3770560		Prep Date: 4/11/2016		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	U	0.000018	0.00020								

LCS		Sample ID: LCS-84539-84539				Units: mg/L		Analysis Date: 4/11/2016 03:33 PM			
Client ID:		Run ID: HG1_160411A				SeqNo: 3770561		Prep Date: 4/11/2016		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.002	0.000018	0.00020	0.002	0	100	80-120	0			

MS		Sample ID: 1604130-01AMS				Units: mg/L		Analysis Date: 4/11/2016 03:37 PM			
Client ID:		Run ID: HG1_160411A				SeqNo: 3770563		Prep Date: 4/11/2016		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.0204	0.00018	0.0020	0.02	-0.00017	103	75-125	0			

MSD		Sample ID: 1604130-01AMSD				Units: mg/L		Analysis Date: 4/11/2016 03:40 PM			
Client ID:		Run ID: HG1_160411A				SeqNo: 3770564		Prep Date: 4/11/2016		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.0202	0.00018	0.0020	0.02	-0.00017	102	75-125	0.0204	0.985	20	

The following samples were analyzed in this batch:

1604460-06B 1604460-07B

Client: GHD Services Inc.
Work Order: 1604460
Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: **84526** Instrument ID **ICPMS1** Method: **SW6020A**

MBLK		Sample ID: MBLK-84524-84526				Units: mg/L		Analysis Date: 4/11/2016 01:47 PM			
Client ID:		Run ID: ICPMS1_160411A				SeqNo: 3770955		Prep Date: 4/11/2016		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Antimony	U	0.0001	0.0050								
Arsenic	U	0.0007	0.0050								
Barium	U	0.0002	0.0050								
Beryllium	U	0.0002	0.0020								
Cadmium	U	0.0001	0.0020								
Chromium	U	0.0001	0.0050								
Cobalt	U	0.0002	0.0050								
Copper	U	0.0002	0.0050								
Iron	U	0.01	0.080								
Lead	U	0.0001	0.0050								
Manganese	U	0.0002	0.0050								
Molybdenum	0.0002748	0.0002	0.0050								J
Nickel	U	0.0004	0.0050								
Selenium	U	0.001	0.0050								
Silver	U	0.0001	0.0050								
Thallium	U	0.0004	0.0050								
Vanadium	U	0.0004	0.0050								
Zinc	U	0.0024	0.010								

MBLK		Sample ID: MBLK-84526-84526				Units: mg/L		Analysis Date: 4/11/2016 01:59 PM			
Client ID:		Run ID: ICPMS1_160411A				SeqNo: 3770957		Prep Date: 4/11/2016		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Antimony	U	0.0001	0.0050								
Arsenic	U	0.0007	0.0050								
Barium	U	0.0002	0.0050								
Beryllium	U	0.0002	0.0020								
Cadmium	U	0.0001	0.0020								
Chromium	U	0.0001	0.0050								
Cobalt	U	0.0002	0.0050								
Copper	U	0.0002	0.0050								
Iron	U	0.01	0.080								
Lead	U	0.0001	0.0050								
Manganese	U	0.0002	0.0050								
Molybdenum	0.0006196	0.0002	0.0050								J
Nickel	U	0.0004	0.0050								
Selenium	U	0.001	0.0050								
Silver	U	0.0001	0.0050								
Thallium	U	0.0004	0.0050								
Vanadium	U	0.0004	0.0050								
Zinc	U	0.0024	0.010								

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

Client: GHD Services Inc.
Work Order: 1604460
Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: **84526** Instrument ID **ICPMS1** Method: **SW6020A**

LCS		Sample ID: LCS-84524-84526			Units: mg/L			Analysis Date: 4/11/2016 01:53 PM			
Client ID:		Run ID: ICPMS1_160411A			SeqNo: 3770956			Prep Date: 4/11/2016		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Antimony	0.09591	0.0001	0.0050	0.1	0	95.9	80-120	0			
Arsenic	0.09629	0.0007	0.0050	0.1	0	96.3	80-120	0			
Barium	0.09806	0.0002	0.0050	0.1	0	98.1	80-120	0			
Beryllium	0.09339	0.0002	0.0020	0.1	0	93.4	80-120	0			
Cadmium	0.09847	0.0001	0.0020	0.1	0	98.5	80-120	0			
Chromium	0.09811	0.0001	0.0050	0.1	0	98.1	80-120	0			
Cobalt	0.09489	0.0002	0.0050	0.1	0	94.9	80-120	0			
Copper	0.09533	0.0002	0.0050	0.1	0	95.3	80-120	0			
Iron	9.678	0.01	0.080	10	0	96.8	80-120	0			
Lead	0.1015	0.0001	0.0050	0.1	0	102	80-120	0			
Manganese	0.09628	0.0002	0.0050	0.1	0	96.3	80-120	0			
Molybdenum	0.09602	0.0002	0.0050	0.1	0	96	80-120	0			
Nickel	0.09716	0.0004	0.0050	0.1	0	97.2	80-120	0			
Selenium	0.09431	0.001	0.0050	0.1	0	94.3	80-120	0			
Silver	0.09444	0.0001	0.0050	0.1	0	94.4	80-120	0			
Thallium	0.09748	0.0004	0.0050	0.1	0	97.5	80-120	0			
Vanadium	0.09801	0.0004	0.0050	0.1	0	98	80-120	0			
Zinc	0.0974	0.0024	0.010	0.1	0	97.4	80-120	0			

LCS		Sample ID: LCS-84526-84526			Units: mg/L			Analysis Date: 4/11/2016 02:05 PM			
Client ID:		Run ID: ICPMS1_160411A			SeqNo: 3770958			Prep Date: 4/11/2016		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Antimony	0.09419	0.0001	0.0050	0.1	0	94.2	80-120	0			
Arsenic	0.09192	0.0007	0.0050	0.1	0	91.9	80-120	0			
Barium	0.09433	0.0002	0.0050	0.1	0	94.3	80-120	0			
Beryllium	0.09091	0.0002	0.0020	0.1	0	90.9	80-120	0			
Cadmium	0.09488	0.0001	0.0020	0.1	0	94.9	80-120	0			
Chromium	0.0961	0.0001	0.0050	0.1	0	96.1	80-120	0			
Cobalt	0.09289	0.0002	0.0050	0.1	0	92.9	80-120	0			
Copper	0.09328	0.0002	0.0050	0.1	0	93.3	80-120	0			
Iron	9.425	0.01	0.080	10	0	94.2	80-120	0			
Lead	0.09771	0.0001	0.0050	0.1	0	97.7	80-120	0			
Manganese	0.09384	0.0002	0.0050	0.1	0	93.8	80-120	0			
Molybdenum	0.0929	0.0002	0.0050	0.1	0	92.9	80-120	0			
Nickel	0.09532	0.0004	0.0050	0.1	0	95.3	80-120	0			
Selenium	0.09151	0.001	0.0050	0.1	0	91.5	80-120	0			
Silver	0.09268	0.0001	0.0050	0.1	0	92.7	80-120	0			
Thallium	0.09338	0.0004	0.0050	0.1	0	93.4	80-120	0			
Vanadium	0.09618	0.0004	0.0050	0.1	0	96.2	80-120	0			
Zinc	0.09627	0.0024	0.010	0.1	0	96.3	80-120	0			

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

Client: GHD Services Inc.
Work Order: 1604460
Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: **84526** Instrument ID **ICPMS1** Method: **SW6020A**

MS					Units: mg/L			Analysis Date: 4/11/2016 02:42 PM			
Client ID:		Run ID: ICPMS1_160411A			SeqNo: 3770964		Prep Date: 4/11/2016		DF: 1		
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Antimony	0.103	0.0001	0.0050	0.1	0.008707	94.3	75-125	0			
Arsenic	0.09715	0.0007	0.0050	0.1	0.001495	95.7	75-125	0			
Barium	0.1492	0.0002	0.0050	0.1	0.05053	98.7	75-125	0			
Beryllium	0.09011	0.0002	0.0020	0.1	-0.0001386	90.2	75-125	0			
Cadmium	0.09437	0.0001	0.0020	0.1	-6.819E-05	94.4	75-125	0			
Chromium	0.09599	0.0001	0.0050	0.1	0.0006332	95.4	75-125	0			
Cobalt	0.0924	0.0002	0.0050	0.1	0.0005876	91.8	75-125	0			
Copper	0.09193	0.0002	0.0050	0.1	0.0003874	91.5	75-125	0			
Iron	9.298	0.01	0.080	10	0.05046	92.5	75-125	0			
Lead	0.09924	0.0001	0.0050	0.1	-9.638E-05	99.3	75-125	0			
Manganese	0.09325	0.0002	0.0050	0.1	-0.0005813	93.8	75-125	0			
Molybdenum	0.1693	0.0002	0.0050	0.1	0.07252	96.8	75-125	0			
Nickel	0.09461	0.0004	0.0050	0.1	0.001135	93.5	75-125	0			
Selenium	0.09162	0.001	0.0050	0.1	0.00002988	91.6	75-125	0			
Silver	0.08812	0.0001	0.0050	0.1	0.00001396	88.1	75-125	0			
Thallium	0.09453	0.0004	0.0050	0.1	-0.0001439	94.7	75-125	0			
Vanadium	0.09653	0.0004	0.0050	0.1	0.0005726	96	75-125	0			
Zinc	0.09743	0.0024	0.010	0.1	0.0005187	96.9	75-125	0			

MSD					Units: mg/L			Analysis Date: 4/11/2016 03:06 PM			
Client ID:		Run ID: ICPMS1_160411A			SeqNo: 3770968		Prep Date: 4/11/2016		DF: 1		
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Antimony	0.1049	0.0001	0.0050	0.1	0.008707	96.2	75-125	0.103	1.83	20	
Arsenic	0.09836	0.0007	0.0050	0.1	0.001495	96.9	75-125	0.09715	1.24	20	
Barium	0.1533	0.0002	0.0050	0.1	0.05053	103	75-125	0.1492	2.71	20	
Beryllium	0.0919	0.0002	0.0020	0.1	-0.0001386	92	75-125	0.09011	1.97	20	
Cadmium	0.09743	0.0001	0.0020	0.1	-6.819E-05	97.5	75-125	0.09437	3.19	20	
Chromium	0.09782	0.0001	0.0050	0.1	0.0006332	97.2	75-125	0.09599	1.89	20	
Cobalt	0.09436	0.0002	0.0050	0.1	0.0005876	93.8	75-125	0.0924	2.1	20	
Copper	0.09402	0.0002	0.0050	0.1	0.0003874	93.6	75-125	0.09193	2.25	20	
Iron	9.536	0.01	0.080	10	0.05046	94.9	75-125	9.298	2.53	20	
Lead	0.1016	0.0001	0.0050	0.1	-9.638E-05	102	75-125	0.09924	2.35	20	
Manganese	0.09468	0.0002	0.0050	0.1	-0.0005813	95.3	75-125	0.09325	1.52	20	
Molybdenum	0.1719	0.0002	0.0050	0.1	0.07252	99.4	75-125	0.1693	1.52	20	
Nickel	0.0965	0.0004	0.0050	0.1	0.001135	95.4	75-125	0.09461	1.98	20	
Selenium	0.09233	0.001	0.0050	0.1	0.00002988	92.3	75-125	0.09162	0.772	20	
Silver	0.09032	0.0001	0.0050	0.1	0.00001396	90.3	75-125	0.08812	2.47	20	
Thallium	0.09672	0.0004	0.0050	0.1	-0.0001439	96.9	75-125	0.09453	2.29	20	
Vanadium	0.09929	0.0004	0.0050	0.1	0.0005726	98.7	75-125	0.09653	2.82	20	
Zinc	0.09478	0.0024	0.010	0.1	0.0005187	94.3	75-125	0.09743	2.76	20	

The following samples were analyzed in this batch:

1604460-06B

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

Client: GHD Services Inc.
Work Order: 1604460
Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: **84660** Instrument ID **ICPMS1** Method: **SW6020A**

MBLK		Sample ID: MBLK-84660-84660				Units: mg/L		Analysis Date: 4/13/2016 11:14 PM			
Client ID:		Run ID: ICPMS1_160413A				SeqNo: 3775636		Prep Date: 4/13/2016		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Antimony	U	0.0001	0.0050								
Arsenic	U	0.0007	0.0050								
Barium	U	0.0002	0.0050								
Beryllium	U	0.0002	0.0020								
Cadmium	U	0.0001	0.0020								
Chromium	U	0.0001	0.0050								
Cobalt	U	0.0002	0.0050								
Copper	U	0.0002	0.0050								
Iron	U	0.01	0.080								
Lead	U	0.0001	0.0050								
Manganese	U	0.0002	0.0050								
Nickel	U	0.0004	0.0050								
Selenium	U	0.001	0.0050								
Silver	U	0.0001	0.0050								
Thallium	U	0.0004	0.0050								
Vanadium	U	0.0004	0.0050								
Zinc	U	0.0024	0.010								

LCS		Sample ID: LCS-84660-84660				Units: mg/L		Analysis Date: 4/13/2016 11:21 PM			
Client ID:		Run ID: ICPMS1_160413A				SeqNo: 3775637		Prep Date: 4/13/2016		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Antimony	0.08639	0.0001	0.0050	0.1	0	86.4	80-120	0			
Arsenic	0.08792	0.0007	0.0050	0.1	0	87.9	80-120	0			
Barium	0.09214	0.0002	0.0050	0.1	0	92.1	80-120	0			
Beryllium	0.09298	0.0002	0.0020	0.1	0	93	80-120	0			
Cadmium	0.09178	0.0001	0.0020	0.1	0	91.8	80-120	0			
Chromium	0.08723	0.0001	0.0050	0.1	0	87.2	80-120	0			
Iron	8.711	0.01	0.080	10	0	87.1	80-120	0			
Lead	0.09092	0.0001	0.0050	0.1	0	90.9	80-120	0			
Manganese	0.08694	0.0002	0.0050	0.1	0	86.9	80-120	0			
Nickel	0.08578	0.0004	0.0050	0.1	0	85.8	80-120	0			
Selenium	0.08888	0.001	0.0050	0.1	0	88.9	80-120	0			
Thallium	0.08702	0.0004	0.0050	0.1	0	87	80-120	0			
Vanadium	0.08682	0.0004	0.0050	0.1	0	86.8	80-120	0			

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

Client: GHD Services Inc.
Work Order: 1604460
Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: **84660** Instrument ID **ICPMS1** Method: **SW6020A**

MS Sample ID: 1604074-04BMS					Units: mg/L			Analysis Date: 4/13/2016 11:52 PM			
Client ID:		Run ID: ICPMS1_160413A			SeqNo: 3775642		Prep Date: 4/13/2016		DF: 1		
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.09372	0.0007	0.0050	0.1	0.004438	89.3	75-125	0			
Barium	0.1631	0.0002	0.0050	0.1	0.06806	95	75-125	0			
Beryllium	0.08861	0.0002	0.0020	0.1	-4.268E-05	88.7	75-125	0			
Cadmium	0.09007	0.0001	0.0020	0.1	-1.461E-05	90.1	75-125	0			
Chromium	0.08746	0.0001	0.0050	0.1	0.0001502	87.3	75-125	0			
Iron	9.668	0.01	0.080	10	0.9573	87.1	75-125	0			
Lead	0.09248	0.0001	0.0050	0.1	9.182E-06	92.5	75-125	0			
Manganese	0.2179	0.0002	0.0050	0.1	0.1315	86.4	75-125	0			
Nickel	0.08946	0.0004	0.0050	0.1	0.006357	83.1	75-125	0			
Selenium	0.08448	0.001	0.0050	0.1	0.0006524	83.8	75-125	0			
Silver	0.07048	0.0001	0.0050	0.1	-1.77E-08	70.5	75-125	0			S
Thallium	0.08943	0.0004	0.0050	0.1	0.0000463	89.4	75-125	0			
Vanadium	0.08831	0.0004	0.0050	0.1	-4.777E-05	88.4	75-125	0			

MSD Sample ID: 1604074-04BMSD					Units: mg/L			Analysis Date: 4/13/2016 11:58 PM			
Client ID:		Run ID: ICPMS1_160413A			SeqNo: 3775643		Prep Date: 4/13/2016		DF: 1		
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.09736	0.0007	0.0050	0.1	0.004438	92.9	75-125	0.09372	3.81	20	
Barium	0.1695	0.0002	0.0050	0.1	0.06806	101	75-125	0.1631	3.85	20	
Beryllium	0.09245	0.0002	0.0020	0.1	-4.268E-05	92.5	75-125	0.08861	4.24	20	
Cadmium	0.09464	0.0001	0.0020	0.1	-1.461E-05	94.7	75-125	0.09007	4.95	20	
Chromium	0.09135	0.0001	0.0050	0.1	0.0001502	91.2	75-125	0.08746	4.35	20	
Iron	10.02	0.01	0.080	10	0.9573	90.6	75-125	9.668	3.58	20	
Lead	0.09637	0.0001	0.0050	0.1	9.182E-06	96.4	75-125	0.09248	4.12	20	
Manganese	0.2236	0.0002	0.0050	0.1	0.1315	92.1	75-125	0.2179	2.58	20	
Nickel	0.09343	0.0004	0.0050	0.1	0.006357	87.1	75-125	0.08946	4.34	20	
Selenium	0.08956	0.001	0.0050	0.1	0.0006524	88.9	75-125	0.08448	5.84	20	
Silver	0.07327	0.0001	0.0050	0.1	-1.77E-08	73.3	75-125	0.07048	3.88	20	S
Thallium	0.09314	0.0004	0.0050	0.1	0.0000463	93.1	75-125	0.08943	4.06	20	
Vanadium	0.0921	0.0004	0.0050	0.1	-4.777E-05	92.1	75-125	0.08831	4.2	20	

The following samples were analyzed in this batch:

1604460-07B

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

Client: GHD Services Inc.
Work Order: 1604460
Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: **R185277** Instrument ID **VMS8** Method: **SW8260B**

MBLK		Sample ID: VLKW1-160413-R185277				Units: µg/L		Analysis Date: 4/13/2016 12:30 PM			
Client ID:		Run ID: VMS8_160413A				SeqNo: 3775416		Prep Date:		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	U	0.19	1.0								
1,1,2,2-Tetrachloroethane	U	0.34	1.0								
1,1,2-Trichloroethane	U	0.25	1.0								
1,1,2-Trichlorotrifluoroethane	U	0.47	1.0								
1,1-Dichloroethane	U	0.21	1.0								
1,1-Dichloroethene	U	0.24	1.0								
1,2,4-Trichlorobenzene	U	0.19	1.0								
1,2-Dibromo-3-chloropropane	U	0.42	1.0								
1,2-Dibromoethane	U	0.34	1.0								
1,2-Dichlorobenzene	U	0.22	1.0								
1,2-Dichloroethane	U	0.26	1.0								
1,2-Dichloropropane	U	0.26	1.0								
1,3-Dichlorobenzene	U	0.21	1.0								
1,4-Dichlorobenzene	U	0.2	1.0								
2-Butanone	U	0.87	5.0								
2-Hexanone	U	0.15	5.0								
4-Methyl-2-pentanone	U	0.15	1.0								
Acetone	U	3.1	10								
Benzene	U	0.25	1.0								
Bromodichloromethane	U	0.16	1.0								
Bromoform	U	0.099	1.0								
Bromomethane	U	1	1.0								
Carbon disulfide	U	0.26	1.0								
Carbon tetrachloride	U	0.14	1.0								
Chlorobenzene	U	0.19	1.0								
Chloroethane	U	0.21	1.0								
Chloroform	U	0.25	1.0								
Chloromethane	U	0.25	1.0								
cis-1,2-Dichloroethene	U	0.25	1.0								
cis-1,3-Dichloropropene	U	0.24	1.0								
Cyclohexane	U	0.31	1.0								
Dibromochloromethane	U	0.17	1.0								
Dichlorodifluoromethane	U	0.41	1.0								
Ethylbenzene	U	0.22	1.0								
Isopropylbenzene	U	0.25	1.0								
Methyl acetate	U	0.62	2.0								
Methyl tert-butyl ether	U	0.12	1.0								
Methylcyclohexane	U	0.32	1.0								
Methylene chloride	U	0.64	5.0								
Styrene	U	0.18	1.0								
Tetrachloroethene	U	0.25	1.0								
Toluene	U	0.2	1.0								
trans-1,2-Dichloroethene	U	0.29	1.0								

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

Client: GHD Services Inc.
Work Order: 1604460
Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: R185277	Instrument ID VMS8	Method: SW8260B	
trans-1,3-Dichloropropene	U	0.19	1.0
Trichloroethene	U	0.34	1.0
Trichlorofluoromethane	U	0.39	1.0
Vinyl chloride	U	0.19	1.0
Xylenes, Total	U	0.62	3.0
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>20.4</i>	<i>0</i>	<i>0</i>
<i>Surr: 4-Bromofluorobenzene</i>	<i>18.69</i>	<i>0</i>	<i>0</i>
<i>Surr: Dibromofluoromethane</i>	<i>20.06</i>	<i>0</i>	<i>0</i>
<i>Surr: Toluene-d8</i>	<i>19.57</i>	<i>0</i>	<i>0</i>

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

Client: GHD Services Inc.
 Work Order: 1604460
 Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: **R185277** Instrument ID **VMS8** Method: **SW8260B**

LCS		Sample ID: VLCSW1-160413-R185277				Units: µg/L		Analysis Date: 4/13/2016 11:16 AM			
Client ID:		Run ID: VMS8_160413A				SeqNo: 3775415		Prep Date:		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	21	0.19	1.0	20	0	105	75-130	0			
1,1,2,2-Tetrachloroethane	19.41	0.34	1.0	20	0	97	75-130	0			
1,1,2-Trichloroethane	20.06	0.25	1.0	20	0	100	75-125	0			
1,1-Dichloroethane	20.2	0.21	1.0	20	0	101	75-133	0			
1,1-Dichloroethene	21.92	0.24	1.0	20	0	110	70-145	0			
1,2,4-Trichlorobenzene	21.3	0.19	1.0	20	0	106	70-135	0			
1,2-Dibromo-3-chloropropane	17.23	0.42	1.0	20	0	86.2	60-130	0			
1,2-Dibromoethane	49.35	0.34	1.0	20	0	247	80-150	0			S
1,2-Dichlorobenzene	20.86	0.22	1.0	20	0	104	70-130	0			
1,2-Dichloroethane	19.96	0.26	1.0	20	0	99.8	78-125	0			
1,2-Dichloropropane	20.3	0.26	1.0	20	0	102	75-125	0			
1,3-Dichlorobenzene	20.8	0.21	1.0	20	0	104	75-130	0			
1,4-Dichlorobenzene	20.79	0.2	1.0	20	0	104	75-130	0			
2-Butanone	16.89	0.87	5.0	20	0	84.4	55-150	0			
2-Hexanone	15.66	0.15	5.0	20	0	78.3	60-135	0			
4-Methyl-2-pentanone	20.86	0.15	1.0	20	0	104	77-178	0			
Acetone	17.5	3.1	10	20	0	87.5	60-160	0			
Benzene	20.28	0.25	1.0	20	0	101	85-125	0			
Bromodichloromethane	19.13	0.16	1.0	20	0	95.6	75-125	0			
Bromoform	16.59	0.099	1.0	20	0	83	60-125	0			
Bromomethane	16.71	1	1.0	20	0	83.6	30-185	0			
Carbon disulfide	19.88	0.26	1.0	20	0	99.4	60-165	0			
Carbon tetrachloride	20	0.14	1.0	20	0	100	65-140	0			
Chlorobenzene	20.66	0.19	1.0	20	0	103	80-120	0			
Chloroethane	20.56	0.21	1.0	20	0	103	50-140	0			
Chloroform	20.04	0.25	1.0	20	0	100	80-130	0			
Chloromethane	19.15	0.25	1.0	20	0	95.8	50-130	0			
cis-1,2-Dichloroethene	21.05	0.25	1.0	20	0	105	75-134	0			
cis-1,3-Dichloropropene	19.3	0.24	1.0	20	0	96.5	70-130	0			
Dibromochloromethane	18.14	0.17	1.0	20	0	90.7	60-115	0			
Dichlorodifluoromethane	17.11	0.41	1.0	20	0	85.6	20-120	0			
Ethylbenzene	21.48	0.22	1.0	20	0	107	85-125	0			
Isopropylbenzene	23.39	0.25	1.0	20	0	117	80-127	0			
Methyl tert-butyl ether	18.19	0.12	1.0	20	0	91	80-130	0			
Methylene chloride	21.57	0.64	5.0	20	0	108	75-140	0			
Styrene	22.1	0.18	1.0	20	0	110	85-125	0			
Tetrachloroethene	21.37	0.25	1.0	20	0	107	77-138	0			
Toluene	20.96	0.2	1.0	20	0	105	85-125	0			
trans-1,2-Dichloroethene	21.53	0.29	1.0	20	0	108	80-140	0			
trans-1,3-Dichloropropene	20.07	0.19	1.0	20	0	100	81-123	0			
Trichloroethene	19.8	0.34	1.0	20	0	99	84-130	0			
Trichlorofluoromethane	18.5	0.39	1.0	20	0	92.5	60-140	0			
Vinyl chloride	18.57	0.19	1.0	20	0	92.8	50-136	0			

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

Client: GHD Services Inc.
Work Order: 1604460
Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: R185277		Instrument ID VMS8		Method: SW8260B				
Xylenes, Total	65.56	0.62	3.0	60	0	109	80-126	0
Surr: 1,2-Dichloroethane-d4	19.5	0	0	20	0	97.5	75-120	0
Surr: 4-Bromofluorobenzene	19.41	0	0	20	0	97	80-110	0
Surr: Dibromofluoromethane	19.41	0	0	20	0	97	85-115	0
Surr: Toluene-d8	20.09	0	0	20	0	100	85-110	0

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

Client: GHD Services Inc.
Work Order: 1604460
Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: **R185277** Instrument ID **VMS8** Method: **SW8260B**

