



Memorandum

January 17, 2020

To: Peter Ramanauskas/U.S. EPA

Ref. No.: 017322A

From: Kaitlyn Trestrail, GHD/ds/50

Tel: 248.893.3400

cc: Dave Favero/RACER

**Subject: Third and Fourth Quarter 2019 Sampling Results
RACER Trust PCC-Validation
Pontiac, Michigan**

1. Introduction

GHD is providing this memorandum on behalf of Revitalizing Auto Communities Environmental Response (RACER) Trust for the former PCC-Validation property in Pontiac, Michigan (Site) (Figure 1). The purpose of this memorandum is to provide the results from the third and fourth quarter 2019 sampling events. The sampling activities were conducted as per the March 5, 2018 Interim Groundwater Monitoring Plan (IGWMP). The IGWMP amended the Sampling and Analysis (SAP) submitted to the U.S. EPA on July 25, 2014 and Supplemental SAP submitted to the U.S. EPA on January 13, 2015. The description of work completed below includes the third and fourth quarter 2019 sampling and analysis.

2. Third and Fourth Quarter 2019 Groundwater Sampling and Analytical Results

2.1 Sampling Methodology

Quarterly sampling events were conducted on September 27 and 30, 2019 and November 6 through 8, 2019. During the September 2019 and November 2019 quarterly events, 15 monitoring wells were sampled (MW02-07, MW10-07, MW33-07, MW38-07, MW64-08, MW68-08, MW79I-12, MW79D-12, MW80-12, MW81-12, MW85-12, MW87-12, MW92S-13, MW92I-13, and MW93I-13). MW21-07 was dry during both sampling events; therefore, could not be sampled.

Prior to groundwater sample collection, static groundwater elevations were measured and recorded. Groundwater samples were collected from the monitoring wells using low-flow sampling techniques with a peristaltic pump and dedicated tubing. Field parameters collected during purging included pH, temperature, conductivity, oxidation/reduction potential (ORP), dissolved oxygen (DO), and turbidity. Groundwater samples were collected after the field parameters stabilized.



Groundwater samples were analyzed using USEPA Method 8260 for VOCs and/or Method 6020 for total and dissolved Aluminum, Lead, and Vanadium. Samples were analyzed for dissolved parameters to allow for consideration of the impact of suspended solids on the results. The September and November 2019 groundwater samples were shipped under chain-of-custody protocol via courier to Eurofins-TestAmerica Laboratories in North Canton, Ohio for analysis. Table 2 presents the sample analysis summary.

2.2 Analytical Results

Groundwater analytical results were compared to all EGLE Cleanup Criteria Requirements for Response Activity (RRA) (Formerly the Part 201 Generic Cleanup Criteria and Screening Levels). The following is a summary of the results:

- Aluminum exceeded the EGLE Cleanup Criteria RRA, Nonresidential and Residential DWC at MW10-07 and MW38-07 (September and November 2019); and MW10-07 exceeded the residential health-based DWC in the fourth quarter sample for aluminum.
- All other analyzed constituents were not detected or detected at concentrations below EGLE Cleanup Criteria RRA

Groundwater results are shown in Figure 2 and a summary of results compared against EGLE Cleanup Criteria RRA is presented in Table 3. Laboratory Analytical Reports are presented in Attachment A.

3. Discussion

Groundwater levels were collected during the third and fourth quarter 2019 sampling events; groundwater elevation contour maps are provided on Figures 3a and 3b. It is noted that the contours are based on a limited well distribution and saturated units that are generally limited in connectivity. Once all required monitoring wells are installed, the groundwater contour maps will be updated to refine groundwater flow direction and hydraulic gradient. The groundwater levels were consistent with historic levels, as identified in Table 1. MW21-07 was dry during both sampling events; therefore, could not be sampled.

During the third and fourth quarter 2019 sampling events, no VOCs were detected above EGLE Cleanup Criteria RRA including MW92I-13, which is located off-Site to the north of the Site.

Total Aluminum in monitoring well MW10-07 and MW38-07 exceeded the EGLE Cleanup Criteria RRA Residential and Nonresidential DWC, which is consistent with previous groundwater data. Dissolved aluminum was not detected above laboratory reporting limits, which indicate that suspended solids are contributing total aluminum in the samples. Total Aluminum in monitoring well MW10-07 exceeded the ELGE Residential Health-Based Drinking Water Criteria during the fourth quarter of 2019. The EGLE (formerly MDEQ) Part 201 Drinking Water Criteria for aluminum is based on the aesthetic drinking water value, as required by Section 20120a(5) of the Natural Resources and Environmental protection Act, 1994 PA 451, as amended (NREPA). The applicable health-based drinking water values are provided as an alternate criteria as identified in Footnote E of Part 201 Cleanup Criteria. Per CA750, the health-based drinking water values were determined to be more appropriate than the aesthetic drinking water values.



It is anticipated the final round of groundwater monitoring well installation will be conducted in 2020, once construction of the new structures on the southern-central portion of M1's property is complete. See Figure 4 for a Site map with proposed monitoring well locations. Proposed monitoring well locations are subject to change based on final placement of on-Site structures and utilities.

4. Schedule

The following schedule is dependent upon access to the property and subcontractor availability.

Task:

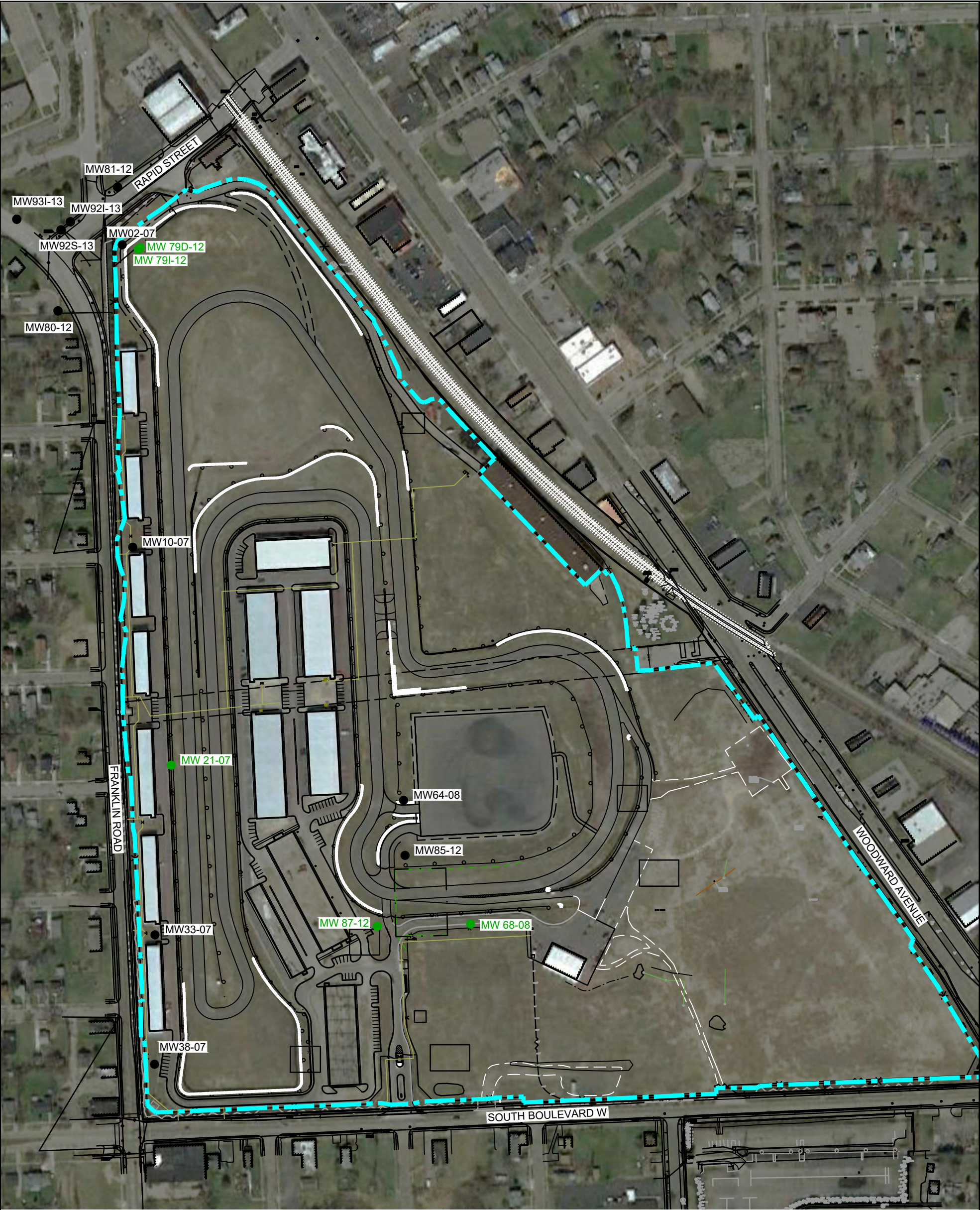
First and Second Quarter 2019 Sampling Results
Quarterly Groundwater Monitoring
Quarterly Groundwater Monitoring
Third and Fourth Quarter 2019 Sampling Results
Quarterly Groundwater Monitoring
Third Phase of Monitoring Well Installation
Quarterly Groundwater Monitoring
First and Second Quarter 2020 Sampling Results

Approximate Timeline:

August 2019 - *Completed*
September 2019 - *Completed*
Dec. 2019 – *Completed Nov. 2019*
January 2020
February 2020
Third Quarter 2020
June 2020
August 2020

Encl:	Figure 1:	Site Map with 2019 Monitoring Well Locations
	Figure 2:	Site Map with VOC and Metals Results
	Figure 3a:	Site Map with Third Quarter 2019 Groundwater Elevation Contours
	Figure 3b:	Site Map with Fourth Quarter 2019 Groundwater Elevation Contours
	Figure 4:	Site Map with Current and Proposed Monitoring Well Locations
	Figure 5:	Site Map with Cross-Section Transect Locations
	Figure 6:	Cross-Section A-A'
	Figure 7:	Cross Section B-B'
	Table 1:	Groundwater Elevation Summary
	Table 2:	Sample Analysis Summary
	Table 3:	2019 and 2018 Groundwater Analytical Results
	Attachment A:	Laboratory Analytical Reports

Figures



LEGEND

- APPROXIMATE PROPERTY BOUNDARY
- RAILROAD
- MW80-12 MONITORING WELL LOCATION
- MW21-07 MONITORING WELL LOCATION (MAY, 2019)

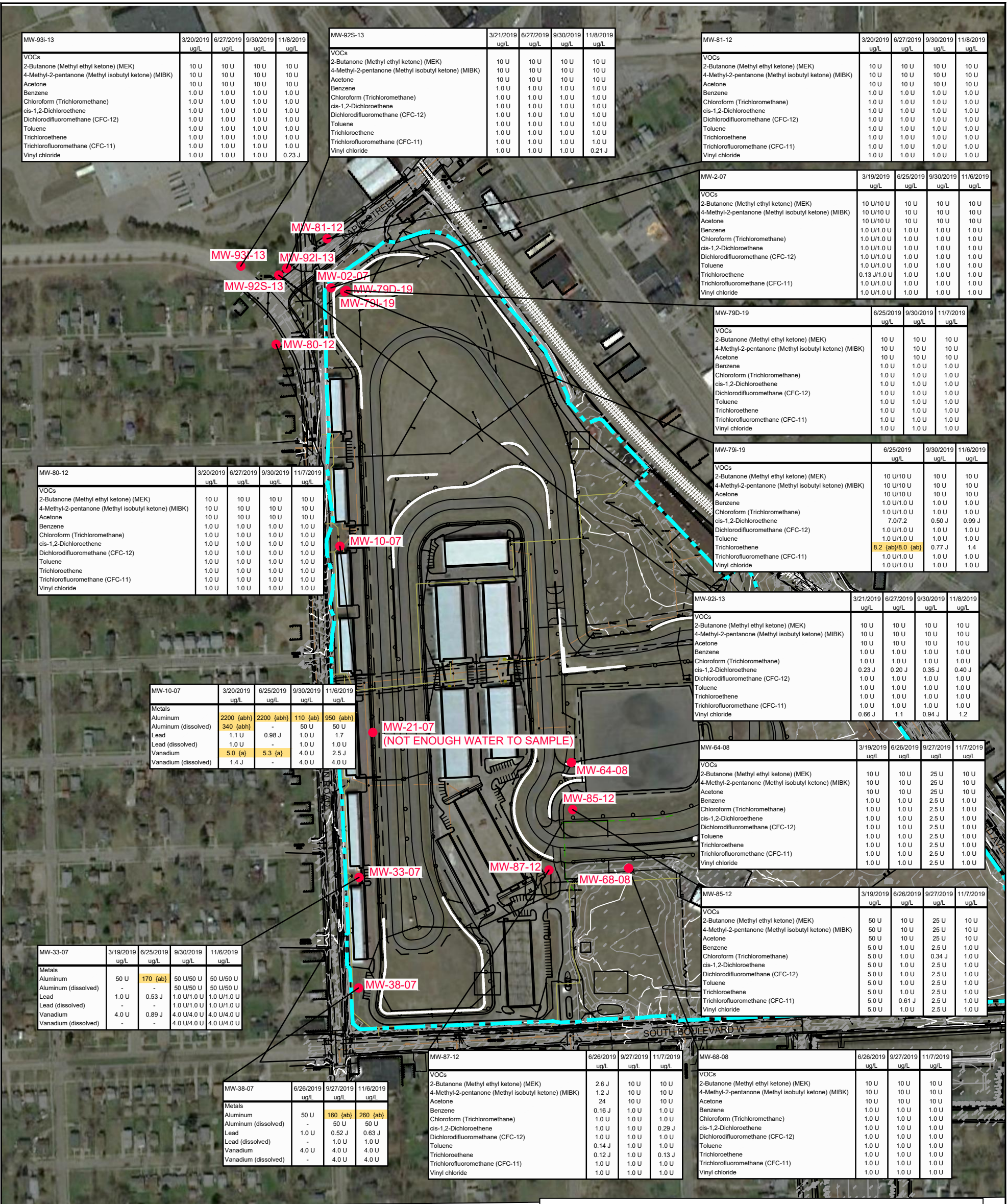
Source: GOOGLE EARTH (DIGITAL GLOBE 4/7/2017)



RACER
1 CONCOURSE DRIVE
PONTIAC, MICHIGAN
SITE MAP WITH
2019 MONITORING WELL LOCATIONS

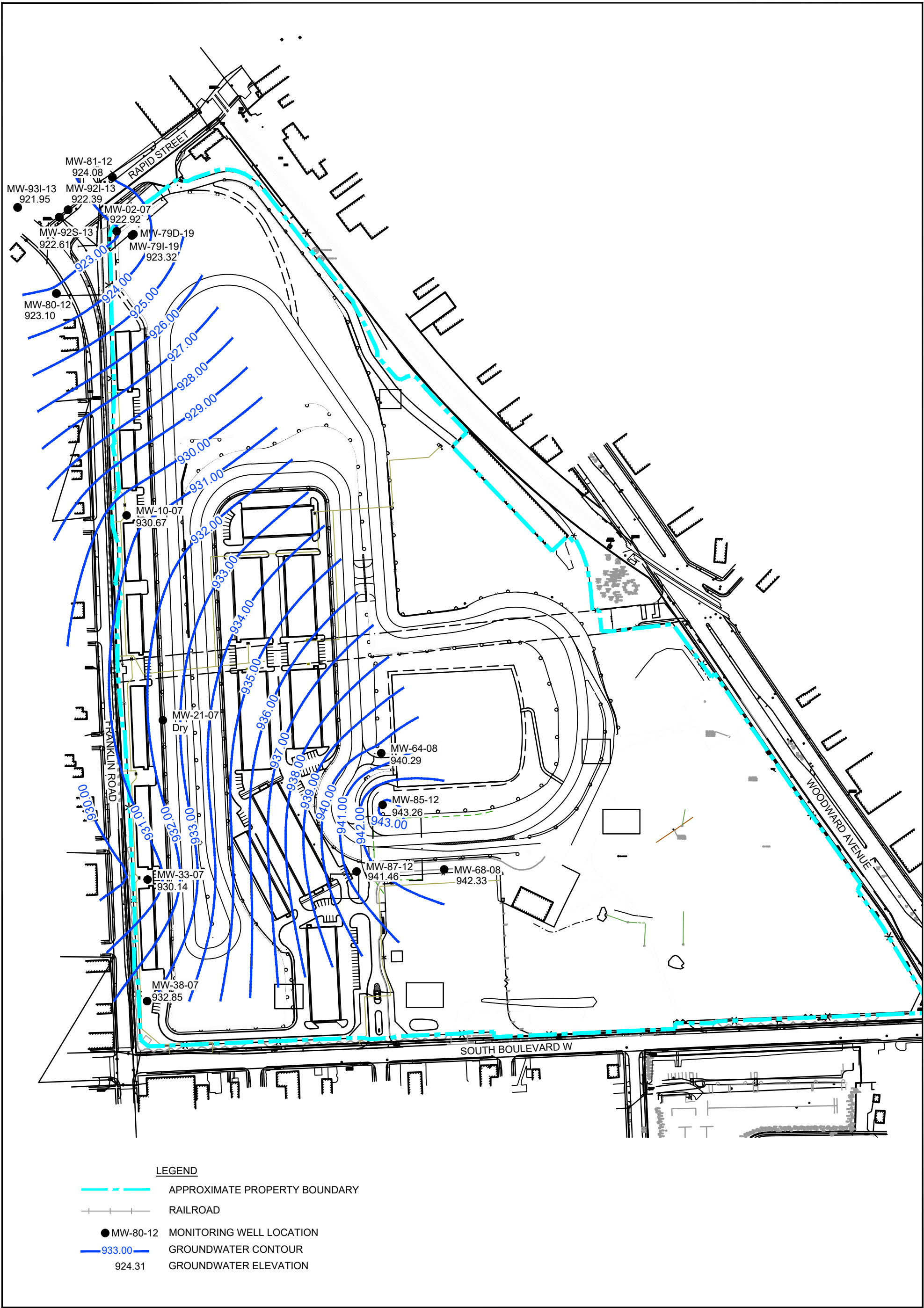
017322A-T04
Sep 30, 2019

FIGURE 1



EGLE Generic Groundwater Cleanup Criteria: Residential and Non-Residential (1)					
	Residential Drinking Water	Non-Residential Drinking Water	Groundwater Surface Water Interface	Residential Health-Based Drinking Water	Non-Residential Health-Based Drinking Water
	a	b	c	h	i
Metals (Total and Dissolved) (ug/L)					
Aluminum	50	50		300	4100
Lead	4	4	4		
Vanadium	4.5	62	27		
Volatile Organic Compounds (VOCs) (ug/L)					
2-Butanone (Methyl ethyl ketone) (MEK)	13000	38000	2200		
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	1800	5200	ID		
Acetone	730	2100	1700		
Benzene	5	5	200		
Chloroform (Trichloromethane)	80	80	350		
cis-1,2-Dichloroethene	70	70	620		
Dichlorodifluoromethane (CFC-12)	1700	4800	ID		
Toluene	790	790	270		
Trichloroethene	5	5	200		
Trifluorotrchloroethane (CFC-113)	170000	170000	32		
Vinyl chloride	2	2	13		

(1) EGLE (Michigan) Cleanup Criteria RRA, administrative rule R 299.44 effective December 30, 2013, formerly the Part 201 Generic Cleanup Criteria and Screening Levels



Source: GOOGLE EARTH (DIGITAL GLOBE 4/7/2017)

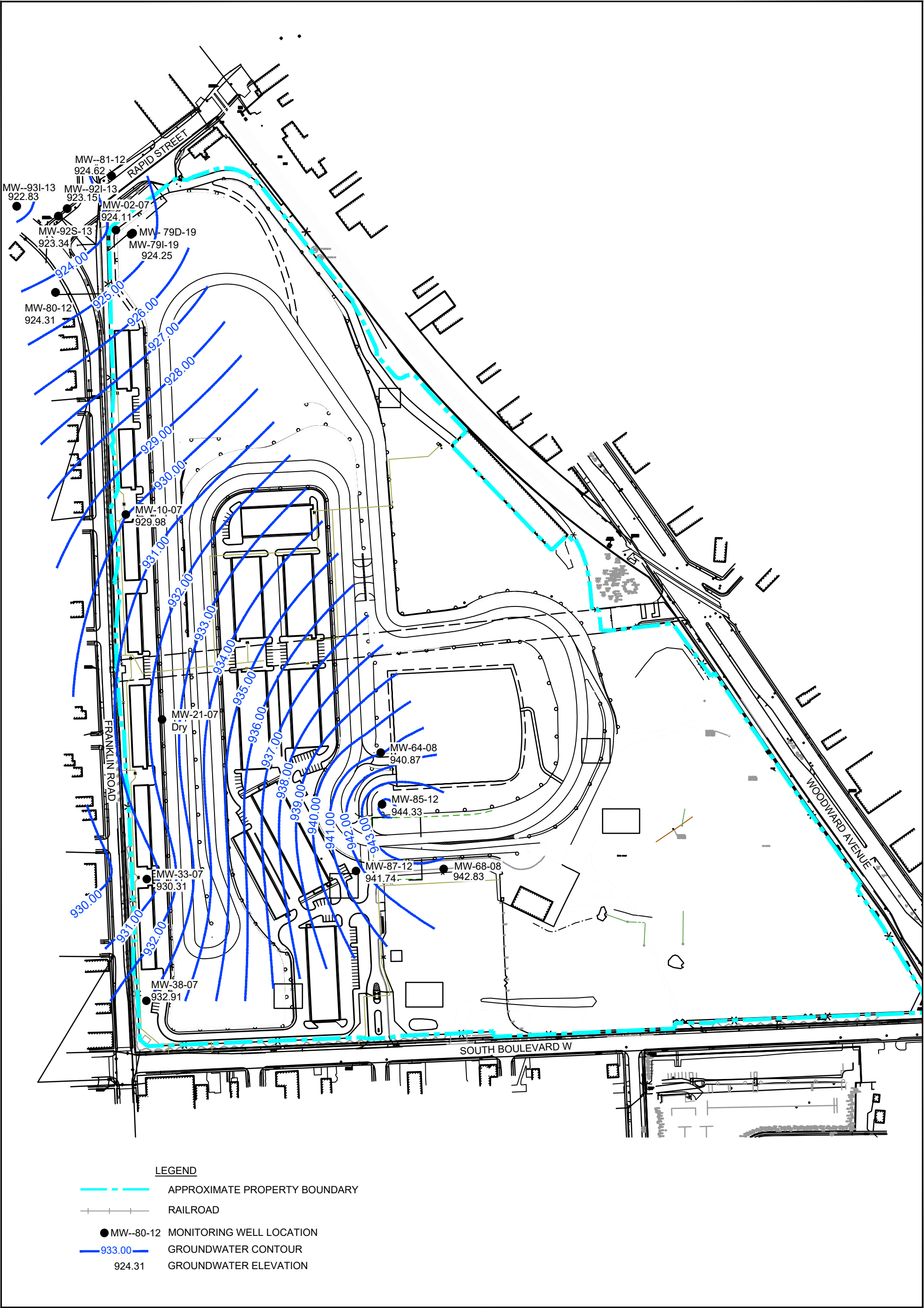
0 125 250ft



RACER
1 CONCOURSE DRIVE
PONTIAC, MICHIGAN
SITE MAP WITH SHALLOW GROUNDWATER
CONTOURS - SEPTEMBER 2019

017322A-T03
Jan 20, 2020

FIGURE 3a



Source: GOOGLE EARTH (DIGITAL GLOBE 4/7/2017)

0 125 250ft



RACER
1 CONCOURSE DRIVE
PONTIAC, MICHIGAN
SITE MAP WITH SHALLOW GROUNDWATER
CONTOURS - NOVEMBER 2019

017322A-T03
Jan 20, 2020

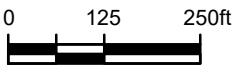
FIGURE 3b



LEGEND

- APPROXIMATE PROPERTY BOUNDARY
- RAILROAD
- MW80-12 MONITORING WELL LOCATION
- MW90-12 PROPOSED MONITORING WELL LOCATION

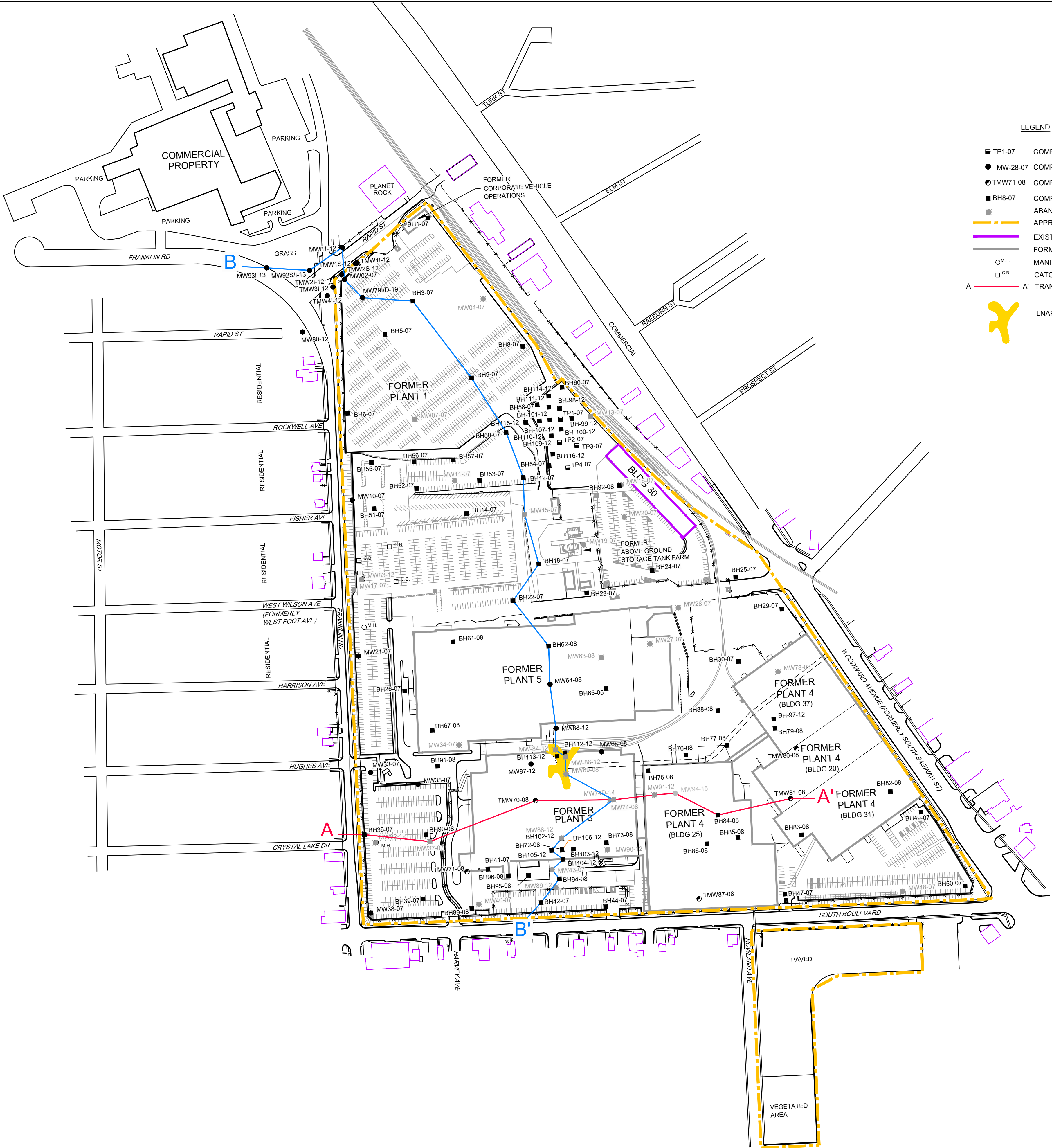
Source: GOOGLE EARTH (DIGITAL GLOBE 4/7/2017)



RACER
1 CONCOURSE DRIVE
PONTIAC, MICHIGAN
SITE MAP WITH CURRENT AND PROPOSED
MONITORING LOCATIONS

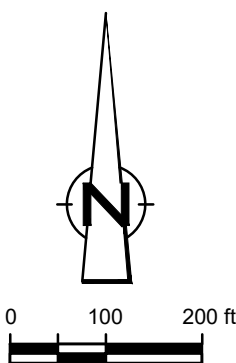
017322A-T03
Dec 23, 2019

FIGURE 4



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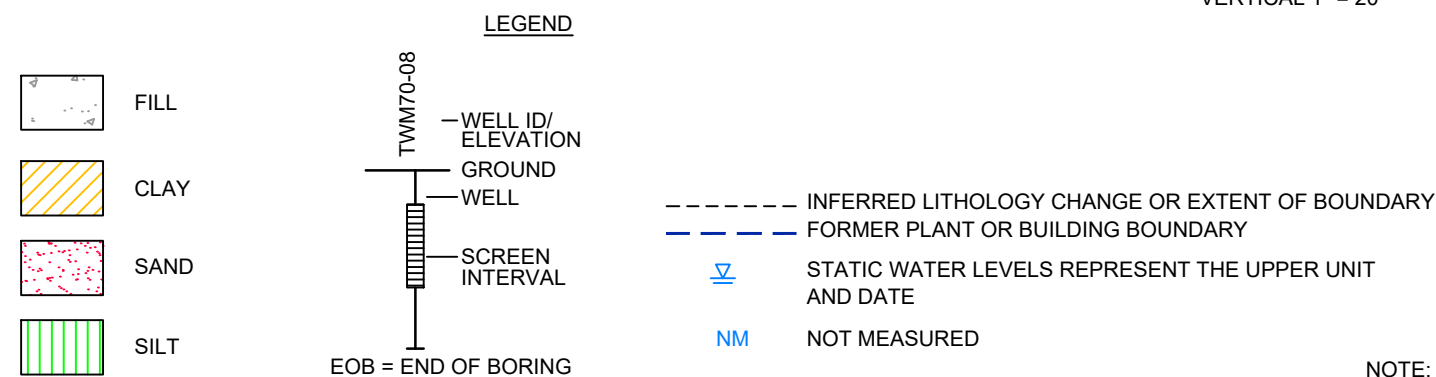
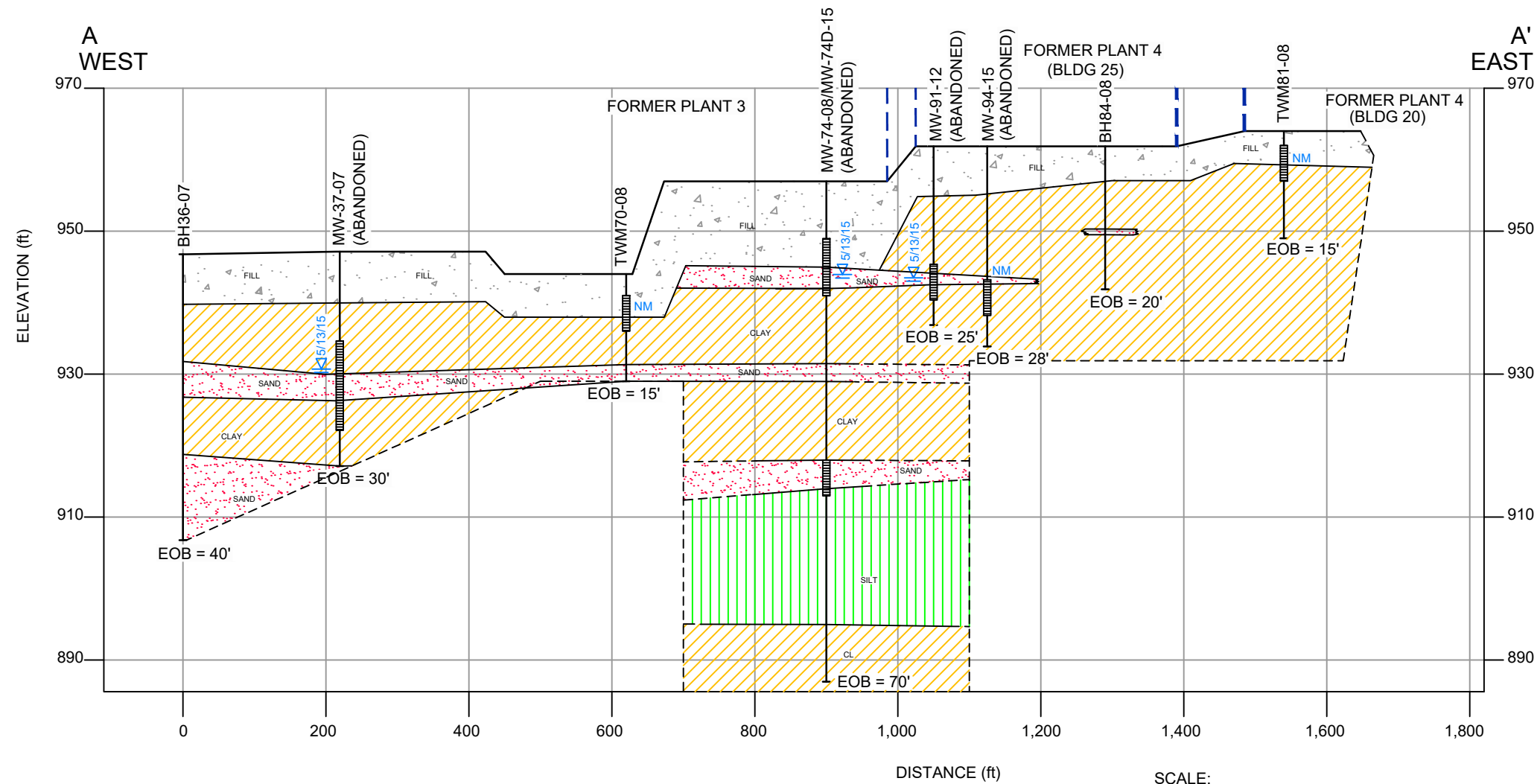
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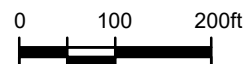
Client
**1 CONCOURSE DRIVE
PONTIAC, MICHIGAN**
Project
**RACER
PCC-VALIDATION**

No.	Issue	Drawn	Approved	Date
Drawn	DRAWN	Designer	DESIGNED	
Drafting	Check	Design	K.T.	
Project	T.K.	Date	Jan 17, 2020	
This document shall not be used for construction unless signed and sealed for construction.		Scale	AS SHOWN	
Original Size	ANSI D Bar is one inch on original size drawing 0 1"			

Project No. **017322A-T03**
Title
**SITE MAP
WITH CROSS-SECTION
TRANSECT LOCATIONS**
Sheet No.
FIGURE 5



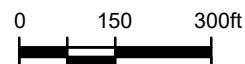
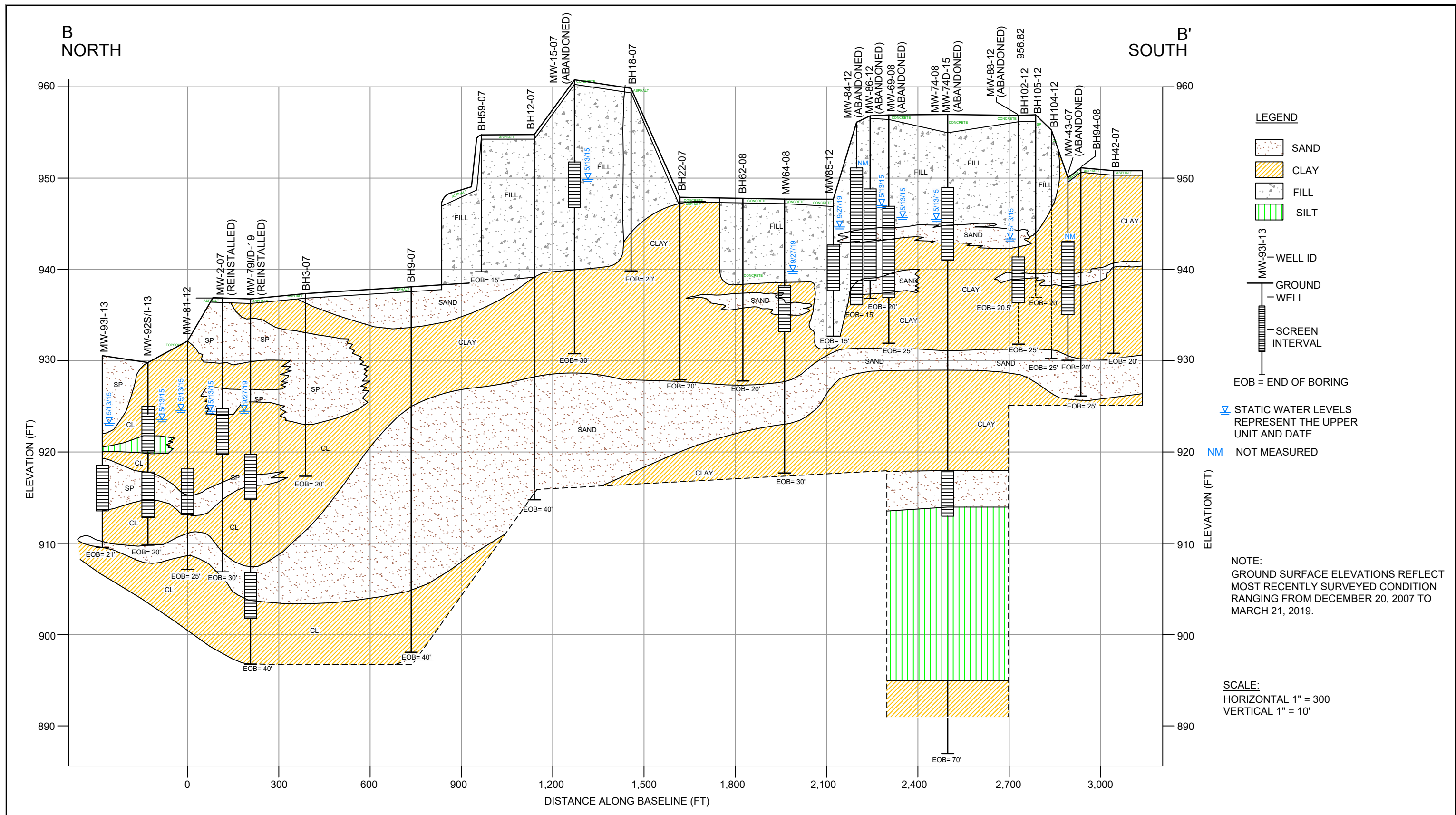
NOTE: GROUND SURFACE ELEVATIONS REFLECT MOST RECENTLY SURVEYED CONDITIONS RANGING FROM DECEMBER 20, 2007 TO MARCH 21, 2019.



RACER
1 CONCOURSE DRIVE
PONTIAC, MICHIGAN
CROSS-SECTION A-A'
PCC-VALIDATION

017322A-T03
Jan 22, 2020

FIGURE 6



RACER
1 CONCOURSE DRIVE
PONTIAC, MICHIGAN
CROSS-SECTION B-B'
PCC-VALIDATION

017322A-T03
Jan 22, 2020

FIGURE 7

Tables

**Groundwater Elevation Summary
RACER PCC- Validation
Pontiac, Michigan**

Sample Location	Date Installed	Current Ground Elevation (FT AMSL)	Current Screen Interval (FT BGS)			Third Quarter 2019 Depth To Groundwater (FT BGS)	Third Quarter 2019 Groundwater Elevation (FT AMSL)	Change in Groundwater Elevation: Previous Vs. Current (FT)	Fourth Quarter 2019 Depth To Groundwater (FT BGS)	Fourth Quarter 2019 Groundwater Elevation (FT AMSL)	Change in Groundwater Elevation: Previous Vs. Current (FT)
MW-02-07	6/4/2018	936.15	11.40	-	16.40	12.71	922.92	0.85	11.52	924.11	-1.19
MW-10-07	6/1/2018	943.34	12.55	-	17.55	12.42	930.67	0.60	13.11	929.98	0.69
MW-21-07	5/22/2019	950.67	11.00	-	16.00	Dry	Dry	Dry	Dry	Dry	Dry
MW-33-07	5/31/2018	947.89	17.24	-	22.24	17.36	930.14	0.56	17.19	930.31	-0.17
MW-38-07	5/30/2018	948.99	12.20	-	17.20	15.65	932.85	0.66	15.59	932.91	-0.06
MW-64-08	5/29/2018	947.31	10.25	-	15.25	6.74	940.29	0.68	6.16	940.87	-0.58
MW-68-08	5/24/2019	956.34	10.00	-	15.00	13.72	942.33	1.01	13.22	942.83	-0.50
MW79I-19*	5/21/2019	936.43	17.00	-	22.00	12.81	923.32	0.77	11.88	924.25	-0.93
MW-79D-19*	5/21/2019	936.45	30.00	-	35.00	10.67	925.54	-0.01	10.50	925.71	-0.17
MW-80-12	8/28/2012	930.14	7.00	-	12.00	6.62	923.10	1.22	5.41	924.31	-1.21
MW-81-12	8/28/2012	932.16	14.00	-	19.00	7.46	924.08	0.22	6.92	924.62	-0.54
MW-85-12	5/29/2018	948.00	3.20	-	8.20	4.46	943.26	1.04	3.39	944.33	-1.07
MW-87-12	5/22/2019	951.29	10.00	-	15.00	9.53	941.46	0.72	9.25	941.74	-0.28
MW-92S-13	1/24/2013	929.85	4.80	-	9.80	6.87	922.61	0.65	6.14	923.34	-0.73
MW-92I-13	1/24/2013	929.80	12.00	-	17.00	6.83	922.39	0.72	6.07	923.15	-0.76
MW-93I-13	7/26/2013	930.55	12.00	-	17.00	8.05	921.95	0.94	7.17	922.83	-0.88

Footnotes:

FT AMSL - Feet above mean sea level

FT BGS - Feet below ground surface

NA - No data available

Dry - No groundwater encountered

* - Both wells compared against historic MW79-12 data

**Sample Analysis Summary
RACER PCC- Validation
Pontiac, Michigan**

Matrix	Sample ID	Sample Location	Date	QA/QC	Analysis
September 2019 Groundwater Sampling Event (Third Quarter)					
Groundwater	GW-17322-092719-JY-001	MW-64-08	9/27/2019	NA	TCL VOCs
Groundwater	GW-17322-092719-JY-002	MW-85-12	9/27/2019	NA	TCL VOCs
Groundwater	GW-17322-092719-JY-003	MW-68-08	9/27/2019	NA	TCL VOCs
Groundwater	GW-17322-092719-JY-004	MW-87-12	9/27/2019	NA	TCL VOCs
Groundwater	GW-17322-092719-JY-005	MW-38-07	9/27/2019	NA	TCL VOCs; Al, Pb, V (Total +Dissolved)
Groundwater	GW-17322-093019-JY-006	MW-33-07	9/30/2019	Duplicate	TCL VOCs; Al, Pb, V (Total +Dissolved)
Groundwater	GW-17322-093019-JY-007	MW-33-07	9/30/2019	NA	TCL VOCs; Al, Pb, V (Total +Dissolved)
Groundwater	GW-17322-093019-JY-008	MW-10-07	9/30/2019	NA	TCL VOCs; Al, Pb, V (Total +Dissolved)
Groundwater	GW-17322-093019-JY-009	MW-79I-12	9/30/2019	NA	TCL VOCs
Groundwater	GW-17322-093019-JY-010	MW-79D-12	9/30/2019	NA	TCL VOCs
Groundwater	GW-17322-093019-JY-011	MW-02-07	9/30/2019	NA	TCL VOCs
Groundwater	GW-17322-093019-JY-012	MW-92S-13	9/30/2019	MS/MSD	TCL VOCs
Groundwater	GW-17322-093019-JY-013	MW-92i-13	9/30/2019	NA	TCL VOCs
Groundwater	GW-17322-093019-JY-014	MW-81-12	9/30/2019	NA	TCL VOCs
Groundwater	GW-17322-092719-JY-015	MW-93i-13	9/27/2019	NA	TCL VOCs
Groundwater	GW-17322-092719-JY-016	MW-80-12	9/27/2019	NA	TCL VOCs
November 2019 Groundwater Sampling Event (Fourth Quarter)					
Groundwater	GW-17322-110619-JY-001	MW-38-07	11/6/2019	NA	Al, Pb, V (Total+Dissolved)
Groundwater	GW-17322-110619-JY-002	MW-33-07	11/6/2019	NA	Al, Pb, V (Total+Dissolved)
Groundwater	GW-17322-110619-JY-003	MW-33-07	11/6/2019	Duplicate	Al, Pb, V (Total+Dissolved)
Groundwater	GW-17322-110619-JY-004	MW-10-07	11/6/2019	NA	Al, Pb, V (Total+Dissolved)
Groundwater	GW-17322-110619-JY-005	MW-02-07	11/6/2019	MS/MSD	TCL VOCs
Groundwater	GW-17322-110619-JY-006	MW-79I-19	11/6/2019	NA	TCL VOCs
Groundwater	GW-17322-110719-JY-007	MW-64-08	11/7/2019	NA	TCL VOCs
Groundwater	GW-17322-110719-JY-008	MW-85-12	11/7/2019	NA	TCL VOCs
Groundwater	GW-17322-110719-JY-009	MW-68-08	11/7/2019	NA	TCL VOCs
Groundwater	GW-17322-110719-JY-010	MW-87-12	11/7/2019	NA	TCL VOCs
Groundwater	GW-17322-110719-JY-011	MW-79D-19	11/7/2019	NA	TCL VOCs
Groundwater	GW-17322-110719-JY-012	MW-80-12	11/7/2019	NA	TCL VOCs
Groundwater	GW-17322-110819-JY-013	MW-81-12	11/8/2019	NA	TCL VOCs
Groundwater	GW-17322-110819-JY-014	MW-92I-12	11/8/2019	NA	TCL VOCs
Groundwater	GW-17322-110819-JY-015	MW-92S-12	11/8/2019	NA	TCL VOCs
Groundwater	GW-17322-110819-JY-016	MW-93I-13	11/8/2019	NA	TCL VOCs

Footnotes:

ft bgs - Feet below ground surface

MW - Monitoring well

NA - Not applicable

TCL VOCS - Target Compound List Volatile Organic Compounds

AL, PB, V - Aluminum, lead, and vanadium

Table 3 2019 and 2018 Groundwater Analytical Results RACER PCC - Validation Pontiac, Michigan												
Sample Location: Sample Identification: Sample Date: Sample Type:	EGLE Generic Groundwater Cleanup Criteria:			Residential Health-Based Drinking Water h	Non-Residential Health-Based Drinking Water i	MW-2-07	MW-2-07	MW-2-07	MW-2-07	MW-2-07	MW-2-07	MW-2-07
	Residential Drinking Water	Non-Residential Drinking Water	Groundwater Surface Water Interface c			GW-17322A-060518-DS-003 6/5/2018	GW-17322A-060518-DS-004 6/5/2018 Duplicate	GW-17322A-091718-DS-003 9/17/2018	GW-17322A-091718-DS-004 9/17/2018 Duplicate	GW-17322-120318-DS-003 12/3/2018	GW-17322A-031919-JY-003 3/19/2019	GW-17322A-031919-JY-004 3/19/2019 Duplicate
	Units	a	b									
Metals												
Aluminum	ug/L	50	50		300	4100	--	--	--	--	--	--
Aluminum (dissolved)	ug/L	50	50		300	4100	--	--	--	--	--	--
Lead	ug/L	4	4	4			--	--	--	--	--	--
Lead (dissolved)	ug/L	4	4	4			--	--	--	--	--	--
Vanadium	ug/L	4.5	62	27			--	--	--	--	--	--
Vanadium (dissolved)	ug/L	4.5	62	27			--	--	--	--	--	--
Volatile Organic Compounds (VOCs)												
1,1,1-Trichloroethane	ug/L	200	200	89			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	8.5	35	78			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	ug/L	5	5	330			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	880	2500	740			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	7	7	130			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	ug/L	70	70	99			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	0.2	0.2				1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	0.05	0.05	5.7			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	ug/L	600	600	13			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	5	5	360			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	5	5	230			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	ug/L	6.6	19	28			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	75	75	17			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	13000	38000	2200			3.2 J	2.7 J	5.0 U	10 U	10 U	10 U
2-Hexanone	ug/L	1000	2900	ID			10 U	10 U	5.0 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	ug/L	1800	5200	ID			0.61 J	0.69 J	5.0 U	10 U	10 U	10 U
Acetone	ug/L	730	2100	1700			11	13	5.0 U	10 U	10 U	10 U
Benzene	ug/L	5	5	200			0.20 J	0.22 J	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	ug/L	80	80	ID			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	80	80	ID			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	ug/L	10	29	5			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	ug/L	800	2300	ID			5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	5	5	38			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	ug/L	100	100	25			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	ug/L	430	1700	1100			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	80	80	350			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	ug/L	260	1100	ID			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	70	70	620			1.0 U	1.0 U	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	1.0 U	1.0 U
Cyclohexane	ug/L						1.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U
Dibromochloromethane	ug/L	80	80	ID			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	1700	4800	ID			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	ug/L	74	74	18			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	ug/L	800	2300	28			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	ug/L						10 U	10 U	5.0 U	5.0 U	10 U	10 U
Methyl cyclohexane	ug/L						1.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U
Methyl tert butyl ether (MTBE)	ug/L	40	40	7100			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	ug/L	5	5	1500			5.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U
Styrene	ug/L	100	100	80			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L	5	5	60			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	ug/L	790	790	270			0.27 J	0.28 J	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	100	100	1500			1.0 U	1.0 U	1.0 U	1.0 U	0.21 J	1.0 U
trans-1,3-Dichloropropene	ug/L						1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	ug/L	5	5	200			1.0 U	1.0 U	1.0 U	1.0 U	0.13 J	1.0 U
Trichlorofluoromethane (CFC-11)	ug/L	2600	7300				1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (CFC-113)	ug/L	170000	170000	32			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	ug/L	2	2	13			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	ug/L	280	280	49			2.0 U	2.0 U	3.0 U	3.0 U	2.0 U	2.0 U

Footnotes:
U - Not detected at the associated reporting limit.
J - Estimated concentration.
UJ - Not detected; associated reporting limit is estimated.
(1) EGLE (Michigan) Cleanup Criteria RRA, administrative rule R 299.44 effective December 30, 2013, formerly the Part 201 Generic Cleanup
NA Criteria not available or not applicable

