November 25, 2019 Reference No. 11123680.203

Ms. Jamie Kowalczk
Assistant Director
Madison County Planning Department
PO Box 606
Wampsville, NY 13163

Dear Ms. Kowalczk

Re: Limited Phase II Environmental Site Assessment
Soil and Groundwater Sampling and Laboratory Analysis Results
160 Center Street, Village of Canastota, New York

GHD Consulting Services Inc. (GHD) was retained to advance soil borings and collect and arrange for laboratory analysis of soil and groundwater samples adjacent to the reported location of a historical benzine underground storage tank (UST) at a parcel of land located at 160 Center Street in the Village of Canastota, Madison County, New York (the "Site," Figure 1). The reported historical UST was identified during completion of a previous Phase I Environmental Site Assessment for the Site (Phase I ESA, GHD Consulting Services Inc September 6, 2019), and based on its age and unknown status, warranted further investigation (see Figure 2). Specifically, the limited assessment included collecting samples for analysis to identify if shallow soil and/or groundwater impacts exist at discrete locations in the vicinity of the suspected historical UST. This letter report provides a summary of the limited assessment methods, laboratory analytical results, and a comparison of the results to New York State Department of Environmental Conservation (NYSDEC) standards and guidance values.

It is noted that the limited assessment performed and summarized in this report was targeted to the reported location of the historical UST and was not intended to characterize subsurface conditions for the entirety of the Site. As a result, it is possible that conditions differing from those described in this report could exist at the Site.

The opinions, conclusions, and any recommendations in this report are based on conditions encountered and information reviewed at the date of preparation of the report. GHD has no responsibility or obligation to update this report to account for events or changes occurring subsequent to the date that the report was prepared.

The opinions, conclusions, and any recommendations in this report are based on information obtained from, and testing undertaken at or in connection with, specific sample points. Site conditions at other parts of the Site may be different from the Site conditions found at the specific sample points.

Investigations undertaken in respect of this report are constrained by the particular Site conditions, such as the location of buildings, services, and vegetation. As a result, not all relevant Site features and conditions may have been identified in this report.

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Site conditions (including the presence of hazardous substances and/or Site contamination) may change after the date of this report. GHD does not accept responsibility arising from, or in connection with, any change to the Site conditions.

1. Sampling Methods

Site access was arranged by Madison County with the current property owner in advance of the limited assessment activities. On September 5, 2019, GHD subcontracted with New York Leak Detection, Inc. (NYLD) to perform subsurface utility locating in the vicinity of the reported historical UST, which included completion of ground penetrating radar (GPR) and pipe and cable location surveys. The utility location surveys were not able to confirm or deny the presence of a UST in the reported location; however, a suspected fueling line and a suspected historical fire hydrant line were located in the vicinity and marked using spray paint and flagging (see NYLD's *Field Report – Utility Location*, which is provided as Attachment 1).

On October 25, 2019, GHD subcontracted with Parratt-Wolff, Inc. (Parratt-Wolff) and oversaw the advancement of a total of five (5) soil borings (SB-1 through SB-5) completed in the vicinity of a reported historical UST (Figure 2). Prior to advancing soil borings, Parratt-Wolff contacted Dig Safely New York to have public utilities within the work area marked out. In addition, GHD completed a hand-dug test pit to attempt to locate and confirm the location and orientation of the reported historical UST.

A Geoprobe with a 4-foot long, 2-inch inside diameter, macrocore was used to collect subsurface soil samples from each boring location. The soil borings were advanced to an approximate depth of 8 feet below ground surface (bgs), which was considered refusal based on the interpreted presence of bedrock. The soils from each interval of the borings were placed into separate zip-lock bags, which were allowed to sit and accumulate vapors prior to screening the headspace of each bag with a photoionization detector (PID), screening results are included in Table 1. Following PID screening, soils from specific borings and intervals that were selected for laboratory analysis were placed into certified clean glass sample containers provided by the laboratory. Soil samples SB-1 and SB-3 were taken from the 0 to 4 feet bgs interval and soil sample SB-5 was taken from the 4 to 6 feet bgs interval. The sample containers were packed in an ice-filled cooler and submitted to TestAmerica for analysis.

Soil samples from each boring were visually examined by GHD field personnel for physical characteristics (i.e., soil types, odors, staining, etc.), which are reported on Table 1. Dedicated plastic macrocore liners were used for each soil sample to prevent potential cross-contamination. Once soil borings were completed and soil samples were obtained, a temporary 1-inch inside diameter PVC well screen and riser was placed in borings showing evidence of groundwater (SB-1, SB-4, and SB-5) in order to accommodate groundwater sample collection.

The soil and groundwater samples were analyzed by TestAmerica, a New York State Department of Health ELAP-accredited laboratory, for Target Compound List (TCL) volatile organic compounds (VOCs) by Environmental Protection Agency (EPA) Method 8260C; TCL semi-volatile organic compounds

(SVOCs), including 1,4-dioxane, by EPA Method 8270D; polychlorinated biphenyls (PCBs) by EPA Method 8082A; and Target Analyte List (TAL) metals by EPA Methods 6010C and 7470A (mercury). Soil samples analyzed for VOCs were collected using terracore samplers to allow for low-level analysis.

Following completion of sampling activities, excess soil was placed back in the borings and any remaining void space was backfilled with bentonite to the original ground surface.

A copy of the laboratory analytical report is included as Attachment 2.

2. Soil Sampling Results

Soil types generally consisted of topsoil; varying amounts of silt, clay, and gravel with black, red, brown ash/cinders, brick fragments, wood, and glass (interpreted as fill material); stiff to hard reddish-brown clay and silt with gravel (interpreted as glacial till), which was mottled gray and orange at the till/bedrock interface; and hard, dry, red weathered shale bedrock. Based on Site topography and observed conditions, surface water in the vicinity of the historical UST likely infiltrates the ground surface rather than running off. Groundwater and/or wet soils were not encountered in soil borings SB-2 or SB-3. Borings SB-1, SB-4, and SB-5 encountered groundwater at approximately 4 to 5 feet bgs. Based on Site and surrounding area topography, groundwater is assumed to flow in a generally northerly direction across the Site.

PID readings of the soil samples ranged from 0.0 parts per million (ppm) to 1.5 ppm. There was no staining or distinct odors associated with the soil samples collected. For comparative purposes, the laboratory analytical results of the soil samples are compared to the NYSDEC Unrestricted Use Soil Cleanup Objectives (SCOs) and the Restricted-Residential Use SCOs, based on the reasonably anticipated future use of the Site, on Table 2. Laboratory analytical results identified detectable concentrations of VOCs, SVOCs, and metals in each of the three soil samples, the following of which were identified in excess of the Unrestricted Use SCOs:

- Acetone – SB-5
- Benzo(a)anthracene – SB-5
- Benzo(a)pyrene – SB-5
- Benzo(b)fluoranthene – SB-5
- Benzo(k)fluoranthene – SB-5
- Chrysene – SB-5
- Indeno(1,2,3-cd)pyrene – SB-5
- Arsenic – SB-1
- Barium – SB-1

- Chromium – SB-3
- Lead – SB-1 and SB-3
- Nickel – SB-3
- Zinc – SB-3

3. Groundwater Sampling Results

Groundwater was encountered in three of the five soil borings, SB-1, SB-4, and SB-5. As a result, temporary 1-inch inside diameter PVC monitoring wells were placed in the borings and identified as TW-1 (SB-1), TW-2 (SB-4), and TW-3 (SB-5). Groundwater stabilized in the temporary wells at a depth of approximately 3 feet bgs. Based on observations during sampling, the groundwater in each of the temporary wells was slightly turbid with varying amounts of suspended particulate matter and fine sediment. There was little to no drawdown of the water level observed over the course of sample collection.

For comparative purposes, the laboratory analytical results of the groundwater samples are compared to the NYSDEC Technical and Operational Guidance Series (TOGS) Class GA standards and guidance values on Table 3. Laboratory analytical results identified no SVOC concentrations above laboratory method detection limits and detectable concentrations of VOCs and metals in each of the three groundwater samples. The following compounds were identified in excess of the Class GA standards and guidance values:

- Antimony – TW-3
- Arsenic – TW-1, TW-2, and TW-3
- Barium – TW-3
- Beryllium – TW-2 and TW-3
- Cadmium – TW-1 and TW-3
- Chromium – TW-2 and TW-3
- Copper – TW-3
- Iron – TW-1, TW-2, and TW-3
- Lead – TW-1, TW-2, and TW-3
- Magnesium – TW-1, TW-2, and TW-3
- Manganese – TW-1, TW-2, and TW-3

- Mercury – TW-1, TW-2, and TW-3
- Nickel – TW-3
- Selenium – TW-3
- Sodium – TW-1, TW-2, and TW-3
- Thallium – TW-3
- Zinc – TW-3

4. Conclusions

Based on field observations and soil and groundwater sample laboratory analytical results, it was determined that samples taken from the reported vicinity of the reported historical UST do not exhibit evidence of impacts associated with petroleum or organic compounds. However, metals impacts from an unknown source were identified, in both soil and groundwater samples.

Sincerely,

GHD

Ian E. McNamara
Scientist III

Enclosures:

Figure 1 – Site Location Map
Figure 2 – Approximate Sample Locations
Table 1 – Summary of Soil Sample Field Screening Observations
Table 2 – Soil Sample Analytical Results
Table 3 – Groundwater Sample Analytical Results
Attachment 1 – GPR Investigation Report
Attachment 2 – Laboratory Analytical Report

cc: Scott Ingmire, Madison County
Damian Vanetti, GHD

Figures

QUADRANGLE LOCATION

1	2	3
4		5
6	7	8

1 Cleveland
2 Jewell
3 Sylvan Beach
4 Manlius
5 Oneida
6 Oran
7 Cazenovia
8 Morrisville

ADJOINING QUADRANGLES

CONTOUR INTERVAL: 10 FEET

MAPS TAKEN FROM: USGS 7.5 MINUTE SERIES TOPOGRAPHIC QUADRANGLES: CANASTOTA, NY (2016) AND ONEIDA, NY (2016) (U.S. GEOLOGICAL SURVEY WEBSITE)

0 1000' 2000' 4000'

N

Madison County, New York
Limited Phase II Environmental Site Assessment 160 Center Street, Canastota, NY

SITE LOCATION

Project No. **11123680**
Report No. **1**
Date **11.25.2019**

FIGURE 1

Filename: G:\111\11123680 Madison County ESAs\160 Center Street Property\Figures\Figure 1 - Site Location.dwg
Plot Date: 23 August 2019 - 2:01 PM

NOTES:
1. Sample locations are approximate based on field observations and measurements.
2. Aerial photographs are 1-foot resolution true color images dated 2017 and taken from the NYSGIS Clearinghouse website.
3. Property boundary is approximate and taken from Village of Canastota, Madison County, NY Tax Map 036.63.
4. Identified features are based on observations during GHD's August 14, 2019 Site reconnaissance.

0 100' 200' N

GHD

Madison County, New York
Limited Phase II Environmental Site Assessment 160 Center Street, Canastota, NY

APPROXIMATE SAMPLE LOCATIONS

Project No. **11123680**
Report No. **1**
Date **11.25.2019**

FIGURE 2

Filename: G:\111\11123680 Madison County ESAs\160 Center Street Property\Figures\Figure 2 - Site Layout.dwg
Plot Date: 26 August 2019 - 11:50 AM

Tables

Table 1 - (Page 1 of 1): Summary of Soil Sample Field Screening Observations. 160 Center Street, Canastota, NY.

SAMPLE IDENTIFICATION	SAMPLE DEPTH (feet bgs)	SAMPLE RECOVERY (inches)	DEPTH OF REFUSAL (feet bgs)	DESCRIPTION	HEADSPACE PID READING (ppm)
SB-1	0 - 4	36	8	0.0 to 0.5' - brown topsoil with grass and roots 0.5 to 2.0' - ash/cinders, brick fragments, dry, loose (fill) 2.0 to 5.25' - red-brown clay and silt with fine gravel, hard, dry, mottled gray and orange for 10 inch interval at bedrock interface (glacial till) 5.25 to 8' - red weathered shale bedrock, hard, dry	0.0
	4 - 8	48			0.3
SB-2	0 - 4	36	8	0.0 to 0.25' - brown topsoil with organics 0.25 to 3.5' - red-brown clay and silt with ash/cinders, brick fragments, wood, mosit, stiff (fill) 3.5 to 5.75' - red-brown clay and silt with fine gravel, hard, dry, mottled gray and orange for 4 inch interval at bedrock interface (glacial till) 5.75 to 8' - red weathered shale bedrock, hard, dry	0.3
	4 - 8	36			0.8
SB-3	0 - 4	36	8	0.0 to 1.5' - ash/cinders, brick fragments, glass, dry, loose (fill) 1.5 to 5.5' - red-brown clay and silt, some fine gravel, stiff to hard, moist, mottled gray and orange for 4 inch interval at bedrock interface (glacial till) 5.5 to 8' - red weathered shale bedrock, hard, dry	1.5
	4 - 8	48			1.5
SB-4	0 - 4	42	8	0.0 to 3' - ash/cinders, wood, brick fragments intermixed with red-brown clay and silt with fine gravel, moist, loose (fill) 3 to 7' - red-brown clay and silt with fine gravel, stiff, moist to wet, mottled gray and orange for 4 inch interval at bedrock interface (glacial till) 7 to 8' - red weathered shale bedrock, hard, dry	0.5
	4 - 8	40			0.6
SB-5	0 - 4	30	8	0.0 to 4.75' - ash/cinders, wood, sand, coarse gravel, some brick fragments intermixed with red-brown silt and clay with fine gravel, loose, moist to wet (fill) 4.75 to 5.75' - red-brown clay and silt, some fine gravel, hard, moist, mottled gray and orange for 8 inch interval at bedrock interface (glacial till) 5.75 to 8' - red weathered shale bedrock, hard, dry	1.1
	4 - 8	24			1.3

feet bgs - feet below ground surface

PID - photoionization detector

ppm - parts per million

Table 2: Soil Sample Analytical Results, 160 Center Street, Canastota, New York.

ANALYTE (mg/kg)	SOIL CLEANUP OBJECTIVES		SAMPLE ID					
	UNRESTRICTED USE	RESTRICTED-RESIDENTIAL USE	SB-1 (0 - 4' bgs)		SB-3 (0 - 4' bgs)		SB-5 (4 - 6' bgs)	
Sample Date			10/25/2019		10/25/2019		10/25/2019	
VOCs								
1,1,1-Trichloroethane	0.68	100		U		U		U
1,1,2,2-Tetrachloroethane				U		U		U
1,1,2-Trichloroethane				U		U		U
1,1,2-Trichloro-1,2,2-trifluoroethane				U		U		U
1,1-Dichloroethane	0.27	26		U		U		U
1,1-Dichloroethene	0.33	100		U		U		U
1,2,4-Trichlorobenzene				U		U		U
1,2-Dibromo-3-Chloropropane				U		U		U
1,2-Dichlorobenzene	1.1	100		U		U		U
1,2-Dichloroethane	0.02	3.1		U		U		U
1,2-Dichloropropane				U		U		U
1,3-Dichlorobenzene	2.4	49		U		U		U
1,4-Dichlorobenzene	1.8	13		U		U		U
2-Butanone (MEK)	0.12	100		U		U		U
2-Hexanone				U		U		U
4-Methyl-2-pentanone (MIBK)				U		U		U
Acetone	0.05	100	0.032		0.019		**0.063**	
Benzene	0.06	4.8		U		U		U
Bromodichloromethane				U		U		U
Bromoform				U		U		U
Bromomethane				U		U		U
Carbon disulfide				U		U		U
Carbon tetrachloride	0.76	2.4		U		U		U
Chlorobenzene	1.1	100		U		U		U
Dibromochloromethane				U		U		U
Chloroethane				U		U		U
Chloroform	0.37	49		U		U		U
Chloromethane				U		U		U
cis-1,2-Dichloroethene	0.25	100		U		U		U
cis-1,3-Dichloropropene				U		U		U
Cyclohexane				U		U		U
Dichlorodifluoromethane				U		U		U
Ethylbenzene	1	41		U		U		U
1,2-Dibromoethane				U		U		U
Isopropylbenzene				U		U		U
Methyl acetate				U		U		U
Methyl tert-butyl ether	0.93	100		U		U		U
Methylcyclohexane				U		U		U
Methylene Chloride	0.05	100	0.0052	JB	0.004	JB	0.0034	JB
Styrene				U		U		U
Tetrachloroethene	1.3	19		U		U		U
Toluene	0.7	100		U		U		U
trans-1,2-Dichloroethene	0.19	100		U		U		U
trans-1,3-Dichloropropene				U		U		U
Trichloroethene	0.47	21		U		U		U
Trichlorofluoromethane				U		U		U
Vinyl chloride	0.02	0.9		U		U		U
Xylenes, Total	0.26	100		U		U		U

All values reported as mg/kg (parts per million)

Soil Cleanup Objectives from 6 NYCRR Part 375-6.8(b) (December 2006) and Supplemental Soil Cleanup Objectives (October 2010)

U - Analyzed for but not detected above the laboratory method detection limit

J - Estimated value

ND - Non-Detect

Bold and thick outlined cell indicates analyte exceeds the Unrestricted Use Soil Cleanup Objectives

Bold, thick outlined, and highlighted cell indicates analyte exceeds the Unrestricted Use and Restricted-Residential Use Soil Cleanup Objectives

Table 2: Soil Sample Analytical Results, 160 Center Street, Canastota, New York.

ANALYTE (mg/kg)	SOIL CLEANUP OBJECTIVES		SAMPLE ID					
	UNRESTRICTED USE	RESTRICTED-RESIDENTIAL USE	SB-1 (0 - 4' bgs)		SB-3 (0 - 4' bgs)		SB-5 (4 - 6' bgs)	
Sample Date			10/25/2019		10/25/2019		10/25/2019	
SVOCs								
1,4-Dioxane	0.1	13		U		U		U
Biphenyl				U		U		U
bis (2-chloroisopropyl) ether				U		U		U
2,4,5-Trichlorophenol				U		U		U
2,4,6-Trichlorophenol				U		U		U
2,4-Dichlorophenol				U		U		U
2,4-Dimethylphenol				U		U		U
2,4-Dinitrophenol				U		U		U
2,4-Dinitrotoluene				U		U		U
2,6-Dinitrotoluene				U		U		U
2-Chloronaphthalene				U		U		U
2-Chlorophenol				U		U		U
2-Methylphenol	0.33	100		U		U		U
2-Methylnaphthalene				U		U	0.2	J
2-Nitroaniline				U		U		U
2-Nitrophenol				U		U		U
3,3'-Dichlorobenzidine				U		U		U
3-Nitroaniline				U		U		U
4,6-Dinitro-2-methylphenol				U		U		U
4-Bromophenyl phenyl ether				U		U		U
4-Chloro-3-methylphenol				U		U		U
4-Chloroaniline				U		U		U
4-Chlorophenyl phenyl ether				U		U		U
4-Methylphenol	0.33	100		U		U		U
4-Nitroaniline				U		U		U
4-Nitrophenol				U		U		U
Acenaphthene	20	100		U		U	0.52	J
Acenaphthylene	100	100		U		U	0.21	J
Acetophenone				U		U		U
Anthracene	100	100		U		U	1.2	
Atrazine				U		U		U
Benzaldehyde				U		U		U
Benzo[a]anthracene	1	1	0.065	J	0.028	J	**2.3**	
Benzo[a]pyrene	1	1	0.042	J		U	**1.9**	
Benzo[b]fluoranthene	1	1	0.069	J		U	**2.1**	
Benzo[g,h,i]perylene	100	100	0.032	J		U	1	
Benzo[k]fluoranthene	0.8	3.9		U		U	**1.2**	
Bis(2-chloroethoxy)methane				U		U		U
Bis(2-chloroethyl)ether				U		U		U
Bis(2-ethylhexyl) phthalate				U		U		U
Butyl benzyl phthalate				U		U		U
Caprolactam				U		U		U
Carbazole				U		U	0.56	J
Chrysene	1	3.9	0.073	J		U	**2.2**	
Dibenz(a,h)anthracene	0.33	0.33		U		U	0.29	J
Di-n-butyl phthalate				U		U		U
Di-n-octyl phthalate				U		U		U
Dibenzofuran				U		U	0.43	J
Diethyl phthalate				U		U		U
Dimethyl phthalate				U		U		U
Fluoranthene	100	100	0.11	J	0.043	J	5.1	
Fluorene	30	100		U		U	0.69	J
Hexachlorobenzene				U		U		U
Hexachlorobutadiene				U		U		U
Hexachlorocyclopentadiene				U		U		U
Hexachloroethane				U		U		U
Indeno[1,2,3-cd]pyrene	0.5	0.5	0.028	J		U	**0.97**	**J**
Isophorone				U		U		U
N-Nitrosodi-n-propylamine				U		U		U
N-Nitrosodiphenylamine				U		U		U
Naphthalene	12	100		U		U	0.53	J
Nitrobenzene				U		U		U
Pentachlorophenol	0.8	6.7		U		U		U
Phenanthrene	100	100	0.083	J	0.039	J	4.7	
Phenol	0.33	100		U		U		U
Pyrene	100	100	0.1	J	0.039	J	4	

All values reported as mg/kg (parts per million)

Soil Cleanup Objectives from 6 NYCRR Part 375-6.8(b) (December 2006) and Supplemental Soil Cleanup Objectives (October 2010)

U - Analyzed for but not detected above the laboratory method detection limit

J - Estimated value

ND - Non-Detect

Bold and thick outlined cell indicates analyte exceeds the Unrestricted Use Soil Cleanup Objectives

Bold, thick outlined, and highlighted cell indicates analyte exceeds the Unrestricted Use and Restricted-Residential Use Soil Cleanup Objectives

Table 2: Soil Sample Analytical Results, 160 Center Street, Canastota, New York.

ANALYTE (mg/kg)	SOIL CLEANUP OBJECTIVES		SAMPLE ID					
	UNRESTRICTED USE	RESTRICTED-RESIDENTIAL USE	SB-1 (0 - 4' bgs)		SB-3 (0 - 4' bgs)		SB-5 (4 - 6' bgs)	
Sample Date			10/25/2019		10/25/2019		10/25/2019	
Metals								
Aluminum			10,000		13,000		15,300	
Antimony			0.79	J	0.71	J		U
Arsenic	13	16	**16**		9.1		8.3	
Barium	350	400	**479**		312		170	
Beryllium	7.2	72	1.3		1.3		0.75	
Cadmium	2.5	4.3	0.27			U		U
Calcium			5,540	B	3,200	B	25,200	B
Chromium	31	290	20.7		**69.8**		23.4	
Cobalt			9.2		10.7		6.5	
Copper	50	270	33.6		22.3		2	
Iron			17,700		27,000		33,000	
Lead	63	400	**104**		**142**		9.2	
Magnesium			2,830		3,620		15,800	
Manganese	1,600	2,000	184		195		427	
Nickel	30	310	25.5		**31.2**		26.4	
Potassium			2,740		4,300		7,580	
Selenium	3.9	180		U	0.97	J		U
Silver	2	180		U		U		U
Sodium			204		136	J	157	J
Thallium				U		U		U
Vanadium			26.4		25.9		26.3	
Zinc	109	10,000	79.8		**109**		31.7	
Mercury								
Mercury	0.18	0.81	0.096		0.051		0.021	J
PCBs								
PCB-1016				U		U		U
PCB-1221				U		U		U
PCB-1232				U		U		U
PCB-1242				U		U		U
PCB-1248				U		U		U
PCB-1254				U		U		U
PCB-1260				U		U		U
Total PCBs	0.1	1	ND		ND		ND	

All values reported as mg/kg (parts per million)

Soil Cleanup Objectives from 6 NYCRR Part 375-6.8(b) (December 2006) and Supplemental Soil Cleanup Objectives (October 2010)

U - Analyzed for but not detected above the laboratory method detection limit

J - Estimated value

ND - Non-Detect

Bold and thick outlined cell indicates analyte exceeds the Unrestricted Use Soil Cleanup Objectives

Bold, thick outlined, and highlighted cell indicates analyte exceeds the Unrestricted Use and Restricted-Residential Use Soil Cleanup Objectives

Table 3: Groundwater Sample Analytical Results, 160 Center Street, Canastota, New York

ANALYTE (ug/L)	CLASS GA GROUNDWATER STANDARDS	SAMPLE ID					
		TW-1		TW-2		TW-3	
Sample Date		10/25/2019		10/25/2019		10/25/2019	
VOCs							
1,1,1-Trichloroethane			U		U		U
1,1,2,2-Tetrachloroethane			U		U		U
1,1,2-Trichloroethane			U		U		U
1,1,2-Trichloro-1,2,2-trifluoroethane			U		U		U
1,1-Dichloroethane			U		U		U
1,1-Dichloroethene			U		U		U
1,2,4-Trichlorobenzene			U		U		U
1,2-Dibromo-3-Chloropropane			U		U		U
1,2-Dichlorobenzene			U		U		U
1,2-Dichloroethane			U		U		U
1,2-Dichloropropane			U		U		U
1,3-Dichlorobenzene			U		U		U
1,4-Dichlorobenzene			U		U		U
2-Butanone (MEK)	50 (G)		U	4.1	J		U
2-Hexanone			U		U		U
4-Methyl-2-pentanone (MIBK)			U		U		U
Acetone	50 (G)	20	J	4.6	J	4.5	J
Benzene			U		U		U
Bromodichloromethane			U		U		U
Bromoform			U		U		U
Bromomethane			U		U		U
Carbon disulfide		3.2	J	0.2	J		U
Carbon tetrachloride			U		U		U
Chlorobenzene			U		U		U
Dibromochloromethane			U		U		U
Chloroethane			U		U		U
Chloroform			U		U		U
Chloromethane			U		U		U
cis-1,2-Dichloroethene			U		U		U
cis-1,3-Dichloropropene			U		U		U
Cyclohexane			U		U		U
Dichlorodifluoromethane			U		U		U
Ethylbenzene			U		U		U
1,2-Dibromoethane			U		U		U
Isopropylbenzene			U		U		U
Methyl acetate			U		U		U
Methyl tert-butyl ether			U		U		U
Methylcyclohexane			U		U		U
Methylene Chloride			U		U		U
Styrene			U		U		U
Tetrachloroethene			U		U		U
Toluene			U		U		U
trans-1,2-Dichloroethene			U		U		U
trans-1,3-Dichloropropene			U		U		U
Trichloroethene			U		U		U
Trichlorofluoromethane			U		U		U
Vinyl chloride			U		U		U
Xylenes, Total			U		U		U