MS					Sample ID: 1604460-12A MS			Units: µg/L		Analysis Date: 4/13/2016 09:04 PM		
Client ID: WG-017360-040716-MR-012			Run ID: VMS8_160413A			SeqNo: 3775437		Prep Date:		DF: 1		
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
1,1,1-Trichloroethane	25.04	0.19	1.0	20	0	125	75-130	0				
1,1,2,2-Tetrachloroethane	22.77	0.34	1.0	20	0	114	75-130	0				
1,1,2-Trichloroethane	22.45	0.25	1.0	20	0	112	75-125	0				
1,1-Dichloroethane	22.79	0.21	1.0	20	0	114	75-133	0				
1,1-Dichloroethene	24.7	0.24	1.0	20	0	124	70-145	0				
1,2,4-Trichlorobenzene	20.43	0.19	1.0	20	0	102	70-135	0				
1,2-Dibromo-3-chloropropane	21.76	0.42	1.0	20	0	109	60-130	0				
1,2-Dibromoethane	54.58	0.34	1.0	20	0	273	80-150	0			S	
1,2-Dichlorobenzene	23.5	0.22	1.0	20	0	118	70-130	0				
1,2-Dichloroethane	23.24	0.26	1.0	20	0	116	78-125	0				
1,2-Dichloropropane	23.87	0.26	1.0	20	0	119	75-125	0				
1,3-Dichlorobenzene	22.82	0.21	1.0	20	0	114	75-130	0				
1,4-Dichlorobenzene	22.62	0.2	1.0	20	0	113	75-130	0				
2-Butanone	17.54	0.87	5.0	20	0	87.7	55-150	0				
2-Hexanone	19.54	0.15	5.0	20	0	97.7	60-135	0				
4-Methyl-2-pentanone	25.43	0.15	1.0	20	0	127	77-178	0				
Acetone	20.02	3.1	10	20	0	100	60-160	0				
Benzene	23.53	0.25	1.0	20	0	118	85-125	0				
Bromodichloromethane	22.27	0.16	1.0	20	0	111	75-125	0				
Bromoform	16.64	0.099	1.0	20	0	83.2	60-125	0				
Bromomethane	19.15	1	1.0	20	0	95.8	30-185	0				
Carbon disulfide	22.22	0.26	1.0	20	0	111	60-165	0				
Carbon tetrachloride	24.53	0.14	1.0	20	0	123	65-140	0				
Chlorobenzene	22.44	0.19	1.0	20	0	112	80-120	0				
Chloroethane	22.04	0.21	1.0	20	0	110	50-140	0				
Chloroform	22.96	0.25	1.0	20	0	115	80-130	0				
Chloromethane	21.99	0.25	1.0	20	0	110	50-130	0				
cis-1,2-Dichloroethene	23.53	0.25	1.0	20	0	118	75-134	0				
cis-1,3-Dichloropropene	21.6	0.24	1.0	20	0	108	70-130	0				
Dibromochloromethane	19.31	0.17	1.0	20	0	96.6	60-115	0				
Dichlorodifluoromethane	20.37	0.41	1.0	20	0	102	20-120	0				
Ethylbenzene	22.9	0.22	1.0	20	0	114	85-125	0				
Isopropylbenzene	23.82	0.25	1.0	20	0	119	80-127	0				
Methyl tert-butyl ether	20.11	0.12	1.0	20	0	101	80-130	0				
Methylene chloride	24.36	0.64	5.0	20	0	122	75-140	0				
Styrene	22.93	0.18	1.0	20	0	115	85-125	0				
Tetrachloroethene	24.2	0.25	1.0	20	0	121	77-138	0				
Toluene	23.23	0.2	1.0	20	0	116	85-125	0				
trans-1,2-Dichloroethene	24.31	0.29	1.0	20	0	122	80-140	0				
trans-1,3-Dichloropropene	20.92	0.19	1.0	20	0	105	81-123	0				
Trichloroethene	23.07	0.34	1.0	20	0	115	84-130	0				
Trichlorofluoromethane	19.77	0.39	1.0	20	0	98.8	60-140	0				
Vinyl chloride	20.59	0.19	1.0	20	0	103	50-136	0				

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

Client: GHD Services Inc.
Work Order: 1604460
Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: R185277		Instrument ID VMS8		Method: SW8260B					
Xylenes, Total	69.31	0.62	3.0	60	0	116	80-126	0	
Surr: 1,2-Dichloroethane-d4	21.3	0	0	20	0	106	75-120	0	
Surr: 4-Bromofluorobenzene	19.83	0	0	20	0	99.2	80-110	0	
Surr: Dibromofluoromethane	20.92	0	0	20	0	105	85-115	0	
Surr: Toluene-d8	20.07	0	0	20	0	100	85-110	0	

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

Client: GHD Services Inc.
Work Order: 1604460
Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: **R185277** Instrument ID **VMS8** Method: **SW8260B**

MSD					Sample ID: 1604460-12A MSD			Units: µg/L		Analysis Date: 4/13/2016 09:29 PM		
Client ID: WG-017360-040716-MR-012					Run ID: VMS8_160413A			SeqNo: 3775438		Prep Date:		DF: 1
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
1,1,1-Trichloroethane	23.8	0.19	1.0	20	0	119	75-130	25.04	5.08	30		
1,1,2,2-Tetrachloroethane	22.31	0.34	1.0	20	0	112	75-130	22.77	2.04	30		
1,1,2-Trichloroethane	21.19	0.25	1.0	20	0	106	75-125	22.45	5.77	30		
1,1-Dichloroethane	23.14	0.21	1.0	20	0	116	75-133	22.79	1.52	30		
1,1-Dichloroethene	24.85	0.24	1.0	20	0	124	70-145	24.7	0.605	30		
1,2,4-Trichlorobenzene	20.58	0.19	1.0	20	0	103	70-135	20.43	0.732	30		
1,2-Dibromo-3-chloropropane	22.66	0.42	1.0	20	0	113	60-130	21.76	4.05	30		
1,2-Dibromoethane	52.69	0.34	1.0	20	0	263	80-150	54.58	3.52	30	S	
1,2-Dichlorobenzene	22.18	0.22	1.0	20	0	111	70-130	23.5	5.78	30		
1,2-Dichloroethane	21.62	0.26	1.0	20	0	108	78-125	23.24	7.22	30		
1,2-Dichloropropane	21.84	0.26	1.0	20	0	109	75-125	23.87	8.88	30		
1,3-Dichlorobenzene	21.91	0.21	1.0	20	0	110	75-130	22.82	4.07	30		
1,4-Dichlorobenzene	22.44	0.2	1.0	20	0	112	75-130	22.62	0.799	30		
2-Butanone	20.97	0.87	5.0	20	0	105	55-150	17.54	17.8	30		
2-Hexanone	18.91	0.15	5.0	20	0	94.6	60-135	19.54	3.28	30		
4-Methyl-2-pentanone	26.63	0.15	1.0	20	0	133	77-178	25.43	4.61	30		
Acetone	20.83	3.1	10	20	0	104	60-160	20.02	3.97	30		
Benzene	22.74	0.25	1.0	20	0	114	85-125	23.53	3.41	30		
Bromodichloromethane	20.79	0.16	1.0	20	0	104	75-125	22.27	6.87	30		
Bromoform	16.15	0.099	1.0	20	0	80.8	60-125	16.64	2.99	30		
Bromomethane	18.43	1	1.0	20	0	92.2	30-185	19.15	3.83	30		
Carbon disulfide	22.23	0.26	1.0	20	0	111	60-165	22.22	0.045	30		
Carbon tetrachloride	23.83	0.14	1.0	20	0	119	65-140	24.53	2.89	30		
Chlorobenzene	22.12	0.19	1.0	20	0	111	80-120	22.44	1.44	30		
Chloroethane	21.46	0.21	1.0	20	0	107	50-140	22.04	2.67	30		
Chloroform	22.83	0.25	1.0	20	0	114	80-130	22.96	0.568	30		
Chloromethane	23.49	0.25	1.0	20	0	117	50-130	21.99	6.6	30		
cis-1,2-Dichloroethene	23.6	0.25	1.0	20	0	118	75-134	23.53	0.297	30		
cis-1,3-Dichloropropene	20.4	0.24	1.0	20	0	102	70-130	21.6	5.71	30		
Dibromochloromethane	18.69	0.17	1.0	20	0	93.4	60-115	19.31	3.26	30		
Dichlorodifluoromethane	19.3	0.41	1.0	20	0	96.5	20-120	20.37	5.39	30		
Ethylbenzene	22.73	0.22	1.0	20	0	114	85-125	22.9	0.745	30		
Isopropylbenzene	23.53	0.25	1.0	20	0	118	80-127	23.82	1.22	30		
Methyl tert-butyl ether	20.34	0.12	1.0	20	0	102	80-130	20.11	1.14	30		
Methylene chloride	23.99	0.64	5.0	20	0	120	75-140	24.36	1.53	30		
Styrene	22.71	0.18	1.0	20	0	114	85-125	22.93	0.964	30		
Tetrachloroethene	23.4	0.25	1.0	20	0	117	77-138	24.2	3.36	30		
Toluene	22.66	0.2	1.0	20	0	113	85-125	23.23	2.48	30		
trans-1,2-Dichloroethene	24.06	0.29	1.0	20	0	120	80-140	24.31	1.03	30		
trans-1,3-Dichloropropene	20.43	0.19	1.0	20	0	102	81-123	20.92	2.37	30		
Trichloroethene	22.36	0.34	1.0	20	0	112	84-130	23.07	3.13	30		
Trichlorofluoromethane	19.77	0.39	1.0	20	0	98.8	60-140	19.77	0	30		
Vinyl chloride	20.53	0.19	1.0	20	0	103	50-136	20.59	0.292	30		

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

Client: GHD Services Inc.
Work Order: 1604460
Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: R185277	Instrument ID VMS8			Method: SW8260B						
Xylenes, Total	68.33	0.62	3.0	60	0	114	80-126	69.31	1.42	30
Surr: 1,2-Dichloroethane-d4	20.61	0	0	20	0	103	75-120	21.3	3.29	30
Surr: 4-Bromofluorobenzene	19.79	0	0	20	0	99	80-110	19.83	0.202	30
Surr: Dibromofluoromethane	20.61	0	0	20	0	103	85-115	20.92	1.49	30
Surr: Toluene-d8	20.15	0	0	20	0	101	85-110	20.07	0.398	30

The following samples were analyzed in this batch:

1604460-01A	1604460-02A	1604460-03A
1604460-04A	1604460-05A	1604460-06A
1604460-07A	1604460-08A	1604460-09A
1604460-10A	1604460-11A	1604460-12A
1604460-13A	1604460-14A	1604460-15A
1604460-16A	1604460-17A	1604460-18A
1604460-19A	1604460-20A	

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



Environmental

Cincinnati, OH
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Chain of Custody Form

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COC ID: 31678

Houston, TX
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Middletown, PA
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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			Parameter/Method Request for Analysis												
Purchase Order			Project Name	GR Metal Plant		A	VOCs											
Work Order			Project Number	017360-108416-02416		B	Metals & Mercury											
Company Name	GHD		Bill To Company			C												
Send Report To	Rawn Fleisher		Invoice Attn	Same as customer info		D												
Address	14496 Plymouth, ME Selden Rd.		Address			E												
City/State/Zip	Plymouth, ME 4870		City/State/Zip			F												
Phone	734-453-5123		Phone			G												
Fax			Fax			H												
e-Mail Address	rawn.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	SW-017360-040516-MR-001	4/5/16	1555	Water	1	3	X										
2	SW- " -002	↓	1610	↓	1	↓											
3	SW- " -003	↓	1620	↓	1	↓											
4	WG-017360-040616-MR-004	4/6/16	1050		1,2	4		X									
5	WG- " -005	↓	1128	↓	1,2	4		X									
6	WG- " -006	↓	1245	↓	1	3											
7	WG- " -007	↓	1300	↓	1	↓											
8	WG- " -008	↓	1325	↓	1	↓											
9	WG- " -009	↓	1500	↓	1	↓											
10	WG- " -010	↓	1620	↓	1	↓											

Sampler(s) Please Print & Sign Matt Ramsey		Shipment Method Drop off		Turnaround Time in Business Days (BD) ☐ 10 BD ☐ 5 BD ☐ 3 BD ☐ 2 BD ☐ 1 BD				Other <u>Standard</u>		Results Due Date:	
Relinquished by: [Signature]		Date: 4/8/16	Time: 1050	Received by: [Signature]		Notes: SSOW# 17360-035		Cooler ID		Cooler Temp	QC Package: (Check One Box Below)
Relinquished by: [Signature]		Date: 4/8/16	Time: 1050	Received by (Laboratory): [Signature]						5.0°C	☐ Level II Std QC ☐ TRRP Checklist
Logged by (Laboratory): MB		Date: 4/8/16	Time: 1257	Checked by (Laboratory): [Signature]							☐ Level III Std QC/Raw Data ☐ TRRP Level IV
											☐ Level IV SW846/CLP ☐ Other

Preservative Key: 1-HCl 2-HNO₃ 3-H₂SO₄ 4-NaOH 5-Na₂S₂O₃ 6-NaHSO₄ 7-Other 8-4°C 9-5035



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Chain of Custody Form

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COC ID: 31677

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+1 281 530 5656

Middletown, PA
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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

Environmental

ALS Project Manager: Chad Whelton

ALS Work Order #: 1604460

Customer Information		Project Information		Parameter/Method Request for Analysis												
Purchase Order		Project Name	<u>GR Metal Plant</u>	A	<u>VOCs</u>											
Work Order		Project Number	<u>017360-708Y16-02Y16</u>	B												
Company Name	<u>GHD</u>	Bill To Company		C												
Send Report To	<u>Rona Fleisher</u>	Invoice Attn	<u>same as customer info</u>	D												
Address	<u>14496 Sheldon Rd</u>	Address		E												
City/State/Zip	<u>Plymouth, NE 68170</u>	City/State/Zip		F												
Phone	<u>734-453-5123</u>	Phone		G												
Fax		Fax		H												
e-Mail Address	<u>rona.fleisher@ghd.com</u>	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-017360-040616-MR-011	4/16/16	1709	Water	1	3	X										
12	WG-017360-040716-MR-012	4/17/16	1604			9											
13	WG- " -013		1158			3											
14	WG- " -014		1238														
15	WG- " -015		1353														
16	WG- " -016		1440														
17	WG- " -017		1606														
18	WG- " -018		1649														
19	WG- " -019		1705														
20	TB- " -020																

Sampler(s) Please Print & Sign <u>Mat Ramsey</u>		Shipment Method <u>Drop off</u>		Turnaround Time in Business Days (BD) ☐ 10 BD ☐ 5 BD ☐ 3 BD ☐ 2 BD ☐ 1 BD				Other <u>Standard</u>				Results Due Date:					
Relinquished by: <u>Mat Ramsey</u>	Date: <u>4/8/16</u>	Time: <u>1050</u>	Received by: <u>[Signature]</u>	Notes: <u>SSOW # 17360-035</u>													
Relinquished by: <u>[Signature]</u>	Date: <u>4/8/16</u>	Time: <u>1050</u>	Received by (Laboratory): <u>[Signature]</u>	Cooler ID	Cooler Temp <u>5.0C</u>	QC Package: (Check One Box Below)											
Logged by (Laboratory): <u>MB</u>				Date: <u>4/8/16</u>	Time: <u>1257</u>	Checked by (Laboratory):				☐ Level II Std QC				☐ TRRP Checklist			
Preservative Key: 1-HCl 2-HNO ₃ 3-H ₂ SO ₄ 4-NaOH 5-Na ₂ S ₂ O ₃ 6-NaHSO ₄ 7-Other 8-4°C 9-5035								☐ Level III Std QC/Raw Data				☐ TRRP Level IV					
								☐ Level IV SW846/CLP									
								☐ Other									

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
3. The Chain of Custody is a legal document. All information must be completed accurately.

Sample Receipt Checklist

Client Name: GHD - PLYMOUTH

Date/Time Received: 08-Apr-16 10:50

Work Order: 1604460

Received by: MB

Checklist completed by Meghan Broadbent
eSignature

08-Apr-16
Date

Reviewed by: Alex Coaszar
eSignature

08-Apr-16
Date

Matrices: water

Carrier name: Client

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☒
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☒
Chain of custody present?	Yes ☒	No ☐	
Chain of custody signed when relinquished and received?	Yes ☒	No ☐	
Chain of custody agrees with sample labels?	Yes ☐	No ☒	
Samples in proper container/bottle?	Yes ☒	No ☐	
Sample containers intact?	Yes ☒	No ☐	
Sufficient sample volume for indicated test?	Yes ☒	No ☐	
All samples received within holding time?	Yes ☒	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☒	No ☐	
Sample(s) received on ice?	Yes ☒	No ☐	
Temperature(s)/Thermometer(s):	<u>5.0/5.0</u>		<u>SR2</u>
Cooler(s)/Kit(s):	<u></u>		
Date/Time sample(s) sent to storage:	<u>4/8/2016 1:08:47 PM</u>		
Water - VOA vials have zero headspace?	Yes ☒	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☒	No ☐	N/A ☐
pH adjusted?	Yes ☐	No ☒	N/A ☐
pH adjusted by:	<u></u>		

Login Notes: COC indicates -004 and -005 should get metals analysis but the labels on the metals bottles indicate -006 and -007.

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

Attachment B

Data Validation Memorandum



Memorandum

To: Jennifer Quigley Ref. No.: 017360-T08Y16-02Y16

From: Nancy Bergstrom/tl/78/Det *TZ For* Date: May 17, 2016

CC: Earl Batenburg, Rawa Fleisher

Re: **Analytical Results and Reduced Validation
Semi-Annual Groundwater Monitoring Program
Former Grand Rapids Metal Plant
Wyoming, Michigan
April 2016**

1. Introduction

This document details a reduced validation of analytical results for groundwater and surface water samples collected in support of the Semi-Annual Groundwater Monitoring Program at the Former Grand Rapids Metal Plant Site during April 2016. Samples were submitted to ALS Environmental, located in Holland, Michigan. 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, recovery data from surrogate spikes/laboratory control samples (LCS)/matrix spikes (MS) and field QA/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 guidance from the documents entitled:

- i) "Former Grand Rapids Metal Plant Work Plan 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 for the analyses are summarized in Table 3. Sample chain of custody documents and analytical reports were used to determine sample holding times. All samples were prepared and analyzed within the required holding times.

All samples were properly preserved, delivered on ice, and stored by the laboratory at the required temperature (4 +/- 2°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 1 per 20 investigative samples and/or 1 per analytical batch.

Table 4 presents the qualified sample result due to analyte concentrations in the method blanks. All remaining method blank results were non-detect or method blank detections were associated with investigative samples that reported either non-detect concentrations or concentrations significantly greater than the associated method blank concentrations for the analytes of interest. These sample results were not impacted by the contamination detected.

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 volatile organic compound (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. All surrogate recoveries met the above criteria.

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 1 per 20 investigative samples and/or 1 per analytical batch.

5.1 Organic Analyses

The LCS contained all compounds of interest. Several VOC and SVOC LCS recoveries exceeded the percent recovery criteria. These analytes were not detected in the associated investigative samples and qualification was not required. All remaining LCS were within the laboratory control limits, demonstrating acceptable analytical accuracy.

5.2 Inorganic Analyses

The LCS contained all analytes of interest. LCS recoveries were assessed per the "Guidelines". All LCS recoveries were within the control limits, demonstrating acceptable analytical accuracy.

6. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analyses

To evaluate the effects of sample matrices on the distillation 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/MSD samples. The RPD between the MS and MSD is used to assess analytical precision.

MS/MSD analyses were performed as specified in Table 1.

6.1 Organic Analyses

The MS/MSD samples were spiked with all compounds of interest. Several VOC and SVOC MS/MSD recoveries exceeded the percent recovery criteria. These analytes were not detected in the associated investigative samples and qualification was not required. Table 5 presents the qualified sample result due to outlying MS/MSD results. All remaining percent recoveries and RPD values were within the laboratory control limits, demonstrating acceptable analytical accuracy and precision.

6.2 Inorganic Analyses

The MS/MSD samples were spiked with the analytes of interest, and the results were evaluated using the "Guidelines". All percent recoveries and RPD values were within the control limits, demonstrating acceptable analytical accuracy and precision.

7. Field QA/QC Samples

The field QA/QC consisted of three trip blank samples and four field duplicate sample sets.

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. All results were non-detect for the compounds of

interest or trip blank detections were associated with investigative samples that reported non-detect concentrations.

7.2 Field Duplicate Sample Analysis

To assess the analytical and sampling protocol precision, four 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 exception and qualification noted herein.

Table 1

Sample Collection and Analysis Summary
Semi-Annual Groundwater Monitoring Program
Former Grand Rapids Metal Plant
Wyoming, Michigan
April 2016

Sample Identification	Location	Matrix	Collection Date (mm/dd/yyyy)	Collection Time (hr:min)	Analysis/Parameters			Comments
					TCL VOC	TCL SVOC	Site-Specific Metals	
ALS-MI SDG No.: 1604460								
SW-017360-040516-MR-001	C-2	Water	04/05/2016	15:55	X	-	-	
SW-017360-040516-MR-002	C-3	Water	04/05/2016	16:10	X	-	-	
SW-017360-040516-MR-003	C-1	Water	04/05/2016	16:20	X	-	-	
WG-017360-040616-MR-004	MW6-03	Water	04/06/2016	10:50	X	-	-	
WG-017360-040616-MR-005	87-13	Water	04/06/2016	11:28	X	-	-	
WG-017360-040616-MR-006	MW59-14	Water	04/06/2016	12:45	X	-	X	FD(MW59-14)
WG-017360-040616-MR-007	MW59-14	Water	04/06/2016	13:00	X	-	X	
WG-017360-040616-MR-008	87-10	Water	04/06/2016	13:25	X	-	-	
WG-017360-040616-MR-009	MW8-04	Water	04/06/2016	15:00	X	-	-	
WG-017360-040616-MR-010	MW43-12	Water	04/06/2016	16:20	X	-	-	
WG-017360-040616-MR-011	MW38-12	Water	04/06/2016	17:09	X	-	-	
WG-017360-040716-MR-012	MW4-03	Water	04/07/2016	11:04	X	-	-	MS/MSD
WG-017360-040716-MR-013	MW9-04	Water	04/07/2016	11:58	X	-	-	
WG-017360-040716-MR-014	MW10-04	Water	04/07/2016	12:38	X	-	-	
WG-017360-040716-MR-015	MW11S-05	Water	04/07/2016	13:53	X	-	-	
WG-017360-040716-MR-016	MW11D-04	Water	04/07/2016	14:40	X	-	-	
WG-017360-040716-MR-017	87-8	Water	04/07/2016	16:06	X	-	-	
WG-017360-040716-MR-018	86-3	Water	04/07/2016	16:49	X	-	-	FD(86-3)
WG-017360-040716-MR-019	86-3	Water	04/07/2016	17:05	X	-	-	TB
TB-017360-040716-MR-020	-	Water	04/07/2016	-	-	-	-	

Table 1

Sample Collection and Analysis Summary
Semi-Annual Groundwater Monitoring Program
Former Grand Rapids Metal Plant
Wyoming, Michigan
April 2016

Sample Identification	Location	Matrix	Collection Date (mm/dd/yyyy)	Collection Time (hr:min)	Analysis/Parameters			Comments
					TCL VOC	TCL SVOC	Site-Specific Metals	
ALS-MI SDG No.: 1604836								
WG-017360-041116-MR-021	MW46-12	Water	04/11/2016	12:48	X	X	-	MS/MSD
WG-017360-041116-MR-022	MW45-12	Water	04/11/2016	13:35	X	X	-	
WG-017360-041116-MR-023	MW45-12	Water	04/11/2016	13:50	X	X	-	FD(MW45-12), MS/MSD-P
WG-017360-041116-MR-024	MW44-12	Water	04/11/2016	14:50	X	X	-	
WG-017360-041116-MR-025	MW42-12	Water	04/11/2016	15:40	X	-	-	
WG-017360-041116-MR-026	MW60-14	Water	04/11/2016	16:30	X	-	X	MS/MSD-P
WG-017360-041316-MR-027	MW7-03	Water	04/13/2016	11:33	X	-	-	
WG-017360-041316-MR-028	MW48-13	Water	04/13/2016	13:10	X	-	-	
WG-017360-041316-MR-029	MW17-06	Water	04/13/2016	14:13	X	-	-	
WG-017360-041316-MR-030	MW58-13	Water	04/13/2016	16:16	X	-	-	
WG-017360-041316-MR-031	MW28-12	Water	04/13/2016	17:03	X	-	-	
WG-017360-041316-MR-032	MW30-12	Water	04/13/2016	17:59	X	-	-	
WG-017360-041416-MR-033	85-6	Water	04/14/2016	10:45	X	X	-	
WG-017360-041416-MR-034	MW2-03	Water	04/14/2016	11:40	X	-	-	
WG-017360-041416-MR-035	MW2-03	Water	04/14/2016	12:00	X	-	-	
WG-017360-041416-MR-036	MW49-13	Water	04/14/2016	12:40	X	-	-	
WG-017360-041416-MR-037	MW52-12	Water	04/14/2016	14:18	X	X	-	
WG-017360-041416-MR-038	MW51-12	Water	04/14/2016	15:15	X	X	-	
WG-017360-041416-MR-039	MW50-12	Water	04/14/2016	16:09	X	X	-	
WG-017360-041416-MR-039	MW50-12	Water	04/14/2016	16:09	X	-	-	
WG-017360-041416-MR-040	MW37-12	Water	04/14/2016	16:59	X	-	-	
TB-017360-041416-MR-041	--	Water	04/14/2016	--	X	-	-	TB

Table 1

Sample Collection and Analysis Summary
Semi-Annual Groundwater Monitoring Program
Former Grand Rapids Metal Plant
Wyoming, Michigan
April 2016

Sample Identification	Location	Matrix	Collection Date (mm/dd/yyyy)	Collection Time (hr:min)	Analysis/Parameters			Comments
					TCL VOC	TCL SVOC	Site-Specific Metals	
ALS-MI SDG No.: 1604961								
WG-017360-041816-MR-042	MW15-04	Water	04/18/2016	10:54	X	-	-	
WG-017360-041816-MR-043	MW41-12	Water	04/18/2016	11:28	X	-	-	
WG-017360-041816-MR-044	MW40-12	Water	04/18/2016	12:10	X	-	-	MS/MSD
WG-017360-041816-MR-045	MW34-12	Water	04/18/2016	12:45	X	-	-	
WG-017360-041816-MR-046	MW34-12	Water	04/18/2016	13:00	X	-	-	FD(MW34-12)
WG-017360-041816-MR-047	MW35-12	Water	04/18/2016	13:56	X	-	-	
WG-017360-041816-MR-048	MW33-12	Water	04/18/2016	14:51	X	-	-	
WG-017360-041816-MR-049	MW32-12	Water	04/18/2016	15:22	X	-	-	
TB-017360-041816-MR-050	--	Water	04/18/2016	--	X	-	-	TB

Notes:

- FD - Field Duplicate sample of sample in parenthesis
- MS/MSD - Matrix Spike/Matrix Spike Duplicate
- MS/MSD-P - Matrix Spike/Matrix Spike Duplicate (Partial parameters)
- TB - Trip Blank
- TCL - Target Compound List
- VOC - Volatile Organic Compounds
- SVOC - Semi-volatile Organic Compounds
- ALS- MI - ALS Environmental - Holland, Michigan
- SDG - Sample Delivery Group

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID: 85-6 86-3
Sample Name: WG-017360-041416-MR-033 WG-017360-040716-MR-018
Sample Date: 04/14/2016 04/07/2016
Depth: -- --