7.4^{ab}

 - Boxed cell denotes exceedance of cleanup criteria screening level identified by superscript.
-- Sample not analyzed
ID Insufficient data to develop criterion
NLV Not likely to volitilize under most conditions

Table 3 2019 and 2018 Groundwater Analytical Results RACER PCC - Validation Pontiac, Michigan												
Sample Location:	MW-2-07	MW-2-07	MW-2-07	MW-10-07	MW-10-07	MW-10-07	MW-10-07	MW-10-07	MW-10-07	MW-10-07	MW-10-07	MW-33-07
Sample Identification:	GW-17322-062519-SK-001	GW-17322-093019-JY-011	GW-17322-110619-JY-005	GW-17322A-060518-DS-002	GW-17322A-091718-DS-002	GW-17322-120418-DS-007	GW-17322A-032019-JY-006	GW-17322-062519-SK-005	GW-17322-093019-JY-008	GW-17322-110619-JY-004	GW-17322A-060518-DS-001	
Sample Date:	6/25/2019	9/30/2019	11/6/2019	6/5/2018	9/17/2018	12/4/2018	3/20/2019	6/25/2019	9/30/2019	11/6/2019	6/5/2018	
Sample Type:												
Units												
Metals												
Aluminum	ug/L	--	--	--	1800 ^{abh}	1270 ^{abh}	740 ^{abh}	2200 ^{abh}	2200 ^{abh}	110 ^{ab}	950 ^{abh}	50 U
Aluminum (dissolved)	ug/L	--	--	--		116 ^{ab}		340 ^{abh}	--	50 U	50 U	--
Lead	ug/L	--	--	--	0.87 J	50.0 U	1.0 U	1.1 U	0.98 J	1.0 U	1.7	1.0 U
Lead (dissolved)	ug/L	--	--	--	--	50.0 U	--	1.0 U	--	1.0 U	1.0 U	--
Vanadium	ug/L	--	--	--	3.3 J	10.0 U	1.9 J	5.0 ^a	5.3 ^a	4.0 U	2.5 J	5.0 U
Vanadium (dissolved)	ug/L	--	--	--	--	10.0 U	--	1.4 J	--	4.0 U	4.0 U	--
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	1.0 U	1.0 U	1.0 U	--	--	--	--	--	1.0 U	--	--
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	1.0 U	1.0 U	1.0 U	--	--	--	--	--	1.0 U	--	--
1,2-Dibromoethane (Ethylene dibromide)	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 (Methyl ethyl ketone) (MEK)	ug/L	10 U	10 U	10 U	--	--	--	--	--	10 U	--	--
2-Hexanone	ug/L	10 U	10 U	10 U	--	--	--	--	--	10 U	--	--
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	ug/L	10 U	10 U	10 U	--	--	--	--	--	10 U	--	--
Acetone	ug/L	10 U	10 U	10 U	--	--	--	--	--	10 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	1.0 U	1.0 U	1.0 U	--	--	--	--	--	1.0 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	1.0 U	1.0 U	1.0 U	--	--	--	--	--	1.0 U	--	--
Chloroform (Trichloromethane)	ug/L	1.0 U	1.0 U	1.0 U	--	--	--	--	--	1.0 U	--	--
Chloromethane (Methyl chloride)	ug/L	1.0 U	1.0 U	1.0 U	--	--	--	--	--	1.0 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	1.0 U	1.0 U	1.0 U	--	--	--	--	--	1.0 U	--	--
Dichlorodifluoromethane (CFC-12)	ug/L	1.0 U	1.0 U	1.0 U	--	--	--	--	--	1.0 U	--	--
Ethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	--	--	--	--	--	1.0 U	--	--
Isopropyl benzene	ug/L	1.0 U	1.0 U	1.0 U	--	--	--	--	--	1.0 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	1.0 U	1.0 U	1.0 U	--	--	--	--	--	1.0 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	--	--
Trichloroethene	ug/L	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	--	--
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	2.0 U	2.0 U	2.0 U	--	--	--	--	--	2.0 U	--	--
Footnotes:												
U - Not detected at the associated reporting limit.												
J - Estimated concentration.												
UJ - Not detected; associated reporting limit is estimated.												
⁽¹⁾ EGLE (Michigan) Cleanup Criteria RRA, administrative rule R 299.44 effective Decembe												
NA Criteria not available or not applicable												
7.4 ^{ab} - Boxed cell denotes exceedance of cleanup criteria screening level i												
-- Sample not analyzed												
ID Insufficient data to develop criterion												
NLV Not likely to volitilize under most conditions												

Table 3 2019 and 2018 Groundwater Analytical Results RACER PCC - Validation Pontiac, Michigan												
Sample Location:	MW-33-07	MW-33-07	MW-33-07	MW-33-07	MW-33-07	MW-33-07	MW-33-07	MW-33-07	MW-33-07	MW-38-07	MW-38-07	MW-38-07
Sample Identification:	GW-17322A-091718-DS-001	GW-17322-120418-DS-006	GW-17322A-031919-JY-005	GW-17322-062519-SK-006	GW-17322-093019-JY-006	GW-17322-093019-JY-007	GW-17322-110619-JY-002	GW-17322-110619-JY-003	GW-17322-062619-SK-011	GW-17322-092719-JY-005	GW-17322-110619-JY-001	
Sample Date:	9/17/2018	12/4/2018	3/19/2019	6/25/2019	9/30/2019	9/30/2019	11/6/2019	11/6/2019	6/26/2019	9/27/2019	11/6/2019	
Sample Type:	Duplicate											
	Units											
Metals												
Aluminum	ug/L	50.0 U	50 U	50 U	170 ^{ab}	50 U	50 U	50 U	50 U	50 U	160 ^{ab}	260 ^{ab}
Aluminum (dissolved)	ug/L	50.0 U	--	--	--	50 U	50 U	50 U	50 U	--	50 U	50 U
Lead	ug/L	50.0 U	1.0 U	1.0 U	0.53 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.52 J	0.63 J
Lead (dissolved)	ug/L	50.0 U	--	--	--	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U
Vanadium	ug/L	10.0 U	5.0 U	4.0 U	0.89 J	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
Vanadium (dissolved)	ug/L	10.0 U	--	--	--	4.0 U	4.0 U	4.0 U	4.0 U	--	4.0 U	4.0 U
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 UJ	--
1,1,2-Trichloroethane	ug/L	--	--	--	--	1.0 U	1.0 U	--	--	--	1.0 UJ	--
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	--	--	--	--	1.0 U	1.0 U	--	--	--	1.0 U	--
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	--	--	--	--	1.0 U	1.0 U	--	--	--	1.0 U	--
1,2-Dibromoethane (Ethylene dibromide)	ug/L	--	--	--	--	1.0 U	1.0 U	--	--	--	1.0 UJ	--
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 (Methyl ethyl ketone) (MEK)	ug/L	--	--	--	--	10 U	10 U	--	--	--	10 U	--
2-Hexanone	ug/L	--	--	--	--	10 U	10 U	--	--	--	10 U	--
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	ug/L	--	--	--	--	10 U	10 U	--	--	--	10 U	--
Acetone	ug/L	--	--	--	--	10 U	10 U	--	--	--	10 U	--
Benzene	ug/L	--	--	--	--	1.0 U	1.0 U	--	--	--	1.0 U	--
Bromodichloromethane	ug/L	--	--	--	--	1.0 U	1.0 U	--	--	--	1.0 UJ	--
Bromoform	ug/L	--	--	--	--	1.0 U	1.0 U	--	--	--	1.0 U	--
Bromomethane (Methyl bromide)	ug/L	--	--	--	--	1.0 U	1.0 U	--	--	--	1.0 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	--	--	--	--	1.0 U	1.0 U	--	--	--	1.0 U	--
Chloroform (Trichloromethane)	ug/L	--	--	--	--	1.0 U	1.0 U	--	--	--	1.0 U	--
Chloromethane (Methyl chloride)	ug/L	--	--	--	--	1.0 U	1.0 U	--	--	--	1.0 U	--
cis-1,2-Dichloroethene	ug/L	--	--	--	--	1.0 U	1.0 U	--	--	--	1.0 U	--
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	--	--	--	--	1.0 U	1.0 U	--	--	--	1.0 U	--
Dichlorodifluoromethane (CFC-12)	ug/L	--	--	--	--	1.0 U	1.0 U	--	--	--	1.0 U	--
Ethylbenzene	ug/L	--	--	--	--	1.0 U	1.0 U	--	--	--	1.0 U	--
Isopropyl benzene	ug/L	--	--	--	--	1.0 U	1.0 U	--	--	--	1.0 U	--
Methyl acetate	ug/L	--	--	--	--	10 U	10 U	--	--	--	10 U	--
Methyl cyclohexane	ug/L	--	--	--	--	0.63 J	1.0 U	--	--	--	1.0 U	--
Methyl tert butyl ether (MTBE)	ug/L	--	--	--	--	1.0 U	1.0 U	--	--	--	1.0 U	--
Methylene chloride	ug/L	--	--	--	--	5.0 U	5.0 U	--	--	--	5.0 U	--
Styrene	ug/L	--	--	--	--	1.0 U	1.0 U	--	--	--	1.0 U	--
Tetrachloroethene	ug/L	--	--	--	--	1.0 U	1.0 U	--	--	--	1.0 U	--
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 UJ	--
Trichloroethene	ug/L	--	--	--	--	1.0 U	1.0 U	--	--	--	1.0 U	--
Trichlorofluoromethane (CFC-11)	ug/L	--	--	--	--	1.0 U	1.0 U	--	--	--	1.0 U	--
Trifluorotrichloroethane (CFC-113)	ug/L	--	--	--	--	1.0 U	1.0 U	--	--	--	1.0 U	--
Vinyl chloride	ug/L	--	--	--	--	1.0 U	1.0 U	--	--	--	1.0 U	--
Xylenes (total)	ug/L	--	--	--	--	2.0 U	2.0 U	--	--	--	2.0 U	--
Footnotes:												
U - Not detected at the associated reporting limit.												
J - Estimated concentration.												
UJ - Not detected; associated reporting limit is estimated.												
⁽¹⁾ EGLE (Michigan) Cleanup Criteria RRA, administrative rule R 299.44 effective December 1, 2010												
NA Criteria not available or not applicable												
7.4 ^{ab} - Boxed cell denotes exceedance of cleanup criteria screening level i												
-- Sample not analyzed												
ID Insufficient data to develop criterion												
NLV Not likely to volitilize under most conditions												

Table 3 2019 and 2018 Groundwater Analytical Results RACER PCC - Validation Pontiac, Michigan												
Sample Location:	MW-64-08	MW-64-08	MW-64-08	MW-64-08	MW-64-08	MW-64-08	MW-64-08	MW-64-08	MW-68-08	MW-68-08	MW-68-08	MW-79D-19
Sample Identification:	GW-17322A-060518-DS-005	GW-17322A-091818-DS-008	GW-17322-120318-DS-001	GW-17322A-031919-JY-001	GW-17322-062619-SK-008	GW-17322-092719-JY-001	GW-17322-110719-JY-007	GW-17322-062619-SK-010	GW-17322-092719-JY-003	GW-17322-110719-JY-009	GW-17322-062519-SK-004	
Sample Date:	6/5/2018	9/18/2018	12/3/2018	3/19/2019	6/26/2019	9/27/2019	11/7/2019	6/26/2019	9/27/2019	11/7/2019	6/25/2019	
Sample Type:												
	Units											
Metals												
Aluminum	ug/L	--	--	--	--	--	--	--	--	--	--	--
Aluminum (dissolved)	ug/L	--	--	--	--	--	--	--	--	--	--	--
Lead	ug/L	--	--	--	--	--	--	--	--	--	--	--
Lead (dissolved)	ug/L	--	--	--	--	--	--	--	--	--	--	--
Vanadium	ug/L	--	--	--	--	--	--	--	--	--	--	--
Vanadium (dissolved)	ug/L	--	--	--	--	--	--	--	--	--	--	--
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	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	10 U	5.0 U	10 U	10 U	10 U	25 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	ug/L	10 U	5.0 U	10 U	10 U	10 U	25 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	ug/L	10 U	5.0 U	10 U	10 U	10 U	25 U	10 U	10 U	10 U	10 U	10 U
Acetone	ug/L	10 U	5.0 U	10 U	10 U	10 U	25 U	10 U	10 U	10 U	10 U	10 U
Benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	13 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	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	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	ug/L	10 U	5.0 U	10 U	10 U	10 U	25 U	10 U	10 U	10 U	10 U	10 U
Methyl cyclohexane	ug/L	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl tert butyl ether (MTBE)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	ug/L	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	13 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	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	2.5 U	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	2.5 U	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	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	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	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (CFC-113)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	ug/L	2.0 U	3.0 U	2.0 U	2.0 U	2.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Footnotes:												
U - Not detected at the associated reporting limit.												
J - Estimated concentration.												
UJ - Not detected; associated reporting limit is estimated.												
⁽¹⁾ EGLE (Michigan) Cleanup Criteria RRA, administrative rule R 299.44 effective Decembe												
NA Criteria not available or not applicable												
7.4^{ab} - Boxed cell denotes exceedance of cleanup criteria screening level i												
-- Sample not analyzed												
ID Insufficient data to develop criterion												
NLV Not likely to volitilize under most conditions												

Table 3 2019 and 2018 Groundwater Analytical Results RACER PCC - Validation Pontiac, Michigan												
Sample Location:	MW-79D-19	MW-79D-19	MW-79i-19	MW-79i-19	MW-79i-19	MW-79i-19	MW-80-12	MW-80-12	MW-80-12	MW-80-12	MW-80-12	MW-80-12
Sample Identification:	GW-17322-093019-JY-010	GW-17322-110719-JY-011	GW-17322-062519-SK-002	GW-17322-062519-SK-003	GW-17322-093019-JY-009	GW-17322-110619-JY-006	GW-17322A-060618-DS-011	GW-17322A-091718-DS-005	GW-17322-120418-DS-011	GW-17322A-032019-JY-009	GW-17322-062719-SK-016	
Sample Date:	9/30/2019	11/7/2019	6/25/2019	6/25/2019	9/30/2019	11/6/2019	6/6/2018	9/17/2018	12/4/2018	3/20/2019	6/27/2019	
Sample Type:	Duplicate											
Units												
Metals												
Aluminum	ug/L	--	--	--	--	--	--	--	--	--	--	--
Aluminum (dissolved)	ug/L	--	--	--	--	--	--	--	--	--	--	--
Lead	ug/L	--	--	--	--	--	--	--	--	--	--	--
Lead (dissolved)	ug/L	--	--	--	--	--	--	--	--	--	--	--
Vanadium	ug/L	--	--	--	--	--	--	--	--	--	--	--
Vanadium (dissolved)	ug/L	--	--	--	--	--	--	--	--	--	--	--
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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	1.0 U	1.0 U	0.30 J	0.24 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	5.0 U	10 U	10 U	10 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	5.0 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	5.0 U	10 U	10 U	10 U
Acetone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	5.0 U	10 U	10 U	10 U
Benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	7.2	7.0	0.50 J	0.99 J	1.0 U	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.55 J	1.0 U	1.0 U	1.0 U
Ethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	5.0 U	10 U	10 U	10 U
Methyl cyclohexane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Methyl tert butyl ether (MTBE)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	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	1.0 U	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	1.0 U	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	0.48 J	0.47 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	ug/L	1.0 U	1.0 U	8.0 ^{ab}	8.2 ^{ab}	0.77 J	1.4	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (CFC-113)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	3.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Footnotes:												
U - Not detected at the associated reporting limit.												
J - Estimated concentration.												
UJ - Not detected; associated reporting limit is estimated.												
⁽¹⁾ EGLE (Michigan) Cleanup Criteria RRA, administrative rule R 299.44 effective Decembe												
NA Criteria not available or not applicable												
7.4 ^{ab} - Boxed cell denotes exceedance of cleanup criteria screening level i												
-- Sample not analyzed												
ID Insufficient data to develop criterion												
NLV Not likely to volitilize under most conditions												

Table 3 2019 and 2018 Groundwater Analytical Results RACER PCC - Validation Pontiac, Michigan												
Sample Location:	MW-80-12	MW-80-12	MW-81-12	MW-81-12	MW-81-12	MW-81-12	MW-81-12	MW-81-12	MW-81-12	MW-81-12	MW-81-12	MW-85-12
Sample Identification:	GW-17322-093019-JY-016	GW-17322-110719-JY-012	GW-17322A-060618-DS-007	GW-17322A-091818-DS-011	GW-17322-120418-DS-008	GW-17322-120418-DS-009	GW-17322A-032019-JY-008	GW-17322-062719-SK-015	GW-17322-093019-JY-014	GW-17322-110819-JY-013	GW-17322A-060518-DS-006	
Sample Date:	9/30/2019	11/7/2019	6/6/2018	9/18/2018	12/4/2018	12/4/2018	3/20/2019	6/27/2019	9/30/2019	11/8/2019	6/5/2018	
Sample Type:	Duplicate											
	Units											
Metals												
Aluminum	ug/L	--	--	--	--	--	--	--	--	--	--	--
Aluminum (dissolved)	ug/L	--	--	--	--	--	--	--	--	--	--	--
Lead	ug/L	--	--	--	--	--	--	--	--	--	--	--
Lead (dissolved)	ug/L	--	--	--	--	--	--	--	--	--	--	--
Vanadium	ug/L	--	--	--	--	--	--	--	--	--	--	--
Vanadium (dissolved)	ug/L	--	--	--	--	--	--	--	--	--	--	--
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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	10 U	10 U	10 U	5.0 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	ug/L	10 U	10 U	10 U	5.0 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	ug/L	10 U	10 U	10 U	5.0 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	ug/L	10 U	10 U	10 U	5.0 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	ug/L	10 U	10 U	10 U	5.0 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Methyl cyclohexane	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl tert butyl ether (MTBE)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	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	1.0 U	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	1.0 U	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (CFC-113)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	ug/L	2.0 U	2.0 U	2.0 U	3.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Footnotes:												
U - Not detected at the associated reporting limit.												
J - Estimated concentration.												
UJ - Not detected; associated reporting limit is estimated.												
⁽¹⁾ EGLE (Michigan) Cleanup Criteria RRA, administrative rule R 299.44 effective Decembe												
NA Criteria not available or not applicable												
7.4^{ab} - Boxed cell denotes exceedance of cleanup criteria screening level i												
-- Sample not analyzed												
ID Insufficient data to develop criterion												
NLV Not likely to volitilize under most conditions												

Table 3 2019 and 2018 Groundwater Analytical Results RACER PCC - Validation Pontiac, Michigan												
Sample Location:	MW-85-12	MW-85-12	MW-85-12	MW-85-12	MW-85-12	MW-85-12	MW-87-12	MW-87-12	MW-87-12	MW-92i-13	MW-92i-13	
Sample Identification:	GW-17322A-091818-DS-007	GW-17322-120318-DS-002	GW-17322A-031919-JY-002	GW-17322-062619-SK-007	GW-17322-092719-JY-002	GW-17322-110719-JY-008	GW-17322-062619-SK-009	GW-17322-092719-JY-004	GW-17322-110719-JY-010	GW-17322A-060618-DS-008	GW-17322A-091818-DS-009	
Sample Date:	9/18/2018	12/3/2018	3/19/2019	6/26/2019	9/27/2019	11/7/2019	6/26/2019	9/27/2019	11/7/2019	6/6/2018	9/18/2018	
Sample Type:												
	Units											
Metals												
Aluminum	ug/L	--	--	--	--	--	--	--	--	--	--	
Aluminum (dissolved)	ug/L	--	--	--	--	--	--	--	--	--	--	
Lead	ug/L	--	--	--	--	--	--	--	--	--	--	
Lead (dissolved)	ug/L	--	--	--	--	--	--	--	--	--	--	
Vanadium	ug/L	--	--	--	--	--	--	--	--	--	--	
Vanadium (dissolved)	ug/L	--	--	--	--	--	--	--	--	--	--	
Volatile Organic Compounds (VOCs)												
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	2.5 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	2.5 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,1-Dichloroethene	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,2,4-Trichlorobenzene	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,2-Dibromoethane (Ethylene dibromide)	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	2.5 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	5.0 U	10 U	50 U	10 U	25 U	10 U	2.6 J	10 U	10 U	5.0 U	
2-Hexanone	ug/L	5.0 U	10 U	50 U	10 U	25 U	10 U	10 U	10 U	10 U	5.0 U	
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	ug/L	5.0 U	10 U	50 U	10 U	25 U	10 U	1.2 J	10 U	10 U	5.0 U	
Acetone	ug/L	5.0 U	10 U	50 U	10 U	25 U	10 U	24	10 U	10 U	5.0 U	
Benzene	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	2.5 U	1.0 U	0.16 J	1.0 U	1.0 U	1.0 U	
Bromodichloromethane	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	
Bromoform	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Bromomethane (Methyl bromide)	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Carbon disulfide	ug/L	5.0 U	5.0 U	25 U	5.0 U	13 U	5.0 U	0.34 J	5.0 U	5.0 U	5.0 U	
Carbon tetrachloride	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Chlorobenzene	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Chloroethane	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Chloroform (Trichloromethane)	ug/L	1.0 U	0.13 J	5.0 U	1.0 U	0.34 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Chloromethane (Methyl chloride)	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
cis-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	0.29 J	0.33 J	
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Cyclohexane	ug/L	5.0 U	1.0 U	5.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	
Dibromochloromethane	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Dichlorodifluoromethane (CFC-12)	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Ethylbenzene	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	2.5 U	1.0 U	0.16 J	1.0 U	1.0 U	1.0 U	
Isopropyl benzene	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Methyl acetate	ug/L	5.0 U	10 U	50 U	10 U	25 U	10 U	10 U	10 U	10 U	5.0 U	
Methyl cyclohexane	ug/L	5.0 U	1.0 U	5.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	
Methyl tert butyl ether (MTBE)	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Methylene chloride	ug/L	1.0 U	5.0 U	25 U	5.0 U	13 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	
Styrene	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Tetrachloroethene	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Toluene	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	2.5 U	1.0 U	0.14 J	1.0 U	1.0 U	1.0 U	
trans-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
trans-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	
Trichloroethene	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	2.5 U	1.0 U	0.12 J	1.0 U	0.13 J	1.0 U	
Trichlorofluoromethane (CFC-11)	ug/L	0.23 J	0.69 J	5.0 U	0.61 J	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Trifluorotrichloroethane (CFC-113)	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Vinyl chloride	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	0.83 J	1.4	
Xylenes (total)	ug/L	3.0 U	2.0 U	10 U	2.0 U	5.0 U	2.0 U	0.62 J	0.26 J	2.0 U	3.0 U	
Footnotes:												
U - Not detected at the associated reporting limit.												
J - Estimated concentration.												
UJ - Not detected; associated reporting limit is estimated.												
(1) EGLE (Michigan) Cleanup Criteria RRA, administrative rule R 299.44 effective Decembe												
NA Criteria not available or not applicable												
7.4 ^{ab} - Boxed cell denotes exceedance of cleanup criteria screening level i												
-- Sample not analyzed												
ID Insufficient data to develop criterion												
NLV Not likely to volitilize under most conditions												

Table 3 2019 and 2018 Groundwater Analytical Results RACER PCC - Validation Pontiac, Michigan											
Sample Location:	MW-92i-13	MW-92i-13	MW-92i-13	MW-92i-13	MW-92i-13	MW-92S-13	MW-92S-13	MW-92S-13	MW-92S-13	MW-92S-13	MW-92S-13
Sample Identification:	GW-17322-120318-DS-005	GW-17322A-032119-JY-010	GW-17322-062719-SK-013	GW-17322-093019-JY-013	GW-17322-110819-JY-014	GW-17322A-060618-DS-009	GW-17322A-091818-DS-010	GW-17322-120318-DS-004	GW-17322A-032119-JY-011	GW-17322-062719-SK-014	GW-17322-093019-JY-012
Sample Date:	12/3/2018	3/21/2019	6/27/2019	9/30/2019	11/8/2019	6/6/2018	9/18/2018	12/3/2018	3/21/2019	6/27/2019	9/30/2019
Sample Type:											
	Units										
Metals											
Aluminum	ug/L	--	--	--	--	--	--	--	--	--	--
Aluminum (dissolved)	ug/L	--	--	--	--	--	--	--	--	--	--
Lead	ug/L	--	--	--	--	--	--	--	--	--	--
Lead (dissolved)	ug/L	--	--	--	--	--	--	--	--	--	--
Vanadium	ug/L	--	--	--	--	--	--	--	--	--	--
Vanadium (dissolved)	ug/L	--	--	--	--	--	--	--	--	--	--
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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	10 U	10 U	10 U	10 U	10 U	5.0 U	10 U	10 U	10 U	10 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U	5.0 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	ug/L	10 U	10 U	10 U	10 U	10 U	5.0 U	10 U	10 U	10 U	10 U
Acetone	ug/L	10 U	10 U	10 U	10 U	10 U	5.0 U	10 U	10 U	10 U	10 U
Benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	0.33 J	0.23 J	0.20 J	0.35 J	0.40 J	1.0 U	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	ug/L	10 U	10 U	10 U	10 U	10 U	5.0 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	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl tert butyl ether (MTBE)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	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	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	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (CFC-113)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	ug/L	1.4	0.66 J	1.1	0.94 J	1.2	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	3.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Footnotes:											
U - Not detected at the associated reporting limit.											
J - Estimated concentration.											
UJ - Not detected; associated reporting limit is estimated.											
⁽¹⁾ EGLE (Michigan) Cleanup Criteria RRA, administrative rule R 299.44 effective Decembe											
NA Criteria not available or not applicable											
7.4^{ab} - Boxed cell denotes exceedance of cleanup criteria screening level i											
-- Sample not analyzed											
ID Insufficient data to develop criterion											
NLV Not likely to volitilize under most conditions											

Table 3 2019 and 2018 Groundwater Analytical Results RACER PCC - Validation Pontiac, Michigan									
Sample Location:	MW-92S-13	MW-93i-13	MW-93i-13	MW-93i-13	MW-93i-13	MW-93i-13	MW-93i-13	MW-93i-13	MW-93i-13
Sample Identification:	GW-17322-110819-JY-015	GW-17322A-060618-DS-010	GW-17322A-091718-DS-006	GW-17322-120418-DS-010	GW-17322A-032019-JY-007	GW-17322-062719-SK-012	GW-17322-093019-JY-015	GW-17322-110819-JY-016	
Sample Date:	11/8/2019	6/6/2018	9/17/2018	12/4/2018	3/20/2019	6/27/2019	9/30/2019	11/8/2019	
Sample Type:									
	Units								
Metals									
Aluminum	ug/L	--	--	--	--	--	--	--	--
Aluminum (dissolved)	ug/L	--	--	--	--	--	--	--	--
Lead	ug/L	--	--	--	--	--	--	--	--
Lead (dissolved)	ug/L	--	--	--	--	--	--	--	--
Vanadium	ug/L	--	--	--	--	--	--	--	--
Vanadium (dissolved)	ug/L	--	--	--	--	--	--	--	--
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	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	10 U	10 U	5.0 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	ug/L	10 U	10 U	5.0 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	ug/L	10 U	10 U	5.0 U	10 U	10 U	10 U	10 U	10 U
Acetone	ug/L	10 U	10 U	5.0 U	10 U	10 U	10 U	10 U	10 U
Benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	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	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	ug/L	10 U	10 U	5.0 U	10 U	10 U	10 U	10 U	10 U
Methyl cyclohexane	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl tert butyl ether (MTBE)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	ug/L	5.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L	1.0 U	1.0 U	1.0 U	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	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	ug/L	1.0 U	1.0 U	1.0 U	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	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (CFC-113)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	ug/L	0.21 J	1.0 U	1.0 U	0.27 J	1.0 U	1.0 U	1.0 U	0.23 J
Xylenes (total)	ug/L	2.0 U	2.0 U	3.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Footnotes:									
U - Not detected at the associated reporting limit.									
J - Estimated concentration.									
UJ - Not detected; associated reporting limit is estimated.									
⁽¹⁾ EGLE (Michigan) Cleanup Criteria RRA, administrative rule R 299.44 effective Decembe									
NA Criteria not available or not applicable									
7.4^{ab} - Boxed cell denotes exceedance of cleanup criteria screening level i									
-- Sample not analyzed									
ID Insufficient data to develop criterion									
NLV Not likely to volitilize under most conditions									

Attachment A

Analytical Report

ANALYTICAL REPORT

Eurofins TestAmerica, Canton
4101 Shuffel Street NW
North Canton, OH 44720
Tel: (330)497-9396

Laboratory Job ID: 240-119767-1

Client Project/Site: 17322A-009, PCC Validation

For:

GHD Services Inc.
26850 Haggerty Rd.
Farmington Hills, Michigan 48331

Attn: Mr. James Abston



Authorized for release by:
10/15/2019 7:51:55 AM

Denise Heckler, Project Manager II
(330)966-9477

denise.heckler@testamericainc.com

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www.testamericainc.com

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

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

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Case Narrative

Client: GHD Services Inc.
Project/Site: 17322A-009, PCC Validation

Job ID: 240-119767-1

Job ID: 240-119767-1

Laboratory: Eurofins TestAmerica, Canton

Narrative

Job Narrative 240-119767-1

Comments

No additional comments.

Receipt

The samples were received on 10/1/2019 9:45 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 5.8° C.

GC/MS VOA

Method 8260B: The laboratory control sample (LCS) for analytical batch 240-405078 recovered outside control limits for the following analyte: Cyclohexane. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data has been reported.

Method 8260B: The laboratory control sample (LCS) for analytical batch 240-405078 recovered outside control limits for the following analyte: Ethylene Dibromide. Ethylene Dibromide has been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed.

Method 8260B: The laboratory control sample (LCS) analyzed in batch 240-405078 was below the recovery control criteria for the following analyte(s): 1,1,2,2-Tetrachloroethane and 1,1,2-Trichloroethane. This variance only affects results measured above the reporting limit. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. This demonstrates the analyte reporting limit is valid, and it is acceptable to report ND results (non-detects). The samples associated with the LCS were non-detects for the affected analytes; therefore, the results were reported.

Method 8260B: There is no MS/MSD in batch 405420 due to the sample needing re-analysis.

Method 8260B: Two results are reported for sample: GW-17322-092719-JY-001 (240-119767-2). The first result was analyzed within the hold time at a dilution. A dilution was not needed. The second undiluted analysis was analyzed past the hold time.

Method 8260B: The following volatiles sample was diluted due to foaming at the time of purging during the original sample analysis: GW-17322-092719-JY-002 (240-119767-3). Elevated reporting limits (RLs) are provided.

Method 8260B: The continuing calibration verification (CCV) for analytical batch 240-405286 exceeded control criteria for 1,2-Dichloropropane. The samples associated with this CCV were non-detects for the affected analytes. In accordance with the laboratory SOP, a low level CCV at the reporting limit (labeled as an MRL) was analyzed and the affected compounds were detected; therefore the data has been reported. No further corrective action was required.

Method 8260B: The laboratory control sample (LCS) for analytical batch 240-405286 recovered outside control limits for the following analyte: Cyclohexane. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data has been reported.

Method 8260B: The laboratory control sample (LCS) analyzed in batch 240-405286 was below the recovery control criteria for multiple analyte(s). This variance only affects results measured above the reporting limit. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. This demonstrates the analyte reporting limit is valid, and it is acceptable to report ND results (non-detects). The samples associated with the LCS were non-detects for the affected analytes; therefore, the results were reported. The following samples are impacted: GW-17322-092719-JY-004 (240-119767-5), GW-17322-092719-JY-005 (240-119767-6) and (LCS 240-405286/4).

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

Metals

Method 6020: Some requested practical quantitation limits (PQLs) fall below the laboratory's verified standard quantitation limit. The continuing calibration blanks and method blanks may not support the lower PQL.

Case Narrative

Client: GHD Services Inc.
Project/Site: 17322A-009, PCC Validation

Job ID: 240-119767-1

Job ID: 240-119767-1 (Continued)

Laboratory: Eurofins TestAmerica, Canton (Continued)

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

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Definitions/Glossary

Client: GHD Services Inc.
Project/Site: 17322A-009, PCC Validation

Job ID: 240-119767-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
B	Compound was found in the blank and sample.
H	Sample was prepped or analyzed beyond the specified holding time
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Sample Summary

Client: GHD Services Inc.
Project/Site: 17322A-009, PCC Validation

Job ID: 240-119767-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
240-119767-1	TB-17322-092719	Water	09/27/19 00:00	10/01/19 09:45	
240-119767-2	GW-17322-092719-JY-001	Water	09/27/19 09:30	10/01/19 09:45	
240-119767-3	GW-17322-092719-JY-002	Water	09/27/19 10:35	10/01/19 09:45	
240-119767-4	GW-17322-092719-JY-003	Water	09/27/19 11:50	10/01/19 09:45	
240-119767-5	GW-17322-092719-JY-004	Water	09/27/19 13:10	10/01/19 09:45	
240-119767-6	GW-17322-092719-JY-005	Water	09/27/19 14:40	10/01/19 09:45	
240-119767-7	GW-17322-093019-JY-006	Water	09/30/19 09:05	10/01/19 09:45	
240-119767-8	GW-17322-093019-JY-007	Water	09/30/19 09:10	10/01/19 09:45	
240-119767-9	GW-17322-093019-JY-008	Water	09/30/19 10:25	10/01/19 09:45	
240-119767-10	GW-17322-093019-JY-009	Water	09/30/19 10:40	10/01/19 09:45	
240-119767-11	GW-17322-093019-JY-010	Water	09/30/19 11:45	10/01/19 09:45	
240-119767-12	GW-17322-093019-JY-011	Water	09/30/19 12:35	10/01/19 09:45	
240-119767-13	GW-17322-093019-JY-012	Water	09/30/19 12:35	10/01/19 09:45	
240-119767-14	GW-17322-093019-JY-013	Water	09/30/19 13:55	10/01/19 09:45	
240-119767-15	GW-17322-093019-JY-014	Water	09/30/19 14:15	10/01/19 09:45	
240-119767-16	GW-17322-093019-JY-015	Water	09/30/19 15:00	10/01/19 09:45	
240-119767-17	GW-17322-093019-JY-016	Water	09/30/19 15:20	10/01/19 09:45	

Detection Summary

Client: GHD Services Inc.
Project/Site: 17322A-009, PCC Validation

Job ID: 240-119767-1

Client Sample ID: TB-17322-092719

Lab Sample ID: 240-119767-1

No Detections.

Client Sample ID: GW-17322-092719-JY-001

Lab Sample ID: 240-119767-2

No Detections.

Client Sample ID: GW-17322-092719-JY-002

Lab Sample ID: 240-119767-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.34	J	2.5	0.33	ug/L	2.5		8260B	Total/NA

Client Sample ID: GW-17322-092719-JY-003

Lab Sample ID: 240-119767-4

No Detections.

Client Sample ID: GW-17322-092719-JY-004

Lab Sample ID: 240-119767-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Xylenes, Total	0.26	J	2.0	0.15	ug/L	1		8260B	Total/NA

Client Sample ID: GW-17322-092719-JY-005

Lab Sample ID: 240-119767-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	160		50	34	ug/L	1		6020	Total Recoverable
Lead	0.52	J	1.0	0.45	ug/L	1		6020	Total Recoverable

Client Sample ID: GW-17322-093019-JY-006

Lab Sample ID: 240-119767-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylcyclohexane	0.63	J B	1.0	0.33	ug/L	1		8260B	Total/NA

Client Sample ID: GW-17322-093019-JY-007

Lab Sample ID: 240-119767-8

No Detections.

Client Sample ID: GW-17322-093019-JY-008

Lab Sample ID: 240-119767-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	110		50	34	ug/L	1		6020	Total Recoverable

Client Sample ID: GW-17322-093019-JY-009

Lab Sample ID: 240-119767-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	0.77	J	1.0	0.10	ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	0.50	J	1.0	0.16	ug/L	1		8260B	Total/NA

Client Sample ID: GW-17322-093019-JY-010

Lab Sample ID: 240-119767-11

No Detections.

Client Sample ID: GW-17322-093019-JY-011

Lab Sample ID: 240-119767-12

No Detections.

Client Sample ID: GW-17322-093019-JY-012

Lab Sample ID: 240-119767-13

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Canton

Detection Summary

Client: GHD Services Inc.
Project/Site: 17322A-009, PCC Validation

Job ID: 240-119767-1

Client Sample ID: GW-17322-093019-JY-013

Lab Sample ID: 240-119767-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vinyl chloride	0.94	J	1.0	0.20	ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	0.35	J	1.0	0.16	ug/L	1		8260B	Total/NA

Client Sample ID: GW-17322-093019-JY-014

Lab Sample ID: 240-119767-15

No Detections.

Client Sample ID: GW-17322-093019-JY-015

Lab Sample ID: 240-119767-16

No Detections.

Client Sample ID: GW-17322-093019-JY-016

Lab Sample ID: 240-119767-17

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Canton

Method Summary

Client: GHD Services Inc.
Project/Site: 17322A-009, PCC Validation

Job ID: 240-119767-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CAN
6020	Metals (ICP/MS)	SW846	TAL CAN
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL CAN
5030B	Purge and Trap	SW846	TAL CAN

Protocol References:

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

Laboratory References:

TAL CAN = Eurofins TestAmerica, Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Client Sample Results

Client: GHD Services Inc.
Project/Site: 17322A-009, PCC Validation

Job ID: 240-119767-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: TB-17322-092719

Date Collected: 09/27/19 00:00

Date Received: 10/01/19 09:45

Lab Sample ID: 240-119767-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	5.4	ug/L			10/10/19 21:29	1
Benzene	1.0	U	1.0	0.13	ug/L			10/10/19 21:29	1
Bromodichloromethane	1.0	U	1.0	0.17	ug/L			10/10/19 21:29	1
Bromoform	1.0	U	1.0	0.76	ug/L			10/10/19 21:29	1
Bromomethane	1.0	U	1.0	0.42	ug/L			10/10/19 21:29	1
2-Butanone (MEK)	10	U	10	1.2	ug/L			10/10/19 21:29	1
Carbon disulfide	5.0	U	5.0	0.28	ug/L			10/10/19 21:29	1
Carbon tetrachloride	1.0	U	1.0	0.26	ug/L			10/10/19 21:29	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			10/10/19 21:29	1
Chloroethane	1.0	U	1.0	0.83	ug/L			10/10/19 21:29	1
Chloroform	1.0	U	1.0	0.13	ug/L			10/10/19 21:29	1
Chloromethane	1.0	U	1.0	0.20	ug/L			10/10/19 21:29	1
1,1-Dichloroethane	1.0	U	1.0	0.17	ug/L			10/10/19 21:29	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			10/10/19 21:29	1
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			10/10/19 21:29	1
1,2-Dichloropropane	1.0	U	1.0	0.15	ug/L			10/10/19 21:29	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.61	ug/L			10/10/19 21:29	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.67	ug/L			10/10/19 21:29	1
Ethylbenzene	1.0	U	1.0	0.11	ug/L			10/10/19 21:29	1
2-Hexanone	10	U	10	0.54	ug/L			10/10/19 21:29	1
Methylene Chloride	5.0	U	5.0	2.6	ug/L			10/10/19 21:29	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.42	ug/L			10/10/19 21:29	1
Styrene	1.0	U	1.0	0.10	ug/L			10/10/19 21:29	1
1,1,2,2-Tetrachloroethane	1.0	U *	1.0	0.13	ug/L			10/10/19 21:29	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			10/10/19 21:29	1
Toluene	1.0	U	1.0	0.14	ug/L			10/10/19 21:29	1
Trichloroethene	1.0	U	1.0	0.10	ug/L			10/10/19 21:29	1
Vinyl chloride	1.0	U	1.0	0.20	ug/L			10/10/19 21:29	1
Xylenes, Total	2.0	U	2.0	0.15	ug/L			10/10/19 21:29	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			10/10/19 21:29	1
1,1,2-Trichloroethane	1.0	U *	1.0	0.090	ug/L			10/10/19 21:29	1
Cyclohexane	1.0	U *	1.0	0.24	ug/L			10/10/19 21:29	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.91	ug/L			10/10/19 21:29	1
1,2-Dibromoethane	1.0	U *	1.0	0.12	ug/L			10/10/19 21:29	1
Dichlorodifluoromethane	1.0	U	1.0	0.35	ug/L			10/10/19 21:29	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.16	ug/L			10/10/19 21:29	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			10/10/19 21:29	1
Isopropylbenzene	1.0	U	1.0	0.090	ug/L			10/10/19 21:29	1
Methyl acetate	10	U	10	1.7	ug/L			10/10/19 21:29	1
Methyl tert-butyl ether	1.0	U	1.0	0.070	ug/L			10/10/19 21:29	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			10/10/19 21:29	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.26	ug/L			10/10/19 21:29	1
1,2-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			10/10/19 21:29	1
1,3-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			10/10/19 21:29	1
1,4-Dichlorobenzene	1.0	U	1.0	0.16	ug/L			10/10/19 21:29	1
Trichlorofluoromethane	1.0	U	1.0	0.45	ug/L			10/10/19 21:29	1
Dibromochloromethane	1.0	U	1.0	0.39	ug/L			10/10/19 21:29	1
Methylcyclohexane	1.0	U	1.0	0.33	ug/L			10/10/19 21:29	1

Eurofins TestAmerica, Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 17322A-009, PCC Validation

Job ID: 240-119767-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		70 - 121		10/10/19 21:29	1
4-Bromofluorobenzene (Surr)	78		59 - 120		10/10/19 21:29	1
Toluene-d8 (Surr)	95		70 - 123		10/10/19 21:29	1
Dibromofluoromethane (Surr)	109		75 - 128		10/10/19 21:29	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 17322A-009, PCC Validation

Job ID: 240-119767-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: GW-17322-092719-JY-001

Date Collected: 09/27/19 09:30

Date Received: 10/01/19 09:45

Lab Sample ID: 240-119767-2

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	25	U	25	14	ug/L			10/11/19 20:40	2.5
Benzene	2.5	U	2.5	0.33	ug/L			10/11/19 20:40	2.5
Bromodichloromethane	2.5	U	2.5	0.43	ug/L			10/11/19 20:40	2.5
Bromoform	2.5	U	2.5	1.9	ug/L			10/11/19 20:40	2.5
Bromomethane	2.5	U	2.5	1.1	ug/L			10/11/19 20:40	2.5
2-Butanone (MEK)	25	U	25	2.9	ug/L			10/11/19 20:40	2.5
Carbon disulfide	13	U	13	0.70	ug/L			10/11/19 20:40	2.5
Carbon tetrachloride	2.5	U	2.5	0.65	ug/L			10/11/19 20:40	2.5
Chlorobenzene	2.5	U	2.5	0.35	ug/L			10/11/19 20:40	2.5
Chloroethane	2.5	U	2.5	2.1	ug/L			10/11/19 20:40	2.5
Chloroform	2.5	U	2.5	0.33	ug/L			10/11/19 20:40	2.5
Chloromethane	2.5	U	2.5	0.50	ug/L			10/11/19 20:40	2.5
1,1-Dichloroethane	2.5	U	2.5	0.43	ug/L			10/11/19 20:40	2.5
1,2-Dichloroethane	2.5	U	2.5	0.53	ug/L			10/11/19 20:40	2.5
1,1-Dichloroethene	2.5	U	2.5	0.48	ug/L			10/11/19 20:40	2.5
1,2-Dichloropropane	2.5	U	2.5	0.38	ug/L			10/11/19 20:40	2.5
cis-1,3-Dichloropropene	2.5	U	2.5	1.5	ug/L			10/11/19 20:40	2.5
trans-1,3-Dichloropropene	2.5	U	2.5	1.7	ug/L			10/11/19 20:40	2.5
Ethylbenzene	2.5	U	2.5	0.28	ug/L			10/11/19 20:40	2.5
2-Hexanone	25	U	25	1.4	ug/L			10/11/19 20:40	2.5
Methylene Chloride	13	U	13	6.6	ug/L			10/11/19 20:40	2.5
4-Methyl-2-pentanone (MIBK)	25	U	25	1.1	ug/L			10/11/19 20:40	2.5
Styrene	2.5	U	2.5	0.25	ug/L			10/11/19 20:40	2.5
1,1,2,2-Tetrachloroethane	2.5	U	2.5	0.33	ug/L			10/11/19 20:40	2.5
Tetrachloroethene	2.5	U	2.5	0.38	ug/L			10/11/19 20:40	2.5
Toluene	2.5	U	2.5	0.35	ug/L			10/11/19 20:40	2.5
Trichloroethene	2.5	U	2.5	0.25	ug/L			10/11/19 20:40	2.5
Vinyl chloride	2.5	U	2.5	0.50	ug/L			10/11/19 20:40	2.5
Xylenes, Total	5.0	U	5.0	0.38	ug/L			10/11/19 20:40	2.5
1,1,1-Trichloroethane	2.5	U	2.5	0.60	ug/L			10/11/19 20:40	2.5
1,1,2-Trichloroethane	2.5	U	2.5	0.23	ug/L			10/11/19 20:40	2.5
Cyclohexane	2.5	U	2.5	0.60	ug/L			10/11/19 20:40	2.5
1,2-Dibromo-3-Chloropropane	2.5	U	2.5	2.3	ug/L			10/11/19 20:40	2.5
1,2-Dibromoethane	2.5	U	2.5	0.30	ug/L			10/11/19 20:40	2.5
Dichlorodifluoromethane	2.5	U	2.5	0.88	ug/L			10/11/19 20:40	2.5
cis-1,2-Dichloroethene	2.5	U	2.5	0.40	ug/L			10/11/19 20:40	2.5
trans-1,2-Dichloroethene	2.5	U	2.5	0.48	ug/L			10/11/19 20:40	2.5
Isopropylbenzene	2.5	U	2.5	0.23	ug/L			10/11/19 20:40	2.5
Methyl acetate	25	U	25	4.3	ug/L			10/11/19 20:40	2.5
Methyl tert-butyl ether	2.5	U	2.5	0.18	ug/L			10/11/19 20:40	2.5
1,1,2-Trichloro-1,2,2-trifluoroethane	2.5	U	2.5	1.0	ug/L			10/11/19 20:40	2.5
1,2,4-Trichlorobenzene	2.5	U	2.5	0.65	ug/L			10/11/19 20:40	2.5
1,2-Dichlorobenzene	2.5	U	2.5	0.38	ug/L			10/11/19 20:40	2.5
1,3-Dichlorobenzene	2.5	U	2.5	0.38	ug/L			10/11/19 20:40	2.5
1,4-Dichlorobenzene	2.5	U	2.5	0.40	ug/L			10/11/19 20:40	2.5
Trichlorofluoromethane	2.5	U	2.5	1.1	ug/L			10/11/19 20:40	2.5
Dibromochloromethane	2.5	U	2.5	0.98	ug/L			10/11/19 20:40	2.5
Methylcyclohexane	2.5	U	2.5	0.83	ug/L			10/11/19 20:40	2.5

Eurofins TestAmerica, Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 17322A-009, PCC Validation

Job ID: 240-119767-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
1,2-Dichloroethane-d4 (Surr)	94		70 - 121		10/11/19 20:40	2.5
4-Bromofluorobenzene (Surr)	73		59 - 120		10/11/19 20:40	2.5
Toluene-d8 (Surr)	91		70 - 123		10/11/19 20:40	2.5
Dibromofluoromethane (Surr)	114		75 - 128		10/11/19 20:40	2.5

Client Sample Results

Client: GHD Services Inc.
Project/Site: 17322A-009, PCC Validation

Job ID: 240-119767-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: GW-17322-092719-JY-002

Date Collected: 09/27/19 10:35

Date Received: 10/01/19 09:45

Lab Sample ID: 240-119767-3

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	25	U	25	14	ug/L			10/11/19 21:04	2.5
Benzene	2.5	U	2.5	0.33	ug/L			10/11/19 21:04	2.5
Bromodichloromethane	2.5	U	2.5	0.43	ug/L			10/11/19 21:04	2.5
Bromoform	2.5	U	2.5	1.9	ug/L			10/11/19 21:04	2.5
Bromomethane	2.5	U	2.5	1.1	ug/L			10/11/19 21:04	2.5
2-Butanone (MEK)	25	U	25	2.9	ug/L			10/11/19 21:04	2.5
Carbon disulfide	13	U	13	0.70	ug/L			10/11/19 21:04	2.5
Carbon tetrachloride	2.5	U	2.5	0.65	ug/L			10/11/19 21:04	2.5
Chlorobenzene	2.5	U	2.5	0.35	ug/L			10/11/19 21:04	2.5
Chloroethane	2.5	U	2.5	2.1	ug/L			10/11/19 21:04	2.5
Chloroform	0.34	J	2.5	0.33	ug/L			10/11/19 21:04	2.5
Chloromethane	2.5	U	2.5	0.50	ug/L			10/11/19 21:04	2.5
1,1-Dichloroethane	2.5	U	2.5	0.43	ug/L			10/11/19 21:04	2.5
1,2-Dichloroethane	2.5	U	2.5	0.53	ug/L			10/11/19 21:04	2.5
1,1-Dichloroethene	2.5	U	2.5	0.48	ug/L			10/11/19 21:04	2.5
1,2-Dichloropropane	2.5	U	2.5	0.38	ug/L			10/11/19 21:04	2.5
cis-1,3-Dichloropropene	2.5	U	2.5	1.5	ug/L			10/11/19 21:04	2.5
trans-1,3-Dichloropropene	2.5	U	2.5	1.7	ug/L			10/11/19 21:04	2.5
Ethylbenzene	2.5	U	2.5	0.28	ug/L			10/11/19 21:04	2.5
2-Hexanone	25	U	25	1.4	ug/L			10/11/19 21:04	2.5
Methylene Chloride	13	U	13	6.6	ug/L			10/11/19 21:04	2.5
4-Methyl-2-pentanone (MIBK)	25	U	25	1.1	ug/L			10/11/19 21:04	2.5
Styrene	2.5	U	2.5	0.25	ug/L			10/11/19 21:04	2.5
1,1,2,2-Tetrachloroethane	2.5	U	2.5	0.33	ug/L			10/11/19 21:04	2.5
Tetrachloroethene	2.5	U	2.5	0.38	ug/L			10/11/19 21:04	2.5
Toluene	2.5	U	2.5	0.35	ug/L			10/11/19 21:04	2.5
Trichloroethene	2.5	U	2.5	0.25	ug/L			10/11/19 21:04	2.5
Vinyl chloride	2.5	U	2.5	0.50	ug/L			10/11/19 21:04	2.5
Xylenes, Total	5.0	U	5.0	0.38	ug/L			10/11/19 21:04	2.5
1,1,1-Trichloroethane	2.5	U	2.5	0.60	ug/L			10/11/19 21:04	2.5
1,1,2-Trichloroethane	2.5	U	2.5	0.23	ug/L			10/11/19 21:04	2.5
Cyclohexane	2.5	U	2.5	0.60	ug/L			10/11/19 21:04	2.5
1,2-Dibromo-3-Chloropropane	2.5	U	2.5	2.3	ug/L			10/11/19 21:04	2.5
1,2-Dibromoethane	2.5	U	2.5	0.30	ug/L			10/11/19 21:04	2.5
Dichlorodifluoromethane	2.5	U	2.5	0.88	ug/L			10/11/19 21:04	2.5
cis-1,2-Dichloroethene	2.5	U	2.5	0.40	ug/L			10/11/19 21:04	2.5
trans-1,2-Dichloroethene	2.5	U	2.5	0.48	ug/L			10/11/19 21:04	2.5
Isopropylbenzene	2.5	U	2.5	0.23	ug/L			10/11/19 21:04	2.5
Methyl acetate	25	U	25	4.3	ug/L			10/11/19 21:04	2.5
Methyl tert-butyl ether	2.5	U	2.5	0.18	ug/L			10/11/19 21:04	2.5
1,1,2-Trichloro-1,2,2-trifluoroethane	2.5	U	2.5	1.0	ug/L			10/11/19 21:04	2.5
1,2,4-Trichlorobenzene	2.5	U	2.5	0.65	ug/L			10/11/19 21:04	2.5
1,2-Dichlorobenzene	2.5	U	2.5	0.38	ug/L			10/11/19 21:04	2.5
1,3-Dichlorobenzene	2.5	U	2.5	0.38	ug/L			10/11/19 21:04	2.5
1,4-Dichlorobenzene	2.5	U	2.5	0.40	ug/L			10/11/19 21:04	2.5
Trichlorofluoromethane	2.5	U	2.5	1.1	ug/L			10/11/19 21:04	2.5
Dibromochloromethane	2.5	U	2.5	0.98	ug/L			10/11/19 21:04	2.5
Methylcyclohexane	2.5	U	2.5	0.83	ug/L			10/11/19 21:04	2.5