All values reported as ug/L (parts per billion)

Class GA Standards from TOGS 1.1.1 (June 1998) and Subsequent Addenda

U - Analyzed for but not detected above the laboratory method detection limit

J - Estimated value

ND - Non-Detect

Bold, thick outlined, and highlighted cell indicates analyte exceeds the Class GA Groundwater Standard

Table 3: Groundwater Sample Analytical Results, 160 Center Street, Canastota, New York

ANALYTE (ug/L)	CLASS GA GROUNDWATER STANDARDS	SAMPLE ID		
		TW-1	TW-2	TW-3
Sample Date		10/25/2019	10/25/2019	10/25/2019
SVOCs				
1,4-Dioxane		U	U	U
Biphenyl		U	U	U
bis (2-chloroisopropyl) ether		U	U	U
2,4,5-Trichlorophenol		U	U	U
2,4,6-Trichlorophenol		U	U	U
2,4-Dichlorophenol		U	U	U
2,4-Dimethylphenol		U	U	U
2,4-Dinitrophenol		U	U	U
2,4-Dinitrotoluene		U	U	U
2,6-Dinitrotoluene		U	U	U
2-Chloronaphthalene		U	U	U
2-Chlorophenol		U	U	U
2-Methylphenol		U	U	U
2-Methylnaphthalene		U	U	U
2-Nitroaniline		U	U	U
2-Nitrophenol		U	U	U
3,3'-Dichlorobenzidine		U	U	U
3-Nitroaniline		U	U	U
4,6-Dinitro-2-methylphenol		U	U	U
4-Bromophenyl phenyl ether		U	U	U
4-Chloro-3-methylphenol		U	U	U
4-Chloroaniline		U	U	U
4-Chlorophenyl phenyl ether		U	U	U
4-Methylphenol		U	U	U
4-Nitroaniline		U	U	U
4-Nitrophenol		U	U	U
Acenaphthene		U	U	U
Acenaphthylene		U	U	U
Acetophenone		U	U	U
Anthracene		U	U	U
Atrazine		U	U	U
Benzaldehyde		U	U	U
Benzo[a]anthracene		U	U	U
Benzo[a]pyrene		U	U	U
Benzo[b]fluoranthene		U	U	U
Benzo[g,h,i]perylene		U	U	U
Benzo[k]fluoranthene		U	U	U
Bis(2-chloroethoxy)methane		U	U	U
Bis(2-chloroethyl)ether		U	U	U
Bis(2-ethylhexyl) phthalate		U	U	U
Butyl benzyl phthalate		U	U	U
Caprolactam		U	U	U
Carbazole		U	U	U
Chrysene		U	U	U
Dibenz(a,h)anthracene		U	U	U
Di-n-butyl phthalate		U	U	U
Di-n-octyl phthalate		U	U	U
Dibenzofuran		U	U	U
Diethyl phthalate		U	U	U
Dimethyl phthalate		U	U	U
Fluoranthene		U	U	U
Fluorene		U	U	U
Hexachlorobenzene		U	U	U
Hexachlorobutadiene		U	U	U
Hexachlorocyclopentadiene		U	U	U
Hexachloroethane		U	U	U
Indeno[1,2,3-cd]pyrene		U	U	U
Isophorone		U	U	U
N-Nitrosodi-n-propylamine		U	U	U
N-Nitrosodiphenylamine		U	U	U
Naphthalene		U	U	U
Nitrobenzene		U	U	U
Pentachlorophenol		U	U	U
Phenanthrene		U	U	U
Phenol		U	U	U
Pyrene		U	U	U

All values reported as ug/L (parts per billion)

Class GA Standards from TOGS 1.1.1 (June 1998) and Subsequent Addenda

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Table 3: Groundwater Sample Analytical Results, 160 Center Street, Canastota, New York

ANALYTE (ug/L)	CLASS GA GROUNDWATER STANDARDS	SAMPLE ID		
		TW-1	TW-2	TW-3
Sample Date		10/25/2019	10/25/2019	10/25/2019
Metals				
Aluminum		25,500	31,300	131,000
Antimony	3	U	U	**50**
Arsenic	25	**34**	**56**	**890**
Barium	1,000	750	890	**15,100**
Beryllium	3 (G)	1.2 J	**3.6**	**27**
Cadmium	5	**8.5**	1.7 J	**13**
Calcium		476,000	293,000	219,000
Chromium	50	41	**75**	**540**
Cobalt		19	27	280
Copper	200	85	99	**1,100**
Iron	300	**30,800**	**50,100**	**169,000**
Lead	25	**260**	**230**	**4,600**
Magnesium	35,000 (G)	**62,800**	**109,000**	**69,300**
Manganese	300	**1,800**	**2,600**	**5,700**
Nickel	100	38	68	**700**
Potassium		13,800	23,200	37,500
Selenium	10	U	U	**200**
Silver	50	U	U	27
Sodium	20,000	**35,900**	**35,900**	**26,700**
Thallium	0.5 (G)	U	U	**36**
Vanadium		49	70	360
Zinc	2,000 (G)	800 B	240 B	**4,000 B**
Mercury				
Mercury	0.7	**1.9**	**1.3**	**6.3**
PCBs				
PCB-1016		U	U	U
PCB-1221		U	U	U
PCB-1232		U	U	U
PCB-1242		U	U	U
PCB-1248		U	U	U
PCB-1254		U	U	U
PCB-1260		U	U	U
Total PCBs	0.09	ND	ND	ND

All values reported as ug/L (parts per billion)

Class GA Standards from TOGS 1.1.1 (June 1998) and Subsequent Addenda

U - Analyzed for but not detected above the laboratory method detection limit

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Bold, thick outlined, and highlighted cell indicates analyte exceeds the Class GA Groundwater Standard

Attachments

Attachment 1
GPR Investigation Report

NYLD Infrastructure

NEW YORK LEAK DETECTION, INC.
PO Box 269, Jamesville, NY 13078
315-469-4601 info@nyld.com

Field Report – Utility Location

Date(s) on site: 09-05-2019

Technician: Mike Bishop **Other Technicians on site:** N/A

Customer: GHD Consulting Services Inc.

Site Address: 160 East Center Street Canastota, NY

Contact Person: Ian McNamara **Phone:** 315-368-8432

Scope of Work: Utility Location Services – locate potential UST

Type of Service: *mark all that apply*

☐ *Leak Detection*	☐ *Comprehensive Leak Survey*	☐ *Pressurized Pipe Inspection*
☐ *Infrastructure Assessment*	☒ *Utility Location/GPR*	☐ *Utility Mapping/AutoCAD*
☐ *EM Survey*	☐ *Video Inspection*	☐ *Valve Exercising*

Type of Equipment Used: *mark all that apply*

☐ *Profiler EMP 400*	☒ *RD8000 Pipe & Cable Locator*	☐ *MetroTech vLocPro2*
☐ *LC2500 Leak Correlator*	☒ *Noggin 250 MHz*	☐ *PosiTector UTG G3*
☒ *S-30 Surveyor*	☒ *Noggin 500 MHz*	☐ *Video Inspection Camera*
☐ *Sonde / Locatable Rodder*	☐ *Conquest 1000 MHz*	☐ *Helium # Bottles*
☐ *Leica Robotic Total Station*	☐ *Leica RTK GPS*	☐ *JD7 Investigator*
☐ *Valve Maintenance Trailer*	☐ *Thermal Imaging Camera*	☐ *ZCorr Data Loggers*

Marking Used: *mark all that apply*

☒ *Paint*	☒ *Flags*	☐ *Chalk/Marker*
☐ *Tape*	☐ *Updated Onsite Mapping*	☐ *Other* _____

NYLD **Infrastructure**

NEW YORK LEAK DETECTION, INC.
PO Box 269, Jamesville, NY 13078
315-469-4601 info@nyld.com

Field Report – Utility Location

Site Access/Safety Training: N/A **Expiration Date:** N/A

Ground Cover/Weather Conditions: Soil. 70's and sunny.

Instructions from Onsite Contact: Scan for a possible UST in the area referenced by old maps.

Information Transfer:

☒ *Information relayed on site to:*

Ian

In addition to this field report, mark all that apply:

☐ *Hand drawn sketch*

☐ *Photographs*

☐ *Surveyed and AutoCAD Mapping by NYLD*

☐ *Maps updated onsite*

☐ *Surveyed by others*

Notes/Testing Results:

A visual inspection was performed in the area of concern to assess for utility structures. Utilizing the RD8000 in conductive, inductive, and power/radio modes, located and marked out utilities as shown in the area below. Sonde/Locatable Rodder was used within applicable utilities. Additional confirmation performed with the Noggin using the 250 & 500 MHz antenna. GPR signal reception varies depending upon soil conditions. Therefore, it is utilized in combination with various other geophysical tools for the most accurate verification of known/unknown utilities and/or structures.

Utilities were painted and flagged in appropriate color and depths were provided where possible.

This report is back up to information relayed and marked on site at time of service. It is for informational purposes only.

NYLD **Infrastructure**

NEW YORK LEAK DETECTION, INC.
PO Box 269, Jamesville, NY 13078
315-469-4601 info@nyld.com

Field Report – Utility Location

Key

Blue	Water
Red	Power
Orange	Communications
Yellow	Gas/Flammable Fuel
White	Unknown
Green	Storm/Sanitary

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Field Report – Utility Location

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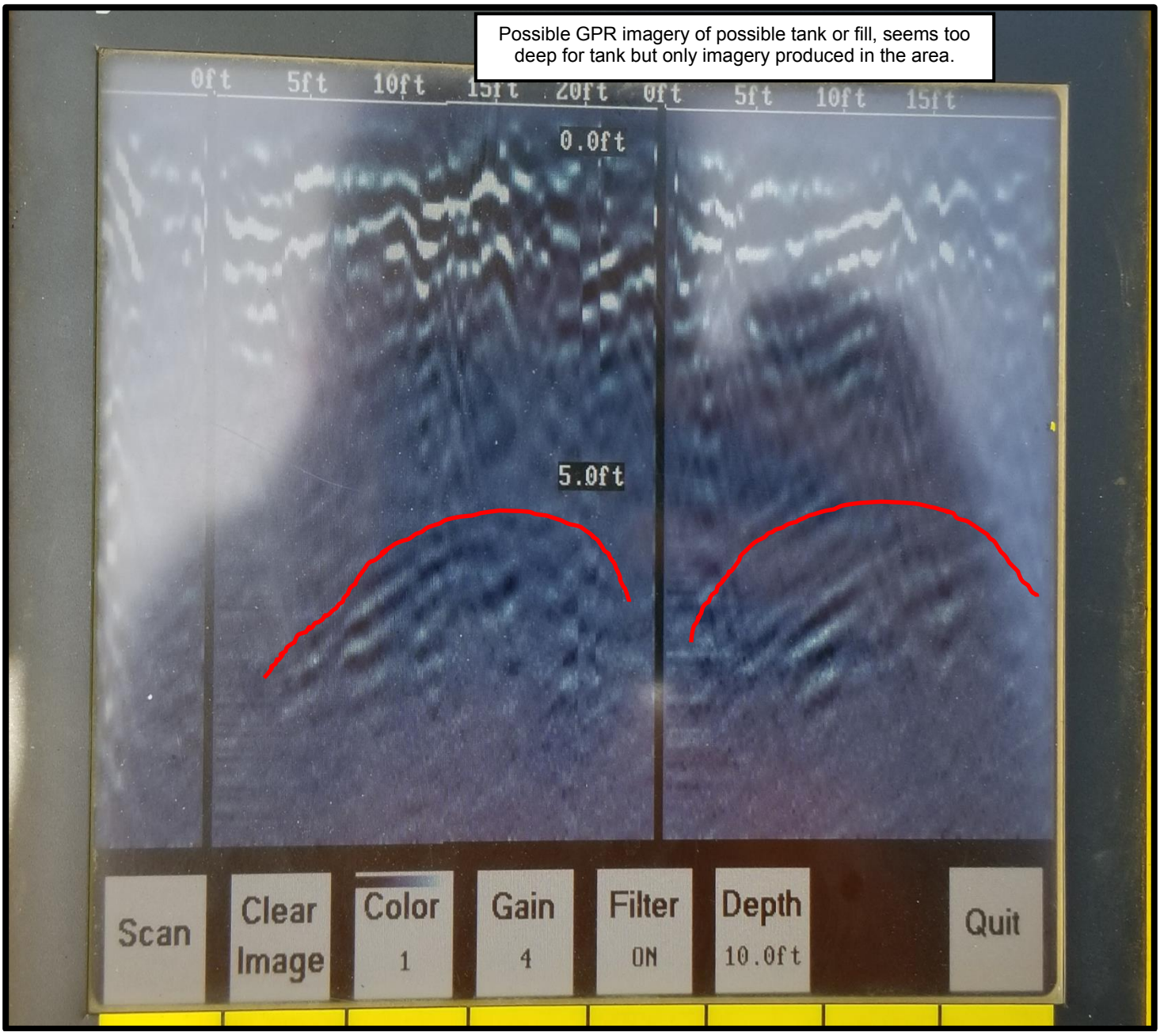
Field Report – Utility Location



NYLD Infrastructure

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PO Box 269, Jamesville, NY 13078
315-469-4601 info@nyld.com

Field Report – Utility Location

Subsurface Limitations

Utility locating is the art and science of using non-intrusive methods to search for, find and mark out buried, unseen conduits or other objects. There are innumerable variables involved in locating underground utilities, such as topography, size and complexity of job site, depth and proximity of buried utilities, above ground obstructions, short turnaround schedules, changes in the scope of work, lack of (or outdated) blueprints and adverse weather conditions.

New York Leak Detection, Inc. (NYLD) has made a substantial financial investment in crossover technologies and training to meet our clients' needs when locating and mapping utilities. However, due to unpredictable factors that may affect the results, NYLD makes no guarantee, expressed or implied, with respect to the completeness or accuracy of the information provided. Any use or reliance on the information or opinion is at the risk of the user and NYLD shall not be liable for any damage or injury arising out of the use or misuse of the information provided.

NYLD strives to provide the highest quality utility location services possible with the technical expertise of our field specialists and state-of-the-art equipment used. Every effort is made to provide our clients with the most accurate information possible without adverse consequences.

NYLD makes no guarantee that all subsurface utilities and obstructions will be detected. GPR signal penetration might not be sufficient to detect all utilities. NYLD is not responsible for detecting subsurface utilities and obstructions that normally cannot be detected by the methods employed or that cannot be detected because of site conditions. NYLD is not responsible for maintaining mark-outs after leaving the work area. Mark-outs made in inclement weather and in high traffic areas may not last. Surveyor assumes responsibility of picking up data on site.

Attachment 2
Laboratory Analytical Report

eurofins | Environment Testing TestAmerica

ANALYTICAL REPORT

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

Laboratory Job ID: 480-161635-1
Client Project/Site: 11123680/203 - 160 Center Street Phase I

For:
GHD Services Inc.
One Remington Park Drive
Cazenovia, New York 13035

Attn: Linda Waters

Denise D Heckler

Authorized for release by:
11/8/2019 8:57:36 AM

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

Table of Contents

Definitions/Glossary

Client: GHD Services Inc. Job ID: 480-161635-1
Project/Site: 11123680/203 - 160 Center Street Phase I

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
E	Result exceeded calibration range.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	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)

Job ID: 480-161635-1

Laboratory: Eurofins TestAmerica, Buffalo

Narrative

Job Narrative
480-161635-1

Comments
No additional comments.

Receipt
The samples were received on 10/26/2019 8:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 3.1º C and 3.4º C.

GC/MS VOA
Method 8260C: The continuing calibration verification (CCVIS) associated with batch 480-500853 recovered above the upper control limit for Dibromochloromethane. The sample(s) associated with this CCVIS were non-detects for the affected analyte; therefore, the data have been reported. The following samples are impacted: SB-1 (480-161635-5), SB-3 (480-161635-6) and SB-5 (480-161635-7).

Method 8260C: The continuing calibration verification (CCVIS) associated with batch 480-500853 recovered outside acceptance criteria, low biased, for Chloromethane. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Since the associated sample(s) were non-detect for this analyte, the data have been reported. The following samples are impacted: SB-1 (480-161635-5), SB-3 (480-161635-6) and SB-5 (480-161635-7).

Method 8260C: The laboratory control sample (LCS) for preparation batch 480-500912 and analytical batch 480-500853 recovered outside control limits for the following analyte: Bromoform. This analyte was biased high in the LCS and was not detected in the associated sample(s); therefore, the data have been reported. The following samples are impacted: SB-1 (480-161635-5), SB-3 (480-161635-6) and SB-5 (480-161635-7).

Method 8260C: The following sample was collected in a properly preserved vial; however, the pH was outside the required criteria when verified by the laboratory. The sample was analyzed outside the 7-day holding time specified for unpreserved samples but within the 14-day holding time specified for preserved samples: TW-3 (480-161635-3).sample pH is 7.

Method 8260C: The following volatiles sample was diluted due to foaming at the time of purging during the original sample analysis: TW-1 (480-161635-1). Elevated reporting limits (RLs) are provided.

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

GC/MS Semi VOA
Method 8270D: The continuing calibration verification (CCV) associated with batch 480-501279 recovered above the upper control limit for 4-Nitrophenol and Hexachlorobutadiene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: TW-1 (480-161635-1), TW-2 (480-161635-2) and TW-3 (480-161635-3).

Method 8270D: The minimum response factor (RF) criteria for the continuing calibration verification (CCV) analyzed in batch 480-501279 was outside criteria for the following analyte(s): Bis(2-chloroethoxy)methane. As indicated in the reference method, sample analysis may proceed; however, any detection or non-detection for the affected analyte(s) is considered estimated.

Method 8270D: The continuing calibration verification (CCV) associated with batch 480-501279 recovered outside acceptance criteria, low biased, for 2,4-Dinitrophenol, bis (2-chloroisopropyl) ether, 4,6-Dinitro-2-methylphenol and Pentachlorophenol. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Since the associated samples were non-detect for this analyte, the data have been reported.

Method 8270D: The laboratory control sample (LCS) for preparation batch 480-501014 and analytical batch 480-501279 recovered outside control limits for the following analytes: Atrazine. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8270D: The following compound has been spiked at a level above the upper range of the initial calibration: Benzaldehyde. The laboratory control sample (LCS) and the matrix spike and matrix spike duplicate (MS/MSD) associated with preparation batch 480-501359 and analytical batch 480-502007 recovered within acceptable limits for this analyte and has been qualified with an "E" flag. (LCS

Job ID: 480-161635-1 (Continued)

Laboratory: Eurofins TestAmerica, Buffalo (Continued)

480-501359/2-A)

Method 8270D: The following sample was diluted due to color and appearance: SB-5 (480-161635-7). Elevated reporting limits (RL) are provided.

Method 8270D SIM ID: The breakdown of 4,4'-DDT in the tuning evaluation exceeded 20%. Breakdown is not a criteria of the method but rather an internal check performed by the laboratory to evaluate the peak shape of 1,4-Dioxane and 1,4-Dioxane-d8. No adverse performance was observed and QC recoveries were in control. The data have been reported.

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

GC Semi VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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

Organic Prep
Method 3510C: Due to the matrix, the initial volume(s) used for the following sample deviated from the standard procedure: TW-1 (480-161635-1). The reporting limits (RLs) have been adjusted proportionately.

Method 3510C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 480-501114.

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

Detection Summary

Client: GHD Services Inc.
Job ID: 480-161635-1
Project/Site: 11123680/203 - 160 Center Street Phase I

Client Sample ID: TW-1
Lab Sample ID: 480-161635-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	20	J	50	15	ug/L	5		8260C	Total/NA
Carbon disulfide	3.2	J	5.0	0.95	ug/L	5		8260C	Total/NA
Aluminum	25.5		0.20	0.060	mg/L	1		6010C	Total/NA
Arsenic	0.034		0.015	0.0056	mg/L	1		6010C	Total/NA
Barium	0.75		0.0020	0.00070	mg/L	1		6010C	Total/NA
Beryllium	0.0012	J	0.0020	0.00030	mg/L	1		6010C	Total/NA
Cadmium	0.0085		0.0020	0.00050	mg/L	1		6010C	Total/NA
Calcium	476		0.50	0.10	mg/L	1		6010C	Total/NA
Chromium	0.041		0.0040	0.0010	mg/L	1		6010C	Total/NA
Cobalt	0.019		0.0040	0.00063	mg/L	1		6010C	Total/NA
Copper	0.085		0.010	0.0016	mg/L	1		6010C	Total/NA
Iron	30.8		0.050	0.019	mg/L	1		6010C	Total/NA
Lead	0.26		0.010	0.0030	mg/L	1		6010C	Total/NA
Magnesium	62.8		0.20	0.043	mg/L	1		6010C	Total/NA
Manganese	1.8		0.0030	0.00040	mg/L	1		6010C	Total/NA
Nickel	0.038		0.010	0.0013	mg/L	1		6010C	Total/NA
Potassium	13.8		0.50	0.10	mg/L	1		6010C	Total/NA
Sodium	35.9		1.0	0.32	mg/L	1		6010C	Total/NA
Vanadium	0.049		0.0050	0.0015	mg/L	1		6010C	Total/NA
Zinc	0.80	B	0.010	0.0015	mg/L	1		6010C	Total/NA
Mercury	0.0019		0.00020	0.00012	mg/L	1		7470A	Total/NA

Client Sample ID: TW-2
Lab Sample ID: 480-161635-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	4.1	J	10	1.3	ug/L	1		8260C	Total/NA
Acetone	4.6	J	10	3.0	ug/L	1		8260C	Total/NA
Carbon disulfide	0.20	J	1.0	0.19	ug/L	1		8260C	Total/NA
Aluminum	31.3		0.20	0.060	mg/L	1		6010C	Total/NA
Arsenic	0.056		0.015	0.0056	mg/L	1		6010C	Total/NA
Barium	0.89		0.0020	0.00070	mg/L	1		6010C	Total/NA
Beryllium	0.0036		0.0020	0.00030	mg/L	1		6010C	Total/NA
Cadmium	0.0017	J	0.0020	0.00050	mg/L	1		6010C	Total/NA
Calcium	293		0.50	0.10	mg/L	1		6010C	Total/NA
Chromium	0.075		0.0040	0.0010	mg/L	1		6010C	Total/NA
Cobalt	0.027		0.0040	0.00063	mg/L	1		6010C	Total/NA
Copper	0.099		0.010	0.0016	mg/L	1		6010C	Total/NA
Iron	50.1		0.050	0.019	mg/L	1		6010C	Total/NA
Lead	0.23		0.010	0.0030	mg/L	1		6010C	Total/NA
Magnesium	109		0.20	0.043	mg/L	1		6010C	Total/NA
Manganese	2.6		0.0030	0.00040	mg/L	1		6010C	Total/NA
Nickel	0.068		0.010	0.0013	mg/L	1		6010C	Total/NA
Potassium	23.2		0.50	0.10	mg/L	1		6010C	Total/NA
Sodium	35.9		1.0	0.32	mg/L	1		6010C	Total/NA
Vanadium	0.070		0.0050	0.0015	mg/L	1		6010C	Total/NA
Zinc	0.24	B	0.010	0.0015	mg/L	1		6010C	Total/NA
Mercury	0.0013		0.00020	0.00012	mg/L	1		7470A	Total/NA

Client Sample ID: TW-3
Lab Sample ID: 480-161635-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	4.5	J	10	3.0	ug/L	1		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Buffalo

Client Sample ID: TW-3 (Continued)
Lab Sample ID: 480-161635-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	131		0.20	0.060	mg/L	1		6010C	Total/NA
Antimony	0.050		0.020	0.0068	mg/L	1		6010C	Total/NA
Arsenic	0.89		0.015	0.0056	mg/L	1		6010C	Total/NA
Barium	15.1		0.010	0.0035	mg/L	5		6010C	Total/NA
Beryllium	0.027		0.0020	0.00030	mg/L	1		6010C	Total/NA
Cadmium	0.013		0.0020	0.00050	mg/L	1		6010C	Total/NA
Calcium	219		0.50	0.10	mg/L	1		6010C	Total/NA
Chromium	0.54		0.0040	0.0010	mg/L	1		6010C	Total/NA
Cobalt	0.28		0.0040	0.00063	mg/L	1		6010C	Total/NA
Copper	1.1		0.010	0.0016	mg/L	1		6010C	Total/NA
Iron	169		0.050	0.019	mg/L	1		6010C	Total/NA
Lead	4.6		0.010	0.0030	mg/L	1		6010C	Total/NA
Magnesium	69.3		0.20	0.043	mg/L	1		6010C	Total/NA
Manganese	5.7		0.0030	0.00040	mg/L	1		6010C	Total/NA
Nickel	0.70		0.010	0.0013	mg/L	1		6010C	Total/NA
Potassium	37.5		0.50	0.10	mg/L	1		6010C	Total/NA
Selenium	0.20		0.025	0.0087	mg/L	1		6010C	Total/NA
Silver	0.027		0.0060	0.0017	mg/L	1		6010C	Total/NA
Sodium	26.7		1.0	0.32	mg/L	1		6010C	Total/NA
Thallium	0.036		0.020	0.010	mg/L	1		6010C	Total/NA
Vanadium	0.36		0.0050	0.0015	mg/L	1		6010C	Total/NA
Zinc	4.0	B	0.010	0.0015	mg/L	1		6010C	Total/NA
Mercury	0.0063		0.00020	0.00012	mg/L	1		7470A	Total/NA

Client Sample ID: TRIP BLANK
Lab Sample ID: 480-161635-4

No Detections.