Parameters	Unit
Volatile Organic Compounds	
1,1,1-Trichloroethane	1.0 U
1,1,2,2-Tetrachloroethane	1.0 U
1,1,2-Trichloroethane	1.0 U
1,1-Dichloroethane	1.0 U
1,1-Dichloroethene	1.0 U
1,2,4-Trichlorobenzene	5.0 U
1,2-Dibromo-3-chloropropane (DBCP)	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	1.0 U
1,2-Dichlorobenzene	1.0 U
1,2-Dichloroethane	1.0 U
1,2-Dichloropropane	1.0 U
1,3-Dichlorobenzene	1.0 U
1,4-Dichlorobenzene	1.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	25 U
2-Hexanone	50 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	50 U
Acetone	50 U
Benzene	1.0 U
Bromodichloromethane	1.0 U
Bromoform	1.0 U
Bromomethane (Methyl bromide)	5.0 U
Carbon disulfide	5.0 U
Carbon tetrachloride	1.0 U
Chlorobenzene	1.0 U
Chloroethane	5.0 U
Chloroform (Trichloromethane)	1.0 U
Chloromethane (Methyl chloride)	5.0 U
cis-1,2-Dichloroethene	1.0 U
cis-1,3-Dichloropropene	2.2
	1.0 U

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID:		85-6	86-3
Sample Name:		WG-017360-041416-MR-033	WG-017360-040716-MR-018
Sample Date:		04/14/2016	04/07/2016
Depth:		--	--
Parameters	Unit		
Volatile Organic Compounds			
Cyclohexane	µg/L	1.0 U	1.0 U
Dibromochloromethane	µg/L	5.0 U	5.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	5.0 U	5.0 U
Ethylbenzene	µg/L	1.0 U	1.0 U
Isopropyl benzene	µg/L	5.0 U	5.0 U
Methyl acetate	µg/L	10 U	10 U
Methyl cyclohexane	µg/L	1.0 U	1.0 U
Methyl tert butyl ether (MTBE)	µg/L	5.0 U	5.0 U
Methylene chloride	µg/L	5.0 U	5.0 U
Styrene	µg/L	1.0 U	1.0 U
Tetrachloroethene	µg/L	6.9	1.0 U
Toluene	µg/L	1.0 U	1.0 U
trans-1,2-Dichloroethene	µg/L	1.0 U	0.62 J
trans-1,3-Dichloropropene	µg/L	1.0 U	1.0 U
Trichloroethene	µg/L	1.3	4.4
Trichlorofluoromethane (CFC-11)	µg/L	1.0 U	1.0 U
Trifluorotrichloroethane (CFC-113)	µg/L	1.0 U	1.0 U
Vinyl chloride	µg/L	1.0 U	0.73 J
Xylenes (total)	µg/L	3.0 U	3.0 U
Semivolatile Organic Compounds			
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	µg/L	5.6 U	--
2,4,5-Trichlorophenol	µg/L	5.6 U	--
2,4,6-Trichlorophenol	µg/L	5.6 U	--
2,4-Dichlorophenol	µg/L	5.6 U	--
2,4-Dimethylphenol	µg/L	5.6 U	--
2,4-Dinitrophenol	µg/L	5.6 U	--
2,4-Dinitrotoluene	µg/L	5.6 U	--
2,6-Dinitrotoluene	µg/L	5.6 U	--

Table 2

**Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program**

Wyoming, Michigan

April 2016

Location ID: 85-6 86-3
 Sample Name: WG-017360-041416-MR-033 WG-017360-040716-MR-018
 Sample Date: 04/14/2016 04/07/2016
 Depth: -- --

Parameters**Unit****Semivolatile Organic Compounds**

2-Chloronaphthalene	µg/L	5.6 U	--
2-Chlorophenol	µg/L	5.6 U	--
2-Methylnaphthalene	µg/L	5.6 U	--
2-Methylphenol	µg/L	5.6 U	--
2-Nitroaniline	µg/L	5.6 U	--
2-Nitrophenol	µg/L	5.6 U	--
3&4-Methylphenol	µg/L	5.6 U	--
3,3'-Dichlorobenzidine	µg/L	5.6 U	--
3-Nitroaniline	µg/L	5.6 U	--
4,6-Dinitro-2-methylphenol	µg/L	5.6 U	--
4-Bromophenyl phenyl ether	µg/L	5.6 U	--
4-Chloro-3-methylphenol	µg/L	5.6 U	--
4-Chloroaniline	µg/L	5.6 U	--
4-Chlorophenyl phenyl ether	µg/L	5.6 U	--
4-Nitroaniline	µg/L	5.6 U	--
4-Nitrophenol	µg/L	5.6 U	--
Acenaphthene	µg/L	5.6 U	--
Acenaphthylene	µg/L	5.6 U	--
Acetophenone	µg/L	1.1 U	--
Anthracene	µg/L	5.6 U	--
Atrazine	µg/L	1.1 U	--
Benzaldehyde	µg/L	1.1 U	--
Benzo(a)anthracene	µg/L	5.6 U	--
Benzo(a)pyrene	µg/L	5.6 U	--
Benzo(b)fluoranthene	µg/L	5.6 U	--
Benzo(g,h,i)perylene	µg/L	5.6 U	--
Benzo(k)fluoranthene	µg/L	5.6 U	--
Biphenyl (1,1-Biphenyl)	µg/L	5.6 U	--
bis(2-Chloroethoxy)methane	µg/L	5.6 U	--

Table 2

**Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016**

Location ID: 85-6 86-3
 Sample Name: WG-017360-041416-MR-033 WG-017360-040716-MR-018
 Sample Date: 04/14/2016 04/07/2016
 Depth: -- --

Parameters**Unit****Semivolatile Organic Compounds**

bis(2-Chloroethyl)ether	µg/L	5.6 U	--
bis(2-Ethylhexyl)phthalate (DEHP)	µg/L	5.6 U	--
Butyl benzylphthalate (BBP)	µg/L	5.6 U	--
Caprolactam	µg/L	11 U	--
Carbazole	µg/L	5.6 U	--
Chrysene	µg/L	5.6 U	--
Di-n-butylphthalate (DBP)	µg/L	5.6 U	--
Di-n-octyl phthalate (DnOP)	µg/L	5.6 U	--
Dibenz(a,h)anthracene	µg/L	5.6 U	--
Dibenzofuran	µg/L	5.6 U	--
Diethyl phthalate	µg/L	5.6 U	--
Dimethyl phthalate	µg/L	5.6 U	--
Fluoranthene	µg/L	5.6 U	--
Fluorene	µg/L	5.6 U	--
Hexachlorobenzene	µg/L	5.6 U	--
Hexachlorobutadiene	µg/L	5.6 U	--
Hexachlorocyclopentadiene	µg/L	5.6 U	--
Hexachloroethane	µg/L	5.6 U	--
Indeno(1,2,3-cd)pyrene	µg/L	5.6 U	--
Isophorone	µg/L	5.6 U	--
N-Nitrosodi-n-propylamine	µg/L	5.6 U	--
N-Nitrosodiphenylamine	µg/L	5.6 U	--
Naphthalene	µg/L	5.6 U	--
Nitrobenzene	µg/L	5.6 U	--
Pentachlorophenol	µg/L	5.6 U	--
Phenanthrene	µg/L	5.6 U	--
Phenol	µg/L	5.6 U	--
Pyrene	µg/L	5.6 U	--

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID: 85-6 86-3
Sample Name: WG-017360-041416-MR-033 WG-017360-040716-MR-018
Sample Date: 04/14/2016 04/07/2016
Depth: --

Parameters	Unit
Metals	
Antimony	mg/L
Arsenic	mg/L
Barium	mg/L
Beryllium	mg/L
Cadmium	mg/L
Chromium	mg/L
Cobalt	mg/L
Copper	mg/L
Iron	mg/L
Lead	mg/L
Manganese	mg/L
Mercury	mg/L
Molybdenum	mg/L
Nickel	mg/L
Selenium	mg/L
Silver	mg/L
Thallium	mg/L
Vanadium	mg/L
Zinc	mg/L

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID:	86-3	87-8
Sample Name:	WG-017360-040716-MR-019	WG-017360-040716-MR-017
Sample Date:	04/07/2016	04/07/2016
Depth:	--	--
Parameters	Duplicate	
Volatile Organic Compounds		
1,1,1-Trichloroethane	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	1.0 U	1.0 U
1,1,2-Trichloroethane	1.0 U	1.0 U
1,1-Dichloroethane	1.0 U	1.0 U
1,1-Dichloroethene	1.0 U	1.0 U
1,2,4-Trichlorobenzene	5.0 U	5.0 U
1,2-Dibromo-3-chloropropane (DBCP)	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	1.0 U	1.0 U
1,2-Dichlorobenzene	1.0 U	1.0 U
1,2-Dichloroethane	1.0 U	1.0 U
1,2-Dichloropropane	1.0 U	1.0 U
1,3-Dichlorobenzene	1.0 U	1.0 U
1,4-Dichlorobenzene	25 U	25 U
2-Butanone (Methyl ethyl ketone) (MEK)	50 U	50 U
2-Hexanone	50 U	50 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	50 U	50 U
Acetone	50 U	50 U
Benzene	1.0 U	1.0 U
Bromodichloromethane	1.0 U	1.0 U
Bromoform	1.0 U	1.0 U
Bromomethane (Methyl bromide)	5.0 U	5.0 U
Carbon disulfide	5.0 U	5.0 U
Carbon tetrachloride	1.0 U	1.0 U
Chlorobenzene	1.0 U	1.0 U
Chloroethane	5.0 U	5.0 U
Chloroform (Trichloromethane)	1.0 U	1.0 U
Chloromethane (Methyl chloride)	5.0 U	5.0 U
cis-1,2-Dichloroethene	2.0	1.0 U
cis-1,3-Dichloropropene	1.0 U	1.0 U

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
 Wyoming, Michigan
 April 2016

Location ID:		86-3	87-8
Sample Name:		WG-017360-040716-MR-019	WG-017360-040716-MR-017
Sample Date:		04/07/2016	04/07/2016
Depth:		--	--
Parameters		Duplicate	
Volatile Organic Compounds			
Cyclohexane	µg/L	1.0 U	1.0 U
Dibromochloromethane	µg/L	5.0 U	5.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	5.0 U	5.0 U
Ethylbenzene	µg/L	1.0 U	1.0 U
Isopropyl benzene	µg/L	5.0 U	5.0 U
Methyl acetate	µg/L	10 U	10 U
Methyl cyclohexane	µg/L	1.0 U	1.0 U
Methyl tert butyl ether (MTBE)	µg/L	5.0 U	5.0 U
Methylene chloride	µg/L	5.0 U	5.0 U
Styrene	µg/L	1.0 U	1.0 U
Tetrachloroethene	µg/L	1.0 U	1.0 U
Toluene	µg/L	1.0 U	1.0 U
trans-1,2-Dichloroethene	µg/L	0.52 J	1.0 U
trans-1,3-Dichloropropene	µg/L	1.0 U	1.0 U
Trichloroethene	µg/L	1.0 U	1.0 U
Trichlorofluoromethane (CFC-11)	µg/L	3.9	1.0 U
Trifluorotrichloroethane (CFC-113)	µg/L	1.0 U	1.0 U
Vinyl chloride	µg/L	0.61 J	1.0 U
Xylenes (total)	µg/L	3.0 U	3.0 U
Semivolatile Organic Compounds			
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	µg/L	--	--
2,4,5-Trichlorophenol	µg/L	--	--
2,4,6-Trichlorophenol	µg/L	--	--
2,4-Dichlorophenol	µg/L	--	--
2,4-Dimethylphenol	µg/L	--	--
2,4-Dinitrophenol	µg/L	--	--
2,4-Dinitrotoluene	µg/L	--	--
2,6-Dinitrotoluene	µg/L	--	--

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID: 86-3 87-8
 Sample Name: WG-017360-040716-MR-019 WG-017360-040716-MR-017
 Sample Date: 04/07/2016 04/07/2016
 Depth: -- Duplicate

Parameters**Unit****Semivolatile Organic Compounds**

2-Chloronaphthalene	µg/L	--
2-Chlorophenol	µg/L	--
2-Methylnaphthalene	µg/L	--
2-Methylphenol	µg/L	--
2-Nitroaniline	µg/L	--
2-Nitrophenol	µg/L	--
3&4-Methylphenol	µg/L	--
3,3'-Dichlorobenzidine	µg/L	--
3-Nitroaniline	µg/L	--
4,6-Dinitro-2-methylphenol	µg/L	--
4-Bromophenyl phenyl ether	µg/L	--
4-Chloro-3-methylphenol	µg/L	--
4-Chloroaniline	µg/L	--
4-Chlorophenyl phenyl ether	µg/L	--
4-Nitroaniline	µg/L	--
4-Nitrophenol	µg/L	--
Acenaphthene	µg/L	--
Acenaphthylene	µg/L	--
Acetophenone	µg/L	--
Anthracene	µg/L	--
Atrazine	µg/L	--
Benzaldehyde	µg/L	--
Benzo(a)anthracene	µg/L	--
Benzo(a)pyrene	µg/L	--
Benzo(b)fluoranthene	µg/L	--
Benzo(g,h,i)perylene	µg/L	--
Benzo(k)fluoranthene	µg/L	--
Biphenyl (1,1-Biphenyl)	µg/L	--
bis(2-Chloroethoxy)methane	µg/L	--

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID:	86-3	87-8
Sample Name:	WG-017360-040716-MR-019	WG-017360-040716-MR-017
Sample Date:	04/07/2016	04/07/2016
Depth:	—	—
Parameters	Duplicate	
Unit		
Semivolatile Organic Compounds		
bis(2-Chloroethyl)ether	µg/L	—
bis(2-Ethylhexyl)phthalate (DEHP)	µg/L	—
Butyl benzylphthalate (BBP)	µg/L	—
Caprolactam	µg/L	—
Carbazole	µg/L	—
Chrysene	µg/L	—
Di-n-butylphthalate (DBP)	µg/L	—
Di-n-octyl phthalate (DnOP)	µg/L	—
Dibenz(a,h)anthracene	µg/L	—
Dibenzofuran	µg/L	—
Diethyl phthalate	µg/L	—
Dimethyl phthalate	µg/L	—
Fluoranthene	µg/L	—
Fluorene	µg/L	—
Hexachlorobenzene	µg/L	—
Hexachlorobutadiene	µg/L	—
Hexachlorocyclopentadiene	µg/L	—
Hexachloroethane	µg/L	—
Indeno(1,2,3-cd)pyrene	µg/L	—
Isophorone	µg/L	—
N-Nitrosodi-n-propylamine	µg/L	—
N-Nitrosodiphenylamine	µg/L	—
Naphthalene	µg/L	—
Nitrobenzene	µg/L	—
Pentachlorophenol	µg/L	—
Phenanthrene	µg/L	—
Phenol	µg/L	—
Pyrene	µg/L	—

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID: 86-3 87-8
 Sample Name: WG-017360-040716-MR-019 WG-017360-040716-MR-017
 Sample Date: 04/07/2016 04/07/2016
 Depth: -- --
 Duplicate

Parameters**Unit****Metals**

Antimony	mg/L	--	--
Arsenic	mg/L	--	--
Barium	mg/L	--	--
Beryllium	mg/L	--	--
Cadmium	mg/L	--	--
Chromium	mg/L	--	--
Cobalt	mg/L	--	--
Copper	mg/L	--	--
Iron	mg/L	--	--
Lead	mg/L	--	--
Manganese	mg/L	--	--
Mercury	mg/L	--	--
Molybdenum	mg/L	--	--
Nickel	mg/L	--	--
Selenium	mg/L	--	--
Silver	mg/L	--	--
Thallium	mg/L	--	--
Vanadium	mg/L	--	--
Zinc	mg/L	--	--

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID: 87-10 87-13
Sample Name: WG-017360-040616-MR-008 WG-017360-040616-MR-005
Sample Date: 04/06/2016 04/06/2016
Depth: --

Parameters	Unit	
Volatile Organic Compounds		
1,1,1-Trichloroethane	µg/L	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	1.0 U
1,1,2-Trichloroethane	µg/L	1.0 U
1,1-Dichloroethane	µg/L	1.0 U
1,1-Dichloroethene	µg/L	1.0 U
1,2,4-Trichlorobenzene	µg/L	5.0 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	µg/L	1.0 U
1,2-Dichlorobenzene	µg/L	1.0 U
1,2-Dichloroethane	µg/L	1.0 U
1,2-Dichloropropane	µg/L	1.0 U
1,3-Dichlorobenzene	µg/L	1.0 U
1,4-Dichlorobenzene	µg/L	1.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	25 U
2-Hexanone	µg/L	50 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	50 U
Acetone	µg/L	50 U
Benzene	µg/L	1.0 U
Bromodichloromethane	µg/L	1.0 U
Bromoform	µg/L	1.0 U
Bromomethane (Methyl bromide)	µg/L	5.0 U
Carbon disulfide	µg/L	5.0 U
Carbon tetrachloride	µg/L	1.0 U
Chlorobenzene	µg/L	1.0 U
Chloroethane	µg/L	5.0 U
Chloroform (Trichloromethane)	µg/L	1.0 U
Chloromethane (Methyl chloride)	µg/L	5.0 U
cis-1,2-Dichloroethene	µg/L	0.61 J
cis-1,3-Dichloropropene	µg/L	1.0 U

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID: 87-10 87-13
 Sample Name: WG-017360-040616-MR-008 WG-017360-040616-MR-005
 Sample Date: 04/06/2016 04/06/2016
 Depth: -- --

Parameters**Unit****Volatile Organic Compounds**

Cyclohexane	1.0 U	1.0 U
Dibromochloromethane	5.0 U	5.0 U
Dichlorodifluoromethane (CFC-12)	5.0 U	5.0 U
Ethylbenzene	1.0 U	1.0 U
Isopropyl benzene	5.0 U	5.0 U
Methyl acetate	10 U	10 U
Methyl cyclohexane	1.0 U	1.0 U
Methyl tert butyl ether (MTBE)	5.0 U	5.0 U
Methylene chloride	5.0 U	5.0 U
Styrene	1.0 U	1.0 U
Tetrachloroethene	1.0 U	1.0 U
Toluene	1.0 U	1.0 U
trans-1,2-Dichloroethene	1.0 U	1.0 U
trans-1,3-Dichloropropene	1.0 U	1.0 U
Trichloroethene	1.0 U	1.0 U
Trichlorofluoromethane (CFC-11)	3.4	1.0 U
Trifluorotrichloroethane (CFC-113)	1.0 U	1.0 U
Vinyl chloride	1.0 U	1.0 U
Xylenes (total)	3.0 U	3.0 U

Semivolatile 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	--	--

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID: 87-10 87-13
 Sample Name: WG-017360-040616-MR-008 WG-017360-040616-MR-005
 Sample Date: 04/06/2016 04/06/2016
 Depth: -- --

Parameters**Unit****Semivolatile Organic Compounds**

2-Chloronaphthalene	µg/L	--
2-Chlorophenol	µg/L	--
2-Methylnaphthalene	µg/L	--
2-Methylphenol	µg/L	--
2-Nitroaniline	µg/L	--
2-Nitrophenol	µg/L	--
3&4-Methylphenol	µg/L	--
3,3'-Dichlorobenzidine	µg/L	--
3-Nitroaniline	µg/L	--
4,6-Dinitro-2-methylphenol	µg/L	--
4-Bromophenyl phenyl ether	µg/L	--
4-Chloro-3-methylphenol	µg/L	--
4-Chloroaniline	µg/L	--
4-Chlorophenyl phenyl ether	µg/L	--
4-Nitroaniline	µg/L	--
4-Nitrophenol	µg/L	--
Acenaphthene	µg/L	--
Acenaphthylene	µg/L	--
Acetophenone	µg/L	--
Anthracene	µg/L	--
Atrazine	µg/L	--
Benzaldehyde	µg/L	--
Benzo(a)anthracene	µg/L	--
Benzo(a)pyrene	µg/L	--
Benzo(b)fluoranthene	µg/L	--
Benzo(g,h,i)perylene	µg/L	--
Benzo(k)fluoranthene	µg/L	--
Biphenyl (1,1-Biphenyl)	µg/L	--
bis(2-Chloroethoxy)methane	µg/L	--

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID: 87-10 87-13
Sample Name: WG-017360-040616-MR-008 WG-017360-040616-MR-005
Sample Date: 04/06/2016 04/06/2016
Depth: --

Parameters**Unit****Semivolatile Organic Compounds**

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

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID: 87-10 87-13
 Sample Name: WG-017360-040616-MR-008 WG-017360-040616-MR-005
 Sample Date: 04/06/2016 04/06/2016
 Depth: -- --

Parameters

Unit

Metals

Antimony	mg/L	--
Arsenic	mg/L	--
Barium	mg/L	--
Beryllium	mg/L	--
Cadmium	mg/L	--
Chromium	mg/L	--
Cobalt	mg/L	--
Copper	mg/L	--
Iron	mg/L	--
Lead	mg/L	--
Manganese	mg/L	--
Mercury	mg/L	--
Molybdenum	mg/L	--
Nickel	mg/L	--
Selenium	mg/L	--
Silver	mg/L	--
Thallium	mg/L	--
Vanadium	mg/L	--
Zinc	mg/L	--

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID:	C-1	C-2
Sample Name:	SW-017360-040516-MR-003	SW-017360-040516-MR-001
Sample Date:	04/05/2016	04/05/2016
Depth:	--	--
Parameters	Unit	
Volatile Organic Compounds		
1,1,1-Trichloroethane	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	1.0 U	1.0 U
1,1,2-Trichloroethane	1.0 U	1.0 U
1,1-Dichloroethane	1.0 U	1.0 U
1,1-Dichloroethene	1.0 U	1.0 U
1,2,4-Trichlorobenzene	5.0 U	5.0 U
1,2-Dibromo-3-chloropropane (DBCP)	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	1.0 U	1.0 U
1,2-Dichlorobenzene	1.0 U	1.0 U
1,2-Dichloroethane	1.0 U	1.0 U
1,2-Dichloropropane	1.0 U	1.0 U
1,3-Dichlorobenzene	1.0 U	1.0 U
1,4-Dichlorobenzene	1.0 U	1.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	25 U	25 U
2-Hexanone	50 U	50 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	50 U	50 U
Acetone	50 U	50 U
Benzene	1.0 U	1.0 U
Bromodichloromethane	1.0 U	1.0 U
Bromoform	1.0 U	1.0 U
Bromomethane (Methyl bromide)	5.0 U	5.0 U
Carbon disulfide	5.0 U	5.0 U
Carbon tetrachloride	1.0 U	1.0 U
Chlorobenzene	1.0 U	1.0 U
Chloroethane	5.0 U	5.0 U
Chloroform (Trichloromethane)	0.81 U	1.0 U
Chloromethane (Methyl chloride)	5.0 U	5.0 U
cis-1,2-Dichloroethene	1.4	1.3
cis-1,3-Dichloropropene	1.0 U	1.0 U

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID:		C-1	C-2
Sample Name:		SW-017360-040516-MR-003	SW-017360-040516-MR-001
Sample Date:		04/05/2016	04/05/2016
Depth:		--	--
Parameters	Unit		
Volatile Organic Compounds			
Cyclohexane	µg/L	1.0 U	1.0 U
Dibromochloromethane	µg/L	5.0 U	5.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	5.0 U	5.0 U
Ethylbenzene	µg/L	1.0 U	1.0 U
Isopropyl benzene	µg/L	5.0 U	5.0 U
Methyl acetate	µg/L	10 U	10 U
Methyl cyclohexane	µg/L	1.0 U	1.0 U
Methyl tert butyl ether (MTBE)	µg/L	5.0 U	5.0 U
Methylene chloride	µg/L	5.0 U	5.0 U
Styrene	µg/L	1.0 U	1.0 U
Tetrachloroethene	µg/L	4.3	1.6
Toluene	µg/L	1.0 U	1.0 U
trans-1,2-Dichloroethene	µg/L	1.0 U	1.0 U
trans-1,3-Dichloropropene	µg/L	1.0 U	1.0 U
Trichloroethene	µg/L	1.2	1.0 U
Trichlorofluoromethane (CFC-11)	µg/L	1.0 U	1.0 U
Trifluorotrichloroethane (CFC-113)	µg/L	1.0 U	1.0 U
Vinyl chloride	µg/L	1.0 U	0.44 J
Xylenes (total)	µg/L	3.0 U	3.0 U
Semivolatile Organic Compounds			
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	µg/L	--	--
2,4,5-Trichlorophenol	µg/L	--	--
2,4,6-Trichlorophenol	µg/L	--	--
2,4-Dichlorophenol	µg/L	--	--
2,4-Dimethylphenol	µg/L	--	--
2,4-Dinitrophenol	µg/L	--	--
2,4-Dinitrotoluene	µg/L	--	--
2,6-Dinitrotoluene	µg/L	--	--

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID: C-1 C-2
Sample Name: SW-017360-040516-MR-003 SW-017360-040516-MR-001
Sample Date: 04/05/2016 04/05/2016
Depth: --

Parameters**Unit****Semivolatile Organic Compounds**

2-Chloronaphthalene	µg/L	--
2-Chlorophenol	µg/L	--
2-Methylnaphthalene	µg/L	--
2-Methylphenol	µg/L	--
2-Nitroaniline	µg/L	--
2-Nitrophenol	µg/L	--
3&4-Methylphenol	µg/L	--
3,3'-Dichlorobenzidine	µg/L	--
3-Nitroaniline	µg/L	--
4,6-Dinitro-2-methylphenol	µg/L	--
4-Bromophenyl phenyl ether	µg/L	--
4-Chloro-3-methylphenol	µg/L	--
4-Chloroaniline	µg/L	--
4-Chlorophenyl phenyl ether	µg/L	--
4-Nitroaniline	µg/L	--
4-Nitrophenol	µg/L	--
Acenaphthene	µg/L	--
Acenaphthylene	µg/L	--
Acetophenone	µg/L	--
Anthracene	µg/L	--
Atrazine	µg/L	--
Benzaldehyde	µg/L	--
Benzo(a)anthracene	µg/L	--
Benzo(a)pyrene	µg/L	--
Benzo(b)fluoranthene	µg/L	--
Benzo(g,h,i)perylene	µg/L	--
Benzo(k)fluoranthene	µg/L	--
Biphenyl (1,1-Biphenyl)	µg/L	--
bis(2-Chloroethoxy)methane	µg/L	--

Table 2

**Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016**

Location ID: C-1 C-2
Sample Name: SW-017360-040516-MR-003 SW-017360-040516-MR-001
Sample Date: 04/05/2016 04/05/2016
Depth: --

Parameters**Unit****Semivolatile Organic Compounds**

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

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID: C-1 C-2
Sample Name: SW-017360-040516-MR-003 SW-017360-040516-MR-001
Sample Date: 04/05/2016 04/05/2016
Depth: -- --

Parameters**Unit****Metals**

Antimony	mg/L	--
Arsenic	mg/L	--
Barium	mg/L	--
Beryllium	mg/L	--
Cadmium	mg/L	--
Chromium	mg/L	--
Cobalt	mg/L	--
Copper	mg/L	--
Iron	mg/L	--
Lead	mg/L	--
Manganese	mg/L	--
Mercury	mg/L	--
Molybdenum	mg/L	--
Nickel	mg/L	--
Selenium	mg/L	--
Silver	mg/L	--
Thallium	mg/L	--
Vanadium	mg/L	--
Zinc	mg/L	--