Eurofins TestAmerica, Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 17322A-009, PCC Validation

Job ID: 240-119767-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
1,2-Dichloroethane-d4 (Surr)	93		70 - 121		10/11/19 21:04	2.5
4-Bromofluorobenzene (Surr)	70		59 - 120		10/11/19 21:04	2.5
Toluene-d8 (Surr)	88		70 - 123		10/11/19 21:04	2.5
Dibromofluoromethane (Surr)	112		75 - 128		10/11/19 21:04	2.5

Client Sample Results

Client: GHD Services Inc.
Project/Site: 17322A-009, PCC Validation

Job ID: 240-119767-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: GW-17322-092719-JY-003

Date Collected: 09/27/19 11:50

Date Received: 10/01/19 09:45

Lab Sample ID: 240-119767-4

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	5.4	ug/L			10/11/19 21:28	1
Benzene	1.0	U	1.0	0.13	ug/L			10/11/19 21:28	1
Bromodichloromethane	1.0	U	1.0	0.17	ug/L			10/11/19 21:28	1
Bromoform	1.0	U	1.0	0.76	ug/L			10/11/19 21:28	1
Bromomethane	1.0	U	1.0	0.42	ug/L			10/11/19 21:28	1
2-Butanone (MEK)	10	U	10	1.2	ug/L			10/11/19 21:28	1
Carbon disulfide	5.0	U	5.0	0.28	ug/L			10/11/19 21:28	1
Carbon tetrachloride	1.0	U	1.0	0.26	ug/L			10/11/19 21:28	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			10/11/19 21:28	1
Chloroethane	1.0	U	1.0	0.83	ug/L			10/11/19 21:28	1
Chloroform	1.0	U	1.0	0.13	ug/L			10/11/19 21:28	1
Chloromethane	1.0	U	1.0	0.20	ug/L			10/11/19 21:28	1
1,1-Dichloroethane	1.0	U	1.0	0.17	ug/L			10/11/19 21:28	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			10/11/19 21:28	1
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			10/11/19 21:28	1
1,2-Dichloropropane	1.0	U	1.0	0.15	ug/L			10/11/19 21:28	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.61	ug/L			10/11/19 21:28	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.67	ug/L			10/11/19 21:28	1
Ethylbenzene	1.0	U	1.0	0.11	ug/L			10/11/19 21:28	1
2-Hexanone	10	U	10	0.54	ug/L			10/11/19 21:28	1
Methylene Chloride	5.0	U	5.0	2.6	ug/L			10/11/19 21:28	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.42	ug/L			10/11/19 21:28	1
Styrene	1.0	U	1.0	0.10	ug/L			10/11/19 21:28	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13	ug/L			10/11/19 21:28	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			10/11/19 21:28	1
Toluene	1.0	U	1.0	0.14	ug/L			10/11/19 21:28	1
Trichloroethene	1.0	U	1.0	0.10	ug/L			10/11/19 21:28	1
Vinyl chloride	1.0	U	1.0	0.20	ug/L			10/11/19 21:28	1
Xylenes, Total	2.0	U	2.0	0.15	ug/L			10/11/19 21:28	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			10/11/19 21:28	1
1,1,2-Trichloroethane	1.0	U	1.0	0.090	ug/L			10/11/19 21:28	1
Cyclohexane	1.0	U	1.0	0.24	ug/L			10/11/19 21:28	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.91	ug/L			10/11/19 21:28	1
1,2-Dibromoethane	1.0	U	1.0	0.12	ug/L			10/11/19 21:28	1
Dichlorodifluoromethane	1.0	U	1.0	0.35	ug/L			10/11/19 21:28	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.16	ug/L			10/11/19 21:28	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			10/11/19 21:28	1
Isopropylbenzene	1.0	U	1.0	0.090	ug/L			10/11/19 21:28	1
Methyl acetate	10	U	10	1.7	ug/L			10/11/19 21:28	1
Methyl tert-butyl ether	1.0	U	1.0	0.070	ug/L			10/11/19 21:28	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			10/11/19 21:28	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.26	ug/L			10/11/19 21:28	1
1,2-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			10/11/19 21:28	1
1,3-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			10/11/19 21:28	1
1,4-Dichlorobenzene	1.0	U	1.0	0.16	ug/L			10/11/19 21:28	1
Trichlorofluoromethane	1.0	U	1.0	0.45	ug/L			10/11/19 21:28	1
Dibromochloromethane	1.0	U	1.0	0.39	ug/L			10/11/19 21:28	1
Methylcyclohexane	1.0	U	1.0	0.33	ug/L			10/11/19 21:28	1

Eurofins TestAmerica, Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 17322A-009, PCC Validation

Job ID: 240-119767-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
1,2-Dichloroethane-d4 (Surr)	97		70 - 121		10/11/19 21:28	1
4-Bromofluorobenzene (Surr)	73		59 - 120		10/11/19 21:28	1
Toluene-d8 (Surr)	89		70 - 123		10/11/19 21:28	1
Dibromofluoromethane (Surr)	118		75 - 128		10/11/19 21:28	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 17322A-009, PCC Validation

Job ID: 240-119767-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: GW-17322-092719-JY-004

Date Collected: 09/27/19 13:10

Date Received: 10/01/19 09:45

Lab Sample ID: 240-119767-5

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	5.4	ug/L			10/11/19 15:19	1
Benzene	1.0	U	1.0	0.13	ug/L			10/11/19 15:19	1
Bromodichloromethane	1.0	U *	1.0	0.17	ug/L			10/11/19 15:19	1
Bromoform	1.0	U	1.0	0.76	ug/L			10/11/19 15:19	1
Bromomethane	1.0	U	1.0	0.42	ug/L			10/11/19 15:19	1
2-Butanone (MEK)	10	U	10	1.2	ug/L			10/11/19 15:19	1
Carbon disulfide	5.0	U	5.0	0.28	ug/L			10/11/19 15:19	1
Carbon tetrachloride	1.0	U	1.0	0.26	ug/L			10/11/19 15:19	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			10/11/19 15:19	1
Chloroethane	1.0	U	1.0	0.83	ug/L			10/11/19 15:19	1
Chloroform	1.0	U	1.0	0.13	ug/L			10/11/19 15:19	1
Chloromethane	1.0	U	1.0	0.20	ug/L			10/11/19 15:19	1
1,1-Dichloroethane	1.0	U	1.0	0.17	ug/L			10/11/19 15:19	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			10/11/19 15:19	1
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			10/11/19 15:19	1
1,2-Dichloropropane	1.0	U	1.0	0.15	ug/L			10/11/19 15:19	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.61	ug/L			10/11/19 15:19	1
trans-1,3-Dichloropropene	1.0	U *	1.0	0.67	ug/L			10/11/19 15:19	1
Ethylbenzene	1.0	U	1.0	0.11	ug/L			10/11/19 15:19	1
2-Hexanone	10	U	10	0.54	ug/L			10/11/19 15:19	1
Methylene Chloride	5.0	U	5.0	2.6	ug/L			10/11/19 15:19	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.42	ug/L			10/11/19 15:19	1
Styrene	1.0	U	1.0	0.10	ug/L			10/11/19 15:19	1
1,1,2,2-Tetrachloroethane	1.0	U *	1.0	0.13	ug/L			10/11/19 15:19	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			10/11/19 15:19	1
Toluene	1.0	U	1.0	0.14	ug/L			10/11/19 15:19	1
Trichloroethene	1.0	U	1.0	0.10	ug/L			10/11/19 15:19	1
Vinyl chloride	1.0	U	1.0	0.20	ug/L			10/11/19 15:19	1
Xylenes, Total	0.26	J	2.0	0.15	ug/L			10/11/19 15:19	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			10/11/19 15:19	1
1,1,2-Trichloroethane	1.0	U *	1.0	0.090	ug/L			10/11/19 15:19	1
Cyclohexane	1.0	U *	1.0	0.24	ug/L			10/11/19 15:19	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.91	ug/L			10/11/19 15:19	1
1,2-Dibromoethane	1.0	U *	1.0	0.12	ug/L			10/11/19 15:19	1
Dichlorodifluoromethane	1.0	U	1.0	0.35	ug/L			10/11/19 15:19	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.16	ug/L			10/11/19 15:19	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			10/11/19 15:19	1
Isopropylbenzene	1.0	U	1.0	0.090	ug/L			10/11/19 15:19	1
Methyl acetate	10	U	10	1.7	ug/L			10/11/19 15:19	1
Methyl tert-butyl ether	1.0	U	1.0	0.070	ug/L			10/11/19 15:19	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			10/11/19 15:19	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.26	ug/L			10/11/19 15:19	1
1,2-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			10/11/19 15:19	1
1,3-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			10/11/19 15:19	1
1,4-Dichlorobenzene	1.0	U	1.0	0.16	ug/L			10/11/19 15:19	1
Trichlorofluoromethane	1.0	U	1.0	0.45	ug/L			10/11/19 15:19	1
Dibromochloromethane	1.0	U	1.0	0.39	ug/L			10/11/19 15:19	1
Methylcyclohexane	1.0	U	1.0	0.33	ug/L			10/11/19 15:19	1

Eurofins TestAmerica, Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 17322A-009, PCC Validation

Job ID: 240-119767-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
1,2-Dichloroethane-d4 (Surr)	94		70 - 121		10/11/19 15:19	1
4-Bromofluorobenzene (Surr)	76		59 - 120		10/11/19 15:19	1
Toluene-d8 (Surr)	98		70 - 123		10/11/19 15:19	1
Dibromofluoromethane (Surr)	95		75 - 128		10/11/19 15:19	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 17322A-009, PCC Validation

Job ID: 240-119767-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: GW-17322-092719-JY-005

Date Collected: 09/27/19 14:40

Date Received: 10/01/19 09:45

Lab Sample ID: 240-119767-6

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	5.4	ug/L			10/11/19 15:45	1
Benzene	1.0	U	1.0	0.13	ug/L			10/11/19 15:45	1
Bromodichloromethane	1.0	U *	1.0	0.17	ug/L			10/11/19 15:45	1
Bromoform	1.0	U	1.0	0.76	ug/L			10/11/19 15:45	1
Bromomethane	1.0	U	1.0	0.42	ug/L			10/11/19 15:45	1
2-Butanone (MEK)	10	U	10	1.2	ug/L			10/11/19 15:45	1
Carbon disulfide	5.0	U	5.0	0.28	ug/L			10/11/19 15:45	1
Carbon tetrachloride	1.0	U	1.0	0.26	ug/L			10/11/19 15:45	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			10/11/19 15:45	1
Chloroethane	1.0	U	1.0	0.83	ug/L			10/11/19 15:45	1
Chloroform	1.0	U	1.0	0.13	ug/L			10/11/19 15:45	1
Chloromethane	1.0	U	1.0	0.20	ug/L			10/11/19 15:45	1
1,1-Dichloroethane	1.0	U	1.0	0.17	ug/L			10/11/19 15:45	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			10/11/19 15:45	1
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			10/11/19 15:45	1
1,2-Dichloropropane	1.0	U	1.0	0.15	ug/L			10/11/19 15:45	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.61	ug/L			10/11/19 15:45	1
trans-1,3-Dichloropropene	1.0	U *	1.0	0.67	ug/L			10/11/19 15:45	1
Ethylbenzene	1.0	U	1.0	0.11	ug/L			10/11/19 15:45	1
2-Hexanone	10	U	10	0.54	ug/L			10/11/19 15:45	1
Methylene Chloride	5.0	U	5.0	2.6	ug/L			10/11/19 15:45	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.42	ug/L			10/11/19 15:45	1
Styrene	1.0	U	1.0	0.10	ug/L			10/11/19 15:45	1
1,1,2,2-Tetrachloroethane	1.0	U *	1.0	0.13	ug/L			10/11/19 15:45	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			10/11/19 15:45	1
Toluene	1.0	U	1.0	0.14	ug/L			10/11/19 15:45	1
Trichloroethene	1.0	U	1.0	0.10	ug/L			10/11/19 15:45	1
Vinyl chloride	1.0	U	1.0	0.20	ug/L			10/11/19 15:45	1
Xylenes, Total	2.0	U	2.0	0.15	ug/L			10/11/19 15:45	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			10/11/19 15:45	1
1,1,2-Trichloroethane	1.0	U *	1.0	0.090	ug/L			10/11/19 15:45	1
Cyclohexane	1.0	U *	1.0	0.24	ug/L			10/11/19 15:45	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.91	ug/L			10/11/19 15:45	1
1,2-Dibromoethane	1.0	U *	1.0	0.12	ug/L			10/11/19 15:45	1
Dichlorodifluoromethane	1.0	U	1.0	0.35	ug/L			10/11/19 15:45	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.16	ug/L			10/11/19 15:45	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			10/11/19 15:45	1
Isopropylbenzene	1.0	U	1.0	0.090	ug/L			10/11/19 15:45	1
Methyl acetate	10	U	10	1.7	ug/L			10/11/19 15:45	1
Methyl tert-butyl ether	1.0	U	1.0	0.070	ug/L			10/11/19 15:45	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			10/11/19 15:45	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.26	ug/L			10/11/19 15:45	1
1,2-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			10/11/19 15:45	1
1,3-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			10/11/19 15:45	1
1,4-Dichlorobenzene	1.0	U	1.0	0.16	ug/L			10/11/19 15:45	1
Trichlorofluoromethane	1.0	U	1.0	0.45	ug/L			10/11/19 15:45	1
Dibromochloromethane	1.0	U	1.0	0.39	ug/L			10/11/19 15:45	1
Methylcyclohexane	1.0	U	1.0	0.33	ug/L			10/11/19 15:45	1

Eurofins TestAmerica, Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 17322A-009, PCC Validation

Job ID: 240-119767-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
1,2-Dichloroethane-d4 (Surr)	102		70 - 121		10/11/19 15:45	1
4-Bromofluorobenzene (Surr)	75		59 - 120		10/11/19 15:45	1
Toluene-d8 (Surr)	99		70 - 123		10/11/19 15:45	1
Dibromofluoromethane (Surr)	97		75 - 128		10/11/19 15:45	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 17322A-009, PCC Validation

Job ID: 240-119767-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: GW-17322-093019-JY-006

Date Collected: 09/30/19 09:05

Date Received: 10/01/19 09:45

Lab Sample ID: 240-119767-7

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	5.4	ug/L			10/12/19 16:31	1
Benzene	1.0	U	1.0	0.13	ug/L			10/12/19 16:31	1
Bromodichloromethane	1.0	U	1.0	0.17	ug/L			10/12/19 16:31	1
Bromoform	1.0	U	1.0	0.76	ug/L			10/12/19 16:31	1
Bromomethane	1.0	U	1.0	0.42	ug/L			10/12/19 16:31	1
2-Butanone (MEK)	10	U	10	1.2	ug/L			10/12/19 16:31	1
Carbon disulfide	5.0	U	5.0	0.28	ug/L			10/12/19 16:31	1
Carbon tetrachloride	1.0	U	1.0	0.26	ug/L			10/12/19 16:31	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			10/12/19 16:31	1
Chloroethane	1.0	U	1.0	0.83	ug/L			10/12/19 16:31	1
Chloroform	1.0	U	1.0	0.13	ug/L			10/12/19 16:31	1
Chloromethane	1.0	U	1.0	0.20	ug/L			10/12/19 16:31	1
1,1-Dichloroethane	1.0	U	1.0	0.17	ug/L			10/12/19 16:31	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			10/12/19 16:31	1
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			10/12/19 16:31	1
1,2-Dichloropropane	1.0	U	1.0	0.15	ug/L			10/12/19 16:31	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.61	ug/L			10/12/19 16:31	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.67	ug/L			10/12/19 16:31	1
Ethylbenzene	1.0	U	1.0	0.11	ug/L			10/12/19 16:31	1
2-Hexanone	10	U	10	0.54	ug/L			10/12/19 16:31	1
Methylene Chloride	5.0	U	5.0	2.6	ug/L			10/12/19 16:31	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.42	ug/L			10/12/19 16:31	1
Styrene	1.0	U	1.0	0.10	ug/L			10/12/19 16:31	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13	ug/L			10/12/19 16:31	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			10/12/19 16:31	1
Toluene	1.0	U	1.0	0.14	ug/L			10/12/19 16:31	1
Trichloroethene	1.0	U	1.0	0.10	ug/L			10/12/19 16:31	1
Vinyl chloride	1.0	U	1.0	0.20	ug/L			10/12/19 16:31	1
Xylenes, Total	2.0	U	2.0	0.15	ug/L			10/12/19 16:31	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			10/12/19 16:31	1
1,1,2-Trichloroethane	1.0	U	1.0	0.090	ug/L			10/12/19 16:31	1
Cyclohexane	1.0	U	1.0	0.24	ug/L			10/12/19 16:31	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.91	ug/L			10/12/19 16:31	1
1,2-Dibromoethane	1.0	U	1.0	0.12	ug/L			10/12/19 16:31	1
Dichlorodifluoromethane	1.0	U	1.0	0.35	ug/L			10/12/19 16:31	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.16	ug/L			10/12/19 16:31	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			10/12/19 16:31	1
Isopropylbenzene	1.0	U	1.0	0.090	ug/L			10/12/19 16:31	1
Methyl acetate	10	U	10	1.7	ug/L			10/12/19 16:31	1
Methyl tert-butyl ether	1.0	U	1.0	0.070	ug/L			10/12/19 16:31	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			10/12/19 16:31	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.26	ug/L			10/12/19 16:31	1
1,2-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			10/12/19 16:31	1
1,3-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			10/12/19 16:31	1
1,4-Dichlorobenzene	1.0	U	1.0	0.16	ug/L			10/12/19 16:31	1
Trichlorofluoromethane	1.0	U	1.0	0.45	ug/L			10/12/19 16:31	1
Dibromochloromethane	1.0	U	1.0	0.39	ug/L			10/12/19 16:31	1
Methylcyclohexane	0.63	J B	1.0	0.33	ug/L			10/12/19 16:31	1

Eurofins TestAmerica, Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 17322A-009, PCC Validation

Job ID: 240-119767-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
1,2-Dichloroethane-d4 (Surr)	76		70 - 121		10/12/19 16:31	1
4-Bromofluorobenzene (Surr)	76		59 - 120		10/12/19 16:31	1
Toluene-d8 (Surr)	91		70 - 123		10/12/19 16:31	1
Dibromofluoromethane (Surr)	91		75 - 128		10/12/19 16:31	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 17322A-009, PCC Validation

Job ID: 240-119767-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: GW-17322-093019-JY-007

Date Collected: 09/30/19 09:10

Date Received: 10/01/19 09:45

Lab Sample ID: 240-119767-8

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	5.4	ug/L			10/12/19 16:55	1
Benzene	1.0	U	1.0	0.13	ug/L			10/12/19 16:55	1
Bromodichloromethane	1.0	U	1.0	0.17	ug/L			10/12/19 16:55	1
Bromoform	1.0	U	1.0	0.76	ug/L			10/12/19 16:55	1
Bromomethane	1.0	U	1.0	0.42	ug/L			10/12/19 16:55	1
2-Butanone (MEK)	10	U	10	1.2	ug/L			10/12/19 16:55	1
Carbon disulfide	5.0	U	5.0	0.28	ug/L			10/12/19 16:55	1
Carbon tetrachloride	1.0	U	1.0	0.26	ug/L			10/12/19 16:55	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			10/12/19 16:55	1
Chloroethane	1.0	U	1.0	0.83	ug/L			10/12/19 16:55	1
Chloroform	1.0	U	1.0	0.13	ug/L			10/12/19 16:55	1
Chloromethane	1.0	U	1.0	0.20	ug/L			10/12/19 16:55	1
1,1-Dichloroethane	1.0	U	1.0	0.17	ug/L			10/12/19 16:55	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			10/12/19 16:55	1
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			10/12/19 16:55	1
1,2-Dichloropropane	1.0	U	1.0	0.15	ug/L			10/12/19 16:55	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.61	ug/L			10/12/19 16:55	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.67	ug/L			10/12/19 16:55	1
Ethylbenzene	1.0	U	1.0	0.11	ug/L			10/12/19 16:55	1
2-Hexanone	10	U	10	0.54	ug/L			10/12/19 16:55	1
Methylene Chloride	5.0	U	5.0	2.6	ug/L			10/12/19 16:55	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.42	ug/L			10/12/19 16:55	1
Styrene	1.0	U	1.0	0.10	ug/L			10/12/19 16:55	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13	ug/L			10/12/19 16:55	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			10/12/19 16:55	1
Toluene	1.0	U	1.0	0.14	ug/L			10/12/19 16:55	1
Trichloroethene	1.0	U	1.0	0.10	ug/L			10/12/19 16:55	1
Vinyl chloride	1.0	U	1.0	0.20	ug/L			10/12/19 16:55	1
Xylenes, Total	2.0	U	2.0	0.15	ug/L			10/12/19 16:55	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			10/12/19 16:55	1
1,1,2-Trichloroethane	1.0	U	1.0	0.090	ug/L			10/12/19 16:55	1
Cyclohexane	1.0	U	1.0	0.24	ug/L			10/12/19 16:55	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.91	ug/L			10/12/19 16:55	1
1,2-Dibromoethane	1.0	U	1.0	0.12	ug/L			10/12/19 16:55	1
Dichlorodifluoromethane	1.0	U	1.0	0.35	ug/L			10/12/19 16:55	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.16	ug/L			10/12/19 16:55	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			10/12/19 16:55	1
Isopropylbenzene	1.0	U	1.0	0.090	ug/L			10/12/19 16:55	1
Methyl acetate	10	U	10	1.7	ug/L			10/12/19 16:55	1
Methyl tert-butyl ether	1.0	U	1.0	0.070	ug/L			10/12/19 16:55	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			10/12/19 16:55	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.26	ug/L			10/12/19 16:55	1
1,2-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			10/12/19 16:55	1
1,3-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			10/12/19 16:55	1
1,4-Dichlorobenzene	1.0	U	1.0	0.16	ug/L			10/12/19 16:55	1
Trichlorofluoromethane	1.0	U	1.0	0.45	ug/L			10/12/19 16:55	1
Dibromochloromethane	1.0	U	1.0	0.39	ug/L			10/12/19 16:55	1
Methylcyclohexane	1.0	U	1.0	0.33	ug/L			10/12/19 16:55	1

Eurofins TestAmerica, Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 17322A-009, PCC Validation

Job ID: 240-119767-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
1,2-Dichloroethane-d4 (Surr)	75		70 - 121		10/12/19 16:55	1
4-Bromofluorobenzene (Surr)	73		59 - 120		10/12/19 16:55	1
Toluene-d8 (Surr)	88		70 - 123		10/12/19 16:55	1
Dibromofluoromethane (Surr)	91		75 - 128		10/12/19 16:55	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 17322A-009, PCC Validation

Job ID: 240-119767-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: GW-17322-093019-JY-008

Date Collected: 09/30/19 10:25

Date Received: 10/01/19 09:45

Lab Sample ID: 240-119767-9

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	5.4	ug/L			10/12/19 17:19	1
Benzene	1.0	U	1.0	0.13	ug/L			10/12/19 17:19	1
Bromodichloromethane	1.0	U	1.0	0.17	ug/L			10/12/19 17:19	1
Bromoform	1.0	U	1.0	0.76	ug/L			10/12/19 17:19	1
Bromomethane	1.0	U	1.0	0.42	ug/L			10/12/19 17:19	1
2-Butanone (MEK)	10	U	10	1.2	ug/L			10/12/19 17:19	1
Carbon disulfide	5.0	U	5.0	0.28	ug/L			10/12/19 17:19	1
Carbon tetrachloride	1.0	U	1.0	0.26	ug/L			10/12/19 17:19	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			10/12/19 17:19	1
Chloroethane	1.0	U	1.0	0.83	ug/L			10/12/19 17:19	1
Chloroform	1.0	U	1.0	0.13	ug/L			10/12/19 17:19	1
Chloromethane	1.0	U	1.0	0.20	ug/L			10/12/19 17:19	1
1,1-Dichloroethane	1.0	U	1.0	0.17	ug/L			10/12/19 17:19	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			10/12/19 17:19	1
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			10/12/19 17:19	1
1,2-Dichloropropane	1.0	U	1.0	0.15	ug/L			10/12/19 17:19	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.61	ug/L			10/12/19 17:19	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.67	ug/L			10/12/19 17:19	1
Ethylbenzene	1.0	U	1.0	0.11	ug/L			10/12/19 17:19	1
2-Hexanone	10	U	10	0.54	ug/L			10/12/19 17:19	1
Methylene Chloride	5.0	U	5.0	2.6	ug/L			10/12/19 17:19	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.42	ug/L			10/12/19 17:19	1
Styrene	1.0	U	1.0	0.10	ug/L			10/12/19 17:19	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13	ug/L			10/12/19 17:19	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			10/12/19 17:19	1
Toluene	1.0	U	1.0	0.14	ug/L			10/12/19 17:19	1
Trichloroethene	1.0	U	1.0	0.10	ug/L			10/12/19 17:19	1
Vinyl chloride	1.0	U	1.0	0.20	ug/L			10/12/19 17:19	1
Xylenes, Total	2.0	U	2.0	0.15	ug/L			10/12/19 17:19	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			10/12/19 17:19	1
1,1,2-Trichloroethane	1.0	U	1.0	0.090	ug/L			10/12/19 17:19	1
Cyclohexane	1.0	U	1.0	0.24	ug/L			10/12/19 17:19	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.91	ug/L			10/12/19 17:19	1
1,2-Dibromoethane	1.0	U	1.0	0.12	ug/L			10/12/19 17:19	1
Dichlorodifluoromethane	1.0	U	1.0	0.35	ug/L			10/12/19 17:19	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.16	ug/L			10/12/19 17:19	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			10/12/19 17:19	1
Isopropylbenzene	1.0	U	1.0	0.090	ug/L			10/12/19 17:19	1
Methyl acetate	10	U	10	1.7	ug/L			10/12/19 17:19	1
Methyl tert-butyl ether	1.0	U	1.0	0.070	ug/L			10/12/19 17:19	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			10/12/19 17:19	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.26	ug/L			10/12/19 17:19	1
1,2-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			10/12/19 17:19	1
1,3-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			10/12/19 17:19	1
1,4-Dichlorobenzene	1.0	U	1.0	0.16	ug/L			10/12/19 17:19	1
Trichlorofluoromethane	1.0	U	1.0	0.45	ug/L			10/12/19 17:19	1
Dibromochloromethane	1.0	U	1.0	0.39	ug/L			10/12/19 17:19	1
Methylcyclohexane	1.0	U	1.0	0.33	ug/L			10/12/19 17:19	1

Eurofins TestAmerica, Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 17322A-009, PCC Validation

Job ID: 240-119767-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
1,2-Dichloroethane-d4 (Surr)	72		70 - 121		10/12/19 17:19	1
4-Bromofluorobenzene (Surr)	72		59 - 120		10/12/19 17:19	1
Toluene-d8 (Surr)	88		70 - 123		10/12/19 17:19	1
Dibromofluoromethane (Surr)	89		75 - 128		10/12/19 17:19	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 17322A-009, PCC Validation

Job ID: 240-119767-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: GW-17322-093019-JY-009

Date Collected: 09/30/19 10:40

Date Received: 10/01/19 09:45

Lab Sample ID: 240-119767-10

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	5.4	ug/L			10/12/19 17:43	1
Benzene	1.0	U	1.0	0.13	ug/L			10/12/19 17:43	1
Bromodichloromethane	1.0	U	1.0	0.17	ug/L			10/12/19 17:43	1
Bromoform	1.0	U	1.0	0.76	ug/L			10/12/19 17:43	1
Bromomethane	1.0	U	1.0	0.42	ug/L			10/12/19 17:43	1
2-Butanone (MEK)	10	U	10	1.2	ug/L			10/12/19 17:43	1
Carbon disulfide	5.0	U	5.0	0.28	ug/L			10/12/19 17:43	1
Carbon tetrachloride	1.0	U	1.0	0.26	ug/L			10/12/19 17:43	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			10/12/19 17:43	1
Chloroethane	1.0	U	1.0	0.83	ug/L			10/12/19 17:43	1
Chloroform	1.0	U	1.0	0.13	ug/L			10/12/19 17:43	1
Chloromethane	1.0	U	1.0	0.20	ug/L			10/12/19 17:43	1
1,1-Dichloroethane	1.0	U	1.0	0.17	ug/L			10/12/19 17:43	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			10/12/19 17:43	1
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			10/12/19 17:43	1
1,2-Dichloropropane	1.0	U	1.0	0.15	ug/L			10/12/19 17:43	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.61	ug/L			10/12/19 17:43	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.67	ug/L			10/12/19 17:43	1
Ethylbenzene	1.0	U	1.0	0.11	ug/L			10/12/19 17:43	1
2-Hexanone	10	U	10	0.54	ug/L			10/12/19 17:43	1
Methylene Chloride	5.0	U	5.0	2.6	ug/L			10/12/19 17:43	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.42	ug/L			10/12/19 17:43	1
Styrene	1.0	U	1.0	0.10	ug/L			10/12/19 17:43	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13	ug/L			10/12/19 17:43	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			10/12/19 17:43	1
Toluene	1.0	U	1.0	0.14	ug/L			10/12/19 17:43	1
Trichloroethene	0.77	J	1.0	0.10	ug/L			10/12/19 17:43	1
Vinyl chloride	1.0	U	1.0	0.20	ug/L			10/12/19 17:43	1
Xylenes, Total	2.0	U	2.0	0.15	ug/L			10/12/19 17:43	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			10/12/19 17:43	1
1,1,2-Trichloroethane	1.0	U	1.0	0.090	ug/L			10/12/19 17:43	1
Cyclohexane	1.0	U	1.0	0.24	ug/L			10/12/19 17:43	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.91	ug/L			10/12/19 17:43	1
1,2-Dibromoethane	1.0	U	1.0	0.12	ug/L			10/12/19 17:43	1
Dichlorodifluoromethane	1.0	U	1.0	0.35	ug/L			10/12/19 17:43	1
cis-1,2-Dichloroethene	0.50	J	1.0	0.16	ug/L			10/12/19 17:43	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			10/12/19 17:43	1
Isopropylbenzene	1.0	U	1.0	0.090	ug/L			10/12/19 17:43	1
Methyl acetate	10	U	10	1.7	ug/L			10/12/19 17:43	1
Methyl tert-butyl ether	1.0	U	1.0	0.070	ug/L			10/12/19 17:43	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			10/12/19 17:43	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.26	ug/L			10/12/19 17:43	1
1,2-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			10/12/19 17:43	1
1,3-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			10/12/19 17:43	1
1,4-Dichlorobenzene	1.0	U	1.0	0.16	ug/L			10/12/19 17:43	1
Trichlorofluoromethane	1.0	U	1.0	0.45	ug/L			10/12/19 17:43	1
Dibromochloromethane	1.0	U	1.0	0.39	ug/L			10/12/19 17:43	1
Methylcyclohexane	1.0	U	1.0	0.33	ug/L			10/12/19 17:43	1

Eurofins TestAmerica, Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 17322A-009, PCC Validation

Job ID: 240-119767-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
1,2-Dichloroethane-d4 (Surr)	74		70 - 121		10/12/19 17:43	1
4-Bromofluorobenzene (Surr)	73		59 - 120		10/12/19 17:43	1
Toluene-d8 (Surr)	89		70 - 123		10/12/19 17:43	1
Dibromofluoromethane (Surr)	91		75 - 128		10/12/19 17:43	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 17322A-009, PCC Validation

Job ID: 240-119767-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: GW-17322-093019-JY-010

Date Collected: 09/30/19 11:45

Date Received: 10/01/19 09:45

Lab Sample ID: 240-119767-11

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	5.4	ug/L			10/12/19 18:07	1
Benzene	1.0	U	1.0	0.13	ug/L			10/12/19 18:07	1
Bromodichloromethane	1.0	U	1.0	0.17	ug/L			10/12/19 18:07	1
Bromoform	1.0	U	1.0	0.76	ug/L			10/12/19 18:07	1
Bromomethane	1.0	U	1.0	0.42	ug/L			10/12/19 18:07	1
2-Butanone (MEK)	10	U	10	1.2	ug/L			10/12/19 18:07	1
Carbon disulfide	5.0	U	5.0	0.28	ug/L			10/12/19 18:07	1
Carbon tetrachloride	1.0	U	1.0	0.26	ug/L			10/12/19 18:07	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			10/12/19 18:07	1
Chloroethane	1.0	U	1.0	0.83	ug/L			10/12/19 18:07	1
Chloroform	1.0	U	1.0	0.13	ug/L			10/12/19 18:07	1
Chloromethane	1.0	U	1.0	0.20	ug/L			10/12/19 18:07	1
1,1-Dichloroethane	1.0	U	1.0	0.17	ug/L			10/12/19 18:07	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			10/12/19 18:07	1
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			10/12/19 18:07	1
1,2-Dichloropropane	1.0	U	1.0	0.15	ug/L			10/12/19 18:07	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.61	ug/L			10/12/19 18:07	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.67	ug/L			10/12/19 18:07	1
Ethylbenzene	1.0	U	1.0	0.11	ug/L			10/12/19 18:07	1
2-Hexanone	10	U	10	0.54	ug/L			10/12/19 18:07	1
Methylene Chloride	5.0	U	5.0	2.6	ug/L			10/12/19 18:07	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.42	ug/L			10/12/19 18:07	1
Styrene	1.0	U	1.0	0.10	ug/L			10/12/19 18:07	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13	ug/L			10/12/19 18:07	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			10/12/19 18:07	1
Toluene	1.0	U	1.0	0.14	ug/L			10/12/19 18:07	1
Trichloroethene	1.0	U	1.0	0.10	ug/L			10/12/19 18:07	1
Vinyl chloride	1.0	U	1.0	0.20	ug/L			10/12/19 18:07	1
Xylenes, Total	2.0	U	2.0	0.15	ug/L			10/12/19 18:07	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			10/12/19 18:07	1
1,1,2-Trichloroethane	1.0	U	1.0	0.090	ug/L			10/12/19 18:07	1
Cyclohexane	1.0	U	1.0	0.24	ug/L			10/12/19 18:07	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.91	ug/L			10/12/19 18:07	1
1,2-Dibromoethane	1.0	U	1.0	0.12	ug/L			10/12/19 18:07	1
Dichlorodifluoromethane	1.0	U	1.0	0.35	ug/L			10/12/19 18:07	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.16	ug/L			10/12/19 18:07	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			10/12/19 18:07	1
Isopropylbenzene	1.0	U	1.0	0.090	ug/L			10/12/19 18:07	1
Methyl acetate	10	U	10	1.7	ug/L			10/12/19 18:07	1
Methyl tert-butyl ether	1.0	U	1.0	0.070	ug/L			10/12/19 18:07	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			10/12/19 18:07	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.26	ug/L			10/12/19 18:07	1
1,2-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			10/12/19 18:07	1
1,3-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			10/12/19 18:07	1
1,4-Dichlorobenzene	1.0	U	1.0	0.16	ug/L			10/12/19 18:07	1
Trichlorofluoromethane	1.0	U	1.0	0.45	ug/L			10/12/19 18:07	1
Dibromochloromethane	1.0	U	1.0	0.39	ug/L			10/12/19 18:07	1
Methylcyclohexane	1.0	U	1.0	0.33	ug/L			10/12/19 18:07	1

Eurofins TestAmerica, Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 17322A-009, PCC Validation

Job ID: 240-119767-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
1,2-Dichloroethane-d4 (Surr)	72		70 - 121		10/12/19 18:07	1
4-Bromofluorobenzene (Surr)	73		59 - 120		10/12/19 18:07	1
Toluene-d8 (Surr)	88		70 - 123		10/12/19 18:07	1
Dibromofluoromethane (Surr)	91		75 - 128		10/12/19 18:07	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 17322A-009, PCC Validation

Job ID: 240-119767-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: GW-17322-093019-JY-011

Date Collected: 09/30/19 12:35

Date Received: 10/01/19 09:45

Lab Sample ID: 240-119767-12

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	5.4	ug/L			10/12/19 18:31	1
Benzene	1.0	U	1.0	0.13	ug/L			10/12/19 18:31	1
Bromodichloromethane	1.0	U	1.0	0.17	ug/L			10/12/19 18:31	1
Bromoform	1.0	U	1.0	0.76	ug/L			10/12/19 18:31	1
Bromomethane	1.0	U	1.0	0.42	ug/L			10/12/19 18:31	1
2-Butanone (MEK)	10	U	10	1.2	ug/L			10/12/19 18:31	1
Carbon disulfide	5.0	U	5.0	0.28	ug/L			10/12/19 18:31	1
Carbon tetrachloride	1.0	U	1.0	0.26	ug/L			10/12/19 18:31	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			10/12/19 18:31	1
Chloroethane	1.0	U	1.0	0.83	ug/L			10/12/19 18:31	1
Chloroform	1.0	U	1.0	0.13	ug/L			10/12/19 18:31	1
Chloromethane	1.0	U	1.0	0.20	ug/L			10/12/19 18:31	1
1,1-Dichloroethane	1.0	U	1.0	0.17	ug/L			10/12/19 18:31	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			10/12/19 18:31	1
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			10/12/19 18:31	1
1,2-Dichloropropane	1.0	U	1.0	0.15	ug/L			10/12/19 18:31	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.61	ug/L			10/12/19 18:31	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.67	ug/L			10/12/19 18:31	1
Ethylbenzene	1.0	U	1.0	0.11	ug/L			10/12/19 18:31	1
2-Hexanone	10	U	10	0.54	ug/L			10/12/19 18:31	1
Methylene Chloride	5.0	U	5.0	2.6	ug/L			10/12/19 18:31	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.42	ug/L			10/12/19 18:31	1
Styrene	1.0	U	1.0	0.10	ug/L			10/12/19 18:31	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13	ug/L			10/12/19 18:31	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			10/12/19 18:31	1
Toluene	1.0	U	1.0	0.14	ug/L			10/12/19 18:31	1
Trichloroethene	1.0	U	1.0	0.10	ug/L			10/12/19 18:31	1
Vinyl chloride	1.0	U	1.0	0.20	ug/L			10/12/19 18:31	1
Xylenes, Total	2.0	U	2.0	0.15	ug/L			10/12/19 18:31	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			10/12/19 18:31	1
1,1,2-Trichloroethane	1.0	U	1.0	0.090	ug/L			10/12/19 18:31	1
Cyclohexane	1.0	U	1.0	0.24	ug/L			10/12/19 18:31	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.91	ug/L			10/12/19 18:31	1
1,2-Dibromoethane	1.0	U	1.0	0.12	ug/L			10/12/19 18:31	1
Dichlorodifluoromethane	1.0	U	1.0	0.35	ug/L			10/12/19 18:31	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.16	ug/L			10/12/19 18:31	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			10/12/19 18:31	1
Isopropylbenzene	1.0	U	1.0	0.090	ug/L			10/12/19 18:31	1
Methyl acetate	10	U	10	1.7	ug/L			10/12/19 18:31	1
Methyl tert-butyl ether	1.0	U	1.0	0.070	ug/L			10/12/19 18:31	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			10/12/19 18:31	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.26	ug/L			10/12/19 18:31	1
1,2-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			10/12/19 18:31	1
1,3-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			10/12/19 18:31	1
1,4-Dichlorobenzene	1.0	U	1.0	0.16	ug/L			10/12/19 18:31	1
Trichlorofluoromethane	1.0	U	1.0	0.45	ug/L			10/12/19 18:31	1
Dibromochloromethane	1.0	U	1.0	0.39	ug/L			10/12/19 18:31	1
Methylcyclohexane	1.0	U	1.0	0.33	ug/L			10/12/19 18:31	1

Eurofins TestAmerica, Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 17322A-009, PCC Validation

Job ID: 240-119767-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
1,2-Dichloroethane-d4 (Surr)	72		70 - 121		10/12/19 18:31	1
4-Bromofluorobenzene (Surr)	71		59 - 120		10/12/19 18:31	1
Toluene-d8 (Surr)	89		70 - 123		10/12/19 18:31	1
Dibromofluoromethane (Surr)	91		75 - 128		10/12/19 18:31	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 17322A-009, PCC Validation

Job ID: 240-119767-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: GW-17322-093019-JY-012

Date Collected: 09/30/19 12:35

Date Received: 10/01/19 09:45

Lab Sample ID: 240-119767-13

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	5.4	ug/L			10/13/19 12:35	1
Benzene	1.0	U	1.0	0.13	ug/L			10/13/19 12:35	1
Bromodichloromethane	1.0	U	1.0	0.17	ug/L			10/13/19 12:35	1
Bromoform	1.0	U	1.0	0.76	ug/L			10/13/19 12:35	1
Bromomethane	1.0	U	1.0	0.42	ug/L			10/13/19 12:35	1
2-Butanone (MEK)	10	U	10	1.2	ug/L			10/13/19 12:35	1
Carbon disulfide	5.0	U	5.0	0.28	ug/L			10/13/19 12:35	1
Carbon tetrachloride	1.0	U	1.0	0.26	ug/L			10/13/19 12:35	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			10/13/19 12:35	1
Chloroethane	1.0	U	1.0	0.83	ug/L			10/13/19 12:35	1
Chloroform	1.0	U	1.0	0.13	ug/L			10/13/19 12:35	1
Chloromethane	1.0	U	1.0	0.20	ug/L			10/13/19 12:35	1
1,1-Dichloroethane	1.0	U	1.0	0.17	ug/L			10/13/19 12:35	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			10/13/19 12:35	1
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			10/13/19 12:35	1
1,2-Dichloropropane	1.0	U	1.0	0.15	ug/L			10/13/19 12:35	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.61	ug/L			10/13/19 12:35	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.67	ug/L			10/13/19 12:35	1
Ethylbenzene	1.0	U	1.0	0.11	ug/L			10/13/19 12:35	1
2-Hexanone	10	U	10	0.54	ug/L			10/13/19 12:35	1
Methylene Chloride	5.0	U	5.0	2.6	ug/L			10/13/19 12:35	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.42	ug/L			10/13/19 12:35	1
Styrene	1.0	U	1.0	0.10	ug/L			10/13/19 12:35	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13	ug/L			10/13/19 12:35	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			10/13/19 12:35	1
Toluene	1.0	U	1.0	0.14	ug/L			10/13/19 12:35	1
Trichloroethene	1.0	U	1.0	0.10	ug/L			10/13/19 12:35	1
Vinyl chloride	1.0	U	1.0	0.20	ug/L			10/13/19 12:35	1
Xylenes, Total	2.0	U	2.0	0.15	ug/L			10/13/19 12:35	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			10/13/19 12:35	1
1,1,2-Trichloroethane	1.0	U	1.0	0.090	ug/L			10/13/19 12:35	1
Cyclohexane	1.0	U	1.0	0.24	ug/L			10/13/19 12:35	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.91	ug/L			10/13/19 12:35	1
1,2-Dibromoethane	1.0	U	1.0	0.12	ug/L			10/13/19 12:35	1
Dichlorodifluoromethane	1.0	U	1.0	0.35	ug/L			10/13/19 12:35	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.16	ug/L			10/13/19 12:35	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			10/13/19 12:35	1
Isopropylbenzene	1.0	U	1.0	0.090	ug/L			10/13/19 12:35	1
Methyl acetate	10	U	10	1.7	ug/L			10/13/19 12:35	1
Methyl tert-butyl ether	1.0	U	1.0	0.070	ug/L			10/13/19 12:35	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			10/13/19 12:35	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.26	ug/L			10/13/19 12:35	1
1,2-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			10/13/19 12:35	1
1,3-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			10/13/19 12:35	1
1,4-Dichlorobenzene	1.0	U	1.0	0.16	ug/L			10/13/19 12:35	1
Trichlorofluoromethane	1.0	U	1.0	0.45	ug/L			10/13/19 12:35	1
Dibromochloromethane	1.0	U	1.0	0.39	ug/L			10/13/19 12:35	1
Methylcyclohexane	1.0	U	1.0	0.33	ug/L			10/13/19 12:35	1

Eurofins TestAmerica, Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 17322A-009, PCC Validation

Job ID: 240-119767-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
1,2-Dichloroethane-d4 (Surr)	120		70 - 121		10/13/19 12:35	1
4-Bromofluorobenzene (Surr)	96		59 - 120		10/13/19 12:35	1
Toluene-d8 (Surr)	102		70 - 123		10/13/19 12:35	1
Dibromofluoromethane (Surr)	91		75 - 128		10/13/19 12:35	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 17322A-009, PCC Validation

Job ID: 240-119767-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: GW-17322-093019-JY-013

Date Collected: 09/30/19 13:55

Date Received: 10/01/19 09:45

Lab Sample ID: 240-119767-14

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	5.4	ug/L			10/12/19 19:18	1
Benzene	1.0	U	1.0	0.13	ug/L			10/12/19 19:18	1
Bromodichloromethane	1.0	U	1.0	0.17	ug/L			10/12/19 19:18	1
Bromoform	1.0	U	1.0	0.76	ug/L			10/12/19 19:18	1
Bromomethane	1.0	U	1.0	0.42	ug/L			10/12/19 19:18	1
2-Butanone (MEK)	10	U	10	1.2	ug/L			10/12/19 19:18	1
Carbon disulfide	5.0	U	5.0	0.28	ug/L			10/12/19 19:18	1
Carbon tetrachloride	1.0	U	1.0	0.26	ug/L			10/12/19 19:18	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			10/12/19 19:18	1
Chloroethane	1.0	U	1.0	0.83	ug/L			10/12/19 19:18	1
Chloroform	1.0	U	1.0	0.13	ug/L			10/12/19 19:18	1
Chloromethane	1.0	U	1.0	0.20	ug/L			10/12/19 19:18	1
1,1-Dichloroethane	1.0	U	1.0	0.17	ug/L			10/12/19 19:18	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			10/12/19 19:18	1
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			10/12/19 19:18	1
1,2-Dichloropropane	1.0	U	1.0	0.15	ug/L			10/12/19 19:18	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.61	ug/L			10/12/19 19:18	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.67	ug/L			10/12/19 19:18	1
Ethylbenzene	1.0	U	1.0	0.11	ug/L			10/12/19 19:18	1
2-Hexanone	10	U	10	0.54	ug/L			10/12/19 19:18	1
Methylene Chloride	5.0	U	5.0	2.6	ug/L			10/12/19 19:18	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.42	ug/L			10/12/19 19:18	1
Styrene	1.0	U	1.0	0.10	ug/L			10/12/19 19:18	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13	ug/L			10/12/19 19:18	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			10/12/19 19:18	1
Toluene	1.0	U	1.0	0.14	ug/L			10/12/19 19:18	1
Trichloroethene	1.0	U	1.0	0.10	ug/L			10/12/19 19:18	1
Vinyl chloride	0.94	J	1.0	0.20	ug/L			10/12/19 19:18	1
Xylenes, Total	2.0	U	2.0	0.15	ug/L			10/12/19 19:18	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			10/12/19 19:18	1
1,1,2-Trichloroethane	1.0	U	1.0	0.090	ug/L			10/12/19 19:18	1
Cyclohexane	1.0	U	1.0	0.24	ug/L			10/12/19 19:18	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.91	ug/L			10/12/19 19:18	1
1,2-Dibromoethane	1.0	U	1.0	0.12	ug/L			10/12/19 19:18	1
Dichlorodifluoromethane	1.0	U	1.0	0.35	ug/L			10/12/19 19:18	1
cis-1,2-Dichloroethene	0.35	J	1.0	0.16	ug/L			10/12/19 19:18	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			10/12/19 19:18	1
Isopropylbenzene	1.0	U	1.0	0.090	ug/L			10/12/19 19:18	1
Methyl acetate	10	U	10	1.7	ug/L			10/12/19 19:18	1
Methyl tert-butyl ether	1.0	U	1.0	0.070	ug/L			10/12/19 19:18	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			10/12/19 19:18	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.26	ug/L			10/12/19 19:18	1
1,2-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			10/12/19 19:18	1
1,3-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			10/12/19 19:18	1
1,4-Dichlorobenzene	1.0	U	1.0	0.16	ug/L			10/12/19 19:18	1
Trichlorofluoromethane	1.0	U	1.0	0.45	ug/L			10/12/19 19:18	1
Dibromochloromethane	1.0	U	1.0	0.39	ug/L			10/12/19 19:18	1
Methylcyclohexane	1.0	U	1.0	0.33	ug/L			10/12/19 19:18	1