Client Sample ID: SB-1
Lab Sample ID: 480-161635-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	32		29	4.9	ug/Kg	1	☼	8260C	Total/NA
Methylene Chloride	5.2	J B	5.8	2.7	ug/Kg	1	☼	8260C	Total/NA
Benzo[a]anthracene	65	J	220	22	ug/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	42	J	220	33	ug/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	69	J	220	36	ug/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	32	J	220	24	ug/Kg	1	☼	8270D	Total/NA
Chrysene	73	J	220	50	ug/Kg	1	☼	8270D	Total/NA
Fluoranthene	110	J	220	24	ug/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	28	J	220	28	ug/Kg	1	☼	8270D	Total/NA
Phenanthrene	83	J	220	33	ug/Kg	1	☼	8270D	Total/NA
Pyrene	100	J	220	26	ug/Kg	1	☼	8270D	Total/NA
Aluminum	10000		13.2	5.8	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.79	J	19.7	0.53	mg/Kg	1	☼	6010C	Total/NA
Arsenic	16.0		2.6	0.53	mg/Kg	1	☼	6010C	Total/NA
Barium	479		0.66	0.14	mg/Kg	1	☼	6010C	Total/NA
Beryllium	1.3		0.26	0.037	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.27		0.26	0.039	mg/Kg	1	☼	6010C	Total/NA
Calcium	5540	B	65.8	4.3	mg/Kg	1	☼	6010C	Total/NA
Chromium	20.7		0.66	0.26	mg/Kg	1	☼	6010C	Total/NA
Cobalt	9.2		0.66	0.066	mg/Kg	1	☼	6010C	Total/NA
Copper	33.6		1.3	0.28	mg/Kg	1	☼	6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SB-1 (Continued)
Lab Sample ID: 480-161635-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	17700		13.2	4.6	mg/Kg	1	☼	6010C	Total/NA
Lead	104		1.3	0.32	mg/Kg	1	☼	6010C	Total/NA
Magnesium	2830		26.3	1.2	mg/Kg	1	☼	6010C	Total/NA
Manganese	184		0.26	0.042	mg/Kg	1	☼	6010C	Total/NA
Nickel	25.5		6.6	0.30	mg/Kg	1	☼	6010C	Total/NA
Potassium	2740		39.5	26.3	mg/Kg	1	☼	6010C	Total/NA
Sodium	204		184	17.1	mg/Kg	1	☼	6010C	Total/NA
Vanadium	26.4		0.66	0.14	mg/Kg	1	☼	6010C	Total/NA
Zinc	79.8		2.6	0.84	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.096		0.028	0.011	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: SB-3
Lab Sample ID: 480-161635-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	19	J	24	4.1	ug/Kg	1	☼	8260C	Total/NA
Methylene Chloride	4.0	J B	4.9	2.3	ug/Kg	1	☼	8260C	Total/NA
Benzo[a]anthracene	28	J	230	23	ug/Kg	1	☼	8270D	Total/NA
Fluoranthene	43	J	230	24	ug/Kg	1	☼	8270D	Total/NA
Phenanthrene	39	J	230	33	ug/Kg	1	☼	8270D	Total/NA
Pyrene	39	J	230	27	ug/Kg	1	☼	8270D	Total/NA
Aluminum	13000		14.2	6.2	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.71	J	21.3	0.57	mg/Kg	1	☼	6010C	Total/NA
Arsenic	9.1		2.8	0.57	mg/Kg	1	☼	6010C	Total/NA
Barium	312		0.71	0.16	mg/Kg	1	☼	6010C	Total/NA
Beryllium	1.3		0.28	0.040	mg/Kg	1	☼	6010C	Total/NA
Calcium	3200	B	71.0	4.7	mg/Kg	1	☼	6010C	Total/NA
Chromium	69.8		0.71	0.28	mg/Kg	1	☼	6010C	Total/NA
Cobalt	10.7		0.71	0.071	mg/Kg	1	☼	6010C	Total/NA
Copper	22.3		1.4	0.30	mg/Kg	1	☼	6010C	Total/NA
Iron	27000		14.2	5.0	mg/Kg	1	☼	6010C	Total/NA
Lead	142		1.4	0.34	mg/Kg	1	☼	6010C	Total/NA
Magnesium	3620		28.4	1.3	mg/Kg	1	☼	6010C	Total/NA
Manganese	195		0.28	0.045	mg/Kg	1	☼	6010C	Total/NA
Nickel	31.2		7.1	0.33	mg/Kg	1	☼	6010C	Total/NA
Potassium	4300		42.6	28.4	mg/Kg	1	☼	6010C	Total/NA
Selenium	0.97	J	5.7	0.57	mg/Kg	1	☼	6010C	Total/NA
Sodium	136	J	199	18.5	mg/Kg	1	☼	6010C	Total/NA
Vanadium	25.9		0.71	0.16	mg/Kg	1	☼	6010C	Total/NA
Zinc	109		2.8	0.91	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.051		0.026	0.011	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: SB-5
Lab Sample ID: 480-161635-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	63		20	3.3	ug/Kg	1	☼	8260C	Total/NA
Methylene Chloride	3.4	J B	4.0	1.8	ug/Kg	1	☼	8260C	Total/NA
2-Methylnaphthalene	200	J	1000	200	ug/Kg	5	☼	8270D	Total/NA
Acenaphthene	520	J	1000	150	ug/Kg	5	☼	8270D	Total/NA
Acenaphthylene	210	J	1000	130	ug/Kg	5	☼	8270D	Total/NA
Anthracene	1200		1000	250	ug/Kg	5	☼	8270D	Total/NA
Benzo[a]anthracene	2300		1000	100	ug/Kg	5	☼	8270D	Total/NA
Benzo[a]pyrene	1900		1000	150	ug/Kg	5	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SB-5 (Continued)

Lab Sample ID: 480-161635-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[b]fluoranthene	2100		1000	160	ug/Kg	5	☼	8270D	Total/NA
Benzo[g,h,i]perylene	1000		1000	110	ug/Kg	5	☼	8270D	Total/NA
Benzo[k]fluoranthene	1200		1000	130	ug/Kg	5	☼	8270D	Total/NA
Carbazole	560	J	1000	120	ug/Kg	5	☼	8270D	Total/NA
Chrysene	2200		1000	230	ug/Kg	5	☼	8270D	Total/NA
Dibenz(a,h)anthracene	290	J	1000	180	ug/Kg	5	☼	8270D	Total/NA
Dibenzofuran	430	J	1000	120	ug/Kg	5	☼	8270D	Total/NA
Fluoranthene	5100		1000	110	ug/Kg	5	☼	8270D	Total/NA
Fluorene	690	J	1000	120	ug/Kg	5	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	970	J	1000	130	ug/Kg	5	☼	8270D	Total/NA
Naphthalene	530	J	1000	130	ug/Kg	5	☼	8270D	Total/NA
Phenanthrene	4700		1000	150	ug/Kg	5	☼	8270D	Total/NA
Pyrene	4000		1000	120	ug/Kg	5	☼	8270D	Total/NA
Aluminum	15300		12.5	5.5	mg/Kg	1	☼	6010C	Total/NA
Arsenic	8.3		2.5	0.50	mg/Kg	1	☼	6010C	Total/NA
Barium	170		0.63	0.14	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.75		0.25	0.035	mg/Kg	1	☼	6010C	Total/NA
Calcium	25200	B	62.6	4.1	mg/Kg	1	☼	6010C	Total/NA
Chromium	23.4		0.63	0.25	mg/Kg	1	☼	6010C	Total/NA
Cobalt	6.5		0.63	0.063	mg/Kg	1	☼	6010C	Total/NA
Copper	2.0		1.3	0.26	mg/Kg	1	☼	6010C	Total/NA
Iron	33000		12.5	4.4	mg/Kg	1	☼	6010C	Total/NA
Lead	9.2		1.3	0.30	mg/Kg	1	☼	6010C	Total/NA
Magnesium	15800		25.1	1.2	mg/Kg	1	☼	6010C	Total/NA
Manganese	427		0.25	0.040	mg/Kg	1	☼	6010C	Total/NA
Nickel	26.4		6.3	0.29	mg/Kg	1	☼	6010C	Total/NA
Potassium	7580		37.6	25.1	mg/Kg	1	☼	6010C	Total/NA
Sodium	157	J	175	16.3	mg/Kg	1	☼	6010C	Total/NA
Vanadium	26.3		0.63	0.14	mg/Kg	1	☼	6010C	Total/NA
Zinc	31.7		2.5	0.80	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.021	J	0.024	0.0099	mg/Kg	1	☼	7471B	Total/NA

This Detection Summary does not include radiochemical test results.

Client: GHD Services Inc.
Job ID: 480-161635-1
Project/Site: 11123680/203 - 160 Center Street Phase I

Client Sample ID: TW-1
Lab Sample ID: 480-161635-1
Date Collected: 10/25/19 10:00
Matrix: Water
Date Received: 10/26/19 08:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	4.1	ug/L			11/05/19 15:35	5
1,1,2,2-Tetrachloroethane	ND		5.0	1.1	ug/L			11/05/19 15:35	5
1,1,2-Trichloroethane	ND		5.0	1.2	ug/L			11/05/19 15:35	5
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	1.6	ug/L			11/05/19 15:35	5
1,1-Dichloroethane	ND		5.0	1.9	ug/L			11/05/19 15:35	5
1,1-Dichloroethene	ND		5.0	1.5	ug/L			11/05/19 15:35	5
1,2,4-Trichlorobenzene	ND		5.0	2.1	ug/L			11/05/19 15:35	5
1,2-Dibromo-3-Chloropropane	ND		5.0	2.0	ug/L			11/05/19 15:35	5
1,2-Dichlorobenzene	ND		5.0	4.0	ug/L			11/05/19 15:35	5
1,2-Dichloroethane	ND		5.0	1.1	ug/L			11/05/19 15:35	5
1,2-Dichloropropane	ND		5.0	3.6	ug/L			11/05/19 15:35	5
1,3-Dichlorobenzene	ND		5.0	3.9	ug/L			11/05/19 15:35	5
1,4-Dichlorobenzene	ND		5.0	4.2	ug/L			11/05/19 15:35	5
2-Butanone (MEK)	ND		50	6.6	ug/L			11/05/19 15:35	5
2-Hexanone	ND		25	6.2	ug/L			11/05/19 15:35	5
4-Methyl-2-pentanone (MIBK)	ND		25	11	ug/L			11/05/19 15:35	5
Acetone	**20**	**J**	50	15	ug/L			11/05/19 15:35	5
Benzene	ND		5.0	2.1	ug/L			11/05/19 15:35	5
Bromodichloromethane	ND		5.0	2.0	ug/L			11/05/19 15:35	5
Bromoform	ND		5.0	1.3	ug/L			11/05/19 15:35	5
Bromomethane	ND		5.0	3.5	ug/L			11/05/19 15:35	5
Carbon disulfide	**3.2**	**J**	5.0	0.95	ug/L			11/05/19 15:35	5
Carbon tetrachloride	ND		5.0	1.4	ug/L			11/05/19 15:35	5
Chlorobenzene	ND		5.0	3.8	ug/L			11/05/19 15:35	5
Dibromochloromethane	ND		5.0	1.6	ug/L			11/05/19 15:35	5
Chloroethane	ND		5.0	1.6	ug/L			11/05/19 15:35	5
Chloroform	ND		5.0	1.7	ug/L			11/05/19 15:35	5
Chloromethane	ND		5.0	1.8	ug/L			11/05/19 15:35	5
cis-1,2-Dichloroethene	ND		5.0	4.1	ug/L			11/05/19 15:35	5
cis-1,3-Dichloropropene	ND		5.0	1.8	ug/L			11/05/19 15:35	5
Cyclohexane	ND		5.0	0.90	ug/L			11/05/19 15:35	5
Dichlorodifluoromethane	ND		5.0	3.4	ug/L			11/05/19 15:35	5
Ethylbenzene	ND		5.0	3.7	ug/L			11/05/19 15:35	5
1,2-Dibromoethane	ND		5.0	3.7	ug/L			11/05/19 15:35	5
Isopropylbenzene	ND		5.0	4.0	ug/L			11/05/19 15:35	5
Methyl acetate	ND		13	6.5	ug/L			11/05/19 15:35	5
Methyl tert-butyl ether	ND		5.0	0.80	ug/L			11/05/19 15:35	5
Methylcyclohexane	ND		5.0	0.80	ug/L			11/05/19 15:35	5
Methylene Chloride	ND		5.0	2.2	ug/L			11/05/19 15:35	5
Styrene	ND		5.0	3.7	ug/L			11/05/19 15:35	5
Tetrachloroethene	ND		5.0	1.8	ug/L			11/05/19 15:35	5
Toluene	ND		5.0	2.6	ug/L			11/05/19 15:35	5
trans-1,2-Dichloroethene	ND		5.0	4.5	ug/L			11/05/19 15:35	5
trans-1,3-Dichloropropene	ND		5.0	1.9	ug/L			11/05/19 15:35	5
Trichloroethene	ND		5.0	2.3	ug/L			11/05/19 15:35	5
Trichlorofluoromethane	ND		5.0	4.4	ug/L			11/05/19 15:35	5
Vinyl chloride	ND		5.0	4.5	ug/L			11/05/19 15:35	5
Xylenes, Total	ND		10	3.3	ug/L			11/05/19 15:35	5

Client Sample ID: TW-1 — Lab Sample ID: 480-161635-1

Date Collected: 10/25/19 10:00 — **Matrix: Water**
Date Received: 10/26/19 08:00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*100*		*80 - 120*		*11/05/19 15:35*	*5*
1,2-Dichloroethane-d4 (Surr)	*100*		*77 - 120*		*11/05/19 15:35*	*5*
4-Bromofluorobenzene (Surr)	*102*		*73 - 120*		*11/05/19 15:35*	*5*
Dibromofluoromethane (Surr)	*99*		*75 - 123*		*11/05/19 15:35*	*5*

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20	0.10	ug/L		10/30/19 08:05	11/02/19 20:29	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*27*		*15 - 110*	*10/30/19 08:05*	*11/02/19 20:29*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		25	3.3	ug/L		10/29/19 15:34	10/30/19 20:39	1
bis (2-chloroisopropyl) ether	ND		25	2.6	ug/L		10/29/19 15:34	10/30/19 20:39	1
2,4,5-Trichlorophenol	ND		25	2.4	ug/L		10/29/19 15:34	10/30/19 20:39	1
2,4,6-Trichlorophenol	ND		25	3.1	ug/L		10/29/19 15:34	10/30/19 20:39	1
2,4-Dichlorophenol	ND		25	2.6	ug/L		10/29/19 15:34	10/30/19 20:39	1
2,4-Dimethylphenol	ND		25	2.5	ug/L		10/29/19 15:34	10/30/19 20:39	1
2,4-Dinitrophenol	ND		50	11	ug/L		10/29/19 15:34	10/30/19 20:39	1
2,4-Dinitrotoluene	ND		25	2.2	ug/L		10/29/19 15:34	10/30/19 20:39	1
2,6-Dinitrotoluene	ND		25	2.0	ug/L		10/29/19 15:34	10/30/19 20:39	1
2-Chloronaphthalene	ND		25	2.3	ug/L		10/29/19 15:34	10/30/19 20:39	1
2-Chlorophenol	ND		25	2.7	ug/L		10/29/19 15:34	10/30/19 20:39	1
2-Methylphenol	ND		25	2.0	ug/L		10/29/19 15:34	10/30/19 20:39	1
2-Methylnaphthalene	ND		25	3.0	ug/L		10/29/19 15:34	10/30/19 20:39	1
2-Nitroaniline	ND		50	2.1	ug/L		10/29/19 15:34	10/30/19 20:39	1
2-Nitrophenol	ND		25	2.4	ug/L		10/29/19 15:34	10/30/19 20:39	1
3,3'-Dichlorobenzidine	ND		25	2.0	ug/L		10/29/19 15:34	10/30/19 20:39	1
3-Nitroaniline	ND		50	2.4	ug/L		10/29/19 15:34	10/30/19 20:39	1
4,6-Dinitro-2-methylphenol	ND		50	11	ug/L		10/29/19 15:34	10/30/19 20:39	1
4-Bromophenyl phenyl ether	ND		25	2.3	ug/L		10/29/19 15:34	10/30/19 20:39	1
4-Chloro-3-methylphenol	ND		25	2.3	ug/L		10/29/19 15:34	10/30/19 20:39	1
4-Chloroaniline	ND		25	3.0	ug/L		10/29/19 15:34	10/30/19 20:39	1
4-Chlorophenyl phenyl ether	ND		25	1.8	ug/L		10/29/19 15:34	10/30/19 20:39	1
4-Methylphenol	ND		50	1.8	ug/L		10/29/19 15:34	10/30/19 20:39	1
4-Nitroaniline	ND		50	1.3	ug/L		10/29/19 15:34	10/30/19 20:39	1
4-Nitrophenol	ND		50	7.6	ug/L		10/29/19 15:34	10/30/19 20:39	1
Acenaphthene	ND		25	2.1	ug/L		10/29/19 15:34	10/30/19 20:39	1
Acenaphthylene	ND		25	1.9	ug/L		10/29/19 15:34	10/30/19 20:39	1
Acetophenone	ND		25	2.7	ug/L		10/29/19 15:34	10/30/19 20:39	1
Anthracene	ND		25	1.4	ug/L		10/29/19 15:34	10/30/19 20:39	1
Atrazine	ND	*	25	2.3	ug/L		10/29/19 15:34	10/30/19 20:39	1
Benzaldehyde	ND		25	1.3	ug/L		10/29/19 15:34	10/30/19 20:39	1
Benzo[a]anthracene	ND		25	1.8	ug/L		10/29/19 15:34	10/30/19 20:39	1
Benzo[a]pyrene	ND		25	2.4	ug/L		10/29/19 15:34	10/30/19 20:39	1
Benzo[b]fluoranthene	ND		25	1.7	ug/L		10/29/19 15:34	10/30/19 20:39	1
Benzo[g,h,i]perylene	ND		25	1.8	ug/L		10/29/19 15:34	10/30/19 20:39	1
Benzo[k]fluoranthene	ND		25	3.7	ug/L		10/29/19 15:34	10/30/19 20:39	1
Bis(2-chloroethoxy)methane	ND		25	1.8	ug/L		10/29/19 15:34	10/30/19 20:39	1

Client Sample ID: TW-1
Date Collected: 10/25/19 10:00
Date Received: 10/26/19 08:00

Lab Sample ID: 480-161635-1
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-chloroethyl)ether	ND		25	2.0	ug/L		10/29/19 15:34	10/30/19 20:39	1
Bis(2-ethylhexyl) phthalate	ND		25	11	ug/L		10/29/19 15:34	10/30/19 20:39	1
Butyl benzyl phthalate	ND		25	5.0	ug/L		10/29/19 15:34	10/30/19 20:39	1
Caprolactam	ND		25	11	ug/L		10/29/19 15:34	10/30/19 20:39	1
Carbazole	ND		25	1.5	ug/L		10/29/19 15:34	10/30/19 20:39	1
Chrysene	ND		25	1.7	ug/L		10/29/19 15:34	10/30/19 20:39	1
Dibenz(a,h)anthracene	ND		25	2.1	ug/L		10/29/19 15:34	10/30/19 20:39	1
Di-n-butyl phthalate	ND		25	1.6	ug/L		10/29/19 15:34	10/30/19 20:39	1
Di-n-octyl phthalate	ND		25	2.4	ug/L		10/29/19 15:34	10/30/19 20:39	1
Dibenzofuran	ND		50	2.6	ug/L		10/29/19 15:34	10/30/19 20:39	1
Diethyl phthalate	ND		25	1.1	ug/L		10/29/19 15:34	10/30/19 20:39	1
Dimethyl phthalate	ND		25	1.8	ug/L		10/29/19 15:34	10/30/19 20:39	1
Fluoranthene	ND		25	2.0	ug/L		10/29/19 15:34	10/30/19 20:39	1
Fluorene	ND		25	1.8	ug/L		10/29/19 15:34	10/30/19 20:39	1
Hexachlorobenzene	ND		25	2.6	ug/L		10/29/19 15:34	10/30/19 20:39	1
Hexachlorobutadiene	ND		25	3.4	ug/L		10/29/19 15:34	10/30/19 20:39	1
Hexachlorocyclopentadiene	ND		25	3.0	ug/L		10/29/19 15:34	10/30/19 20:39	1
Hexachloroethane	ND		25	3.0	ug/L		10/29/19 15:34	10/30/19 20:39	1
Indeno[1,2,3-cd]pyrene	ND		25	2.4	ug/L		10/29/19 15:34	10/30/19 20:39	1
Isophorone	ND		25	2.2	ug/L		10/29/19 15:34	10/30/19 20:39	1
N-Nitrosodi-n-propylamine	ND		25	2.7	ug/L		10/29/19 15:34	10/30/19 20:39	1
N-Nitrosodiphenylamine	ND		25	2.6	ug/L		10/29/19 15:34	10/30/19 20:39	1
Naphthalene	ND		25	3.8	ug/L		10/29/19 15:34	10/30/19 20:39	1
Nitrobenzene	ND		25	1.5	ug/L		10/29/19 15:34	10/30/19 20:39	1
Pentachlorophenol	ND		50	11	ug/L		10/29/19 15:34	10/30/19 20:39	1
Phenanthrene	ND		25	2.2	ug/L		10/29/19 15:34	10/30/19 20:39	1
Phenol	ND		25	2.0	ug/L		10/29/19 15:34	10/30/19 20:39	1
Pyrene	ND		25	1.7	ug/L		10/29/19 15:34	10/30/19 20:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*100*		*46 - 120*	*10/29/19 15:34*	*10/30/19 20:39*	*1*
Phenol-d5 (Surr)	*52*		*22 - 120*	*10/29/19 15:34*	*10/30/19 20:39*	*1*
p-Terphenyl-d14 (Surr)	*126*		*60 - 148*	*10/29/19 15:34*	*10/30/19 20:39*	*1*
2,4,6-Tribromophenol (Surr)	*94*		*41 - 120*	*10/29/19 15:34*	*10/30/19 20:39*	*1*
2-Fluorobiphenyl	*117*		*48 - 120*	*10/29/19 15:34*	*10/30/19 20:39*	*1*
2-Fluorophenol (Surr)	*72*		*35 - 120*	*10/29/19 15:34*	*10/30/19 20:39*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.50	0.18	ug/L		11/01/19 08:14	11/04/19 01:41	1
PCB-1221	ND		0.50	0.18	ug/L		11/01/19 08:14	11/04/19 01:41	1
PCB-1232	ND		0.50	0.18	ug/L		11/01/19 08:14	11/04/19 01:41	1
PCB-1242	ND		0.50	0.18	ug/L		11/01/19 08:14	11/04/19 01:41	1
PCB-1248	ND		0.50	0.18	ug/L		11/01/19 08:14	11/04/19 01:41	1
PCB-1254	ND		0.50	0.25	ug/L		11/01/19 08:14	11/04/19 01:41	1
PCB-1260	ND		0.50	0.25	ug/L		11/01/19 08:14	11/04/19 01:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*69*		*39 - 121*	*11/01/19 08:14*	*11/04/19 01:41*	*1*
DCB Decachlorobiphenyl	*26*		*19 - 120*	*11/01/19 08:14*	*11/04/19 01:41*	*1*

Client Sample ID: TW-1
Lab Sample ID: 480-161635-1
Date Collected: 10/25/19 10:00
Matrix: Water
Date Received: 10/26/19 08:00

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**25.5**		0.20	0.060	mg/L		10/29/19 08:39	10/30/19 14:03	1
Antimony	ND		0.020	0.0068	mg/L		10/29/19 08:39	10/29/19 16:35	1
Arsenic	**0.034**		0.015	0.0056	mg/L		10/29/19 08:39	10/29/19 16:35	1
Barium	**0.75**		0.0020	0.00070	mg/L		10/29/19 08:39	10/29/19 16:35	1
Beryllium	**0.0012**	**J**	0.0020	0.00030	mg/L		10/29/19 08:39	10/29/19 16:35	1
Cadmium	**0.0085**		0.0020	0.00050	mg/L		10/29/19 08:39	10/29/19 16:35	1
Calcium	**476**		0.50	0.10	mg/L		10/29/19 08:39	10/29/19 16:35	1
Chromium	**0.041**		0.0040	0.0010	mg/L		10/29/19 08:39	10/29/19 16:35	1
Cobalt	**0.019**		0.0040	0.00063	mg/L		10/29/19 08:39	10/29/19 16:35	1
Copper	**0.085**		0.010	0.0016	mg/L		10/29/19 08:39	10/30/19 14:03	1
Iron	**30.8**		0.050	0.019	mg/L		10/29/19 08:39	10/29/19 16:35	1
Lead	**0.26**		0.010	0.0030	mg/L		10/29/19 08:39	10/29/19 16:35	1
Magnesium	**62.8**		0.20	0.043	mg/L		10/29/19 08:39	10/29/19 16:35	1
Manganese	**1.8**		0.0030	0.00040	mg/L		10/29/19 08:39	10/29/19 16:35	1
Nickel	**0.038**		0.010	0.0013	mg/L		10/29/19 08:39	10/29/19 16:35	1
Potassium	**13.8**		0.50	0.10	mg/L		10/29/19 08:39	10/29/19 16:35	1
Selenium	ND		0.025	0.0087	mg/L		10/29/19 08:39	10/29/19 16:35	1
Silver	ND		0.0060	0.0017	mg/L		10/29/19 08:39	10/29/19 16:35	1
Sodium	**35.9**		1.0	0.32	mg/L		10/29/19 08:39	10/29/19 16:35	1
Thallium	ND		0.020	0.010	mg/L		10/29/19 08:39	10/29/19 16:35	1
Vanadium	**0.049**		0.0050	0.0015	mg/L		10/29/19 08:39	10/29/19 16:35	1
Zinc	**0.80**	**B**	0.010	0.0015	mg/L		10/29/19 08:39	10/29/19 16:35	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.0019**		0.00020	0.00012	mg/L		11/07/19 11:15	11/07/19 14:50	1