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID: C-3 MW2-03
Sample Name: SW-017360-040516-MR-002 WG-017360-041416-MR-034
Sample Date: 04/05/2016 04/14/2016
Depth: --

Parameters	Unit
Volatile Organic Compounds	
1,1,1-Trichloroethane	1.0 U
1,1,2,2-Tetrachloroethane	1.0 U
1,1,2-Trichloroethane	1.0 U
1,1-Dichloroethane	1.0 U
1,1-Dichloroethene	1.0 U
1,2,4-Trichlorobenzene	5.0 U
1,2-Dibromo-3-chloropropane (DBCP)	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	1.0 U
1,2-Dichlorobenzene	1.0 U
1,2-Dichloroethane	1.0 U
1,2-Dichloropropane	1.0 U
1,3-Dichlorobenzene	1.0 U
1,4-Dichlorobenzene	1.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	25 U
2-Hexanone	50 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	50 U
Acetone	50 U
Benzene	1.0 U
Bromodichloromethane	1.0 U
Bromoform	1.0 U
Bromomethane (Methyl bromide)	5.0 U
Carbon disulfide	5.0 U
Carbon tetrachloride	1.0 U
Chlorobenzene	1.0 U
Chloroethane	5.0 U
Chloroform (Trichloromethane)	1.0 U
Chloromethane (Methyl chloride)	5.0 U
cis-1,2-Dichloroethene	0.96 J
cis-1,3-Dichloropropene	1.0 U

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
 Wyoming, Michigan
 April 2016

Location ID: C-3 MW2-03
 Sample Name: SW-017360-040516-MR-002 WG-017360-041416-MR-034
 Sample Date: 04/05/2016 04/14/2016
 Depth: --

Parameters**Unit****Volatile Organic Compounds**

Cyclohexane	1.0 U	1.0 U
Dibromochloromethane	5.0 U	5.0 U
Dichlorodifluoromethane (CFC-12)	5.0 U	5.0 U
Ethylbenzene	1.0 U	1.0 U
Isopropyl benzene	5.0 U	5.0 U
Methyl acetate	10 U	10 U
Methyl cyclohexane	1.0 U	1.0 U
Methyl tert butyl ether (MTBE)	5.0 U	5.0 U
Methylene chloride	5.0 U	5.0 U
Styrene	1.0 U	1.0 U
Tetrachloroethene	1.8	2.8
Toluene	1.0 U	1.0 U
trans-1,2-Dichloroethene	1.0 U	1.0 U
trans-1,3-Dichloropropene	1.0 U	1.0 U
Trichloroethene	1.0 U	1.0 U
Trichlorofluoromethane (CFC-11)	1.0 U	1.0 U
Trifluorotrichloroethane (CFC-113)	1.0 U	1.0 U
Vinyl chloride	1.0 U	1.0 U
Xylenes (total)	3.0 U	3.0 U

Semivolatile 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	--	--

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID: C-3 MW2-03
Sample Name: SW-017360-040516-MR-002 WG-017360-041416-MR-034
Sample Date: 04/05/2016 04/14/2016
Depth: -- --

Parameters**Unit****Semivolatile Organic Compounds**

2-Chloronaphthalene	µg/L	--
2-Chlorophenol	µg/L	--
2-Methylnaphthalene	µg/L	--
2-Methylphenol	µg/L	--
2-Nitroaniline	µg/L	--
2-Nitrophenol	µg/L	--
3&4-Methylphenol	µg/L	--
3,3'-Dichlorobenzidine	µg/L	--
3-Nitroaniline	µg/L	--
4,6-Dinitro-2-methylphenol	µg/L	--
4-Bromophenyl phenyl ether	µg/L	--
4-Chloro-3-methylphenol	µg/L	--
4-Chloroaniline	µg/L	--
4-Chlorophenyl phenyl ether	µg/L	--
4-Nitroaniline	µg/L	--
4-Nitrophenol	µg/L	--
Acenaphthene	µg/L	--
Acenaphthylene	µg/L	--
Acetophenone	µg/L	--
Anthracene	µg/L	--
Atrazine	µg/L	--
Benzaldehyde	µg/L	--
Benzo(a)anthracene	µg/L	--
Benzo(a)pyrene	µg/L	--
Benzo(b)fluoranthene	µg/L	--
Benzo(g,h,i)perylene	µg/L	--
Benzo(k)fluoranthene	µg/L	--
Biphenyl (1,1-Biphenyl)	µg/L	--
bis(2-Chloroethoxy)methane	µg/L	--

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID: C-3 MW2-03
 Sample Name: SW-017360-040516-MR-002 WG-017360-041416-MR-034
 Sample Date: 04/05/2016 04/14/2016
 Depth: --

Parameters**Unit****Semivolatile Organic Compounds**

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

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID: C-3 MW2-03
Sample Name: SW-017360-040516-MR-002 WG-017360-041416-MR-034
Sample Date: 04/05/2016 04/14/2016
Depth: --

Parameters	Unit
Metals	
Antimony	mg/L
Arsenic	mg/L
Barium	mg/L
Beryllium	mg/L
Cadmium	mg/L
Chromium	mg/L
Cobalt	mg/L
Copper	mg/L
Iron	mg/L
Lead	mg/L
Manganese	mg/L
Mercury	mg/L
Molybdenum	mg/L
Nickel	mg/L
Selenium	mg/L
Silver	mg/L
Thallium	mg/L
Vanadium	mg/L
Zinc	mg/L

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID: MW2-03 MW4-03
Sample Name: WG-017360-041416-MIR-035 WG-017360-040716-MR-012
Sample Date: 04/14/2016 04/07/2016
Depth: --

Parameters	Unit	
Volatile Organic Compounds		
1,1,1-Trichloroethane	µg/L	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	1.0 U
1,1,2-Trichloroethane	µg/L	1.0 U
1,1-Dichloroethane	µg/L	1.0 U
1,1-Dichloroethene	µg/L	1.0 U
1,2,4-Trichlorobenzene	µg/L	5.0 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	µg/L	1.0 U
1,2-Dichlorobenzene	µg/L	1.0 U
1,2-Dichloroethane	µg/L	1.0 U
1,2-Dichloropropane	µg/L	1.0 U
1,3-Dichlorobenzene	µg/L	1.0 U
1,4-Dichlorobenzene	µg/L	1.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	25 U
2-Hexanone	µg/L	50 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	50 U
Acetone	µg/L	50 U
Benzene	µg/L	1.0 U
Bromodichloromethane	µg/L	1.0 U
Bromoform	µg/L	1.0 U
Bromomethane (Methyl bromide)	µg/L	5.0 U
Carbon disulfide	µg/L	5.0 U
Carbon tetrachloride	µg/L	1.0 U
Chlorobenzene	µg/L	1.0 U
Chloroethane	µg/L	5.0 U
Chloroform (Trichloromethane)	µg/L	1.0 U
Chloromethane (Methyl chloride)	µg/L	5.0 U
cis-1,2-Dichloroethene	µg/L	1.0 U
cis-1,3-Dichloropropene	µg/L	1.0 U

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID: MW2-03 MW4-03
 Sample Name: WG-017360-041416-MR-035 WG-017360-040716-MR-012
 Sample Date: 04/14/2016 04/07/2016
 Depth: -- --

Parameters**Unit****Volatile Organic Compounds**

Cyclohexane	1.0 U	1.0 U
Dibromochloromethane	5.0 U	5.0 U
Dichlorodifluoromethane (CFC-12)	5.0 U	5.0 U
Ethylbenzene	1.0 U	1.0 U
Isopropyl benzene	5.0 U	5.0 U
Methyl acetate	10 U	10 U
Methyl cyclohexane	1.0 U	1.0 U
Methyl tert butyl ether (MTBE)	5.0 U	5.0 U
Methylene chloride	5.0 U	5.0 U
Styrene	1.0 U	1.0 U
Tetrachloroethene	2.7	1.0 U
Toluene	1.0 U	1.0 U
trans-1,2-Dichloroethene	1.0 U	1.0 U
trans-1,3-Dichloropropene	1.0 U	1.0 U
Trichloroethene	1.0 U	1.0 U
Trichlorofluoromethane (CFC-11)	1.0 U	1.0 U
Trifluorotrichloroethane (CFC-113)	1.0 U	1.0 U
Vinyl chloride	1.0 U	1.0 U
Xylenes (total)	3.0 U	3.0 U

Semivolatile 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	--	--

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID: MW2-03 MW4-03
 Sample Name: WG-017360-041416-MR-035 WG-017360-040716-MR-012
 Sample Date: 04/14/2016 04/07/2016
 Depth: -- --

Parameters	Unit
Semivolatile Organic Compounds	
2-Chloronaphthalene	µg/L
2-Chlorophenol	µg/L
2-Methylnaphthalene	µg/L
2-Methylphenol	µg/L
2-Nitroaniline	µg/L
2-Nitrophenol	µg/L
3&4-Methylphenol	µg/L
3,3'-Dichlorobenzidine	µg/L
3-Nitroaniline	µg/L
4,6-Dinitro-2-methylphenol	µg/L
4-Bromophenyl phenyl ether	µg/L
4-Chloro-3-methylphenol	µg/L
4-Chloroaniline	µg/L
4-Chlorophenyl phenyl ether	µg/L
4-Nitroaniline	µg/L
4-Nitrophenol	µg/L
Acenaphthene	µg/L
Acenaphthylene	µg/L
Acetophenone	µg/L
Anthracene	µg/L
Atrazine	µg/L
Benzaldehyde	µg/L
Benzo(a)anthracene	µg/L
Benzo(a)pyrene	µg/L
Benzo(b)fluoranthene	µg/L
Benzo(g,h,i)perylene	µg/L
Benzo(k)fluoranthene	µg/L
Biphenyl (1,1-Biphenyl)	µg/L
bis(2-Chloroethoxy)methane	µg/L

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID: MW2-03 MW4-03
Sample Name: WG-017360-041416-MR-035 WG-017360-040716-MR-012
Sample Date: 04/14/2016 04/07/2016
Depth: -- --

Parameters	Unit
Semivolatile Organic Compounds	
bis(2-Chloroethyl)ether	µg/L
bis(2-Ethylhexyl)phthalate (DEHP)	µg/L
Butyl benzylphthalate (BBP)	µg/L
Caprolactam	µg/L
Carbazole	µg/L
Chrysene	µg/L
Di-n-butylphthalate (DBP)	µg/L
Di-n-octyl phthalate (DnOP)	µg/L
Dibenz(a,h)anthracene	µg/L
Dibenzofuran	µg/L
Diethyl phthalate	µg/L
Dimethyl phthalate	µg/L
Fluoranthene	µg/L
Fluorene	µg/L
Hexachlorobenzene	µg/L
Hexachlorobutadiene	µg/L
Hexachlorocyclopentadiene	µg/L
Hexachloroethane	µg/L
Indeno(1,2,3-cd)pyrene	µg/L
Isophorone	µg/L
N-Nitrosodi-n-propylamine	µg/L
N-Nitrosodiphenylamine	µg/L
Naphthalene	µg/L
Nitrobenzene	µg/L
Pentachlorophenol	µg/L
Phenanthrene	µg/L
Phenol	µg/L
Pyrene	µg/L

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID:		MW2-03	MW4-03
Sample Name:		WG-017360-041416-MR-035	WG-017360-040716-MR-012
Sample Date:		04/14/2016	04/07/2016
Depth:		—	—
Parameters	Unit		
Metals			
Antimony	mg/L	—	—
Arsenic	mg/L	—	—
Barium	mg/L	—	—
Beryllium	mg/L	—	—
Cadmium	mg/L	—	—
Chromium	mg/L	—	—
Cobalt	mg/L	—	—
Copper	mg/L	—	—
Iron	mg/L	—	—
Lead	mg/L	—	—
Manganese	mg/L	—	—
Mercury	mg/L	—	—
Molybdenum	mg/L	—	—
Nickel	mg/L	—	—
Selenium	mg/L	—	—
Silver	mg/L	—	—
Thallium	mg/L	—	—
Vanadium	mg/L	—	—
Zinc	mg/L	—	—

Table 2

**Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016**

Location ID: MW6-03 MW7-03
 Sample Name: WG-017360-040616-MR-004 WG-017360-041316-MR-027
 Sample Date: 04/06/2016 04/13/2016
 Depth: --

Parameters	Unit
Volatile Organic Compounds	
1,1,1-Trichloroethane	1.0 U
1,1,2,2-Tetrachloroethane	1.0 U
1,1,2-Trichloroethane	1.0 U
1,1-Dichloroethane	1.0 U
1,1-Dichloroethene	1.0 U
1,2,4-Trichlorobenzene	5.0 U
1,2-Dibromo-3-chloropropane (DBCP)	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	1.0 U
1,2-Dichlorobenzene	1.0 U
1,2-Dichloroethane	1.0 U
1,2-Dichloropropane	1.0 U
1,3-Dichlorobenzene	1.0 U
1,4-Dichlorobenzene	1.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	25 U
2-Hexanone	50 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	50 U
Acetone	50 U
Benzene	1.0 U
Bromodichloromethane	1.0 U
Bromoform	1.0 U
Bromomethane (Methyl bromide)	5.0 U
Carbon disulfide	5.0 U
Carbon tetrachloride	1.0 U
Chlorobenzene	1.0 U
Chloroethane	5.0 U
Chloroform (Trichloromethane)	1.0 U
Chloromethane (Methyl chloride)	5.0 U
cis-1,2-Dichloroethene	1.0 U
cis-1,3-Dichloropropene	1.0 U

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID: MW6-03 MW7-03
Sample Name: WG-017360-040616-MR-004 WG-017360-041316-MR-027
Sample Date: 04/06/2016 04/13/2016
Depth: -- --

Parameters	Unit
Volatile Organic Compounds	
Cyclohexane	1.0 U
Dibromochloromethane	5.0 U
Dichlorodifluoromethane (CFC-12)	5.0 U
Ethylbenzene	1.0 U
Isopropyl benzene	5.0 U
Methyl acetate	10 U
Methyl cyclohexane	1.0 U
Methyl tert butyl ether (MTBE)	5.0 U
Methylene chloride	5.0 U
Styrene	1.0 U
Tetrachloroethene	1.0 U
Toluene	1.0 U
trans-1,2-Dichloroethene	1.0 U
trans-1,3-Dichloropropene	1.0 U
Trichloroethene	1.0 U
Trichlorofluoromethane (CFC-11)	2.6
Trifluorotrichloroethane (CFC-113)	1.0 U
Vinyl chloride	1.0 U
Xylenes (total)	3.0 U
Semivolatile 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	--

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID: MW6-03 MW7-03
Sample Name: WG-017360-040616-MR-004 WG-017360-041316-MR-027
Sample Date: 04/06/2016 04/13/2016
Depth: -- --

Parameters**Unit****Semivolatile Organic Compounds**

2-Chloronaphthalene	µg/L	--
2-Chlorophenol	µg/L	--
2-Methylnaphthalene	µg/L	--
2-Methylphenol	µg/L	--
2-Nitroaniline	µg/L	--
2-Nitrophenol	µg/L	--
3&4-Methylphenol	µg/L	--
3,3'-Dichlorobenzidine	µg/L	--
3-Nitroaniline	µg/L	--
4,6-Dinitro-2-methylphenol	µg/L	--
4-Bromophenyl phenyl ether	µg/L	--
4-Chloro-3-methylphenol	µg/L	--
4-Chloroaniline	µg/L	--
4-Chlorophenyl phenyl ether	µg/L	--
4-Nitroaniline	µg/L	--
4-Nitrophenol	µg/L	--
Acenaphthene	µg/L	--
Acenaphthylene	µg/L	--
Acetophenone	µg/L	--
Anthracene	µg/L	--
Atrazine	µg/L	--
Benzaldehyde	µg/L	--
Benzo(a)anthracene	µg/L	--
Benzo(a)pyrene	µg/L	--
Benzo(b)fluoranthene	µg/L	--
Benzo(g,h,i)perylene	µg/L	--
Benzo(k)fluoranthene	µg/L	--
Biphenyl (1,1-Biphenyl)	µg/L	--
bis(2-Chloroethoxy)methane	µg/L	--

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID: MW6-03 MW7-03
Sample Name: WG-017360-040616-MR-004 WG-017360-041316-MR-027
Sample Date: 04/06/2016 04/13/2016
Depth: --

Parameters**Unit****Semivolatile Organic Compounds**

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

Table 2

**Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016**

Location ID: MW6-03 MW7-03
 Sample Name: WG-017360-040616-MR-004 WG-017360-041316-MR-027
 Sample Date: 04/06/2016 04/13/2016
 Depth: -- --

Parameters

Metals

Antimony	mg/L	--	--
Arsenic	mg/L	--	--
Barium	mg/L	--	--
Beryllium	mg/L	--	--
Cadmium	mg/L	--	--
Chromium	mg/L	--	--
Cobalt	mg/L	--	--
Copper	mg/L	--	--
Iron	mg/L	--	--
Lead	mg/L	--	--
Manganese	mg/L	--	--
Mercury	mg/L	--	--
Molybdenum	mg/L	--	--
Nickel	mg/L	--	--
Selenium	mg/L	--	--
Silver	mg/L	--	--
Thallium	mg/L	--	--
Vanadium	mg/L	--	--
Zinc	mg/L	--	--

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID: MW8-04 MW9-04
Sample Name: WG-017360-040616-MR-009 WG-017360-040716-MR-013
Sample Date: 04/06/2016 04/07/2016
Depth: --

Parameters	Unit
Volatile Organic Compounds	
1,1,1-Trichloroethane	1.0 U
1,1,1,2-Tetrachloroethane	1.0 U
1,1,2,2-Tetrachloroethane	1.0 U
1,1,2-Trichloroethane	1.0 U
1,1-Dichloroethane	1.0 U
1,1-Dichloroethene	1.0 U
1,2,4-Trichlorobenzene	5.0 U
1,2-Dibromo-3-chloropropane (DBCP)	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	1.0 U
1,2-Dichlorobenzene	1.0 U
1,2-Dichloroethane	1.0 U
1,2-Dichloropropane	1.0 U
1,3-Dichlorobenzene	1.0 U
1,4-Dichlorobenzene	1.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	25 U
2-Hexanone	50 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	50 U
Acetone	50 U
Benzene	1.0 U
Bromodichloromethane	1.0 U
Bromoform	1.0 U
Bromomethane (Methyl bromide)	5.0 U
Carbon disulfide	5.0 U
Carbon tetrachloride	1.0 U
Chlorobenzene	1.0 U
Chloroethane	5.0 U
Chloroform (Trichloromethane)	19
Chloromethane (Methyl chloride)	5.0 U
cis-1,2-Dichloroethene	1.0 U
cis-1,3-Dichloropropene	1.0 U

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID: MW8-04 MW9-04
Sample Name: WG-017360-040616-MR-009 WG-017360-040716-MR-013
Sample Date: 04/06/2016 04/07/2016
Depth: -- --

Parameters**Unit****Volatile Organic Compounds**

Cyclohexane	1.0 U	1.0 U
Dibromochloromethane	5.0 U	5.0 U
Dichlorodifluoromethane (CFC-12)	5.0 U	5.0 U
Ethylbenzene	1.0 U	1.0 U
Isopropyl benzene	5.0 U	5.0 U
Methyl acetate	10 U	10 U
Methyl cyclohexane	1.0 U	1.0 U
Methyl tert butyl ether (MTBE)	5.0 U	5.0 U
Methylene chloride	5.0 U	5.0 U
Styrene	1.0 U	1.0 U
Tetrachloroethene	1.0 U	1.0 U
Toluene	1.0 U	1.0 U
trans-1,2-Dichloroethene	1.0 U	1.0 U
trans-1,3-Dichloropropene	1.0 U	1.0 U
Trichloroethene	1.0 U	1.0 U
Trichlorofluoromethane (CFC-11)	1.0 U	1.0 U
Trifluorotrichloroethane (CFC-113)	1.0 U	1.0 U
Vinyl chloride	1.0 U	1.0 U
Xylenes (total)	3.0 U	3.0 U

Semivolatile 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	--	--

Table 2

**Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program**

Wyoming, Michigan

April 2016

Location ID: MW8-04 MW9-04
 Sample Name: WG-017360-040616-MR-009 WG-017360-040716-MR-013
 Sample Date: 04/06/2016 04/07/2016
 Depth: -- --

Parameters**Unit****Semivolatile Organic Compounds**

2-Chloronaphthalene	µg/L	--
2-Chlorophenol	µg/L	--
2-Methylnaphthalene	µg/L	--
2-Methylphenol	µg/L	--
2-Nitroaniline	µg/L	--
2-Nitrophenol	µg/L	--
3&4-Methylphenol	µg/L	--
3,3'-Dichlorobenzidine	µg/L	--
3-Nitroaniline	µg/L	--
4,6-Dinitro-2-methylphenol	µg/L	--
4-Bromophenyl phenyl ether	µg/L	--
4-Chloro-3-methylphenol	µg/L	--
4-Chloroaniline	µg/L	--
4-Chlorophenyl phenyl ether	µg/L	--
4-Nitroaniline	µg/L	--
4-Nitrophenol	µg/L	--
Acenaphthene	µg/L	--
Acenaphthylene	µg/L	--
Acetophenone	µg/L	--
Anthracene	µg/L	--
Atrazine	µg/L	--
Benzaldehyde	µg/L	--
Benzo(a)anthracene	µg/L	--
Benzo(a)pyrene	µg/L	--
Benzo(b)fluoranthene	µg/L	--
Benzo(g,h,i)perylene	µg/L	--
Benzo(k)fluoranthene	µg/L	--
Biphenyl (1,1-Biphenyl)	µg/L	--
bis(2-Chloroethoxy)methane	µg/L	--

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID: MW8-04 MW9-04
Sample Name: WG-017360-040616-MR-009 WG-017360-040716-MR-013
Sample Date: 04/06/2016 04/07/2016
Depth: --

Parameters**Unit****Semivolatile Organic Compounds**

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

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID: MW8-04 MW9-04
Sample Name: WG-017360-040616-MR-009 WG-017360-040716-MR-013
Sample Date: 04/06/2016 04/07/2016
Depth: -- --

Parameters

Metals

Antimony	mg/L	--	--
Arsenic	mg/L	--	--
Barium	mg/L	--	--
Beryllium	mg/L	--	--
Cadmium	mg/L	--	--
Chromium	mg/L	--	--
Cobalt	mg/L	--	--
Copper	mg/L	--	--
Iron	mg/L	--	--
Lead	mg/L	--	--
Manganese	mg/L	--	--
Mercury	mg/L	--	--
Molybdenum	mg/L	--	--
Nickel	mg/L	--	--
Selenium	mg/L	--	--
Silver	mg/L	--	--
Thallium	mg/L	--	--
Vanadium	mg/L	--	--
Zinc	mg/L	--	--

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID: MW10-04 MW11D-04
Sample Name: WG-017360-040716-MR-014 WG-017360-040716-MR-016
Sample Date: 04/07/2016 04/07/2016
Depth: --

Parameters	Unit
Volatile Organic Compounds	
1,1,1-Trichloroethane	1.0 U
1,1,2,2-Tetrachloroethane	1.0 U
1,1,2-Trichloroethane	1.0 U
1,1-Dichloroethane	1.0 U
1,1-Dichloroethene	1.0 U
1,2,4-Trichlorobenzene	5.0 U
1,2-Dibromo-3-chloropropane (DBCP)	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	1.0 U
1,2-Dichlorobenzene	1.0 U
1,2-Dichloroethane	1.0 U
1,2-Dichloropropane	1.0 U
1,3-Dichlorobenzene	1.0 U
1,4-Dichlorobenzene	1.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	25 U
2-Hexanone	50 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	50 U
Acetone	50 U
Benzene	1.0 U
Bromodichloromethane	1.0 U
Bromoform	1.0 U
Bromomethane (Methyl bromide)	5.0 U
Carbon disulfide	5.0 U
Carbon tetrachloride	1.0 U
Chlorobenzene	1.0 U
Chloroethane	5.0 U
Chloroform (Trichloromethane)	1.0 U
Chloromethane (Methyl chloride)	5.0 U
cis-1,2-Dichloroethene	1.1
cis-1,3-Dichloropropene	1.0 U

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID: MW10-04 MW11D-04
 Sample Name: WG-017360-040716-MR-014 WG-017360-040716-MR-016
 Sample Date: 04/07/2016 04/07/2016
 Depth: --

Parameters**Unit****Volatile Organic Compounds**

Cyclohexane	1.0 U	1.0 U
Dibromochloromethane	5.0 U	5.0 U
Dichlorodifluoromethane (CFC-12)	5.0 U	5.0 U
Ethylbenzene	1.0 U	1.0 U
Isopropyl benzene	5.0 U	5.0 U
Methyl acetate	10 U	10 U
Methyl cyclohexane	1.0 U	1.0 U
Methyl tert butyl ether (MTBE)	5.0 U	5.0 U
Methylene chloride	5.0 U	5.0 U
Styrene	1.0 U	1.0 U
Tetrachloroethene	1.0 U	1.0 U
Toluene	1.0 U	1.0 U
trans-1,2-Dichloroethene	1.0 U	1.0 U
trans-1,3-Dichloropropene	1.0 U	1.0 U
Trichloroethene	1.0 U	1.0 U
Trichlorofluoromethane (CFC-11)	3.2	1.2
Trifluorotrichloroethane (CFC-113)	1.0 U	1.0 U
Vinyl chloride	1.0 U	1.0 U
Xylenes (total)	0.32 J	1.0 U
	3.0 U	3.0 U

Semivolatile 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	--	--

Table 2

**Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016**

Location ID: MW10-04 MW11D-04
Sample Name: WG-017360-040716-MR-014 WG-017360-040716-MR-016
Sample Date: 04/07/2016 04/07/2016
Depth: -- --

Parameters**Unit****Semivolatile Organic Compounds**

2-Chloronaphthalene	µg/L	--
2-Chlorophenol	µg/L	--
2-Methylnaphthalene	µg/L	--
2-Methylphenol	µg/L	--
2-Nitroaniline	µg/L	--
2-Nitrophenol	µg/L	--
3&4-Methylphenol	µg/L	--
3,3'-Dichlorobenzidine	µg/L	--
3-Nitroaniline	µg/L	--
4,6-Dinitro-2-methylphenol	µg/L	--
4-Bromophenyl phenyl ether	µg/L	--
4-Chloro-3-methylphenol	µg/L	--
4-Chloroaniline	µg/L	--
4-Chlorophenyl phenyl ether	µg/L	--
4-Nitroaniline	µg/L	--
4-Nitrophenol	µg/L	--
Acenaphthene	µg/L	--
Acenaphthylene	µg/L	--
Acetophenone	µg/L	--
Anthracene	µg/L	--
Atrazine	µg/L	--
Benzaldehyde	µg/L	--
Benzo(a)anthracene	µg/L	--
Benzo(a)pyrene	µg/L	--
Benzo(b)fluoranthene	µg/L	--
Benzo(g,h,i)perylene	µg/L	--
Benzo(k)fluoranthene	µg/L	--
Biphenyl (1,1-Biphenyl)	µg/L	--
bis(2-Chloroethoxy)methane	µg/L	--