Eurofins TestAmerica, Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 17322A-009, PCC Validation

Job ID: 240-119767-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
1,2-Dichloroethane-d4 (Surr)	73		70 - 121		10/12/19 19:18	1
4-Bromofluorobenzene (Surr)	73		59 - 120		10/12/19 19:18	1
Toluene-d8 (Surr)	90		70 - 123		10/12/19 19:18	1
Dibromofluoromethane (Surr)	92		75 - 128		10/12/19 19:18	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 17322A-009, PCC Validation

Job ID: 240-119767-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: GW-17322-093019-JY-014

Date Collected: 09/30/19 14:15

Date Received: 10/01/19 09:45

Lab Sample ID: 240-119767-15

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	5.4	ug/L			10/12/19 19:42	1
Benzene	1.0	U	1.0	0.13	ug/L			10/12/19 19:42	1
Bromodichloromethane	1.0	U	1.0	0.17	ug/L			10/12/19 19:42	1
Bromoform	1.0	U	1.0	0.76	ug/L			10/12/19 19:42	1
Bromomethane	1.0	U	1.0	0.42	ug/L			10/12/19 19:42	1
2-Butanone (MEK)	10	U	10	1.2	ug/L			10/12/19 19:42	1
Carbon disulfide	5.0	U	5.0	0.28	ug/L			10/12/19 19:42	1
Carbon tetrachloride	1.0	U	1.0	0.26	ug/L			10/12/19 19:42	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			10/12/19 19:42	1
Chloroethane	1.0	U	1.0	0.83	ug/L			10/12/19 19:42	1
Chloroform	1.0	U	1.0	0.13	ug/L			10/12/19 19:42	1
Chloromethane	1.0	U	1.0	0.20	ug/L			10/12/19 19:42	1
1,1-Dichloroethane	1.0	U	1.0	0.17	ug/L			10/12/19 19:42	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			10/12/19 19:42	1
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			10/12/19 19:42	1
1,2-Dichloropropane	1.0	U	1.0	0.15	ug/L			10/12/19 19:42	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.61	ug/L			10/12/19 19:42	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.67	ug/L			10/12/19 19:42	1
Ethylbenzene	1.0	U	1.0	0.11	ug/L			10/12/19 19:42	1
2-Hexanone	10	U	10	0.54	ug/L			10/12/19 19:42	1
Methylene Chloride	5.0	U	5.0	2.6	ug/L			10/12/19 19:42	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.42	ug/L			10/12/19 19:42	1
Styrene	1.0	U	1.0	0.10	ug/L			10/12/19 19:42	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13	ug/L			10/12/19 19:42	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			10/12/19 19:42	1
Toluene	1.0	U	1.0	0.14	ug/L			10/12/19 19:42	1
Trichloroethene	1.0	U	1.0	0.10	ug/L			10/12/19 19:42	1
Vinyl chloride	1.0	U	1.0	0.20	ug/L			10/12/19 19:42	1
Xylenes, Total	2.0	U	2.0	0.15	ug/L			10/12/19 19:42	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			10/12/19 19:42	1
1,1,2-Trichloroethane	1.0	U	1.0	0.090	ug/L			10/12/19 19:42	1
Cyclohexane	1.0	U	1.0	0.24	ug/L			10/12/19 19:42	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.91	ug/L			10/12/19 19:42	1
1,2-Dibromoethane	1.0	U	1.0	0.12	ug/L			10/12/19 19:42	1
Dichlorodifluoromethane	1.0	U	1.0	0.35	ug/L			10/12/19 19:42	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.16	ug/L			10/12/19 19:42	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			10/12/19 19:42	1
Isopropylbenzene	1.0	U	1.0	0.090	ug/L			10/12/19 19:42	1
Methyl acetate	10	U	10	1.7	ug/L			10/12/19 19:42	1
Methyl tert-butyl ether	1.0	U	1.0	0.070	ug/L			10/12/19 19:42	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			10/12/19 19:42	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.26	ug/L			10/12/19 19:42	1
1,2-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			10/12/19 19:42	1
1,3-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			10/12/19 19:42	1
1,4-Dichlorobenzene	1.0	U	1.0	0.16	ug/L			10/12/19 19:42	1
Trichlorofluoromethane	1.0	U	1.0	0.45	ug/L			10/12/19 19:42	1
Dibromochloromethane	1.0	U	1.0	0.39	ug/L			10/12/19 19:42	1
Methylcyclohexane	1.0	U	1.0	0.33	ug/L			10/12/19 19:42	1

Eurofins TestAmerica, Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 17322A-009, PCC Validation

Job ID: 240-119767-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
1,2-Dichloroethane-d4 (Surr)	71		70 - 121		10/12/19 19:42	1
4-Bromofluorobenzene (Surr)	72		59 - 120		10/12/19 19:42	1
Toluene-d8 (Surr)	91		70 - 123		10/12/19 19:42	1
Dibromofluoromethane (Surr)	91		75 - 128		10/12/19 19:42	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 17322A-009, PCC Validation

Job ID: 240-119767-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: GW-17322-093019-JY-015

Date Collected: 09/30/19 15:00

Date Received: 10/01/19 09:45

Lab Sample ID: 240-119767-16

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	5.4	ug/L			10/12/19 20:06	1
Benzene	1.0	U	1.0	0.13	ug/L			10/12/19 20:06	1
Bromodichloromethane	1.0	U	1.0	0.17	ug/L			10/12/19 20:06	1
Bromoform	1.0	U	1.0	0.76	ug/L			10/12/19 20:06	1
Bromomethane	1.0	U	1.0	0.42	ug/L			10/12/19 20:06	1
2-Butanone (MEK)	10	U	10	1.2	ug/L			10/12/19 20:06	1
Carbon disulfide	5.0	U	5.0	0.28	ug/L			10/12/19 20:06	1
Carbon tetrachloride	1.0	U	1.0	0.26	ug/L			10/12/19 20:06	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			10/12/19 20:06	1
Chloroethane	1.0	U	1.0	0.83	ug/L			10/12/19 20:06	1
Chloroform	1.0	U	1.0	0.13	ug/L			10/12/19 20:06	1
Chloromethane	1.0	U	1.0	0.20	ug/L			10/12/19 20:06	1
1,1-Dichloroethane	1.0	U	1.0	0.17	ug/L			10/12/19 20:06	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			10/12/19 20:06	1
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			10/12/19 20:06	1
1,2-Dichloropropane	1.0	U	1.0	0.15	ug/L			10/12/19 20:06	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.61	ug/L			10/12/19 20:06	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.67	ug/L			10/12/19 20:06	1
Ethylbenzene	1.0	U	1.0	0.11	ug/L			10/12/19 20:06	1
2-Hexanone	10	U	10	0.54	ug/L			10/12/19 20:06	1
Methylene Chloride	5.0	U	5.0	2.6	ug/L			10/12/19 20:06	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.42	ug/L			10/12/19 20:06	1
Styrene	1.0	U	1.0	0.10	ug/L			10/12/19 20:06	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13	ug/L			10/12/19 20:06	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			10/12/19 20:06	1
Toluene	1.0	U	1.0	0.14	ug/L			10/12/19 20:06	1
Trichloroethene	1.0	U	1.0	0.10	ug/L			10/12/19 20:06	1
Vinyl chloride	1.0	U	1.0	0.20	ug/L			10/12/19 20:06	1
Xylenes, Total	2.0	U	2.0	0.15	ug/L			10/12/19 20:06	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			10/12/19 20:06	1
1,1,2-Trichloroethane	1.0	U	1.0	0.090	ug/L			10/12/19 20:06	1
Cyclohexane	1.0	U	1.0	0.24	ug/L			10/12/19 20:06	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.91	ug/L			10/12/19 20:06	1
1,2-Dibromoethane	1.0	U	1.0	0.12	ug/L			10/12/19 20:06	1
Dichlorodifluoromethane	1.0	U	1.0	0.35	ug/L			10/12/19 20:06	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.16	ug/L			10/12/19 20:06	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			10/12/19 20:06	1
Isopropylbenzene	1.0	U	1.0	0.090	ug/L			10/12/19 20:06	1
Methyl acetate	10	U	10	1.7	ug/L			10/12/19 20:06	1
Methyl tert-butyl ether	1.0	U	1.0	0.070	ug/L			10/12/19 20:06	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			10/12/19 20:06	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.26	ug/L			10/12/19 20:06	1
1,2-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			10/12/19 20:06	1
1,3-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			10/12/19 20:06	1
1,4-Dichlorobenzene	1.0	U	1.0	0.16	ug/L			10/12/19 20:06	1
Trichlorofluoromethane	1.0	U	1.0	0.45	ug/L			10/12/19 20:06	1
Dibromochloromethane	1.0	U	1.0	0.39	ug/L			10/12/19 20:06	1
Methylcyclohexane	1.0	U	1.0	0.33	ug/L			10/12/19 20:06	1

Eurofins TestAmerica, Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 17322A-009, PCC Validation

Job ID: 240-119767-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
1,2-Dichloroethane-d4 (Surr)	72		70 - 121		10/12/19 20:06	1
4-Bromofluorobenzene (Surr)	73		59 - 120		10/12/19 20:06	1
Toluene-d8 (Surr)	90		70 - 123		10/12/19 20:06	1
Dibromofluoromethane (Surr)	94		75 - 128		10/12/19 20:06	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 17322A-009, PCC Validation

Job ID: 240-119767-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: GW-17322-093019-JY-016

Date Collected: 09/30/19 15:20

Date Received: 10/01/19 09:45

Lab Sample ID: 240-119767-17

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	5.4	ug/L			10/12/19 20:30	1
Benzene	1.0	U	1.0	0.13	ug/L			10/12/19 20:30	1
Bromodichloromethane	1.0	U	1.0	0.17	ug/L			10/12/19 20:30	1
Bromoform	1.0	U	1.0	0.76	ug/L			10/12/19 20:30	1
Bromomethane	1.0	U	1.0	0.42	ug/L			10/12/19 20:30	1
2-Butanone (MEK)	10	U	10	1.2	ug/L			10/12/19 20:30	1
Carbon disulfide	5.0	U	5.0	0.28	ug/L			10/12/19 20:30	1
Carbon tetrachloride	1.0	U	1.0	0.26	ug/L			10/12/19 20:30	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			10/12/19 20:30	1
Chloroethane	1.0	U	1.0	0.83	ug/L			10/12/19 20:30	1
Chloroform	1.0	U	1.0	0.13	ug/L			10/12/19 20:30	1
Chloromethane	1.0	U	1.0	0.20	ug/L			10/12/19 20:30	1
1,1-Dichloroethane	1.0	U	1.0	0.17	ug/L			10/12/19 20:30	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			10/12/19 20:30	1
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			10/12/19 20:30	1
1,2-Dichloropropane	1.0	U	1.0	0.15	ug/L			10/12/19 20:30	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.61	ug/L			10/12/19 20:30	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.67	ug/L			10/12/19 20:30	1
Ethylbenzene	1.0	U	1.0	0.11	ug/L			10/12/19 20:30	1
2-Hexanone	10	U	10	0.54	ug/L			10/12/19 20:30	1
Methylene Chloride	5.0	U	5.0	2.6	ug/L			10/12/19 20:30	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.42	ug/L			10/12/19 20:30	1
Styrene	1.0	U	1.0	0.10	ug/L			10/12/19 20:30	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13	ug/L			10/12/19 20:30	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			10/12/19 20:30	1
Toluene	1.0	U	1.0	0.14	ug/L			10/12/19 20:30	1
Trichloroethene	1.0	U	1.0	0.10	ug/L			10/12/19 20:30	1
Vinyl chloride	1.0	U	1.0	0.20	ug/L			10/12/19 20:30	1
Xylenes, Total	2.0	U	2.0	0.15	ug/L			10/12/19 20:30	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			10/12/19 20:30	1
1,1,2-Trichloroethane	1.0	U	1.0	0.090	ug/L			10/12/19 20:30	1
Cyclohexane	1.0	U	1.0	0.24	ug/L			10/12/19 20:30	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.91	ug/L			10/12/19 20:30	1
1,2-Dibromoethane	1.0	U	1.0	0.12	ug/L			10/12/19 20:30	1
Dichlorodifluoromethane	1.0	U	1.0	0.35	ug/L			10/12/19 20:30	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.16	ug/L			10/12/19 20:30	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			10/12/19 20:30	1
Isopropylbenzene	1.0	U	1.0	0.090	ug/L			10/12/19 20:30	1
Methyl acetate	10	U	10	1.7	ug/L			10/12/19 20:30	1
Methyl tert-butyl ether	1.0	U	1.0	0.070	ug/L			10/12/19 20:30	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			10/12/19 20:30	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.26	ug/L			10/12/19 20:30	1
1,2-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			10/12/19 20:30	1
1,3-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			10/12/19 20:30	1
1,4-Dichlorobenzene	1.0	U	1.0	0.16	ug/L			10/12/19 20:30	1
Trichlorofluoromethane	1.0	U	1.0	0.45	ug/L			10/12/19 20:30	1
Dibromochloromethane	1.0	U	1.0	0.39	ug/L			10/12/19 20:30	1
Methylcyclohexane	1.0	U	1.0	0.33	ug/L			10/12/19 20:30	1

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Client Sample Results

Client: GHD Services Inc.
Project/Site: 17322A-009, PCC Validation

Job ID: 240-119767-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
1,2-Dichloroethane-d4 (Surr)	71		70 - 121		10/12/19 20:30	1
4-Bromofluorobenzene (Surr)	69		59 - 120		10/12/19 20:30	1
Toluene-d8 (Surr)	86		70 - 123		10/12/19 20:30	1
Dibromofluoromethane (Surr)	93		75 - 128		10/12/19 20:30	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 17322A-009, PCC Validation

Job ID: 240-119767-1

Method: 8260B - Volatile Organic Compounds (GC/MS) - RA

Client Sample ID: GW-17322-092719-JY-001

Date Collected: 09/27/19 09:30

Date Received: 10/01/19 09:45

Lab Sample ID: 240-119767-2

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U H	10	5.4	ug/L			10/12/19 20:34	1
Benzene	1.0	U H	1.0	0.13	ug/L			10/12/19 20:34	1
Bromodichloromethane	1.0	U H	1.0	0.17	ug/L			10/12/19 20:34	1
Bromoform	1.0	U H	1.0	0.76	ug/L			10/12/19 20:34	1
Bromomethane	1.0	U H	1.0	0.42	ug/L			10/12/19 20:34	1
2-Butanone (MEK)	10	U H	10	1.2	ug/L			10/12/19 20:34	1
Carbon disulfide	5.0	U H	5.0	0.28	ug/L			10/12/19 20:34	1
Carbon tetrachloride	1.0	U H	1.0	0.26	ug/L			10/12/19 20:34	1
Chlorobenzene	1.0	U H	1.0	0.14	ug/L			10/12/19 20:34	1
Chloroethane	1.0	U H	1.0	0.83	ug/L			10/12/19 20:34	1
Chloroform	1.0	U H	1.0	0.13	ug/L			10/12/19 20:34	1
Chloromethane	1.0	U H	1.0	0.20	ug/L			10/12/19 20:34	1
1,1-Dichloroethane	1.0	U H	1.0	0.17	ug/L			10/12/19 20:34	1
1,2-Dichloroethane	1.0	U H	1.0	0.21	ug/L			10/12/19 20:34	1
1,1-Dichloroethene	1.0	U H	1.0	0.19	ug/L			10/12/19 20:34	1
1,2-Dichloropropane	1.0	U H	1.0	0.15	ug/L			10/12/19 20:34	1
cis-1,3-Dichloropropene	1.0	U H	1.0	0.61	ug/L			10/12/19 20:34	1
trans-1,3-Dichloropropene	1.0	U H	1.0	0.67	ug/L			10/12/19 20:34	1
Ethylbenzene	1.0	U H	1.0	0.11	ug/L			10/12/19 20:34	1
2-Hexanone	10	U H	10	0.54	ug/L			10/12/19 20:34	1
Methylene Chloride	5.0	U H	5.0	2.6	ug/L			10/12/19 20:34	1
4-Methyl-2-pentanone (MIBK)	10	U H	10	0.42	ug/L			10/12/19 20:34	1
Styrene	1.0	U H	1.0	0.10	ug/L			10/12/19 20:34	1
1,1,2,2-Tetrachloroethane	1.0	U H	1.0	0.13	ug/L			10/12/19 20:34	1
Tetrachloroethene	1.0	U H	1.0	0.15	ug/L			10/12/19 20:34	1
Toluene	1.0	U H	1.0	0.14	ug/L			10/12/19 20:34	1
Trichloroethene	1.0	U H	1.0	0.10	ug/L			10/12/19 20:34	1
Vinyl chloride	1.0	U H	1.0	0.20	ug/L			10/12/19 20:34	1
Xylenes, Total	2.0	U H	2.0	0.15	ug/L			10/12/19 20:34	1
1,1,1-Trichloroethane	1.0	U H	1.0	0.24	ug/L			10/12/19 20:34	1
1,1,2-Trichloroethane	1.0	U H	1.0	0.090	ug/L			10/12/19 20:34	1
Cyclohexane	1.0	U H	1.0	0.24	ug/L			10/12/19 20:34	1
1,2-Dibromo-3-Chloropropane	1.0	U H	1.0	0.91	ug/L			10/12/19 20:34	1
1,2-Dibromoethane	1.0	U H	1.0	0.12	ug/L			10/12/19 20:34	1
Dichlorodifluoromethane	1.0	U H	1.0	0.35	ug/L			10/12/19 20:34	1
cis-1,2-Dichloroethene	1.0	U H	1.0	0.16	ug/L			10/12/19 20:34	1
trans-1,2-Dichloroethene	1.0	U H	1.0	0.19	ug/L			10/12/19 20:34	1
Isopropylbenzene	1.0	U H	1.0	0.090	ug/L			10/12/19 20:34	1
Methyl acetate	10	U H	10	1.7	ug/L			10/12/19 20:34	1
Methyl tert-butyl ether	1.0	U H	1.0	0.070	ug/L			10/12/19 20:34	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U H	1.0	0.41	ug/L			10/12/19 20:34	1
1,2,4-Trichlorobenzene	1.0	U H	1.0	0.26	ug/L			10/12/19 20:34	1
1,2-Dichlorobenzene	1.0	U H	1.0	0.15	ug/L			10/12/19 20:34	1
1,3-Dichlorobenzene	1.0	U H	1.0	0.15	ug/L			10/12/19 20:34	1
1,4-Dichlorobenzene	1.0	U H	1.0	0.16	ug/L			10/12/19 20:34	1
Trichlorofluoromethane	1.0	U H	1.0	0.45	ug/L			10/12/19 20:34	1
Dibromochloromethane	1.0	U H	1.0	0.39	ug/L			10/12/19 20:34	1
Methylcyclohexane	1.0	U H	1.0	0.33	ug/L			10/12/19 20:34	1

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Client Sample Results

Client: GHD Services Inc.
Project/Site: 17322A-009, PCC Validation

Job ID: 240-119767-1

Method: 8260B - Volatile Organic Compounds (GC/MS) - RA (Continued)

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
1,2-Dichloroethane-d4 (Surr)	93		70 - 121		10/12/19 20:34	1
4-Bromofluorobenzene (Surr)	79		59 - 120		10/12/19 20:34	1
Toluene-d8 (Surr)	92		70 - 123		10/12/19 20:34	1
Dibromofluoromethane (Surr)	112		75 - 128		10/12/19 20:34	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 17322A-009, PCC Validation

Job ID: 240-119767-1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Client Sample ID: GW-17322-092719-JY-005

Date Collected: 09/27/19 14:40

Date Received: 10/01/19 09:45

Lab Sample ID: 240-119767-6

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	160		50	34	ug/L		10/02/19 14:00	10/03/19 18:18	1
Lead	0.52	J	1.0	0.45	ug/L		10/02/19 14:00	10/03/19 18:18	1
Vanadium	4.0	U	4.0	0.82	ug/L		10/02/19 14:00	10/03/19 18:18	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 17322A-009, PCC Validation

Job ID: 240-119767-1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Client Sample ID: GW-17322-093019-JY-006

Date Collected: 09/30/19 09:05

Date Received: 10/01/19 09:45

Lab Sample ID: 240-119767-7

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	50	U	50	34	ug/L		10/02/19 14:00	10/03/19 18:22	1
Lead	1.0	U	1.0	0.45	ug/L		10/02/19 14:00	10/03/19 18:22	1
Vanadium	4.0	U	4.0	0.82	ug/L		10/02/19 14:00	10/03/19 18:22	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 17322A-009, PCC Validation

Job ID: 240-119767-1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Client Sample ID: GW-17322-093019-JY-007

Date Collected: 09/30/19 09:10

Date Received: 10/01/19 09:45

Lab Sample ID: 240-119767-8

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	50	U	50	34	ug/L		10/02/19 14:00	10/03/19 18:27	1
Lead	1.0	U	1.0	0.45	ug/L		10/02/19 14:00	10/03/19 18:27	1
Vanadium	4.0	U	4.0	0.82	ug/L		10/02/19 14:00	10/03/19 18:27	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 17322A-009, PCC Validation

Job ID: 240-119767-1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Client Sample ID: GW-17322-093019-JY-008

Date Collected: 09/30/19 10:25

Date Received: 10/01/19 09:45

Lab Sample ID: 240-119767-9

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	110		50	34	ug/L		10/02/19 14:00	10/03/19 18:32	1
Lead	1.0	U	1.0	0.45	ug/L		10/02/19 14:00	10/03/19 18:32	1
Vanadium	4.0	U	4.0	0.82	ug/L		10/02/19 14:00	10/03/19 18:32	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 17322A-009, PCC Validation

Job ID: 240-119767-1

Method: 6020 - Metals (ICP/MS) - Dissolved

Client Sample ID: GW-17322-092719-JY-005

Date Collected: 09/27/19 14:40

Date Received: 10/01/19 09:45

Lab Sample ID: 240-119767-6

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	50	U	50	34	ug/L		10/02/19 14:00	10/03/19 18:20	1
Lead	1.0	U	1.0	0.45	ug/L		10/02/19 14:00	10/03/19 18:20	1
Vanadium	4.0	U	4.0	0.82	ug/L		10/02/19 14:00	10/03/19 18:20	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 17322A-009, PCC Validation

Job ID: 240-119767-1

Method: 6020 - Metals (ICP/MS) - Dissolved

Client Sample ID: GW-17322-093019-JY-006

Date Collected: 09/30/19 09:05

Date Received: 10/01/19 09:45

Lab Sample ID: 240-119767-7

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	50	U	50	34	ug/L		10/02/19 14:00	10/03/19 18:25	1
Lead	1.0	U	1.0	0.45	ug/L		10/02/19 14:00	10/03/19 18:25	1
Vanadium	4.0	U	4.0	0.82	ug/L		10/02/19 14:00	10/03/19 18:25	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 17322A-009, PCC Validation

Job ID: 240-119767-1

Method: 6020 - Metals (ICP/MS) - Dissolved

Client Sample ID: GW-17322-093019-JY-007

Date Collected: 09/30/19 09:10

Date Received: 10/01/19 09:45

Lab Sample ID: 240-119767-8

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	50	U	50	34	ug/L		10/02/19 14:00	10/03/19 18:30	1
Lead	1.0	U	1.0	0.45	ug/L		10/02/19 14:00	10/03/19 18:30	1
Vanadium	4.0	U	4.0	0.82	ug/L		10/02/19 14:00	10/03/19 18:30	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 17322A-009, PCC Validation

Job ID: 240-119767-1

Method: 6020 - Metals (ICP/MS) - Dissolved

Client Sample ID: GW-17322-093019-JY-008

Date Collected: 09/30/19 10:25

Date Received: 10/01/19 09:45

Lab Sample ID: 240-119767-9

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	50	U	50	34	ug/L		10/02/19 14:00	10/03/19 18:34	1
Lead	1.0	U	1.0	0.45	ug/L		10/02/19 14:00	10/03/19 18:34	1
Vanadium	4.0	U	4.0	0.82	ug/L		10/02/19 14:00	10/03/19 18:34	1

QC Association Summary

Client: GHD Services Inc.
Project/Site: 17322A-009, PCC Validation

Job ID: 240-119767-1

GC/MS VOA

Analysis Batch: 405078

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-119767-1	TB-17322-092719	Total/NA	Water	8260B	
MB 240-405078/7	Method Blank	Total/NA	Water	8260B	
LCS 240-405078/4	Lab Control Sample	Total/NA	Water	8260B	

Analysis Batch: 405284

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-119767-2	GW-17322-092719-JY-001	Total/NA	Water	8260B	
240-119767-3	GW-17322-092719-JY-002	Total/NA	Water	8260B	
240-119767-4	GW-17322-092719-JY-003	Total/NA	Water	8260B	
MB 240-405284/7	Method Blank	Total/NA	Water	8260B	
LCS 240-405284/4	Lab Control Sample	Total/NA	Water	8260B	

Analysis Batch: 405286

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-119767-5	GW-17322-092719-JY-004	Total/NA	Water	8260B	
240-119767-6	GW-17322-092719-JY-005	Total/NA	Water	8260B	
MB 240-405286/7	Method Blank	Total/NA	Water	8260B	
LCS 240-405286/4	Lab Control Sample	Total/NA	Water	8260B	

Analysis Batch: 405420

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-119767-7	GW-17322-093019-JY-006	Total/NA	Water	8260B	
240-119767-8	GW-17322-093019-JY-007	Total/NA	Water	8260B	
240-119767-9	GW-17322-093019-JY-008	Total/NA	Water	8260B	
240-119767-10	GW-17322-093019-JY-009	Total/NA	Water	8260B	
240-119767-11	GW-17322-093019-JY-010	Total/NA	Water	8260B	
240-119767-12	GW-17322-093019-JY-011	Total/NA	Water	8260B	
240-119767-14	GW-17322-093019-JY-013	Total/NA	Water	8260B	
240-119767-15	GW-17322-093019-JY-014	Total/NA	Water	8260B	
240-119767-16	GW-17322-093019-JY-015	Total/NA	Water	8260B	
240-119767-17	GW-17322-093019-JY-016	Total/NA	Water	8260B	
MB 240-405420/6	Method Blank	Total/NA	Water	8260B	
LCS 240-405420/4	Lab Control Sample	Total/NA	Water	8260B	

Analysis Batch: 405434

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-119767-2 - RA	GW-17322-092719-JY-001	Total/NA	Water	8260B	
MB 240-405434/7	Method Blank	Total/NA	Water	8260B	
LCS 240-405434/4	Lab Control Sample	Total/NA	Water	8260B	

Analysis Batch: 405438

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-119767-13	GW-17322-093019-JY-012	Total/NA	Water	8260B	
MB 240-405438/6	Method Blank	Total/NA	Water	8260B	
LCS 240-405438/4	Lab Control Sample	Total/NA	Water	8260B	
240-119767-13 MS	GW-17322-093019-JY-012	Total/NA	Water	8260B	
240-119767-13 MSD	GW-17322-093019-JY-012	Total/NA	Water	8260B	

QC Association Summary

Client: GHD Services Inc.
Project/Site: 17322A-009, PCC Validation

Job ID: 240-119767-1

Metals

Prep Batch: 403665

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-119767-6	GW-17322-092719-JY-005	Dissolved	Water	3005A	
240-119767-6	GW-17322-092719-JY-005	Total Recoverable	Water	3005A	
240-119767-7	GW-17322-093019-JY-006	Dissolved	Water	3005A	
240-119767-7	GW-17322-093019-JY-006	Total Recoverable	Water	3005A	
240-119767-8	GW-17322-093019-JY-007	Dissolved	Water	3005A	
240-119767-8	GW-17322-093019-JY-007	Total Recoverable	Water	3005A	
240-119767-9	GW-17322-093019-JY-008	Dissolved	Water	3005A	
240-119767-9	GW-17322-093019-JY-008	Total Recoverable	Water	3005A	
MB 240-403665/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-403665/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 404069

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-119767-6	GW-17322-092719-JY-005	Dissolved	Water	6020	403665
240-119767-6	GW-17322-092719-JY-005	Total Recoverable	Water	6020	403665
240-119767-7	GW-17322-093019-JY-006	Dissolved	Water	6020	403665
240-119767-7	GW-17322-093019-JY-006	Total Recoverable	Water	6020	403665
240-119767-8	GW-17322-093019-JY-007	Dissolved	Water	6020	403665
240-119767-8	GW-17322-093019-JY-007	Total Recoverable	Water	6020	403665
240-119767-9	GW-17322-093019-JY-008	Dissolved	Water	6020	403665
240-119767-9	GW-17322-093019-JY-008	Total Recoverable	Water	6020	403665
MB 240-403665/1-A	Method Blank	Total Recoverable	Water	6020	403665
LCS 240-403665/2-A	Lab Control Sample	Total Recoverable	Water	6020	403665

QC Sample Results

Client: GHD Services Inc.
Project/Site: 17322A-009, PCC Validation

Job ID: 240-119767-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 240-405078/7

Matrix: Water

Analysis Batch: 405078

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	5.4	ug/L			10/10/19 14:14	1
Benzene	1.0	U	1.0	0.13	ug/L			10/10/19 14:14	1
Bromodichloromethane	1.0	U	1.0	0.17	ug/L			10/10/19 14:14	1
Bromoform	1.0	U	1.0	0.76	ug/L			10/10/19 14:14	1
Bromomethane	1.0	U	1.0	0.42	ug/L			10/10/19 14:14	1
2-Butanone (MEK)	10	U	10	1.2	ug/L			10/10/19 14:14	1
Carbon disulfide	5.0	U	5.0	0.28	ug/L			10/10/19 14:14	1
Carbon tetrachloride	1.0	U	1.0	0.26	ug/L			10/10/19 14:14	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			10/10/19 14:14	1
Chloroethane	1.0	U	1.0	0.83	ug/L			10/10/19 14:14	1
Chloroform	1.0	U	1.0	0.13	ug/L			10/10/19 14:14	1
Chloromethane	1.0	U	1.0	0.20	ug/L			10/10/19 14:14	1
1,1-Dichloroethane	1.0	U	1.0	0.17	ug/L			10/10/19 14:14	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			10/10/19 14:14	1
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			10/10/19 14:14	1
1,2-Dichloropropane	1.0	U	1.0	0.15	ug/L			10/10/19 14:14	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.61	ug/L			10/10/19 14:14	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.67	ug/L			10/10/19 14:14	1
Ethylbenzene	1.0	U	1.0	0.11	ug/L			10/10/19 14:14	1
2-Hexanone	10	U	10	0.54	ug/L			10/10/19 14:14	1
Methylene Chloride	5.0	U	5.0	2.6	ug/L			10/10/19 14:14	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.42	ug/L			10/10/19 14:14	1
Styrene	1.0	U	1.0	0.10	ug/L			10/10/19 14:14	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13	ug/L			10/10/19 14:14	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			10/10/19 14:14	1
Toluene	1.0	U	1.0	0.14	ug/L			10/10/19 14:14	1
Trichloroethene	1.0	U	1.0	0.10	ug/L			10/10/19 14:14	1
Vinyl chloride	1.0	U	1.0	0.20	ug/L			10/10/19 14:14	1
Xylenes, Total	2.0	U	2.0	0.15	ug/L			10/10/19 14:14	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			10/10/19 14:14	1
1,1,2-Trichloroethane	1.0	U	1.0	0.090	ug/L			10/10/19 14:14	1
Cyclohexane	1.0	U	1.0	0.24	ug/L			10/10/19 14:14	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.91	ug/L			10/10/19 14:14	1
1,2-Dibromoethane	1.0	U	1.0	0.12	ug/L			10/10/19 14:14	1
Dichlorodifluoromethane	1.0	U	1.0	0.35	ug/L			10/10/19 14:14	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.16	ug/L			10/10/19 14:14	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			10/10/19 14:14	1
Isopropylbenzene	1.0	U	1.0	0.090	ug/L			10/10/19 14:14	1
Methyl acetate	10	U	10	1.7	ug/L			10/10/19 14:14	1
Methyl tert-butyl ether	1.0	U	1.0	0.070	ug/L			10/10/19 14:14	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			10/10/19 14:14	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.26	ug/L			10/10/19 14:14	1
1,2-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			10/10/19 14:14	1
1,3-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			10/10/19 14:14	1
1,4-Dichlorobenzene	1.0	U	1.0	0.16	ug/L			10/10/19 14:14	1
Trichlorofluoromethane	1.0	U	1.0	0.45	ug/L			10/10/19 14:14	1
Dibromochloromethane	1.0	U	1.0	0.39	ug/L			10/10/19 14:14	1
Methylcyclohexane	1.0	U	1.0	0.33	ug/L			10/10/19 14:14	1

Eurofins TestAmerica, Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 17322A-009, PCC Validation

Job ID: 240-119767-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 240-405078/7

Matrix: Water

Analysis Batch: 405078

Client Sample ID: Method Blank

Prep Type: Total/NA

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		70 - 121		10/10/19 14:14	1
4-Bromofluorobenzene (Surr)	74		59 - 120		10/10/19 14:14	1
Toluene-d8 (Surr)	94		70 - 123		10/10/19 14:14	1
Dibromofluoromethane (Surr)	101		75 - 128		10/10/19 14:14	1

Lab Sample ID: LCS 240-405078/4

Matrix: Water

Analysis Batch: 405078

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	20.0	20.7		ug/L		104	21 - 162
Benzene	10.0	9.97		ug/L		100	80 - 123
Bromodichloromethane	10.0	8.70		ug/L		87	77 - 125
Bromoform	10.0	6.19		ug/L		62	49 - 141
Bromomethane	10.0	8.34		ug/L		83	41 - 175
2-Butanone (MEK)	20.0	16.7		ug/L		84	39 - 163
Carbon disulfide	10.0	9.50		ug/L		95	60 - 138
Carbon tetrachloride	10.0	11.1		ug/L		111	63 - 140
Chlorobenzene	10.0	9.92		ug/L		99	80 - 121
Chloroethane	10.0	9.37		ug/L		94	33 - 173
Chloroform	10.0	9.43		ug/L		94	79 - 127
Chloromethane	10.0	11.0		ug/L		110	54 - 143
1,1-Dichloroethane	10.0	13.3		ug/L		133	75 - 133
1,2-Dichloroethane	10.0	11.8		ug/L		118	71 - 135
1,1-Dichloroethene	10.0	10.4		ug/L		104	65 - 139
1,2-Dichloropropane	10.0	12.9		ug/L		129	78 - 133
cis-1,3-Dichloropropene	10.0	8.23		ug/L		82	64 - 132
trans-1,3-Dichloropropene	10.0	6.57		ug/L		66	55 - 128
Ethylbenzene	10.0	10.2		ug/L		102	80 - 120
2-Hexanone	20.0	15.9		ug/L		79	43 - 148
Methylene Chloride	10.0	9.13		ug/L		91	70 - 134
4-Methyl-2-pentanone (MIBK)	20.0	17.2		ug/L		86	49 - 143
Styrene	10.0	9.13		ug/L		91	79 - 120
1,1,2,2-Tetrachloroethane	10.0	5.52	*	ug/L		55	65 - 139
Tetrachloroethene	10.0	12.1		ug/L		121	74 - 130
Toluene	10.0	10.5		ug/L		105	78 - 129
Trichloroethene	10.0	11.6		ug/L		116	76 - 125
Vinyl chloride	10.0	10.9		ug/L		109	58 - 143
Xylenes, Total	20.0	20.4		ug/L		102	80 - 120
1,1,1-Trichloroethane	10.0	10.4		ug/L		104	69 - 134
1,1,2-Trichloroethane	10.0	7.69	*	ug/L		77	78 - 133
Cyclohexane	10.0	15.3	*	ug/L		153	58 - 145
1,2-Dibromo-3-Chloropropane	10.0	6.65		ug/L		66	46 - 132
1,2-Dibromoethane	10.0	7.12	*	ug/L		71	77 - 123
Dichlorodifluoromethane	10.0	5.41		ug/L		54	29 - 148
cis-1,2-Dichloroethene	10.0	10.7		ug/L		107	76 - 128
trans-1,2-Dichloroethene	10.0	10.3		ug/L		103	78 - 133
Isopropylbenzene	10.0	9.99		ug/L		100	74 - 120

Eurofins TestAmerica, Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 17322A-009, PCC Validation

Job ID: 240-119767-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 240-405078/4

Matrix: Water

Analysis Batch: 405078

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methyl acetate	20.0	18.7		ug/L		93	52 - 145
Methyl tert-butyl ether	10.0	7.24		ug/L		72	51 - 133
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	12.2		ug/L		122	50 - 156
1,2,4-Trichlorobenzene	10.0	9.68		ug/L		97	42 - 133
1,2-Dichlorobenzene	10.0	9.74		ug/L		97	78 - 120
1,3-Dichlorobenzene	10.0	9.98		ug/L		100	78 - 120
1,4-Dichlorobenzene	10.0	10.7		ug/L		107	78 - 120
Trichlorofluoromethane	10.0	8.85		ug/L		88	51 - 164
Dibromochloromethane	10.0	8.15		ug/L		81	70 - 132
Methylcyclohexane	10.0	9.91		ug/L		99	60 - 125

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	94		70 - 121
4-Bromofluorobenzene (Surr)	79		59 - 120
Toluene-d8 (Surr)	98		70 - 123
Dibromofluoromethane (Surr)	102		75 - 128

Lab Sample ID: MB 240-405284/7

Matrix: Water

Analysis Batch: 405284

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	5.4	ug/L			10/11/19 13:29	1
Benzene	1.0	U	1.0	0.13	ug/L			10/11/19 13:29	1
Bromodichloromethane	1.0	U	1.0	0.17	ug/L			10/11/19 13:29	1
Bromoform	1.0	U	1.0	0.76	ug/L			10/11/19 13:29	1
Bromomethane	1.0	U	1.0	0.42	ug/L			10/11/19 13:29	1
2-Butanone (MEK)	10	U	10	1.2	ug/L			10/11/19 13:29	1
Carbon disulfide	5.0	U	5.0	0.28	ug/L			10/11/19 13:29	1
Carbon tetrachloride	1.0	U	1.0	0.26	ug/L			10/11/19 13:29	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			10/11/19 13:29	1
Chloroethane	1.0	U	1.0	0.83	ug/L			10/11/19 13:29	1
Chloroform	1.0	U	1.0	0.13	ug/L			10/11/19 13:29	1
Chloromethane	1.0	U	1.0	0.20	ug/L			10/11/19 13:29	1
1,1-Dichloroethane	1.0	U	1.0	0.17	ug/L			10/11/19 13:29	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			10/11/19 13:29	1
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			10/11/19 13:29	1
1,2-Dichloropropane	1.0	U	1.0	0.15	ug/L			10/11/19 13:29	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.61	ug/L			10/11/19 13:29	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.67	ug/L			10/11/19 13:29	1
Ethylbenzene	1.0	U	1.0	0.11	ug/L			10/11/19 13:29	1
2-Hexanone	10	U	10	0.54	ug/L			10/11/19 13:29	1
Methylene Chloride	5.0	U	5.0	2.6	ug/L			10/11/19 13:29	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.42	ug/L			10/11/19 13:29	1
Styrene	1.0	U	1.0	0.10	ug/L			10/11/19 13:29	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13	ug/L			10/11/19 13:29	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			10/11/19 13:29	1
Toluene	1.0	U	1.0	0.14	ug/L			10/11/19 13:29	1

Eurofins TestAmerica, Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 17322A-009, PCC Validation

Job ID: 240-119767-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 240-405284/7

Matrix: Water

Analysis Batch: 405284

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	1.0	U	1.0	0.10	ug/L			10/11/19 13:29	1
Vinyl chloride	1.0	U	1.0	0.20	ug/L			10/11/19 13:29	1
Xylenes, Total	2.0	U	2.0	0.15	ug/L			10/11/19 13:29	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			10/11/19 13:29	1
1,1,2-Trichloroethane	1.0	U	1.0	0.090	ug/L			10/11/19 13:29	1
Cyclohexane	1.0	U	1.0	0.24	ug/L			10/11/19 13:29	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.91	ug/L			10/11/19 13:29	1
1,2-Dibromoethane	1.0	U	1.0	0.12	ug/L			10/11/19 13:29	1
Dichlorodifluoromethane	1.0	U	1.0	0.35	ug/L			10/11/19 13:29	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.16	ug/L			10/11/19 13:29	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			10/11/19 13:29	1
Isopropylbenzene	1.0	U	1.0	0.090	ug/L			10/11/19 13:29	1
Methyl acetate	10	U	10	1.7	ug/L			10/11/19 13:29	1
Methyl tert-butyl ether	1.0	U	1.0	0.070	ug/L			10/11/19 13:29	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			10/11/19 13:29	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.26	ug/L			10/11/19 13:29	1
1,2-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			10/11/19 13:29	1
1,3-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			10/11/19 13:29	1
1,4-Dichlorobenzene	1.0	U	1.0	0.16	ug/L			10/11/19 13:29	1
Trichlorofluoromethane	1.0	U	1.0	0.45	ug/L			10/11/19 13:29	1
Dibromochloromethane	1.0	U	1.0	0.39	ug/L			10/11/19 13:29	1
Methylcyclohexane	1.0	U	1.0	0.33	ug/L			10/11/19 13:29	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		70 - 121		10/11/19 13:29	1
4-Bromofluorobenzene (Surr)	77		59 - 120		10/11/19 13:29	1
Toluene-d8 (Surr)	91		70 - 123		10/11/19 13:29	1
Dibromofluoromethane (Surr)	109		75 - 128		10/11/19 13:29	1

Lab Sample ID: LCS 240-405284/4

Matrix: Water

Analysis Batch: 405284

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	20.0	15.6		ug/L		78	21 - 162
Benzene	10.0	9.90		ug/L		99	80 - 123
Bromodichloromethane	10.0	9.91		ug/L		99	77 - 125
Bromoform	10.0	11.3		ug/L		113	49 - 141
Bromomethane	10.0	6.50		ug/L		65	41 - 175
2-Butanone (MEK)	20.0	19.8		ug/L		99	39 - 163
Carbon disulfide	10.0	10.0		ug/L		100	60 - 138
Carbon tetrachloride	10.0	10.8		ug/L		108	63 - 140
Chlorobenzene	10.0	9.79		ug/L		98	80 - 121
Chloroethane	10.0	5.34		ug/L		53	33 - 173
Chloroform	10.0	9.65		ug/L		97	79 - 127
Chloromethane	10.0	6.06		ug/L		61	54 - 143
1,1-Dichloroethane	10.0	9.25		ug/L		93	75 - 133
1,2-Dichloroethane	10.0	8.90		ug/L		89	71 - 135

Eurofins TestAmerica, Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 17322A-009, PCC Validation

Job ID: 240-119767-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 240-405284/4

Matrix: Water

Analysis Batch: 405284

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	10.0	10.5		ug/L		105	65 - 139
1,2-Dichloropropane	10.0	9.85		ug/L		99	78 - 133
cis-1,3-Dichloropropene	10.0	10.3		ug/L		103	64 - 132
trans-1,3-Dichloropropene	10.0	8.69		ug/L		87	55 - 128
Ethylbenzene	10.0	10.5		ug/L		105	80 - 120
2-Hexanone	20.0	17.6		ug/L		88	43 - 148
Methylene Chloride	10.0	10.5		ug/L		105	70 - 134
4-Methyl-2-pentanone (MIBK)	20.0	19.7		ug/L		98	49 - 143
Styrene	10.0	10.3		ug/L		103	79 - 120
1,1,2,2-Tetrachloroethane	10.0	9.10		ug/L		91	65 - 139
Tetrachloroethene	10.0	10.5		ug/L		105	74 - 130
Toluene	10.0	9.86		ug/L		99	78 - 129
Trichloroethene	10.0	11.0		ug/L		110	76 - 125
Vinyl chloride	10.0	6.30		ug/L		63	58 - 143
Xylenes, Total	20.0	21.3		ug/L		107	80 - 120
1,1,1-Trichloroethane	10.0	10.1		ug/L		101	69 - 134
1,1,2-Trichloroethane	10.0	10.0		ug/L		100	78 - 133
Cyclohexane	10.0	9.70		ug/L		97	58 - 145
1,2-Dibromo-3-Chloropropane	10.0	10.3		ug/L		103	46 - 132
1,2-Dibromoethane	10.0	10.1		ug/L		101	77 - 123
Dichlorodifluoromethane	10.0	5.63		ug/L		56	29 - 148
cis-1,2-Dichloroethene	10.0	10.5		ug/L		105	76 - 128
trans-1,2-Dichloroethene	10.0	10.6		ug/L		106	78 - 133
Isopropylbenzene	10.0	10.2		ug/L		102	74 - 120
Methyl acetate	20.0	18.6		ug/L		93	52 - 145
Methyl tert-butyl ether	10.0	9.62		ug/L		96	51 - 133
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	11.5		ug/L		115	50 - 156
1,2,4-Trichlorobenzene	10.0	8.74		ug/L		87	42 - 133
1,2-Dichlorobenzene	10.0	9.46		ug/L		95	78 - 120
1,3-Dichlorobenzene	10.0	9.47		ug/L		95	78 - 120
1,4-Dichlorobenzene	10.0	8.98		ug/L		90	78 - 120
Trichlorofluoromethane	10.0	8.04		ug/L		80	51 - 164
Dibromochloromethane	10.0	10.8		ug/L		108	70 - 132
Methylcyclohexane	10.0	10.2		ug/L		102	60 - 125

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	78		70 - 121
4-Bromofluorobenzene (Surr)	94		59 - 120
Toluene-d8 (Surr)	95		70 - 123
Dibromofluoromethane (Surr)	99		75 - 128

Lab Sample ID: MB 240-405286/7

Matrix: Water

Analysis Batch: 405286

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	5.4	ug/L			10/11/19 14:28	1
Benzene	1.0	U	1.0	0.13	ug/L			10/11/19 14:28	1

Eurofins TestAmerica, Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 17322A-009, PCC Validation

Job ID: 240-119767-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 240-405286/7

Matrix: Water

Analysis Batch: 405286

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromodichloromethane	1.0	U	1.0	0.17	ug/L			10/11/19 14:28	1
Bromoform	1.0	U	1.0	0.76	ug/L			10/11/19 14:28	1
Bromomethane	1.0	U	1.0	0.42	ug/L			10/11/19 14:28	1
2-Butanone (MEK)	10	U	10	1.2	ug/L			10/11/19 14:28	1
Carbon disulfide	5.0	U	5.0	0.28	ug/L			10/11/19 14:28	1
Carbon tetrachloride	1.0	U	1.0	0.26	ug/L			10/11/19 14:28	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			10/11/19 14:28	1
Chloroethane	1.0	U	1.0	0.83	ug/L			10/11/19 14:28	1
Chloroform	1.0	U	1.0	0.13	ug/L			10/11/19 14:28	1
Chloromethane	1.0	U	1.0	0.20	ug/L			10/11/19 14:28	1
1,1-Dichloroethane	1.0	U	1.0	0.17	ug/L			10/11/19 14:28	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			10/11/19 14:28	1
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			10/11/19 14:28	1
1,2-Dichloropropane	1.0	U	1.0	0.15	ug/L			10/11/19 14:28	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.61	ug/L			10/11/19 14:28	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.67	ug/L			10/11/19 14:28	1
Ethylbenzene	1.0	U	1.0	0.11	ug/L			10/11/19 14:28	1
2-Hexanone	10	U	10	0.54	ug/L			10/11/19 14:28	1
Methylene Chloride	5.0	U	5.0	2.6	ug/L			10/11/19 14:28	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.42	ug/L			10/11/19 14:28	1
Styrene	1.0	U	1.0	0.10	ug/L			10/11/19 14:28	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13	ug/L			10/11/19 14:28	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			10/11/19 14:28	1
Toluene	1.0	U	1.0	0.14	ug/L			10/11/19 14:28	1
Trichloroethene	1.0	U	1.0	0.10	ug/L			10/11/19 14:28	1
Vinyl chloride	1.0	U	1.0	0.20	ug/L			10/11/19 14:28	1
Xylenes, Total	2.0	U	2.0	0.15	ug/L			10/11/19 14:28	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			10/11/19 14:28	1
1,1,2-Trichloroethane	1.0	U	1.0	0.090	ug/L			10/11/19 14:28	1
Cyclohexane	1.0	U	1.0	0.24	ug/L			10/11/19 14:28	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.91	ug/L			10/11/19 14:28	1
1,2-Dibromoethane	1.0	U	1.0	0.12	ug/L			10/11/19 14:28	1
Dichlorodifluoromethane	1.0	U	1.0	0.35	ug/L			10/11/19 14:28	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.16	ug/L			10/11/19 14:28	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			10/11/19 14:28	1
Isopropylbenzene	1.0	U	1.0	0.090	ug/L			10/11/19 14:28	1
Methyl acetate	10	U	10	1.7	ug/L			10/11/19 14:28	1
Methyl tert-butyl ether	1.0	U	1.0	0.070	ug/L			10/11/19 14:28	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			10/11/19 14:28	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.26	ug/L			10/11/19 14:28	1
1,2-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			10/11/19 14:28	1
1,3-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			10/11/19 14:28	1
1,4-Dichlorobenzene	1.0	U	1.0	0.16	ug/L			10/11/19 14:28	1
Trichlorofluoromethane	1.0	U	1.0	0.45	ug/L			10/11/19 14:28	1
Dibromochloromethane	1.0	U	1.0	0.39	ug/L			10/11/19 14:28	1
Methylcyclohexane	1.0	U	1.0	0.33	ug/L			10/11/19 14:28	1

Eurofins TestAmerica, Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 17322A-009, PCC Validation

Job ID: 240-119767-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 240-405286/7

Matrix: Water

Analysis Batch: 405286

Client Sample ID: Method Blank

Prep Type: Total/NA

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		70 - 121		10/11/19 14:28	1
4-Bromofluorobenzene (Surr)	71		59 - 120		10/11/19 14:28	1
Toluene-d8 (Surr)	92		70 - 123		10/11/19 14:28	1
Dibromofluoromethane (Surr)	106		75 - 128		10/11/19 14:28	1