Client Sample ID: TW-2
Lab Sample ID: 480-161635-2
Date Collected: 10/25/19 11:15
Matrix: Water
Date Received: 10/26/19 08:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/05/19 15:59	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/05/19 15:59	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/05/19 15:59	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/05/19 15:59	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			11/05/19 15:59	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/05/19 15:59	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/05/19 15:59	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/05/19 15:59	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/05/19 15:59	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/05/19 15:59	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/05/19 15:59	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/05/19 15:59	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/05/19 15:59	1
2-Butanone (MEK)	**4.1**	**J**	10	1.3	ug/L			11/05/19 15:59	1
2-Hexanone	ND		5.0	1.2	ug/L			11/05/19 15:59	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			11/05/19 15:59	1
Acetone	**4.6**	**J**	10	3.0	ug/L			11/05/19 15:59	1

Client Sample ID: TW-2
Lab Sample ID: 480-161635-2
Date Collected: 10/25/19 11:15
Matrix: Water
Date Received: 10/26/19 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.41	ug/L			11/05/19 15:59	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/05/19 15:59	1
Bromoform	ND		1.0	0.26	ug/L			11/05/19 15:59	1
Bromomethane	ND		1.0	0.69	ug/L			11/05/19 15:59	1
Carbon disulfide	**0.20**	**J**	1.0	0.19	ug/L			11/05/19 15:59	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/05/19 15:59	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/05/19 15:59	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/05/19 15:59	1
Chloroethane	ND		1.0	0.32	ug/L			11/05/19 15:59	1
Chloroform	ND		1.0	0.34	ug/L			11/05/19 15:59	1
Chloromethane	ND		1.0	0.35	ug/L			11/05/19 15:59	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			11/05/19 15:59	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/05/19 15:59	1
Cyclohexane	ND		1.0	0.18	ug/L			11/05/19 15:59	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/05/19 15:59	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/05/19 15:59	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			11/05/19 15:59	1
Isopropylbenzene	ND		1.0	0.79	ug/L			11/05/19 15:59	1
Methyl acetate	ND		2.5	1.3	ug/L			11/05/19 15:59	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/05/19 15:59	1
Methylcyclohexane	ND		1.0	0.16	ug/L			11/05/19 15:59	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/05/19 15:59	1
Styrene	ND		1.0	0.73	ug/L			11/05/19 15:59	1
Tetrachloroethene	ND		1.0	0.36	ug/L			11/05/19 15:59	1
Toluene	ND		1.0	0.51	ug/L			11/05/19 15:59	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/05/19 15:59	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/05/19 15:59	1
Trichloroethene	ND		1.0	0.46	ug/L			11/05/19 15:59	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/05/19 15:59	1
Vinyl chloride	ND		1.0	0.90	ug/L			11/05/19 15:59	1
Xylenes, Total	ND		2.0	0.66	ug/L			11/05/19 15:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*101*		*80 - 120*		*11/05/19 15:59*	*1*
1,2-Dichloroethane-d4 (Surr)	*100*		*77 - 120*		*11/05/19 15:59*	*1*
4-Bromofluorobenzene (Surr)	*100*		*73 - 120*		*11/05/19 15:59*	*1*
Dibromofluoromethane (Surr)	*100*		*75 - 123*		*11/05/19 15:59*	*1*

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.19	0.095	ug/L		10/30/19 08:05	11/02/19 20:52	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*28*		*15 - 110*	*10/30/19 08:05*	*11/02/19 20:52*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		5.0	0.65	ug/L		10/29/19 15:34	10/30/19 21:07	1
bis (2-chloroisopropyl) ether	ND		5.0	0.52	ug/L		10/29/19 15:34	10/30/19 21:07	1
2,4,5-Trichlorophenol	ND		5.0	0.48	ug/L		10/29/19 15:34	10/30/19 21:07	1
2,4,6-Trichlorophenol	ND		5.0	0.61	ug/L		10/29/19 15:34	10/30/19 21:07	1

Client Sample ID: TW-2
Lab Sample ID: 480-161635-2
Date Collected: 10/25/19 11:15
Matrix: Water
Date Received: 10/26/19 08:00

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenol	ND		5.0	0.51	ug/L		10/29/19 15:34	10/30/19 21:07	1
2,4-Dimethylphenol	ND		5.0	0.50	ug/L		10/29/19 15:34	10/30/19 21:07	1
2,4-Dinitrophenol	ND		10	2.2	ug/L		10/29/19 15:34	10/30/19 21:07	1
2,4-Dinitrotoluene	ND		5.0	0.45	ug/L		10/29/19 15:34	10/30/19 21:07	1
2,6-Dinitrotoluene	ND		5.0	0.40	ug/L		10/29/19 15:34	10/30/19 21:07	1
2-Chloronaphthalene	ND		5.0	0.46	ug/L		10/29/19 15:34	10/30/19 21:07	1
2-Chlorophenol	ND		5.0	0.53	ug/L		10/29/19 15:34	10/30/19 21:07	1
2-Methylphenol	ND		5.0	0.40	ug/L		10/29/19 15:34	10/30/19 21:07	1
2-Methylnaphthalene	ND		5.0	0.60	ug/L		10/29/19 15:34	10/30/19 21:07	1
2-Nitroaniline	ND		10	0.42	ug/L		10/29/19 15:34	10/30/19 21:07	1
2-Nitrophenol	ND		5.0	0.48	ug/L		10/29/19 15:34	10/30/19 21:07	1
3,3'-Dichlorobenzidine	ND		5.0	0.40	ug/L		10/29/19 15:34	10/30/19 21:07	1
3-Nitroaniline	ND		10	0.48	ug/L		10/29/19 15:34	10/30/19 21:07	1
4,6-Dinitro-2-methylphenol	ND		10	2.2	ug/L		10/29/19 15:34	10/30/19 21:07	1
4-Bromophenyl phenyl ether	ND		5.0	0.45	ug/L		10/29/19 15:34	10/30/19 21:07	1
4-Chloro-3-methylphenol	ND		5.0	0.45	ug/L		10/29/19 15:34	10/30/19 21:07	1
4-Chloroaniline	ND		5.0	0.59	ug/L		10/29/19 15:34	10/30/19 21:07	1
4-Chlorophenyl phenyl ether	ND		5.0	0.35	ug/L		10/29/19 15:34	10/30/19 21:07	1
4-Methylphenol	ND		10	0.36	ug/L		10/29/19 15:34	10/30/19 21:07	1
4-Nitroaniline	ND		10	0.25	ug/L		10/29/19 15:34	10/30/19 21:07	1
4-Nitrophenol	ND		10	1.5	ug/L		10/29/19 15:34	10/30/19 21:07	1
Acenaphthene	ND		5.0	0.41	ug/L		10/29/19 15:34	10/30/19 21:07	1
Acenaphthylene	ND		5.0	0.38	ug/L		10/29/19 15:34	10/30/19 21:07	1
Acetophenone	ND		5.0	0.54	ug/L		10/29/19 15:34	10/30/19 21:07	1
Anthracene	ND		5.0	0.28	ug/L		10/29/19 15:34	10/30/19 21:07	1
Atrazine	ND	*	5.0	0.46	ug/L		10/29/19 15:34	10/30/19 21:07	1
Benzaldehyde	ND		5.0	0.27	ug/L		10/29/19 15:34	10/30/19 21:07	1
Benzo[a]anthracene	ND		5.0	0.36	ug/L		10/29/19 15:34	10/30/19 21:07	1
Benzo[a]pyrene	ND		5.0	0.47	ug/L		10/29/19 15:34	10/30/19 21:07	1
Benzo[b]fluoranthene	ND		5.0	0.34	ug/L		10/29/19 15:34	10/30/19 21:07	1
Benzo[g,h,i]perylene	ND		5.0	0.35	ug/L		10/29/19 15:34	10/30/19 21:07	1
Benzo[k]fluoranthene	ND		5.0	0.73	ug/L		10/29/19 15:34	10/30/19 21:07	1
Bis(2-chloroethoxy)methane	ND		5.0	0.35	ug/L		10/29/19 15:34	10/30/19 21:07	1
Bis(2-chloroethyl)ether	ND		5.0	0.40	ug/L		10/29/19 15:34	10/30/19 21:07	1
Bis(2-ethylhexyl) phthalate	ND		5.0	2.2	ug/L		10/29/19 15:34	10/30/19 21:07	1
Butyl benzyl phthalate	ND		5.0	1.0	ug/L		10/29/19 15:34	10/30/19 21:07	1
Caprolactam	ND		5.0	2.2	ug/L		10/29/19 15:34	10/30/19 21:07	1
Carbazole	ND		5.0	0.30	ug/L		10/29/19 15:34	10/30/19 21:07	1
Chrysene	ND		5.0	0.33	ug/L		10/29/19 15:34	10/30/19 21:07	1
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		10/29/19 15:34	10/30/19 21:07	1
Di-n-butyl phthalate	ND		5.0	0.31	ug/L		10/29/19 15:34	10/30/19 21:07	1
Di-n-octyl phthalate	ND		5.0	0.47	ug/L		10/29/19 15:34	10/30/19 21:07	1
Dibenzofuran	ND		10	0.51	ug/L		10/29/19 15:34	10/30/19 21:07	1
Diethyl phthalate	ND		5.0	0.22	ug/L		10/29/19 15:34	10/30/19 21:07	1
Dimethyl phthalate	ND		5.0	0.36	ug/L		10/29/19 15:34	10/30/19 21:07	1
Fluoranthene	ND		5.0	0.40	ug/L		10/29/19 15:34	10/30/19 21:07	1
Fluorene	ND		5.0	0.36	ug/L		10/29/19 15:34	10/30/19 21:07	1
Hexachlorobenzene	ND		5.0	0.51	ug/L		10/29/19 15:34	10/30/19 21:07	1
Hexachlorobutadiene	ND		5.0	0.68	ug/L		10/29/19 15:34	10/30/19 21:07	1

Client Sample ID: TW-2 Lab Sample ID: 480-161635-2

Date Collected: 10/25/19 11:15 **Matrix: Water**
Date Received: 10/26/19 08:00

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorocyclopentadiene	ND		5.0	0.59	ug/L		10/29/19 15:34	10/30/19 21:07	1
Hexachloroethane	ND		5.0	0.59	ug/L		10/29/19 15:34	10/30/19 21:07	1
Indeno[1,2,3-cd]pyrene	ND		5.0	0.47	ug/L		10/29/19 15:34	10/30/19 21:07	1
Isophorone	ND		5.0	0.43	ug/L		10/29/19 15:34	10/30/19 21:07	1
N-Nitrosodi-n-propylamine	ND		5.0	0.54	ug/L		10/29/19 15:34	10/30/19 21:07	1
N-Nitrosodiphenylamine	ND		5.0	0.51	ug/L		10/29/19 15:34	10/30/19 21:07	1
Naphthalene	ND		5.0	0.76	ug/L		10/29/19 15:34	10/30/19 21:07	1
Nitrobenzene	ND		5.0	0.29	ug/L		10/29/19 15:34	10/30/19 21:07	1
Pentachlorophenol	ND		10	2.2	ug/L		10/29/19 15:34	10/30/19 21:07	1
Phenanthrene	ND		5.0	0.44	ug/L		10/29/19 15:34	10/30/19 21:07	1
Phenol	ND		5.0	0.39	ug/L		10/29/19 15:34	10/30/19 21:07	1
Pyrene	ND		5.0	0.34	ug/L		10/29/19 15:34	10/30/19 21:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*97*		*46 - 120*	*10/29/19 15:34*	*10/30/19 21:07*	*1*
Phenol-d5 (Surr)	*53*		*22 - 120*	*10/29/19 15:34*	*10/30/19 21:07*	*1*
p-Terphenyl-d14 (Surr)	*82*		*60 - 148*	*10/29/19 15:34*	*10/30/19 21:07*	*1*
2,4,6-Tribromophenol (Surr)	*96*		*41 - 120*	*10/29/19 15:34*	*10/30/19 21:07*	*1*
2-Fluorobiphenyl	*118*		*48 - 120*	*10/29/19 15:34*	*10/30/19 21:07*	*1*
2-Fluorophenol (Surr)	*72*		*35 - 120*	*10/29/19 15:34*	*10/30/19 21:07*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.50	0.18	ug/L		11/01/19 08:14	11/04/19 01:54	1
PCB-1221	ND		0.50	0.18	ug/L		11/01/19 08:14	11/04/19 01:54	1
PCB-1232	ND		0.50	0.18	ug/L		11/01/19 08:14	11/04/19 01:54	1
PCB-1242	ND		0.50	0.18	ug/L		11/01/19 08:14	11/04/19 01:54	1
PCB-1248	ND		0.50	0.18	ug/L		11/01/19 08:14	11/04/19 01:54	1
PCB-1254	ND		0.50	0.25	ug/L		11/01/19 08:14	11/04/19 01:54	1
PCB-1260	ND		0.50	0.25	ug/L		11/01/19 08:14	11/04/19 01:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*54*		*39 - 121*	*11/01/19 08:14*	*11/04/19 01:54*	*1*
DCB Decachlorobiphenyl	*22*		*19 - 120*	*11/01/19 08:14*	*11/04/19 01:54*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**31.3**		0.20	0.060	mg/L		10/29/19 08:39	10/30/19 14:06	1
Antimony	ND		0.020	0.0068	mg/L		10/29/19 08:39	10/29/19 16:39	1
Arsenic	**0.056**		0.015	0.0056	mg/L		10/29/19 08:39	10/29/19 16:39	1
Barium	**0.89**		0.0020	0.00070	mg/L		10/29/19 08:39	10/29/19 16:39	1
Beryllium	**0.0036**		0.0020	0.00030	mg/L		10/29/19 08:39	10/29/19 16:39	1
Cadmium	**0.0017**	**J**	0.0020	0.00050	mg/L		10/29/19 08:39	10/29/19 16:39	1
Calcium	**293**		0.50	0.10	mg/L		10/29/19 08:39	10/29/19 16:39	1
Chromium	**0.075**		0.0040	0.0010	mg/L		10/29/19 08:39	10/29/19 16:39	1
Cobalt	**0.027**		0.0040	0.00063	mg/L		10/29/19 08:39	10/29/19 16:39	1
Copper	**0.099**		0.010	0.0016	mg/L		10/29/19 08:39	10/30/19 14:06	1
Iron	**50.1**		0.050	0.019	mg/L		10/29/19 08:39	10/29/19 16:39	1
Lead	**0.23**		0.010	0.0030	mg/L		10/29/19 08:39	10/29/19 16:39	1
Magnesium	**109**		0.20	0.043	mg/L		10/29/19 08:39	10/29/19 16:39	1

Client Sample ID: TW-2
Lab Sample ID: 480-161635-2
Date Collected: 10/25/19 11:15
Matrix: Water
Date Received: 10/26/19 08:00

Method: 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**2.6**		0.0030	0.00040	mg/L		10/29/19 08:39	10/29/19 16:39	1
Nickel	**0.068**		0.010	0.0013	mg/L		10/29/19 08:39	10/29/19 16:39	1
Potassium	**23.2**		0.50	0.10	mg/L		10/29/19 08:39	10/29/19 16:39	1
Selenium	ND		0.025	0.0087	mg/L		10/29/19 08:39	10/29/19 16:39	1
Silver	ND		0.0060	0.0017	mg/L		10/29/19 08:39	10/29/19 16:39	1
Sodium	**35.9**		1.0	0.32	mg/L		10/29/19 08:39	10/29/19 16:39	1
Thallium	ND		0.020	0.010	mg/L		10/29/19 08:39	10/29/19 16:39	1
Vanadium	**0.070**		0.0050	0.0015	mg/L		10/29/19 08:39	10/29/19 16:39	1
Zinc	**0.24**	**B**	0.010	0.0015	mg/L		10/29/19 08:39	10/29/19 16:39	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.0013**		0.00020	0.00012	mg/L		11/07/19 11:15	11/07/19 14:51	1

Client Sample ID: TW-3
Lab Sample ID: 480-161635-3
Date Collected: 10/25/19 12:00
Matrix: Water
Date Received: 10/26/19 08:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/05/19 16:23	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/05/19 16:23	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/05/19 16:23	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/05/19 16:23	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			11/05/19 16:23	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/05/19 16:23	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/05/19 16:23	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/05/19 16:23	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/05/19 16:23	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/05/19 16:23	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/05/19 16:23	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/05/19 16:23	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/05/19 16:23	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/05/19 16:23	1
2-Hexanone	ND		5.0	1.2	ug/L			11/05/19 16:23	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			11/05/19 16:23	1
Acetone	**4.5**	**J**	10	3.0	ug/L			11/05/19 16:23	1
Benzene	ND		1.0	0.41	ug/L			11/05/19 16:23	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/05/19 16:23	1
Bromoform	ND		1.0	0.26	ug/L			11/05/19 16:23	1
Bromomethane	ND		1.0	0.69	ug/L			11/05/19 16:23	1
Carbon disulfide	ND		1.0	0.19	ug/L			11/05/19 16:23	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/05/19 16:23	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/05/19 16:23	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/05/19 16:23	1
Chloroethane	ND		1.0	0.32	ug/L			11/05/19 16:23	1
Chloroform	ND		1.0	0.34	ug/L			11/05/19 16:23	1
Chloromethane	ND		1.0	0.35	ug/L			11/05/19 16:23	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			11/05/19 16:23	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/05/19 16:23	1

Client Sample ID: TW-3
Lab Sample ID: 480-161635-3
Date Collected: 10/25/19 12:00
Matrix: Water
Date Received: 10/26/19 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyclohexane	ND		1.0	0.18	ug/L			11/05/19 16:23	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/05/19 16:23	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/05/19 16:23	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			11/05/19 16:23	1
Isopropylbenzene	ND		1.0	0.79	ug/L			11/05/19 16:23	1
Methyl acetate	ND		2.5	1.3	ug/L			11/05/19 16:23	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/05/19 16:23	1
Methylcyclohexane	ND		1.0	0.16	ug/L			11/05/19 16:23	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/05/19 16:23	1
Styrene	ND		1.0	0.73	ug/L			11/05/19 16:23	1
Tetrachloroethene	ND		1.0	0.36	ug/L			11/05/19 16:23	1
Toluene	ND		1.0	0.51	ug/L			11/05/19 16:23	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/05/19 16:23	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/05/19 16:23	1
Trichloroethene	ND		1.0	0.46	ug/L			11/05/19 16:23	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/05/19 16:23	1
Vinyl chloride	ND		1.0	0.90	ug/L			11/05/19 16:23	1
Xylenes, Total	ND		2.0	0.66	ug/L			11/05/19 16:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*102*		*80 - 120*		*11/05/19 16:23*	*1*
1,2-Dichloroethane-d4 (Surr)	*99*		*77 - 120*		*11/05/19 16:23*	*1*
4-Bromofluorobenzene (Surr)	*101*		*73 - 120*		*11/05/19 16:23*	*1*
Dibromofluoromethane (Surr)	*102*		*75 - 123*		*11/05/19 16:23*	*1*

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20	0.10	ug/L		10/30/19 08:05	11/02/19 22:30	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*25*		*15 - 110*	*10/30/19 08:05*	*11/02/19 22:30*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		5.0	0.65	ug/L		10/29/19 15:34	10/30/19 21:35	1
bis (2-chloroisopropyl) ether	ND		5.0	0.52	ug/L		10/29/19 15:34	10/30/19 21:35	1
2,4,5-Trichlorophenol	ND		5.0	0.48	ug/L		10/29/19 15:34	10/30/19 21:35	1
2,4,6-Trichlorophenol	ND		5.0	0.61	ug/L		10/29/19 15:34	10/30/19 21:35	1
2,4-Dichlorophenol	ND		5.0	0.51	ug/L		10/29/19 15:34	10/30/19 21:35	1
2,4-Dimethylphenol	ND		5.0	0.50	ug/L		10/29/19 15:34	10/30/19 21:35	1
2,4-Dinitrophenol	ND		10	2.2	ug/L		10/29/19 15:34	10/30/19 21:35	1
2,4-Dinitrotoluene	ND		5.0	0.45	ug/L		10/29/19 15:34	10/30/19 21:35	1
2,6-Dinitrotoluene	ND		5.0	0.40	ug/L		10/29/19 15:34	10/30/19 21:35	1
2-Chloronaphthalene	ND		5.0	0.46	ug/L		10/29/19 15:34	10/30/19 21:35	1
2-Chlorophenol	ND		5.0	0.53	ug/L		10/29/19 15:34	10/30/19 21:35	1
2-Methylphenol	ND		5.0	0.40	ug/L		10/29/19 15:34	10/30/19 21:35	1
2-Methylnaphthalene	ND		5.0	0.60	ug/L		10/29/19 15:34	10/30/19 21:35	1
2-Nitroaniline	ND		10	0.42	ug/L		10/29/19 15:34	10/30/19 21:35	1
2-Nitrophenol	ND		5.0	0.48	ug/L		10/29/19 15:34	10/30/19 21:35	1
3,3'-Dichlorobenzidine	ND		5.0	0.40	ug/L		10/29/19 15:34	10/30/19 21:35	1
3-Nitroaniline	ND		10	0.48	ug/L		10/29/19 15:34	10/30/19 21:35	1

Client: GHD Services Inc.
Job ID: 480-161635-1
Project/Site: 11123680/203 - 160 Center Street Phase I

Client Sample ID: TW-3
Lab Sample ID: 480-161635-3
Date Collected: 10/25/19 12:00
Matrix: Water
Date Received: 10/26/19 08:00

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,6-Dinitro-2-methylphenol	ND		10	2.2	ug/L		10/29/19 15:34	10/30/19 21:35	1
4-Bromophenyl phenyl ether	ND		5.0	0.45	ug/L		10/29/19 15:34	10/30/19 21:35	1
4-Chloro-3-methylphenol	ND		5.0	0.45	ug/L		10/29/19 15:34	10/30/19 21:35	1
4-Chloroaniline	ND		5.0	0.59	ug/L		10/29/19 15:34	10/30/19 21:35	1
4-Chlorophenyl phenyl ether	ND		5.0	0.35	ug/L		10/29/19 15:34	10/30/19 21:35	1
4-Methylphenol	ND		10	0.36	ug/L		10/29/19 15:34	10/30/19 21:35	1
4-Nitroaniline	ND		10	0.25	ug/L		10/29/19 15:34	10/30/19 21:35	1
4-Nitrophenol	ND		10	1.5	ug/L		10/29/19 15:34	10/30/19 21:35	1
Acenaphthene	ND		5.0	0.41	ug/L		10/29/19 15:34	10/30/19 21:35	1
Acenaphthylene	ND		5.0	0.38	ug/L		10/29/19 15:34	10/30/19 21:35	1
Acetophenone	ND		5.0	0.54	ug/L		10/29/19 15:34	10/30/19 21:35	1
Anthracene	ND		5.0	0.28	ug/L		10/29/19 15:34	10/30/19 21:35	1
Atrazine	ND	*	5.0	0.46	ug/L		10/29/19 15:34	10/30/19 21:35	1
Benzaldehyde	ND		5.0	0.27	ug/L		10/29/19 15:34	10/30/19 21:35	1
Benzo[a]anthracene	ND		5.0	0.36	ug/L		10/29/19 15:34	10/30/19 21:35	1
Benzo[a]pyrene	ND		5.0	0.47	ug/L		10/29/19 15:34	10/30/19 21:35	1
Benzo[b]fluoranthene	ND		5.0	0.34	ug/L		10/29/19 15:34	10/30/19 21:35	1
Benzo[g,h,i]perylene	ND		5.0	0.35	ug/L		10/29/19 15:34	10/30/19 21:35	1
Benzo[k]fluoranthene	ND		5.0	0.73	ug/L		10/29/19 15:34	10/30/19 21:35	1
Bis(2-chloroethoxy)methane	ND		5.0	0.35	ug/L		10/29/19 15:34	10/30/19 21:35	1
Bis(2-chloroethyl)ether	ND		5.0	0.40	ug/L		10/29/19 15:34	10/30/19 21:35	1
Bis(2-ethylhexyl) phthalate	ND		5.0	2.2	ug/L		10/29/19 15:34	10/30/19 21:35	1
Butyl benzyl phthalate	ND		5.0	1.0	ug/L		10/29/19 15:34	10/30/19 21:35	1
Caprolactam	ND		5.0	2.2	ug/L		10/29/19 15:34	10/30/19 21:35	1
Carbazole	ND		5.0	0.30	ug/L		10/29/19 15:34	10/30/19 21:35	1
Chrysene	ND		5.0	0.33	ug/L		10/29/19 15:34	10/30/19 21:35	1
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		10/29/19 15:34	10/30/19 21:35	1
Di-n-butyl phthalate	ND		5.0	0.31	ug/L		10/29/19 15:34	10/30/19 21:35	1
Di-n-octyl phthalate	ND		5.0	0.47	ug/L		10/29/19 15:34	10/30/19 21:35	1
Dibenzofuran	ND		10	0.51	ug/L		10/29/19 15:34	10/30/19 21:35	1
Diethyl phthalate	ND		5.0	0.22	ug/L		10/29/19 15:34	10/30/19 21:35	1
Dimethyl phthalate	ND		5.0	0.36	ug/L		10/29/19 15:34	10/30/19 21:35	1
Fluoranthene	ND		5.0	0.40	ug/L		10/29/19 15:34	10/30/19 21:35	1
Fluorene	ND		5.0	0.36	ug/L		10/29/19 15:34	10/30/19 21:35	1
Hexachlorobenzene	ND		5.0	0.51	ug/L		10/29/19 15:34	10/30/19 21:35	1
Hexachlorobutadiene	ND		5.0	0.68	ug/L		10/29/19 15:34	10/30/19 21:35	1
Hexachlorocyclopentadiene	ND		5.0	0.59	ug/L		10/29/19 15:34	10/30/19 21:35	1
Hexachloroethane	ND		5.0	0.59	ug/L		10/29/19 15:34	10/30/19 21:35	1
Indeno[1,2,3-cd]pyrene	ND		5.0	0.47	ug/L		10/29/19 15:34	10/30/19 21:35	1
Isophorone	ND		5.0	0.43	ug/L		10/29/19 15:34	10/30/19 21:35	1
N-Nitrosodi-n-propylamine	ND		5.0	0.54	ug/L		10/29/19 15:34	10/30/19 21:35	1
N-Nitrosodiphenylamine	ND		5.0	0.51	ug/L		10/29/19 15:34	10/30/19 21:35	1
Naphthalene	ND		5.0	0.76	ug/L		10/29/19 15:34	10/30/19 21:35	1
Nitrobenzene	ND		5.0	0.29	ug/L		10/29/19 15:34	10/30/19 21:35	1
Pentachlorophenol	ND		10	2.2	ug/L		10/29/19 15:34	10/30/19 21:35	1
Phenanthrene	ND		5.0	0.44	ug/L		10/29/19 15:34	10/30/19 21:35	1
Phenol	ND		5.0	0.39	ug/L		10/29/19 15:34	10/30/19 21:35	1
Pyrene	ND		5.0	0.34	ug/L		10/29/19 15:34	10/30/19 21:35	1