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID:	MW10-04		MW11D-04
Sample Name:	WG-017360-040716-MR-014		WG-017360-040716-MR-016
Sample Date:	04/07/2016		04/07/2016
Depth:	--		--
Parameters	Unit		
Metals			
Antimony	mg/L	--	--
Arsenic	mg/L	--	--
Barium	mg/L	--	--
Beryllium	mg/L	--	--
Cadmium	mg/L	--	--
Chromium	mg/L	--	--
Cobalt	mg/L	--	--
Copper	mg/L	--	--
Iron	mg/L	--	--
Lead	mg/L	--	--
Manganese	mg/L	--	--
Mercury	mg/L	--	--
Molybdenum	mg/L	--	--
Nickel	mg/L	--	--
Selenium	mg/L	--	--
Silver	mg/L	--	--
Thallium	mg/L	--	--
Vanadium	mg/L	--	--
Zinc	mg/L	--	--

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID: MW11S-05 MW15-04
 Sample Name: WG-017360-040716-MR-015 WG-017360-041816-MR-042
 Sample Date: 04/07/2016 04/18/2016
 Depth: --

Parameters	Unit	
Volatile Organic Compounds		
1,1,1-Trichloroethane	µg/L	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	1.0 U
1,1,2-Trichloroethane	µg/L	1.0 U
1,1-Dichloroethane	µg/L	1.0 U
1,1-Dichloroethene	µg/L	1.0 U
1,2,4-Trichlorobenzene	µg/L	5.0 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	µg/L	1.0 U
1,2-Dichlorobenzene	µg/L	1.0 U
1,2-Dichloroethane	µg/L	1.0 U
1,2-Dichloropropane	µg/L	1.0 U
1,3-Dichlorobenzene	µg/L	1.0 U
1,4-Dichlorobenzene	µg/L	1.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	25 U
2-Hexanone	µg/L	50 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	50 U
Acetone	µg/L	50 U
Benzene	µg/L	1.0 U
Bromodichloromethane	µg/L	1.0 U
Bromoform	µg/L	1.0 U
Bromomethane (Methyl bromide)	µg/L	5.0 U
Carbon disulfide	µg/L	5.0 U
Carbon tetrachloride	µg/L	1.0 U
Chlorobenzene	µg/L	1.0 U
Chloroethane	µg/L	5.0 U
Chloroform (Trichloromethane)	µg/L	1.2
Chloromethane (Methyl chloride)	µg/L	5.0 U
cis-1,2-Dichloroethene	µg/L	1.0 U
cis-1,3-Dichloropropene	µg/L	1.0 U

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID: MW11S-05 MW15-04
 Sample Name: WG-017360-040716-MR-015 WG-017360-041816-MR-042
 Sample Date: 04/07/2016 04/18/2016
 Depth: --

Parameters**Unit****Volatile Organic Compounds**

Cyclohexane	µg/L	1.0 U	1.0 U
Dibromochloromethane	µg/L	5.0 U	5.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	5.0 U	5.0 U
Ethylbenzene	µg/L	1.0 U	1.0 U
Isopropyl benzene	µg/L	5.0 U	5.0 U
Methyl acetate	µg/L	10 U	10 U
Methyl cyclohexane	µg/L	1.0 U	1.0 U
Methyl tert butyl ether (MTBE)	µg/L	5.0 U	5.0 U
Methylene chloride	µg/L	5.0 U	5.0 U
Styrene	µg/L	1.0 U	1.0 U
Tetrachloroethene	µg/L	1.0 U	1.0 U
Toluene	µg/L	1.0 U	1.0 U
trans-1,2-Dichloroethene	µg/L	1.0 U	1.0 U
trans-1,3-Dichloropropene	µg/L	1.0 U	1.0 U
Trichloroethene	µg/L	1.0 U	0.39 J
Trichlorofluoromethane (CFC-11)	µg/L	1.0 U	1.0 U
Trifluorotrichloroethane (CFC-113)	µg/L	1.0 U	1.0 U
Vinyl chloride	µg/L	1.0 U	1.0 U
Xylenes (total)	µg/L	3.0 U	3.0 U

Semivolatile Organic Compounds

2,2-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	µg/L	--	--
2,4,5-Trichlorophenol	µg/L	--	--
2,4,6-Trichlorophenol	µg/L	--	--
2,4-Dichlorophenol	µg/L	--	--
2,4-Dimethylphenol	µg/L	--	--
2,4-Dinitrophenol	µg/L	--	--
2,4-Dinitrotoluene	µg/L	--	--
2,6-Dinitrotoluene	µg/L	--	--

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID: MW11S-05 MW15-04
Sample Name: WG-017360-040716-MR-015 WG-017360-041816-MR-042
Sample Date: 04/07/2016 04/18/2016
Depth: -- --

Parameters**Unit****Semivolatile Organic Compounds**

2-Chloronaphthalene	µg/L	--
2-Chlorophenol	µg/L	--
2-Methylnaphthalene	µg/L	--
2-Methylphenol	µg/L	--
2-Nitroaniline	µg/L	--
2-Nitrophenol	µg/L	--
3&4-Methylphenol	µg/L	--
3,3'-Dichlorobenzidine	µg/L	--
3-Nitroaniline	µg/L	--
4,6-Dinitro-2-methylphenol	µg/L	--
4-Bromophenyl phenyl ether	µg/L	--
4-Chloro-3-methylphenol	µg/L	--
4-Chloroaniline	µg/L	--
4-Chlorophenyl phenyl ether	µg/L	--
4-Nitroaniline	µg/L	--
4-Nitrophenol	µg/L	--
Acenaphthene	µg/L	--
Acenaphthylene	µg/L	--
Acetophenone	µg/L	--
Anthracene	µg/L	--
Atrazine	µg/L	--
Benzaldehyde	µg/L	--
Benzo(a)anthracene	µg/L	--
Benzo(a)pyrene	µg/L	--
Benzo(b)fluoranthene	µg/L	--
Benzo(g,h,i)perylene	µg/L	--
Benzo(k)fluoranthene	µg/L	--
Biphenyl (1,1-Biphenyl)	µg/L	--
bis(2-Chloroethoxy)methane	µg/L	--

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID: MW11S-05 MW15-04
Sample Name: WG-017360-040716-MR-015 WG-017360-041816-MR-042
Sample Date: 04/07/2016 04/18/2016
Depth: -- --

Parameters**Unit****Semivolatile Organic Compounds**

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

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID: MW11S-05 MW15-04
Sample Name: WG-017360-040716-MR-015 WG-017360-041816-MR-042
Sample Date: 04/07/2016 04/18/2016
Depth: --

Parameters

Metals

Antimony	mg/L	--	--
Arsenic	mg/L	--	--
Barium	mg/L	--	--
Beryllium	mg/L	--	--
Cadmium	mg/L	--	--
Chromium	mg/L	--	--
Cobalt	mg/L	--	--
Copper	mg/L	--	--
Iron	mg/L	--	--
Lead	mg/L	--	--
Manganese	mg/L	--	--
Mercury	mg/L	--	--
Molybdenum	mg/L	--	--
Nickel	mg/L	--	--
Selenium	mg/L	--	--
Silver	mg/L	--	--
Thallium	mg/L	--	--
Vanadium	mg/L	--	--
Zinc	mg/L	--	--

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID: **MW17-06** **MW28-12**
Sample Name: **WG-017360-041316-MR-029** **WG-017360-041316-MR-031**
Sample Date: **04/13/2016** **04/13/2016**
Depth: **--** **--**

Parameters	Unit	
Volatile Organic Compounds		
1,1,1-Trichloroethane	µg/L	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	1.0 U
1,1,2-Trichloroethane	µg/L	1.0 U
1,1-Dichloroethane	µg/L	1.0 U
1,1-Dichloroethene	µg/L	1.0 U
1,2,4-Trichlorobenzene	µg/L	5.0 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	µg/L	1.0 U
1,2-Dichlorobenzene	µg/L	1.0 U
1,2-Dichloroethane	µg/L	1.0 U
1,2-Dichloropropane	µg/L	1.0 U
1,3-Dichlorobenzene	µg/L	1.0 U
1,4-Dichlorobenzene	µg/L	1.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	25 U
2-Hexanone	µg/L	50 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	50 U
Acetone	µg/L	50 U
Benzene	µg/L	1.0 U
Bromodichloromethane	µg/L	1.0 U
Bromoform	µg/L	1.0 U
Bromomethane (Methyl bromide)	µg/L	5.0 U
Carbon disulfide	µg/L	5.0 U
Carbon tetrachloride	µg/L	1.0 U
Chlorobenzene	µg/L	1.0 U
Chloroethane	µg/L	5.0 U
Chloroform (Trichloromethane)	µg/L	1.0 U
Chloromethane (Methyl chloride)	µg/L	5.0 U
cis-1,2-Dichloroethene	µg/L	89
cis-1,3-Dichloropropene	µg/L	1.0 U

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID: MW17-06 MW28-12
Sample Name: WG-017360-041316-MR-029 WG-017360-041316-MR-031
Sample Date: 04/13/2016 04/13/2016
Depth: -- --

Parameters**Unit****Volatile Organic Compounds**

Cyclohexane	µg/L	1.0 U	1.0 U
Dibromochloromethane	µg/L	5.0 U	5.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	5.0 U	5.0 U
Ethylbenzene	µg/L	1.0 U	1.0 U
Isopropyl benzene	µg/L	5.0 U	5.0 U
Methyl acetate	µg/L	10 U	10 U
Methyl cyclohexane	µg/L	1.0 U	1.0 U
Methyl tert butyl ether (MTBE)	µg/L	5.0 U	5.0 U
Methylene chloride	µg/L	5.0 U	5.0 U
Styrene	µg/L	1.0 U	1.0 U
Tetrachloroethene	µg/L	130	1.0 U
Toluene	µg/L	1.0 U	1.0 U
trans-1,2-Dichloroethene	µg/L	1.7	1.0 U
trans-1,3-Dichloropropene	µg/L	1.0 U	1.0 U
Trichloroethene	µg/L	7.2	1.0 U
Trichlorofluoromethane (CFC-11)	µg/L	1.0 U	1.0 U
Trifluorotrichloroethane (CFC-113)	µg/L	1.0 U	1.0 U
Vinyl chloride	µg/L	1.0 U	1.0 U
Xylenes (total)	µg/L	3.0 U	3.0 U

Semivolatile Organic Compounds

2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	µg/L	--	--
2,4,5-Trichlorophenol	µg/L	--	--
2,4,6-Trichlorophenol	µg/L	--	--
2,4-Dichlorophenol	µg/L	--	--
2,4-Dimethylphenol	µg/L	--	--
2,4-Dinitrophenol	µg/L	--	--
2,4-Dinitrotoluene	µg/L	--	--
2,6-Dinitrotoluene	µg/L	--	--

Table 2

**Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016**

Location ID: MW17-06 MW28-12
 Sample Name: WG-017360-041316-MR-029 WG-017360-041316-MR-031
 Sample Date: 04/13/2016 04/13/2016
 Depth: -- --

Parameters	Unit
Semivolatile Organic Compounds	
2-Chloronaphthalene	µg/L
2-Chlorophenol	µg/L
2-Methylnaphthalene	µg/L
2-Methylphenol	µg/L
2-Nitroaniline	µg/L
2-Nitrophenol	µg/L
3&4-Methylphenol	µg/L
3,3'-Dichlorobenzidine	µg/L
3-Nitroaniline	µg/L
4,6-Dinitro-2-methylphenol	µg/L
4-Bromophenyl phenyl ether	µg/L
4-Chloro-3-methylphenol	µg/L
4-Chloroaniline	µg/L
4-Chlorophenyl phenyl ether	µg/L
4-Nitroaniline	µg/L
4-Nitrophenol	µg/L
Acenaphthene	µg/L
Acenaphthylene	µg/L
Acetophenone	µg/L
Anthracene	µg/L
Atrazine	µg/L
Benzaldehyde	µg/L
Benzo(a)anthracene	µg/L
Benzo(a)pyrene	µg/L
Benzo(b)fluoranthene	µg/L
Benzo(g,h,i)perylene	µg/L
Benzo(k)fluoranthene	µg/L
Biphenyl (1,1-Biphenyl)	µg/L
bis(2-Chloroethoxy)methane	µg/L

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID: **MW17-06** **MW28-12**
Sample Name: **WG-017360-041316-MR-029** **WG-017360-041316-MR-031**
Sample Date: **04/13/2016** **04/13/2016**
Depth: **—** **—**

Parameters**Unit****Semivolatile Organic Compounds**

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

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID: MW17-06 MW28-12
Sample Name: WG-017360-041316-MR-029 WG-017360-041316-MR-031
Sample Date: 04/13/2016 04/13/2016
Depth: -- --

Parameters

Metals

Antimony	mg/L	--	--
Arsenic	mg/L	--	--
Barium	mg/L	--	--
Beryllium	mg/L	--	--
Cadmium	mg/L	--	--
Chromium	mg/L	--	--
Cobalt	mg/L	--	--
Copper	mg/L	--	--
Iron	mg/L	--	--
Lead	mg/L	--	--
Manganese	mg/L	--	--
Mercury	mg/L	--	--
Molybdenum	mg/L	--	--
Nickel	mg/L	--	--
Selenium	mg/L	--	--
Silver	mg/L	--	--
Thallium	mg/L	--	--
Vanadium	mg/L	--	--
Zinc	mg/L	--	--

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID: MW30-12 MW32-12
Sample Name: WG-017360-041316-MR-032 WG-017360-041816-MR-049
Sample Date: 04/13/2016 04/18/2016
Depth: --

Parameters	Unit
Volatile Organic Compounds	
1,1,1-Trichloroethane	1.0 U
1,1,1,2-Tetrachloroethane	1.0 U
1,1,2,2-Trichloroethane	1.0 U
1,1-Dichloroethane	1.0 U
1,1-Dichloroethene	1.0 U
1,2,4-Trichlorobenzene	5.0 U
1,2-Dibromo-3-chloropropane (DBCP)	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	1.0 U
1,2-Dichlorobenzene	1.0 U
1,2-Dichloroethane	1.0 U
1,2-Dichloropropane	1.0 U
1,3-Dichlorobenzene	1.0 U
1,4-Dichlorobenzene	1.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	25 U
2-Hexanone	50 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	50 U
Acetone	50 U
Benzene	1.0 U
Bromodichloromethane	1.0 U
Bromoform	1.0 U
Bromomethane (Methyl bromide)	5.0 U
Carbon disulfide	5.0 U
Carbon tetrachloride	1.0 U
Chlorobenzene	1.0 U
Chloroethane	5.0 U
Chloroform (Trichloromethane)	1.0 U
Chloromethane (Methyl chloride)	5.0 U
cis-1,2-Dichloroethene	1.0 U
cis-1,3-Dichloropropene	1.0 U

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID: MW30-12 MW32-12
 Sample Name: WG-017360-041316-MR-032 WG-017360-041816-MR-049
 Sample Date: 04/13/2016 04/18/2016
 Depth: --

Parameters**Unit****Volatile Organic Compounds**

Cyclohexane	µg/L	1.0 U	1.0 U
Dibromochloromethane	µg/L	5.0 U	5.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	5.0 U	5.0 U
Ethylbenzene	µg/L	1.0 U	1.0 U
Isopropyl benzene	µg/L	5.0 U	5.0 U
Methyl acetate	µg/L	10 U	10 U
Methyl cyclohexane	µg/L	1.0 U	1.0 U
Methyl tert butyl ether (MTBE)	µg/L	5.0 U	5.0 U
Methylene chloride	µg/L	5.0 U	5.0 U
Styrene	µg/L	1.0 U	1.0 U
Tetrachloroethene	µg/L	2.3	2.9
Toluene	µg/L	1.0 U	1.0 U
trans-1,2-Dichloroethene	µg/L	1.0 U	1.0 U
trans-1,3-Dichloropropene	µg/L	1.0 U	1.0 U
Trichloroethene	µg/L	1.0 U	0.59 J
Trichlorofluoromethane (CFC-11)	µg/L	1.0 U	1.0 U
Trifluorotrichloroethane (CFC-113)	µg/L	1.0 U	1.0 U
Vinyl chloride	µg/L	1.0 U	1.0 U
Xylenes (total)	µg/L	3.0 U	3.0 U

Semivolatile Organic Compounds

2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	µg/L	--	--
2,4,5-Trichlorophenol	µg/L	--	--
2,4,6-Trichlorophenol	µg/L	--	--
2,4-Dichlorophenol	µg/L	--	--
2,4-Dimethylphenol	µg/L	--	--
2,4-Dinitrophenol	µg/L	--	--
2,4-Dinitrotoluene	µg/L	--	--
2,6-Dinitrotoluene	µg/L	--	--

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID: MW30-12 MW32-12
Sample Name: WG-017360-041316-MR-032 WG-017360-041816-MR-049
Sample Date: 04/13/2016 04/18/2016
Depth: -- --

Parameters**Unit****Semivolatile Organic Compounds**

2-Chloronaphthalene	µg/L	--
2-Chlorophenol	µg/L	--
2-Methylnaphthalene	µg/L	--
2-Methylphenol	µg/L	--
2-Nitroaniline	µg/L	--
2-Nitrophenol	µg/L	--
3&4-Methylphenol	µg/L	--
3,3'-Dichlorobenzidine	µg/L	--
3-Nitroaniline	µg/L	--
4,6-Dinitro-2-methylphenol	µg/L	--
4-Bromophenyl phenyl ether	µg/L	--
4-Chloro-3-methylphenol	µg/L	--
4-Chloroaniline	µg/L	--
4-Chlorophenyl phenyl ether	µg/L	--
4-Nitroaniline	µg/L	--
4-Nitrophenol	µg/L	--
Acenaphthene	µg/L	--
Acenaphthylene	µg/L	--
Acetophenone	µg/L	--
Anthracene	µg/L	--
Atrazine	µg/L	--
Benzaldehyde	µg/L	--
Benzo(a)anthracene	µg/L	--
Benzo(a)pyrene	µg/L	--
Benzo(b)fluoranthene	µg/L	--
Benzo(g,h,i)perylene	µg/L	--
Benzo(k)fluoranthene	µg/L	--
Biphenyl (1,1-Biphenyl)	µg/L	--
bis(2-Chloroethoxy)methane	µg/L	--

Table 2

**Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016**

Location ID: MW30-12 MW32-12
 Sample Name: WG-017360-041316-MR-032 WG-017360-041816-MR-049
 Sample Date: 04/13/2016 04/18/2016
 Depth: -- --

Parameters**Unit****Semivolatile Organic Compounds**

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

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID: MW30-12 MW32-12
Sample Name: WG-017360-041316-MR-032 WG-017360-041816-MR-049
Sample Date: 04/13/2016 04/18/2016
Depth: -- --

Parameters**Unit****Metals**

Antimony	mg/L	--	--
Arsenic	mg/L	--	--
Barium	mg/L	--	--
Beryllium	mg/L	--	--
Cadmium	mg/L	--	--
Chromium	mg/L	--	--
Cobalt	mg/L	--	--
Copper	mg/L	--	--
Iron	mg/L	--	--
Lead	mg/L	--	--
Manganese	mg/L	--	--
Mercury	mg/L	--	--
Molybdenum	mg/L	--	--
Nickel	mg/L	--	--
Selenium	mg/L	--	--
Silver	mg/L	--	--
Thallium	mg/L	--	--
Vanadium	mg/L	--	--
Zinc	mg/L	--	--

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID: MW33-12 MW34-12
Sample Name: WG-017360-041816-MR-048 WG-017360-041816-MR-045
Sample Date: 04/18/2016 04/18/2016
Depth: --

Parameters	Unit	
Volatile Organic Compounds		
1,1,1-Trichloroethane	µg/L	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	1.0 U
1,1,2-Trichloroethane	µg/L	1.0 U
1,1-Dichloroethane	µg/L	1.0 U
1,1-Dichloroethene	µg/L	1.0 U
1,2,4-Trichlorobenzene	µg/L	5.0 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	µg/L	1.0 U
1,2-Dichlorobenzene	µg/L	1.0 U
1,2-Dichloroethane	µg/L	1.0 U
1,2-Dichloropropane	µg/L	1.0 U
1,3-Dichlorobenzene	µg/L	1.0 U
1,4-Dichlorobenzene	µg/L	1.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	25 U
2-Hexanone	µg/L	50 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	50 U
Acetone	µg/L	50 U
Benzene	µg/L	1.0 U
Bromodichloromethane	µg/L	1.0 U
Bromoform	µg/L	1.0 U
Bromomethane (Methyl bromide)	µg/L	5.0 U
Carbon disulfide	µg/L	5.0 U
Carbon tetrachloride	µg/L	1.0 U
Chlorobenzene	µg/L	1.0 U
Chloroethane	µg/L	5.0 U
Chloroform (Trichloromethane)	µg/L	1.0 U
Chloromethane (Methyl chloride)	µg/L	5.0 U
cis-1,2-Dichloroethene	µg/L	2.3
cis-1,3-Dichloropropene	µg/L	1.0 U

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID: MW33-12 MW34-12
 Sample Name: WG-017360-041816-MR-048 WG-017360-041816-MR-045
 Sample Date: 04/18/2016 04/18/2016
 Depth: -- --

Parameters**Unit****Volatile Organic Compounds**

Cyclohexane	1.0 U	1.0 U
Dibromochloromethane	5.0 U	5.0 U
Dichlorodifluoromethane (CFC-12)	5.0 U	5.0 U
Ethylbenzene	1.0 U	1.0 U
Isopropyl benzene	5.0 U	5.0 U
Methyl acetate	10 U	10 U
Methyl cyclohexane	1.0 U	1.0 U
Methyl tert butyl ether (MTBE)	5.0 U	5.0 U
Methylene chloride	5.0 U	5.0 U
Styrene	1.0 U	1.0 U
Tetrachloroethene	0.84 J	1.0 U
Toluene	0.21 J	1.0 U
trans-1,2-Dichloroethene	0.32 J	1.0 U
trans-1,3-Dichloropropene	1.0 U	1.0 U
Trichloroethene	2.5	3.7
Trichlorofluoromethane (CFC-11)	1.0 U	1.0 U
Trifluorotrichloroethane (CFC-113)	1.0 U	1.0 U
Vinyl chloride	1.0 U	1.0 U
Xylenes (total)	3.0 U	3.0 U

Semivolatile 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	--	--

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID: MW33-12 MW34-12
Sample Name: WG-017360-041816-MR-048 WG-017360-041816-MR-045
Sample Date: 04/18/2016 04/18/2016
Depth: -- --

Parameters **Unit**

Semivolatile Organic Compounds

2-Chloronaphthalene	µg/L
2-Chlorophenol	µg/L
2-Methylnaphthalene	µg/L
2-Methylphenol	µg/L
2-Nitroaniline	µg/L
2-Nitrophenol	µg/L
3&4-Methylphenol	µg/L
3,3'-Dichlorobenzidine	µg/L
3-Nitroaniline	µg/L
4,6-Dinitro-2-methylphenol	µg/L
4-Bromophenyl phenyl ether	µg/L
4-Chloro-3-methylphenol	µg/L
4-Chloroaniline	µg/L
4-Chlorophenyl phenyl ether	µg/L
4-Nitroaniline	µg/L
4-Nitrophenol	µg/L
Acenaphthene	µg/L
Acenaphthylene	µg/L
Acetophenone	µg/L
Anthracene	µg/L
Atrazine	µg/L
Benzaldehyde	µg/L
Benzo(a)anthracene	µg/L
Benzo(a)pyrene	µg/L
Benzo(b)fluoranthene	µg/L
Benzo(g,h,i)perylene	µg/L
Benzo(k)fluoranthene	µg/L
Biphenyl (1,1-Biphenyl)	µg/L
bis(2-Chloroethoxy)methane	µg/L

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID: MW33-12 MW34-12
Sample Name: WG-017360-041816-MR-048 WG-017360-041816-MR-045
Sample Date: 04/18/2016 04/18/2016
Depth: -- --

Parameters**Unit****Semivolatile Organic Compounds**

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

Table 2

**Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016**

Location ID: MW33-12 MW34-12
 Sample Name: WG-017360-041816-MR-048 WG-017360-041816-MR-045
 Sample Date: 04/18/2016 04/18/2016
 Depth: -- --

Parameters**Unit****Metals**

Antimony	mg/L	--	--
Arsenic	mg/L	--	--
Barium	mg/L	--	--
Beryllium	mg/L	--	--
Cadmium	mg/L	--	--
Chromium	mg/L	--	--
Cobalt	mg/L	--	--
Copper	mg/L	--	--
Iron	mg/L	--	--
Lead	mg/L	--	--
Manganese	mg/L	--	--
Mercury	mg/L	--	--
Molybdenum	mg/L	--	--
Nickel	mg/L	--	--
Selenium	mg/L	--	--
Silver	mg/L	--	--
Thallium	mg/L	--	--
Vanadium	mg/L	--	--
Zinc	mg/L	--	--

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID:		MW34-12	MW35-12
Sample Name:		WG-017360-041816-MR-046	WG-017360-041816-MR-047
Sample Date:		04/18/2016	04/18/2016
Depth:		--	--
Parameters		Duplicate	
Volatile Organic Compounds			
1,1,1-Trichloroethane	µg/L	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	1.0 U	1.0 U
1,1,2-Trichloroethane	µg/L	1.0 U	1.0 U
1,1-Dichloroethane	µg/L	1.0 U	1.0 U
1,1-Dichloroethene	µg/L	1.0 U	1.0 U
1,2,4-Trichlorobenzene	µg/L	5.0 U	5.0 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	µg/L	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	1.0 U	1.0 U
1,2-Dichloroethane	µg/L	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	1.0 U	1.0 U
1,3-Dichlorobenzene	µg/L	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	1.0 U	1.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	25 U	25 U
2-Hexanone	µg/L	50 U	50 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	50 U	50 U
Acetone	µg/L	50 U	50 U
Benzene	µg/L	1.0 U	1.0 U
Bromodichloromethane	µg/L	1.0 U	1.0 U
Bromoform	µg/L	1.0 U	1.0 U
Bromomethane (Methyl bromide)	µg/L	5.0 U	5.0 U
Carbon disulfide	µg/L	5.0 U	5.0 U
Carbon tetrachloride	µg/L	1.0 U	1.0 U
Chlorobenzene	µg/L	1.0 U	1.0 U
Chloroethane	µg/L	5.0 U	5.0 U
Chloroform (Trichloromethane)	µg/L	1.0 U	0.26 J
Chloromethane (Methyl chloride)	µg/L	5.0 U	5.0 U
cis-1,2-Dichloroethene	µg/L	1.0 U	1.0 U
cis-1,3-Dichloropropene	µg/L	1.0 U	1.0 U