Lab Sample ID: LCS 240-405286/4

Matrix: Water

Analysis Batch: 405286

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	20.0	18.7		ug/L		94	21 - 162
Benzene	10.0	9.35		ug/L		93	80 - 123
Bromodichloromethane	10.0	7.31	*	ug/L		73	77 - 125
Bromoform	10.0	5.95		ug/L		60	49 - 141
Bromomethane	10.0	8.60		ug/L		86	41 - 175
2-Butanone (MEK)	20.0	15.1		ug/L		75	39 - 163
Carbon disulfide	10.0	8.23		ug/L		82	60 - 138
Carbon tetrachloride	10.0	10.3		ug/L		103	63 - 140
Chlorobenzene	10.0	8.85		ug/L		88	80 - 121
Chloroethane	10.0	9.82		ug/L		98	33 - 173
Chloroform	10.0	8.66		ug/L		87	79 - 127
Chloromethane	10.0	11.1		ug/L		111	54 - 143
1,1-Dichloroethane	10.0	12.0		ug/L		120	75 - 133
1,2-Dichloroethane	10.0	10.5		ug/L		105	71 - 135
1,1-Dichloroethene	10.0	9.22		ug/L		92	65 - 139
1,2-Dichloropropane	10.0	12.1		ug/L		121	78 - 133
cis-1,3-Dichloropropene	10.0	7.04		ug/L		70	64 - 132
trans-1,3-Dichloropropene	10.0	5.44	*	ug/L		54	55 - 128
Ethylbenzene	10.0	9.14		ug/L		91	80 - 120
2-Hexanone	20.0	13.0		ug/L		65	43 - 148
Methylene Chloride	10.0	7.34		ug/L		73	70 - 134
4-Methyl-2-pentanone (MIBK)	20.0	15.0		ug/L		75	49 - 143
Styrene	10.0	8.05		ug/L		80	79 - 120
1,1,2,2-Tetrachloroethane	10.0	5.11	*	ug/L		51	65 - 139
Tetrachloroethene	10.0	12.5		ug/L		125	74 - 130
Toluene	10.0	8.77		ug/L		88	78 - 129
Trichloroethene	10.0	10.5		ug/L		105	76 - 125
Vinyl chloride	10.0	11.4		ug/L		114	58 - 143
Xylenes, Total	20.0	17.9		ug/L		90	80 - 120
1,1,1-Trichloroethane	10.0	9.32		ug/L		93	69 - 134
1,1,2-Trichloroethane	10.0	6.48	*	ug/L		65	78 - 133
Cyclohexane	10.0	14.8	*	ug/L		148	58 - 145
1,2-Dibromo-3-Chloropropane	10.0	4.96		ug/L		50	46 - 132
1,2-Dibromoethane	10.0	6.74	*	ug/L		67	77 - 123
Dichlorodifluoromethane	10.0	6.18		ug/L		62	29 - 148
cis-1,2-Dichloroethene	10.0	9.67		ug/L		97	76 - 128
trans-1,2-Dichloroethene	10.0	9.00		ug/L		90	78 - 133
Isopropylbenzene	10.0	8.78		ug/L		88	74 - 120

Eurofins TestAmerica, Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 17322A-009, PCC Validation

Job ID: 240-119767-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 240-405286/4

Matrix: Water

Analysis Batch: 405286

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methyl acetate	20.0	17.1		ug/L		85	52 - 145
Methyl tert-butyl ether	10.0	6.53		ug/L		65	51 - 133
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	12.0		ug/L		120	50 - 156
1,2,4-Trichlorobenzene	10.0	8.43		ug/L		84	42 - 133
1,2-Dichlorobenzene	10.0	8.74		ug/L		87	78 - 120
1,3-Dichlorobenzene	10.0	9.19		ug/L		92	78 - 120
1,4-Dichlorobenzene	10.0	8.77		ug/L		88	78 - 120
Trichlorofluoromethane	10.0	10.3		ug/L		103	51 - 164
Dibromochloromethane	10.0	7.08		ug/L		71	70 - 132
Methylcyclohexane	10.0	9.82		ug/L		98	60 - 125

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	102		70 - 121
4-Bromofluorobenzene (Surr)	77		59 - 120
Toluene-d8 (Surr)	98		70 - 123
Dibromofluoromethane (Surr)	102		75 - 128

Lab Sample ID: MB 240-405420/6

Matrix: Water

Analysis Batch: 405420

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	5.4	ug/L			10/12/19 15:19	1
Benzene	1.0	U	1.0	0.13	ug/L			10/12/19 15:19	1
Bromodichloromethane	1.0	U	1.0	0.17	ug/L			10/12/19 15:19	1
Bromoform	1.0	U	1.0	0.76	ug/L			10/12/19 15:19	1
Bromomethane	1.0	U	1.0	0.42	ug/L			10/12/19 15:19	1
2-Butanone (MEK)	10	U	10	1.2	ug/L			10/12/19 15:19	1
Carbon disulfide	5.0	U	5.0	0.28	ug/L			10/12/19 15:19	1
Carbon tetrachloride	1.0	U	1.0	0.26	ug/L			10/12/19 15:19	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			10/12/19 15:19	1
Chloroethane	1.0	U	1.0	0.83	ug/L			10/12/19 15:19	1
Chloroform	1.0	U	1.0	0.13	ug/L			10/12/19 15:19	1
Chloromethane	1.0	U	1.0	0.20	ug/L			10/12/19 15:19	1
1,1-Dichloroethane	1.0	U	1.0	0.17	ug/L			10/12/19 15:19	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			10/12/19 15:19	1
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			10/12/19 15:19	1
1,2-Dichloropropane	1.0	U	1.0	0.15	ug/L			10/12/19 15:19	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.61	ug/L			10/12/19 15:19	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.67	ug/L			10/12/19 15:19	1
Ethylbenzene	1.0	U	1.0	0.11	ug/L			10/12/19 15:19	1
2-Hexanone	10	U	10	0.54	ug/L			10/12/19 15:19	1
Methylene Chloride	5.0	U	5.0	2.6	ug/L			10/12/19 15:19	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.42	ug/L			10/12/19 15:19	1
Styrene	1.0	U	1.0	0.10	ug/L			10/12/19 15:19	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13	ug/L			10/12/19 15:19	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			10/12/19 15:19	1
Toluene	1.0	U	1.0	0.14	ug/L			10/12/19 15:19	1

Eurofins TestAmerica, Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 17322A-009, PCC Validation

Job ID: 240-119767-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 240-405420/6

Matrix: Water

Analysis Batch: 405420

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	1.0	U	1.0	0.10	ug/L			10/12/19 15:19	1
Vinyl chloride	1.0	U	1.0	0.20	ug/L			10/12/19 15:19	1
Xylenes, Total	2.0	U	2.0	0.15	ug/L			10/12/19 15:19	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			10/12/19 15:19	1
1,1,2-Trichloroethane	1.0	U	1.0	0.090	ug/L			10/12/19 15:19	1
Cyclohexane	1.0	U	1.0	0.24	ug/L			10/12/19 15:19	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.91	ug/L			10/12/19 15:19	1
1,2-Dibromoethane	1.0	U	1.0	0.12	ug/L			10/12/19 15:19	1
Dichlorodifluoromethane	1.0	U	1.0	0.35	ug/L			10/12/19 15:19	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.16	ug/L			10/12/19 15:19	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			10/12/19 15:19	1
Isopropylbenzene	1.0	U	1.0	0.090	ug/L			10/12/19 15:19	1
Methyl acetate	10	U	10	1.7	ug/L			10/12/19 15:19	1
Methyl tert-butyl ether	1.0	U	1.0	0.070	ug/L			10/12/19 15:19	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			10/12/19 15:19	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.26	ug/L			10/12/19 15:19	1
1,2-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			10/12/19 15:19	1
1,3-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			10/12/19 15:19	1
1,4-Dichlorobenzene	1.0	U	1.0	0.16	ug/L			10/12/19 15:19	1
Trichlorofluoromethane	1.0	U	1.0	0.45	ug/L			10/12/19 15:19	1
Dibromochloromethane	1.0	U	1.0	0.39	ug/L			10/12/19 15:19	1
Methylcyclohexane	0.641	J	1.0	0.33	ug/L			10/12/19 15:19	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	79		70 - 121		10/12/19 15:19	1
4-Bromofluorobenzene (Surr)	73		59 - 120		10/12/19 15:19	1
Toluene-d8 (Surr)	90		70 - 123		10/12/19 15:19	1
Dibromofluoromethane (Surr)	91		75 - 128		10/12/19 15:19	1

Lab Sample ID: LCS 240-405420/4

Matrix: Water

Analysis Batch: 405420

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	20.0	18.8		ug/L		94	21 - 162
Benzene	10.0	9.59		ug/L		96	80 - 123
Bromodichloromethane	10.0	9.08		ug/L		91	77 - 125
Bromoform	10.0	6.91		ug/L		69	49 - 141
Bromomethane	10.0	6.98		ug/L		70	41 - 175
2-Butanone (MEK)	20.0	15.7		ug/L		79	39 - 163
Carbon disulfide	10.0	12.0		ug/L		120	60 - 138
Carbon tetrachloride	10.0	10.8		ug/L		108	63 - 140
Chlorobenzene	10.0	9.61		ug/L		96	80 - 121
Chloroethane	10.0	8.54		ug/L		85	33 - 173
Chloroform	10.0	8.55		ug/L		86	79 - 127
Chloromethane	10.0	9.30		ug/L		93	54 - 143
1,1-Dichloroethane	10.0	8.79		ug/L		88	75 - 133
1,2-Dichloroethane	10.0	7.69		ug/L		77	71 - 135

Eurofins TestAmerica, Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 17322A-009, PCC Validation

Job ID: 240-119767-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 240-405420/4

Matrix: Water

Analysis Batch: 405420

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	10.0	11.6		ug/L		116	65 - 139
1,2-Dichloropropane	10.0	10.2		ug/L		102	78 - 133
cis-1,3-Dichloropropene	10.0	10.0		ug/L		100	64 - 132
trans-1,3-Dichloropropene	10.0	8.42		ug/L		84	55 - 128
Ethylbenzene	10.0	10.9		ug/L		109	80 - 120
2-Hexanone	20.0	15.9		ug/L		79	43 - 148
Methylene Chloride	10.0	8.65		ug/L		87	70 - 134
4-Methyl-2-pentanone (MIBK)	20.0	17.3		ug/L		87	49 - 143
Styrene	10.0	9.95		ug/L		100	79 - 120
1,1,2,2-Tetrachloroethane	10.0	8.26		ug/L		83	65 - 139
Tetrachloroethene	10.0	9.13		ug/L		91	74 - 130
Toluene	10.0	10.2		ug/L		102	78 - 129
Trichloroethene	10.0	9.10		ug/L		91	76 - 125
Vinyl chloride	10.0	9.62		ug/L		96	58 - 143
Xylenes, Total	20.0	19.5		ug/L		97	80 - 120
1,1,1-Trichloroethane	10.0	9.88		ug/L		99	69 - 134
1,1,2-Trichloroethane	10.0	8.60		ug/L		86	78 - 133
Cyclohexane	10.0	10.9		ug/L		109	58 - 145
1,2-Dibromo-3-Chloropropane	10.0	5.44		ug/L		54	46 - 132
1,2-Dibromoethane	10.0	8.54		ug/L		85	77 - 123
Dichlorodifluoromethane	10.0	4.69		ug/L		47	29 - 148
cis-1,2-Dichloroethene	10.0	9.01		ug/L		90	76 - 128
trans-1,2-Dichloroethene	10.0	9.48		ug/L		95	78 - 133
Isopropylbenzene	10.0	8.85		ug/L		88	74 - 120
Methyl acetate	20.0	15.8		ug/L		79	52 - 145
Methyl tert-butyl ether	10.0	7.86		ug/L		79	51 - 133
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	11.0		ug/L		110	50 - 156
1,2,4-Trichlorobenzene	10.0	5.96		ug/L		60	42 - 133
1,2-Dichlorobenzene	10.0	9.02		ug/L		90	78 - 120
1,3-Dichlorobenzene	10.0	9.71		ug/L		97	78 - 120
1,4-Dichlorobenzene	10.0	9.80		ug/L		98	78 - 120
Trichlorofluoromethane	10.0	9.70		ug/L		97	51 - 164
Dibromochloromethane	10.0	8.39		ug/L		84	70 - 132
Methylcyclohexane	10.0	10.2		ug/L		102	60 - 125

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	70		70 - 121
4-Bromofluorobenzene (Surr)	98		59 - 120
Toluene-d8 (Surr)	94		70 - 123
Dibromofluoromethane (Surr)	85		75 - 128

Lab Sample ID: MB 240-405434/7

Matrix: Water

Analysis Batch: 405434

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	5.4	ug/L			10/12/19 19:46	1
Benzene	1.0	U	1.0	0.13	ug/L			10/12/19 19:46	1

Eurofins TestAmerica, Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 17322A-009, PCC Validation

Job ID: 240-119767-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 240-405434/7

Matrix: Water

Analysis Batch: 405434

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromodichloromethane	1.0	U	1.0	0.17	ug/L			10/12/19 19:46	1
Bromoform	1.0	U	1.0	0.76	ug/L			10/12/19 19:46	1
Bromomethane	1.0	U	1.0	0.42	ug/L			10/12/19 19:46	1
2-Butanone (MEK)	10	U	10	1.2	ug/L			10/12/19 19:46	1
Carbon disulfide	5.0	U	5.0	0.28	ug/L			10/12/19 19:46	1
Carbon tetrachloride	1.0	U	1.0	0.26	ug/L			10/12/19 19:46	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			10/12/19 19:46	1
Chloroethane	1.0	U	1.0	0.83	ug/L			10/12/19 19:46	1
Chloroform	1.0	U	1.0	0.13	ug/L			10/12/19 19:46	1
Chloromethane	1.0	U	1.0	0.20	ug/L			10/12/19 19:46	1
1,1-Dichloroethane	1.0	U	1.0	0.17	ug/L			10/12/19 19:46	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			10/12/19 19:46	1
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			10/12/19 19:46	1
1,2-Dichloropropane	1.0	U	1.0	0.15	ug/L			10/12/19 19:46	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.61	ug/L			10/12/19 19:46	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.67	ug/L			10/12/19 19:46	1
Ethylbenzene	1.0	U	1.0	0.11	ug/L			10/12/19 19:46	1
2-Hexanone	10	U	10	0.54	ug/L			10/12/19 19:46	1
Methylene Chloride	5.0	U	5.0	2.6	ug/L			10/12/19 19:46	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.42	ug/L			10/12/19 19:46	1
Styrene	1.0	U	1.0	0.10	ug/L			10/12/19 19:46	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13	ug/L			10/12/19 19:46	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			10/12/19 19:46	1
Toluene	1.0	U	1.0	0.14	ug/L			10/12/19 19:46	1
Trichloroethene	1.0	U	1.0	0.10	ug/L			10/12/19 19:46	1
Vinyl chloride	1.0	U	1.0	0.20	ug/L			10/12/19 19:46	1
Xylenes, Total	2.0	U	2.0	0.15	ug/L			10/12/19 19:46	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			10/12/19 19:46	1
1,1,2-Trichloroethane	1.0	U	1.0	0.090	ug/L			10/12/19 19:46	1
Cyclohexane	1.0	U	1.0	0.24	ug/L			10/12/19 19:46	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.91	ug/L			10/12/19 19:46	1
1,2-Dibromoethane	1.0	U	1.0	0.12	ug/L			10/12/19 19:46	1
Dichlorodifluoromethane	1.0	U	1.0	0.35	ug/L			10/12/19 19:46	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.16	ug/L			10/12/19 19:46	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			10/12/19 19:46	1
Isopropylbenzene	1.0	U	1.0	0.090	ug/L			10/12/19 19:46	1
Methyl acetate	10	U	10	1.7	ug/L			10/12/19 19:46	1
Methyl tert-butyl ether	1.0	U	1.0	0.070	ug/L			10/12/19 19:46	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			10/12/19 19:46	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.26	ug/L			10/12/19 19:46	1
1,2-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			10/12/19 19:46	1
1,3-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			10/12/19 19:46	1
1,4-Dichlorobenzene	1.0	U	1.0	0.16	ug/L			10/12/19 19:46	1
Trichlorofluoromethane	1.0	U	1.0	0.45	ug/L			10/12/19 19:46	1
Dibromochloromethane	1.0	U	1.0	0.39	ug/L			10/12/19 19:46	1
Methylcyclohexane	1.0	U	1.0	0.33	ug/L			10/12/19 19:46	1

Eurofins TestAmerica, Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 17322A-009, PCC Validation

Job ID: 240-119767-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 240-405434/7

Matrix: Water

Analysis Batch: 405434

Client Sample ID: Method Blank

Prep Type: Total/NA

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		70 - 121		10/12/19 19:46	1
4-Bromofluorobenzene (Surr)	76		59 - 120		10/12/19 19:46	1
Toluene-d8 (Surr)	92		70 - 123		10/12/19 19:46	1
Dibromofluoromethane (Surr)	111		75 - 128		10/12/19 19:46	1

Lab Sample ID: LCS 240-405434/4

Matrix: Water

Analysis Batch: 405434

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	20.0	17.1		ug/L		86	21 - 162
Benzene	10.0	9.72		ug/L		97	80 - 123
Bromodichloromethane	10.0	9.62		ug/L		96	77 - 125
Bromoform	10.0	11.0		ug/L		110	49 - 141
Bromomethane	10.0	5.72		ug/L		57	41 - 175
2-Butanone (MEK)	20.0	17.8		ug/L		89	39 - 163
Carbon disulfide	10.0	9.80		ug/L		98	60 - 138
Carbon tetrachloride	10.0	10.6		ug/L		106	63 - 140
Chlorobenzene	10.0	9.83		ug/L		98	80 - 121
Chloroethane	10.0	5.41		ug/L		54	33 - 173
Chloroform	10.0	9.20		ug/L		92	79 - 127
Chloromethane	10.0	5.63		ug/L		56	54 - 143
1,1-Dichloroethane	10.0	9.21		ug/L		92	75 - 133
1,2-Dichloroethane	10.0	8.19		ug/L		82	71 - 135
1,1-Dichloroethene	10.0	9.83		ug/L		98	65 - 139
1,2-Dichloropropane	10.0	9.67		ug/L		97	78 - 133
cis-1,3-Dichloropropene	10.0	10.1		ug/L		101	64 - 132
trans-1,3-Dichloropropene	10.0	8.65		ug/L		86	55 - 128
Ethylbenzene	10.0	10.2		ug/L		102	80 - 120
2-Hexanone	20.0	17.4		ug/L		87	43 - 148
Methylene Chloride	10.0	9.82		ug/L		98	70 - 134
4-Methyl-2-pentanone (MIBK)	20.0	18.5		ug/L		92	49 - 143
Styrene	10.0	10.3		ug/L		103	79 - 120
1,1,2,2-Tetrachloroethane	10.0	8.97		ug/L		90	65 - 139
Tetrachloroethene	10.0	10.2		ug/L		102	74 - 130
Toluene	10.0	9.84		ug/L		98	78 - 129
Trichloroethene	10.0	11.0		ug/L		110	76 - 125
Vinyl chloride	10.0	5.76		ug/L		58	58 - 143
Xylenes, Total	20.0	20.2		ug/L		101	80 - 120
1,1,1-Trichloroethane	10.0	9.76		ug/L		98	69 - 134
1,1,2-Trichloroethane	10.0	9.30		ug/L		93	78 - 133
Cyclohexane	10.0	9.55		ug/L		96	58 - 145
1,2-Dibromo-3-Chloropropane	10.0	9.63		ug/L		96	46 - 132
1,2-Dibromoethane	10.0	9.71		ug/L		97	77 - 123
Dichlorodifluoromethane	10.0	5.24		ug/L		52	29 - 148
cis-1,2-Dichloroethene	10.0	10.1		ug/L		101	76 - 128
trans-1,2-Dichloroethene	10.0	10.5		ug/L		105	78 - 133
Isopropylbenzene	10.0	9.71		ug/L		97	74 - 120

Eurofins TestAmerica, Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 17322A-009, PCC Validation

Job ID: 240-119767-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 240-405434/4

Matrix: Water

Analysis Batch: 405434

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methyl acetate	20.0	17.3		ug/L		86	52 - 145
Methyl tert-butyl ether	10.0	9.12		ug/L		91	51 - 133
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	11.4		ug/L		114	50 - 156
1,2,4-Trichlorobenzene	10.0	8.73		ug/L		87	42 - 133
1,2-Dichlorobenzene	10.0	9.55		ug/L		95	78 - 120
1,3-Dichlorobenzene	10.0	9.47		ug/L		95	78 - 120
1,4-Dichlorobenzene	10.0	9.39		ug/L		94	78 - 120
Trichlorofluoromethane	10.0	7.79		ug/L		78	51 - 164
Dibromochloromethane	10.0	10.2		ug/L		102	70 - 132
Methylcyclohexane	10.0	9.88		ug/L		99	60 - 125

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	76		70 - 121
4-Bromofluorobenzene (Surr)	93		59 - 120
Toluene-d8 (Surr)	98		70 - 123
Dibromofluoromethane (Surr)	97		75 - 128

Lab Sample ID: MB 240-405438/6

Matrix: Water

Analysis Batch: 405438

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	5.4	ug/L			10/13/19 10:44	1
Benzene	1.0	U	1.0	0.13	ug/L			10/13/19 10:44	1
Bromodichloromethane	1.0	U	1.0	0.17	ug/L			10/13/19 10:44	1
Bromoform	1.0	U	1.0	0.76	ug/L			10/13/19 10:44	1
Bromomethane	1.0	U	1.0	0.42	ug/L			10/13/19 10:44	1
2-Butanone (MEK)	10	U	10	1.2	ug/L			10/13/19 10:44	1
Carbon disulfide	5.0	U	5.0	0.28	ug/L			10/13/19 10:44	1
Carbon tetrachloride	1.0	U	1.0	0.26	ug/L			10/13/19 10:44	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			10/13/19 10:44	1
Chloroethane	1.0	U	1.0	0.83	ug/L			10/13/19 10:44	1
Chloroform	1.0	U	1.0	0.13	ug/L			10/13/19 10:44	1
Chloromethane	1.0	U	1.0	0.20	ug/L			10/13/19 10:44	1
1,1-Dichloroethane	1.0	U	1.0	0.17	ug/L			10/13/19 10:44	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			10/13/19 10:44	1
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			10/13/19 10:44	1
1,2-Dichloropropane	1.0	U	1.0	0.15	ug/L			10/13/19 10:44	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.61	ug/L			10/13/19 10:44	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.67	ug/L			10/13/19 10:44	1
Ethylbenzene	1.0	U	1.0	0.11	ug/L			10/13/19 10:44	1
2-Hexanone	10	U	10	0.54	ug/L			10/13/19 10:44	1
Methylene Chloride	5.0	U	5.0	2.6	ug/L			10/13/19 10:44	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.42	ug/L			10/13/19 10:44	1
Styrene	1.0	U	1.0	0.10	ug/L			10/13/19 10:44	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13	ug/L			10/13/19 10:44	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			10/13/19 10:44	1
Toluene	1.0	U	1.0	0.14	ug/L			10/13/19 10:44	1

Eurofins TestAmerica, Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 17322A-009, PCC Validation

Job ID: 240-119767-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 240-405438/6

Matrix: Water

Analysis Batch: 405438

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	1.0	U	1.0	0.10	ug/L			10/13/19 10:44	1
Vinyl chloride	1.0	U	1.0	0.20	ug/L			10/13/19 10:44	1
Xylenes, Total	2.0	U	2.0	0.15	ug/L			10/13/19 10:44	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			10/13/19 10:44	1
1,1,2-Trichloroethane	1.0	U	1.0	0.090	ug/L			10/13/19 10:44	1
Cyclohexane	1.0	U	1.0	0.24	ug/L			10/13/19 10:44	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.91	ug/L			10/13/19 10:44	1
1,2-Dibromoethane	1.0	U	1.0	0.12	ug/L			10/13/19 10:44	1
Dichlorodifluoromethane	1.0	U	1.0	0.35	ug/L			10/13/19 10:44	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.16	ug/L			10/13/19 10:44	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			10/13/19 10:44	1
Isopropylbenzene	1.0	U	1.0	0.090	ug/L			10/13/19 10:44	1
Methyl acetate	10	U	10	1.7	ug/L			10/13/19 10:44	1
Methyl tert-butyl ether	1.0	U	1.0	0.070	ug/L			10/13/19 10:44	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			10/13/19 10:44	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.26	ug/L			10/13/19 10:44	1
1,2-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			10/13/19 10:44	1
1,3-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			10/13/19 10:44	1
1,4-Dichlorobenzene	1.0	U	1.0	0.16	ug/L			10/13/19 10:44	1
Trichlorofluoromethane	1.0	U	1.0	0.45	ug/L			10/13/19 10:44	1
Dibromochloromethane	1.0	U	1.0	0.39	ug/L			10/13/19 10:44	1
Methylcyclohexane	1.0	U	1.0	0.33	ug/L			10/13/19 10:44	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	87		70 - 121		10/13/19 10:44	1
4-Bromofluorobenzene (Surr)	93		59 - 120		10/13/19 10:44	1
Toluene-d8 (Surr)	107		70 - 123		10/13/19 10:44	1
Dibromofluoromethane (Surr)	88		75 - 128		10/13/19 10:44	1

Lab Sample ID: LCS 240-405438/4

Matrix: Water

Analysis Batch: 405438

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	20.0	17.7		ug/L		88	21 - 162
Benzene	10.0	9.40		ug/L		94	80 - 123
Bromodichloromethane	10.0	9.79		ug/L		98	77 - 125
Bromoform	10.0	7.40		ug/L		74	49 - 141
Bromomethane	10.0	7.07		ug/L		71	41 - 175
2-Butanone (MEK)	20.0	21.9		ug/L		110	39 - 163
Carbon disulfide	10.0	7.48		ug/L		75	60 - 138
Carbon tetrachloride	10.0	8.99		ug/L		90	63 - 140
Chlorobenzene	10.0	9.68		ug/L		97	80 - 121
Chloroethane	10.0	8.17		ug/L		82	33 - 173
Chloroform	10.0	9.55		ug/L		95	79 - 127
Chloromethane	10.0	8.35		ug/L		84	54 - 143
1,1-Dichloroethane	10.0	9.66		ug/L		97	75 - 133
1,2-Dichloroethane	10.0	11.2		ug/L		112	71 - 135

Eurofins TestAmerica, Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 17322A-009, PCC Validation

Job ID: 240-119767-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 240-405438/4

Matrix: Water

Analysis Batch: 405438

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	10.0	8.42		ug/L		84	65 - 139
1,2-Dichloropropane	10.0	10.2		ug/L		102	78 - 133
cis-1,3-Dichloropropene	10.0	9.34		ug/L		93	64 - 132
trans-1,3-Dichloropropene	10.0	9.74		ug/L		97	55 - 128
Ethylbenzene	10.0	9.50		ug/L		95	80 - 120
2-Hexanone	20.0	24.0		ug/L		120	43 - 148
Methylene Chloride	10.0	9.28		ug/L		93	70 - 134
4-Methyl-2-pentanone (MIBK)	20.0	21.7		ug/L		109	49 - 143
Styrene	10.0	9.57		ug/L		96	79 - 120
1,1,2,2-Tetrachloroethane	10.0	13.3		ug/L		133	65 - 139
Tetrachloroethene	10.0	8.94		ug/L		89	74 - 130
Toluene	10.0	10.4		ug/L		104	78 - 129
Trichloroethene	10.0	8.11		ug/L		81	76 - 125
Vinyl chloride	10.0	7.49		ug/L		75	58 - 143
Xylenes, Total	20.0	19.1		ug/L		95	80 - 120
1,1,1-Trichloroethane	10.0	9.41		ug/L		94	69 - 134
1,1,2-Trichloroethane	10.0	10.7		ug/L		107	78 - 133
Cyclohexane	10.0	9.98		ug/L		100	58 - 145
1,2-Dibromo-3-Chloropropane	10.0	8.72		ug/L		87	46 - 132
1,2-Dibromoethane	10.0	10.2		ug/L		102	77 - 123
Dichlorodifluoromethane	10.0	6.94		ug/L		69	29 - 148
cis-1,2-Dichloroethene	10.0	9.11		ug/L		91	76 - 128
trans-1,2-Dichloroethene	10.0	8.70		ug/L		87	78 - 133
Isopropylbenzene	10.0	9.89		ug/L		99	74 - 120
Methyl acetate	20.0	22.6		ug/L		113	52 - 145
Methyl tert-butyl ether	10.0	9.43		ug/L		94	51 - 133
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	8.01		ug/L		80	50 - 156
1,2,4-Trichlorobenzene	10.0	8.26		ug/L		83	42 - 133
1,2-Dichlorobenzene	10.0	10.1		ug/L		101	78 - 120
1,3-Dichlorobenzene	10.0	10.2		ug/L		102	78 - 120
1,4-Dichlorobenzene	10.0	10.5		ug/L		105	78 - 120
Trichlorofluoromethane	10.0	7.97		ug/L		80	51 - 164
Dibromochloromethane	10.0	8.79		ug/L		88	70 - 132
Methylcyclohexane	10.0	9.19		ug/L		92	60 - 125

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	108		70 - 121
4-Bromofluorobenzene (Surr)	97		59 - 120
Toluene-d8 (Surr)	97		70 - 123
Dibromofluoromethane (Surr)	86		75 - 128

Lab Sample ID: 240-119767-13 MS

Matrix: Water

Analysis Batch: 405438

Client Sample ID: GW-17322-093019-JY-012

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	10	U	20.0	19.6		ug/L		98	10 - 168
Benzene	1.0	U	10.0	9.08		ug/L		91	71 - 122

Eurofins TestAmerica, Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 17322A-009, PCC Validation

Job ID: 240-119767-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 240-119767-13 MS

Matrix: Water

Analysis Batch: 405438

Client Sample ID: GW-17322-093019-JY-012

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromodichloromethane	1.0	U	10.0	8.94		ug/L		89	64 - 125
Bromoform	1.0	U	10.0	7.21		ug/L		72	44 - 129
Bromomethane	1.0	U	10.0	6.92		ug/L		69	19 - 187
2-Butanone (MEK)	10	U	20.0	18.6		ug/L		93	37 - 156
Carbon disulfide	5.0	U	10.0	6.64		ug/L		66	43 - 144
Carbon tetrachloride	1.0	U	10.0	8.07		ug/L		81	41 - 143
Chlorobenzene	1.0	U	10.0	9.37		ug/L		94	70 - 123
Chloroethane	1.0	U	10.0	7.77		ug/L		78	11 - 189
Chloroform	1.0	U	10.0	9.20		ug/L		92	68 - 130
Chloromethane	1.0	U	10.0	7.09		ug/L		71	31 - 154
1,1-Dichloroethane	1.0	U	10.0	9.70		ug/L		97	63 - 136
1,2-Dichloroethane	1.0	U	10.0	10.9		ug/L		109	65 - 135
1,1-Dichloroethene	1.0	U	10.0	8.19		ug/L		82	53 - 140
1,2-Dichloropropane	1.0	U	10.0	9.80		ug/L		98	70 - 132
cis-1,3-Dichloropropene	1.0	U	10.0	8.10		ug/L		81	48 - 127
trans-1,3-Dichloropropene	1.0	U	10.0	9.10		ug/L		91	40 - 125
Ethylbenzene	1.0	U	10.0	9.59		ug/L		96	66 - 120
2-Hexanone	10	U	20.0	22.2		ug/L		111	42 - 150
Methylene Chloride	5.0	U	10.0	9.11		ug/L		91	61 - 130
4-Methyl-2-pentanone (MIBK)	10	U	20.0	19.4		ug/L		97	44 - 143
Styrene	1.0	U	10.0	9.22		ug/L		92	68 - 120
1,1,2,2-Tetrachloroethane	1.0	U	10.0	11.7		ug/L		117	60 - 137
Tetrachloroethene	1.0	U	10.0	8.88		ug/L		89	51 - 136
Toluene	1.0	U	10.0	10.1		ug/L		101	62 - 132
Trichloroethene	1.0	U	10.0	7.92		ug/L		79	55 - 131
Vinyl chloride	1.0	U	10.0	6.68		ug/L		67	43 - 154
Xylenes, Total	2.0	U	20.0	19.1		ug/L		96	67 - 120
1,1,1-Trichloroethane	1.0	U	10.0	8.87		ug/L		89	51 - 138
1,1,2-Trichloroethane	1.0	U	10.0	9.94		ug/L		99	76 - 132
Cyclohexane	1.0	U	10.0	9.40		ug/L		94	42 - 135
1,2-Dibromo-3-Chloropropane	1.0	U	10.0	6.78		ug/L		68	38 - 124
1,2-Dibromoethane	1.0	U	10.0	9.54		ug/L		95	71 - 123
Dichlorodifluoromethane	1.0	U	10.0	6.00		ug/L		60	28 - 136
cis-1,2-Dichloroethene	1.0	U	10.0	8.86		ug/L		89	64 - 130
trans-1,2-Dichloroethene	1.0	U	10.0	8.46		ug/L		85	68 - 133
Isopropylbenzene	1.0	U	10.0	9.63		ug/L		96	59 - 120
Methyl acetate	10	U	20.0	20.5		ug/L		102	41 - 142
Methyl tert-butyl ether	1.0	U	10.0	9.03		ug/L		90	41 - 136
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	10.0	6.88		ug/L		69	31 - 156
1,2,4-Trichlorobenzene	1.0	U	10.0	7.21		ug/L		72	30 - 126
1,2-Dichlorobenzene	1.0	U	10.0	8.99		ug/L		90	64 - 120
1,3-Dichlorobenzene	1.0	U	10.0	9.35		ug/L		94	62 - 120
1,4-Dichlorobenzene	1.0	U	10.0	9.19		ug/L		92	63 - 120
Trichlorofluoromethane	1.0	U	10.0	6.90		ug/L		69	37 - 174
Dibromochloromethane	1.0	U	10.0	8.07		ug/L		81	60 - 129
Methylcyclohexane	1.0	U	10.0	8.38		ug/L		84	37 - 123

Eurofins TestAmerica, Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 17322A-009, PCC Validation

Job ID: 240-119767-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 240-119767-13 MS

Matrix: Water

Analysis Batch: 405438

Client Sample ID: GW-17322-093019-JY-012

Prep Type: Total/NA

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	109		70 - 121
4-Bromofluorobenzene (Surr)	93		59 - 120
Toluene-d8 (Surr)	98		70 - 123
Dibromofluoromethane (Surr)	87		75 - 128

Lab Sample ID: 240-119767-13 MSD

Matrix: Water

Analysis Batch: 405438

Client Sample ID: GW-17322-093019-JY-012

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	10	U	20.0	19.6		ug/L		98	10 - 168	0	35
Benzene	1.0	U	10.0	9.09		ug/L		91	71 - 122	0	22
Bromodichloromethane	1.0	U	10.0	8.66		ug/L		87	64 - 125	3	27
Bromoform	1.0	U	10.0	6.37		ug/L		64	44 - 129	12	28
Bromomethane	1.0	U	10.0	6.68		ug/L		67	19 - 187	4	35
2-Butanone (MEK)	10	U	20.0	17.7		ug/L		88	37 - 156	5	35
Carbon disulfide	5.0	U	10.0	7.35		ug/L		74	43 - 144	10	33
Carbon tetrachloride	1.0	U	10.0	8.81		ug/L		88	41 - 143	9	30
Chlorobenzene	1.0	U	10.0	9.52		ug/L		95	70 - 123	2	23
Chloroethane	1.0	U	10.0	7.62		ug/L		76	11 - 189	2	35
Chloroform	1.0	U	10.0	9.24		ug/L		92	68 - 130	0	23
Chloromethane	1.0	U	10.0	7.40		ug/L		74	31 - 154	4	35
1,1-Dichloroethane	1.0	U	10.0	9.50		ug/L		95	63 - 136	2	23
1,2-Dichloroethane	1.0	U	10.0	10.6		ug/L		106	65 - 135	3	24
1,1-Dichloroethene	1.0	U	10.0	7.73		ug/L		77	53 - 140	6	35
1,2-Dichloropropane	1.0	U	10.0	9.74		ug/L		97	70 - 132	1	26
cis-1,3-Dichloropropene	1.0	U	10.0	8.14		ug/L		81	48 - 127	0	30
trans-1,3-Dichloropropene	1.0	U	10.0	8.80		ug/L		88	40 - 125	3	27
Ethylbenzene	1.0	U	10.0	9.45		ug/L		94	66 - 120	2	24
2-Hexanone	10	U	20.0	21.3		ug/L		107	42 - 150	4	35
Methylene Chloride	5.0	U	10.0	8.97		ug/L		90	61 - 130	2	29
4-Methyl-2-pentanone (MIBK)	10	U	20.0	19.8		ug/L		99	44 - 143	2	35
Styrene	1.0	U	10.0	8.68		ug/L		87	68 - 120	6	26
1,1,2,2-Tetrachloroethane	1.0	U	10.0	11.3		ug/L		113	60 - 137	4	31
Tetrachloroethene	1.0	U	10.0	8.76		ug/L		88	51 - 136	1	23
Toluene	1.0	U	10.0	10.1		ug/L		101	62 - 132	0	23
Trichloroethene	1.0	U	10.0	7.52		ug/L		75	55 - 131	5	23
Vinyl chloride	1.0	U	10.0	7.22		ug/L		72	43 - 154	8	29
Xylenes, Total	2.0	U	20.0	19.3		ug/L		96	67 - 120	1	25
1,1,1-Trichloroethane	1.0	U	10.0	9.16		ug/L		92	51 - 138	3	27
1,1,2-Trichloroethane	1.0	U	10.0	10.0		ug/L		100	76 - 132	1	25
Cyclohexane	1.0	U	10.0	9.81		ug/L		98	42 - 135	4	35
1,2-Dibromo-3-Chloropropane	1.0	U	10.0	7.68		ug/L		77	38 - 124	12	35
1,2-Dibromoethane	1.0	U	10.0	9.02		ug/L		90	71 - 123	6	27
Dichlorodifluoromethane	1.0	U	10.0	7.06		ug/L		71	28 - 136	16	35
cis-1,2-Dichloroethene	1.0	U	10.0	9.20		ug/L		92	64 - 130	4	21
trans-1,2-Dichloroethene	1.0	U	10.0	8.78		ug/L		88	68 - 133	4	24
Isopropylbenzene	1.0	U	10.0	9.45		ug/L		95	59 - 120	2	31

Eurofins TestAmerica, Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 17322A-009, PCC Validation

Job ID: 240-119767-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 240-119767-13 MSD

Matrix: Water

Analysis Batch: 405438

Client Sample ID: GW-17322-093019-JY-012

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methyl acetate	10	U	20.0	20.1		ug/L		101	41 - 142	2	35
Methyl tert-butyl ether	1.0	U	10.0	9.23		ug/L		92	41 - 136	2	29
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	10.0	7.05		ug/L		70	31 - 156	2	35
1,2,4-Trichlorobenzene	1.0	U	10.0	7.43		ug/L		74	30 - 126	3	35
1,2-Dichlorobenzene	1.0	U	10.0	9.29		ug/L		93	64 - 120	3	30
1,3-Dichlorobenzene	1.0	U	10.0	9.00		ug/L		90	62 - 120	4	31
1,4-Dichlorobenzene	1.0	U	10.0	9.27		ug/L		93	63 - 120	1	28
Trichlorofluoromethane	1.0	U	10.0	8.01		ug/L		80	37 - 174	15	35
Dibromochloromethane	1.0	U	10.0	8.02		ug/L		80	60 - 129	1	26
Methylcyclohexane	1.0	U	10.0	8.46		ug/L		85	37 - 123	1	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	120		70 - 121
4-Bromofluorobenzene (Surr)	103		59 - 120
Toluene-d8 (Surr)	103		70 - 123
Dibromofluoromethane (Surr)	94		75 - 128

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 240-403665/1-A

Matrix: Water

Analysis Batch: 404069

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 403665

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	50	U	50	34	ug/L		10/02/19 14:00	10/03/19 17:22	1
Lead	1.0	U	1.0	0.45	ug/L		10/02/19 14:00	10/03/19 17:22	1
Vanadium	4.0	U	4.0	0.82	ug/L		10/02/19 14:00	10/03/19 17:22	1

Lab Sample ID: LCS 240-403665/2-A

Matrix: Water

Analysis Batch: 404069

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 403665

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	5000	4550		ug/L		91	80 - 120
Lead	500	477		ug/L		95	80 - 120
Vanadium	500	498		ug/L		100	80 - 120

Eurofins TestAmerica, Canton

Surrogate Summary

Client: GHD Services Inc.
Project/Site: 17322A-009, PCC Validation

Job ID: 240-119767-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (70-121)	BFB (59-120)	TOL (70-123)	DBFM (75-128)
240-119767-1	TB-17322-092719	105	78	95	109
240-119767-2	GW-17322-092719-JY-001	94	73	91	114
240-119767-2 - RA	GW-17322-092719-JY-001	93	79	92	112
240-119767-3	GW-17322-092719-JY-002	93	70	88	112
240-119767-4	GW-17322-092719-JY-003	97	73	89	118
240-119767-5	GW-17322-092719-JY-004	94	76	98	95
240-119767-6	GW-17322-092719-JY-005	102	75	99	97
240-119767-7	GW-17322-093019-JY-006	76	76	91	91
240-119767-8	GW-17322-093019-JY-007	75	73	88	91
240-119767-9	GW-17322-093019-JY-008	72	72	88	89
240-119767-10	GW-17322-093019-JY-009	74	73	89	91
240-119767-11	GW-17322-093019-JY-010	72	73	88	91
240-119767-12	GW-17322-093019-JY-011	72	71	89	91
240-119767-13	GW-17322-093019-JY-012	120	96	102	91
240-119767-13 MS	GW-17322-093019-JY-012	109	93	98	87
240-119767-13 MSD	GW-17322-093019-JY-012	120	103	103	94
240-119767-14	GW-17322-093019-JY-013	73	73	90	92
240-119767-15	GW-17322-093019-JY-014	71	72	91	91
240-119767-16	GW-17322-093019-JY-015	72	73	90	94
240-119767-17	GW-17322-093019-JY-016	71	69	86	93
LCS 240-405078/4	Lab Control Sample	94	79	98	102
LCS 240-405284/4	Lab Control Sample	78	94	95	99
LCS 240-405286/4	Lab Control Sample	102	77	98	102
LCS 240-405420/4	Lab Control Sample	70	98	94	85
LCS 240-405434/4	Lab Control Sample	76	93	98	97
LCS 240-405438/4	Lab Control Sample	108	97	97	86
MB 240-405078/7	Method Blank	99	74	94	101
MB 240-405284/7	Method Blank	91	77	91	109
MB 240-405286/7	Method Blank	99	71	92	106
MB 240-405420/6	Method Blank	79	73	90	91
MB 240-405434/7	Method Blank	92	76	92	111
MB 240-405438/6	Method Blank	87	93	107	88

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

TOL = Toluene-d8 (Surr)

DBFM = Dibromofluoromethane (Surr)

Lab Chronicle

Client: GHD Services Inc.
Project/Site: 17322A-009, PCC Validation

Job ID: 240-119767-1

Client Sample ID: TB-17322-092719

Lab Sample ID: 240-119767-1

Date Collected: 09/27/19 00:00

Matrix: Water

Date Received: 10/01/19 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	405078	10/10/19 21:29	LRW	TAL CAN

Client Sample ID: GW-17322-092719-JY-001

Lab Sample ID: 240-119767-2

Date Collected: 09/27/19 09:30

Matrix: Water

Date Received: 10/01/19 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		2.5	405284	10/11/19 20:40	LRW	TAL CAN
Total/NA	Analysis	8260B	RA	1	405434	10/12/19 20:34	LRW	TAL CAN

Client Sample ID: GW-17322-092719-JY-002

Lab Sample ID: 240-119767-3

Date Collected: 09/27/19 10:35

Matrix: Water

Date Received: 10/01/19 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		2.5	405284	10/11/19 21:04	LRW	TAL CAN

Client Sample ID: GW-17322-092719-JY-003

Lab Sample ID: 240-119767-4

Date Collected: 09/27/19 11:50

Matrix: Water

Date Received: 10/01/19 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	405284	10/11/19 21:28	LRW	TAL CAN

Client Sample ID: GW-17322-092719-JY-004

Lab Sample ID: 240-119767-5

Date Collected: 09/27/19 13:10

Matrix: Water

Date Received: 10/01/19 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	405286	10/11/19 15:19	LRW	TAL CAN

Client Sample ID: GW-17322-092719-JY-005

Lab Sample ID: 240-119767-6

Date Collected: 09/27/19 14:40

Matrix: Water

Date Received: 10/01/19 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	405286	10/11/19 15:45	LRW	TAL CAN
Dissolved	Prep	3005A			403665	10/02/19 14:00	MRL	TAL CAN
Dissolved	Analysis	6020		1	404069	10/03/19 18:20	RKT	TAL CAN
Total Recoverable	Prep	3005A			403665	10/02/19 14:00	MRL	TAL CAN
Total Recoverable	Analysis	6020		1	404069	10/03/19 18:18	RKT	TAL CAN

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Lab Chronicle

Client: GHD Services Inc.
Project/Site: 17322A-009, PCC Validation

Job ID: 240-119767-1

Client Sample ID: GW-17322-093019-JY-006

Lab Sample ID: 240-119767-7

Date Collected: 09/30/19 09:05

Matrix: Water

Date Received: 10/01/19 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	405420	10/12/19 16:31	LEE	TAL CAN
Dissolved	Prep	3005A			403665	10/02/19 14:00	MRL	TAL CAN
Dissolved	Analysis	6020		1	404069	10/03/19 18:25	RKT	TAL CAN
Total Recoverable	Prep	3005A			403665	10/02/19 14:00	MRL	TAL CAN
Total Recoverable	Analysis	6020		1	404069	10/03/19 18:22	RKT	TAL CAN

Client Sample ID: GW-17322-093019-JY-007

Lab Sample ID: 240-119767-8

Date Collected: 09/30/19 09:10

Matrix: Water

Date Received: 10/01/19 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	405420	10/12/19 16:55	LEE	TAL CAN
Dissolved	Prep	3005A			403665	10/02/19 14:00	MRL	TAL CAN
Dissolved	Analysis	6020		1	404069	10/03/19 18:30	RKT	TAL CAN
Total Recoverable	Prep	3005A			403665	10/02/19 14:00	MRL	TAL CAN
Total Recoverable	Analysis	6020		1	404069	10/03/19 18:27	RKT	TAL CAN

Client Sample ID: GW-17322-093019-JY-008

Lab Sample ID: 240-119767-9

Date Collected: 09/30/19 10:25

Matrix: Water

Date Received: 10/01/19 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	405420	10/12/19 17:19	LEE	TAL CAN
Dissolved	Prep	3005A			403665	10/02/19 14:00	MRL	TAL CAN
Dissolved	Analysis	6020		1	404069	10/03/19 18:34	RKT	TAL CAN
Total Recoverable	Prep	3005A			403665	10/02/19 14:00	MRL	TAL CAN
Total Recoverable	Analysis	6020		1	404069	10/03/19 18:32	RKT	TAL CAN

Client Sample ID: GW-17322-093019-JY-009

Lab Sample ID: 240-119767-10

Date Collected: 09/30/19 10:40

Matrix: Water

Date Received: 10/01/19 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	405420	10/12/19 17:43	LEE	TAL CAN

Client Sample ID: GW-17322-093019-JY-010

Lab Sample ID: 240-119767-11

Date Collected: 09/30/19 11:45

Matrix: Water

Date Received: 10/01/19 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	405420	10/12/19 18:07	LEE	TAL CAN

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Lab Chronicle

Client: GHD Services Inc.
Project/Site: 17322A-009, PCC Validation

Job ID: 240-119767-1

Client Sample ID: GW-17322-093019-JY-011

Lab Sample ID: 240-119767-12

Date Collected: 09/30/19 12:35

Matrix: Water

Date Received: 10/01/19 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	405420	10/12/19 18:31	LEE	TAL CAN

Client Sample ID: GW-17322-093019-JY-012

Lab Sample ID: 240-119767-13

Date Collected: 09/30/19 12:35

Matrix: Water

Date Received: 10/01/19 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	405438	10/13/19 12:35	LEE	TAL CAN

Client Sample ID: GW-17322-093019-JY-013

Lab Sample ID: 240-119767-14

Date Collected: 09/30/19 13:55

Matrix: Water

Date Received: 10/01/19 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	405420	10/12/19 19:18	LEE	TAL CAN

Client Sample ID: GW-17322-093019-JY-014

Lab Sample ID: 240-119767-15

Date Collected: 09/30/19 14:15

Matrix: Water

Date Received: 10/01/19 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	405420	10/12/19 19:42	LEE	TAL CAN

Client Sample ID: GW-17322-093019-JY-015

Lab Sample ID: 240-119767-16

Date Collected: 09/30/19 15:00

Matrix: Water

Date Received: 10/01/19 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	405420	10/12/19 20:06	LEE	TAL CAN

Client Sample ID: GW-17322-093019-JY-016

Lab Sample ID: 240-119767-17

Date Collected: 09/30/19 15:20

Matrix: Water

Date Received: 10/01/19 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	405420	10/12/19 20:30	LEE	TAL CAN

Laboratory References:

TAL CAN = Eurofins TestAmerica, Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Eurofins TestAmerica, Canton

Accreditation/Certification Summary

Client: GHD Services Inc.
Project/Site: 17322A-009, PCC Validation

Job ID: 240-119767-1

Laboratory: Eurofins TestAmerica, Canton

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-23-20
Connecticut	State	PH-0590	12-31-19
Florida	NELAP	E87225	06-30-20
Georgia	State	4062	02-23-20
Illinois	NELAP	004498	07-31-20
Iowa	State	421	06-01-20
Kansas	NELAP	E-10336	04-30-20
Kentucky (UST)	State	112225	02-23-20
Kentucky (WW)	State	KY98016	12-31-19
Minnesota	NELAP	OH00048	12-31-19
Minnesota (Petrofund)	State Program	3506	07-31-21
New Jersey	NELAP	OH001	06-30-20
New York	NELAP	10975	03-31-20
Ohio VAP	State	CL0024	06-05-21
Oregon	NELAP	4062	02-23-20
Pennsylvania	NELAP	68-00340	08-31-20
Texas	NELAP	T104704517-18-10	08-31-20
USDA	US Federal Programs	P330-16-00404	12-28-19
Virginia	NELAP	010101	09-14-20
Washington	State	C971	01-12-20
West Virginia DEP	State	210	12-31-19

MICHIGAN
190

Chain of Custody Record

380732



Environment Testing
TestAmerica

Address:

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TAL-8210

Client Contact		Project Manager: Tom Kinney		Site Contact: J. Yoda		Date:		COC No:	
Company Name: GHD		Tel/Email:		Lab Contact: J. Yoda		Carrier:		COC No: 1 of 2 COCs	
Address: 26850 Haggerty Rd				Analysis Turnaround Time				Sampler: John Yoda	
City/State/Zip: Farmington Hills, MI 48331				☐ CALENDAR DAYS ☐ WORKING DAYS				For Lab Use Only:	
Phone: 248 893 3400				TAT if different from Below				Walk-in Client:	
Fax:				☒ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day				Lab Sampling:	
Project Name: PCL Validation								Job / SDG No.:	
Site: Pontiac, Mich								SSOW 17322-009-1024	
P O #									
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	Sample Specific Notes:
TB-17322-092719		9/27/19	-	G	WQ	1	W	X	
GW-17322-092719-3Y-001			0930	G	WG	3	W	X	
-002			1035	G	WG	3	W	X	
-003			1150	G	WG	3	W	X	
-004			1310	G	WG	3	W	X	
-005			1440	G	WG	5	W	X	
GW-17322-093019-3Y-006		9/30/19	0905	G	WG	5	W	X	
-007			0910	G	WG	5	W	X	
-008			1025	G	WG	5	W	X	
-009			1040	G	WG	3	W	X	
-010			1145	G	WG	3	W	X	
-011			1235	G	WG	3	W	X	
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4= HNO3; 5= NaOH; 6= Other									
Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.									
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown									
Special Instructions/QC Requirements & Comments:									
Custody Seals Intact: ☐ Yes ☐ No		Custody Seal No.:		Cooler Temp. (°C): Obs'd:		Corr'd:		Therm ID No.:	
Relinquished by: [Signature]		Company: GHD		Received by: [Signature]		Company: BTA		Date/Time: 10-01-19 945	
Relinquished by:		Company:		Received by:		Company:		Date/Time:	
Relinquished by:		Company:		Received in Laboratory by:		Company:		Date/Time:	



240-119767 Chain of Custody

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☒ Disposal by Lab ☐ Archive for _____ Months



MICHIGAN
190

Chain of Custody Record

380733



Environment Testing
TestAmerica

Address:

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TAL-8210

Client Contact Company Name: GHD Address: City/State/Zip: 248 893 3400 Phone: 248 893 3400 Fax: Project Name: PCC Validation Site: Parkman, Michigan P O #		Project Manager: Tam Kinney Tel/Email: Analysis Turnaround Time ☐ CALENDAR DAYS ☐ WORKING DAYS TAT if different from Below ☒ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		Site Contact: J. York Lab Contact: D. Hecker Date: 10-01-19 Carrier: Red Ex COC No: 2 of 2 COCs	
Sampler: J. York, Dillon A. For Lab Use Only: Walk-in Client: Lab Sampling: Job / SDG No.:		Sample Specific Notes:			
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	# of Cont.
GW-17322-093019-54-012		9/30/19	1235	G	9
-013			1355	G	3
-014			1415	G	3
-015			1500	G	3
GW-17322-093019-54-016			1520	G	3
End of Batch					
Preservation Used: 1=Ice, 2=HCl, 3=H2SO4, 4=HNO3, 5=NaOH, 6=Other					
Possible Hazard Identification: Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.					
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown					
Special Instructions/QC Requirements & Comments:					
Custody Seals Intact: ☐ Yes ☐ No		Custody Seal No.: SSOW 17322-009-T02Y18		Cooler Temp. (°C): Obs'd: 10-01-19 995	
Relinquished by: John York		Company: GHD		Date/Time: 10-01-19 995	
Relinquished by:		Company:		Date/Time:	
Relinquished by:		Company:		Date/Time:	

Eurofins TestAmerica Canton Sample Receipt Form/Narrative
Canton Facility

Login # : 114767

Client GHD Site Name _____
 Cooler Received on 10-01-19 Opened on 10-01-19
 FedEx: 1st Grd Exp UPS FAS Clipper Client Drop Off TestAmerica Courier Other _____

Cooler unpacked by: [Signature]

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

TestAmerica Cooler # 1A Foam Box Client Cooler Box Other _____
 Packing material used: Bubble Wrap Foam Plastic Bag None Other _____
 COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☐ See Multiple Cooler Form
 IR GUN# IR-10 (CF +0.7 °C) Observed Cooler Temp. 5.1 °C Corrected Cooler Temp. 5.8 °C
 IR GUN #IR-11 (CF +0.9 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C
2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity _____ Yes No
 -Were the seals on the outside of the cooler(s) signed & dated? Yes No NA
 -Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes NO
 -Were tamper/custody seals intact and uncompromised? Yes No NA
3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
7. Did all bottles arrive in good condition (Unbroken)? Yes No
8. Could all bottle labels be reconciled with the COC? Yes No
9. Were correct bottle(s) used for the test(s) indicated? Yes No
10. Sufficient quantity received to perform indicated analyses? Yes No
11. Are these work share samples? Yes No
 If yes, Questions 12-16 have been checked at the originating laboratory.
12. Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC991818
13. Were VOAs on the COC? Yes No
14. Were air bubbles >6 mm in any VOA vials?  Larger than this. Yes No NA
15. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # NA Yes No
16. Was a LL Hg or Me Hg trip blank present? Yes No

Tests that are not
checked for pH by
Receiving:

VOAs
Oil and Grease
TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other _____

Concerning _____

17. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Samples processed by: MS

18. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
 Sample(s) _____ were received in a broken container.
 Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

19. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.
 Time preserved: _____ Preservative(s) added/Lot number(s): _____

VOA Sample Preservation - Date/Time VOAs Frozen: _____

Temperature readings: _____

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container</u> <u>pH</u>	<u>Preservative</u> <u>Added (mls)</u>	<u>Lot #</u>
GW-17322-092719-JY-005	240-119767-D-6	Plastic 250ml - with Nitric Acid	<2	_____	_____
GW-17322-092719-JY-005	240-119767-E-6	Plastic 250ml - w/nitric - dis	<2	_____	_____
GW-17322-093019-JY-006	240-119767-D-7	Plastic 250ml - with Nitric Acid	<2	_____	_____
GW-17322-093019-JY-006	240-119767-E-7	Plastic 250ml - w/nitric - dis	<2	_____	_____
GW-17322-093019-JY-007	240-119767-D-8	Plastic 250ml - with Nitric Acid	<2	_____	_____
GW-17322-093019-JY-007	240-119767-E-8	Plastic 250ml - w/nitric - dis	<2	_____	_____
GW-17322-093019-JY-008	240-119767-D-9	Plastic 250ml - with Nitric Acid	<2	_____	_____
GW-17322-093019-JY-008	240-119767-E-9	Plastic 250ml - w/nitric - dis	<2	_____	_____

ANALYTICAL REPORT

Eurofins TestAmerica, Canton
4101 Shuffel Street NW
North Canton, OH 44720
Tel: (330)497-9396

Laboratory Job ID: 240-122031-1
Client Project/Site: 17322, PCC Validation

For:
GHD Services Inc.
26850 Haggerty Rd.
Farmington Hills, Michigan 48331

Attn: Mr. James Abston



Authorized for release by:
11/22/2019 4:17:32 PM

Denise Heckler, Project Manager II
(330)966-9477
denise.heckler@testamericainc.com

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www.testamericainc.com

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

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



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Case Narrative

Client: GHD Services Inc.
Project/Site: 17322, PCC Validation

Job ID: 240-122031-1

Job ID: 240-122031-1

Laboratory: Eurofins TestAmerica, Canton

Narrative

Job Narrative
240-122031-1

Comments

No additional comments.