Client Sample ID: TW-3
Date Collected: 10/25/19 12:00
Date Received: 10/26/19 08:00

Lab Sample ID: 480-161635-3
Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	86		46 - 120	10/29/19 15:34	10/30/19 21:35	1
Phenol-d5 (Surr)	57		22 - 120	10/29/19 15:34	10/30/19 21:35	1
p-Terphenyl-d14 (Surr)	82		60 - 148	10/29/19 15:34	10/30/19 21:35	1
2,4,6-Tribromophenol (Surr)	78		41 - 120	10/29/19 15:34	10/30/19 21:35	1
2-Fluorobiphenyl	104		48 - 120	10/29/19 15:34	10/30/19 21:35	1
2-Fluorophenol (Surr)	69		35 - 120	10/29/19 15:34	10/30/19 21:35	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.54	0.19	ug/L		11/01/19 08:14	11/04/19 02:07	1
PCB-1221	ND		0.54	0.19	ug/L		11/01/19 08:14	11/04/19 02:07	1
PCB-1232	ND		0.54	0.19	ug/L		11/01/19 08:14	11/04/19 02:07	1
PCB-1242	ND		0.54	0.19	ug/L		11/01/19 08:14	11/04/19 02:07	1
PCB-1248	ND		0.54	0.19	ug/L		11/01/19 08:14	11/04/19 02:07	1
PCB-1254	ND		0.54	0.27	ug/L		11/01/19 08:14	11/04/19 02:07	1
PCB-1260	ND		0.54	0.27	ug/L		11/01/19 08:14	11/04/19 02:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	47		39 - 121	11/01/19 08:14	11/04/19 02:07	1
DCB Decachlorobiphenyl	21		19 - 120	11/01/19 08:14	11/04/19 02:07	1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	131		0.20	0.060	mg/L		10/29/19 08:39	10/30/19 14:10	1
Antimony	0.050		0.020	0.0068	mg/L		10/29/19 08:39	10/29/19 16:42	1
Arsenic	0.89		0.015	0.0056	mg/L		10/29/19 08:39	10/29/19 16:42	1
Barium	15.1		0.010	0.0035	mg/L		10/29/19 08:39	10/29/19 16:46	5
Beryllium	0.027		0.0020	0.00030	mg/L		10/29/19 08:39	10/29/19 16:42	1
Cadmium	0.013		0.0020	0.00050	mg/L		10/29/19 08:39	10/29/19 16:42	1
Calcium	219		0.50	0.10	mg/L		10/29/19 08:39	10/29/19 16:42	1
Chromium	0.54		0.0040	0.0010	mg/L		10/29/19 08:39	10/29/19 16:42	1
Cobalt	0.28		0.0040	0.00063	mg/L		10/29/19 08:39	10/29/19 16:42	1
Copper	1.1		0.010	0.0016	mg/L		10/29/19 08:39	10/30/19 14:10	1
Iron	169		0.050	0.019	mg/L		10/29/19 08:39	10/29/19 16:42	1
Lead	4.6		0.010	0.0030	mg/L		10/29/19 08:39	10/29/19 16:42	1
Magnesium	69.3		0.20	0.043	mg/L		10/29/19 08:39	10/29/19 16:42	1
Manganese	5.7		0.0030	0.00040	mg/L		10/29/19 08:39	10/29/19 16:42	1
Nickel	0.70		0.010	0.0013	mg/L		10/29/19 08:39	10/29/19 16:42	1
Potassium	37.5		0.50	0.10	mg/L		10/29/19 08:39	10/29/19 16:42	1
Selenium	0.20		0.025	0.0087	mg/L		10/29/19 08:39	10/29/19 16:42	1
Silver	0.027		0.0060	0.0017	mg/L		10/29/19 08:39	10/29/19 16:42	1
Sodium	26.7		1.0	0.32	mg/L		10/29/19 08:39	10/29/19 16:42	1
Thallium	0.036		0.020	0.010	mg/L		10/29/19 08:39	10/29/19 16:42	1
Vanadium	0.36		0.0050	0.0015	mg/L		10/29/19 08:39	10/29/19 16:42	1
Zinc	4.0	B	0.010	0.0015	mg/L		10/29/19 08:39	10/29/19 16:42	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0063		0.00020	0.00012	mg/L		11/07/19 11:15	11/07/19 14:55	1

Client: GHD Services Inc.
Job ID: 480-161635-1
Project/Site: 11123680/203 - 160 Center Street Phase I

Client Sample ID: TRIP BLANK
Lab Sample ID: 480-161635-4

Date Collected: 10/25/19 00:00
Matrix: Water
Date Received: 10/26/19 08:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/05/19 16:47	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/05/19 16:47	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/05/19 16:47	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/05/19 16:47	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			11/05/19 16:47	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/05/19 16:47	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/05/19 16:47	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/05/19 16:47	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/05/19 16:47	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/05/19 16:47	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/05/19 16:47	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/05/19 16:47	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/05/19 16:47	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/05/19 16:47	1
2-Hexanone	ND		5.0	1.2	ug/L			11/05/19 16:47	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			11/05/19 16:47	1
Acetone	ND		10	3.0	ug/L			11/05/19 16:47	1
Benzene	ND		1.0	0.41	ug/L			11/05/19 16:47	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/05/19 16:47	1
Bromoform	ND		1.0	0.26	ug/L			11/05/19 16:47	1
Bromomethane	ND		1.0	0.69	ug/L			11/05/19 16:47	1
Carbon disulfide	ND		1.0	0.19	ug/L			11/05/19 16:47	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/05/19 16:47	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/05/19 16:47	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/05/19 16:47	1
Chloroethane	ND		1.0	0.32	ug/L			11/05/19 16:47	1
Chloroform	ND		1.0	0.34	ug/L			11/05/19 16:47	1
Chloromethane	ND		1.0	0.35	ug/L			11/05/19 16:47	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			11/05/19 16:47	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/05/19 16:47	1
Cyclohexane	ND		1.0	0.18	ug/L			11/05/19 16:47	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/05/19 16:47	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/05/19 16:47	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			11/05/19 16:47	1
Isopropylbenzene	ND		1.0	0.79	ug/L			11/05/19 16:47	1
Methyl acetate	ND		2.5	1.3	ug/L			11/05/19 16:47	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/05/19 16:47	1
Methylcyclohexane	ND		1.0	0.16	ug/L			11/05/19 16:47	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/05/19 16:47	1
Styrene	ND		1.0	0.73	ug/L			11/05/19 16:47	1
Tetrachloroethene	ND		1.0	0.36	ug/L			11/05/19 16:47	1
Toluene	ND		1.0	0.51	ug/L			11/05/19 16:47	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/05/19 16:47	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/05/19 16:47	1
Trichloroethene	ND		1.0	0.46	ug/L			11/05/19 16:47	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/05/19 16:47	1
Vinyl chloride	ND		1.0	0.90	ug/L			11/05/19 16:47	1
Xylenes, Total	ND		2.0	0.66	ug/L			11/05/19 16:47	1

Client Sample ID: TRIP BLANK
Lab Sample ID: 480-161635-4
Date Collected: 10/25/19 00:00
Matrix: Water
Date Received: 10/26/19 08:00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	100		80 - 120		11/05/19 16:47	1
1,2-Dichloroethane-d4 (Surr)	100		77 - 120		11/05/19 16:47	1
4-Bromofluorobenzene (Surr)	103		73 - 120		11/05/19 16:47	1
Dibromofluoromethane (Surr)	99		75 - 123		11/05/19 16:47	1

Client Sample ID: SB-1
Lab Sample ID: 480-161635-5
Date Collected: 10/25/19 12:20
Matrix: Solid
Date Received: 10/26/19 08:00
Percent Solids: 73.8

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.8	0.42	ug/Kg	☼	10/26/19 18:00	10/29/19 12:52	1
1,1,2,2-Tetrachloroethane	ND		5.8	0.94	ug/Kg	☼	10/26/19 18:00	10/29/19 12:52	1
1,1,2-Trichloroethane	ND		5.8	0.76	ug/Kg	☼	10/26/19 18:00	10/29/19 12:52	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.8	1.3	ug/Kg	☼	10/26/19 18:00	10/29/19 12:52	1
1,1-Dichloroethane	ND		5.8	0.71	ug/Kg	☼	10/26/19 18:00	10/29/19 12:52	1
1,1-Dichloroethene	ND		5.8	0.71	ug/Kg	☼	10/26/19 18:00	10/29/19 12:52	1
1,2,4-Trichlorobenzene	ND		5.8	0.35	ug/Kg	☼	10/26/19 18:00	10/29/19 12:52	1
1,2-Dibromo-3-Chloropropane	ND		5.8	2.9	ug/Kg	☼	10/26/19 18:00	10/29/19 12:52	1
1,2-Dichlorobenzene	ND		5.8	0.46	ug/Kg	☼	10/26/19 18:00	10/29/19 12:52	1
1,2-Dichloroethane	ND		5.8	0.29	ug/Kg	☼	10/26/19 18:00	10/29/19 12:52	1
1,2-Dichloropropane	ND		5.8	2.9	ug/Kg	☼	10/26/19 18:00	10/29/19 12:52	1
1,3-Dichlorobenzene	ND		5.8	0.30	ug/Kg	☼	10/26/19 18:00	10/29/19 12:52	1
1,4-Dichlorobenzene	ND		5.8	0.82	ug/Kg	☼	10/26/19 18:00	10/29/19 12:52	1
2-Butanone (MEK)	ND		29	2.1	ug/Kg	☼	10/26/19 18:00	10/29/19 12:52	1
2-Hexanone	ND		29	2.9	ug/Kg	☼	10/26/19 18:00	10/29/19 12:52	1
4-Methyl-2-pentanone (MIBK)	ND		29	1.9	ug/Kg	☼	10/26/19 18:00	10/29/19 12:52	1
Acetone	**32**		29	4.9	ug/Kg	☼	10/26/19 18:00	10/29/19 12:52	1
Benzene	ND		5.8	0.29	ug/Kg	☼	10/26/19 18:00	10/29/19 12:52	1
Bromodichloromethane	ND		5.8	0.78	ug/Kg	☼	10/26/19 18:00	10/29/19 12:52	1
Bromoform	ND	*	5.8	2.9	ug/Kg	☼	10/26/19 18:00	10/29/19 12:52	1
Bromomethane	ND		5.8	0.52	ug/Kg	☼	10/26/19 18:00	10/29/19 12:52	1
Carbon disulfide	ND		5.8	2.9	ug/Kg	☼	10/26/19 18:00	10/29/19 12:52	1
Carbon tetrachloride	ND		5.8	0.56	ug/Kg	☼	10/26/19 18:00	10/29/19 12:52	1
Chlorobenzene	ND		5.8	0.77	ug/Kg	☼	10/26/19 18:00	10/29/19 12:52	1
Dibromochloromethane	ND		5.8	0.75	ug/Kg	☼	10/26/19 18:00	10/29/19 12:52	1
Chloroethane	ND		5.8	1.3	ug/Kg	☼	10/26/19 18:00	10/29/19 12:52	1
Chloroform	ND		5.8	0.36	ug/Kg	☼	10/26/19 18:00	10/29/19 12:52	1
Chloromethane	ND		5.8	0.35	ug/Kg	☼	10/26/19 18:00	10/29/19 12:52	1
cis-1,2-Dichloroethene	ND		5.8	0.75	ug/Kg	☼	10/26/19 18:00	10/29/19 12:52	1
cis-1,3-Dichloropropene	ND		5.8	0.84	ug/Kg	☼	10/26/19 18:00	10/29/19 12:52	1
Cyclohexane	ND		5.8	0.82	ug/Kg	☼	10/26/19 18:00	10/29/19 12:52	1
Dichlorodifluoromethane	ND		5.8	0.48	ug/Kg	☼	10/26/19 18:00	10/29/19 12:52	1
Ethylbenzene	ND		5.8	0.40	ug/Kg	☼	10/26/19 18:00	10/29/19 12:52	1
1,2-Dibromoethane	ND		5.8	0.75	ug/Kg	☼	10/26/19 18:00	10/29/19 12:52	1
Isopropylbenzene	ND		5.8	0.88	ug/Kg	☼	10/26/19 18:00	10/29/19 12:52	1
Methyl acetate	ND		29	3.5	ug/Kg	☼	10/26/19 18:00	10/29/19 12:52	1
Methyl tert-butyl ether	ND		5.8	0.57	ug/Kg	☼	10/26/19 18:00	10/29/19 12:52	1
Methylcyclohexane	ND		5.8	0.89	ug/Kg	☼	10/26/19 18:00	10/29/19 12:52	1
Methylene Chloride	**5.2**	**J B**	5.8	2.7	ug/Kg	☼	10/26/19 18:00	10/29/19 12:52	1

Client: GHD Services Inc.
Job ID: 480-161635-1
Project/Site: 11123680/203 - 160 Center Street Phase I

Client Sample ID: SB-1
Lab Sample ID: 480-161635-5
Date Collected: 10/25/19 12:20
Matrix: Solid
Date Received: 10/26/19 08:00
Percent Solids: 73.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		5.8	0.29	ug/Kg	☼	10/26/19 18:00	10/29/19 12:52	1
Tetrachloroethene	ND		5.8	0.78	ug/Kg	☼	10/26/19 18:00	10/29/19 12:52	1
Toluene	ND		5.8	0.44	ug/Kg	☼	10/26/19 18:00	10/29/19 12:52	1
trans-1,2-Dichloroethene	ND		5.8	0.60	ug/Kg	☼	10/26/19 18:00	10/29/19 12:52	1
trans-1,3-Dichloropropene	ND		5.8	2.6	ug/Kg	☼	10/26/19 18:00	10/29/19 12:52	1
Trichloroethene	ND		5.8	1.3	ug/Kg	☼	10/26/19 18:00	10/29/19 12:52	1
Trichlorofluoromethane	ND		5.8	0.55	ug/Kg	☼	10/26/19 18:00	10/29/19 12:52	1
Vinyl chloride	ND		5.8	0.71	ug/Kg	☼	10/26/19 18:00	10/29/19 12:52	1
Xylenes, Total	ND		12	0.98	ug/Kg	☼	10/26/19 18:00	10/29/19 12:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*101*		*71 - 125*	*10/26/19 18:00*	*10/29/19 12:52*	*1*
1,2-Dichloroethane-d4 (Surr)	*116*		*64 - 126*	*10/26/19 18:00*	*10/29/19 12:52*	*1*
4-Bromofluorobenzene (Surr)	*98*		*72 - 126*	*10/26/19 18:00*	*10/29/19 12:52*	*1*
Dibromofluoromethane (Surr)	*111*		*60 - 140*	*10/26/19 18:00*	*10/29/19 12:52*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		220	33	ug/Kg	☼	10/31/19 06:28	11/03/19 20:57	1
bis (2-chloroisopropyl) ether	ND		220	45	ug/Kg	☼	10/31/19 06:28	11/03/19 20:57	1
2,4,5-Trichlorophenol	ND		220	61	ug/Kg	☼	10/31/19 06:28	11/03/19 20:57	1
2,4,6-Trichlorophenol	ND		220	45	ug/Kg	☼	10/31/19 06:28	11/03/19 20:57	1
2,4-Dichlorophenol	ND		220	24	ug/Kg	☼	10/31/19 06:28	11/03/19 20:57	1
2,4-Dimethylphenol	ND		220	54	ug/Kg	☼	10/31/19 06:28	11/03/19 20:57	1
2,4-Dinitrophenol	ND		2200	1000	ug/Kg	☼	10/31/19 06:28	11/03/19 20:57	1
2,4-Dinitrotoluene	ND		220	46	ug/Kg	☼	10/31/19 06:28	11/03/19 20:57	1
2,6-Dinitrotoluene	ND		220	26	ug/Kg	☼	10/31/19 06:28	11/03/19 20:57	1
2-Chloronaphthalene	ND		220	37	ug/Kg	☼	10/31/19 06:28	11/03/19 20:57	1
2-Chlorophenol	ND		220	41	ug/Kg	☼	10/31/19 06:28	11/03/19 20:57	1
2-Methylphenol	ND		220	26	ug/Kg	☼	10/31/19 06:28	11/03/19 20:57	1
2-Methylnaphthalene	ND		220	45	ug/Kg	☼	10/31/19 06:28	11/03/19 20:57	1
2-Nitroaniline	ND		440	33	ug/Kg	☼	10/31/19 06:28	11/03/19 20:57	1
2-Nitrophenol	ND		220	63	ug/Kg	☼	10/31/19 06:28	11/03/19 20:57	1
3,3'-Dichlorobenzidine	ND		440	260	ug/Kg	☼	10/31/19 06:28	11/03/19 20:57	1
3-Nitroaniline	ND		440	62	ug/Kg	☼	10/31/19 06:28	11/03/19 20:57	1
4,6-Dinitro-2-methylphenol	ND		440	220	ug/Kg	☼	10/31/19 06:28	11/03/19 20:57	1
4-Bromophenyl phenyl ether	ND		220	32	ug/Kg	☼	10/31/19 06:28	11/03/19 20:57	1
4-Chloro-3-methylphenol	ND		220	55	ug/Kg	☼	10/31/19 06:28	11/03/19 20:57	1
4-Chloroaniline	ND		220	55	ug/Kg	☼	10/31/19 06:28	11/03/19 20:57	1
4-Chlorophenyl phenyl ether	ND		220	28	ug/Kg	☼	10/31/19 06:28	11/03/19 20:57	1
4-Methylphenol	ND		440	26	ug/Kg	☼	10/31/19 06:28	11/03/19 20:57	1
4-Nitroaniline	ND		440	120	ug/Kg	☼	10/31/19 06:28	11/03/19 20:57	1
4-Nitrophenol	ND		440	160	ug/Kg	☼	10/31/19 06:28	11/03/19 20:57	1
Acenaphthene	ND		220	33	ug/Kg	☼	10/31/19 06:28	11/03/19 20:57	1
Acenaphthylene	ND		220	29	ug/Kg	☼	10/31/19 06:28	11/03/19 20:57	1
Acetophenone	ND		220	30	ug/Kg	☼	10/31/19 06:28	11/03/19 20:57	1
Anthracene	ND		220	55	ug/Kg	☼	10/31/19 06:28	11/03/19 20:57	1
Atrazine	ND		220	78	ug/Kg	☼	10/31/19 06:28	11/03/19 20:57	1
Benzaldehyde	ND		220	180	ug/Kg	☼	10/31/19 06:28	11/03/19 20:57	1
Benzo[a]anthracene	**65**	**J**	220	22	ug/Kg	☼	10/31/19 06:28	11/03/19 20:57	1

Client Sample ID: SB-1
Lab Sample ID: 480-161635-5
Date Collected: 10/25/19 12:20
Matrix: Solid
Date Received: 10/26/19 08:00
Percent Solids: 73.8

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	**42**	**J**	220	33	ug/Kg	☼	10/31/19 06:28	11/03/19 20:57	1
Benzo[b]fluoranthene	**69**	**J**	220	36	ug/Kg	☼	10/31/19 06:28	11/03/19 20:57	1
Benzo[g,h,i]perylene	**32**	**J**	220	24	ug/Kg	☼	10/31/19 06:28	11/03/19 20:57	1
Benzo[k]fluoranthene	ND		220	29	ug/Kg	☼	10/31/19 06:28	11/03/19 20:57	1
Bis(2-chloroethoxy)methane	ND		220	48	ug/Kg	☼	10/31/19 06:28	11/03/19 20:57	1
Bis(2-chloroethyl)ether	ND		220	29	ug/Kg	☼	10/31/19 06:28	11/03/19 20:57	1
Bis(2-ethylhexyl) phthalate	ND		220	77	ug/Kg	☼	10/31/19 06:28	11/03/19 20:57	1
Butyl benzyl phthalate	ND		220	37	ug/Kg	☼	10/31/19 06:28	11/03/19 20:57	1
Caprolactam	ND		220	67	ug/Kg	☼	10/31/19 06:28	11/03/19 20:57	1
Carbazole	ND		220	26	ug/Kg	☼	10/31/19 06:28	11/03/19 20:57	1
Chrysene	**73**	**J**	220	50	ug/Kg	☼	10/31/19 06:28	11/03/19 20:57	1
Dibenz(a,h)anthracene	ND		220	40	ug/Kg	☼	10/31/19 06:28	11/03/19 20:57	1
Di-n-butyl phthalate	ND		220	38	ug/Kg	☼	10/31/19 06:28	11/03/19 20:57	1
Di-n-octyl phthalate	ND		220	26	ug/Kg	☼	10/31/19 06:28	11/03/19 20:57	1
Dibenzofuran	ND		220	26	ug/Kg	☼	10/31/19 06:28	11/03/19 20:57	1
Diethyl phthalate	ND		220	29	ug/Kg	☼	10/31/19 06:28	11/03/19 20:57	1
Dimethyl phthalate	ND		220	26	ug/Kg	☼	10/31/19 06:28	11/03/19 20:57	1
Fluoranthene	**110**	**J**	220	24	ug/Kg	☼	10/31/19 06:28	11/03/19 20:57	1
Fluorene	ND		220	26	ug/Kg	☼	10/31/19 06:28	11/03/19 20:57	1
Hexachlorobenzene	ND		220	30	ug/Kg	☼	10/31/19 06:28	11/03/19 20:57	1
Hexachlorobutadiene	ND		220	33	ug/Kg	☼	10/31/19 06:28	11/03/19 20:57	1
Hexachlorocyclopentadiene	ND		220	30	ug/Kg	☼	10/31/19 06:28	11/03/19 20:57	1
Hexachloroethane	ND		220	29	ug/Kg	☼	10/31/19 06:28	11/03/19 20:57	1
Indeno[1,2,3-cd]pyrene	**28**	**J**	220	28	ug/Kg	☼	10/31/19 06:28	11/03/19 20:57	1
Isophorone	ND		220	48	ug/Kg	☼	10/31/19 06:28	11/03/19 20:57	1
N-Nitrosodi-n-propylamine	ND		220	38	ug/Kg	☼	10/31/19 06:28	11/03/19 20:57	1
N-Nitrosodiphenylamine	ND		220	180	ug/Kg	☼	10/31/19 06:28	11/03/19 20:57	1
Naphthalene	ND		220	29	ug/Kg	☼	10/31/19 06:28	11/03/19 20:57	1
Nitrobenzene	ND		220	25	ug/Kg	☼	10/31/19 06:28	11/03/19 20:57	1
Pentachlorophenol	ND		440	220	ug/Kg	☼	10/31/19 06:28	11/03/19 20:57	1
Phenanthrene	**83**	**J**	220	33	ug/Kg	☼	10/31/19 06:28	11/03/19 20:57	1
Phenol	ND		220	34	ug/Kg	☼	10/31/19 06:28	11/03/19 20:57	1
Pyrene	**100**	**J**	220	26	ug/Kg	☼	10/31/19 06:28	11/03/19 20:57	1
1,4-Dioxane	ND		260	73	ug/Kg	☼	10/31/19 06:28	11/03/19 20:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*89*		*53 - 120*	*10/31/19 06:28*	*11/03/19 20:57*	*1*
Phenol-d5 (Surr)	*91*		*54 - 120*	*10/31/19 06:28*	*11/03/19 20:57*	*1*
p-Terphenyl-d14 (Surr)	*119*		*79 - 130*	*10/31/19 06:28*	*11/03/19 20:57*	*1*
2,4,6-Tribromophenol (Surr)	*100*		*54 - 120*	*10/31/19 06:28*	*11/03/19 20:57*	*1*
2-Fluorobiphenyl	*102*		*60 - 120*	*10/31/19 06:28*	*11/03/19 20:57*	*1*
2-Fluorophenol (Surr)	*86*		*52 - 120*	*10/31/19 06:28*	*11/03/19 20:57*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		310	61	ug/Kg	☼	10/28/19 15:29	10/29/19 18:00	1
PCB-1221	ND		310	61	ug/Kg	☼	10/28/19 15:29	10/29/19 18:00	1
PCB-1232	ND		310	61	ug/Kg	☼	10/28/19 15:29	10/29/19 18:00	1
PCB-1242	ND		310	61	ug/Kg	☼	10/28/19 15:29	10/29/19 18:00	1
PCB-1248	ND		310	61	ug/Kg	☼	10/28/19 15:29	10/29/19 18:00	1