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID:	MW34-12	MW35-12
Sample Name:	WG-017360-041816-MR-046	WG-017360-041816-MR-047
Sample Date:	04/18/2016	04/18/2016
Depth:	--	--
Parameters	Duplicate	
Volatile Organic Compounds		
Cyclohexane	1.0 U	1.0 U
Dibromochloromethane	5.0 U	5.0 U
Dichlorodifluoromethane (CFC-12)	5.0 U	5.0 U
Ethylbenzene	1.0 U	1.0 U
Isopropyl benzene	5.0 U	5.0 U
Methyl acetate	10 U	10 U
Methyl cyclohexane	1.0 U	1.0 U
Methyl tert butyl ether (MTBE)	5.0 U	5.0 U
Methylene chloride	5.0 U	5.0 U
Styrene	1.0 U	1.0 U
Tetrachloroethene	1.0 U	0.35 J
Toluene	1.0 U	1.0 U
trans-1,2-Dichloroethene	1.0 U	1.0 U
trans-1,3-Dichloropropene	1.0 U	1.0 U
Trichloroethene	3.7	33
Trichlorofluoromethane (CFC-11)	1.0 U	1.0 U
Trifluorotrichloroethane (CFC-113)	1.0 U	1.0 U
Vinyl chloride	1.0 U	1.0 U
Xylenes (total)	3.0 U	3.0 U
Semivolatile 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	--	--

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID:	MW34-12	MW35-12
Sample Name:	WG-017360-041816-MR-046	WG-017360-041816-MR-047
Sample Date:	04/18/2016	04/18/2016
Depth:	--	--
	Duplicate	
Parameters	Unit	
Semivolatile Organic Compounds		
2-Chloronaphthalene	µg/L	--
2-Chlorophenol	µg/L	--
2-Methylnaphthalene	µg/L	--
2-Methylphenol	µg/L	--
2-Nitroaniline	µg/L	--
2-Nitrophenol	µg/L	--
3&4-Methylphenol	µg/L	--
3,3'-Dichlorobenzidine	µg/L	--
3-Nitroaniline	µg/L	--
4,6-Dinitro-2-methylphenol	µg/L	--
4-Bromophenyl phenyl ether	µg/L	--
4-Chloro-3-methylphenol	µg/L	--
4-Chloroaniline	µg/L	--
4-Chlorophenyl phenyl ether	µg/L	--
4-Nitroaniline	µg/L	--
4-Nitrophenol	µg/L	--
Acenaphthene	µg/L	--
Acenaphthylene	µg/L	--
Acetophenone	µg/L	--
Anthracene	µg/L	--
Atrazine	µg/L	--
Benzaldehyde	µg/L	--
Benzo(a)anthracene	µg/L	--
Benzo(a)pyrene	µg/L	--
Benzo(b)fluoranthene	µg/L	--
Benzo(g,h,i)perylene	µg/L	--
Benzo(k)fluoranthene	µg/L	--
Biphenyl (1,1-Biphenyl)	µg/L	--
bis(2-Chloroethoxy)methane	µg/L	--

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID: MW34-12 MW35-12
Sample Name: WG-017360-041816-MR-046 WG-017360-041816-MR-047
Sample Date: 04/18/2016 04/18/2016
Depth: --
Duplicate

Parameters**Unit****Semivolatle Organic Compounds**

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

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID: MW34-12 MW35-12
Sample Name: WG-017360-041816-MR-046 WG-017360-041816-MR-047
Sample Date: 04/18/2016 04/18/2016
Depth: -- --
Duplicate

Parameters

Metals

Antimony	mg/L	--	--
Arsenic	mg/L	--	--
Barium	mg/L	--	--
Beryllium	mg/L	--	--
Cadmium	mg/L	--	--
Chromium	mg/L	--	--
Cobalt	mg/L	--	--
Copper	mg/L	--	--
Iron	mg/L	--	--
Lead	mg/L	--	--
Manganese	mg/L	--	--
Mercury	mg/L	--	--
Molybdenum	mg/L	--	--
Nickel	mg/L	--	--
Selenium	mg/L	--	--
Silver	mg/L	--	--
Thallium	mg/L	--	--
Vanadium	mg/L	--	--
Zinc	mg/L	--	--

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID: MW37-12 MW38-12
Sample Name: WG-017360-041416-MR-040 WG-017360-040616-MR-011
Sample Date: 04/14/2016 04/06/2016
Depth: --

Parameters	Unit	
Volatile Organic Compounds		
1,1,1-Trichloroethane	µg/L	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	1.0 U
1,1,2-Trichloroethane	µg/L	1.0 U
1,1-Dichloroethane	µg/L	0.92 J
1,1-Dichloroethene	µg/L	1.0 U
1,2,4-Trichlorobenzene	µg/L	5.0 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	µg/L	1.0 U
1,2-Dichlorobenzene	µg/L	1.0 U
1,2-Dichloroethane	µg/L	1.0 U
1,2-Dichloropropane	µg/L	1.0 U
1,3-Dichlorobenzene	µg/L	1.0 U
1,4-Dichlorobenzene	µg/L	1.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	25 U
2-Hexanone	µg/L	50 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	50 U
Acetone	µg/L	50 U
Benzene	µg/L	0.41 J
Bromodichloromethane	µg/L	1.0 U
Bromoform	µg/L	1.0 U
Bromomethane (Methyl bromide)	µg/L	5.0 U
Carbon disulfide	µg/L	5.0 U
Carbon tetrachloride	µg/L	1.0 U
Chlorobenzene	µg/L	1.0 U
Chloroethane	µg/L	5.0 U
Chloroform (Trichloromethane)	µg/L	1.0 U
Chloromethane (Methyl chloride)	µg/L	5.0 U
cis-1,2-Dichloroethene	µg/L	1.0 U
cis-1,3-Dichloropropene	µg/L	5.2
		1.0 U

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID: MW37-12 MW38-12
 Sample Name: WG-017360-041416-MR-040 WG-017360-040616-MR-011
 Sample Date: 04/14/2016 04/06/2016
 Depth: --

Parameters**Unit****Volatile Organic Compounds**

Cyclohexane	1.0 U	1.0 U
Dibromochloromethane	5.0 U	5.0 U
Dichlorodifluoromethane (CFC-12)	5.0 U	5.0 U
Ethylbenzene	1.0 U	1.0 U
Isopropyl benzene	5.0 U	5.0 U
Methyl acetate	10 U	10 U
Methyl cyclohexane	1.0 U	1.0 U
Methyl tert butyl ether (MTBE)	5.0 U	5.0 U
Methylene chloride	5.0 U	5.0 U
Styrene	1.0 U	1.0 U
Tetrachloroethene	1.0 U	1.0 U
Toluene	1.0 U	1.0 U
trans-1,2-Dichloroethene	1.0 U	1.0 U
trans-1,3-Dichloropropene	1.0 U	1.0 U
Trichloroethene	15	1.0 U
Trichlorofluoromethane (CFC-11)	1.0 U	1.0 U
Trifluorotrichloroethane (CFC-113)	1.0 U	1.0 U
Vinyl chloride	1.0 U	9.8
Xylenes (total)	3.0 U	3.0 U

Semivolatile Organic Compounds

2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	µg/L	--
2,4,5-Trichlorophenol	µg/L	--
2,4,6-Trichlorophenol	µg/L	--
2,4-Dichlorophenol	µg/L	--
2,4-Dimethylphenol	µg/L	--
2,4-Dinitrophenol	µg/L	--
2,4-Dinitrotoluene	µg/L	--
2,6-Dinitrotoluene	µg/L	--

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID:		MW37-12	MW38-12
Sample Name:		WG-017360-041416-MR-040	WG-017360-040616-MR-011
Sample Date:		04/14/2016	04/06/2016
Depth:		--	--
Parameters	Unit		
Semivolatile Organic Compounds			
2-Chloronaphthalene	µg/L	--	--
2-Chlorophenol	µg/L	--	--
2-Methylnaphthalene	µg/L	--	--
2-Methylphenol	µg/L	--	--
2-Nitroaniline	µg/L	--	--
2-Nitrophenol	µg/L	--	--
3&4-Methylphenol	µg/L	--	--
3,3'-Dichlorobenzidine	µg/L	--	--
3-Nitroaniline	µg/L	--	--
4,6-Dinitro-2-methylphenol	µg/L	--	--
4-Bromophenyl phenyl ether	µg/L	--	--
4-Chloro-3-methylphenol	µg/L	--	--
4-Chloroaniline	µg/L	--	--
4-Chlorophenyl phenyl ether	µg/L	--	--
4-Nitroaniline	µg/L	--	--
4-Nitrophenol	µg/L	--	--
Acenaphthene	µg/L	--	--
Acenaphthylene	µg/L	--	--
Acetophenone	µg/L	--	--
Anthracene	µg/L	--	--
Atrazine	µg/L	--	--
Benzaldehyde	µg/L	--	--
Benzo(a)anthracene	µg/L	--	--
Benzo(a)pyrene	µg/L	--	--
Benzo(b)fluoranthene	µg/L	--	--
Benzo(g,h,i)perylene	µg/L	--	--
Benzo(k)fluoranthene	µg/L	--	--
Biphenyl (1,1-Biphenyl)	µg/L	--	--
bis(2-Chloroethoxy)methane	µg/L	--	--

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID: MW37-12 MW38-12
 Sample Name: WG-017360-041416-MR-040 WG-017360-040616-MR-011
 Sample Date: 04/14/2016 04/06/2016
 Depth: -- --

Parameters**Unit****Semivolatile Organic Compounds**

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

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID: MW37-12 MW38-12
Sample Name: WG-017360-041416-MR-040 WG-017360-040616-MR-011
Sample Date: 04/14/2016 04/06/2016
Depth: --

Parameters

Metals

Antimony	mg/L	--	--
Arsenic	mg/L	--	--
Barium	mg/L	--	--
Beryllium	mg/L	--	--
Cadmium	mg/L	--	--
Chromium	mg/L	--	--
Cobalt	mg/L	--	--
Copper	mg/L	--	--
Iron	mg/L	--	--
Lead	mg/L	--	--
Manganese	mg/L	--	--
Mercury	mg/L	--	--
Molybdenum	mg/L	--	--
Nickel	mg/L	--	--
Selenium	mg/L	--	--
Silver	mg/L	--	--
Thallium	mg/L	--	--
Vanadium	mg/L	--	--
Zinc	mg/L	--	--

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID: MW40-12 MW41-12
 Sample Name: WG-017360-041816-MR-044 WG-017360-041816-MR-043
 Sample Date: 04/18/2016 04/18/2016
 Depth: -- --

Parameters	Unit
Volatile Organic Compounds	
1,1,1-Trichloroethane	1.0 U
1,1,2,2-Tetrachloroethane	1.0 U
1,1,2-Trichloroethane	1.0 U
1,1-Dichloroethane	1.0 U
1,1-Dichloroethene	1.0 U
1,2,4-Trichlorobenzene	5.0 U
1,2-Dibromo-3-chloropropane (DBCP)	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	1.0 U
1,2-Dichlorobenzene	1.0 U
1,2-Dichloroethane	1.0 U
1,2-Dichloropropane	1.0 U
1,3-Dichlorobenzene	1.0 U
1,4-Dichlorobenzene	1.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	25 U
2-Hexanone	50 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	50 U
Acetone	50 U
Benzene	1.0 U
Bromodichloromethane	1.0 U
Bromoform	1.0 U
Bromomethane (Methyl bromide)	5.0 U
Carbon disulfide	5.0 U
Carbon tetrachloride	1.0 U
Chlorobenzene	1.0 U
Chloroethane	5.0 U
Chloroform (Trichloromethane)	1.0 U
Chloromethane (Methyl chloride)	5.0 U
cis-1,2-Dichloroethene	1.0 U
cis-1,3-Dichloropropene	1.5
	1.0 U

Table 2

**Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program**

Wyoming, Michigan

April 2016

Location ID: MW40-12 MW41-12
 Sample Name: WG-017360-041816-MR-044 WG-017360-041816-MR-043
 Sample Date: 04/18/2016 04/18/2016
 Depth: -- --

Parameters**Unit****Volatile Organic Compounds**

Cyclohexane	µg/L	1.0 U	1.0 U
Dibromochloromethane	µg/L	5.0 U	5.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	5.0 U	5.0 U
Ethylbenzene	µg/L	1.0 U	1.0 U
Isopropyl benzene	µg/L	5.0 U	5.0 U
Methyl acetate	µg/L	10 U	10 U
Methyl cyclohexane	µg/L	1.0 U	1.0 U
Methyl tert butyl ether (MTBE)	µg/L	5.0 U	5.0 U
Methylene chloride	µg/L	5.0 U	5.0 U
Styrene	µg/L	1.0 U	1.0 U
Tetrachloroethene	µg/L	1.0 U	1.0 U
Toluene	µg/L	1.0 U	1.0 U
trans-1,2-Dichloroethene	µg/L	0.39 J	1.0 U
trans-1,3-Dichloropropene	µg/L	1.0 U	1.0 U
Trichloroethene	µg/L	5.3	1.0 U
Trichlorofluoromethane (CFC-11)	µg/L	1.0 U	1.0 U
Trifluorotrichloroethane (CFC-113)	µg/L	1.0 U	1.0 U
Vinyl chloride	µg/L	1.0 U	1.0 U
Xylenes (total)	µg/L	3.0 U	3.0 U

Semivolatile Organic Compounds

2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	µg/L	--	--
2,4,5-Trichlorophenol	µg/L	--	--
2,4,6-Trichlorophenol	µg/L	--	--
2,4-Dichlorophenol	µg/L	--	--
2,4-Dimethylphenol	µg/L	--	--
2,4-Dinitrophenol	µg/L	--	--
2,4-Dinitrotoluene	µg/L	--	--
2,6-Dinitrotoluene	µg/L	--	--

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID: MW40-12 MW41-12
Sample Name: WG-017360-041816-MR-044 WG-017360-041816-MR-043
Sample Date: 04/18/2016 04/18/2016
Depth: -- --

Parameters Unit

Semivolatile Organic Compounds

2-Chloronaphthalene	µg/L
2-Chlorophenol	µg/L
2-Methylnaphthalene	µg/L
2-Methylphenol	µg/L
2-Nitroaniline	µg/L
2-Nitrophenol	µg/L
3&4-Methylphenol	µg/L
3,3'-Dichlorobenzidine	µg/L
3-Nitroaniline	µg/L
4,6-Dinitro-2-methylphenol	µg/L
4-Bromophenyl phenyl ether	µg/L
4-Chloro-3-methylphenol	µg/L
4-Chloroaniline	µg/L
4-Chlorophenyl phenyl ether	µg/L
4-Nitroaniline	µg/L
4-Nitrophenol	µg/L
Acenaphthene	µg/L
Acenaphthylene	µg/L
Acetophenone	µg/L
Anthracene	µg/L
Atrazine	µg/L
Benzaldehyde	µg/L
Benzo(a)anthracene	µg/L
Benzo(a)pyrene	µg/L
Benzo(b)fluoranthene	µg/L
Benzo(g,h,i)perylene	µg/L
Benzo(k)fluoranthene	µg/L
Biphenyl (1,1-Biphenyl)	µg/L
bis(2-Chloroethoxy)methane	µg/L

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID: MW40-12 MW41-12
Sample Name: WG-017360-041816-MR-044 WG-017360-041816-MR-043
Sample Date: 04/18/2016 04/18/2016
Depth: -- --

Parameters

Metals

Antimony	mg/L	--	--
Arsenic	mg/L	--	--
Barium	mg/L	--	--
Beryllium	mg/L	--	--
Cadmium	mg/L	--	--
Chromium	mg/L	--	--
Cobalt	mg/L	--	--
Copper	mg/L	--	--
Iron	mg/L	--	--
Lead	mg/L	--	--
Manganese	mg/L	--	--
Mercury	mg/L	--	--
Molybdenum	mg/L	--	--
Nickel	mg/L	--	--
Selenium	mg/L	--	--
Silver	mg/L	--	--
Thallium	mg/L	--	--
Vanadium	mg/L	--	--
Zinc	mg/L	--	--

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID: MW42-12 MW43-12
Sample Name: WG-017360-041116-MR-025 WG-017360-040616-MR-010
Sample Date: 04/11/2016 04/06/2016
Depth: --

Parameters	Unit	
Volatile Organic Compounds		
1,1,1-Trichloroethane	µg/L	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	1.0 U
1,1,2-Trichloroethane	µg/L	1.0 U
1,1-Dichloroethane	µg/L	1.0 U
1,1-Dichloroethene	µg/L	1.0 U
1,2,4-Trichlorobenzene	µg/L	5.0 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	µg/L	1.0 U
1,2-Dichlorobenzene	µg/L	1.0 U
1,2-Dichloroethane	µg/L	1.0 U
1,2-Dichloropropane	µg/L	1.0 U
1,3-Dichlorobenzene	µg/L	1.0 U
1,4-Dichlorobenzene	µg/L	1.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	25 U
2-Hexanone	µg/L	50 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	50 U
Acetone	µg/L	50 U
Benzene	µg/L	1.0 U
Bromodichloromethane	µg/L	1.0 U
Bromoform	µg/L	1.0 U
Bromomethane (Methyl bromide)	µg/L	5.0 U
Carbon disulfide	µg/L	5.0 U
Carbon tetrachloride	µg/L	1.0 U
Chlorobenzene	µg/L	1.0 U
Chloroethane	µg/L	5.0 U
Chloroform (Trichloromethane)	µg/L	1.0 U
Chloromethane (Methyl chloride)	µg/L	5.0 U
cis-1,2-Dichloroethene	µg/L	1.0 U
cis-1,3-Dichloropropene	µg/L	1.0 U

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID: MW42-12 MW43-12
Sample Name: WG-017360-041116-MR-025 WG-017360-040616-MR-010
Sample Date: 04/11/2016 04/06/2016
Depth: -- --

Parameters**Unit****Volatile Organic Compounds**

Cyclohexane	1.0 U	1.0 U
Dibromochloromethane	5.0 U	5.0 U
Dichlorodifluoromethane (CFC-12)	5.0 U	5.0 U
Ethylbenzene	1.0 U	1.0 U
Isopropyl benzene	5.0 U	5.0 U
Methyl acetate	10 U	10 U
Methyl cyclohexane	1.0 U	1.0 U
Methyl tert butyl ether (MTBE)	5.0 U	5.0 U
Methylene chloride	5.0 U	5.0 U
Styrene	1.0 U	1.0 U
Tetrachloroethene	1.3	2.9
Toluene	1.0 U	1.0 U
trans-1,2-Dichloroethene	1.0 U	1.0 U
trans-1,3-Dichloropropene	1.0 U	1.0 U
Trichloroethene	1.0 U	0.83 J
Trichlorofluoromethane (CFC-11)	1.0 U	1.0 U
Trifluorotrichloroethane (CFC-113)	1.0 U	1.0 U
Vinyl chloride	1.0 U	1.0 U
Xylenes (total)	3.0 U	3.0 U

Semivolatile 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	--	--

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID: MW42-12 MW43-12
Sample Name: WG-017360-041116-MR-025 WG-017360-040616-MR-010
Sample Date: 04/11/2016 04/06/2016
Depth: -- --

Parameters	Unit
Semivolatile Organic Compounds	
2-Chloronaphthalene	µg/L
2-Chlorophenol	µg/L
2-Methylnaphthalene	µg/L
2-Methylphenol	µg/L
2-Nitroaniline	µg/L
2-Nitrophenol	µg/L
3&4-Methylphenol	µg/L
3,3'-Dichlorobenzidine	µg/L
3-Nitroaniline	µg/L
4,6-Dinitro-2-methylphenol	µg/L
4-Bromophenyl phenyl ether	µg/L
4-Chloro-3-methylphenol	µg/L
4-Chloroaniline	µg/L
4-Chlorophenyl phenyl ether	µg/L
4-Nitroaniline	µg/L
4-Nitrophenol	µg/L
Acenaphthene	µg/L
Acenaphthylene	µg/L
Acetophenone	µg/L
Anthracene	µg/L
Atrazine	µg/L
Benzaldehyde	µg/L
Benzo(a)anthracene	µg/L
Benzo(a)pyrene	µg/L
Benzo(b)fluoranthene	µg/L
Benzo(g,h,i)perylene	µg/L
Benzo(k)fluoranthene	µg/L
Biphenyl (1,1-Biphenyl)	µg/L
bis(2-Chloroethoxy)methane	µg/L

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID: MW42-12 MW43-12
Sample Name: WG-017360-041116-MR-025 WG-017360-040616-MR-010
Sample Date: 04/11/2016 04/06/2016
Depth: -- --

Parameters**Unit****Semivolatile Organic Compounds**

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

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID: MW42-12 MW43-12
Sample Name: WG-017360-041116-MR-025 WG-017360-040616-MR-010
Sample Date: 04/11/2016 04/06/2016
Depth: -- --

Parameters

Metals

Antimony	mg/L	--
Arsenic	mg/L	--
Barium	mg/L	--
Beryllium	mg/L	--
Cadmium	mg/L	--
Chromium	mg/L	--
Cobalt	mg/L	--
Copper	mg/L	--
Iron	mg/L	--
Lead	mg/L	--
Manganese	mg/L	--
Mercury	mg/L	--
Molybdenum	mg/L	--
Nickel	mg/L	--
Selenium	mg/L	--
Silver	mg/L	--
Thallium	mg/L	--
Vanadium	mg/L	--
Zinc	mg/L	--

Table 2

**Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program**

Wyoming, Michigan

April 2016

Location ID: **MW44-12** **MW45-12**
Sample Name: **WG-017360-041116-MR-024** **WG-017360-041116-MR-022**
Sample Date: **04/11/2016** **04/11/2016**
Depth: **--** **--**

Parameters	Unit	
Volatile Organic Compounds		
1,1,1-Trichloroethane	µg/L	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	1.0 U
1,1,2-Trichloroethane	µg/L	1.0 U
1,1-Dichloroethane	µg/L	1.0 U
1,1-Dichloroethene	µg/L	1.0 U
1,2,4-Trichlorobenzene	µg/L	5.0 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	µg/L	1.0 U
1,2-Dichlorobenzene	µg/L	1.0 U
1,2-Dichloroethane	µg/L	1.0 U
1,2-Dichloropropane	µg/L	1.0 U
1,3-Dichlorobenzene	µg/L	1.0 U
1,4-Dichlorobenzene	µg/L	1.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	25 U
2-Hexanone	µg/L	50 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	50 U
Acetone	µg/L	50 U
Benzene	µg/L	1.0 U
Bromodichloromethane	µg/L	1.0 U
Bromoform	µg/L	1.0 U
Bromomethane (Methyl bromide)	µg/L	5.0 U
Carbon disulfide	µg/L	5.0 U
Carbon tetrachloride	µg/L	1.0 U
Chlorobenzene	µg/L	1.0 U
Chloroethane	µg/L	5.0 U
Chloroform (Trichloromethane)	µg/L	1.0 U
Chloromethane (Methyl chloride)	µg/L	5.0 U
cis-1,2-Dichloroethene	µg/L	1.0 U
cis-1,3-Dichloropropene	µg/L	1.0 U

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID:	MW44-12	MW45-12
Sample Name:	WG-017360-041116-MR-024	WG-017360-041116-MR-022
Sample Date:	04/11/2016	04/11/2016
Depth:	--	--
Parameters	Unit	Unit
Volatile Organic Compounds		
Cyclohexane	µg/L	1.0 U
Dibromochloromethane	µg/L	5.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	5.0 U
Ethylbenzene	µg/L	0.90 J
Isopropyl benzene	µg/L	1.8 J
Methyl acetate	µg/L	10 U
Methyl cyclohexane	µg/L	1.0 U
Methyl tert butyl ether (MTBE)	µg/L	5.0 U
Methylene chloride	µg/L	5.0 U
Styrene	µg/L	1.0 U
Tetrachloroethene	µg/L	1.6
Toluene	µg/L	1.0 U
trans-1,2-Dichloroethene	µg/L	1.0 U
trans-1,3-Dichloropropene	µg/L	1.0 U
Trichloroethene	µg/L	1.0 U
Trichlorofluoromethane (CFC-11)	µg/L	1.0 U
Trifluorotrichloroethane (CFC-113)	µg/L	1.0 U
Vinyl chloride	µg/L	1.0 U
Xylenes (total)	µg/L	3.0 U
Semivolatile Organic Compounds		
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	µg/L	5.4 U
2,4,5-Trichlorophenol	µg/L	5.4 U
2,4,6-Trichlorophenol	µg/L	5.4 U
2,4-Dichlorophenol	µg/L	5.4 U
2,4-Dimethylphenol	µg/L	5.4 U
2,4-Dinitrophenol	µg/L	5.4 U
2,4-Dinitrotoluene	µg/L	5.4 U
2,6-Dinitrotoluene	µg/L	5.4 U

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID: MW44-12 MW45-12
Sample Name: WG-017360-041116-MR-024 WG-017360-041116-MR-022
Sample Date: 04/11/2016 04/11/2016
Depth: -- --

Parameters	Unit
Semivolatile Organic Compounds	
2-Chloronaphthalene	5.6 U
2-Chlorophenol	5.6 U
2-Methylnaphthalene	5.6 U
2-Methylphenol	1.0 J
2-Nitroaniline	5.6 U
2-Nitrophenol	5.6 U
3&4-Methylphenol	2.1 J
3,3'-Dichlorobenzidine	5.6 U
3-Nitroaniline	5.6 U
4,6-Dinitro-2-methylphenol	5.6 U
4-Bromophenyl phenyl ether	5.6 U
4-Chloro-3-methylphenol	5.6 U
4-Chloroaniline	5.6 U
4-Chlorophenyl phenyl ether	5.6 U
4-Nitroaniline	5.6 U
4-Nitrophenol	5.6 U
Acenaphthene	5.6 U
Acenaphthylene	5.6 U
Acetophenone	1.1 U
Anthracene	5.6 U
Atrazine	1.1 U
Benzaldehyde	1.1 U
Benzo(a)anthracene	5.6 U
Benzo(a)pyrene	5.6 U
Benzo(b)fluoranthene	5.6 U
Benzo(g,h,i)perylene	5.6 U
Benzo(k)fluoranthene	5.6 U
Biphenyl (1,1-Biphenyl)	5.6 U
bis(2-Chloroethoxy)methane	5.6 U

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID: MW44-12 MW45-12
Sample Name: WG-017360-041116-MR-024 WG-017360-041116-MR-022
Sample Date: 04/11/2016 04/11/2016
Depth: --