Receipt

The samples were received on 11/9/2019 9:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.9° C.

GC/MS VOA

Method 8260B: There was an MS/MSD analyzed in batch 240-411387 but could not be reported because the associated sample needed reanalyzed in a different batch.

Method 8260B: There is no MS/MSD in batch 240-411807 due to an incorrect dilution.

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

Metals

Method 6020: Some requested practical quantitation limits (PQLs) fall below the laboratory's verified standard quantitation limit. The continuing calibration blanks and method blanks may not support the lower PQL.

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

Definitions/Glossary

Client: GHD Services Inc.
Project/Site: 17322, PCC Validation

Job ID: 240-122031-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Sample Summary

Client: GHD Services Inc.
Project/Site: 17322, PCC Validation

Job ID: 240-122031-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
240-122031-1	TB-17322-110619	Water	11/06/19 00:00	11/09/19 09:30	
240-122031-2	GW-17322-110619-JY-001	Water	11/06/19 10:50	11/09/19 09:30	
240-122031-3	GW-17322-110619-JY-002	Water	11/06/19 11:10	11/09/19 09:30	
240-122031-4	GW-17322-110619-JY-003	Water	11/06/19 11:15	11/09/19 09:30	
240-122031-5	GW-17322-110619-JY-004	Water	11/06/19 13:25	11/09/19 09:30	
240-122031-6	GW-17322-110619-JY-005	Water	11/06/19 14:05	11/09/19 09:30	
240-122031-7	GW-17322-110619-JY-006	Water	11/06/19 15:05	11/09/19 09:30	
240-122031-8	GW-17322-110719-JY-007	Water	11/07/19 09:50	11/09/19 09:30	
240-122031-9	GW-17322-110719-JY-008	Water	11/07/19 10:40	11/09/19 09:30	
240-122031-10	GW-17322-110719-JY-009	Water	11/07/19 12:00	11/09/19 09:30	
240-122031-11	GW-17322-110719-JY-010	Water	11/07/19 12:45	11/09/19 09:30	
240-122031-12	GW-17322-110719-JY-011	Water	11/07/19 13:50	11/09/19 09:30	
240-122031-13	GW-17322-110719-JY-012	Water	11/07/19 14:45	11/09/19 09:30	
240-122031-14	GW-17322-110819-JY-013	Water	11/08/19 08:50	11/09/19 09:30	
240-122031-15	GW-17322-110819-JY-014	Water	11/08/19 10:05	11/09/19 09:30	
240-122031-16	GW-17322-110819-JY-015	Water	11/08/19 10:50	11/09/19 09:30	
240-122031-17	GW-17322-110819-JY-016	Water	11/08/19 11:40	11/09/19 09:30	

Detection Summary

Client: GHD Services Inc.
Project/Site: 17322, PCC Validation

Job ID: 240-122031-1

Client Sample ID: TB-17322-110619

Lab Sample ID: 240-122031-1

No Detections.

Client Sample ID: GW-17322-110619-JY-001

Lab Sample ID: 240-122031-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	260		50	34	ug/L	1		6020	Total Recoverable
Lead	0.63	J	1.0	0.45	ug/L	1		6020	Total Recoverable

Client Sample ID: GW-17322-110619-JY-002

Lab Sample ID: 240-122031-3

No Detections.

Client Sample ID: GW-17322-110619-JY-003

Lab Sample ID: 240-122031-4

No Detections.

Client Sample ID: GW-17322-110619-JY-004

Lab Sample ID: 240-122031-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	950		50	34	ug/L	1		6020	Total Recoverable
Lead	1.7		1.0	0.45	ug/L	1		6020	Total Recoverable
Vanadium	2.5	J	4.0	0.82	ug/L	1		6020	Total Recoverable

Client Sample ID: GW-17322-110619-JY-005

Lab Sample ID: 240-122031-6

No Detections.

Client Sample ID: GW-17322-110619-JY-006

Lab Sample ID: 240-122031-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	1.4		1.0	0.10	ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	0.99	J	1.0	0.16	ug/L	1		8260B	Total/NA

Client Sample ID: GW-17322-110719-JY-007

Lab Sample ID: 240-122031-8

No Detections.

Client Sample ID: GW-17322-110719-JY-008

Lab Sample ID: 240-122031-9

No Detections.

Client Sample ID: GW-17322-110719-JY-009

Lab Sample ID: 240-122031-10

No Detections.

Client Sample ID: GW-17322-110719-JY-010

Lab Sample ID: 240-122031-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	0.13	J	1.0	0.10	ug/L	1		8260B	Total/NA
Xylenes, Total	0.20	J	2.0	0.15	ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	0.29	J	1.0	0.16	ug/L	1		8260B	Total/NA

Client Sample ID: GW-17322-110719-JY-011

Lab Sample ID: 240-122031-12

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Canton

Detection Summary

Client: GHD Services Inc.
Project/Site: 17322, PCC Validation

Job ID: 240-122031-1

Client Sample ID: GW-17322-110719-JY-012

Lab Sample ID: 240-122031-13

No Detections.

Client Sample ID: GW-17322-110819-JY-013

Lab Sample ID: 240-122031-14

No Detections.

Client Sample ID: GW-17322-110819-JY-014

Lab Sample ID: 240-122031-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vinyl chloride	1.2		1.0	0.20	ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	0.40	J	1.0	0.16	ug/L	1		8260B	Total/NA

Client Sample ID: GW-17322-110819-JY-015

Lab Sample ID: 240-122031-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vinyl chloride	0.21	J	1.0	0.20	ug/L	1		8260B	Total/NA

Client Sample ID: GW-17322-110819-JY-016

Lab Sample ID: 240-122031-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vinyl chloride	0.23	J	1.0	0.20	ug/L	1		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Canton

Method Summary

Client: GHD Services Inc.
Project/Site: 17322, PCC Validation

Job ID: 240-122031-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CAN
6020	Metals (ICP/MS)	SW846	TAL CAN
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL CAN
5030B	Purge and Trap	SW846	TAL CAN

Protocol References:

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

Laboratory References:

TAL CAN = Eurofins TestAmerica, Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Client Sample Results

Client: GHD Services Inc.
Project/Site: 17322, PCC Validation

Job ID: 240-122031-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: TB-17322-110619

Date Collected: 11/06/19 00:00

Date Received: 11/09/19 09:30

Lab Sample ID: 240-122031-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	5.4	ug/L			11/18/19 20:06	1
Benzene	1.0	U	1.0	0.13	ug/L			11/18/19 20:06	1
Bromodichloromethane	1.0	U	1.0	0.17	ug/L			11/18/19 20:06	1
Bromoform	1.0	U	1.0	0.76	ug/L			11/18/19 20:06	1
Bromomethane	1.0	U	1.0	0.42	ug/L			11/18/19 20:06	1
2-Butanone (MEK)	10	U	10	1.2	ug/L			11/18/19 20:06	1
Carbon disulfide	5.0	U	5.0	0.28	ug/L			11/18/19 20:06	1
Carbon tetrachloride	1.0	U	1.0	0.26	ug/L			11/18/19 20:06	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			11/18/19 20:06	1
Chloroethane	1.0	U	1.0	0.83	ug/L			11/18/19 20:06	1
Chloroform	1.0	U	1.0	0.13	ug/L			11/18/19 20:06	1
Chloromethane	1.0	U	1.0	0.20	ug/L			11/18/19 20:06	1
1,1-Dichloroethane	1.0	U	1.0	0.17	ug/L			11/18/19 20:06	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			11/18/19 20:06	1
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			11/18/19 20:06	1
1,2-Dichloropropane	1.0	U	1.0	0.15	ug/L			11/18/19 20:06	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.61	ug/L			11/18/19 20:06	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.67	ug/L			11/18/19 20:06	1
Ethylbenzene	1.0	U	1.0	0.11	ug/L			11/18/19 20:06	1
2-Hexanone	10	U	10	0.54	ug/L			11/18/19 20:06	1
Methylene Chloride	5.0	U	5.0	2.6	ug/L			11/18/19 20:06	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.42	ug/L			11/18/19 20:06	1
Styrene	1.0	U	1.0	0.10	ug/L			11/18/19 20:06	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13	ug/L			11/18/19 20:06	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			11/18/19 20:06	1
Toluene	1.0	U	1.0	0.14	ug/L			11/18/19 20:06	1
Trichloroethene	1.0	U	1.0	0.10	ug/L			11/18/19 20:06	1
Vinyl chloride	1.0	U	1.0	0.20	ug/L			11/18/19 20:06	1
Xylenes, Total	2.0	U	2.0	0.15	ug/L			11/18/19 20:06	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			11/18/19 20:06	1
1,1,2-Trichloroethane	1.0	U	1.0	0.090	ug/L			11/18/19 20:06	1
Cyclohexane	1.0	U	1.0	0.24	ug/L			11/18/19 20:06	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.91	ug/L			11/18/19 20:06	1
1,2-Dibromoethane	1.0	U	1.0	0.12	ug/L			11/18/19 20:06	1
Dichlorodifluoromethane	1.0	U	1.0	0.35	ug/L			11/18/19 20:06	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.16	ug/L			11/18/19 20:06	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			11/18/19 20:06	1
Isopropylbenzene	1.0	U	1.0	0.090	ug/L			11/18/19 20:06	1
Methyl acetate	10	U	10	1.7	ug/L			11/18/19 20:06	1
Methyl tert-butyl ether	1.0	U	1.0	0.070	ug/L			11/18/19 20:06	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			11/18/19 20:06	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.26	ug/L			11/18/19 20:06	1
1,2-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			11/18/19 20:06	1
1,3-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			11/18/19 20:06	1
1,4-Dichlorobenzene	1.0	U	1.0	0.16	ug/L			11/18/19 20:06	1
Trichlorofluoromethane	1.0	U	1.0	0.45	ug/L			11/18/19 20:06	1
Dibromochloromethane	1.0	U	1.0	0.39	ug/L			11/18/19 20:06	1
Methylcyclohexane	1.0	U	1.0	0.33	ug/L			11/18/19 20:06	1

Eurofins TestAmerica, Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 17322, PCC Validation

Job ID: 240-122031-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
1,2-Dichloroethane-d4 (Surr)	98		75 - 130		11/18/19 20:06	1
4-Bromofluorobenzene (Surr)	69		47 - 134		11/18/19 20:06	1
Toluene-d8 (Surr)	98		69 - 122		11/18/19 20:06	1
Dibromofluoromethane (Surr)	116		78 - 129		11/18/19 20:06	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 17322, PCC Validation

Job ID: 240-122031-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: GW-17322-110619-JY-005

Date Collected: 11/06/19 14:05

Date Received: 11/09/19 09:30

Lab Sample ID: 240-122031-6

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	5.4	ug/L			11/19/19 17:37	1
Benzene	1.0	U	1.0	0.13	ug/L			11/19/19 17:37	1
Bromodichloromethane	1.0	U	1.0	0.17	ug/L			11/19/19 17:37	1
Bromoform	1.0	U	1.0	0.76	ug/L			11/19/19 17:37	1
Bromomethane	1.0	U	1.0	0.42	ug/L			11/19/19 17:37	1
2-Butanone (MEK)	10	U	10	1.2	ug/L			11/19/19 17:37	1
Carbon disulfide	5.0	U	5.0	0.28	ug/L			11/19/19 17:37	1
Carbon tetrachloride	1.0	U	1.0	0.26	ug/L			11/19/19 17:37	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			11/19/19 17:37	1
Chloroethane	1.0	U	1.0	0.83	ug/L			11/19/19 17:37	1
Chloroform	1.0	U	1.0	0.13	ug/L			11/19/19 17:37	1
Chloromethane	1.0	U	1.0	0.20	ug/L			11/19/19 17:37	1
1,1-Dichloroethane	1.0	U	1.0	0.17	ug/L			11/19/19 17:37	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			11/19/19 17:37	1
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			11/19/19 17:37	1
1,2-Dichloropropane	1.0	U	1.0	0.15	ug/L			11/19/19 17:37	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.61	ug/L			11/19/19 17:37	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.67	ug/L			11/19/19 17:37	1
Ethylbenzene	1.0	U	1.0	0.11	ug/L			11/19/19 17:37	1
2-Hexanone	10	U	10	0.54	ug/L			11/19/19 17:37	1
Methylene Chloride	5.0	U	5.0	2.6	ug/L			11/19/19 17:37	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.42	ug/L			11/19/19 17:37	1
Styrene	1.0	U	1.0	0.10	ug/L			11/19/19 17:37	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13	ug/L			11/19/19 17:37	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			11/19/19 17:37	1
Toluene	1.0	U	1.0	0.14	ug/L			11/19/19 17:37	1
Trichloroethene	1.0	U	1.0	0.10	ug/L			11/19/19 17:37	1
Vinyl chloride	1.0	U	1.0	0.20	ug/L			11/19/19 17:37	1
Xylenes, Total	2.0	U	2.0	0.15	ug/L			11/19/19 17:37	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			11/19/19 17:37	1
1,1,2-Trichloroethane	1.0	U	1.0	0.090	ug/L			11/19/19 17:37	1
Cyclohexane	1.0	U	1.0	0.24	ug/L			11/19/19 17:37	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.91	ug/L			11/19/19 17:37	1
1,2-Dibromoethane	1.0	U	1.0	0.12	ug/L			11/19/19 17:37	1
Dichlorodifluoromethane	1.0	U	1.0	0.35	ug/L			11/19/19 17:37	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.16	ug/L			11/19/19 17:37	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			11/19/19 17:37	1
Isopropylbenzene	1.0	U	1.0	0.090	ug/L			11/19/19 17:37	1
Methyl acetate	10	U	10	1.7	ug/L			11/19/19 17:37	1
Methyl tert-butyl ether	1.0	U	1.0	0.070	ug/L			11/19/19 17:37	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			11/19/19 17:37	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.26	ug/L			11/19/19 17:37	1
1,2-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			11/19/19 17:37	1
1,3-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			11/19/19 17:37	1
1,4-Dichlorobenzene	1.0	U	1.0	0.16	ug/L			11/19/19 17:37	1
Trichlorofluoromethane	1.0	U	1.0	0.45	ug/L			11/19/19 17:37	1
Dibromochloromethane	1.0	U	1.0	0.39	ug/L			11/19/19 17:37	1
Methylcyclohexane	1.0	U	1.0	0.33	ug/L			11/19/19 17:37	1

Eurofins TestAmerica, Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 17322, PCC Validation

Job ID: 240-122031-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
1,2-Dichloroethane-d4 (Surr)	93		75 - 130		11/19/19 17:37	1
4-Bromofluorobenzene (Surr)	66		47 - 134		11/19/19 17:37	1
Toluene-d8 (Surr)	91		69 - 122		11/19/19 17:37	1
Dibromofluoromethane (Surr)	115		78 - 129		11/19/19 17:37	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 17322, PCC Validation

Job ID: 240-122031-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: GW-17322-110619-JY-006

Date Collected: 11/06/19 15:05

Date Received: 11/09/19 09:30

Lab Sample ID: 240-122031-7

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	5.4	ug/L			11/18/19 21:40	1
Benzene	1.0	U	1.0	0.13	ug/L			11/18/19 21:40	1
Bromodichloromethane	1.0	U	1.0	0.17	ug/L			11/18/19 21:40	1
Bromoform	1.0	U	1.0	0.76	ug/L			11/18/19 21:40	1
Bromomethane	1.0	U	1.0	0.42	ug/L			11/18/19 21:40	1
2-Butanone (MEK)	10	U	10	1.2	ug/L			11/18/19 21:40	1
Carbon disulfide	5.0	U	5.0	0.28	ug/L			11/18/19 21:40	1
Carbon tetrachloride	1.0	U	1.0	0.26	ug/L			11/18/19 21:40	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			11/18/19 21:40	1
Chloroethane	1.0	U	1.0	0.83	ug/L			11/18/19 21:40	1
Chloroform	1.0	U	1.0	0.13	ug/L			11/18/19 21:40	1
Chloromethane	1.0	U	1.0	0.20	ug/L			11/18/19 21:40	1
1,1-Dichloroethane	1.0	U	1.0	0.17	ug/L			11/18/19 21:40	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			11/18/19 21:40	1
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			11/18/19 21:40	1
1,2-Dichloropropane	1.0	U	1.0	0.15	ug/L			11/18/19 21:40	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.61	ug/L			11/18/19 21:40	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.67	ug/L			11/18/19 21:40	1
Ethylbenzene	1.0	U	1.0	0.11	ug/L			11/18/19 21:40	1
2-Hexanone	10	U	10	0.54	ug/L			11/18/19 21:40	1
Methylene Chloride	5.0	U	5.0	2.6	ug/L			11/18/19 21:40	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.42	ug/L			11/18/19 21:40	1
Styrene	1.0	U	1.0	0.10	ug/L			11/18/19 21:40	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13	ug/L			11/18/19 21:40	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			11/18/19 21:40	1
Toluene	1.0	U	1.0	0.14	ug/L			11/18/19 21:40	1
Trichloroethene	1.4		1.0	0.10	ug/L			11/18/19 21:40	1
Vinyl chloride	1.0	U	1.0	0.20	ug/L			11/18/19 21:40	1
Xylenes, Total	2.0	U	2.0	0.15	ug/L			11/18/19 21:40	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			11/18/19 21:40	1
1,1,2-Trichloroethane	1.0	U	1.0	0.090	ug/L			11/18/19 21:40	1
Cyclohexane	1.0	U	1.0	0.24	ug/L			11/18/19 21:40	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.91	ug/L			11/18/19 21:40	1
1,2-Dibromoethane	1.0	U	1.0	0.12	ug/L			11/18/19 21:40	1
Dichlorodifluoromethane	1.0	U	1.0	0.35	ug/L			11/18/19 21:40	1
cis-1,2-Dichloroethene	0.99	J	1.0	0.16	ug/L			11/18/19 21:40	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			11/18/19 21:40	1
Isopropylbenzene	1.0	U	1.0	0.090	ug/L			11/18/19 21:40	1
Methyl acetate	10	U	10	1.7	ug/L			11/18/19 21:40	1
Methyl tert-butyl ether	1.0	U	1.0	0.070	ug/L			11/18/19 21:40	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			11/18/19 21:40	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.26	ug/L			11/18/19 21:40	1
1,2-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			11/18/19 21:40	1
1,3-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			11/18/19 21:40	1
1,4-Dichlorobenzene	1.0	U	1.0	0.16	ug/L			11/18/19 21:40	1
Trichlorofluoromethane	1.0	U	1.0	0.45	ug/L			11/18/19 21:40	1
Dibromochloromethane	1.0	U	1.0	0.39	ug/L			11/18/19 21:40	1
Methylcyclohexane	1.0	U	1.0	0.33	ug/L			11/18/19 21:40	1

Eurofins TestAmerica, Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 17322, PCC Validation

Job ID: 240-122031-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
1,2-Dichloroethane-d4 (Surr)	95		75 - 130		11/18/19 21:40	1
4-Bromofluorobenzene (Surr)	65		47 - 134		11/18/19 21:40	1
Toluene-d8 (Surr)	95		69 - 122		11/18/19 21:40	1
Dibromofluoromethane (Surr)	120		78 - 129		11/18/19 21:40	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 17322, PCC Validation

Job ID: 240-122031-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: GW-17322-110719-JY-007

Date Collected: 11/07/19 09:50

Date Received: 11/09/19 09:30

Lab Sample ID: 240-122031-8

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	5.4	ug/L			11/18/19 22:04	1
Benzene	1.0	U	1.0	0.13	ug/L			11/18/19 22:04	1
Bromodichloromethane	1.0	U	1.0	0.17	ug/L			11/18/19 22:04	1
Bromoform	1.0	U	1.0	0.76	ug/L			11/18/19 22:04	1
Bromomethane	1.0	U	1.0	0.42	ug/L			11/18/19 22:04	1
2-Butanone (MEK)	10	U	10	1.2	ug/L			11/18/19 22:04	1
Carbon disulfide	5.0	U	5.0	0.28	ug/L			11/18/19 22:04	1
Carbon tetrachloride	1.0	U	1.0	0.26	ug/L			11/18/19 22:04	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			11/18/19 22:04	1
Chloroethane	1.0	U	1.0	0.83	ug/L			11/18/19 22:04	1
Chloroform	1.0	U	1.0	0.13	ug/L			11/18/19 22:04	1
Chloromethane	1.0	U	1.0	0.20	ug/L			11/18/19 22:04	1
1,1-Dichloroethane	1.0	U	1.0	0.17	ug/L			11/18/19 22:04	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			11/18/19 22:04	1
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			11/18/19 22:04	1
1,2-Dichloropropane	1.0	U	1.0	0.15	ug/L			11/18/19 22:04	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.61	ug/L			11/18/19 22:04	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.67	ug/L			11/18/19 22:04	1
Ethylbenzene	1.0	U	1.0	0.11	ug/L			11/18/19 22:04	1
2-Hexanone	10	U	10	0.54	ug/L			11/18/19 22:04	1
Methylene Chloride	5.0	U	5.0	2.6	ug/L			11/18/19 22:04	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.42	ug/L			11/18/19 22:04	1
Styrene	1.0	U	1.0	0.10	ug/L			11/18/19 22:04	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13	ug/L			11/18/19 22:04	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			11/18/19 22:04	1
Toluene	1.0	U	1.0	0.14	ug/L			11/18/19 22:04	1
Trichloroethene	1.0	U	1.0	0.10	ug/L			11/18/19 22:04	1
Vinyl chloride	1.0	U	1.0	0.20	ug/L			11/18/19 22:04	1
Xylenes, Total	2.0	U	2.0	0.15	ug/L			11/18/19 22:04	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			11/18/19 22:04	1
1,1,2-Trichloroethane	1.0	U	1.0	0.090	ug/L			11/18/19 22:04	1
Cyclohexane	1.0	U	1.0	0.24	ug/L			11/18/19 22:04	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.91	ug/L			11/18/19 22:04	1
1,2-Dibromoethane	1.0	U	1.0	0.12	ug/L			11/18/19 22:04	1
Dichlorodifluoromethane	1.0	U	1.0	0.35	ug/L			11/18/19 22:04	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.16	ug/L			11/18/19 22:04	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			11/18/19 22:04	1
Isopropylbenzene	1.0	U	1.0	0.090	ug/L			11/18/19 22:04	1
Methyl acetate	10	U	10	1.7	ug/L			11/18/19 22:04	1
Methyl tert-butyl ether	1.0	U	1.0	0.070	ug/L			11/18/19 22:04	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			11/18/19 22:04	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.26	ug/L			11/18/19 22:04	1
1,2-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			11/18/19 22:04	1
1,3-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			11/18/19 22:04	1
1,4-Dichlorobenzene	1.0	U	1.0	0.16	ug/L			11/18/19 22:04	1
Trichlorofluoromethane	1.0	U	1.0	0.45	ug/L			11/18/19 22:04	1
Dibromochloromethane	1.0	U	1.0	0.39	ug/L			11/18/19 22:04	1
Methylcyclohexane	1.0	U	1.0	0.33	ug/L			11/18/19 22:04	1

Eurofins TestAmerica, Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 17322, PCC Validation

Job ID: 240-122031-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
1,2-Dichloroethane-d4 (Surr)	98		75 - 130		11/18/19 22:04	1
4-Bromofluorobenzene (Surr)	67		47 - 134		11/18/19 22:04	1
Toluene-d8 (Surr)	92		69 - 122		11/18/19 22:04	1
Dibromofluoromethane (Surr)	120		78 - 129		11/18/19 22:04	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 17322, PCC Validation

Job ID: 240-122031-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: GW-17322-110719-JY-008

Date Collected: 11/07/19 10:40

Date Received: 11/09/19 09:30

Lab Sample ID: 240-122031-9

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	5.4	ug/L			11/18/19 22:28	1
Benzene	1.0	U	1.0	0.13	ug/L			11/18/19 22:28	1
Bromodichloromethane	1.0	U	1.0	0.17	ug/L			11/18/19 22:28	1
Bromoform	1.0	U	1.0	0.76	ug/L			11/18/19 22:28	1
Bromomethane	1.0	U	1.0	0.42	ug/L			11/18/19 22:28	1
2-Butanone (MEK)	10	U	10	1.2	ug/L			11/18/19 22:28	1
Carbon disulfide	5.0	U	5.0	0.28	ug/L			11/18/19 22:28	1
Carbon tetrachloride	1.0	U	1.0	0.26	ug/L			11/18/19 22:28	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			11/18/19 22:28	1
Chloroethane	1.0	U	1.0	0.83	ug/L			11/18/19 22:28	1
Chloroform	1.0	U	1.0	0.13	ug/L			11/18/19 22:28	1
Chloromethane	1.0	U	1.0	0.20	ug/L			11/18/19 22:28	1
1,1-Dichloroethane	1.0	U	1.0	0.17	ug/L			11/18/19 22:28	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			11/18/19 22:28	1
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			11/18/19 22:28	1
1,2-Dichloropropane	1.0	U	1.0	0.15	ug/L			11/18/19 22:28	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.61	ug/L			11/18/19 22:28	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.67	ug/L			11/18/19 22:28	1
Ethylbenzene	1.0	U	1.0	0.11	ug/L			11/18/19 22:28	1
2-Hexanone	10	U	10	0.54	ug/L			11/18/19 22:28	1
Methylene Chloride	5.0	U	5.0	2.6	ug/L			11/18/19 22:28	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.42	ug/L			11/18/19 22:28	1
Styrene	1.0	U	1.0	0.10	ug/L			11/18/19 22:28	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13	ug/L			11/18/19 22:28	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			11/18/19 22:28	1
Toluene	1.0	U	1.0	0.14	ug/L			11/18/19 22:28	1
Trichloroethene	1.0	U	1.0	0.10	ug/L			11/18/19 22:28	1
Vinyl chloride	1.0	U	1.0	0.20	ug/L			11/18/19 22:28	1
Xylenes, Total	2.0	U	2.0	0.15	ug/L			11/18/19 22:28	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			11/18/19 22:28	1
1,1,2-Trichloroethane	1.0	U	1.0	0.090	ug/L			11/18/19 22:28	1
Cyclohexane	1.0	U	1.0	0.24	ug/L			11/18/19 22:28	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.91	ug/L			11/18/19 22:28	1
1,2-Dibromoethane	1.0	U	1.0	0.12	ug/L			11/18/19 22:28	1
Dichlorodifluoromethane	1.0	U	1.0	0.35	ug/L			11/18/19 22:28	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.16	ug/L			11/18/19 22:28	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			11/18/19 22:28	1
Isopropylbenzene	1.0	U	1.0	0.090	ug/L			11/18/19 22:28	1
Methyl acetate	10	U	10	1.7	ug/L			11/18/19 22:28	1
Methyl tert-butyl ether	1.0	U	1.0	0.070	ug/L			11/18/19 22:28	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			11/18/19 22:28	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.26	ug/L			11/18/19 22:28	1
1,2-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			11/18/19 22:28	1
1,3-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			11/18/19 22:28	1
1,4-Dichlorobenzene	1.0	U	1.0	0.16	ug/L			11/18/19 22:28	1
Trichlorofluoromethane	1.0	U	1.0	0.45	ug/L			11/18/19 22:28	1
Dibromochloromethane	1.0	U	1.0	0.39	ug/L			11/18/19 22:28	1
Methylcyclohexane	1.0	U	1.0	0.33	ug/L			11/18/19 22:28	1

Eurofins TestAmerica, Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 17322, PCC Validation

Job ID: 240-122031-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
1,2-Dichloroethane-d4 (Surr)	101		75 - 130		11/18/19 22:28	1
4-Bromofluorobenzene (Surr)	68		47 - 134		11/18/19 22:28	1
Toluene-d8 (Surr)	92		69 - 122		11/18/19 22:28	1
Dibromofluoromethane (Surr)	120		78 - 129		11/18/19 22:28	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 17322, PCC Validation

Job ID: 240-122031-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: GW-17322-110719-JY-009

Date Collected: 11/07/19 12:00

Date Received: 11/09/19 09:30

Lab Sample ID: 240-122031-10

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	5.4	ug/L			11/18/19 22:52	1
Benzene	1.0	U	1.0	0.13	ug/L			11/18/19 22:52	1
Bromodichloromethane	1.0	U	1.0	0.17	ug/L			11/18/19 22:52	1
Bromoform	1.0	U	1.0	0.76	ug/L			11/18/19 22:52	1
Bromomethane	1.0	U	1.0	0.42	ug/L			11/18/19 22:52	1
2-Butanone (MEK)	10	U	10	1.2	ug/L			11/18/19 22:52	1
Carbon disulfide	5.0	U	5.0	0.28	ug/L			11/18/19 22:52	1
Carbon tetrachloride	1.0	U	1.0	0.26	ug/L			11/18/19 22:52	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			11/18/19 22:52	1
Chloroethane	1.0	U	1.0	0.83	ug/L			11/18/19 22:52	1
Chloroform	1.0	U	1.0	0.13	ug/L			11/18/19 22:52	1
Chloromethane	1.0	U	1.0	0.20	ug/L			11/18/19 22:52	1
1,1-Dichloroethane	1.0	U	1.0	0.17	ug/L			11/18/19 22:52	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			11/18/19 22:52	1
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			11/18/19 22:52	1
1,2-Dichloropropane	1.0	U	1.0	0.15	ug/L			11/18/19 22:52	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.61	ug/L			11/18/19 22:52	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.67	ug/L			11/18/19 22:52	1
Ethylbenzene	1.0	U	1.0	0.11	ug/L			11/18/19 22:52	1
2-Hexanone	10	U	10	0.54	ug/L			11/18/19 22:52	1
Methylene Chloride	5.0	U	5.0	2.6	ug/L			11/18/19 22:52	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.42	ug/L			11/18/19 22:52	1
Styrene	1.0	U	1.0	0.10	ug/L			11/18/19 22:52	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13	ug/L			11/18/19 22:52	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			11/18/19 22:52	1
Toluene	1.0	U	1.0	0.14	ug/L			11/18/19 22:52	1
Trichloroethene	1.0	U	1.0	0.10	ug/L			11/18/19 22:52	1
Vinyl chloride	1.0	U	1.0	0.20	ug/L			11/18/19 22:52	1
Xylenes, Total	2.0	U	2.0	0.15	ug/L			11/18/19 22:52	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			11/18/19 22:52	1
1,1,2-Trichloroethane	1.0	U	1.0	0.090	ug/L			11/18/19 22:52	1
Cyclohexane	1.0	U	1.0	0.24	ug/L			11/18/19 22:52	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.91	ug/L			11/18/19 22:52	1
1,2-Dibromoethane	1.0	U	1.0	0.12	ug/L			11/18/19 22:52	1
Dichlorodifluoromethane	1.0	U	1.0	0.35	ug/L			11/18/19 22:52	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.16	ug/L			11/18/19 22:52	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			11/18/19 22:52	1
Isopropylbenzene	1.0	U	1.0	0.090	ug/L			11/18/19 22:52	1
Methyl acetate	10	U	10	1.7	ug/L			11/18/19 22:52	1
Methyl tert-butyl ether	1.0	U	1.0	0.070	ug/L			11/18/19 22:52	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			11/18/19 22:52	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.26	ug/L			11/18/19 22:52	1
1,2-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			11/18/19 22:52	1
1,3-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			11/18/19 22:52	1
1,4-Dichlorobenzene	1.0	U	1.0	0.16	ug/L			11/18/19 22:52	1
Trichlorofluoromethane	1.0	U	1.0	0.45	ug/L			11/18/19 22:52	1
Dibromochloromethane	1.0	U	1.0	0.39	ug/L			11/18/19 22:52	1
Methylcyclohexane	1.0	U	1.0	0.33	ug/L			11/18/19 22:52	1

Eurofins TestAmerica, Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 17322, PCC Validation

Job ID: 240-122031-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
1,2-Dichloroethane-d4 (Surr)	98		75 - 130		11/18/19 22:52	1
4-Bromofluorobenzene (Surr)	65		47 - 134		11/18/19 22:52	1
Toluene-d8 (Surr)	94		69 - 122		11/18/19 22:52	1
Dibromofluoromethane (Surr)	121		78 - 129		11/18/19 22:52	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 17322, PCC Validation

Job ID: 240-122031-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: GW-17322-110719-JY-010

Date Collected: 11/07/19 12:45

Date Received: 11/09/19 09:30

Lab Sample ID: 240-122031-11

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	5.4	ug/L			11/18/19 23:16	1
Benzene	1.0	U	1.0	0.13	ug/L			11/18/19 23:16	1
Bromodichloromethane	1.0	U	1.0	0.17	ug/L			11/18/19 23:16	1
Bromoform	1.0	U	1.0	0.76	ug/L			11/18/19 23:16	1
Bromomethane	1.0	U	1.0	0.42	ug/L			11/18/19 23:16	1
2-Butanone (MEK)	10	U	10	1.2	ug/L			11/18/19 23:16	1
Carbon disulfide	5.0	U	5.0	0.28	ug/L			11/18/19 23:16	1
Carbon tetrachloride	1.0	U	1.0	0.26	ug/L			11/18/19 23:16	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			11/18/19 23:16	1
Chloroethane	1.0	U	1.0	0.83	ug/L			11/18/19 23:16	1
Chloroform	1.0	U	1.0	0.13	ug/L			11/18/19 23:16	1
Chloromethane	1.0	U	1.0	0.20	ug/L			11/18/19 23:16	1
1,1-Dichloroethane	1.0	U	1.0	0.17	ug/L			11/18/19 23:16	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			11/18/19 23:16	1
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			11/18/19 23:16	1
1,2-Dichloropropane	1.0	U	1.0	0.15	ug/L			11/18/19 23:16	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.61	ug/L			11/18/19 23:16	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.67	ug/L			11/18/19 23:16	1
Ethylbenzene	1.0	U	1.0	0.11	ug/L			11/18/19 23:16	1
2-Hexanone	10	U	10	0.54	ug/L			11/18/19 23:16	1
Methylene Chloride	5.0	U	5.0	2.6	ug/L			11/18/19 23:16	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.42	ug/L			11/18/19 23:16	1
Styrene	1.0	U	1.0	0.10	ug/L			11/18/19 23:16	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13	ug/L			11/18/19 23:16	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			11/18/19 23:16	1
Toluene	1.0	U	1.0	0.14	ug/L			11/18/19 23:16	1
Trichloroethene	0.13	J	1.0	0.10	ug/L			11/18/19 23:16	1
Vinyl chloride	1.0	U	1.0	0.20	ug/L			11/18/19 23:16	1
Xylenes, Total	0.20	J	2.0	0.15	ug/L			11/18/19 23:16	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			11/18/19 23:16	1
1,1,2-Trichloroethane	1.0	U	1.0	0.090	ug/L			11/18/19 23:16	1
Cyclohexane	1.0	U	1.0	0.24	ug/L			11/18/19 23:16	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.91	ug/L			11/18/19 23:16	1
1,2-Dibromoethane	1.0	U	1.0	0.12	ug/L			11/18/19 23:16	1
Dichlorodifluoromethane	1.0	U	1.0	0.35	ug/L			11/18/19 23:16	1
cis-1,2-Dichloroethene	0.29	J	1.0	0.16	ug/L			11/18/19 23:16	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			11/18/19 23:16	1
Isopropylbenzene	1.0	U	1.0	0.090	ug/L			11/18/19 23:16	1
Methyl acetate	10	U	10	1.7	ug/L			11/18/19 23:16	1
Methyl tert-butyl ether	1.0	U	1.0	0.070	ug/L			11/18/19 23:16	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			11/18/19 23:16	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.26	ug/L			11/18/19 23:16	1
1,2-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			11/18/19 23:16	1
1,3-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			11/18/19 23:16	1
1,4-Dichlorobenzene	1.0	U	1.0	0.16	ug/L			11/18/19 23:16	1
Trichlorofluoromethane	1.0	U	1.0	0.45	ug/L			11/18/19 23:16	1
Dibromochloromethane	1.0	U	1.0	0.39	ug/L			11/18/19 23:16	1
Methylcyclohexane	1.0	U	1.0	0.33	ug/L			11/18/19 23:16	1

Eurofins TestAmerica, Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 17322, PCC Validation

Job ID: 240-122031-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
1,2-Dichloroethane-d4 (Surr)	90		75 - 130		11/18/19 23:16	1
4-Bromofluorobenzene (Surr)	68		47 - 134		11/18/19 23:16	1
Toluene-d8 (Surr)	92		69 - 122		11/18/19 23:16	1
Dibromofluoromethane (Surr)	118		78 - 129		11/18/19 23:16	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 17322, PCC Validation

Job ID: 240-122031-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: GW-17322-110719-JY-011

Date Collected: 11/07/19 13:50

Date Received: 11/09/19 09:30

Lab Sample ID: 240-122031-12

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	5.4	ug/L			11/19/19 16:49	1
Benzene	1.0	U	1.0	0.13	ug/L			11/19/19 16:49	1
Bromodichloromethane	1.0	U	1.0	0.17	ug/L			11/19/19 16:49	1
Bromoform	1.0	U	1.0	0.76	ug/L			11/19/19 16:49	1
Bromomethane	1.0	U	1.0	0.42	ug/L			11/19/19 16:49	1
2-Butanone (MEK)	10	U	10	1.2	ug/L			11/19/19 16:49	1
Carbon disulfide	5.0	U	5.0	0.28	ug/L			11/19/19 16:49	1
Carbon tetrachloride	1.0	U	1.0	0.26	ug/L			11/19/19 16:49	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			11/19/19 16:49	1
Chloroethane	1.0	U	1.0	0.83	ug/L			11/19/19 16:49	1
Chloroform	1.0	U	1.0	0.13	ug/L			11/19/19 16:49	1
Chloromethane	1.0	U	1.0	0.20	ug/L			11/19/19 16:49	1
1,1-Dichloroethane	1.0	U	1.0	0.17	ug/L			11/19/19 16:49	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			11/19/19 16:49	1
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			11/19/19 16:49	1
1,2-Dichloropropane	1.0	U	1.0	0.15	ug/L			11/19/19 16:49	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.61	ug/L			11/19/19 16:49	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.67	ug/L			11/19/19 16:49	1
Ethylbenzene	1.0	U	1.0	0.11	ug/L			11/19/19 16:49	1
2-Hexanone	10	U	10	0.54	ug/L			11/19/19 16:49	1
Methylene Chloride	5.0	U	5.0	2.6	ug/L			11/19/19 16:49	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.42	ug/L			11/19/19 16:49	1
Styrene	1.0	U	1.0	0.10	ug/L			11/19/19 16:49	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13	ug/L			11/19/19 16:49	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			11/19/19 16:49	1
Toluene	1.0	U	1.0	0.14	ug/L			11/19/19 16:49	1
Trichloroethene	1.0	U	1.0	0.10	ug/L			11/19/19 16:49	1
Vinyl chloride	1.0	U	1.0	0.20	ug/L			11/19/19 16:49	1
Xylenes, Total	2.0	U	2.0	0.15	ug/L			11/19/19 16:49	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			11/19/19 16:49	1
1,1,2-Trichloroethane	1.0	U	1.0	0.090	ug/L			11/19/19 16:49	1
Cyclohexane	1.0	U	1.0	0.24	ug/L			11/19/19 16:49	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.91	ug/L			11/19/19 16:49	1
1,2-Dibromoethane	1.0	U	1.0	0.12	ug/L			11/19/19 16:49	1
Dichlorodifluoromethane	1.0	U	1.0	0.35	ug/L			11/19/19 16:49	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.16	ug/L			11/19/19 16:49	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			11/19/19 16:49	1
Isopropylbenzene	1.0	U	1.0	0.090	ug/L			11/19/19 16:49	1
Methyl acetate	10	U	10	1.7	ug/L			11/19/19 16:49	1
Methyl tert-butyl ether	1.0	U	1.0	0.070	ug/L			11/19/19 16:49	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			11/19/19 16:49	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.26	ug/L			11/19/19 16:49	1
1,2-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			11/19/19 16:49	1
1,3-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			11/19/19 16:49	1
1,4-Dichlorobenzene	1.0	U	1.0	0.16	ug/L			11/19/19 16:49	1
Trichlorofluoromethane	1.0	U	1.0	0.45	ug/L			11/19/19 16:49	1
Dibromochloromethane	1.0	U	1.0	0.39	ug/L			11/19/19 16:49	1
Methylcyclohexane	1.0	U	1.0	0.33	ug/L			11/19/19 16:49	1

Eurofins TestAmerica, Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 17322, PCC Validation

Job ID: 240-122031-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
1,2-Dichloroethane-d4 (Surr)	108		75 - 130		11/19/19 16:49	1
4-Bromofluorobenzene (Surr)	72		47 - 134		11/19/19 16:49	1
Toluene-d8 (Surr)	90		69 - 122		11/19/19 16:49	1
Dibromofluoromethane (Surr)	102		78 - 129		11/19/19 16:49	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 17322, PCC Validation

Job ID: 240-122031-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: GW-17322-110719-JY-012

Date Collected: 11/07/19 14:45

Date Received: 11/09/19 09:30

Lab Sample ID: 240-122031-13

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	5.4	ug/L			11/19/19 17:10	1
Benzene	1.0	U	1.0	0.13	ug/L			11/19/19 17:10	1
Bromodichloromethane	1.0	U	1.0	0.17	ug/L			11/19/19 17:10	1
Bromoform	1.0	U	1.0	0.76	ug/L			11/19/19 17:10	1
Bromomethane	1.0	U	1.0	0.42	ug/L			11/19/19 17:10	1
2-Butanone (MEK)	10	U	10	1.2	ug/L			11/19/19 17:10	1
Carbon disulfide	5.0	U	5.0	0.28	ug/L			11/19/19 17:10	1
Carbon tetrachloride	1.0	U	1.0	0.26	ug/L			11/19/19 17:10	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			11/19/19 17:10	1
Chloroethane	1.0	U	1.0	0.83	ug/L			11/19/19 17:10	1
Chloroform	1.0	U	1.0	0.13	ug/L			11/19/19 17:10	1
Chloromethane	1.0	U	1.0	0.20	ug/L			11/19/19 17:10	1
1,1-Dichloroethane	1.0	U	1.0	0.17	ug/L			11/19/19 17:10	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			11/19/19 17:10	1
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			11/19/19 17:10	1
1,2-Dichloropropane	1.0	U	1.0	0.15	ug/L			11/19/19 17:10	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.61	ug/L			11/19/19 17:10	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.67	ug/L			11/19/19 17:10	1
Ethylbenzene	1.0	U	1.0	0.11	ug/L			11/19/19 17:10	1
2-Hexanone	10	U	10	0.54	ug/L			11/19/19 17:10	1
Methylene Chloride	5.0	U	5.0	2.6	ug/L			11/19/19 17:10	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.42	ug/L			11/19/19 17:10	1
Styrene	1.0	U	1.0	0.10	ug/L			11/19/19 17:10	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13	ug/L			11/19/19 17:10	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			11/19/19 17:10	1
Toluene	1.0	U	1.0	0.14	ug/L			11/19/19 17:10	1
Trichloroethene	1.0	U	1.0	0.10	ug/L			11/19/19 17:10	1
Vinyl chloride	1.0	U	1.0	0.20	ug/L			11/19/19 17:10	1
Xylenes, Total	2.0	U	2.0	0.15	ug/L			11/19/19 17:10	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			11/19/19 17:10	1
1,1,2-Trichloroethane	1.0	U	1.0	0.090	ug/L			11/19/19 17:10	1
Cyclohexane	1.0	U	1.0	0.24	ug/L			11/19/19 17:10	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.91	ug/L			11/19/19 17:10	1
1,2-Dibromoethane	1.0	U	1.0	0.12	ug/L			11/19/19 17:10	1
Dichlorodifluoromethane	1.0	U	1.0	0.35	ug/L			11/19/19 17:10	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.16	ug/L			11/19/19 17:10	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			11/19/19 17:10	1
Isopropylbenzene	1.0	U	1.0	0.090	ug/L			11/19/19 17:10	1
Methyl acetate	10	U	10	1.7	ug/L			11/19/19 17:10	1
Methyl tert-butyl ether	1.0	U	1.0	0.070	ug/L			11/19/19 17:10	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			11/19/19 17:10	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.26	ug/L			11/19/19 17:10	1
1,2-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			11/19/19 17:10	1
1,3-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			11/19/19 17:10	1
1,4-Dichlorobenzene	1.0	U	1.0	0.16	ug/L			11/19/19 17:10	1
Trichlorofluoromethane	1.0	U	1.0	0.45	ug/L			11/19/19 17:10	1
Dibromochloromethane	1.0	U	1.0	0.39	ug/L			11/19/19 17:10	1
Methylcyclohexane	1.0	U	1.0	0.33	ug/L			11/19/19 17:10	1