Client Sample ID: SB-1 — Lab Sample ID: 480-161635-5

Date Collected: 10/25/19 12:20 — **Matrix: Solid**
Date Received: 10/26/19 08:00 — **Percent Solids: 73.8**

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1254	ND		310	150	ug/Kg	☼	10/28/19 15:29	10/29/19 18:00	1
PCB-1260	ND		310	150	ug/Kg	☼	10/28/19 15:29	10/29/19 18:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*102*		*60 - 154*	*10/28/19 15:29*	*10/29/19 18:00*	*1*
DCB Decachlorobiphenyl	*105*		*65 - 174*	*10/28/19 15:29*	*10/29/19 18:00*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**10000**		13.2	5.8	mg/Kg	☼	10/30/19 06:13	11/02/19 20:23	1
Antimony	**0.79**	**J**	19.7	0.53	mg/Kg	☼	10/30/19 06:13	11/02/19 20:23	1
Arsenic	**16.0**		2.6	0.53	mg/Kg	☼	10/30/19 06:13	11/02/19 20:23	1
Barium	**479**		0.66	0.14	mg/Kg	☼	10/30/19 06:13	11/02/19 20:23	1
Beryllium	**1.3**		0.26	0.037	mg/Kg	☼	10/30/19 06:13	11/02/19 20:23	1
Cadmium	**0.27**		0.26	0.039	mg/Kg	☼	10/30/19 06:13	11/02/19 20:23	1
Calcium	**5540**	**B**	65.8	4.3	mg/Kg	☼	10/30/19 06:13	11/02/19 20:23	1
Chromium	**20.7**		0.66	0.26	mg/Kg	☼	10/30/19 06:13	11/02/19 20:23	1
Cobalt	**9.2**		0.66	0.066	mg/Kg	☼	10/30/19 06:13	11/02/19 20:23	1
Copper	**33.6**		1.3	0.28	mg/Kg	☼	10/30/19 06:13	11/02/19 20:23	1
Iron	**17700**		13.2	4.6	mg/Kg	☼	10/30/19 06:13	11/02/19 20:23	1
Lead	**104**		1.3	0.32	mg/Kg	☼	10/30/19 06:13	11/02/19 20:23	1
Magnesium	**2830**		26.3	1.2	mg/Kg	☼	10/30/19 06:13	11/02/19 20:23	1
Manganese	**184**		0.26	0.042	mg/Kg	☼	10/30/19 06:13	11/02/19 20:23	1
Nickel	**25.5**		6.6	0.30	mg/Kg	☼	10/30/19 06:13	11/02/19 20:23	1
Potassium	**2740**		39.5	26.3	mg/Kg	☼	10/30/19 06:13	11/02/19 20:23	1
Selenium	ND		5.3	0.53	mg/Kg	☼	10/30/19 06:13	11/02/19 20:23	1
Silver	ND		0.79	0.26	mg/Kg	☼	10/30/19 06:13	11/02/19 20:23	1
Sodium	**204**		184	17.1	mg/Kg	☼	10/30/19 06:13	11/02/19 20:23	1
Thallium	ND		7.9	0.39	mg/Kg	☼	10/30/19 06:13	11/02/19 20:23	1
Vanadium	**26.4**		0.66	0.14	mg/Kg	☼	10/30/19 06:13	11/02/19 20:23	1
Zinc	**79.8**		2.6	0.84	mg/Kg	☼	10/30/19 06:13	11/02/19 20:23	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.096**		0.028	0.011	mg/Kg	☼	11/07/19 16:25	11/07/19 18:48	1

Client Sample ID: SB-3 — Lab Sample ID: 480-161635-6

Date Collected: 10/25/19 12:40 — **Matrix: Solid**
Date Received: 10/26/19 08:00 — **Percent Solids: 74.7**

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		4.9	0.36	ug/Kg	☼	10/26/19 18:00	10/29/19 13:18	1
1,1,2,2-Tetrachloroethane	ND		4.9	0.79	ug/Kg	☼	10/26/19 18:00	10/29/19 13:18	1
1,1,2-Trichloroethane	ND		4.9	0.64	ug/Kg	☼	10/26/19 18:00	10/29/19 13:18	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.9	1.1	ug/Kg	☼	10/26/19 18:00	10/29/19 13:18	1
1,1-Dichloroethane	ND		4.9	0.60	ug/Kg	☼	10/26/19 18:00	10/29/19 13:18	1
1,1-Dichloroethene	ND		4.9	0.60	ug/Kg	☼	10/26/19 18:00	10/29/19 13:18	1
1,2,4-Trichlorobenzene	ND		4.9	0.30	ug/Kg	☼	10/26/19 18:00	10/29/19 13:18	1
1,2-Dibromo-3-Chloropropane	ND		4.9	2.4	ug/Kg	☼	10/26/19 18:00	10/29/19 13:18	1
1,2-Dichlorobenzene	ND		4.9	0.38	ug/Kg	☼	10/26/19 18:00	10/29/19 13:18	1

Client Sample ID: SB-3
Lab Sample ID: 480-161635-6
Date Collected: 10/25/19 12:40
Matrix: Solid
Date Received: 10/26/19 08:00
Percent Solids: 74.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	ND		4.9	0.25	ug/Kg	☼	10/26/19 18:00	10/29/19 13:18	1
1,2-Dichloropropane	ND		4.9	2.4	ug/Kg	☼	10/26/19 18:00	10/29/19 13:18	1
1,3-Dichlorobenzene	ND		4.9	0.25	ug/Kg	☼	10/26/19 18:00	10/29/19 13:18	1
1,4-Dichlorobenzene	ND		4.9	0.69	ug/Kg	☼	10/26/19 18:00	10/29/19 13:18	1
2-Butanone (MEK)	ND		24	1.8	ug/Kg	☼	10/26/19 18:00	10/29/19 13:18	1
2-Hexanone	ND		24	2.4	ug/Kg	☼	10/26/19 18:00	10/29/19 13:18	1
4-Methyl-2-pentanone (MIBK)	ND		24	1.6	ug/Kg	☼	10/26/19 18:00	10/29/19 13:18	1
Acetone	**19**	**J**	24	4.1	ug/Kg	☼	10/26/19 18:00	10/29/19 13:18	1
Benzene	ND		4.9	0.24	ug/Kg	☼	10/26/19 18:00	10/29/19 13:18	1
Bromodichloromethane	ND		4.9	0.66	ug/Kg	☼	10/26/19 18:00	10/29/19 13:18	1
Bromoform	ND	*	4.9	2.4	ug/Kg	☼	10/26/19 18:00	10/29/19 13:18	1
Bromomethane	ND		4.9	0.44	ug/Kg	☼	10/26/19 18:00	10/29/19 13:18	1
Carbon disulfide	ND		4.9	2.4	ug/Kg	☼	10/26/19 18:00	10/29/19 13:18	1
Carbon tetrachloride	ND		4.9	0.47	ug/Kg	☼	10/26/19 18:00	10/29/19 13:18	1
Chlorobenzene	ND		4.9	0.65	ug/Kg	☼	10/26/19 18:00	10/29/19 13:18	1
Dibromochloromethane	ND		4.9	0.63	ug/Kg	☼	10/26/19 18:00	10/29/19 13:18	1
Chloroethane	ND		4.9	1.1	ug/Kg	☼	10/26/19 18:00	10/29/19 13:18	1
Chloroform	ND		4.9	0.30	ug/Kg	☼	10/26/19 18:00	10/29/19 13:18	1
Chloromethane	ND		4.9	0.30	ug/Kg	☼	10/26/19 18:00	10/29/19 13:18	1
cis-1,2-Dichloroethene	ND		4.9	0.63	ug/Kg	☼	10/26/19 18:00	10/29/19 13:18	1
cis-1,3-Dichloropropene	ND		4.9	0.70	ug/Kg	☼	10/26/19 18:00	10/29/19 13:18	1
Cyclohexane	ND		4.9	0.69	ug/Kg	☼	10/26/19 18:00	10/29/19 13:18	1
Dichlorodifluoromethane	ND		4.9	0.40	ug/Kg	☼	10/26/19 18:00	10/29/19 13:18	1
Ethylbenzene	ND		4.9	0.34	ug/Kg	☼	10/26/19 18:00	10/29/19 13:18	1
1,2-Dibromoethane	ND		4.9	0.63	ug/Kg	☼	10/26/19 18:00	10/29/19 13:18	1
Isopropylbenzene	ND		4.9	0.74	ug/Kg	☼	10/26/19 18:00	10/29/19 13:18	1
Methyl acetate	ND		24	3.0	ug/Kg	☼	10/26/19 18:00	10/29/19 13:18	1
Methyl tert-butyl ether	ND		4.9	0.48	ug/Kg	☼	10/26/19 18:00	10/29/19 13:18	1
Methylcyclohexane	ND		4.9	0.74	ug/Kg	☼	10/26/19 18:00	10/29/19 13:18	1
Methylene Chloride	**4.0**	**J B**	4.9	2.3	ug/Kg	☼	10/26/19 18:00	10/29/19 13:18	1
Styrene	ND		4.9	0.24	ug/Kg	☼	10/26/19 18:00	10/29/19 13:18	1
Tetrachloroethene	ND		4.9	0.66	ug/Kg	☼	10/26/19 18:00	10/29/19 13:18	1
Toluene	ND		4.9	0.37	ug/Kg	☼	10/26/19 18:00	10/29/19 13:18	1
trans-1,2-Dichloroethene	ND		4.9	0.51	ug/Kg	☼	10/26/19 18:00	10/29/19 13:18	1
trans-1,3-Dichloropropene	ND		4.9	2.2	ug/Kg	☼	10/26/19 18:00	10/29/19 13:18	1
Trichloroethene	ND		4.9	1.1	ug/Kg	☼	10/26/19 18:00	10/29/19 13:18	1
Trichlorofluoromethane	ND		4.9	0.46	ug/Kg	☼	10/26/19 18:00	10/29/19 13:18	1
Vinyl chloride	ND		4.9	0.60	ug/Kg	☼	10/26/19 18:00	10/29/19 13:18	1
Xylenes, Total	ND		9.8	0.82	ug/Kg	☼	10/26/19 18:00	10/29/19 13:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*101*		*71 - 125*	*10/26/19 18:00*	*10/29/19 13:18*	*1*
1,2-Dichloroethane-d4 (Surr)	*114*		*64 - 126*	*10/26/19 18:00*	*10/29/19 13:18*	*1*
4-Bromofluorobenzene (Surr)	*100*		*72 - 126*	*10/26/19 18:00*	*10/29/19 13:18*	*1*
Dibromofluoromethane (Surr)	*110*		*60 - 140*	*10/26/19 18:00*	*10/29/19 13:18*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		230	33	ug/Kg	☼	10/31/19 06:28	11/03/19 21:22	1
bis (2-chloroisopropyl) ether	ND		230	45	ug/Kg	☼	10/31/19 06:28	11/03/19 21:22	1

Client Sample ID: SB-3 **Lab Sample ID: 480-161635-6**
Date Collected: 10/25/19 12:40 **Matrix: Solid**
Date Received: 10/26/19 08:00 **Percent Solids: 74.7**

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		230	61	ug/Kg	☼	10/31/19 06:28	11/03/19 21:22	1
2,4,6-Trichlorophenol	ND		230	45	ug/Kg	☼	10/31/19 06:28	11/03/19 21:22	1
2,4-Dichlorophenol	ND		230	24	ug/Kg	☼	10/31/19 06:28	11/03/19 21:22	1
2,4-Dimethylphenol	ND		230	55	ug/Kg	☼	10/31/19 06:28	11/03/19 21:22	1
2,4-Dinitrophenol	ND		2200	1000	ug/Kg	☼	10/31/19 06:28	11/03/19 21:22	1
2,4-Dinitrotoluene	ND		230	47	ug/Kg	☼	10/31/19 06:28	11/03/19 21:22	1
2,6-Dinitrotoluene	ND		230	27	ug/Kg	☼	10/31/19 06:28	11/03/19 21:22	1
2-Chloronaphthalene	ND		230	37	ug/Kg	☼	10/31/19 06:28	11/03/19 21:22	1
2-Chlorophenol	ND		230	41	ug/Kg	☼	10/31/19 06:28	11/03/19 21:22	1
2-Methylphenol	ND		230	27	ug/Kg	☼	10/31/19 06:28	11/03/19 21:22	1
2-Methylnaphthalene	ND		230	45	ug/Kg	☼	10/31/19 06:28	11/03/19 21:22	1
2-Nitroaniline	ND		440	33	ug/Kg	☼	10/31/19 06:28	11/03/19 21:22	1
2-Nitrophenol	ND		230	64	ug/Kg	☼	10/31/19 06:28	11/03/19 21:22	1
3,3'-Dichlorobenzidine	ND		440	270	ug/Kg	☼	10/31/19 06:28	11/03/19 21:22	1
3-Nitroaniline	ND		440	63	ug/Kg	☼	10/31/19 06:28	11/03/19 21:22	1
4,6-Dinitro-2-methylphenol	ND		440	230	ug/Kg	☼	10/31/19 06:28	11/03/19 21:22	1
4-Bromophenyl phenyl ether	ND		230	32	ug/Kg	☼	10/31/19 06:28	11/03/19 21:22	1
4-Chloro-3-methylphenol	ND		230	56	ug/Kg	☼	10/31/19 06:28	11/03/19 21:22	1
4-Chloroaniline	ND		230	56	ug/Kg	☼	10/31/19 06:28	11/03/19 21:22	1
4-Chlorophenyl phenyl ether	ND		230	28	ug/Kg	☼	10/31/19 06:28	11/03/19 21:22	1
4-Methylphenol	ND		440	27	ug/Kg	☼	10/31/19 06:28	11/03/19 21:22	1
4-Nitroaniline	ND		440	120	ug/Kg	☼	10/31/19 06:28	11/03/19 21:22	1
4-Nitrophenol	ND		440	160	ug/Kg	☼	10/31/19 06:28	11/03/19 21:22	1
Acenaphthene	ND		230	33	ug/Kg	☼	10/31/19 06:28	11/03/19 21:22	1
Acenaphthylene	ND		230	29	ug/Kg	☼	10/31/19 06:28	11/03/19 21:22	1
Acetophenone	ND		230	31	ug/Kg	☼	10/31/19 06:28	11/03/19 21:22	1
Anthracene	ND		230	56	ug/Kg	☼	10/31/19 06:28	11/03/19 21:22	1
Atrazine	ND		230	79	ug/Kg	☼	10/31/19 06:28	11/03/19 21:22	1
Benzaldehyde	ND		230	180	ug/Kg	☼	10/31/19 06:28	11/03/19 21:22	1
Benzo[a]anthracene	**28**	**J**	230	23	ug/Kg	☼	10/31/19 06:28	11/03/19 21:22	1
Benzo[a]pyrene	ND		230	33	ug/Kg	☼	10/31/19 06:28	11/03/19 21:22	1
Benzo[b]fluoranthene	ND		230	36	ug/Kg	☼	10/31/19 06:28	11/03/19 21:22	1
Benzo[g,h,i]perylene	ND		230	24	ug/Kg	☼	10/31/19 06:28	11/03/19 21:22	1
Benzo[k]fluoranthene	ND		230	29	ug/Kg	☼	10/31/19 06:28	11/03/19 21:22	1
Bis(2-chloroethoxy)methane	ND		230	48	ug/Kg	☼	10/31/19 06:28	11/03/19 21:22	1
Bis(2-chloroethyl)ether	ND		230	29	ug/Kg	☼	10/31/19 06:28	11/03/19 21:22	1
Bis(2-ethylhexyl) phthalate	ND		230	77	ug/Kg	☼	10/31/19 06:28	11/03/19 21:22	1
Butyl benzyl phthalate	ND		230	37	ug/Kg	☼	10/31/19 06:28	11/03/19 21:22	1
Caprolactam	ND		230	68	ug/Kg	☼	10/31/19 06:28	11/03/19 21:22	1
Carbazole	ND		230	27	ug/Kg	☼	10/31/19 06:28	11/03/19 21:22	1
Chrysene	ND		230	51	ug/Kg	☼	10/31/19 06:28	11/03/19 21:22	1
Dibenz(a,h)anthracene	ND		230	40	ug/Kg	☼	10/31/19 06:28	11/03/19 21:22	1
Di-n-butyl phthalate	ND		230	39	ug/Kg	☼	10/31/19 06:28	11/03/19 21:22	1
Di-n-octyl phthalate	ND		230	27	ug/Kg	☼	10/31/19 06:28	11/03/19 21:22	1
Dibenzofuran	ND		230	27	ug/Kg	☼	10/31/19 06:28	11/03/19 21:22	1
Diethyl phthalate	ND		230	29	ug/Kg	☼	10/31/19 06:28	11/03/19 21:22	1
Dimethyl phthalate	ND		230	27	ug/Kg	☼	10/31/19 06:28	11/03/19 21:22	1
Fluoranthene	**43**	**J**	230	24	ug/Kg	☼	10/31/19 06:28	11/03/19 21:22	1
Fluorene	ND		230	27	ug/Kg	☼	10/31/19 06:28	11/03/19 21:22	1

Client Sample ID: SB-3
Date Collected: 10/25/19 12:40
Date Received: 10/26/19 08:00

Lab Sample ID: 480-161635-6
Matrix: Solid
Percent Solids: 74.7

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobenzene	ND		230	31	ug/Kg	☼	10/31/19 06:28	11/03/19 21:22	1
Hexachlorobutadiene	ND		230	33	ug/Kg	☼	10/31/19 06:28	11/03/19 21:22	1
Hexachlorocyclopentadiene	ND		230	31	ug/Kg	☼	10/31/19 06:28	11/03/19 21:22	1
Hexachloroethane	ND		230	29	ug/Kg	☼	10/31/19 06:28	11/03/19 21:22	1
Indeno[1,2,3-cd]pyrene	ND		230	28	ug/Kg	☼	10/31/19 06:28	11/03/19 21:22	1
Isophorone	ND		230	48	ug/Kg	☼	10/31/19 06:28	11/03/19 21:22	1
N-Nitrosodi-n-propylamine	ND		230	39	ug/Kg	☼	10/31/19 06:28	11/03/19 21:22	1
N-Nitrosodiphenylamine	ND		230	180	ug/Kg	☼	10/31/19 06:28	11/03/19 21:22	1
Naphthalene	ND		230	29	ug/Kg	☼	10/31/19 06:28	11/03/19 21:22	1
Nitrobenzene	ND		230	25	ug/Kg	☼	10/31/19 06:28	11/03/19 21:22	1
Pentachlorophenol	ND		440	230	ug/Kg	☼	10/31/19 06:28	11/03/19 21:22	1
Phenanthrene	**39**	**J**	230	33	ug/Kg	☼	10/31/19 06:28	11/03/19 21:22	1
Phenol	ND		230	35	ug/Kg	☼	10/31/19 06:28	11/03/19 21:22	1
Pyrene	**39**	**J**	230	27	ug/Kg	☼	10/31/19 06:28	11/03/19 21:22	1
1,4-Dioxane	ND		270	73	ug/Kg	☼	10/31/19 06:28	11/03/19 21:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*82*		*53 - 120*	*10/31/19 06:28*	*11/03/19 21:22*	*1*
Phenol-d5 (Surr)	*84*		*54 - 120*	*10/31/19 06:28*	*11/03/19 21:22*	*1*
p-Terphenyl-d14 (Surr)	*107*		*79 - 130*	*10/31/19 06:28*	*11/03/19 21:22*	*1*
2,4,6-Tribromophenol (Surr)	*87*		*54 - 120*	*10/31/19 06:28*	*11/03/19 21:22*	*1*
2-Fluorobiphenyl	*91*		*60 - 120*	*10/31/19 06:28*	*11/03/19 21:22*	*1*
2-Fluorophenol (Surr)	*78*		*52 - 120*	*10/31/19 06:28*	*11/03/19 21:22*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		320	63	ug/Kg	☼	10/28/19 15:29	10/29/19 18:12	1
PCB-1221	ND		320	63	ug/Kg	☼	10/28/19 15:29	10/29/19 18:12	1
PCB-1232	ND		320	63	ug/Kg	☼	10/28/19 15:29	10/29/19 18:12	1
PCB-1242	ND		320	63	ug/Kg	☼	10/28/19 15:29	10/29/19 18:12	1
PCB-1248	ND		320	63	ug/Kg	☼	10/28/19 15:29	10/29/19 18:12	1
PCB-1254	ND		320	150	ug/Kg	☼	10/28/19 15:29	10/29/19 18:12	1
PCB-1260	ND		320	150	ug/Kg	☼	10/28/19 15:29	10/29/19 18:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*104*		*60 - 154*	*10/28/19 15:29*	*10/29/19 18:12*	*1*
DCB Decachlorobiphenyl	*112*		*65 - 174*	*10/28/19 15:29*	*10/29/19 18:12*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**13000**		14.2	6.2	mg/Kg	☼	10/30/19 06:13	11/02/19 20:27	1
Antimony	**0.71**	**J**	21.3	0.57	mg/Kg	☼	10/30/19 06:13	11/02/19 20:27	1
Arsenic	**9.1**		2.8	0.57	mg/Kg	☼	10/30/19 06:13	11/02/19 20:27	1
Barium	**312**		0.71	0.16	mg/Kg	☼	10/30/19 06:13	11/02/19 20:27	1
Beryllium	**1.3**		0.28	0.040	mg/Kg	☼	10/30/19 06:13	11/02/19 20:27	1
Cadmium	ND		0.28	0.043	mg/Kg	☼	10/30/19 06:13	11/02/19 20:27	1
Calcium	**3200**	**B**	71.0	4.7	mg/Kg	☼	10/30/19 06:13	11/02/19 20:27	1
Chromium	**69.8**		0.71	0.28	mg/Kg	☼	10/30/19 06:13	11/02/19 20:27	1
Cobalt	**10.7**		0.71	0.071	mg/Kg	☼	10/30/19 06:13	11/02/19 20:27	1
Copper	**22.3**		1.4	0.30	mg/Kg	☼	10/30/19 06:13	11/02/19 20:27	1

Client Sample ID: SB-3

Lab Sample ID: 480-161635-6
Date Collected: 10/25/19 12:40 **Matrix: Solid**
Date Received: 10/26/19 08:00 **Percent Solids: 74.7**

Method: 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	27000		14.2	5.0	mg/Kg	☼	10/30/19 06:13	11/02/19 20:27	1
Lead	142		1.4	0.34	mg/Kg	☼	10/30/19 06:13	11/02/19 20:27	1
Magnesium	3620		28.4	1.3	mg/Kg	☼	10/30/19 06:13	11/02/19 20:27	1
Manganese	195		0.28	0.045	mg/Kg	☼	10/30/19 06:13	11/02/19 20:27	1
Nickel	31.2		7.1	0.33	mg/Kg	☼	10/30/19 06:13	11/02/19 20:27	1
Potassium	4300		42.6	28.4	mg/Kg	☼	10/30/19 06:13	11/02/19 20:27	1
Selenium	0.97	J	5.7	0.57	mg/Kg	☼	10/30/19 06:13	11/02/19 20:27	1
Silver	ND		0.85	0.28	mg/Kg	☼	10/30/19 06:13	11/02/19 20:27	1
Sodium	136	J	199	18.5	mg/Kg	☼	10/30/19 06:13	11/02/19 20:27	1
Thallium	ND		8.5	0.43	mg/Kg	☼	10/30/19 06:13	11/02/19 20:27	1
Vanadium	25.9		0.71	0.16	mg/Kg	☼	10/30/19 06:13	11/02/19 20:27	1
Zinc	109		2.8	0.91	mg/Kg	☼	10/30/19 06:13	11/02/19 20:27	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.051		0.026	0.011	mg/Kg	☼	11/07/19 16:25	11/07/19 18:49	1

Client Sample ID: SB-5

Lab Sample ID: 480-161635-7
Date Collected: 10/25/19 13:00 **Matrix: Solid**
Date Received: 10/26/19 08:00 **Percent Solids: 81.8**

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		4.0	0.29	ug/Kg	☼	10/26/19 18:00	10/29/19 13:43	1
1,1,2,2-Tetrachloroethane	ND		4.0	0.64	ug/Kg	☼	10/26/19 18:00	10/29/19 13:43	1
1,1,2-Trichloroethane	ND		4.0	0.52	ug/Kg	☼	10/26/19 18:00	10/29/19 13:43	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.0	0.90	ug/Kg	☼	10/26/19 18:00	10/29/19 13:43	1
1,1-Dichloroethane	ND		4.0	0.48	ug/Kg	☼	10/26/19 18:00	10/29/19 13:43	1
1,1-Dichloroethene	ND		4.0	0.49	ug/Kg	☼	10/26/19 18:00	10/29/19 13:43	1
1,2,4-Trichlorobenzene	ND		4.0	0.24	ug/Kg	☼	10/26/19 18:00	10/29/19 13:43	1
1,2-Dibromo-3-Chloropropane	ND		4.0	2.0	ug/Kg	☼	10/26/19 18:00	10/29/19 13:43	1
1,2-Dichlorobenzene	ND		4.0	0.31	ug/Kg	☼	10/26/19 18:00	10/29/19 13:43	1
1,2-Dichloroethane	ND		4.0	0.20	ug/Kg	☼	10/26/19 18:00	10/29/19 13:43	1
1,2-Dichloropropane	ND		4.0	2.0	ug/Kg	☼	10/26/19 18:00	10/29/19 13:43	1
1,3-Dichlorobenzene	ND		4.0	0.20	ug/Kg	☼	10/26/19 18:00	10/29/19 13:43	1
1,4-Dichlorobenzene	ND		4.0	0.56	ug/Kg	☼	10/26/19 18:00	10/29/19 13:43	1
2-Butanone (MEK)	ND		20	1.5	ug/Kg	☼	10/26/19 18:00	10/29/19 13:43	1
2-Hexanone	ND		20	2.0	ug/Kg	☼	10/26/19 18:00	10/29/19 13:43	1
4-Methyl-2-pentanone (MIBK)	ND		20	1.3	ug/Kg	☼	10/26/19 18:00	10/29/19 13:43	1
Acetone	63		20	3.3	ug/Kg	☼	10/26/19 18:00	10/29/19 13:43	1
Benzene	ND		4.0	0.19	ug/Kg	☼	10/26/19 18:00	10/29/19 13:43	1
Bromodichloromethane	ND		4.0	0.53	ug/Kg	☼	10/26/19 18:00	10/29/19 13:43	1
Bromoform	ND	*	4.0	2.0	ug/Kg	☼	10/26/19 18:00	10/29/19 13:43	1
Bromomethane	ND		4.0	0.36	ug/Kg	☼	10/26/19 18:00	10/29/19 13:43	1
Carbon disulfide	ND		4.0	2.0	ug/Kg	☼	10/26/19 18:00	10/29/19 13:43	1
Carbon tetrachloride	ND		4.0	0.38	ug/Kg	☼	10/26/19 18:00	10/29/19 13:43	1
Chlorobenzene	ND		4.0	0.52	ug/Kg	☼	10/26/19 18:00	10/29/19 13:43	1
Dibromochloromethane	ND		4.0	0.51	ug/Kg	☼	10/26/19 18:00	10/29/19 13:43	1
Chloroethane	ND		4.0	0.90	ug/Kg	☼	10/26/19 18:00	10/29/19 13:43	1
Chloroform	ND		4.0	0.25	ug/Kg	☼	10/26/19 18:00	10/29/19 13:43	1