Parameters	Unit	
Semivolatile Organic Compounds		
bis(2-Chloroethyl)ether	µg/L	5.6 U
bis(2-Ethylhexyl)phthalate (DEHP)	µg/L	5.6 U
Butyl benzylphthalate (BBP)	µg/L	5.6 U
Caprolactam	µg/L	11 U
Carbazole	µg/L	5.6 U
Chrysene	µg/L	5.6 U
Di-n-butylphthalate (DBP)	µg/L	5.6 U
Di-n-octyl phthalate (DnOP)	µg/L	5.6 U
Dibenz(a,h)anthracene	µg/L	5.6 U
Dibenzofuran	µg/L	5.6 U
Diethyl phthalate	µg/L	5.6 U
Dimethyl phthalate	µg/L	5.6 U
Fluoranthene	µg/L	5.6 U
Fluorene	µg/L	5.6 U
Hexachlorobenzene	µg/L	5.6 U
Hexachlorobutadiene	µg/L	5.6 U
Hexachlorocyclopentadiene	µg/L	5.6 U
Hexachloroethane	µg/L	5.6 U
Indeno(1,2,3-cd)pyrene	µg/L	5.6 U
Isophorone	µg/L	5.6 U
N-Nitrosodi-n-propylamine	µg/L	5.6 U
N-Nitrosodiphenylamine	µg/L	5.6 U
Naphthalene	µg/L	5.6 U
Nitrobenzene	µg/L	5.6 U
Pentachlorophenol	µg/L	5.6 U
Phenanthrene	µg/L	5.6 U
Phenol	µg/L	9.2
Pyrene	µg/L	5.6 U

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID: MW44-12 MW45-12
Sample Name: WG-017360-041116-MR-024 WG-017360-041116-MR-022
Sample Date: 04/11/2016 04/11/2016
Depth: -- --

Parameters**Unit****Metals**

Antimony	mg/L	--
Arsenic	mg/L	--
Barium	mg/L	--
Beryllium	mg/L	--
Cadmium	mg/L	--
Chromium	mg/L	--
Cobalt	mg/L	--
Copper	mg/L	--
Iron	mg/L	--
Lead	mg/L	--
Manganese	mg/L	--
Mercury	mg/L	--
Molybdenum	mg/L	--
Nickel	mg/L	--
Selenium	mg/L	--
Silver	mg/L	--
Thallium	mg/L	--
Vanadium	mg/L	--
Zinc	mg/L	--

Table 2

**Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016**

Location ID: MW45-12 MW46-12
Sample Name: WG-017360-041116-MR-023 WG-017360-041116-MR-021
Sample Date: 04/11/2016 04/11/2016
Depth: --

Duplicate

Parameters

Unit

Volatile Organic Compounds

1,1,1-Trichloroethane	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	1.0 U	1.0 U
1,1,2-Trichloroethane	1.0 U	1.0 U
1,1-Dichloroethane	1.0 U	1.0 U
1,1-Dichloroethene	1.0 U	1.0 U
1,2,4-Trichlorobenzene	5.0 U	5.0 U
1,2-Dibromo-3-chloropropane (DBCP)	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	1.0 U	1.0 U
1,2-Dichlorobenzene	1.0 U	1.0 U
1,2-Dichloroethane	1.0 U	1.0 U
1,2-Dichloropropane	1.0 U	1.0 U
1,3-Dichlorobenzene	1.0 U	1.0 U
1,4-Dichlorobenzene	1.0 U	1.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	25 U	25 U
2-Hexanone	50 U	50 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	50 U	50 U
Acetone	8.1 U	50 U
Benzene	1.0 U	1.0 U
Bromodichloromethane	1.0 U	1.0 U
Bromoform	1.0 U	1.0 U
Bromomethane (Methyl bromide)	5.0 U	5.0 U
Carbon disulfide	5.0 U	5.0 U
Carbon tetrachloride	1.0 U	1.0 U
Chlorobenzene	1.0 U	1.0 U
Chloroethane	5.0 U	5.0 U
Chloroform (Trichloromethane)	1.0 U	1.0 U
Chloromethane (Methyl chloride)	5.0 U	5.0 U
cis-1,2-Dichloroethene	1.0 U	1.0 U
cis-1,3-Dichloropropene	1.0 U	1.0 U

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID: MW45-12 MW46-12
 Sample Name: WG-017360-041116-MR-023 WG-017360-041116-MR-021
 Sample Date: 04/11/2016 04/11/2016
 Depth: --

Duplicate

Parameters**Unit****Volatile Organic Compounds**

Cyclohexane	µg/L	1.0 U	1.0 U
Dibromochloromethane	µg/L	5.0 U	5.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	5.0 U	5.0 U
Ethylbenzene	µg/L	1.0 U	1.0 U
Isopropyl benzene	µg/L	5.0 U	5.0 U
Methyl acetate	µg/L	10 U	10 U
Methyl cyclohexane	µg/L	1.0 U	1.0 U
Methyl tert butyl ether (MTBE)	µg/L	5.0 U	5.0 U
Methylene chloride	µg/L	5.0 U	5.0 U
Styrene	µg/L	1.0 U	1.0 U
Tetrachloroethene	µg/L	1.8	1.0 U
Toluene	µg/L	1.0 U	1.0 U
trans-1,2-Dichloroethene	µg/L	1.0 U	1.0 U
trans-1,3-Dichloropropene	µg/L	1.0 U	1.0 U
Trichloroethene	µg/L	1.0 U	1.0 U
Trichlorofluoromethane (CFC-11)	µg/L	1.0 U	1.0 U
Trifluorotrichloroethane (CFC-113)	µg/L	1.0 U	1.0 U
Vinyl chloride	µg/L	1.0 U	1.0 U
Xylenes (total)	µg/L	3.0 U	3.0 U

Semivolatile Organic Compounds

2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	µg/L	5.5 U	5.6 U
2,4,5-Trichlorophenol	µg/L	5.5 U	5.6 U
2,4,6-Trichlorophenol	µg/L	5.5 U	5.6 U
2,4-Dichlorophenol	µg/L	5.5 U	5.6 U
2,4-Dimethylphenol	µg/L	5.5 U	5.6 U
2,4-Dinitrophenol	µg/L	5.5 U	5.6 U
2,4-Dinitrotoluene	µg/L	5.5 U	5.6 U
2,6-Dinitrotoluene	µg/L	5.5 U	5.6 U

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID:		MW45-12	MW46-12
Sample Name:		WG-017360-041116-MR-023	WG-017360-041116-MR-021
Sample Date:		04/11/2016	04/11/2016
Depth:		--	--
Parameters		Duplicate	
Semivolatile Organic Compounds			
2-Chloronaphthalene	µg/L	5.5 U	5.6 U
2-Chlorophenol	µg/L	5.5 U	5.6 U
2-Methylnaphthalene	µg/L	5.5 U	5.6 U
2-Methylphenol	µg/L	5.5 U	5.6 U
2-Nitroaniline	µg/L	5.5 U	5.6 U
2-Nitrophenol	µg/L	5.5 U	5.6 U
3&4-Methylphenol	µg/L	5.5 U	5.6 U
3,3'-Dichlorobenzidine	µg/L	5.5 U	R
3-Nitroaniline	µg/L	5.5 U	5.6 U
4,6-Dinitro-2-methylphenol	µg/L	5.5 U	5.6 U
4-Bromophenyl phenyl ether	µg/L	5.5 U	5.6 U
4-Chloro-3-methylphenol	µg/L	5.5 U	5.6 U
4-Chloroaniline	µg/L	5.5 U	5.6 U
4-Chlorophenyl phenyl ether	µg/L	5.5 U	5.6 U
4-Nitroaniline	µg/L	5.5 U	5.6 U
4-Nitrophenol	µg/L	5.5 U	5.6 U
Acenaphthene	µg/L	5.5 U	5.6 U
Acenaphthylene	µg/L	5.5 U	5.6 U
Acetophenone	µg/L	1.1 U	1.1 U
Anthracene	µg/L	5.5 U	5.6 U
Atrazine	µg/L	1.1 U	1.1 U
Benzaldehyde	µg/L	1.1 U	1.1 U
Benzo(a)anthracene	µg/L	5.5 U	5.6 U
Benzo(a)pyrene	µg/L	5.5 U	5.6 U
Benzo(b)fluoranthene	µg/L	5.5 U	5.6 U
Benzo(g,h,i)perylene	µg/L	5.5 U	5.6 U
Benzo(k)fluoranthene	µg/L	5.5 U	5.6 U
Biphenyl (1,1-Biphenyl)	µg/L	5.5 U	5.6 U
bis(2-Chloroethoxy)methane	µg/L	5.5 U	5.6 U

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID:		MW45-12	MW46-12
Sample Name:		WG-017360-041116-MR-023	WG-017360-041116-MR-021
Sample Date:		04/11/2016	04/11/2016
Depth:		--	--
Parameters		Duplicate	
Semivolatle Organic Compounds			
bis(2-Chloroethyl)ether	µg/L	5.5 U	5.6 U
bis(2-Ethylhexyl)phthalate (DEHP)	µg/L	5.5 U	5.6 U
Butyl benzylphthalate (BBP)	µg/L	5.5 U	5.6 U
Caprolactam	µg/L	11 U	11 U
Carbazole	µg/L	5.5 U	5.6 U
Chrysene	µg/L	5.5 U	5.6 U
Di-n-butylphthalate (DBP)	µg/L	5.5 U	5.6 U
Di-n-octyl phthalate (DnOP)	µg/L	5.5 U	5.6 U
Dibenz(a,h)anthracene	µg/L	5.5 U	5.6 U
Dibenzofuran	µg/L	5.5 U	5.6 U
Diethyl phthalate	µg/L	5.5 U	5.6 U
Dimethyl phthalate	µg/L	5.5 U	5.6 U
Fluoranthene	µg/L	5.5 U	5.6 U
Fluorene	µg/L	5.5 U	5.6 U
Hexachlorobenzene	µg/L	5.5 U	5.6 U
Hexachlorobutadiene	µg/L	5.5 U	5.6 U
Hexachlorocyclopentadiene	µg/L	5.5 U	5.6 U
Hexachloroethane	µg/L	5.5 U	5.6 U
Indeno(1,2,3-cd)pyrene	µg/L	5.5 U	5.6 U
Isophorone	µg/L	5.5 U	5.6 U
N-Nitrosodi-n-propylamine	µg/L	5.5 U	5.6 U
N-Nitrosodiphenylamine	µg/L	5.5 U	5.6 U
Naphthalene	µg/L	5.5 U	5.6 U
Nitrobenzene	µg/L	5.5 U	5.6 U
Pentachlorophenol	µg/L	5.5 U	5.6 U
Phenanthrene	µg/L	5.5 U	5.6 U
Phenol	µg/L	5.5 U	5.6 U
Pyrene	µg/L	5.5 U	5.6 U

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID: MW45-12 MW46-12
Sample Name: WG-017360-041116-MR-023 WG-017360-041116-MR-021
Sample Date: 04/11/2016 04/11/2016
Depth: -- --

Parameters**Unit**

Duplicate

Metals

Antimony	mg/L	--	--
Arsenic	mg/L	--	--
Barium	mg/L	--	--
Beryllium	mg/L	--	--
Cadmium	mg/L	--	--
Chromium	mg/L	--	--
Cobalt	mg/L	--	--
Copper	mg/L	--	--
Iron	mg/L	--	--
Lead	mg/L	--	--
Manganese	mg/L	--	--
Mercury	mg/L	--	--
Molybdenum	mg/L	--	--
Nickel	mg/L	--	--
Selenium	mg/L	--	--
Silver	mg/L	--	--
Thallium	mg/L	--	--
Vanadium	mg/L	--	--
Zinc	mg/L	--	--

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID: **MW48-13** **MW49-13**
Sample Name: **WG-017360-041316-MR-028** **WG-017360-041416-MR-036**
Sample Date: **04/13/2016** **04/14/2016**
Depth: **--** **--**

Parameters	Unit	
Volatile Organic Compounds		
1,1,1-Trichloroethane	µg/L	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	1.0 U
1,1,2-Trichloroethane	µg/L	1.0 U
1,1-Dichloroethane	µg/L	1.0 U
1,1-Dichloroethene	µg/L	1.0 U
1,2,4-Trichlorobenzene	µg/L	5.0 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	µg/L	1.0 U
1,2-Dichlorobenzene	µg/L	1.0 U
1,2-Dichloroethane	µg/L	1.0 U
1,2-Dichloropropane	µg/L	1.0 U
1,3-Dichlorobenzene	µg/L	1.0 U
1,4-Dichlorobenzene	µg/L	1.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	25 U
2-Hexanone	µg/L	50 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	50 U
Acetone	µg/L	50 U
Benzene	µg/L	1.0 U
Bromodichloromethane	µg/L	1.0 U
Bromoform	µg/L	1.0 U
Bromomethane (Methyl bromide)	µg/L	5.0 U
Carbon disulfide	µg/L	5.0 U
Carbon tetrachloride	µg/L	1.0 U
Chlorobenzene	µg/L	1.0 U
Chloroethane	µg/L	5.0 U
Chloroform (Trichloromethane)	µg/L	1.0 U
Chloromethane (Methyl chloride)	µg/L	5.0 U
cis-1,2-Dichloroethene	µg/L	1.0 U
cis-1,3-Dichloropropene	µg/L	0.85 U
		1.0 U

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID: MW48-13 MW49-13
 Sample Name: WG-017360-041316-MR-028 WG-017360-041416-MR-036
 Sample Date: 04/13/2016 04/14/2016
 Depth: -- --

Parameters	Unit
Volatile Organic Compounds	
Cyclohexane	1.0 U
Dibromochloromethane	5.0 U
Dichlorodifluoromethane (CFC-12)	5.0 U
Ethylbenzene	1.0 U
Isopropyl benzene	5.0 U
Methyl acetate	10 U
Methyl cyclohexane	1.0 U
Methyl tert butyl ether (MTBE)	0.68 J
Methylene chloride	5.0 U
Styrene	1.0 U
Tetrachloroethene	1.0 U
Toluene	1.0 U
trans-1,2-Dichloroethene	1.0 U
trans-1,3-Dichloropropene	1.0 U
Trichloroethene	1.0 U
Trichlorofluoromethane (CFC-11)	3.3
Trifluorotrichloroethane (CFC-113)	1.0 U
Vinyl chloride	1.0 U
Xylenes (total)	3.0 U
Semivolatile 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	--

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID: MW48-13 MW49-13
Sample Name: WG-017360-041316-MR-028 WG-017360-041416-MR-036
Sample Date: 04/13/2016 04/14/2016
Depth: -- --

Parameters**Unit****Semivolatle Organic Compounds**

2-Chloronaphthalene	µg/L	--
2-Chlorophenol	µg/L	--
2-Methylnaphthalene	µg/L	--
2-Methylphenol	µg/L	--
2-Nitroaniline	µg/L	--
2-Nitrophenol	µg/L	--
3&4-Methylphenol	µg/L	--
3,3'-Dichlorobenzidine	µg/L	--
3-Nitroaniline	µg/L	--
4,6-Dinitro-2-methylphenol	µg/L	--
4-Bromophenyl phenyl ether	µg/L	--
4-Chloro-3-methylphenol	µg/L	--
4-Chloroaniline	µg/L	--
4-Chlorophenyl phenyl ether	µg/L	--
4-Nitroaniline	µg/L	--
4-Nitrophenol	µg/L	--
Acenaphthene	µg/L	--
Acenaphthylene	µg/L	--
Acetophenone	µg/L	--
Anthracene	µg/L	--
Atrazine	µg/L	--
Benzaldehyde	µg/L	--
Benzo(a)anthracene	µg/L	--
Benzo(a)pyrene	µg/L	--
Benzo(b)fluoranthene	µg/L	--
Benzo(g,h,i)perylene	µg/L	--
Benzo(k)fluoranthene	µg/L	--
Biphenyl (1,1-Biphenyl)	µg/L	--
bis(2-Chloroethoxy)methane	µg/L	--

Table 2

**Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016**

Location ID: MW48-13 MW49-13
Sample Name: WG-017360-041316-MR-028 WG-017360-041416-MR-036
Sample Date: 04/13/2016 04/14/2016
Depth: -- --

Parameters**Unit****Semivolatile Organic Compounds**

bis(2-Chloroethyl)ether

µg/L

bis(2-Ethylhexyl)phthalate (DEHP)

µg/L

Butyl benzylphthalate (BBP)

µg/L

Caprolactam

µg/L

Carbazole

µg/L

Chrysene

µg/L

Di-n-butylphthalate (DBP)

µg/L

Di-n-octyl phthalate (DnOP)

µg/L

Dibenz(a,h)anthracene

µg/L

Dibenzofuran

µg/L

Diethyl phthalate

µg/L

Dimethyl phthalate

µg/L

Fluoranthene

µg/L

Fluorene

µg/L

Hexachlorobenzene

µg/L

Hexachlorobutadiene

µg/L

Hexachlorocyclopentadiene

µg/L

Hexachloroethane

µg/L

Indeno(1,2,3-cd)pyrene

µg/L

Isophorone

µg/L

N-Nitrosodi-n-propylamine

µg/L

N-Nitrosodiphenylamine

µg/L

Naphthalene

µg/L

Nitrobenzene

µg/L

Pentachlorophenol

µg/L

Phenanthrene

µg/L

Phenol

µg/L

Pyrene

µg/L

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID: MW48-13 MW49-13
Sample Name: WG-017360-041316-MR-028 WG-017360-041416-MR-036
Sample Date: 04/13/2016 04/14/2016
Depth: -- --

Parameters

Metals

Antimony	mg/L	--
Arsenic	mg/L	--
Barium	mg/L	--
Beryllium	mg/L	--
Cadmium	mg/L	--
Chromium	mg/L	--
Cobalt	mg/L	--
Copper	mg/L	--
Iron	mg/L	--
Lead	mg/L	--
Manganese	mg/L	--
Mercury	mg/L	--
Molybdenum	mg/L	--
Nickel	mg/L	--
Selenium	mg/L	--
Silver	mg/L	--
Thallium	mg/L	--
Vanadium	mg/L	--
Zinc	mg/L	--

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID: MW50-12 MW51-12
Sample Name: WG-017360-041416-MR-039 WG-017360-041416-MR-038
Sample Date: 04/14/2016 04/14/2016
Depth: -- --

Parameters	Unit	
Volatile Organic Compounds		
1,1,1-Trichloroethane	µg/L	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	1.0 U
1,1,2-Trichloroethane	µg/L	1.0 U
1,1-Dichloroethane	µg/L	1.0 U
1,1-Dichloroethene	µg/L	1.0 U
1,2,4-Trichlorobenzene	µg/L	5.0 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	µg/L	1.0 U
1,2-Dichlorobenzene	µg/L	1.0 U
1,2-Dichloroethane	µg/L	1.0 U
1,2-Dichloropropane	µg/L	1.0 U
1,3-Dichlorobenzene	µg/L	1.0 U
1,4-Dichlorobenzene	µg/L	1.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	25 U
2-Hexanone	µg/L	50 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	50 U
Acetone	µg/L	13 J
Benzene	µg/L	1.0 U
Bromodichloromethane	µg/L	1.0 U
Bromoform	µg/L	1.0 U
Bromomethane (Methyl bromide)	µg/L	5.0 U
Carbon disulfide	µg/L	5.0 U
Carbon tetrachloride	µg/L	1.0 U
Chlorobenzene	µg/L	1.0 U
Chloroethane	µg/L	5.0 U
Chloroform (Trichloromethane)	µg/L	1.0 U
Chloromethane (Methyl chloride)	µg/L	5.0 U
cis-1,2-Dichloroethene	µg/L	0.85 J
cis-1,3-Dichloropropene	µg/L	1.0 U

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID: MW50-12 MW51-12
 Sample Name: WG-017360-041416-MR-039 WG-017360-041416-MR-038
 Sample Date: 04/14/2016 04/14/2016
 Depth: -

Parameters**Unit****Volatile Organic Compounds**

Cyclohexane	µg/L	1.0 U	1.0 U
Dibromochloromethane	µg/L	5.0 U	5.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	5.0 U	5.0 U
Ethylbenzene	µg/L	1.0 U	1.0 U
Isopropyl benzene	µg/L	5.0 U	5.0 U
Methyl acetate	µg/L	10 U	10 U
Methyl cyclohexane	µg/L	1.0 U	1.0 U
Methyl tert butyl ether (MTBE)	µg/L	5.0 U	5.0 U
Methylene chloride	µg/L	5.0 U	5.0 U
Styrene	µg/L	1.0 U	1.0 U
Tetrachloroethene	µg/L	3.7	1.6
Toluene	µg/L	1.0 U	1.0 U
trans-1,2-Dichloroethene	µg/L	1.0 U	1.0 U
trans-1,3-Dichloropropene	µg/L	1.0 U	1.0 U
Trichloroethene	µg/L	1.0 U	1.0 U
Trichlorofluoromethane (CFC-11)	µg/L	1.0 U	1.0 U
Trifluorotrichloroethane (CFC-113)	µg/L	1.0 U	1.0 U
Vinyl chloride	µg/L	1.0 U	1.0 U
Xylenes (total)	µg/L	3.0 U	3.0 U

Semivolatile Organic Compounds

2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	µg/L	5.6 U	5.5 U
2,4,5-Trichlorophenol	µg/L	5.6 U	5.5 U
2,4,6-Trichlorophenol	µg/L	5.6 U	5.5 U
2,4-Dichlorophenol	µg/L	5.6 U	5.5 U
2,4-Dimethylphenol	µg/L	5.6 U	5.5 U
2,4-Dinitrophenol	µg/L	5.6 U	5.5 U
2,4-Dinitrotoluene	µg/L	5.6 U	5.5 U
2,6-Dinitrotoluene	µg/L	5.6 U	5.5 U

Table 2

**Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program**

Wyoming, Michigan

April 2016

Location ID: **MW50-12** **MW51-12**
 Sample Name: **WG-017360-041416-MR-039** **WG-017360-041416-MR-038**
 Sample Date: **04/14/2016** **04/14/2016**
 Depth: **--** **--**

Parameters**Unit****Semivolatile Organic Compounds**

2-Chloronaphthalene	µg/L	5.5 U
2-Chlorophenol	µg/L	5.5 U
2-Methylnaphthalene	µg/L	5.5 U
2-Methylphenol	µg/L	5.5 U
2-Nitroaniline	µg/L	5.5 U
2-Nitrophenol	µg/L	5.5 U
3&4-Methylphenol	µg/L	5.5 U
3,3'-Dichlorobenzidine	µg/L	5.5 U
3-Nitroaniline	µg/L	5.5 U
4,6-Dinitro-2-methylphenol	µg/L	5.5 U
4-Bromophenyl phenyl ether	µg/L	5.5 U
4-Chloro-3-methylphenol	µg/L	5.5 U
4-Chloroaniline	µg/L	5.5 U
4-Chlorophenyl phenyl ether	µg/L	5.5 U
4-Nitroaniline	µg/L	5.5 U
4-Nitrophenol	µg/L	5.5 U
Acenaphthene	µg/L	0.36 U
Acenaphthylene	µg/L	5.5 U
Acetophenone	µg/L	1.1 U
Anthracene	µg/L	5.5 U
Atrazine	µg/L	1.1 U
Benzaldehyde	µg/L	1.1 U
Benzo(a)anthracene	µg/L	5.5 U
Benzo(a)pyrene	µg/L	5.5 U
Benzo(b)fluoranthene	µg/L	5.5 U
Benzo(g,h,i)perylene	µg/L	5.5 U
Benzo(k)fluoranthene	µg/L	5.5 U
Biphenyl (1,1-Biphenyl)	µg/L	5.5 U
bis(2-Chloroethoxy)methane	µg/L	5.5 U

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID: MW50-12 MW51-12
Sample Name: WG-017360-041416-MR-039 WG-017360-041416-MR-038
Sample Date: 04/14/2016 04/14/2016
Depth: --

Parameters	Unit	
Semivolatile Organic Compounds		
bis(2-Chloroethyl)ether	µg/L	5.6 U
bis(2-Ethylhexyl)phthalate (DEHP)	µg/L	5.6 U
Butyl benzylphthalate (BBP)	µg/L	5.6 U
Caprolactam	µg/L	11 U
Carbazole	µg/L	5.6 U
Chrysene	µg/L	5.6 U
Di-n-butylphthalate (DBP)	µg/L	0.47 J
Di-n-octyl phthalate (DnOP)	µg/L	5.6 U
Dibenz(a,h)anthracene	µg/L	5.6 U
Dibenzofuran	µg/L	5.6 U
Diethyl phthalate	µg/L	5.6 U
Dimethyl phthalate	µg/L	5.6 U
Fluoranthene	µg/L	5.6 U
Fluorene	µg/L	5.6 U
Hexachlorobenzene	µg/L	5.6 U
Hexachlorobutadiene	µg/L	5.6 U
Hexachlorocyclopentadiene	µg/L	5.6 U
Hexachloroethane	µg/L	5.6 U
Indeno(1,2,3-cd)pyrene	µg/L	5.6 U
Isophorone	µg/L	5.6 U
N-Nitrosodi-n-propylamine	µg/L	5.6 U
N-Nitrosodiphenylamine	µg/L	5.6 U
Naphthalene	µg/L	5.6 U
Nitrobenzene	µg/L	5.6 U
Pentachlorophenol	µg/L	5.6 U
Phenanthrene	µg/L	5.6 U
Phenol	µg/L	5.6 U
Pyrene	µg/L	5.6 U

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID: MW50-12 MW51-12
Sample Name: WG-017360-041416-MR-039 WG-017360-041416-MR-038
Sample Date: 04/14/2016 04/14/2016
Depth: -- --

Parameters**Unit****Metals**

Antimony	mg/L	--	--
Arsenic	mg/L	--	--
Barium	mg/L	--	--
Beryllium	mg/L	--	--
Cadmium	mg/L	--	--
Chromium	mg/L	--	--
Cobalt	mg/L	--	--
Copper	mg/L	--	--
Iron	mg/L	--	--
Lead	mg/L	--	--
Manganese	mg/L	--	--
Mercury	mg/L	--	--
Molybdenum	mg/L	--	--
Nickel	mg/L	--	--
Selenium	mg/L	--	--
Silver	mg/L	--	--
Thallium	mg/L	--	--
Vanadium	mg/L	--	--
Zinc	mg/L	--	--

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID: **MW52-12** **MW58-13**
Sample Name: **WG-017360-041416-MR-037** **WG-017360-041316-MR-030**
Sample Date: **04/14/2016** **04/13/2016**
Depth: **--** **--**

Parameters	Unit	
Volatile Organic Compounds		
1,1,1-Trichloroethane	µg/L	1.0 U
1,1,1,2,2-Tetrachloroethane	µg/L	1.0 U
1,1,2,2-Trichloroethane	µg/L	1.0 U
1,1-Dichloroethane	µg/L	1.0 U
1,1-Dichloroethene	µg/L	1.0 U
1,2,4-Trichlorobenzene	µg/L	5.0 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	µg/L	1.0 U
1,2-Dichlorobenzene	µg/L	1.0 U
1,2-Dichloroethane	µg/L	1.0 U
1,2-Dichloropropane	µg/L	1.0 U
1,3-Dichlorobenzene	µg/L	1.0 U
1,4-Dichlorobenzene	µg/L	1.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	25 U
2-Hexanone	µg/L	50 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	50 U
Acetone	µg/L	50 U
Benzene	µg/L	13 J
Bromodichloromethane	µg/L	0.39 J
Bromoform	µg/L	1.0 U
Bromomethane (Methyl bromide)	µg/L	1.0 U
Carbon disulfide	µg/L	5.0 U
Carbon tetrachloride	µg/L	5.0 U
Chlorobenzene	µg/L	1.0 U
Chloroethane	µg/L	1.0 U
Chloroform (Trichloromethane)	µg/L	5.0 U
Chloromethane (Methyl chloride)	µg/L	1.0 U
cis-1,2-Dichloroethene	µg/L	5.0 U
cis-1,3-Dichloropropene	µg/L	1.0 U