Eurofins TestAmerica, Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 17322, PCC Validation

Job ID: 240-122031-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
1,2-Dichloroethane-d4 (Surr)	107		75 - 130		11/19/19 17:10	1
4-Bromofluorobenzene (Surr)	70		47 - 134		11/19/19 17:10	1
Toluene-d8 (Surr)	90		69 - 122		11/19/19 17:10	1
Dibromofluoromethane (Surr)	102		78 - 129		11/19/19 17:10	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 17322, PCC Validation

Job ID: 240-122031-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: GW-17322-110819-JY-013

Date Collected: 11/08/19 08:50

Date Received: 11/09/19 09:30

Lab Sample ID: 240-122031-14

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	5.4	ug/L			11/20/19 13:37	1
Benzene	1.0	U	1.0	0.13	ug/L			11/20/19 13:37	1
Bromodichloromethane	1.0	U	1.0	0.17	ug/L			11/20/19 13:37	1
Bromoform	1.0	U	1.0	0.76	ug/L			11/20/19 13:37	1
Bromomethane	1.0	U	1.0	0.42	ug/L			11/20/19 13:37	1
2-Butanone (MEK)	10	U	10	1.2	ug/L			11/20/19 13:37	1
Carbon disulfide	5.0	U	5.0	0.28	ug/L			11/20/19 13:37	1
Carbon tetrachloride	1.0	U	1.0	0.26	ug/L			11/20/19 13:37	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			11/20/19 13:37	1
Chloroethane	1.0	U	1.0	0.83	ug/L			11/20/19 13:37	1
Chloroform	1.0	U	1.0	0.13	ug/L			11/20/19 13:37	1
Chloromethane	1.0	U	1.0	0.20	ug/L			11/20/19 13:37	1
1,1-Dichloroethane	1.0	U	1.0	0.17	ug/L			11/20/19 13:37	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			11/20/19 13:37	1
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			11/20/19 13:37	1
1,2-Dichloropropane	1.0	U	1.0	0.15	ug/L			11/20/19 13:37	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.61	ug/L			11/20/19 13:37	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.67	ug/L			11/20/19 13:37	1
Ethylbenzene	1.0	U	1.0	0.11	ug/L			11/20/19 13:37	1
2-Hexanone	10	U	10	0.54	ug/L			11/20/19 13:37	1
Methylene Chloride	5.0	U	5.0	2.6	ug/L			11/20/19 13:37	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.42	ug/L			11/20/19 13:37	1
Styrene	1.0	U	1.0	0.10	ug/L			11/20/19 13:37	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13	ug/L			11/20/19 13:37	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			11/20/19 13:37	1
Toluene	1.0	U	1.0	0.14	ug/L			11/20/19 13:37	1
Trichloroethene	1.0	U	1.0	0.10	ug/L			11/20/19 13:37	1
Vinyl chloride	1.0	U	1.0	0.20	ug/L			11/20/19 13:37	1
Xylenes, Total	2.0	U	2.0	0.15	ug/L			11/20/19 13:37	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			11/20/19 13:37	1
1,1,2-Trichloroethane	1.0	U	1.0	0.090	ug/L			11/20/19 13:37	1
Cyclohexane	1.0	U	1.0	0.24	ug/L			11/20/19 13:37	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.91	ug/L			11/20/19 13:37	1
1,2-Dibromoethane	1.0	U	1.0	0.12	ug/L			11/20/19 13:37	1
Dichlorodifluoromethane	1.0	U	1.0	0.35	ug/L			11/20/19 13:37	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.16	ug/L			11/20/19 13:37	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			11/20/19 13:37	1
Isopropylbenzene	1.0	U	1.0	0.090	ug/L			11/20/19 13:37	1
Methyl acetate	10	U	10	1.7	ug/L			11/20/19 13:37	1
Methyl tert-butyl ether	1.0	U	1.0	0.070	ug/L			11/20/19 13:37	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			11/20/19 13:37	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.26	ug/L			11/20/19 13:37	1
1,2-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			11/20/19 13:37	1
1,3-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			11/20/19 13:37	1
1,4-Dichlorobenzene	1.0	U	1.0	0.16	ug/L			11/20/19 13:37	1
Trichlorofluoromethane	1.0	U	1.0	0.45	ug/L			11/20/19 13:37	1
Dibromochloromethane	1.0	U	1.0	0.39	ug/L			11/20/19 13:37	1
Methylcyclohexane	1.0	U	1.0	0.33	ug/L			11/20/19 13:37	1

Eurofins TestAmerica, Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 17322, PCC Validation

Job ID: 240-122031-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
1,2-Dichloroethane-d4 (Surr)	110		75 - 130		11/20/19 13:37	1
4-Bromofluorobenzene (Surr)	76		47 - 134		11/20/19 13:37	1
Toluene-d8 (Surr)	91		69 - 122		11/20/19 13:37	1
Dibromofluoromethane (Surr)	107		78 - 129		11/20/19 13:37	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 17322, PCC Validation

Job ID: 240-122031-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: GW-17322-110819-JY-014

Date Collected: 11/08/19 10:05

Date Received: 11/09/19 09:30

Lab Sample ID: 240-122031-15

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	5.4	ug/L			11/19/19 17:54	1
Benzene	1.0	U	1.0	0.13	ug/L			11/19/19 17:54	1
Bromodichloromethane	1.0	U	1.0	0.17	ug/L			11/19/19 17:54	1
Bromoform	1.0	U	1.0	0.76	ug/L			11/19/19 17:54	1
Bromomethane	1.0	U	1.0	0.42	ug/L			11/19/19 17:54	1
2-Butanone (MEK)	10	U	10	1.2	ug/L			11/19/19 17:54	1
Carbon disulfide	5.0	U	5.0	0.28	ug/L			11/19/19 17:54	1
Carbon tetrachloride	1.0	U	1.0	0.26	ug/L			11/19/19 17:54	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			11/19/19 17:54	1
Chloroethane	1.0	U	1.0	0.83	ug/L			11/19/19 17:54	1
Chloroform	1.0	U	1.0	0.13	ug/L			11/19/19 17:54	1
Chloromethane	1.0	U	1.0	0.20	ug/L			11/19/19 17:54	1
1,1-Dichloroethane	1.0	U	1.0	0.17	ug/L			11/19/19 17:54	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			11/19/19 17:54	1
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			11/19/19 17:54	1
1,2-Dichloropropane	1.0	U	1.0	0.15	ug/L			11/19/19 17:54	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.61	ug/L			11/19/19 17:54	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.67	ug/L			11/19/19 17:54	1
Ethylbenzene	1.0	U	1.0	0.11	ug/L			11/19/19 17:54	1
2-Hexanone	10	U	10	0.54	ug/L			11/19/19 17:54	1
Methylene Chloride	5.0	U	5.0	2.6	ug/L			11/19/19 17:54	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.42	ug/L			11/19/19 17:54	1
Styrene	1.0	U	1.0	0.10	ug/L			11/19/19 17:54	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13	ug/L			11/19/19 17:54	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			11/19/19 17:54	1
Toluene	1.0	U	1.0	0.14	ug/L			11/19/19 17:54	1
Trichloroethene	1.0	U	1.0	0.10	ug/L			11/19/19 17:54	1
Vinyl chloride	1.2		1.0	0.20	ug/L			11/19/19 17:54	1
Xylenes, Total	2.0	U	2.0	0.15	ug/L			11/19/19 17:54	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			11/19/19 17:54	1
1,1,2-Trichloroethane	1.0	U	1.0	0.090	ug/L			11/19/19 17:54	1
Cyclohexane	1.0	U	1.0	0.24	ug/L			11/19/19 17:54	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.91	ug/L			11/19/19 17:54	1
1,2-Dibromoethane	1.0	U	1.0	0.12	ug/L			11/19/19 17:54	1
Dichlorodifluoromethane	1.0	U	1.0	0.35	ug/L			11/19/19 17:54	1
cis-1,2-Dichloroethene	0.40	J	1.0	0.16	ug/L			11/19/19 17:54	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			11/19/19 17:54	1
Isopropylbenzene	1.0	U	1.0	0.090	ug/L			11/19/19 17:54	1
Methyl acetate	10	U	10	1.7	ug/L			11/19/19 17:54	1
Methyl tert-butyl ether	1.0	U	1.0	0.070	ug/L			11/19/19 17:54	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			11/19/19 17:54	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.26	ug/L			11/19/19 17:54	1
1,2-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			11/19/19 17:54	1
1,3-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			11/19/19 17:54	1
1,4-Dichlorobenzene	1.0	U	1.0	0.16	ug/L			11/19/19 17:54	1
Trichlorofluoromethane	1.0	U	1.0	0.45	ug/L			11/19/19 17:54	1
Dibromochloromethane	1.0	U	1.0	0.39	ug/L			11/19/19 17:54	1
Methylcyclohexane	1.0	U	1.0	0.33	ug/L			11/19/19 17:54	1

Eurofins TestAmerica, Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 17322, PCC Validation

Job ID: 240-122031-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
1,2-Dichloroethane-d4 (Surr)	108		75 - 130		11/19/19 17:54	1
4-Bromofluorobenzene (Surr)	69		47 - 134		11/19/19 17:54	1
Toluene-d8 (Surr)	90		69 - 122		11/19/19 17:54	1
Dibromofluoromethane (Surr)	101		78 - 129		11/19/19 17:54	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 17322, PCC Validation

Job ID: 240-122031-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: GW-17322-110819-JY-015

Lab Sample ID: 240-122031-16

Date Collected: 11/08/19 10:50

Matrix: Water

Date Received: 11/09/19 09:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	5.4	ug/L			11/19/19 18:16	1
Benzene	1.0	U	1.0	0.13	ug/L			11/19/19 18:16	1
Bromodichloromethane	1.0	U	1.0	0.17	ug/L			11/19/19 18:16	1
Bromoform	1.0	U	1.0	0.76	ug/L			11/19/19 18:16	1
Bromomethane	1.0	U	1.0	0.42	ug/L			11/19/19 18:16	1
2-Butanone (MEK)	10	U	10	1.2	ug/L			11/19/19 18:16	1
Carbon disulfide	5.0	U	5.0	0.28	ug/L			11/19/19 18:16	1
Carbon tetrachloride	1.0	U	1.0	0.26	ug/L			11/19/19 18:16	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			11/19/19 18:16	1
Chloroethane	1.0	U	1.0	0.83	ug/L			11/19/19 18:16	1
Chloroform	1.0	U	1.0	0.13	ug/L			11/19/19 18:16	1
Chloromethane	1.0	U	1.0	0.20	ug/L			11/19/19 18:16	1
1,1-Dichloroethane	1.0	U	1.0	0.17	ug/L			11/19/19 18:16	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			11/19/19 18:16	1
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			11/19/19 18:16	1
1,2-Dichloropropane	1.0	U	1.0	0.15	ug/L			11/19/19 18:16	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.61	ug/L			11/19/19 18:16	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.67	ug/L			11/19/19 18:16	1
Ethylbenzene	1.0	U	1.0	0.11	ug/L			11/19/19 18:16	1
2-Hexanone	10	U	10	0.54	ug/L			11/19/19 18:16	1
Methylene Chloride	5.0	U	5.0	2.6	ug/L			11/19/19 18:16	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.42	ug/L			11/19/19 18:16	1
Styrene	1.0	U	1.0	0.10	ug/L			11/19/19 18:16	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13	ug/L			11/19/19 18:16	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			11/19/19 18:16	1
Toluene	1.0	U	1.0	0.14	ug/L			11/19/19 18:16	1
Trichloroethene	1.0	U	1.0	0.10	ug/L			11/19/19 18:16	1
Vinyl chloride	0.21	J	1.0	0.20	ug/L			11/19/19 18:16	1
Xylenes, Total	2.0	U	2.0	0.15	ug/L			11/19/19 18:16	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			11/19/19 18:16	1
1,1,2-Trichloroethane	1.0	U	1.0	0.090	ug/L			11/19/19 18:16	1
Cyclohexane	1.0	U	1.0	0.24	ug/L			11/19/19 18:16	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.91	ug/L			11/19/19 18:16	1
1,2-Dibromoethane	1.0	U	1.0	0.12	ug/L			11/19/19 18:16	1
Dichlorodifluoromethane	1.0	U	1.0	0.35	ug/L			11/19/19 18:16	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.16	ug/L			11/19/19 18:16	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			11/19/19 18:16	1
Isopropylbenzene	1.0	U	1.0	0.090	ug/L			11/19/19 18:16	1
Methyl acetate	10	U	10	1.7	ug/L			11/19/19 18:16	1
Methyl tert-butyl ether	1.0	U	1.0	0.070	ug/L			11/19/19 18:16	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			11/19/19 18:16	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.26	ug/L			11/19/19 18:16	1
1,2-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			11/19/19 18:16	1
1,3-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			11/19/19 18:16	1
1,4-Dichlorobenzene	1.0	U	1.0	0.16	ug/L			11/19/19 18:16	1
Trichlorofluoromethane	1.0	U	1.0	0.45	ug/L			11/19/19 18:16	1
Dibromochloromethane	1.0	U	1.0	0.39	ug/L			11/19/19 18:16	1
Methylcyclohexane	1.0	U	1.0	0.33	ug/L			11/19/19 18:16	1

Eurofins TestAmerica, Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 17322, PCC Validation

Job ID: 240-122031-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
1,2-Dichloroethane-d4 (Surr)	116		75 - 130		11/19/19 18:16	1
4-Bromofluorobenzene (Surr)	73		47 - 134		11/19/19 18:16	1
Toluene-d8 (Surr)	93		69 - 122		11/19/19 18:16	1
Dibromofluoromethane (Surr)	105		78 - 129		11/19/19 18:16	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 17322, PCC Validation

Job ID: 240-122031-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: GW-17322-110819-JY-016

Lab Sample ID: 240-122031-17

Date Collected: 11/08/19 11:40

Matrix: Water

Date Received: 11/09/19 09:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	5.4	ug/L			11/19/19 18:37	1
Benzene	1.0	U	1.0	0.13	ug/L			11/19/19 18:37	1
Bromodichloromethane	1.0	U	1.0	0.17	ug/L			11/19/19 18:37	1
Bromoform	1.0	U	1.0	0.76	ug/L			11/19/19 18:37	1
Bromomethane	1.0	U	1.0	0.42	ug/L			11/19/19 18:37	1
2-Butanone (MEK)	10	U	10	1.2	ug/L			11/19/19 18:37	1
Carbon disulfide	5.0	U	5.0	0.28	ug/L			11/19/19 18:37	1
Carbon tetrachloride	1.0	U	1.0	0.26	ug/L			11/19/19 18:37	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			11/19/19 18:37	1
Chloroethane	1.0	U	1.0	0.83	ug/L			11/19/19 18:37	1
Chloroform	1.0	U	1.0	0.13	ug/L			11/19/19 18:37	1
Chloromethane	1.0	U	1.0	0.20	ug/L			11/19/19 18:37	1
1,1-Dichloroethane	1.0	U	1.0	0.17	ug/L			11/19/19 18:37	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			11/19/19 18:37	1
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			11/19/19 18:37	1
1,2-Dichloropropane	1.0	U	1.0	0.15	ug/L			11/19/19 18:37	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.61	ug/L			11/19/19 18:37	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.67	ug/L			11/19/19 18:37	1
Ethylbenzene	1.0	U	1.0	0.11	ug/L			11/19/19 18:37	1
2-Hexanone	10	U	10	0.54	ug/L			11/19/19 18:37	1
Methylene Chloride	5.0	U	5.0	2.6	ug/L			11/19/19 18:37	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.42	ug/L			11/19/19 18:37	1
Styrene	1.0	U	1.0	0.10	ug/L			11/19/19 18:37	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13	ug/L			11/19/19 18:37	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			11/19/19 18:37	1
Toluene	1.0	U	1.0	0.14	ug/L			11/19/19 18:37	1
Trichloroethene	1.0	U	1.0	0.10	ug/L			11/19/19 18:37	1
Vinyl chloride	0.23	J	1.0	0.20	ug/L			11/19/19 18:37	1
Xylenes, Total	2.0	U	2.0	0.15	ug/L			11/19/19 18:37	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			11/19/19 18:37	1
1,1,2-Trichloroethane	1.0	U	1.0	0.090	ug/L			11/19/19 18:37	1
Cyclohexane	1.0	U	1.0	0.24	ug/L			11/19/19 18:37	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.91	ug/L			11/19/19 18:37	1
1,2-Dibromoethane	1.0	U	1.0	0.12	ug/L			11/19/19 18:37	1
Dichlorodifluoromethane	1.0	U	1.0	0.35	ug/L			11/19/19 18:37	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.16	ug/L			11/19/19 18:37	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			11/19/19 18:37	1
Isopropylbenzene	1.0	U	1.0	0.090	ug/L			11/19/19 18:37	1
Methyl acetate	10	U	10	1.7	ug/L			11/19/19 18:37	1
Methyl tert-butyl ether	1.0	U	1.0	0.070	ug/L			11/19/19 18:37	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			11/19/19 18:37	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.26	ug/L			11/19/19 18:37	1
1,2-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			11/19/19 18:37	1
1,3-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			11/19/19 18:37	1
1,4-Dichlorobenzene	1.0	U	1.0	0.16	ug/L			11/19/19 18:37	1
Trichlorofluoromethane	1.0	U	1.0	0.45	ug/L			11/19/19 18:37	1
Dibromochloromethane	1.0	U	1.0	0.39	ug/L			11/19/19 18:37	1
Methylcyclohexane	1.0	U	1.0	0.33	ug/L			11/19/19 18:37	1

Eurofins TestAmerica, Canton

Client Sample Results

Client: GHD Services Inc.
Project/Site: 17322, PCC Validation

Job ID: 240-122031-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
1,2-Dichloroethane-d4 (Surr)	108		75 - 130		11/19/19 18:37	1
4-Bromofluorobenzene (Surr)	68		47 - 134		11/19/19 18:37	1
Toluene-d8 (Surr)	88		69 - 122		11/19/19 18:37	1
Dibromofluoromethane (Surr)	102		78 - 129		11/19/19 18:37	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 17322, PCC Validation

Job ID: 240-122031-1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Client Sample ID: GW-17322-110619-JY-001

Date Collected: 11/06/19 10:50

Date Received: 11/09/19 09:30

Lab Sample ID: 240-122031-2

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	260		50	34	ug/L		11/12/19 14:00	11/13/19 11:22	1
Lead	0.63	J	1.0	0.45	ug/L		11/12/19 14:00	11/13/19 11:22	1
Vanadium	4.0	U	4.0	0.82	ug/L		11/12/19 14:00	11/13/19 11:22	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 17322, PCC Validation

Job ID: 240-122031-1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Client Sample ID: GW-17322-110619-JY-002

Date Collected: 11/06/19 11:10

Date Received: 11/09/19 09:30

Lab Sample ID: 240-122031-3

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	50	U	50	34	ug/L		11/12/19 14:00	11/13/19 11:26	1
Lead	1.0	U	1.0	0.45	ug/L		11/12/19 14:00	11/13/19 11:26	1
Vanadium	4.0	U	4.0	0.82	ug/L		11/12/19 14:00	11/13/19 11:26	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 17322, PCC Validation

Job ID: 240-122031-1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Client Sample ID: GW-17322-110619-JY-003

Date Collected: 11/06/19 11:15

Date Received: 11/09/19 09:30

Lab Sample ID: 240-122031-4

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	50	U	50	34	ug/L		11/12/19 14:00	11/13/19 11:31	1
Lead	1.0	U	1.0	0.45	ug/L		11/12/19 14:00	11/13/19 11:31	1
Vanadium	4.0	U	4.0	0.82	ug/L		11/12/19 14:00	11/13/19 11:31	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 17322, PCC Validation

Job ID: 240-122031-1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Client Sample ID: GW-17322-110619-JY-004

Date Collected: 11/06/19 13:25

Date Received: 11/09/19 09:30

Lab Sample ID: 240-122031-5

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	950		50	34	ug/L		11/12/19 14:00	11/13/19 11:40	1
Lead	1.7		1.0	0.45	ug/L		11/12/19 14:00	11/13/19 11:40	1
Vanadium	2.5	J	4.0	0.82	ug/L		11/12/19 14:00	11/13/19 11:40	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 17322, PCC Validation

Job ID: 240-122031-1

Method: 6020 - Metals (ICP/MS) - Dissolved

Client Sample ID: GW-17322-110619-JY-001

Date Collected: 11/06/19 10:50

Date Received: 11/09/19 09:30

Lab Sample ID: 240-122031-2

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	50	U	50	34	ug/L		11/12/19 14:00	11/13/19 11:24	1
Lead	1.0	U	1.0	0.45	ug/L		11/12/19 14:00	11/13/19 11:24	1
Vanadium	4.0	U	4.0	0.82	ug/L		11/12/19 14:00	11/13/19 11:24	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 17322, PCC Validation

Job ID: 240-122031-1

Method: 6020 - Metals (ICP/MS) - Dissolved

Client Sample ID: GW-17322-110619-JY-002

Date Collected: 11/06/19 11:10

Date Received: 11/09/19 09:30

Lab Sample ID: 240-122031-3

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	50	U	50	34	ug/L		11/12/19 14:00	11/13/19 11:29	1
Lead	1.0	U	1.0	0.45	ug/L		11/12/19 14:00	11/13/19 11:29	1
Vanadium	4.0	U	4.0	0.82	ug/L		11/12/19 14:00	11/13/19 11:29	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 17322, PCC Validation

Job ID: 240-122031-1

Method: 6020 - Metals (ICP/MS) - Dissolved

Client Sample ID: GW-17322-110619-JY-003

Date Collected: 11/06/19 11:15

Date Received: 11/09/19 09:30

Lab Sample ID: 240-122031-4

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	50	U	50	34	ug/L		11/12/19 14:00	11/13/19 11:33	1
Lead	1.0	U	1.0	0.45	ug/L		11/12/19 14:00	11/13/19 11:33	1
Vanadium	4.0	U	4.0	0.82	ug/L		11/12/19 14:00	11/13/19 11:33	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: 17322, PCC Validation

Job ID: 240-122031-1

Method: 6020 - Metals (ICP/MS) - Dissolved

Client Sample ID: GW-17322-110619-JY-004

Date Collected: 11/06/19 13:25

Date Received: 11/09/19 09:30

Lab Sample ID: 240-122031-5

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	50	U	50	34	ug/L		11/12/19 14:00	11/13/19 11:43	1
Lead	1.0	U	1.0	0.45	ug/L		11/12/19 14:00	11/13/19 11:43	1
Vanadium	4.0	U	4.0	0.82	ug/L		11/12/19 14:00	11/13/19 11:43	1

QC Association Summary

Client: GHD Services Inc.
Project/Site: 17322, PCC Validation

Job ID: 240-122031-1

GC/MS VOA

Analysis Batch: 411387

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-122031-1	TB-17322-110619	Total/NA	Water	8260B	
240-122031-7	GW-17322-110619-JY-006	Total/NA	Water	8260B	
240-122031-8	GW-17322-110719-JY-007	Total/NA	Water	8260B	
240-122031-9	GW-17322-110719-JY-008	Total/NA	Water	8260B	
240-122031-10	GW-17322-110719-JY-009	Total/NA	Water	8260B	
240-122031-11	GW-17322-110719-JY-010	Total/NA	Water	8260B	
MB 240-411387/7	Method Blank	Total/NA	Water	8260B	
LCS 240-411387/4	Lab Control Sample	Total/NA	Water	8260B	

Analysis Batch: 411549

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-122031-12	GW-17322-110719-JY-011	Total/NA	Water	8260B	
240-122031-13	GW-17322-110719-JY-012	Total/NA	Water	8260B	
240-122031-15	GW-17322-110819-JY-014	Total/NA	Water	8260B	
240-122031-16	GW-17322-110819-JY-015	Total/NA	Water	8260B	
240-122031-17	GW-17322-110819-JY-016	Total/NA	Water	8260B	
MB 240-411549/6	Method Blank	Total/NA	Water	8260B	
LCS 240-411549/4	Lab Control Sample	Total/NA	Water	8260B	
240-122031-17 MS	GW-17322-110819-JY-016	Total/NA	Water	8260B	
240-122031-17 MSD	GW-17322-110819-JY-016	Total/NA	Water	8260B	

Analysis Batch: 411570

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-122031-6	GW-17322-110619-JY-005	Total/NA	Water	8260B	
MB 240-411570/7	Method Blank	Total/NA	Water	8260B	
LCS 240-411570/4	Lab Control Sample	Total/NA	Water	8260B	
240-122031-6 MS	GW-17322-110619-JY-005	Total/NA	Water	8260B	
240-122031-6 MSD	GW-17322-110619-JY-005	Total/NA	Water	8260B	

Analysis Batch: 411807

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-122031-14	GW-17322-110819-JY-013	Total/NA	Water	8260B	
MB 240-411807/6	Method Blank	Total/NA	Water	8260B	
LCS 240-411807/4	Lab Control Sample	Total/NA	Water	8260B	

Metals

Prep Batch: 410449

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-122031-2	GW-17322-110619-JY-001	Dissolved	Water	3005A	
240-122031-2	GW-17322-110619-JY-001	Total Recoverable	Water	3005A	
240-122031-3	GW-17322-110619-JY-002	Dissolved	Water	3005A	
240-122031-3	GW-17322-110619-JY-002	Total Recoverable	Water	3005A	
240-122031-4	GW-17322-110619-JY-003	Dissolved	Water	3005A	
240-122031-4	GW-17322-110619-JY-003	Total Recoverable	Water	3005A	
240-122031-5	GW-17322-110619-JY-004	Dissolved	Water	3005A	
240-122031-5	GW-17322-110619-JY-004	Total Recoverable	Water	3005A	
MB 240-410449/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-410449/3-A	Lab Control Sample	Total Recoverable	Water	3005A	

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QC Association Summary

Client: GHD Services Inc.
Project/Site: 17322, PCC Validation

Job ID: 240-122031-1

Metals

Analysis Batch: 410692

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-122031-2	GW-17322-110619-JY-001	Dissolved	Water	6020	410449
240-122031-2	GW-17322-110619-JY-001	Total Recoverable	Water	6020	410449
240-122031-3	GW-17322-110619-JY-002	Dissolved	Water	6020	410449
240-122031-3	GW-17322-110619-JY-002	Total Recoverable	Water	6020	410449
240-122031-4	GW-17322-110619-JY-003	Dissolved	Water	6020	410449
240-122031-4	GW-17322-110619-JY-003	Total Recoverable	Water	6020	410449
240-122031-5	GW-17322-110619-JY-004	Dissolved	Water	6020	410449
240-122031-5	GW-17322-110619-JY-004	Total Recoverable	Water	6020	410449
MB 240-410449/1-A	Method Blank	Total Recoverable	Water	6020	410449
LCS 240-410449/3-A	Lab Control Sample	Total Recoverable	Water	6020	410449

QC Sample Results

Client: GHD Services Inc.
Project/Site: 17322, PCC Validation

Job ID: 240-122031-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 240-411387/7

Matrix: Water

Analysis Batch: 411387

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	5.4	ug/L			11/18/19 14:32	1
Benzene	1.0	U	1.0	0.13	ug/L			11/18/19 14:32	1
Bromodichloromethane	1.0	U	1.0	0.17	ug/L			11/18/19 14:32	1
Bromoform	1.0	U	1.0	0.76	ug/L			11/18/19 14:32	1
Bromomethane	1.0	U	1.0	0.42	ug/L			11/18/19 14:32	1
2-Butanone (MEK)	10	U	10	1.2	ug/L			11/18/19 14:32	1
Carbon disulfide	5.0	U	5.0	0.28	ug/L			11/18/19 14:32	1
Carbon tetrachloride	1.0	U	1.0	0.26	ug/L			11/18/19 14:32	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			11/18/19 14:32	1
Chloroethane	1.0	U	1.0	0.83	ug/L			11/18/19 14:32	1
Chloroform	1.0	U	1.0	0.13	ug/L			11/18/19 14:32	1
Chloromethane	1.0	U	1.0	0.20	ug/L			11/18/19 14:32	1
1,1-Dichloroethane	1.0	U	1.0	0.17	ug/L			11/18/19 14:32	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			11/18/19 14:32	1
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			11/18/19 14:32	1
1,2-Dichloropropane	1.0	U	1.0	0.15	ug/L			11/18/19 14:32	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.61	ug/L			11/18/19 14:32	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.67	ug/L			11/18/19 14:32	1
Ethylbenzene	1.0	U	1.0	0.11	ug/L			11/18/19 14:32	1
2-Hexanone	10	U	10	0.54	ug/L			11/18/19 14:32	1
Methylene Chloride	5.0	U	5.0	2.6	ug/L			11/18/19 14:32	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.42	ug/L			11/18/19 14:32	1
Styrene	1.0	U	1.0	0.10	ug/L			11/18/19 14:32	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13	ug/L			11/18/19 14:32	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			11/18/19 14:32	1
Toluene	1.0	U	1.0	0.14	ug/L			11/18/19 14:32	1
Trichloroethene	1.0	U	1.0	0.10	ug/L			11/18/19 14:32	1
Vinyl chloride	1.0	U	1.0	0.20	ug/L			11/18/19 14:32	1
Xylenes, Total	2.0	U	2.0	0.15	ug/L			11/18/19 14:32	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			11/18/19 14:32	1
1,1,2-Trichloroethane	1.0	U	1.0	0.090	ug/L			11/18/19 14:32	1
Cyclohexane	1.0	U	1.0	0.24	ug/L			11/18/19 14:32	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.91	ug/L			11/18/19 14:32	1
1,2-Dibromoethane	1.0	U	1.0	0.12	ug/L			11/18/19 14:32	1
Dichlorodifluoromethane	1.0	U	1.0	0.35	ug/L			11/18/19 14:32	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.16	ug/L			11/18/19 14:32	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			11/18/19 14:32	1
Isopropylbenzene	1.0	U	1.0	0.090	ug/L			11/18/19 14:32	1
Methyl acetate	10	U	10	1.7	ug/L			11/18/19 14:32	1
Methyl tert-butyl ether	1.0	U	1.0	0.070	ug/L			11/18/19 14:32	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			11/18/19 14:32	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.26	ug/L			11/18/19 14:32	1
1,2-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			11/18/19 14:32	1
1,3-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			11/18/19 14:32	1
1,4-Dichlorobenzene	1.0	U	1.0	0.16	ug/L			11/18/19 14:32	1
Trichlorofluoromethane	1.0	U	1.0	0.45	ug/L			11/18/19 14:32	1
Dibromochloromethane	1.0	U	1.0	0.39	ug/L			11/18/19 14:32	1
Methylcyclohexane	1.0	U	1.0	0.33	ug/L			11/18/19 14:32	1

Eurofins TestAmerica, Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 17322, PCC Validation

Job ID: 240-122031-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 240-411387/7

Matrix: Water

Analysis Batch: 411387

Client Sample ID: Method Blank

Prep Type: Total/NA

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		75 - 130		11/18/19 14:32	1
4-Bromofluorobenzene (Surr)	78		47 - 134		11/18/19 14:32	1
Toluene-d8 (Surr)	104		69 - 122		11/18/19 14:32	1
Dibromofluoromethane (Surr)	120		78 - 129		11/18/19 14:32	1

Lab Sample ID: LCS 240-411387/4

Matrix: Water

Analysis Batch: 411387

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	20.0	19.3		ug/L		97	33 - 155
Benzene	10.0	9.95		ug/L		99	77 - 123
Bromodichloromethane	10.0	9.19		ug/L		92	73 - 122
Bromoform	10.0	10.8		ug/L		108	47 - 133
Bromomethane	10.0	6.54		ug/L		65	48 - 144
2-Butanone (MEK)	20.0	18.9		ug/L		94	41 - 151
Carbon disulfide	10.0	10.3		ug/L		103	67 - 127
Carbon tetrachloride	10.0	9.53		ug/L		95	61 - 142
Chlorobenzene	10.0	10.3		ug/L		103	80 - 120
Chloroethane	10.0	5.83		ug/L		58	41 - 147
Chloroform	10.0	8.89		ug/L		89	74 - 127
Chloromethane	10.0	6.40		ug/L		64	46 - 148
1,1-Dichloroethane	10.0	9.04		ug/L		90	74 - 126
1,2-Dichloroethane	10.0	7.79		ug/L		78	66 - 129
1,1-Dichloroethene	10.0	9.51		ug/L		95	73 - 129
1,2-Dichloropropane	10.0	10.1		ug/L		101	79 - 127
cis-1,3-Dichloropropene	10.0	9.98		ug/L		100	68 - 128
trans-1,3-Dichloropropene	10.0	9.09		ug/L		91	64 - 120
Ethylbenzene	10.0	11.0		ug/L		110	80 - 120
2-Hexanone	20.0	19.3		ug/L		97	43 - 142
Methylene Chloride	10.0	10.2		ug/L		102	63 - 134
4-Methyl-2-pentanone (MIBK)	20.0	18.7		ug/L		93	43 - 145
Styrene	10.0	11.2		ug/L		112	75 - 121
1,1,2,2-Tetrachloroethane	10.0	10.1		ug/L		101	45 - 151
Tetrachloroethene	10.0	10.3		ug/L		103	70 - 125
Toluene	10.0	10.7		ug/L		107	79 - 122
Trichloroethene	10.0	10.3		ug/L		103	71 - 121
Vinyl chloride	10.0	6.44		ug/L		64	61 - 134
Xylenes, Total	20.0	22.0		ug/L		110	78 - 122
1,1,1-Trichloroethane	10.0	9.00		ug/L		90	65 - 141
1,1,2-Trichloroethane	10.0	10.5		ug/L		105	79 - 121
Cyclohexane	10.0	9.45		ug/L		95	69 - 133
1,2-Dibromo-3-Chloropropane	10.0	9.37		ug/L		94	34 - 136
1,2-Dibromoethane	10.0	10.2		ug/L		102	73 - 120
Dichlorodifluoromethane	10.0	5.38		ug/L		54	35 - 137
cis-1,2-Dichloroethene	10.0	10.3		ug/L		103	75 - 124
trans-1,2-Dichloroethene	10.0	10.6		ug/L		106	74 - 130
Isopropylbenzene	10.0	10.2		ug/L		102	73 - 123

Eurofins TestAmerica, Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 17322, PCC Validation

Job ID: 240-122031-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 240-411387/4

Matrix: Water

Analysis Batch: 411387

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methyl acetate	20.0	17.2		ug/L		86	47 - 140
Methyl tert-butyl ether	10.0	8.91		ug/L		89	57 - 127
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	10.5		ug/L		105	54 - 148
1,2,4-Trichlorobenzene	10.0	8.55		ug/L		85	47 - 120
1,2-Dichlorobenzene	10.0	9.86		ug/L		99	74 - 120
1,3-Dichlorobenzene	10.0	9.87		ug/L		99	74 - 120
1,4-Dichlorobenzene	10.0	9.52		ug/L		95	75 - 120
Trichlorofluoromethane	10.0	7.17		ug/L		72	52 - 148
Dibromochloromethane	10.0	10.5		ug/L		105	75 - 120
Methylcyclohexane	10.0	9.36		ug/L		94	64 - 123

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	75		75 - 130
4-Bromofluorobenzene (Surr)	93		47 - 134
Toluene-d8 (Surr)	106		69 - 122
Dibromofluoromethane (Surr)	100		78 - 129

Lab Sample ID: MB 240-411549/6

Matrix: Water

Analysis Batch: 411549

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	5.4	ug/L			11/19/19 10:58	1
Benzene	1.0	U	1.0	0.13	ug/L			11/19/19 10:58	1
Bromodichloromethane	1.0	U	1.0	0.17	ug/L			11/19/19 10:58	1
Bromoform	1.0	U	1.0	0.76	ug/L			11/19/19 10:58	1
Bromomethane	1.0	U	1.0	0.42	ug/L			11/19/19 10:58	1
2-Butanone (MEK)	10	U	10	1.2	ug/L			11/19/19 10:58	1
Carbon disulfide	5.0	U	5.0	0.28	ug/L			11/19/19 10:58	1
Carbon tetrachloride	1.0	U	1.0	0.26	ug/L			11/19/19 10:58	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			11/19/19 10:58	1
Chloroethane	1.0	U	1.0	0.83	ug/L			11/19/19 10:58	1
Chloroform	1.0	U	1.0	0.13	ug/L			11/19/19 10:58	1
Chloromethane	1.0	U	1.0	0.20	ug/L			11/19/19 10:58	1
1,1-Dichloroethane	1.0	U	1.0	0.17	ug/L			11/19/19 10:58	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			11/19/19 10:58	1
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			11/19/19 10:58	1
1,2-Dichloropropane	1.0	U	1.0	0.15	ug/L			11/19/19 10:58	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.61	ug/L			11/19/19 10:58	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.67	ug/L			11/19/19 10:58	1
Ethylbenzene	1.0	U	1.0	0.11	ug/L			11/19/19 10:58	1
2-Hexanone	10	U	10	0.54	ug/L			11/19/19 10:58	1
Methylene Chloride	5.0	U	5.0	2.6	ug/L			11/19/19 10:58	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.42	ug/L			11/19/19 10:58	1
Styrene	1.0	U	1.0	0.10	ug/L			11/19/19 10:58	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13	ug/L			11/19/19 10:58	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			11/19/19 10:58	1
Toluene	1.0	U	1.0	0.14	ug/L			11/19/19 10:58	1

Eurofins TestAmerica, Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 17322, PCC Validation

Job ID: 240-122031-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 240-411549/6

Matrix: Water

Analysis Batch: 411549

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	1.0	U	1.0	0.10	ug/L			11/19/19 10:58	1
Vinyl chloride	1.0	U	1.0	0.20	ug/L			11/19/19 10:58	1
Xylenes, Total	2.0	U	2.0	0.15	ug/L			11/19/19 10:58	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			11/19/19 10:58	1
1,1,2-Trichloroethane	1.0	U	1.0	0.090	ug/L			11/19/19 10:58	1
Cyclohexane	1.0	U	1.0	0.24	ug/L			11/19/19 10:58	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.91	ug/L			11/19/19 10:58	1
1,2-Dibromoethane	1.0	U	1.0	0.12	ug/L			11/19/19 10:58	1
Dichlorodifluoromethane	1.0	U	1.0	0.35	ug/L			11/19/19 10:58	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.16	ug/L			11/19/19 10:58	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			11/19/19 10:58	1
Isopropylbenzene	1.0	U	1.0	0.090	ug/L			11/19/19 10:58	1
Methyl acetate	10	U	10	1.7	ug/L			11/19/19 10:58	1
Methyl tert-butyl ether	1.0	U	1.0	0.070	ug/L			11/19/19 10:58	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			11/19/19 10:58	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.26	ug/L			11/19/19 10:58	1
1,2-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			11/19/19 10:58	1
1,3-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			11/19/19 10:58	1
1,4-Dichlorobenzene	1.0	U	1.0	0.16	ug/L			11/19/19 10:58	1
Trichlorofluoromethane	1.0	U	1.0	0.45	ug/L			11/19/19 10:58	1
Dibromochloromethane	1.0	U	1.0	0.39	ug/L			11/19/19 10:58	1
Methylcyclohexane	1.0	U	1.0	0.33	ug/L			11/19/19 10:58	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		75 - 130		11/19/19 10:58	1
4-Bromofluorobenzene (Surr)	78		47 - 134		11/19/19 10:58	1
Toluene-d8 (Surr)	95		69 - 122		11/19/19 10:58	1
Dibromofluoromethane (Surr)	99		78 - 129		11/19/19 10:58	1

Lab Sample ID: LCS 240-411549/4

Matrix: Water

Analysis Batch: 411549

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	20.0	25.1		ug/L		126	33 - 155
Benzene	10.0	9.49		ug/L		95	77 - 123
Bromodichloromethane	10.0	9.14		ug/L		91	73 - 122
Bromoform	10.0	8.71		ug/L		87	47 - 133
Bromomethane	10.0	7.72		ug/L		77	48 - 144
2-Butanone (MEK)	20.0	25.5		ug/L		127	41 - 151
Carbon disulfide	10.0	8.79		ug/L		88	67 - 127
Carbon tetrachloride	10.0	9.73		ug/L		97	61 - 142
Chlorobenzene	10.0	9.36		ug/L		94	80 - 120
Chloroethane	10.0	7.72		ug/L		77	41 - 147
Chloroform	10.0	8.38		ug/L		84	74 - 127
Chloromethane	10.0	9.05		ug/L		90	46 - 148
1,1-Dichloroethane	10.0	8.87		ug/L		89	74 - 126
1,2-Dichloroethane	10.0	9.13		ug/L		91	66 - 129

Eurofins TestAmerica, Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 17322, PCC Validation

Job ID: 240-122031-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 240-411549/4

Matrix: Water

Analysis Batch: 411549

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	10.0	9.63		ug/L		96	73 - 129
1,2-Dichloropropane	10.0	10.4		ug/L		104	79 - 127
cis-1,3-Dichloropropene	10.0	10.3		ug/L		103	68 - 128
trans-1,3-Dichloropropene	10.0	9.72		ug/L		97	64 - 120
Ethylbenzene	10.0	10.1		ug/L		101	80 - 120
2-Hexanone	20.0	27.2		ug/L		136	43 - 142
Methylene Chloride	10.0	8.44		ug/L		84	63 - 134
4-Methyl-2-pentanone (MIBK)	20.0	26.9		ug/L		135	43 - 145
Styrene	10.0	9.50		ug/L		95	75 - 121
1,1,2,2-Tetrachloroethane	10.0	12.3		ug/L		123	45 - 151
Tetrachloroethene	10.0	8.78		ug/L		88	70 - 125
Toluene	10.0	10.3		ug/L		103	79 - 122
Trichloroethene	10.0	8.40		ug/L		84	71 - 121
Vinyl chloride	10.0	8.52		ug/L		85	61 - 134
Xylenes, Total	20.0	18.2		ug/L		91	78 - 122
1,1,1-Trichloroethane	10.0	8.73		ug/L		87	65 - 141
1,1,2-Trichloroethane	10.0	11.1		ug/L		111	79 - 121
Cyclohexane	10.0	10.2		ug/L		102	69 - 133
1,2-Dibromo-3-Chloropropane	10.0	9.00		ug/L		90	34 - 136
1,2-Dibromoethane	10.0	10.7		ug/L		107	73 - 120
Dichlorodifluoromethane	10.0	6.92		ug/L		69	35 - 137
cis-1,2-Dichloroethene	10.0	8.62		ug/L		86	75 - 124
trans-1,2-Dichloroethene	10.0	8.59		ug/L		86	74 - 130
Isopropylbenzene	10.0	7.91		ug/L		79	73 - 123
Methyl acetate	20.0	24.5		ug/L		122	47 - 140
Methyl tert-butyl ether	10.0	9.43		ug/L		94	57 - 127
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	9.40		ug/L		94	54 - 148
1,2,4-Trichlorobenzene	10.0	5.44		ug/L		54	47 - 120
1,2-Dichlorobenzene	10.0	8.57		ug/L		86	74 - 120
1,3-Dichlorobenzene	10.0	8.66		ug/L		87	74 - 120
1,4-Dichlorobenzene	10.0	8.75		ug/L		88	75 - 120
Trichlorofluoromethane	10.0	10.2		ug/L		102	52 - 148
Dibromochloromethane	10.0	9.63		ug/L		96	75 - 120
Methylcyclohexane	10.0	8.77		ug/L		88	64 - 123

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	90		75 - 130
4-Bromofluorobenzene (Surr)	103		47 - 134
Toluene-d8 (Surr)	104		69 - 122
Dibromofluoromethane (Surr)	89		78 - 129

Lab Sample ID: 240-122031-17 MS

Matrix: Water

Analysis Batch: 411549

Client Sample ID: GW-17322-110819-JY-016

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	10	U	20.0	26.1		ug/L		131	32 - 157
Benzene	1.0	U	10.0	8.83		ug/L		88	70 - 121

Eurofins TestAmerica, Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 17322, PCC Validation

Job ID: 240-122031-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 240-122031-17 MS

Client Sample ID: GW-17322-110819-JY-016

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 411549

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromodichloromethane	1.0	U	10.0	8.45		ug/L		85	69 - 120
Bromoform	1.0	U	10.0	7.76		ug/L		78	41 - 128
Bromomethane	1.0	U	10.0	8.02		ug/L		80	41 - 136
2-Butanone (MEK)	10	U	20.0	25.0		ug/L		125	40 - 147
Carbon disulfide	5.0	U	10.0	7.59		ug/L		76	54 - 131
Carbon tetrachloride	1.0	U	10.0	7.81		ug/L		78	53 - 142
Chlorobenzene	1.0	U	10.0	8.61		ug/L		86	73 - 120
Chloroethane	1.0	U	10.0	7.69		ug/L		77	37 - 142
Chloroform	1.0	U	10.0	8.27		ug/L		83	66 - 126
Chloromethane	1.0	U	10.0	9.20		ug/L		92	33 - 146
1,1-Dichloroethane	1.0	U	10.0	8.48		ug/L		85	71 - 121
1,2-Dichloroethane	1.0	U	10.0	8.79		ug/L		88	65 - 127
1,1-Dichloroethene	1.0	U	10.0	8.71		ug/L		87	64 - 132
1,2-Dichloropropane	1.0	U	10.0	9.65		ug/L		96	73 - 125
cis-1,3-Dichloropropene	1.0	U	10.0	7.93		ug/L		79	56 - 121
trans-1,3-Dichloropropene	1.0	U	10.0	8.29		ug/L		83	53 - 120
Ethylbenzene	1.0	U	10.0	8.90		ug/L		89	66 - 122
2-Hexanone	10	U	20.0	27.6		ug/L		138	44 - 142
Methylene Chloride	5.0	U	10.0	8.52		ug/L		85	59 - 127
4-Methyl-2-pentanone (MIBK)	10	U	20.0	25.5		ug/L		127	40 - 147
Styrene	1.0	U	10.0	8.71		ug/L		87	57 - 126
1,1,2,2-Tetrachloroethane	1.0	U	10.0	11.7		ug/L		117	37 - 149
Tetrachloroethene	1.0	U	10.0	7.46		ug/L		75	52 - 129
Toluene	1.0	U	10.0	9.45		ug/L		95	68 - 124
Trichloroethene	1.0	U	10.0	7.54		ug/L		75	56 - 124
Vinyl chloride	0.23	J	10.0	8.79		ug/L		86	49 - 136
Xylenes, Total	2.0	U	20.0	16.0		ug/L		80	64 - 124
1,1,1-Trichloroethane	1.0	U	10.0	7.70		ug/L		77	62 - 135
1,1,2-Trichloroethane	1.0	U	10.0	10.6		ug/L		106	73 - 122
Cyclohexane	1.0	U	10.0	6.42		ug/L		64	48 - 136
1,2-Dibromo-3-Chloropropane	1.0	U	10.0	8.57		ug/L		86	31 - 130
1,2-Dibromoethane	1.0	U	10.0	10.3		ug/L		103	66 - 120
Dichlorodifluoromethane	1.0	U	10.0	5.47		ug/L		55	27 - 132
cis-1,2-Dichloroethene	1.0	U	10.0	8.17		ug/L		82	68 - 121
trans-1,2-Dichloroethene	1.0	U	10.0	8.06		ug/L		81	69 - 126
Isopropylbenzene	1.0	U	10.0	6.70		ug/L		67	56 - 122
Methyl acetate	10	U	20.0	23.5		ug/L		118	41 - 137
Methyl tert-butyl ether	1.0	U	10.0	8.74		ug/L		87	50 - 126
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	10.0	6.54		ug/L		65	41 - 145
1,2,4-Trichlorobenzene	1.0	U	10.0	4.40		ug/L		44	37 - 120
1,2-Dichlorobenzene	1.0	U	10.0	7.81		ug/L		78	65 - 120
1,3-Dichlorobenzene	1.0	U	10.0	7.73		ug/L		77	64 - 120
1,4-Dichlorobenzene	1.0	U	10.0	8.03		ug/L		80	65 - 120
Trichlorofluoromethane	1.0	U	10.0	8.39		ug/L		84	45 - 152
Dibromochloromethane	1.0	U	10.0	8.74		ug/L		87	66 - 120
Methylcyclohexane	1.0	U	10.0	5.52		ug/L		55	40 - 125

Eurofins TestAmerica, Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 17322, PCC Validation

Job ID: 240-122031-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 240-122031-17 MS

Matrix: Water

Analysis Batch: 411549

Client Sample ID: GW-17322-110819-JY-016

Prep Type: Total/NA

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	92		75 - 130
4-Bromofluorobenzene (Surr)	99		47 - 134
Toluene-d8 (Surr)	99		69 - 122
Dibromofluoromethane (Surr)	89		78 - 129