Client Sample ID: SB-5
Lab Sample ID: 480-161635-7
Date Collected: 10/25/19 13:00
Matrix: Solid
Date Received: 10/26/19 08:00
Percent Solids: 81.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		4.0	0.24	ug/Kg	☼	10/26/19 18:00	10/29/19 13:43	1
cis-1,2-Dichloroethene	ND		4.0	0.51	ug/Kg	☼	10/26/19 18:00	10/29/19 13:43	1
cis-1,3-Dichloropropene	ND		4.0	0.57	ug/Kg	☼	10/26/19 18:00	10/29/19 13:43	1
Cyclohexane	ND		4.0	0.56	ug/Kg	☼	10/26/19 18:00	10/29/19 13:43	1
Dichlorodifluoromethane	ND		4.0	0.33	ug/Kg	☼	10/26/19 18:00	10/29/19 13:43	1
Ethylbenzene	ND		4.0	0.27	ug/Kg	☼	10/26/19 18:00	10/29/19 13:43	1
1,2-Dibromoethane	ND		4.0	0.51	ug/Kg	☼	10/26/19 18:00	10/29/19 13:43	1
Isopropylbenzene	ND		4.0	0.60	ug/Kg	☼	10/26/19 18:00	10/29/19 13:43	1
Methyl acetate	ND		20	2.4	ug/Kg	☼	10/26/19 18:00	10/29/19 13:43	1
Methyl tert-butyl ether	ND		4.0	0.39	ug/Kg	☼	10/26/19 18:00	10/29/19 13:43	1
Methylcyclohexane	ND		4.0	0.60	ug/Kg	☼	10/26/19 18:00	10/29/19 13:43	1
Methylene Chloride	**3.4**	**J B**	4.0	1.8	ug/Kg	☼	10/26/19 18:00	10/29/19 13:43	1
Styrene	ND		4.0	0.20	ug/Kg	☼	10/26/19 18:00	10/29/19 13:43	1
Tetrachloroethene	ND		4.0	0.53	ug/Kg	☼	10/26/19 18:00	10/29/19 13:43	1
Toluene	ND		4.0	0.30	ug/Kg	☼	10/26/19 18:00	10/29/19 13:43	1
trans-1,2-Dichloroethene	ND		4.0	0.41	ug/Kg	☼	10/26/19 18:00	10/29/19 13:43	1
trans-1,3-Dichloropropene	ND		4.0	1.7	ug/Kg	☼	10/26/19 18:00	10/29/19 13:43	1
Trichloroethene	ND		4.0	0.87	ug/Kg	☼	10/26/19 18:00	10/29/19 13:43	1
Trichlorofluoromethane	ND		4.0	0.38	ug/Kg	☼	10/26/19 18:00	10/29/19 13:43	1
Vinyl chloride	ND		4.0	0.48	ug/Kg	☼	10/26/19 18:00	10/29/19 13:43	1
Xylenes, Total	ND		7.9	0.67	ug/Kg	☼	10/26/19 18:00	10/29/19 13:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*100*		*71 - 125*	*10/26/19 18:00*	*10/29/19 13:43*	*1*
1,2-Dichloroethane-d4 (Surr)	*120*		*64 - 126*	*10/26/19 18:00*	*10/29/19 13:43*	*1*
4-Bromofluorobenzene (Surr)	*103*		*72 - 126*	*10/26/19 18:00*	*10/29/19 13:43*	*1*
Dibromofluoromethane (Surr)	*112*		*60 - 140*	*10/26/19 18:00*	*10/29/19 13:43*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		1000	150	ug/Kg	☼	10/31/19 06:28	11/03/19 21:47	5
bis (2-chloroisopropyl) ether	ND		1000	200	ug/Kg	☼	10/31/19 06:28	11/03/19 21:47	5
2,4,5-Trichlorophenol	ND		1000	280	ug/Kg	☼	10/31/19 06:28	11/03/19 21:47	5
2,4,6-Trichlorophenol	ND		1000	200	ug/Kg	☼	10/31/19 06:28	11/03/19 21:47	5
2,4-Dichlorophenol	ND		1000	110	ug/Kg	☼	10/31/19 06:28	11/03/19 21:47	5
2,4-Dimethylphenol	ND		1000	250	ug/Kg	☼	10/31/19 06:28	11/03/19 21:47	5
2,4-Dinitrophenol	ND		10000	4700	ug/Kg	☼	10/31/19 06:28	11/03/19 21:47	5
2,4-Dinitrotoluene	ND		1000	210	ug/Kg	☼	10/31/19 06:28	11/03/19 21:47	5
2,6-Dinitrotoluene	ND		1000	120	ug/Kg	☼	10/31/19 06:28	11/03/19 21:47	5
2-Chloronaphthalene	ND		1000	170	ug/Kg	☼	10/31/19 06:28	11/03/19 21:47	5
2-Chlorophenol	ND		1000	190	ug/Kg	☼	10/31/19 06:28	11/03/19 21:47	5
2-Methylphenol	ND		1000	120	ug/Kg	☼	10/31/19 06:28	11/03/19 21:47	5
2-Methylnaphthalene	**200**	**J**	1000	200	ug/Kg	☼	10/31/19 06:28	11/03/19 21:47	5
2-Nitroaniline	ND		2000	150	ug/Kg	☼	10/31/19 06:28	11/03/19 21:47	5
2-Nitrophenol	ND		1000	290	ug/Kg	☼	10/31/19 06:28	11/03/19 21:47	5
3,3'-Dichlorobenzidine	ND		2000	1200	ug/Kg	☼	10/31/19 06:28	11/03/19 21:47	5
3-Nitroaniline	ND		2000	280	ug/Kg	☼	10/31/19 06:28	11/03/19 21:47	5
4,6-Dinitro-2-methylphenol	ND		2000	1000	ug/Kg	☼	10/31/19 06:28	11/03/19 21:47	5
4-Bromophenyl phenyl ether	ND		1000	140	ug/Kg	☼	10/31/19 06:28	11/03/19 21:47	5
4-Chloro-3-methylphenol	ND		1000	250	ug/Kg	☼	10/31/19 06:28	11/03/19 21:47	5

Client Sample ID: SB-5
Lab Sample ID: 480-161635-7
Date Collected: 10/25/19 13:00
Matrix: Solid
Date Received: 10/26/19 08:00
Percent Solids: 81.8

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chloroaniline	ND		1000	250	ug/Kg	☼	10/31/19 06:28	11/03/19 21:47	5
4-Chlorophenyl phenyl ether	ND		1000	130	ug/Kg	☼	10/31/19 06:28	11/03/19 21:47	5
4-Methylphenol	ND		2000	120	ug/Kg	☼	10/31/19 06:28	11/03/19 21:47	5
4-Nitroaniline	ND		2000	530	ug/Kg	☼	10/31/19 06:28	11/03/19 21:47	5
4-Nitrophenol	ND		2000	710	ug/Kg	☼	10/31/19 06:28	11/03/19 21:47	5
Acenaphthene	**520**	**J**	1000	150	ug/Kg	☼	10/31/19 06:28	11/03/19 21:47	5
Acenaphthylene	**210**	**J**	1000	130	ug/Kg	☼	10/31/19 06:28	11/03/19 21:47	5
Acetophenone	ND		1000	140	ug/Kg	☼	10/31/19 06:28	11/03/19 21:47	5
Anthracene	**1200**		1000	250	ug/Kg	☼	10/31/19 06:28	11/03/19 21:47	5
Atrazine	ND		1000	350	ug/Kg	☼	10/31/19 06:28	11/03/19 21:47	5
Benzaldehyde	ND		1000	810	ug/Kg	☼	10/31/19 06:28	11/03/19 21:47	5
Benzo[a]anthracene	**2300**		1000	100	ug/Kg	☼	10/31/19 06:28	11/03/19 21:47	5
Benzo[a]pyrene	**1900**		1000	150	ug/Kg	☼	10/31/19 06:28	11/03/19 21:47	5
Benzo[b]fluoranthene	**2100**		1000	160	ug/Kg	☼	10/31/19 06:28	11/03/19 21:47	5
Benzo[g,h,i]perylene	**1000**		1000	110	ug/Kg	☼	10/31/19 06:28	11/03/19 21:47	5
Benzo[k]fluoranthene	**1200**		1000	130	ug/Kg	☼	10/31/19 06:28	11/03/19 21:47	5
Bis(2-chloroethoxy)methane	ND		1000	220	ug/Kg	☼	10/31/19 06:28	11/03/19 21:47	5
Bis(2-chloroethyl)ether	ND		1000	130	ug/Kg	☼	10/31/19 06:28	11/03/19 21:47	5
Bis(2-ethylhexyl) phthalate	ND		1000	350	ug/Kg	☼	10/31/19 06:28	11/03/19 21:47	5
Butyl benzyl phthalate	ND		1000	170	ug/Kg	☼	10/31/19 06:28	11/03/19 21:47	5
Caprolactam	ND		1000	310	ug/Kg	☼	10/31/19 06:28	11/03/19 21:47	5
Carbazole	**560**	**J**	1000	120	ug/Kg	☼	10/31/19 06:28	11/03/19 21:47	5
Chrysene	**2200**		1000	230	ug/Kg	☼	10/31/19 06:28	11/03/19 21:47	5
Dibenz(a,h)anthracene	**290**	**J**	1000	180	ug/Kg	☼	10/31/19 06:28	11/03/19 21:47	5
Di-n-butyl phthalate	ND		1000	170	ug/Kg	☼	10/31/19 06:28	11/03/19 21:47	5
Di-n-octyl phthalate	ND		1000	120	ug/Kg	☼	10/31/19 06:28	11/03/19 21:47	5
Dibenzofuran	**430**	**J**	1000	120	ug/Kg	☼	10/31/19 06:28	11/03/19 21:47	5
Diethyl phthalate	ND		1000	130	ug/Kg	☼	10/31/19 06:28	11/03/19 21:47	5
Dimethyl phthalate	ND		1000	120	ug/Kg	☼	10/31/19 06:28	11/03/19 21:47	5
Fluoranthene	**5100**		1000	110	ug/Kg	☼	10/31/19 06:28	11/03/19 21:47	5
Fluorene	**690**	**J**	1000	120	ug/Kg	☼	10/31/19 06:28	11/03/19 21:47	5
Hexachlorobenzene	ND		1000	140	ug/Kg	☼	10/31/19 06:28	11/03/19 21:47	5
Hexachlorobutadiene	ND		1000	150	ug/Kg	☼	10/31/19 06:28	11/03/19 21:47	5
Hexachlorocyclopentadiene	ND		1000	140	ug/Kg	☼	10/31/19 06:28	11/03/19 21:47	5
Hexachloroethane	ND		1000	130	ug/Kg	☼	10/31/19 06:28	11/03/19 21:47	5
Indeno[1,2,3-cd]pyrene	**970**	**J**	1000	130	ug/Kg	☼	10/31/19 06:28	11/03/19 21:47	5
Isophorone	ND		1000	220	ug/Kg	☼	10/31/19 06:28	11/03/19 21:47	5
N-Nitrosodi-n-propylamine	ND		1000	170	ug/Kg	☼	10/31/19 06:28	11/03/19 21:47	5
N-Nitrosodiphenylamine	ND		1000	830	ug/Kg	☼	10/31/19 06:28	11/03/19 21:47	5
Naphthalene	**530**	**J**	1000	130	ug/Kg	☼	10/31/19 06:28	11/03/19 21:47	5
Nitrobenzene	ND		1000	110	ug/Kg	☼	10/31/19 06:28	11/03/19 21:47	5
Pentachlorophenol	ND		2000	1000	ug/Kg	☼	10/31/19 06:28	11/03/19 21:47	5
Phenanthrene	**4700**		1000	150	ug/Kg	☼	10/31/19 06:28	11/03/19 21:47	5
Phenol	ND		1000	160	ug/Kg	☼	10/31/19 06:28	11/03/19 21:47	5
Pyrene	**4000**		1000	120	ug/Kg	☼	10/31/19 06:28	11/03/19 21:47	5
1,4-Dioxane	ND		1200	330	ug/Kg	☼	10/31/19 06:28	11/03/19 21:47	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*85*		*53 - 120*	*10/31/19 06:28*	*11/03/19 21:47*	*5*
Phenol-d5 (Surr)	*89*		*54 - 120*	*10/31/19 06:28*	*11/03/19 21:47*	*5*

Client Sample ID: SB-5
Date Collected: 10/25/19 13:00
Date Received: 10/26/19 08:00

Lab Sample ID: 480-161635-7
Matrix: Solid
Percent Solids: 81.8

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
p-Terphenyl-d14 (Surr)	*109*		*79 - 130*	*10/31/19 06:28*	*11/03/19 21:47*	*5*
2,4,6-Tribromophenol (Surr)	*93*		*54 - 120*	*10/31/19 06:28*	*11/03/19 21:47*	*5*
2-Fluorobiphenyl	*96*		*60 - 120*	*10/31/19 06:28*	*11/03/19 21:47*	*5*
2-Fluorophenol (Surr)	*86*		*52 - 120*	*10/31/19 06:28*	*11/03/19 21:47*	*5*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		250	49	ug/Kg	☼	10/28/19 15:29	10/29/19 18:25	1
PCB-1221	ND		250	49	ug/Kg	☼	10/28/19 15:29	10/29/19 18:25	1
PCB-1232	ND		250	49	ug/Kg	☼	10/28/19 15:29	10/29/19 18:25	1
PCB-1242	ND		250	49	ug/Kg	☼	10/28/19 15:29	10/29/19 18:25	1
PCB-1248	ND		250	49	ug/Kg	☼	10/28/19 15:29	10/29/19 18:25	1
PCB-1254	ND		250	120	ug/Kg	☼	10/28/19 15:29	10/29/19 18:25	1
PCB-1260	ND		250	120	ug/Kg	☼	10/28/19 15:29	10/29/19 18:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	*103*		*60 - 154*	*10/28/19 15:29*	*10/29/19 18:25*	*1*
DCB Decachlorobiphenyl	*104*		*65 - 174*	*10/28/19 15:29*	*10/29/19 18:25*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**15300**		12.5	5.5	mg/Kg	☼	10/30/19 06:13	11/02/19 20:31	1
Antimony	ND		18.8	0.50	mg/Kg	☼	10/30/19 06:13	11/02/19 20:31	1
Arsenic	**8.3**		2.5	0.50	mg/Kg	☼	10/30/19 06:13	11/02/19 20:31	1
Barium	**170**		0.63	0.14	mg/Kg	☼	10/30/19 06:13	11/02/19 20:31	1
Beryllium	**0.75**		0.25	0.035	mg/Kg	☼	10/30/19 06:13	11/02/19 20:31	1
Cadmium	ND		0.25	0.038	mg/Kg	☼	10/30/19 06:13	11/02/19 20:31	1
Calcium	**25200**	**B**	62.6	4.1	mg/Kg	☼	10/30/19 06:13	11/02/19 20:31	1
Chromium	**23.4**		0.63	0.25	mg/Kg	☼	10/30/19 06:13	11/02/19 20:31	1
Cobalt	**6.5**		0.63	0.063	mg/Kg	☼	10/30/19 06:13	11/02/19 20:31	1
Copper	**2.0**		1.3	0.26	mg/Kg	☼	10/30/19 06:13	11/02/19 20:31	1
Iron	**33000**		12.5	4.4	mg/Kg	☼	10/30/19 06:13	11/02/19 20:31	1
Lead	**9.2**		1.3	0.30	mg/Kg	☼	10/30/19 06:13	11/02/19 20:31	1
Magnesium	**15800**		25.1	1.2	mg/Kg	☼	10/30/19 06:13	11/02/19 20:31	1
Manganese	**427**		0.25	0.040	mg/Kg	☼	10/30/19 06:13	11/02/19 20:31	1
Nickel	**26.4**		6.3	0.29	mg/Kg	☼	10/30/19 06:13	11/02/19 20:31	1
Potassium	**7580**		37.6	25.1	mg/Kg	☼	10/30/19 06:13	11/02/19 20:31	1
Selenium	ND		5.0	0.50	mg/Kg	☼	10/30/19 06:13	11/02/19 20:31	1
Silver	ND		0.75	0.25	mg/Kg	☼	10/30/19 06:13	11/02/19 20:31	1
Sodium	**157**	**J**	175	16.3	mg/Kg	☼	10/30/19 06:13	11/02/19 20:31	1
Thallium	ND		7.5	0.38	mg/Kg	☼	10/30/19 06:13	11/02/19 20:31	1
Vanadium	**26.3**		0.63	0.14	mg/Kg	☼	10/30/19 06:13	11/02/19 20:31	1
Zinc	**31.7**		2.5	0.80	mg/Kg	☼	10/30/19 06:13	11/02/19 20:31	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.021**	**J**	0.024	0.0099	mg/Kg	☼	11/07/19 16:25	11/07/19 18:51	1

Surrogate Summary

Client: GHD Services Inc.
Project/Site: 11123680/203 - 160 Center Street Phase I

Job ID: 480-161635-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		TOL	DCA	BFB	DBFM
Lab Sample ID	Client Sample ID	(71-125)	(64-126)	(72-126)	(60-140)
480-161635-5	SB-1	101	116	98	111
480-161635-6	SB-3	101	114	100	110
480-161635-7	SB-5	100	120	103	112
LCS 480-500912/1-A	Lab Control Sample	101	101	100	108
MB 480-500912/2-A	Method Blank	99	113	97	111

Surrogate Legend

TOL = Toluene-d8 (Surr)
DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		TOL	DCA	BFB	DBFM
Lab Sample ID	Client Sample ID	(80-120)	(77-120)	(73-120)	(75-123)
480-161635-1	TW-1	100	100	102	99
480-161635-2	TW-2	101	100	100	100
480-161635-3	TW-3	102	99	101	102
480-161635-4	TRIP BLANK	100	100	103	99
LCS 480-502370/5	Lab Control Sample	99	98	100	99
MB 480-502370/7	Method Blank	99	99	102	99

Surrogate Legend

TOL = Toluene-d8 (Surr)
DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		NBZ	PHL	TPHd14	TBP	FBP	2FP
Lab Sample ID	Client Sample ID	(53-120)	(54-120)	(79-130)	(54-120)	(60-120)	(52-120)
480-161635-5	SB-1	89	91	119	100	102	86
480-161635-6	SB-3	82	84	107	87	91	78
480-161635-7	SB-5	85	89	109	93	96	86
LCS 480-501359/2-A	Lab Control Sample	86	83	109	103	94	77
MB 480-501359/1-A	Method Blank	91	93	120	98	100	89

Surrogate Legend

NBZ = Nitrobenzene-d5 (Surr)
PHL = Phenol-d5 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)
TBP = 2,4,6-Tribromophenol (Surr)
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol (Surr)

Surrogate Summary

Client: GHD Services Inc. Job ID: 480-161635-1
Project/Site: 11123680/203 - 160 Center Street Phase I

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
Lab Sample ID	Client Sample ID	NBZ (46-120)	PHL (22-120)	TPHd14 (60-148)	TBP (41-120)	FBP (48-120)	2FP (35-120)
480-161635-1	TW-1	100	52	126	94	117	72
480-161635-2	TW-2	97	53	82	96	118	72
480-161635-3	TW-3	86	57	82	78	104	69
LCS 480-501014/2-A	Lab Control Sample	100	57	126	105	108	71
MB 480-501014/1-A	Method Blank	92	50	126	88	110	63

Surrogate Legend

NBZ = Nitrobenzene-d5 (Surr)
PHL = Phenol-d5 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)
TBP = 2,4,6-Tribromophenol (Surr)
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol (Surr)

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	TCX1 (60-154)	DCBP1 (65-174)
480-161635-5	SB-1	102	105
480-161635-6	SB-3	104	112
480-161635-7	SB-5	103	104
LCS 480-500763/2-A	Lab Control Sample	113	135
MB 480-500763/1-A	Method Blank	110	123

Surrogate Legend

TCX = Tetrachloro-m-xylene
DCBP = DCB Decachlorobiphenyl

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	TCX2 (39-121)	DCBP2 (19-120)
480-161635-1	TW-1	69	26
480-161635-2	TW-2	54	22
480-161635-3	TW-3	47	21
LCS 480-501652/2-A	Lab Control Sample	65	31
LCSD 480-501652/3-A	Lab Control Sample Dup	66	31
MB 480-501652/1-A	Method Blank	62	34

Surrogate Legend

TCX = Tetrachloro-m-xylene
DCBP = DCB Decachlorobiphenyl

Isotope Dilution Summary

Client: GHD Services Inc.
Job ID: 480-161635-1
Project/Site: 11123680/203 - 160 Center Street Phase I

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Matrix: Water
Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)
Lab Sample ID	**Client Sample ID**	**DXE (15-110)**
480-161635-1	TW-1	27
480-161635-2	TW-2	28
480-161635-3	TW-3	25
LCS 480-501114/2-A	Lab Control Sample	28
LCSD 480-501114/3-A	Lab Control Sample Dup	29
MB 480-501114/1-A	Method Blank	27

Surrogate Legend

DXE = 1,4-Dioxane-d8

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 480-500912/2-A
Matrix: Solid
Analysis Batch: 500853

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 500912

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.36	ug/Kg		10/29/19 09:30	10/29/19 11:24	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.81	ug/Kg		10/29/19 09:30	10/29/19 11:24	1
1,1,2-Trichloroethane	ND		5.0	0.65	ug/Kg		10/29/19 09:30	10/29/19 11:24	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	1.1	ug/Kg		10/29/19 09:30	10/29/19 11:24	1
1,1-Dichloroethane	ND		5.0	0.61	ug/Kg		10/29/19 09:30	10/29/19 11:24	1
1,1-Dichloroethene	ND		5.0	0.61	ug/Kg		10/29/19 09:30	10/29/19 11:24	1
1,2,4-Trichlorobenzene	ND		5.0	0.30	ug/Kg		10/29/19 09:30	10/29/19 11:24	1
1,2-Dibromo-3-Chloropropane	ND		5.0	2.5	ug/Kg		10/29/19 09:30	10/29/19 11:24	1
1,2-Dichlorobenzene	ND		5.0	0.39	ug/Kg		10/29/19 09:30	10/29/19 11:24	1
1,2-Dichloroethane	ND		5.0	0.25	ug/Kg		10/29/19 09:30	10/29/19 11:24	1
1,2-Dichloropropane	ND		5.0	2.5	ug/Kg		10/29/19 09:30	10/29/19 11:24	1
1,3-Dichlorobenzene	ND		5.0	0.26	ug/Kg		10/29/19 09:30	10/29/19 11:24	1
1,4-Dichlorobenzene	ND		5.0	0.70	ug/Kg		10/29/19 09:30	10/29/19 11:24	1
2-Butanone (MEK)	ND		25	1.8	ug/Kg		10/29/19 09:30	10/29/19 11:24	1
2-Hexanone	ND		25	2.5	ug/Kg		10/29/19 09:30	10/29/19 11:24	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.6	ug/Kg		10/29/19 09:30	10/29/19 11:24	1
Acetone	ND		25	4.2	ug/Kg		10/29/19 09:30	10/29/19 11:24	1
Benzene	ND		5.0	0.25	ug/Kg		10/29/19 09:30	10/29/19 11:24	1
Bromodichloromethane	ND		5.0	0.67	ug/Kg		10/29/19 09:30	10/29/19 11:24	1
Bromoform	ND		5.0	2.5	ug/Kg		10/29/19 09:30	10/29/19 11:24	1
Bromomethane	ND		5.0	0.45	ug/Kg		10/29/19 09:30	10/29/19 11:24	1
Carbon disulfide	ND		5.0	2.5	ug/Kg		10/29/19 09:30	10/29/19 11:24	1
Carbon tetrachloride	ND		5.0	0.48	ug/Kg		10/29/19 09:30	10/29/19 11:24	1
Chlorobenzene	ND		5.0	0.66	ug/Kg		10/29/19 09:30	10/29/19 11:24	1
Dibromochloromethane	ND		5.0	0.64	ug/Kg		10/29/19 09:30	10/29/19 11:24	1
Chloroethane	ND		5.0	1.1	ug/Kg		10/29/19 09:30	10/29/19 11:24	1
Chloroform	ND		5.0	0.31	ug/Kg		10/29/19 09:30	10/29/19 11:24	1
Chloromethane	ND		5.0	0.30	ug/Kg		10/29/19 09:30	10/29/19 11:24	1
cis-1,2-Dichloroethene	ND		5.0	0.64	ug/Kg		10/29/19 09:30	10/29/19 11:24	1
cis-1,3-Dichloropropene	ND		5.0	0.72	ug/Kg		10/29/19 09:30	10/29/19 11:24	1
Cyclohexane	ND		5.0	0.70	ug/Kg		10/29/19 09:30	10/29/19 11:24	1
Dichlorodifluoromethane	ND		5.0	0.41	ug/Kg		10/29/19 09:30	10/29/19 11:24	1
Ethylbenzene	ND		5.0	0.35	ug/Kg		10/29/19 09:30	10/29/19 11:24	1
1,2-Dibromoethane	ND		5.0	0.64	ug/Kg		10/29/19 09:30	10/29/19 11:24	1
Isopropylbenzene	ND		5.0	0.75	ug/Kg		10/29/19 09:30	10/29/19 11:24	1
Methyl acetate	ND		25	3.0	ug/Kg		10/29/19 09:30	10/29/19 11:24	1
Methyl tert-butyl ether	ND		5.0	0.49	ug/Kg		10/29/19 09:30	10/29/19 11:24	1
Methylcyclohexane	ND		5.0	0.76	ug/Kg		10/29/19 09:30	10/29/19 11:24	1
Methylene Chloride	2.38	J	5.0	2.3	ug/Kg		10/29/19 09:30	10/29/19 11:24	1
Styrene	ND		5.0	0.25	ug/Kg		10/29/19 09:30	10/29/19 11:24	1
Tetrachloroethene	ND		5.0	0.67	ug/Kg		10/29/19 09:30	10/29/19 11:24	1
Toluene	ND		5.0	0.38	ug/Kg		10/29/19 09:30	10/29/19 11:24	1
trans-1,2-Dichloroethene	ND		5.0	0.52	ug/Kg		10/29/19 09:30	10/29/19 11:24	1
trans-1,3-Dichloropropene	ND		5.0	2.2	ug/Kg		10/29/19 09:30	10/29/19 11:24	1
Trichloroethene	ND		5.0	1.1	ug/Kg		10/29/19 09:30	10/29/19 11:24	1
Trichlorofluoromethane	ND		5.0	0.47	ug/Kg		10/29/19 09:30	10/29/19 11:24	1
Vinyl chloride	ND		5.0	0.61	ug/Kg		10/29/19 09:30	10/29/19 11:24	1
Xylenes, Total	ND		10	0.84	ug/Kg		10/29/19 09:30	10/29/19 11:24	1