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID: MW52-12 MW58-13
 Sample Name: WG-017360-041416-MR-037 WG-017360-041316-MR-030
 Sample Date: 04/14/2016 04/13/2016
 Depth: --

Parameters	Unit
Volatile Organic Compounds	
Cyclohexane	1.0 U
Dibromochloromethane	5.0 U
Dichlorodifluoromethane (CFC-12)	5.0 U
Ethylbenzene	2.0
Isopropyl benzene	1.3 J
Methyl acetate	10 U
Methyl cyclohexane	1.0 U
Methyl tert butyl ether (MTBE)	5.0 U
Methylene chloride	5.0 U
Styrene	0.64 J
Tetrachloroethene	1.0 U
Toluene	0.49 J
trans-1,2-Dichloroethene	1.0 U
trans-1,3-Dichloropropene	1.0 U
Trichloroethene	1.0 U
Trichlorofluoromethane (CFC-11)	1.0 U
Trifluorotrichloroethane (CFC-113)	1.0 U
Vinyl chloride	1.0 U
Xylenes (total)	3.2
Semivolatile Organic Compounds	
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	5.4 U
2,4,5-Trichlorophenol	5.4 U
2,4,6-Trichlorophenol	5.4 U
2,4-Dichlorophenol	5.4 U
2,4-Dimethylphenol	5.4 U
2,4-Dinitrophenol	5.4 U
2,4-Dinitrotoluene	5.4 U
2,6-Dinitrotoluene	5.4 U

Table 2

**Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program**

Wyoming, Michigan

April 2016

Location ID: MW52-12 MW58-13
 Sample Name: WG-017360-041416-MR-037 WG-017360-041316-MR-030
 Sample Date: 04/14/2016 04/13/2016
 Depth: -- --

Parameters**Unit****Semivolatile Organic Compounds**

2-Chloronaphthalene	µg/L	5.4 U	--
2-Chlorophenol	µg/L	5.4 U	--
2-Methylnaphthalene	µg/L	5.4 U	--
2-Methylphenol	µg/L	5.4 U	--
2-Nitroaniline	µg/L	5.4 U	--
2-Nitrophenol	µg/L	5.4 U	--
3&4-Methylphenol	µg/L	5.4 U	--
3,3'-Dichlorobenzidine	µg/L	5.4 U	--
3-Nitroaniline	µg/L	5.4 U	--
4,6-Dinitro-2-methylphenol	µg/L	5.4 U	--
4-Bromophenyl phenyl ether	µg/L	5.4 U	--
4-Chloro-3-methylphenol	µg/L	5.4 U	--
4-Chloroaniline	µg/L	5.4 U	--
4-Chlorophenyl phenyl ether	µg/L	5.4 U	--
4-Nitroaniline	µg/L	5.4 U	--
4-Nitrophenol	µg/L	5.4 U	--
Acenaphthene	µg/L	5.4 U	--
Acenaphthylene	µg/L	5.4 U	--
Acetophenone	µg/L	5.4 U	--
Anthracene	µg/L	1.4	--
Atrazine	µg/L	5.4 U	--
Benzaldehyde	µg/L	1.1 U	--
Benzo(a)anthracene	µg/L	1.1 U	--
Benzo(a)pyrene	µg/L	5.4 U	--
Benzo(b)fluoranthene	µg/L	5.4 U	--
Benzo(g,h,i)perylene	µg/L	5.4 U	--
Benzo(k)fluoranthene	µg/L	5.4 U	--
Biphenyl (1,1-Biphenyl)	µg/L	5.4 U	--
bis(2-Chloroethoxy)methane	µg/L	5.4 U	--

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID: **MW52-12** **MW58-13**
Sample Name: **WG-017360-041416-MR-037** **WG-017360-041316-MR-030**
Sample Date: **04/14/2016** **04/13/2016**
Depth: **--** **--**

Parameters	Unit	
Semivolatile Organic Compounds		
bis(2-Chloroethyl)ether	µg/L	--
bis(2-Ethylhexyl)phthalate (DEHP)	µg/L	--
Butyl benzylphthalate (BBP)	µg/L	--
Caprolactam	11 U	--
Carbazole	5.4 U	--
Chrysene	5.4 U	--
Di-n-butylphthalate (DBP)	5.4 U	--
Di-n-octyl phthalate (DnOP)	5.4 U	--
Dibenz(a,h)anthracene	5.4 U	--
Dibenzofuran	5.4 U	--
Diethyl phthalate	5.4 U	--
Dimethyl phthalate	5.4 U	--
Fluoranthene	5.4 U	--
Fluorene	5.4 U	--
Hexachlorobenzene	5.4 U	--
Hexachlorobutadiene	5.4 U	--
Hexachlorocyclopentadiene	5.4 U	--
Hexachloroethane	5.4 U	--
Indeno(1,2,3-cd)pyrene	5.4 U	--
Isophorone	5.4 U	--
N-Nitrosodi-n-propylamine	5.4 U	--
N-Nitrosodiphenylamine	5.4 U	--
Naphthalene	5.4 U	--
Nitrobenzene	5.4 U	--
Pentachlorophenol	5.4 U	--
Phenanthrene	5.4 U	--
Phenol	5.4 U	--
Pyrene	5.4 U	--

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID: MW52-12 MW58-13
Sample Name: WG-017360-041416-MR-037 WG-017360-041316-MR-030
Sample Date: 04/14/2016 04/13/2016
Depth: -- --

Parameters

Metals

Antimony	mg/L	--	--
Arsenic	mg/L	--	--
Barium	mg/L	--	--
Beryllium	mg/L	--	--
Cadmium	mg/L	--	--
Chromium	mg/L	--	--
Cobalt	mg/L	--	--
Copper	mg/L	--	--
Iron	mg/L	--	--
Lead	mg/L	--	--
Manganese	mg/L	--	--
Mercury	mg/L	--	--
Molybdenum	mg/L	--	--
Nickel	mg/L	--	--
Selenium	mg/L	--	--
Silver	mg/L	--	--
Thallium	mg/L	--	--
Vanadium	mg/L	--	--
Zinc	mg/L	--	--

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program

Wyoming, Michigan

April 2016

Location ID: MW59-14 MW59-14
Sample Name: WG-017360-040616-MR-006 WG-017360-040616-MR-007
Sample Date: 04/06/2016 04/06/2016
Depth: -- Duplicate

Parameters	Unit	
Volatile Organic Compounds		
1,1,1-Trichloroethane	µg/L	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	1.0 U
1,1,2-Trichloroethane	µg/L	1.0 U
1,1-Dichloroethane	µg/L	0.82 J
1,1-Dichloroethene	µg/L	1.0 U
1,2,4-Trichlorobenzene	µg/L	5.0 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	µg/L	1.0 U
1,2-Dichlorobenzene	µg/L	1.0 U
1,2-Dichloroethane	µg/L	1.0 U
1,2-Dichloropropane	µg/L	1.0 U
1,3-Dichlorobenzene	µg/L	1.0 U
1,4-Dichlorobenzene	µg/L	1.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	25 U
2-Hexanone	µg/L	50 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	50 U
Acetone	µg/L	50 U
Benzene	µg/L	1.0 U
Bromodichloromethane	µg/L	1.0 U
Bromoform	µg/L	1.0 U
Bromomethane (Methyl bromide)	µg/L	5.0 U
Carbon disulfide	µg/L	5.0 U
Carbon tetrachloride	µg/L	1.0 U
Chlorobenzene	µg/L	1.0 U
Chloroethane	µg/L	5.0 U
Chloroform (Trichloromethane)	µg/L	1.0 U
Chloromethane (Methyl chloride)	µg/L	5.0 U
cis-1,2-Dichloroethene	µg/L	14
cis-1,3-Dichloropropene	µg/L	1.0 U

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID: MW59-14 MW59-14
 Sample Name: WG-017360-040616-MR-006 WG-017360-040616-MR-007
 Sample Date: 04/06/2016 04/06/2016
 Depth: -- Duplicate

Parameters**Unit****Volatile Organic Compounds**

Cyclohexane	µg/L	1.0 U	1.0 U
Dibromochloromethane	µg/L	5.0 U	5.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	5.0 U	5.0 U
Ethylbenzene	µg/L	1.0 U	1.0 U
Isopropyl benzene	µg/L	5.0 U	5.0 U
Methyl acetate	µg/L	10 U	10 U
Methyl cyclohexane	µg/L	1.0 U	1.0 U
Methyl tert butyl ether (MTBE)	µg/L	5.0 U	5.0 U
Methylene chloride	µg/L	5.0 U	5.0 U
Styrene	µg/L	1.0 U	1.0 U
Tetrachloroethene	µg/L	1.0 U	1.0 U
Toluene	µg/L	1.0 U	1.0 U
trans-1,2-Dichloroethene	µg/L	1.0 U	1.0 U
trans-1,3-Dichloropropene	µg/L	1.0 U	1.0 U
Trichloroethene	µg/L	0.71 J	0.70 J
Trichlorofluoromethane (CFC-11)	µg/L	1.0 U	1.0 U
Trifluorotrichloroethane (CFC-113)	µg/L	1.0 U	1.0 U
Vinyl chloride	µg/L	1.0 U	1.0 U
Xylenes (total)	µg/L	3.0 U	3.0 U

Semivolatile Organic Compounds

2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	µg/L	--	--
2,4,5-Trichlorophenol	µg/L	--	--
2,4,6-Trichlorophenol	µg/L	--	--
2,4-Dichlorophenol	µg/L	--	--
2,4-Dimethylphenol	µg/L	--	--
2,4-Dinitrophenol	µg/L	--	--
2,4-Dinitrotoluene	µg/L	--	--
2,6-Dinitrotoluene	µg/L	--	--

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID: MW59-14
Sample Name: WG-017360-040616-MR-006
Sample Date: 04/06/2016
Depth: -- Duplicate

Parameters**Unit****Semivolatile Organic Compounds**

2-Chloronaphthalene	µg/L	--
2-Chlorophenol	µg/L	--
2-Methylnaphthalene	µg/L	--
2-Methylphenol	µg/L	--
2-Nitroaniline	µg/L	--
2-Nitrophenol	µg/L	--
3&4-Methylphenol	µg/L	--
3,3'-Dichlorobenzidine	µg/L	--
3-Nitroaniline	µg/L	--
4,6-Dinitro-2-methylphenol	µg/L	--
4-Bromophenyl phenyl ether	µg/L	--
4-Chloro-3-methylphenol	µg/L	--
4-Chloroaniline	µg/L	--
4-Chlorophenyl phenyl ether	µg/L	--
4-Nitroaniline	µg/L	--
4-Nitrophenol	µg/L	--
Acenaphthene	µg/L	--
Acenaphthylene	µg/L	--
Acetophenone	µg/L	--
Anthracene	µg/L	--
Atrazine	µg/L	--
Benzaldehyde	µg/L	--
Benzo(a)anthracene	µg/L	--
Benzo(a)pyrene	µg/L	--
Benzo(b)fluoranthene	µg/L	--
Benzo(g,h,i)perylene	µg/L	--
Benzo(k)fluoranthene	µg/L	--
Biphenyl (1,1-Biphenyl)	µg/L	--
bis(2-Chloroethoxy)methane	µg/L	--

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID: MW59-14 MW59-14
 Sample Name: WG-017360-040616-MR-006 WG-017360-040616-MR-007
 Sample Date: 04/06/2016 04/06/2016
 Depth: -- Duplicate

Parameters**Unit****Semivolatile Organic Compounds**

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

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID:		MW59-14	MW59-14
Sample Name:		WG-017360-040616-MR-006	WG-017360-040616-MR-007
Sample Date:		04/06/2016	04/06/2016
Depth:		--	--
		Duplicate	
Parameters	Unit		
Metals			
Antimony	mg/L	0.0020 U	0.0020 U
Arsenic	mg/L	0.0015 J	0.0024 J
Barium	mg/L	0.12	0.11
Beryllium	mg/L	0.0010 U	0.0010 U
Cadmium	mg/L	0.0010 U	0.0010 U
Chromium	mg/L	0.010 U	0.010 U
Cobalt	mg/L	0.020 U	0.020 U
Copper	mg/L	0.00035 J	0.00027 J
Iron	mg/L	0.33	0.36
Lead	mg/L	0.00024 J	0.00020 J
Manganese	mg/L	0.042 J	0.038 J
Mercury	mg/L	0.00020 U	0.00020 U
Molybdenum	mg/L	0.050 U	0.0011 J
Nickel	mg/L	0.0023 J	0.0028 J
Selenium	mg/L	0.0050 U	0.0050 U
Silver	mg/L	0.00020 U	0.00020 U
Thallium	mg/L	0.0020 U	0.0020 U
Vanadium	mg/L	0.0040 U	0.0040 U
Zinc	mg/L	0.0061 J	0.0044 J

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID: **MW60-14** Trip Blank
Sample Name: **WG-017360-041116-MR-026** TB-017360-040716-MR-020
Sample Date: **04/11/2016** **04/07/2016**
Depth: **--**

Parameters	Unit
Volatile Organic Compounds	
1,1,1-Trichloroethane	1.0 U
1,1,2,2-Tetrachloroethane	1.0 U
1,1,2-Trichloroethane	1.0 U
1,1-Dichloroethane	1.0 U
1,1-Dichloroethene	1.0 U
1,2,4-Trichlorobenzene	5.0 U
1,2-Dibromo-3-chloropropane (DBCP)	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	1.0 U
1,2-Dichlorobenzene	1.0 U
1,2-Dichloroethane	1.0 U
1,2-Dichloropropane	1.0 U
1,3-Dichlorobenzene	1.0 U
1,4-Dichlorobenzene	1.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	25 U
2-Hexanone	50 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	50 U
Acetone	50 U
Benzene	1.0 U
Bromodichloromethane	1.0 U
Bromoform	1.0 U
Bromomethane (Methyl bromide)	5.0 U
Carbon disulfide	5.0 U
Carbon tetrachloride	1.0 U
Chlorobenzene	1.0 U
Chloroethane	5.0 U
Chloroform (Trichloromethane)	1.0 U
Chloromethane (Methyl chloride)	5.0 U
cis-1,2-Dichloroethene	1.0 U
cis-1,3-Dichloropropene	1.0 U

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID: MW60-14 Trip Blank
Sample Name: WG-017360-041116-MR-026 TB-017360-040716-MR-020
Sample Date: 04/11/2016 04/07/2016
Depth: --

Parameters	Unit
Volatile Organic Compounds	
Cyclohexane	1.0 U
Dibromochloromethane	5.0 U
Dichlorodifluoromethane (CFC-12)	5.0 U
Ethylbenzene	1.0 U
Isopropyl benzene	5.0 U
Methyl acetate	10 U
Methyl cyclohexane	1.0 U
Methyl tert butyl ether (MTBE)	5.0 U
Methylene chloride	5.0 U
Styrene	1.0 U
Tetrachloroethene	1.0 U
Toluene	1.0 U
trans-1,2-Dichloroethene	1.0 U
trans-1,3-Dichloropropene	1.0 U
Trichloroethene	1.0 U
Trichlorofluoromethane (CFC-11)	1.0 U
Trifluorotrichloroethane (CFC-113)	1.0 U
Vinyl chloride	1.0 U
Xylenes (total)	3.0 U
Semivolatile 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	--

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
 Wyoming, Michigan
 April 2016

Location ID: **WG-017360-041116-MR-026** **MW60-14** **Trip Blank**
 Sample Name: **TB-017360-040716-MR-020**
 Sample Date: **04/11/2016** **04/07/2016**
 Depth: **--** **--**

Parameters	Unit
Semivolatile Organic Compounds	
2-Chloronaphthalene	µg/L
2-Chlorophenol	µg/L
2-Methylnaphthalene	µg/L
2-Methylphenol	µg/L
2-Nitroaniline	µg/L
2-Nitrophenol	µg/L
3&4-Methylphenol	µg/L
3,3'-Dichlorobenzidine	µg/L
3-Nitroaniline	µg/L
4,6-Dinitro-2-methylphenol	µg/L
4-Bromophenyl phenyl ether	µg/L
4-Chloro-3-methylphenol	µg/L
4-Chloroaniline	µg/L
4-Chlorophenyl phenyl ether	µg/L
4-Nitroaniline	µg/L
4-Nitrophenol	µg/L
Acenaphthene	µg/L
Acenaphthylene	µg/L
Acetophenone	µg/L
Anthracene	µg/L
Atrazine	µg/L
Benzaldehyde	µg/L
Benzo(a)anthracene	µg/L
Benzo(a)pyrene	µg/L
Benzo(b)fluoranthene	µg/L
Benzo(g,h,i)perylene	µg/L
Benzo(k)fluoranthene	µg/L
Biphenyl (1,1-Biphenyl)	µg/L
bis(2-Chloroethoxy)methane	µg/L

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID: **MW60-14** Trip Blank
Sample Name: **WG-017360-041116-MR-026** TB-017360-040716-MR-020
Sample Date: **04/11/2016** **04/07/2016**
Depth: **--** **--**

Parameters**Unit****Semivolatile Organic Compounds**

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

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID: **MW60-14** **Trip Blank**
Sample Name: **WG-017360-041116-MR-026** **TB-017360-040716-MR-020**
Sample Date: **04/11/2016** **04/07/2016**
Depth: **--** **--**

Parameters**Unit****Metals**

Antimony	mg/L	0.00016 J	--
Arsenic	mg/L	0.0050 U	--
Barium	mg/L	0.022 J	--
Beryllium	mg/L	0.0010 U	--
Cadmium	mg/L	0.0010 U	--
Chromium	mg/L	0.0031 J	--
Cobalt	mg/L	0.0021 J	--
Copper	mg/L	0.0017 J	--
Iron	mg/L	0.049 J	--
Lead	mg/L	0.00020 J	--
Manganese	mg/L	0.0031 J	--
Mercury	mg/L	0.00020 U	--
Molybdenum	mg/L	0.0033 J	--
Nickel	mg/L	0.0020 J	--
Selenium	mg/L	0.0010 J	--
Silver	mg/L	0.00020 U	--
Thallium	mg/L	0.0020 U	--
Vanadium	mg/L	0.00043 J	--
Zinc	mg/L	0.0040 J	--

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID: **Trip Blank** **Trip Blank** **Trip Blank**
Sample Name: **TB-017360-041416-MR-041** **TB-017360-041816-MR-050**
Sample Date: **04/14/2016** **04/18/2016**
Depth: **--** **--**

Parameters	Unit	
Volatile Organic Compounds		
1,1,1-Trichloroethane	µg/L	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	1.0 U
1,1,2-Trichloroethane	µg/L	1.0 U
1,1-Dichloroethane	µg/L	1.0 U
1,1-Dichloroethene	µg/L	1.0 U
1,2,4-Trichlorobenzene	µg/L	5.0 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	µg/L	1.0 U
1,2-Dichlorobenzene	µg/L	1.0 U
1,2-Dichloroethane	µg/L	1.0 U
1,2-Dichloropropane	µg/L	1.0 U
1,3-Dichlorobenzene	µg/L	1.0 U
1,4-Dichlorobenzene	µg/L	0.22 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	25 U
2-Hexanone	µg/L	50 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	50 U
Acetone	µg/L	50 U
Benzene	µg/L	1.0 U
Bromodichloromethane	µg/L	1.0 U
Bromoform	µg/L	1.0 U
Bromomethane (Methyl bromide)	µg/L	5.0 U
Carbon disulfide	µg/L	5.0 U
Carbon tetrachloride	µg/L	1.0 U
Chlorobenzene	µg/L	1.0 U
Chloroethane	µg/L	5.0 U
Chloroform (Trichloromethane)	µg/L	1.0 U
Chloromethane (Methyl chloride)	µg/L	5.0 U
cis-1,2-Dichloroethene	µg/L	1.0 U
cis-1,3-Dichloropropene	µg/L	1.0 U

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID: Trip Blank
 Sample Name: TB-017360-041416-MR-041 Trip Blank
 Sample Date: 04/14/2016 TB-017360-041816-MR-050
 Depth: 04/18/2016

Parameters	Unit	
Volatile Organic Compounds		
Cyclohexane	µg/L	1.0 U
Dibromochloromethane	µg/L	5.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	5.0 U
Ethylbenzene	µg/L	1.0 U
Isopropyl benzene	µg/L	5.0 U
Methyl acetate	µg/L	10 U
Methyl cyclohexane	µg/L	1.0 U
Methyl tert butyl ether (MTBE)	µg/L	5.0 U
Methylene chloride	µg/L	5.0 U
Styrene	µg/L	1.0 U
Tetrachloroethene	µg/L	1.0 U
Toluene	µg/L	1.0 U
trans-1,2-Dichloroethene	µg/L	1.0 U
trans-1,3-Dichloropropene	µg/L	1.0 U
Trichloroethene	µg/L	1.0 U
Trichlorofluoromethane (CFC-11)	µg/L	1.0 U
Trifluorotrichloroethane (CFC-113)	µg/L	1.0 U
Vinyl chloride	µg/L	1.0 U
Xylenes (total)	µg/L	3.0 U
Semivolatile Organic Compounds		
2,2-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	µg/L	--
2,4,5-Trichlorophenol	µg/L	--
2,4,6-Trichlorophenol	µg/L	--
2,4-Dichlorophenol	µg/L	--
2,4-Dimethylphenol	µg/L	--
2,4-Dinitrophenol	µg/L	--
2,4-Dinitrotoluene	µg/L	--
2,6-Dinitrotoluene	µg/L	--

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID: **Trip Blank** **Trip Blank** **Trip Blank**
Sample Name: **TB-017360-041416-MR-041** **TB-017360-041816-MR-050**
Sample Date: **04/14/2016** **04/18/2016**
Depth: **--** **--**

Parameters **Unit**

Semivolatile Organic Compounds

2-Chloronaphthalene	µg/L	--
2-Chlorophenol	µg/L	--
2-Methylnaphthalene	µg/L	--
2-Methylphenol	µg/L	--
2-Nitroaniline	µg/L	--
2-Nitrophenol	µg/L	--
3&4-Methylphenol	µg/L	--
3,3'-Dichlorobenzidine	µg/L	--
3-Nitroaniline	µg/L	--
4,6-Dinitro-2-methylphenol	µg/L	--
4-Bromophenyl phenyl ether	µg/L	--
4-Chloro-3-methylphenol	µg/L	--
4-Chloroaniline	µg/L	--
4-Chlorophenyl phenyl ether	µg/L	--
4-Nitroaniline	µg/L	--
4-Nitrophenol	µg/L	--
Acenaphthene	µg/L	--
Acenaphthylene	µg/L	--
Acetophenone	µg/L	--
Anthracene	µg/L	--
Atrazine	µg/L	--
Benzaldehyde	µg/L	--
Benzo(a)anthracene	µg/L	--
Benzo(a)pyrene	µg/L	--
Benzo(b)fluoranthene	µg/L	--
Benzo(g,h,i)perylene	µg/L	--
Benzo(k)fluoranthene	µg/L	--
Biphenyl (1,1-Biphenyl)	µg/L	--
bis(2-Chloroethoxy)methane	µg/L	--

Table 2

**Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016**

Location ID: TB-017360-041416-MR-041 Trip Blank TB-017360-041816-MR-050
Sample Name: Trip Blank
Sample Date: 04/14/2016 04/18/2016
Depth: -- --

Parameters Unit

Semivolatile Organic Compounds

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

Table 2

Validated Analytical Summary Results
Semi-Annual Groundwater Monitoring Program
Wyoming, Michigan
April 2016

Location ID: **Trip Blank** **Trip Blank** **Trip Blank**
Sample Name: **TB-017360-041416-MR-041** **TB-017360-041816-MR-050**
Sample Date: **04/14/2016** **04/18/2016**
Depth: **--** **--**

Parameters**Unit****Metals**

Antimony	mg/L	--	--
Arsenic	mg/L	--	--
Barium	mg/L	--	--
Beryllium	mg/L	--	--
Cadmium	mg/L	--	--
Chromium	mg/L	--	--
Cobalt	mg/L	--	--
Copper	mg/L	--	--
Iron	mg/L	--	--
Lead	mg/L	--	--
Manganese	mg/L	--	--
Mercury	mg/L	--	--
Molybdenum	mg/L	--	--
Nickel	mg/L	--	--
Selenium	mg/L	--	--
Silver	mg/L	--	--
Thallium	mg/L	--	--
Vanadium	mg/L	--	--
Zinc	mg/L	--	--

Notes:

U - Not detected at the associated reporting limit.

J - Estimated concentration.

R - Rejected.

Table 3

Analytical Methods
Semi-Annual Groundwater Monitoring Program
Former Grand Rapids Metal Plant
Wyoming, Michigan
April 2016

Parameter	Method	Matrix	Holding Time	
			Collection to Extraction (Days)	Collection or Extraction to Analysis (Days)
TCL VOC	SW-846 8260B	Water	-	14
TCL SVOC	SW-846 8270D	Water	7	40
Site-Specific Metals (except Mercury)	SW-846 6020A	Water	-	180
Mercury	SW-846 7470A	Water	-	28

Notes:**Method References:**

- SW-846 - "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, 1986, with subsequent revisions
- TCL - Target Compound List
- VOC - Volatile Organic Compounds
- SVOC - Semi-volatile Organic Compounds

Table 4

Qualified Sample Results Due to Analyte Concentrations in the Method Blanks
Semi-Annual Groundwater Monitoring Program
Former Grand Rapids Metal Plant
Wyoming, Michigan
April 2016

Parameter	Analyte	Analysis Date (mm/dd/yyyy)	Blank Result *	Sample ID	Original Result	Qualified Result	Units
Site-Specific Metals	Molybdenum	04/11/2016	0.0006196 J	WG-017360-040616-MR-006	0.0018 J	0.050 U	mg/L

Notes:

- * - Blank result adjusted for sample factors where applicable
- U - Not detected at the associated reporting limit
- J - Estimated concentration

Table 5

**Qualified Sample Results Due to Outlying MS/MSD Results
Semi-Annual Groundwater Monitoring Program
Former Grand Rapids Metal Plant
Wyoming, Michigan
April 2016**

Parameter	Sample ID	Analyte	MS		MSD		Control Limits		Qualified Result	Units
			% Recovery		% Recovery		% Recovery	RPD		

TCL SVOC	WG-017360-041116-MR-021	3,3'-Dichlorobenzidine	4.25		4.05		30-120	30	R	µg/L

Notes:

- MS - Matrix Spike
- MSD - Matrix Spike Duplicate
- RPD - Relative Percent Difference
- R - Rejected
- TCL - Target Compound List
- SVOC - Semi-volatile Organic Compounds