Lab Sample ID: 240-122031-17 MSD

Matrix: Water

Analysis Batch: 411549

Client Sample ID: GW-17322-110819-JY-016

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	10	U	20.0	24.6		ug/L		123	32 - 157	6	35
Benzene	1.0	U	10.0	9.15		ug/L		91	70 - 121	4	35
Bromodichloromethane	1.0	U	10.0	8.80		ug/L		88	69 - 120	4	35
Bromoform	1.0	U	10.0	7.73		ug/L		77	41 - 128	0	35
Bromomethane	1.0	U	10.0	7.82		ug/L		78	41 - 136	3	35
2-Butanone (MEK)	10	U	20.0	23.7		ug/L		119	40 - 147	5	35
Carbon disulfide	5.0	U	10.0	7.94		ug/L		79	54 - 131	5	35
Carbon tetrachloride	1.0	U	10.0	8.81		ug/L		88	53 - 142	12	35
Chlorobenzene	1.0	U	10.0	8.91		ug/L		89	73 - 120	3	35
Chloroethane	1.0	U	10.0	8.22		ug/L		82	37 - 142	7	35
Chloroform	1.0	U	10.0	8.32		ug/L		83	66 - 126	1	35
Chloromethane	1.0	U	10.0	9.95		ug/L		99	33 - 146	8	35
1,1-Dichloroethane	1.0	U	10.0	8.59		ug/L		86	71 - 121	1	35
1,2-Dichloroethane	1.0	U	10.0	8.90		ug/L		89	65 - 127	1	35
1,1-Dichloroethene	1.0	U	10.0	9.43		ug/L		94	64 - 132	8	35
1,2-Dichloropropane	1.0	U	10.0	10.1		ug/L		101	73 - 125	5	35
cis-1,3-Dichloropropene	1.0	U	10.0	8.54		ug/L		85	56 - 121	7	35
trans-1,3-Dichloropropene	1.0	U	10.0	8.89		ug/L		89	53 - 120	7	35
Ethylbenzene	1.0	U	10.0	9.51		ug/L		95	66 - 122	7	35
2-Hexanone	10	U	20.0	26.6		ug/L		133	44 - 142	3	35
Methylene Chloride	5.0	U	10.0	8.50		ug/L		85	59 - 127	0	32
4-Methyl-2-pentanone (MIBK)	10	U	20.0	25.5		ug/L		128	40 - 147	0	35
Styrene	1.0	U	10.0	8.94		ug/L		89	57 - 126	3	35
1,1,2,2-Tetrachloroethane	1.0	U	10.0	11.1		ug/L		111	37 - 149	5	35
Tetrachloroethene	1.0	U	10.0	8.26		ug/L		83	52 - 129	10	35
Toluene	1.0	U	10.0	9.82		ug/L		98	68 - 124	4	35
Trichloroethene	1.0	U	10.0	7.98		ug/L		80	56 - 124	6	35
Vinyl chloride	0.23	J	10.0	8.87		ug/L		86	49 - 136	1	35
Xylenes, Total	2.0	U	20.0	17.0		ug/L		85	64 - 124	6	35
1,1,1-Trichloroethane	1.0	U	10.0	8.21		ug/L		82	62 - 135	6	35
1,1,2-Trichloroethane	1.0	U	10.0	10.8		ug/L		108	73 - 122	1	35
Cyclohexane	1.0	U	10.0	9.18		ug/L		92	48 - 136	35	35
1,2-Dibromo-3-Chloropropane	1.0	U	10.0	8.13		ug/L		81	31 - 130	5	35
1,2-Dibromoethane	1.0	U	10.0	10.7		ug/L		107	66 - 120	3	35
Dichlorodifluoromethane	1.0	U	10.0	7.16		ug/L		72	27 - 132	27	35
cis-1,2-Dichloroethene	1.0	U	10.0	8.38		ug/L		84	68 - 121	3	35
trans-1,2-Dichloroethene	1.0	U	10.0	8.42		ug/L		84	69 - 126	4	35
Isopropylbenzene	1.0	U	10.0	7.37		ug/L		74	56 - 122	10	20

Eurofins TestAmerica, Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 17322, PCC Validation

Job ID: 240-122031-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 240-122031-17 MSD

Client Sample ID: GW-17322-110819-JY-016

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 411549

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methyl acetate	10	U	20.0	22.3		ug/L		111	41 - 137	6	16
Methyl tert-butyl ether	1.0	U	10.0	8.77		ug/L		88	50 - 126	0	17
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	10.0	8.68		ug/L		87	41 - 145	28	35
1,2,4-Trichlorobenzene	1.0	U	10.0	5.34		ug/L		53	37 - 120	19	25
1,2-Dichlorobenzene	1.0	U	10.0	8.02		ug/L		80	65 - 120	3	35
1,3-Dichlorobenzene	1.0	U	10.0	8.06		ug/L		81	64 - 120	4	35
1,4-Dichlorobenzene	1.0	U	10.0	8.24		ug/L		82	65 - 120	3	35
Trichlorofluoromethane	1.0	U	10.0	9.92		ug/L		99	45 - 152	17	35
Dibromochloromethane	1.0	U	10.0	8.95		ug/L		90	66 - 120	2	35
Methylcyclohexane	1.0	U	10.0	7.87		ug/L		79	40 - 125	35	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	91		75 - 130
4-Bromofluorobenzene (Surr)	103		47 - 134
Toluene-d8 (Surr)	102		69 - 122
Dibromofluoromethane (Surr)	89		78 - 129

Lab Sample ID: MB 240-411570/7

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 411570

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	5.4	ug/L			11/19/19 14:03	1
Benzene	1.0	U	1.0	0.13	ug/L			11/19/19 14:03	1
Bromodichloromethane	1.0	U	1.0	0.17	ug/L			11/19/19 14:03	1
Bromoform	1.0	U	1.0	0.76	ug/L			11/19/19 14:03	1
Bromomethane	1.0	U	1.0	0.42	ug/L			11/19/19 14:03	1
2-Butanone (MEK)	10	U	10	1.2	ug/L			11/19/19 14:03	1
Carbon disulfide	5.0	U	5.0	0.28	ug/L			11/19/19 14:03	1
Carbon tetrachloride	1.0	U	1.0	0.26	ug/L			11/19/19 14:03	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			11/19/19 14:03	1
Chloroethane	1.0	U	1.0	0.83	ug/L			11/19/19 14:03	1
Chloroform	1.0	U	1.0	0.13	ug/L			11/19/19 14:03	1
Chloromethane	1.0	U	1.0	0.20	ug/L			11/19/19 14:03	1
1,1-Dichloroethane	1.0	U	1.0	0.17	ug/L			11/19/19 14:03	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			11/19/19 14:03	1
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			11/19/19 14:03	1
1,2-Dichloropropane	1.0	U	1.0	0.15	ug/L			11/19/19 14:03	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.61	ug/L			11/19/19 14:03	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.67	ug/L			11/19/19 14:03	1
Ethylbenzene	1.0	U	1.0	0.11	ug/L			11/19/19 14:03	1
2-Hexanone	10	U	10	0.54	ug/L			11/19/19 14:03	1
Methylene Chloride	5.0	U	5.0	2.6	ug/L			11/19/19 14:03	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.42	ug/L			11/19/19 14:03	1
Styrene	1.0	U	1.0	0.10	ug/L			11/19/19 14:03	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13	ug/L			11/19/19 14:03	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			11/19/19 14:03	1
Toluene	1.0	U	1.0	0.14	ug/L			11/19/19 14:03	1

Eurofins TestAmerica, Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 17322, PCC Validation

Job ID: 240-122031-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 240-411570/7

Matrix: Water

Analysis Batch: 411570

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	1.0	U	1.0	0.10	ug/L			11/19/19 14:03	1
Vinyl chloride	1.0	U	1.0	0.20	ug/L			11/19/19 14:03	1
Xylenes, Total	2.0	U	2.0	0.15	ug/L			11/19/19 14:03	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			11/19/19 14:03	1
1,1,2-Trichloroethane	1.0	U	1.0	0.090	ug/L			11/19/19 14:03	1
Cyclohexane	1.0	U	1.0	0.24	ug/L			11/19/19 14:03	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.91	ug/L			11/19/19 14:03	1
1,2-Dibromoethane	1.0	U	1.0	0.12	ug/L			11/19/19 14:03	1
Dichlorodifluoromethane	1.0	U	1.0	0.35	ug/L			11/19/19 14:03	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.16	ug/L			11/19/19 14:03	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			11/19/19 14:03	1
Isopropylbenzene	1.0	U	1.0	0.090	ug/L			11/19/19 14:03	1
Methyl acetate	10	U	10	1.7	ug/L			11/19/19 14:03	1
Methyl tert-butyl ether	1.0	U	1.0	0.070	ug/L			11/19/19 14:03	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			11/19/19 14:03	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.26	ug/L			11/19/19 14:03	1
1,2-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			11/19/19 14:03	1
1,3-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			11/19/19 14:03	1
1,4-Dichlorobenzene	1.0	U	1.0	0.16	ug/L			11/19/19 14:03	1
Trichlorofluoromethane	1.0	U	1.0	0.45	ug/L			11/19/19 14:03	1
Dibromochloromethane	1.0	U	1.0	0.39	ug/L			11/19/19 14:03	1
Methylcyclohexane	1.0	U	1.0	0.33	ug/L			11/19/19 14:03	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		75 - 130		11/19/19 14:03	1
4-Bromofluorobenzene (Surr)	71		47 - 134		11/19/19 14:03	1
Toluene-d8 (Surr)	99		69 - 122		11/19/19 14:03	1
Dibromofluoromethane (Surr)	120		78 - 129		11/19/19 14:03	1

Lab Sample ID: LCS 240-411570/4

Matrix: Water

Analysis Batch: 411570

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	20.0	17.8		ug/L		89	33 - 155
Benzene	10.0	10.2		ug/L		102	77 - 123
Bromodichloromethane	10.0	8.95		ug/L		89	73 - 122
Bromoform	10.0	11.1		ug/L		111	47 - 133
Bromomethane	10.0	7.17		ug/L		72	48 - 144
2-Butanone (MEK)	20.0	22.3		ug/L		111	41 - 151
Carbon disulfide	10.0	10.1		ug/L		101	67 - 127
Carbon tetrachloride	10.0	9.40		ug/L		94	61 - 142
Chlorobenzene	10.0	10.5		ug/L		105	80 - 120
Chloroethane	10.0	6.17		ug/L		62	41 - 147
Chloroform	10.0	8.79		ug/L		88	74 - 127
Chloromethane	10.0	6.64		ug/L		66	46 - 148
1,1-Dichloroethane	10.0	9.27		ug/L		93	74 - 126
1,2-Dichloroethane	10.0	7.85		ug/L		78	66 - 129

Eurofins TestAmerica, Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 17322, PCC Validation

Job ID: 240-122031-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 240-411570/4

Matrix: Water

Analysis Batch: 411570

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	10.0	9.93		ug/L		99	73 - 129
1,2-Dichloropropane	10.0	9.98		ug/L		100	79 - 127
cis-1,3-Dichloropropene	10.0	10.0		ug/L		100	68 - 128
trans-1,3-Dichloropropene	10.0	9.51		ug/L		95	64 - 120
Ethylbenzene	10.0	10.9		ug/L		109	80 - 120
2-Hexanone	20.0	22.1		ug/L		110	43 - 142
Methylene Chloride	10.0	10.1		ug/L		101	63 - 134
4-Methyl-2-pentanone (MIBK)	20.0	21.3		ug/L		106	43 - 145
Styrene	10.0	11.0		ug/L		110	75 - 121
1,1,2,2-Tetrachloroethane	10.0	10.5		ug/L		105	45 - 151
Tetrachloroethene	10.0	10.3		ug/L		103	70 - 125
Toluene	10.0	11.0		ug/L		110	79 - 122
Trichloroethene	10.0	10.2		ug/L		102	71 - 121
Vinyl chloride	10.0	7.00		ug/L		70	61 - 134
Xylenes, Total	20.0	22.3		ug/L		112	78 - 122
1,1,1-Trichloroethane	10.0	8.83		ug/L		88	65 - 141
1,1,2-Trichloroethane	10.0	11.0		ug/L		110	79 - 121
Cyclohexane	10.0	9.22		ug/L		92	69 - 133
1,2-Dibromo-3-Chloropropane	10.0	10.6		ug/L		106	34 - 136
1,2-Dibromoethane	10.0	11.0		ug/L		110	73 - 120
Dichlorodifluoromethane	10.0	5.77		ug/L		58	35 - 137
cis-1,2-Dichloroethene	10.0	9.78		ug/L		98	75 - 124
trans-1,2-Dichloroethene	10.0	10.9		ug/L		109	74 - 130
Isopropylbenzene	10.0	10.3		ug/L		103	73 - 123
Methyl acetate	20.0	19.6		ug/L		98	47 - 140
Methyl tert-butyl ether	10.0	9.66		ug/L		97	57 - 127
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	9.84		ug/L		98	54 - 148
1,2,4-Trichlorobenzene	10.0	8.48		ug/L		85	47 - 120
1,2-Dichlorobenzene	10.0	10.2		ug/L		102	74 - 120
1,3-Dichlorobenzene	10.0	9.88		ug/L		99	74 - 120
1,4-Dichlorobenzene	10.0	9.48		ug/L		95	75 - 120
Trichlorofluoromethane	10.0	7.31		ug/L		73	52 - 148
Dibromochloromethane	10.0	10.6		ug/L		106	75 - 120
Methylcyclohexane	10.0	9.52		ug/L		95	64 - 123

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	76		75 - 130
4-Bromofluorobenzene (Surr)	96		47 - 134
Toluene-d8 (Surr)	106		69 - 122
Dibromofluoromethane (Surr)	99		78 - 129

Lab Sample ID: 240-122031-6 MS

Matrix: Water

Analysis Batch: 411570

Client Sample ID: GW-17322-110619-JY-005

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	10	U	20.0	17.0		ug/L		85	32 - 157
Benzene	1.0	U	10.0	10.6		ug/L		106	70 - 121

Eurofins TestAmerica, Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 17322, PCC Validation

Job ID: 240-122031-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 240-122031-6 MS

Matrix: Water

Analysis Batch: 411570

Client Sample ID: GW-17322-110619-JY-005

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromodichloromethane	1.0	U	10.0	9.47		ug/L		95	69 - 120
Bromoform	1.0	U	10.0	11.0		ug/L		110	41 - 128
Bromomethane	1.0	U	10.0	7.58		ug/L		76	41 - 136
2-Butanone (MEK)	10	U	20.0	18.5		ug/L		92	40 - 147
Carbon disulfide	5.0	U	10.0	10.7		ug/L		107	54 - 131
Carbon tetrachloride	1.0	U	10.0	10.2		ug/L		102	53 - 142
Chlorobenzene	1.0	U	10.0	10.9		ug/L		109	73 - 120
Chloroethane	1.0	U	10.0	6.41		ug/L		64	37 - 142
Chloroform	1.0	U	10.0	9.15		ug/L		91	66 - 126
Chloromethane	1.0	U	10.0	6.49		ug/L		65	33 - 146
1,1-Dichloroethane	1.0	U	10.0	9.41		ug/L		94	71 - 121
1,2-Dichloroethane	1.0	U	10.0	8.26		ug/L		83	65 - 127
1,1-Dichloroethene	1.0	U	10.0	10.0		ug/L		100	64 - 132
1,2-Dichloropropane	1.0	U	10.0	10.2		ug/L		102	73 - 125
cis-1,3-Dichloropropene	1.0	U	10.0	9.53		ug/L		95	56 - 121
trans-1,3-Dichloropropene	1.0	U	10.0	9.37		ug/L		94	53 - 120
Ethylbenzene	1.0	U	10.0	11.3		ug/L		113	66 - 122
2-Hexanone	10	U	20.0	21.5		ug/L		108	44 - 142
Methylene Chloride	5.0	U	10.0	10.9		ug/L		109	59 - 127
4-Methyl-2-pentanone (MIBK)	10	U	20.0	20.2		ug/L		101	40 - 147
Styrene	1.0	U	10.0	11.5		ug/L		115	57 - 126
1,1,2,2-Tetrachloroethane	1.0	U	10.0	11.3		ug/L		113	37 - 149
Tetrachloroethene	1.0	U	10.0	10.4		ug/L		104	52 - 129
Toluene	1.0	U	10.0	11.0		ug/L		110	68 - 124
Trichloroethene	1.0	U	10.0	10.4		ug/L		104	56 - 124
Vinyl chloride	1.0	U	10.0	6.92		ug/L		69	49 - 136
Xylenes, Total	2.0	U	20.0	22.7		ug/L		114	64 - 124
1,1,1-Trichloroethane	1.0	U	10.0	9.31		ug/L		93	62 - 135
1,1,2-Trichloroethane	1.0	U	10.0	11.8		ug/L		118	73 - 122
Cyclohexane	1.0	U	10.0	9.64		ug/L		96	48 - 136
1,2-Dibromo-3-Chloropropane	1.0	U	10.0	10.4		ug/L		104	31 - 130
1,2-Dibromoethane	1.0	U	10.0	10.7		ug/L		107	66 - 120
Dichlorodifluoromethane	1.0	U	10.0	5.82		ug/L		58	27 - 132
cis-1,2-Dichloroethene	1.0	U	10.0	10.3		ug/L		103	68 - 121
trans-1,2-Dichloroethene	1.0	U	10.0	11.1		ug/L		111	69 - 126
Isopropylbenzene	1.0	U	10.0	10.4		ug/L		104	56 - 122
Methyl acetate	10	U	20.0	18.6		ug/L		93	41 - 137
Methyl tert-butyl ether	1.0	U	10.0	9.13		ug/L		91	50 - 126
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	10.0	10.2		ug/L		102	41 - 145
1,2,4-Trichlorobenzene	1.0	U	10.0	8.35		ug/L		83	37 - 120
1,2-Dichlorobenzene	1.0	U	10.0	10.7		ug/L		107	65 - 120
1,3-Dichlorobenzene	1.0	U	10.0	10.4		ug/L		104	64 - 120
1,4-Dichlorobenzene	1.0	U	10.0	9.88		ug/L		99	65 - 120
Trichlorofluoromethane	1.0	U	10.0	7.90		ug/L		79	45 - 152
Dibromochloromethane	1.0	U	10.0	11.0		ug/L		110	66 - 120
Methylcyclohexane	1.0	U	10.0	9.68		ug/L		97	40 - 125

Eurofins TestAmerica, Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 17322, PCC Validation

Job ID: 240-122031-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 240-122031-6 MS

Matrix: Water

Analysis Batch: 411570

Client Sample ID: GW-17322-110619-JY-005

Prep Type: Total/NA

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	76		75 - 130
4-Bromofluorobenzene (Surr)	97		47 - 134
Toluene-d8 (Surr)	107		69 - 122
Dibromofluoromethane (Surr)	95		78 - 129

Lab Sample ID: 240-122031-6 MSD

Matrix: Water

Analysis Batch: 411570

Client Sample ID: GW-17322-110619-JY-005

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	10	U	20.0	18.8		ug/L		94	32 - 157	10	35
Benzene	1.0	U	10.0	9.96		ug/L		100	70 - 121	6	35
Bromodichloromethane	1.0	U	10.0	8.96		ug/L		90	69 - 120	6	35
Bromoform	1.0	U	10.0	10.5		ug/L		105	41 - 128	5	35
Bromomethane	1.0	U	10.0	6.66		ug/L		67	41 - 136	13	35
2-Butanone (MEK)	10	U	20.0	21.4		ug/L		107	40 - 147	15	35
Carbon disulfide	5.0	U	10.0	10.3		ug/L		103	54 - 131	4	35
Carbon tetrachloride	1.0	U	10.0	9.47		ug/L		95	53 - 142	7	35
Chlorobenzene	1.0	U	10.0	10.2		ug/L		102	73 - 120	7	35
Chloroethane	1.0	U	10.0	5.71		ug/L		57	37 - 142	12	35
Chloroform	1.0	U	10.0	8.84		ug/L		88	66 - 126	3	35
Chloromethane	1.0	U	10.0	7.04		ug/L		70	33 - 146	8	35
1,1-Dichloroethane	1.0	U	10.0	9.15		ug/L		92	71 - 121	3	35
1,2-Dichloroethane	1.0	U	10.0	7.79		ug/L		78	65 - 127	6	35
1,1-Dichloroethene	1.0	U	10.0	9.89		ug/L		99	64 - 132	1	35
1,2-Dichloropropane	1.0	U	10.0	9.86		ug/L		99	73 - 125	4	35
cis-1,3-Dichloropropene	1.0	U	10.0	9.20		ug/L		92	56 - 121	4	35
trans-1,3-Dichloropropene	1.0	U	10.0	8.76		ug/L		88	53 - 120	7	35
Ethylbenzene	1.0	U	10.0	10.8		ug/L		108	66 - 122	4	35
2-Hexanone	10	U	20.0	22.2		ug/L		111	44 - 142	3	35
Methylene Chloride	5.0	U	10.0	10.8		ug/L		108	59 - 127	1	32
4-Methyl-2-pentanone (MIBK)	10	U	20.0	20.8		ug/L		104	40 - 147	3	35
Styrene	1.0	U	10.0	11.0		ug/L		110	57 - 126	5	35
1,1,2,2-Tetrachloroethane	1.0	U	10.0	10.4		ug/L		104	37 - 149	8	35
Tetrachloroethene	1.0	U	10.0	9.99		ug/L		100	52 - 129	4	35
Toluene	1.0	U	10.0	10.5		ug/L		105	68 - 124	5	35
Trichloroethene	1.0	U	10.0	9.78		ug/L		98	56 - 124	6	35
Vinyl chloride	1.0	U	10.0	6.65		ug/L		67	49 - 136	4	35
Xylenes, Total	2.0	U	20.0	21.6		ug/L		108	64 - 124	5	35
1,1,1-Trichloroethane	1.0	U	10.0	8.94		ug/L		89	62 - 135	4	35
1,1,2-Trichloroethane	1.0	U	10.0	10.6		ug/L		106	73 - 122	11	35
Cyclohexane	1.0	U	10.0	9.04		ug/L		90	48 - 136	6	35
1,2-Dibromo-3-Chloropropane	1.0	U	10.0	10.3		ug/L		103	31 - 130	1	35
1,2-Dibromoethane	1.0	U	10.0	10.4		ug/L		104	66 - 120	3	35
Dichlorodifluoromethane	1.0	U	10.0	5.92		ug/L		59	27 - 132	2	35
cis-1,2-Dichloroethene	1.0	U	10.0	10.1		ug/L		101	68 - 121	2	35
trans-1,2-Dichloroethene	1.0	U	10.0	11.0		ug/L		110	69 - 126	1	35
Isopropylbenzene	1.0	U	10.0	9.83		ug/L		98	56 - 122	6	20

Eurofins TestAmerica, Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 17322, PCC Validation

Job ID: 240-122031-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 240-122031-6 MSD

Client Sample ID: GW-17322-110619-JY-005

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 411570

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methyl acetate	10	U	20.0	19.2		ug/L		96	41 - 137	3	16
Methyl tert-butyl ether	1.0	U	10.0	9.23		ug/L		92	50 - 126	1	17
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	10.0	10.1		ug/L		101	41 - 145	1	35
1,2,4-Trichlorobenzene	1.0	U	10.0	8.14		ug/L		81	37 - 120	3	25
1,2-Dichlorobenzene	1.0	U	10.0	9.53		ug/L		95	65 - 120	11	35
1,3-Dichlorobenzene	1.0	U	10.0	9.50		ug/L		95	64 - 120	9	35
1,4-Dichlorobenzene	1.0	U	10.0	9.72		ug/L		97	65 - 120	2	35
Trichlorofluoromethane	1.0	U	10.0	7.51		ug/L		75	45 - 152	5	35
Dibromochloromethane	1.0	U	10.0	10.3		ug/L		103	66 - 120	6	35
Methylcyclohexane	1.0	U	10.0	9.41		ug/L		94	40 - 125	3	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	77		75 - 130
4-Bromofluorobenzene (Surr)	92		47 - 134
Toluene-d8 (Surr)	102		69 - 122
Dibromofluoromethane (Surr)	95		78 - 129

Lab Sample ID: MB 240-411807/6

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 411807

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	5.4	ug/L			11/20/19 12:54	1
Benzene	1.0	U	1.0	0.13	ug/L			11/20/19 12:54	1
Bromodichloromethane	1.0	U	1.0	0.17	ug/L			11/20/19 12:54	1
Bromoform	1.0	U	1.0	0.76	ug/L			11/20/19 12:54	1
Bromomethane	1.0	U	1.0	0.42	ug/L			11/20/19 12:54	1
2-Butanone (MEK)	10	U	10	1.2	ug/L			11/20/19 12:54	1
Carbon disulfide	5.0	U	5.0	0.28	ug/L			11/20/19 12:54	1
Carbon tetrachloride	1.0	U	1.0	0.26	ug/L			11/20/19 12:54	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			11/20/19 12:54	1
Chloroethane	1.0	U	1.0	0.83	ug/L			11/20/19 12:54	1
Chloroform	1.0	U	1.0	0.13	ug/L			11/20/19 12:54	1
Chloromethane	1.0	U	1.0	0.20	ug/L			11/20/19 12:54	1
1,1-Dichloroethane	1.0	U	1.0	0.17	ug/L			11/20/19 12:54	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			11/20/19 12:54	1
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			11/20/19 12:54	1
1,2-Dichloropropane	1.0	U	1.0	0.15	ug/L			11/20/19 12:54	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.61	ug/L			11/20/19 12:54	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.67	ug/L			11/20/19 12:54	1
Ethylbenzene	1.0	U	1.0	0.11	ug/L			11/20/19 12:54	1
2-Hexanone	10	U	10	0.54	ug/L			11/20/19 12:54	1
Methylene Chloride	5.0	U	5.0	2.6	ug/L			11/20/19 12:54	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.42	ug/L			11/20/19 12:54	1
Styrene	1.0	U	1.0	0.10	ug/L			11/20/19 12:54	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.13	ug/L			11/20/19 12:54	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			11/20/19 12:54	1
Toluene	1.0	U	1.0	0.14	ug/L			11/20/19 12:54	1

Eurofins TestAmerica, Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 17322, PCC Validation

Job ID: 240-122031-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 240-411807/6

Matrix: Water

Analysis Batch: 411807

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	1.0	U	1.0	0.10	ug/L			11/20/19 12:54	1
Vinyl chloride	1.0	U	1.0	0.20	ug/L			11/20/19 12:54	1
Xylenes, Total	2.0	U	2.0	0.15	ug/L			11/20/19 12:54	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			11/20/19 12:54	1
1,1,2-Trichloroethane	1.0	U	1.0	0.090	ug/L			11/20/19 12:54	1
Cyclohexane	1.0	U	1.0	0.24	ug/L			11/20/19 12:54	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.91	ug/L			11/20/19 12:54	1
1,2-Dibromoethane	1.0	U	1.0	0.12	ug/L			11/20/19 12:54	1
Dichlorodifluoromethane	1.0	U	1.0	0.35	ug/L			11/20/19 12:54	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.16	ug/L			11/20/19 12:54	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			11/20/19 12:54	1
Isopropylbenzene	1.0	U	1.0	0.090	ug/L			11/20/19 12:54	1
Methyl acetate	10	U	10	1.7	ug/L			11/20/19 12:54	1
Methyl tert-butyl ether	1.0	U	1.0	0.070	ug/L			11/20/19 12:54	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			11/20/19 12:54	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.26	ug/L			11/20/19 12:54	1
1,2-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			11/20/19 12:54	1
1,3-Dichlorobenzene	1.0	U	1.0	0.15	ug/L			11/20/19 12:54	1
1,4-Dichlorobenzene	1.0	U	1.0	0.16	ug/L			11/20/19 12:54	1
Trichlorofluoromethane	1.0	U	1.0	0.45	ug/L			11/20/19 12:54	1
Dibromochloromethane	1.0	U	1.0	0.39	ug/L			11/20/19 12:54	1
Methylcyclohexane	1.0	U	1.0	0.33	ug/L			11/20/19 12:54	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	113		75 - 130		11/20/19 12:54	1
4-Bromofluorobenzene (Surr)	79		47 - 134		11/20/19 12:54	1
Toluene-d8 (Surr)	97		69 - 122		11/20/19 12:54	1
Dibromofluoromethane (Surr)	108		78 - 129		11/20/19 12:54	1

Lab Sample ID: LCS 240-411807/4

Matrix: Water

Analysis Batch: 411807

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	20.0	25.1		ug/L		125	33 - 155
Benzene	10.0	9.15		ug/L		92	77 - 123
Bromodichloromethane	10.0	8.63		ug/L		86	73 - 122
Bromoform	10.0	8.36		ug/L		84	47 - 133
Bromomethane	10.0	7.45		ug/L		74	48 - 144
2-Butanone (MEK)	20.0	23.8		ug/L		119	41 - 151
Carbon disulfide	10.0	8.73		ug/L		87	67 - 127
Carbon tetrachloride	10.0	9.28		ug/L		93	61 - 142
Chlorobenzene	10.0	9.23		ug/L		92	80 - 120
Chloroethane	10.0	8.10		ug/L		81	41 - 147
Chloroform	10.0	8.33		ug/L		83	74 - 127
Chloromethane	10.0	10.2		ug/L		102	46 - 148
1,1-Dichloroethane	10.0	8.75		ug/L		87	74 - 126
1,2-Dichloroethane	10.0	8.79		ug/L		88	66 - 129

Eurofins TestAmerica, Canton

QC Sample Results

Client: GHD Services Inc.
Project/Site: 17322, PCC Validation

Job ID: 240-122031-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 240-411807/4

Matrix: Water

Analysis Batch: 411807

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	10.0	9.40		ug/L		94	73 - 129
1,2-Dichloropropane	10.0	10.1		ug/L		101	79 - 127
cis-1,3-Dichloropropene	10.0	9.51		ug/L		95	68 - 128
trans-1,3-Dichloropropene	10.0	9.43		ug/L		94	64 - 120
Ethylbenzene	10.0	9.72		ug/L		97	80 - 120
2-Hexanone	20.0	27.6		ug/L		138	43 - 142
Methylene Chloride	10.0	8.33		ug/L		83	63 - 134
4-Methyl-2-pentanone (MIBK)	20.0	26.0		ug/L		130	43 - 145
Styrene	10.0	9.17		ug/L		92	75 - 121
1,1,2,2-Tetrachloroethane	10.0	11.8		ug/L		118	45 - 151
Tetrachloroethene	10.0	8.67		ug/L		87	70 - 125
Toluene	10.0	10.1		ug/L		101	79 - 122
Trichloroethene	10.0	8.23		ug/L		82	71 - 121
Vinyl chloride	10.0	9.37		ug/L		94	61 - 134
Xylenes, Total	20.0	17.7		ug/L		89	78 - 122
1,1,1-Trichloroethane	10.0	8.37		ug/L		84	65 - 141
1,1,2-Trichloroethane	10.0	10.9		ug/L		109	79 - 121
Cyclohexane	10.0	9.70		ug/L		97	69 - 133
1,2-Dibromo-3-Chloropropane	10.0	9.59		ug/L		96	34 - 136
1,2-Dibromoethane	10.0	10.9		ug/L		109	73 - 120
Dichlorodifluoromethane	10.0	7.42		ug/L		74	35 - 137
cis-1,2-Dichloroethene	10.0	8.39		ug/L		84	75 - 124
trans-1,2-Dichloroethene	10.0	8.71		ug/L		87	74 - 130
Isopropylbenzene	10.0	7.72		ug/L		77	73 - 123
Methyl acetate	20.0	24.5		ug/L		122	47 - 140
Methyl tert-butyl ether	10.0	9.28		ug/L		93	57 - 127
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	8.97		ug/L		90	54 - 148
1,2,4-Trichlorobenzene	10.0	5.47		ug/L		55	47 - 120
1,2-Dichlorobenzene	10.0	8.37		ug/L		84	74 - 120
1,3-Dichlorobenzene	10.0	8.39		ug/L		84	74 - 120
1,4-Dichlorobenzene	10.0	8.39		ug/L		84	75 - 120
Trichlorofluoromethane	10.0	10.2		ug/L		102	52 - 148
Dibromochloromethane	10.0	9.47		ug/L		95	75 - 120
Methylcyclohexane	10.0	8.21		ug/L		82	64 - 123

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	89		75 - 130
4-Bromofluorobenzene (Surr)	104		47 - 134
Toluene-d8 (Surr)	103		69 - 122
Dibromofluoromethane (Surr)	86		78 - 129

QC Sample Results

Client: GHD Services Inc.
Project/Site: 17322, PCC Validation

Job ID: 240-122031-1

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 240-410449/1-A
Matrix: Water
Analysis Batch: 410692

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 410449

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	50	U	50	34	ug/L		11/12/19 14:00	11/13/19 10:48	1
Lead	1.0	U	1.0	0.45	ug/L		11/12/19 14:00	11/13/19 10:48	1
Vanadium	4.0	U	4.0	0.82	ug/L		11/12/19 14:00	11/13/19 10:48	1

Lab Sample ID: LCS 240-410449/3-A
Matrix: Water
Analysis Batch: 410692

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 410449

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	5000	4570		ug/L		91	80 - 120
Lead	500	446		ug/L		89	80 - 120
Vanadium	500	428		ug/L		86	80 - 120

Surrogate Summary

Client: GHD Services Inc.
Project/Site: 17322, PCC Validation

Job ID: 240-122031-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (75-130)	BFB (47-134)	TOL (69-122)	DBFM (78-129)
240-122031-1	TB-17322-110619	98	69	98	116
240-122031-6	GW-17322-110619-JY-005	93	66	91	115
240-122031-6 MS	GW-17322-110619-JY-005	76	97	107	95
240-122031-6 MSD	GW-17322-110619-JY-005	77	92	102	95
240-122031-7	GW-17322-110619-JY-006	95	65	95	120
240-122031-8	GW-17322-110719-JY-007	98	67	92	120
240-122031-9	GW-17322-110719-JY-008	101	68	92	120
240-122031-10	GW-17322-110719-JY-009	98	65	94	121
240-122031-11	GW-17322-110719-JY-010	90	68	92	118
240-122031-12	GW-17322-110719-JY-011	108	72	90	102
240-122031-13	GW-17322-110719-JY-012	107	70	90	102
240-122031-14	GW-17322-110819-JY-013	110	76	91	107
240-122031-15	GW-17322-110819-JY-014	108	69	90	101
240-122031-16	GW-17322-110819-JY-015	116	73	93	105
240-122031-17	GW-17322-110819-JY-016	108	68	88	102
240-122031-17 MS	GW-17322-110819-JY-016	92	99	99	89
240-122031-17 MSD	GW-17322-110819-JY-016	91	103	102	89
LCS 240-411387/4	Lab Control Sample	75	93	106	100
LCS 240-411549/4	Lab Control Sample	90	103	104	89
LCS 240-411570/4	Lab Control Sample	76	96	106	99
LCS 240-411807/4	Lab Control Sample	89	104	103	86
MB 240-411387/7	Method Blank	95	78	104	120
MB 240-411549/6	Method Blank	106	78	95	99
MB 240-411570/7	Method Blank	95	71	99	120
MB 240-411807/6	Method Blank	113	79	97	108

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

TOL = Toluene-d8 (Surr)

DBFM = Dibromofluoromethane (Surr)

Lab Chronicle

Client: GHD Services Inc.
Project/Site: 17322, PCC Validation

Job ID: 240-122031-1

Client Sample ID: TB-17322-110619

Lab Sample ID: 240-122031-1

Date Collected: 11/06/19 00:00

Matrix: Water

Date Received: 11/09/19 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	411387	11/18/19 20:06	LRW	TAL CAN

Client Sample ID: GW-17322-110619-JY-001

Lab Sample ID: 240-122031-2

Date Collected: 11/06/19 10:50

Matrix: Water

Date Received: 11/09/19 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			410449	11/12/19 14:00	MRL	TAL CAN
Dissolved	Analysis	6020		1	410692	11/13/19 11:24	KLC	TAL CAN
Total Recoverable	Prep	3005A			410449	11/12/19 14:00	MRL	TAL CAN
Total Recoverable	Analysis	6020		1	410692	11/13/19 11:22	KLC	TAL CAN

Client Sample ID: GW-17322-110619-JY-002

Lab Sample ID: 240-122031-3

Date Collected: 11/06/19 11:10

Matrix: Water

Date Received: 11/09/19 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			410449	11/12/19 14:00	MRL	TAL CAN
Dissolved	Analysis	6020		1	410692	11/13/19 11:29	KLC	TAL CAN
Total Recoverable	Prep	3005A			410449	11/12/19 14:00	MRL	TAL CAN
Total Recoverable	Analysis	6020		1	410692	11/13/19 11:26	KLC	TAL CAN

Client Sample ID: GW-17322-110619-JY-003

Lab Sample ID: 240-122031-4

Date Collected: 11/06/19 11:15

Matrix: Water

Date Received: 11/09/19 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			410449	11/12/19 14:00	MRL	TAL CAN
Dissolved	Analysis	6020		1	410692	11/13/19 11:33	KLC	TAL CAN
Total Recoverable	Prep	3005A			410449	11/12/19 14:00	MRL	TAL CAN
Total Recoverable	Analysis	6020		1	410692	11/13/19 11:31	KLC	TAL CAN

Client Sample ID: GW-17322-110619-JY-004

Lab Sample ID: 240-122031-5

Date Collected: 11/06/19 13:25

Matrix: Water

Date Received: 11/09/19 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			410449	11/12/19 14:00	MRL	TAL CAN
Dissolved	Analysis	6020		1	410692	11/13/19 11:43	KLC	TAL CAN
Total Recoverable	Prep	3005A			410449	11/12/19 14:00	MRL	TAL CAN
Total Recoverable	Analysis	6020		1	410692	11/13/19 11:40	KLC	TAL CAN

Eurofins TestAmerica, Canton

Lab Chronicle

Client: GHD Services Inc.
Project/Site: 17322, PCC Validation

Job ID: 240-122031-1

Client Sample ID: GW-17322-110619-JY-005

Lab Sample ID: 240-122031-6

Date Collected: 11/06/19 14:05

Matrix: Water

Date Received: 11/09/19 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	411570	11/19/19 17:37	LRW	TAL CAN

Client Sample ID: GW-17322-110619-JY-006

Lab Sample ID: 240-122031-7

Date Collected: 11/06/19 15:05

Matrix: Water

Date Received: 11/09/19 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	411387	11/18/19 21:40	LRW	TAL CAN

Client Sample ID: GW-17322-110719-JY-007

Lab Sample ID: 240-122031-8

Date Collected: 11/07/19 09:50

Matrix: Water

Date Received: 11/09/19 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	411387	11/18/19 22:04	LRW	TAL CAN

Client Sample ID: GW-17322-110719-JY-008

Lab Sample ID: 240-122031-9

Date Collected: 11/07/19 10:40

Matrix: Water

Date Received: 11/09/19 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	411387	11/18/19 22:28	LRW	TAL CAN

Client Sample ID: GW-17322-110719-JY-009

Lab Sample ID: 240-122031-10

Date Collected: 11/07/19 12:00

Matrix: Water

Date Received: 11/09/19 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	411387	11/18/19 22:52	LRW	TAL CAN

Client Sample ID: GW-17322-110719-JY-010

Lab Sample ID: 240-122031-11

Date Collected: 11/07/19 12:45

Matrix: Water

Date Received: 11/09/19 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	411387	11/18/19 23:16	LRW	TAL CAN

Client Sample ID: GW-17322-110719-JY-011

Lab Sample ID: 240-122031-12

Date Collected: 11/07/19 13:50

Matrix: Water

Date Received: 11/09/19 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	411549	11/19/19 16:49	LEE	TAL CAN

Eurofins TestAmerica, Canton

Lab Chronicle

Client: GHD Services Inc.
Project/Site: 17322, PCC Validation

Job ID: 240-122031-1

Client Sample ID: GW-17322-110719-JY-012

Lab Sample ID: 240-122031-13

Date Collected: 11/07/19 14:45

Matrix: Water

Date Received: 11/09/19 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	411549	11/19/19 17:10	LEE	TAL CAN

Client Sample ID: GW-17322-110819-JY-013

Lab Sample ID: 240-122031-14

Date Collected: 11/08/19 08:50

Matrix: Water

Date Received: 11/09/19 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	411807	11/20/19 13:37	LEE	TAL CAN

Client Sample ID: GW-17322-110819-JY-014

Lab Sample ID: 240-122031-15

Date Collected: 11/08/19 10:05

Matrix: Water

Date Received: 11/09/19 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	411549	11/19/19 17:54	LEE	TAL CAN

Client Sample ID: GW-17322-110819-JY-015

Lab Sample ID: 240-122031-16

Date Collected: 11/08/19 10:50

Matrix: Water

Date Received: 11/09/19 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	411549	11/19/19 18:16	LEE	TAL CAN

Client Sample ID: GW-17322-110819-JY-016

Lab Sample ID: 240-122031-17

Date Collected: 11/08/19 11:40

Matrix: Water

Date Received: 11/09/19 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	411549	11/19/19 18:37	LEE	TAL CAN

Laboratory References:

TAL CAN = Eurofins TestAmerica, Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Accreditation/Certification Summary

Client: GHD Services Inc.
Project/Site: 17322, PCC Validation

Job ID: 240-122031-1

Laboratory: Eurofins TestAmerica, Canton

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-23-20
Connecticut	State	PH-0590	12-31-19
Florida	NELAP	E87225	06-30-20
Georgia	State	4062	02-23-20
Illinois	NELAP	004498	07-31-20
Iowa	State	421	06-01-20
Kansas	NELAP	E-10336	04-30-20
Kentucky (UST)	State	112225	02-23-20
Kentucky (WW)	State	KY98016	12-31-19
Minnesota	NELAP	OH00048	12-31-19
Minnesota (Petrofund)	State Program	3506	07-31-21
New Jersey	NELAP	OH001	06-30-20
New York	NELAP	10975	03-31-20
Ohio VAP	State	CL0024	06-05-21
Oregon	NELAP	4062	02-23-20
Pennsylvania	NELAP	68-00340	08-31-20
Texas	NELAP	T104704517-18-10	08-31-20
USDA	US Federal Programs	P330-16-00404	12-28-19
Virginia	NELAP	010101	09-14-20
Washington	State	C971	01-12-20
West Virginia DEP	State	210	12-31-19

MICHIGAN
190

3.2/3.9

Chain of Custody Record

377113



Environment Testing
TestAmerica

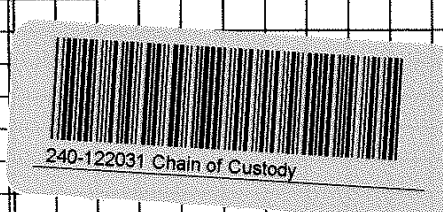
Address:

TAL-8210

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact		Project Manager: <u>Tom Kinney</u>		Site Contact: <u>J York</u>	Date: <u>11-8-19</u>	COC No: <u>1</u> of <u>2</u> COCs
Company Name: <u>GHD</u>		Tel/Email:		Lab Contact: <u>D. Hesketh</u>	Carrier: <u>Fed Ex</u>	
Address: <u>26850 Haggerty Rd</u>		Analysis Turnaround Time		Sampler:		
City/State/Zip: <u>Trompsburg, MI 48311</u>		☐ CALENDAR DAYS ☐ WORKING DAYS		For Lab Use Only:		
Phone: <u>248 893 3400</u>		TAT if different from Below		Walk-in Client:		
Fax:		☒ 2 weeks		Lab Sampling:		
Project Name: <u>River Pile Validation</u>		☐ 1 week		Job / SDG No.:		
Site: <u>Port Huron, Mich</u>		☐ 2 days				
PO #		☐ 1 day				

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	Sample Specific Notes
TB-17322-110619	11/6/19	-	G	WG	1	N	X	
GW-17322-110619-5Y-001		1050	G	WG	2	N	X	
		1110	G	WG	2	N	X	
		1115	G	WG	2	N	X	
		1325	G	WG	2	N	X	
		1405	G	WG	9	N	X	
		1505	G	WG	3	N	X	
GW-17322-110719-5Y-007	11/7/19	0950	G	WG	3	N	X	
		1040	G	WG	3	N	X	
		1200	G	WG	3	N	X	
		1245	G	WG	3	N	X	
		1350	G	WG	3	N	X	



Preservation Used: 1= Ice, 2= HCl, 3= H2SO4, 4=HNO3, 5=NaOH, 6= Other

Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

☐ Return to Client ☒ Dispose by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments: Discontinue field collection by GHD

Custody Seal No.: _____

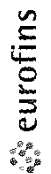
Relinquished by: [Signature] Company: GHD Date/Time: 11-8-19 1600

Relinquished by: [Signature] Company: ETA Date/Time: 11-9-19 930

Relinquished by: _____ Company: _____ Date/Time: _____

Chain of Custody Record

377114

Environment Testing
TestAmerica

Address: _____

TAL-8210

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other: _____

Client Contact		Project Manager: <u>Tom Kinney</u>		Site Contact: <u>J. K. M.</u>		Date: <u>11-8-19</u>		COC No: _____	
Company Name: <u>GHD</u>		Tel/Email: _____		Lab Contact: <u>D. H. M.</u>		Carrier: <u>Fuel Co.</u>		COCs	
Address: _____		Analysis Turnaround Time		Perform MS / MSD (Y / N)		Filtered Sample (Y / N)		Sample Specific Notes:	
City/State/Zip: _____		☐ CALENDAR DAYS ☐ WORKING DAYS		Sample Date		Sample Time		Sample Type (C=Comp, G=Grab)	
Phone: <u>242 393 3100</u>		TAT if different from Below		Sample Date		Sample Time		Sample Type (C=Comp, G=Grab)	
Fax: _____		☒ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		Sample Date		Sample Time		Sample Type (C=Comp, G=Grab)	
Project Name: <u>PCC Validation</u>		☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		Sample Date		Sample Time		Sample Type (C=Comp, G=Grab)	
Site: <u>Portway, March</u>		☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		Sample Date		Sample Time		Sample Type (C=Comp, G=Grab)	
P.O.# _____		☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		Sample Date		Sample Time		Sample Type (C=Comp, G=Grab)	
Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=Grab)		# of Cont.	
<u>GW-17322-110719-JY-012</u>		<u>11/7/19</u>		<u>1445</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-013</u>		<u>11/8/19</u>		<u>0850</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-014</u>		<u>11/8/19</u>		<u>1005</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-015</u>		<u>11/8/19</u>		<u>1050</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-016</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-017</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-018</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-019</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-020</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-021</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-022</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-023</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-024</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-025</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-026</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-027</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-028</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-029</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-030</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-031</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-032</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-033</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-034</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-035</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-036</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-037</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-038</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-039</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-040</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-041</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-042</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-043</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-044</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-045</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-046</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-047</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-048</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-049</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-050</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-051</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-052</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-053</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-054</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-055</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-056</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-057</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-058</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-059</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-060</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-061</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-062</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-063</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-064</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-065</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-066</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-067</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-068</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-069</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-070</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-071</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-072</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-073</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-074</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-075</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-076</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-077</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-078</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-079</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-080</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-081</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-082</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-083</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-084</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-085</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-086</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-087</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-088</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-089</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-090</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-091</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-092</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-093</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-094</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-095</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-096</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-097</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-098</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-099</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-100</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-101</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-102</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-103</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-104</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-105</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-106</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-107</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-108</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-109</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-110</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-111</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-112</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-113</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-114</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-115</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-116</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-117</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-118</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-119</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-120</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-121</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-122</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-123</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-124</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-125</u>		<u>11/8/19</u>		<u>1140</u>		<u>G</u>		<u>WG 3</u>	
<u>GW-17322-110819-JY-126</u>		<u>11/8/</u>							

Eurofins TestAmerica Canton Sample Receipt Form/Narrative
Canton Facility

Login # : 122031

Client GRD Site Name _____ Cooler unpacked by: Adam Farwell
Cooler Received on 11-9-19 Opened on 11-9-19
FedEx: 1st Grd (Exp) UPS FAS Clipper Client Drop Off TestAmerica Courier Other

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

TestAmerica Cooler # _____ Foam Box _____ Client Cooler _____ Box _____ Other _____
Packing material used: Bubble Wrap Foam Plastic Bag None Other _____
COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☐ See Multiple Cooler Form
IR GUN# IR-10 (CF +0.7 °C) Observed Cooler Temp. 3.2 °C Corrected Cooler Temp. 3.9 °C
IR GUN #IR-11 (CF +0.9 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity _____ Yes No
- Were the seals on the outside of the cooler(s) signed & dated? Yes No NA
- Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No NA
- Were tamper/custody seals intact and uncompromised? Yes No NA

3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No

5. Were the custody papers relinquished & signed in the appropriate place? Yes No

6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No

7. Did all bottles arrive in good condition (Unbroken)? Yes No

8. Could all bottle labels be reconciled with the COC? Yes No

9. Were correct bottle(s) used for the test(s) indicated? Yes No

10. Sufficient quantity received to perform indicated analyses? Yes No

11. Are these work share samples? Yes No

If yes, Questions 12-16 have been checked at the originating laboratory.

12. Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC991818

13. Were VOAs on the COC? Yes No

14. Were air bubbles >6 mm in any VOA vials?  Larger than this. Yes No NA

15. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # 025601D Yes No

16. Was a LL Hg or Me Hg trip blank present? Yes No

Tests that are not
checked for pH by
Receiving:

VOAs
Oil and Grease
TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

17. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Samples processed by:

Ryan Cribbley

3 trip blanks arrived, will log all first.

18. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

19. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s): _____

VOA Sample Preservation - Date/Time VOAs Frozen: _____

WI-NC-099

Temperature readings: _____

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container pH</u>	<u>Preservative Added (mls)</u>	<u>Lot #</u>
GW-17322_110619-JY-001	240-122031-A-2	Plastic 250ml - with Nitric Acid	<2	_____	_____
GW-17322_110619-JY-001	240-122031-B-2	Plastic 250ml - w/nitric - dis	<2	_____	_____
GW-17322_110619-JY-002	240-122031-A-3	Plastic 250ml - with Nitric Acid	<2	_____	_____
GW-17322_110619-JY-002	240-122031-B-3	Plastic 250ml - w/nitric - dis	<2	_____	_____
GW-17322_110619-JY-003	240-122031-A-4	Plastic 250ml - with Nitric Acid	<2	_____	_____
GW-17322_110619-JY-003	240-122031-B-4	Plastic 250ml - w/nitric - dis	<2	_____	_____
GW-17322_110619-JY-004	240-122031-A-5	Plastic 250ml - with Nitric Acid	<2	_____	_____
GW-17322_110619-JY-004	240-122031-B-5	Plastic 250ml - w/nitric - dis	<2	_____	_____