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

Lab Sample ID: MB 480-500912/2-A
Matrix: Solid
Analysis Batch: 500853

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 500912

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	*99*		*71 - 125*	*10/29/19 09:30*	*10/29/19 11:24*	*1*
1,2-Dichloroethane-d4 (Surr)	*113*		*64 - 126*	*10/29/19 09:30*	*10/29/19 11:24*	*1*
4-Bromofluorobenzene (Surr)	*97*		*72 - 126*	*10/29/19 09:30*	*10/29/19 11:24*	*1*
Dibromofluoromethane (Surr)	*111*		*60 - 140*	*10/29/19 09:30*	*10/29/19 11:24*	*1*

Lab Sample ID: LCS 480-500912/1-A
Matrix: Solid
Analysis Batch: 500853

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 500912

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	50.0	52.9		ug/Kg		106	77 - 121
1,1,2,2-Tetrachloroethane	50.0	50.0		ug/Kg		100	80 - 120
1,1,2-Trichloroethane	50.0	50.1		ug/Kg		100	78 - 122
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	54.7		ug/Kg		109	60 - 140
1,1-Dichloroethane	50.0	50.4		ug/Kg		101	73 - 126
1,1-Dichloroethene	50.0	53.0		ug/Kg		106	59 - 125
1,2,4-Trichlorobenzene	50.0	45.9		ug/Kg		92	64 - 120
1,2-Dibromo-3-Chloropropane	50.0	51.3		ug/Kg		103	63 - 124
1,2-Dichlorobenzene	50.0	47.5		ug/Kg		95	75 - 120
1,2-Dichloroethane	50.0	49.5		ug/Kg		99	77 - 122
1,2-Dichloropropane	50.0	49.5		ug/Kg		99	75 - 124
1,3-Dichlorobenzene	50.0	48.7		ug/Kg		97	74 - 120
1,4-Dichlorobenzene	50.0	48.7		ug/Kg		97	73 - 120
2-Butanone (MEK)	250	269		ug/Kg		108	70 - 134
2-Hexanone	250	273		ug/Kg		109	59 - 130
4-Methyl-2-pentanone (MIBK)	250	254		ug/Kg		102	65 - 133
Acetone	250	262		ug/Kg		105	61 - 137
Benzene	50.0	51.1		ug/Kg		102	79 - 127
Bromodichloromethane	50.0	57.2		ug/Kg		114	80 - 122
Bromoform	50.0	64.1	*	ug/Kg		128	68 - 126
Bromomethane	50.0	44.7		ug/Kg		89	37 - 149
Carbon disulfide	50.0	51.2		ug/Kg		102	64 - 131
Carbon tetrachloride	50.0	57.5		ug/Kg		115	75 - 135
Chlorobenzene	50.0	49.9		ug/Kg		100	76 - 124
Dibromochloromethane	50.0	61.1		ug/Kg		122	76 - 125
Chloroethane	50.0	45.6		ug/Kg		91	69 - 135
Chloroform	50.0	51.3		ug/Kg		103	80 - 120
Chloromethane	50.0	44.6		ug/Kg		89	63 - 127
cis-1,2-Dichloroethene	50.0	51.9		ug/Kg		104	81 - 120
cis-1,3-Dichloropropene	50.0	54.3		ug/Kg		109	80 - 120
Cyclohexane	50.0	50.9		ug/Kg		102	65 - 120
Dichlorodifluoromethane	50.0	48.5		ug/Kg		97	57 - 142
Ethylbenzene	50.0	50.0		ug/Kg		100	80 - 120
1,2-Dibromoethane	50.0	51.1		ug/Kg		102	78 - 120
Isopropylbenzene	50.0	48.1		ug/Kg		96	72 - 120
Methyl acetate	100	104		ug/Kg		104	55 - 136
Methyl tert-butyl ether	50.0	51.7		ug/Kg		103	63 - 125
Methylcyclohexane	50.0	53.1		ug/Kg		106	60 - 140

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

Lab Sample ID: LCS 480-500912/1-A
Matrix: Solid
Analysis Batch: 500853

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 500912

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methylene Chloride	50.0	50.2		ug/Kg		100	61 - 127
Styrene	50.0	49.5		ug/Kg		99	80 - 120
Tetrachloroethene	50.0	50.6		ug/Kg		101	74 - 122
Toluene	50.0	49.5		ug/Kg		99	74 - 128
trans-1,2-Dichloroethene	50.0	53.1		ug/Kg		106	78 - 126
trans-1,3-Dichloropropene	50.0	53.9		ug/Kg		108	73 - 123
Trichloroethene	50.0	50.5		ug/Kg		101	77 - 129
Trichlorofluoromethane	50.0	49.6		ug/Kg		99	65 - 146
Vinyl chloride	50.0	45.2		ug/Kg		90	61 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*101*		*71 - 125*
1,2-Dichloroethane-d4 (Surr)	*101*		*64 - 126*
4-Bromofluorobenzene (Surr)	*100*		*72 - 126*
Dibromofluoromethane (Surr)	*108*		*60 - 140*

Lab Sample ID: MB 480-502370/7
Matrix: Water
Analysis Batch: 502370

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/05/19 14:18	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/05/19 14:18	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/05/19 14:18	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/05/19 14:18	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			11/05/19 14:18	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/05/19 14:18	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/05/19 14:18	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/05/19 14:18	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/05/19 14:18	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/05/19 14:18	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/05/19 14:18	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/05/19 14:18	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/05/19 14:18	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/05/19 14:18	1
2-Hexanone	ND		5.0	1.2	ug/L			11/05/19 14:18	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			11/05/19 14:18	1
Acetone	ND		10	3.0	ug/L			11/05/19 14:18	1
Benzene	ND		1.0	0.41	ug/L			11/05/19 14:18	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/05/19 14:18	1
Bromoform	ND		1.0	0.26	ug/L			11/05/19 14:18	1
Bromomethane	ND		1.0	0.69	ug/L			11/05/19 14:18	1
Carbon disulfide	ND		1.0	0.19	ug/L			11/05/19 14:18	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/05/19 14:18	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/05/19 14:18	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/05/19 14:18	1
Chloroethane	ND		1.0	0.32	ug/L			11/05/19 14:18	1
Chloroform	ND		1.0	0.34	ug/L			11/05/19 14:18	1

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

Lab Sample ID: MB 480-502370/7
Matrix: Water
Analysis Batch: 502370

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		1.0	0.35	ug/L			11/05/19 14:18	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			11/05/19 14:18	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/05/19 14:18	1
Cyclohexane	ND		1.0	0.18	ug/L			11/05/19 14:18	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/05/19 14:18	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/05/19 14:18	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			11/05/19 14:18	1
Isopropylbenzene	ND		1.0	0.79	ug/L			11/05/19 14:18	1
Methyl acetate	ND		2.5	1.3	ug/L			11/05/19 14:18	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/05/19 14:18	1
Methylcyclohexane	ND		1.0	0.16	ug/L			11/05/19 14:18	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/05/19 14:18	1
Styrene	ND		1.0	0.73	ug/L			11/05/19 14:18	1
Tetrachloroethene	ND		1.0	0.36	ug/L			11/05/19 14:18	1
Toluene	ND		1.0	0.51	ug/L			11/05/19 14:18	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/05/19 14:18	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/05/19 14:18	1
Trichloroethene	ND		1.0	0.46	ug/L			11/05/19 14:18	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/05/19 14:18	1
Vinyl chloride	ND		1.0	0.90	ug/L			11/05/19 14:18	1
Xylenes, Total	ND		2.0	0.66	ug/L			11/05/19 14:18	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*99*		*80 - 120*		*11/05/19 14:18*	*1*
1,2-Dichloroethane-d4 (Surr)	*99*		*77 - 120*		*11/05/19 14:18*	*1*
4-Bromofluorobenzene (Surr)	*102*		*73 - 120*		*11/05/19 14:18*	*1*
Dibromofluoromethane (Surr)	*99*		*75 - 123*		*11/05/19 14:18*	*1*

Lab Sample ID: LCS 480-502370/5
Matrix: Water
Analysis Batch: 502370

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	25.0	25.0		ug/L		100	73 - 126
1,1,2,2-Tetrachloroethane	25.0	25.6		ug/L		103	76 - 120
1,1,2-Trichloroethane	25.0	25.2		ug/L		101	76 - 122
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	25.5		ug/L		102	61 - 148
1,1-Dichloroethane	25.0	23.8		ug/L		95	77 - 120
1,1-Dichloroethene	25.0	25.4		ug/L		102	66 - 127
1,2,4-Trichlorobenzene	25.0	26.3		ug/L		105	79 - 122
1,2-Dibromo-3-Chloropropane	25.0	26.2		ug/L		105	56 - 134
1,2-Dichlorobenzene	25.0	24.7		ug/L		99	80 - 124
1,2-Dichloroethane	25.0	23.4		ug/L		94	75 - 120
1,2-Dichloropropane	25.0	25.1		ug/L		100	76 - 120
1,3-Dichlorobenzene	25.0	24.5		ug/L		98	77 - 120
1,4-Dichlorobenzene	25.0	24.3		ug/L		97	80 - 120
2-Butanone (MEK)	125	132		ug/L		106	57 - 140
2-Hexanone	125	129		ug/L		103	65 - 127

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

Lab Sample ID: LCS 480-502370/5
Matrix: Water
Analysis Batch: 502370

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4-Methyl-2-pentanone (MIBK)	125	122		ug/L		97	71 - 125
Acetone	125	130		ug/L		104	56 - 142
Benzene	25.0	24.6		ug/L		99	71 - 124
Bromodichloromethane	25.0	25.9		ug/L		104	80 - 122
Bromoform	25.0	29.5		ug/L		118	61 - 132
Bromomethane	25.0	22.5		ug/L		90	55 - 144
Carbon disulfide	25.0	25.1		ug/L		100	59 - 134
Carbon tetrachloride	25.0	26.3		ug/L		105	72 - 134
Chlorobenzene	25.0	24.8		ug/L		99	80 - 120
Dibromochloromethane	25.0	26.8		ug/L		107	75 - 125
Chloroethane	25.0	23.0		ug/L		92	69 - 136
Chloroform	25.0	25.7		ug/L		103	73 - 127
Chloromethane	25.0	21.4		ug/L		86	68 - 124
cis-1,2-Dichloroethene	25.0	24.7		ug/L		99	74 - 124
cis-1,3-Dichloropropene	25.0	27.8		ug/L		111	74 - 124
Cyclohexane	25.0	25.2		ug/L		101	59 - 135
Dichlorodifluoromethane	25.0	25.4		ug/L		102	59 - 135
Ethylbenzene	25.0	24.4		ug/L		98	77 - 123
1,2-Dibromoethane	25.0	26.4		ug/L		105	77 - 120
Isopropylbenzene	25.0	26.6		ug/L		107	77 - 122
Methyl acetate	50.0	47.0		ug/L		94	74 - 133
Methyl tert-butyl ether	25.0	25.5		ug/L		102	77 - 120
Methylcyclohexane	25.0	27.2		ug/L		109	68 - 134
Methylene Chloride	25.0	26.0		ug/L		104	75 - 124
Styrene	25.0	25.3		ug/L		101	80 - 120
Tetrachloroethene	25.0	25.3		ug/L		101	74 - 122
Toluene	25.0	24.6		ug/L		99	80 - 122
trans-1,2-Dichloroethene	25.0	24.4		ug/L		98	73 - 127
trans-1,3-Dichloropropene	25.0	28.0		ug/L		112	80 - 120
Trichloroethene	25.0	25.5		ug/L		102	74 - 123
Trichlorofluoromethane	25.0	24.5		ug/L		98	62 - 150
Vinyl chloride	25.0	24.1		ug/L		97	65 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*99*		*80 - 120*
1,2-Dichloroethane-d4 (Surr)	*98*		*77 - 120*
4-Bromofluorobenzene (Surr)	*100*		*73 - 120*
Dibromofluoromethane (Surr)	*99*		*75 - 123*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-501014/1-A
Matrix: Water
Analysis Batch: 501279

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 501014

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		5.0	0.65	ug/L		10/29/19 15:34	10/30/19 17:24	1
bis (2-chloroisopropyl) ether	ND		5.0	0.52	ug/L		10/29/19 15:34	10/30/19 17:24	1
2,4,5-Trichlorophenol	ND		5.0	0.48	ug/L		10/29/19 15:34	10/30/19 17:24	1

Client: GHD Services Inc.
Job ID: 480-161635-1
Project/Site: 11123680/203 - 160 Center Street Phase I

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-501014/1-A
Matrix: Water
Analysis Batch: 501279

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 501014

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,6-Trichlorophenol	ND		5.0	0.61	ug/L		10/29/19 15:34	10/30/19 17:24	1
2,4-Dichlorophenol	ND		5.0	0.51	ug/L		10/29/19 15:34	10/30/19 17:24	1
2,4-Dimethylphenol	ND		5.0	0.50	ug/L		10/29/19 15:34	10/30/19 17:24	1
2,4-Dinitrophenol	ND		10	2.2	ug/L		10/29/19 15:34	10/30/19 17:24	1
2,4-Dinitrotoluene	ND		5.0	0.45	ug/L		10/29/19 15:34	10/30/19 17:24	1
2,6-Dinitrotoluene	ND		5.0	0.40	ug/L		10/29/19 15:34	10/30/19 17:24	1
2-Chloronaphthalene	ND		5.0	0.46	ug/L		10/29/19 15:34	10/30/19 17:24	1
2-Chlorophenol	ND		5.0	0.53	ug/L		10/29/19 15:34	10/30/19 17:24	1
2-Methylphenol	ND		5.0	0.40	ug/L		10/29/19 15:34	10/30/19 17:24	1
2-Methylnaphthalene	ND		5.0	0.60	ug/L		10/29/19 15:34	10/30/19 17:24	1
2-Nitroaniline	ND		10	0.42	ug/L		10/29/19 15:34	10/30/19 17:24	1
2-Nitrophenol	ND		5.0	0.48	ug/L		10/29/19 15:34	10/30/19 17:24	1
3,3'-Dichlorobenzidine	ND		5.0	0.40	ug/L		10/29/19 15:34	10/30/19 17:24	1
3-Nitroaniline	ND		10	0.48	ug/L		10/29/19 15:34	10/30/19 17:24	1
4,6-Dinitro-2-methylphenol	ND		10	2.2	ug/L		10/29/19 15:34	10/30/19 17:24	1
4-Bromophenyl phenyl ether	ND		5.0	0.45	ug/L		10/29/19 15:34	10/30/19 17:24	1
4-Chloro-3-methylphenol	ND		5.0	0.45	ug/L		10/29/19 15:34	10/30/19 17:24	1
4-Chloroaniline	ND		5.0	0.59	ug/L		10/29/19 15:34	10/30/19 17:24	1
4-Chlorophenyl phenyl ether	ND		5.0	0.35	ug/L		10/29/19 15:34	10/30/19 17:24	1
4-Methylphenol	ND		10	0.36	ug/L		10/29/19 15:34	10/30/19 17:24	1
4-Nitroaniline	ND		10	0.25	ug/L		10/29/19 15:34	10/30/19 17:24	1
4-Nitrophenol	ND		10	1.5	ug/L		10/29/19 15:34	10/30/19 17:24	1
Acenaphthene	ND		5.0	0.41	ug/L		10/29/19 15:34	10/30/19 17:24	1
Acenaphthylene	ND		5.0	0.38	ug/L		10/29/19 15:34	10/30/19 17:24	1
Acetophenone	ND		5.0	0.54	ug/L		10/29/19 15:34	10/30/19 17:24	1
Anthracene	ND		5.0	0.28	ug/L		10/29/19 15:34	10/30/19 17:24	1
Atrazine	ND		5.0	0.46	ug/L		10/29/19 15:34	10/30/19 17:24	1
Benzaldehyde	ND		5.0	0.27	ug/L		10/29/19 15:34	10/30/19 17:24	1
Benzo[a]anthracene	ND		5.0	0.36	ug/L		10/29/19 15:34	10/30/19 17:24	1
Benzo[a]pyrene	ND		5.0	0.47	ug/L		10/29/19 15:34	10/30/19 17:24	1
Benzo[b]fluoranthene	ND		5.0	0.34	ug/L		10/29/19 15:34	10/30/19 17:24	1
Benzo[g,h,i]perylene	ND		5.0	0.35	ug/L		10/29/19 15:34	10/30/19 17:24	1
Benzo[k]fluoranthene	ND		5.0	0.73	ug/L		10/29/19 15:34	10/30/19 17:24	1
Bis(2-chloroethoxy)methane	ND		5.0	0.35	ug/L		10/29/19 15:34	10/30/19 17:24	1
Bis(2-chloroethyl)ether	ND		5.0	0.40	ug/L		10/29/19 15:34	10/30/19 17:24	1
Bis(2-ethylhexyl) phthalate	ND		5.0	2.2	ug/L		10/29/19 15:34	10/30/19 17:24	1
Butyl benzyl phthalate	ND		5.0	1.0	ug/L		10/29/19 15:34	10/30/19 17:24	1
Caprolactam	ND		5.0	2.2	ug/L		10/29/19 15:34	10/30/19 17:24	1
Carbazole	ND		5.0	0.30	ug/L		10/29/19 15:34	10/30/19 17:24	1
Chrysene	ND		5.0	0.33	ug/L		10/29/19 15:34	10/30/19 17:24	1
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		10/29/19 15:34	10/30/19 17:24	1
Di-n-butyl phthalate	ND		5.0	0.31	ug/L		10/29/19 15:34	10/30/19 17:24	1
Di-n-octyl phthalate	ND		5.0	0.47	ug/L		10/29/19 15:34	10/30/19 17:24	1
Dibenzofuran	ND		10	0.51	ug/L		10/29/19 15:34	10/30/19 17:24	1
Diethyl phthalate	ND		5.0	0.22	ug/L		10/29/19 15:34	10/30/19 17:24	1
Dimethyl phthalate	ND		5.0	0.36	ug/L		10/29/19 15:34	10/30/19 17:24	1
Fluoranthene	ND		5.0	0.40	ug/L		10/29/19 15:34	10/30/19 17:24	1
Fluorene	ND		5.0	0.36	ug/L		10/29/19 15:34	10/30/19 17:24	1
Hexachlorobenzene	ND		5.0	0.51	ug/L		10/29/19 15:34	10/30/19 17:24	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-501014/1-A
Matrix: Water
Analysis Batch: 501279

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 501014

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobutadiene	ND		5.0	0.68	ug/L		10/29/19 15:34	10/30/19 17:24	1
Hexachlorocyclopentadiene	ND		5.0	0.59	ug/L		10/29/19 15:34	10/30/19 17:24	1
Hexachloroethane	ND		5.0	0.59	ug/L		10/29/19 15:34	10/30/19 17:24	1
Indeno[1,2,3-cd]pyrene	ND		5.0	0.47	ug/L		10/29/19 15:34	10/30/19 17:24	1
Isophorone	ND		5.0	0.43	ug/L		10/29/19 15:34	10/30/19 17:24	1
N-Nitrosodi-n-propylamine	ND		5.0	0.54	ug/L		10/29/19 15:34	10/30/19 17:24	1
N-Nitrosodiphenylamine	ND		5.0	0.51	ug/L		10/29/19 15:34	10/30/19 17:24	1
Naphthalene	ND		5.0	0.76	ug/L		10/29/19 15:34	10/30/19 17:24	1
Nitrobenzene	ND		5.0	0.29	ug/L		10/29/19 15:34	10/30/19 17:24	1
Pentachlorophenol	ND		10	2.2	ug/L		10/29/19 15:34	10/30/19 17:24	1
Phenanthrene	ND		5.0	0.44	ug/L		10/29/19 15:34	10/30/19 17:24	1
Phenol	ND		5.0	0.39	ug/L		10/29/19 15:34	10/30/19 17:24	1
Pyrene	ND		5.0	0.34	ug/L		10/29/19 15:34	10/30/19 17:24	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*92*		*46 - 120*	*10/29/19 15:34*	*10/30/19 17:24*	*1*
Phenol-d5 (Surr)	*50*		*22 - 120*	*10/29/19 15:34*	*10/30/19 17:24*	*1*
p-Terphenyl-d14 (Surr)	*126*		*60 - 148*	*10/29/19 15:34*	*10/30/19 17:24*	*1*
2,4,6-Tribromophenol (Surr)	*88*		*41 - 120*	*10/29/19 15:34*	*10/30/19 17:24*	*1*
2-Fluorobiphenyl	*110*		*48 - 120*	*10/29/19 15:34*	*10/30/19 17:24*	*1*
2-Fluorophenol (Surr)	*63*		*35 - 120*	*10/29/19 15:34*	*10/30/19 17:24*	*1*

Lab Sample ID: LCS 480-501014/2-A
Matrix: Water
Analysis Batch: 501279

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 501014

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Biphenyl	32.0	33.1		ug/L		104	59 - 120
bis (2-chloroisopropyl) ether	32.0	21.8		ug/L		68	21 - 136
2,4,5-Trichlorophenol	32.0	39.2		ug/L		123	65 - 126
2,4,6-Trichlorophenol	32.0	36.6		ug/L		114	64 - 120
2,4-Dichlorophenol	32.0	35.7		ug/L		112	63 - 120
2,4-Dimethylphenol	32.0	34.2		ug/L		107	47 - 120
2,4-Dinitrophenol	64.0	56.6		ug/L		88	31 - 137
2,4-Dinitrotoluene	32.0	35.5		ug/L		111	69 - 120
2,6-Dinitrotoluene	32.0	35.3		ug/L		110	68 - 120
2-Chloronaphthalene	32.0	32.7		ug/L		102	58 - 120
2-Chlorophenol	32.0	29.4		ug/L		92	48 - 120
2-Methylphenol	32.0	29.3		ug/L		91	39 - 120
2-Methylnaphthalene	32.0	32.6		ug/L		102	59 - 120
2-Nitroaniline	32.0	33.7		ug/L		105	54 - 127
2-Nitrophenol	32.0	32.6		ug/L		102	52 - 125
3,3'-Dichlorobenzidine	64.0	74.5		ug/L		116	49 - 135
3-Nitroaniline	32.0	28.2		ug/L		88	51 - 120
4,6-Dinitro-2-methylphenol	64.0	64.6		ug/L		101	46 - 136
4-Bromophenyl phenyl ether	32.0	38.2		ug/L		119	65 - 120
4-Chloro-3-methylphenol	32.0	33.6		ug/L		105	61 - 123
4-Chloroaniline	32.0	25.5		ug/L		80	30 - 120

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-501014/2-A
Matrix: Water
Analysis Batch: 501279

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 501014

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4-Chlorophenyl phenyl ether	32.0	37.8		ug/L		118	62 - 120
4-Methylphenol	32.0	28.8		ug/L		90	29 - 131
4-Nitroaniline	32.0	29.9		ug/L		93	65 - 120
4-Nitrophenol	64.0	66.1		ug/L		103	45 - 120
Acenaphthene	32.0	33.0		ug/L		103	60 - 120
Acenaphthylene	32.0	33.1		ug/L		103	63 - 120
Acetophenone	32.0	31.4		ug/L		98	45 - 120
Anthracene	32.0	35.7		ug/L		112	67 - 120
Atrazine	64.0	85.4	*	ug/L		133	71 - 130
Benzaldehyde	64.0	59.0		ug/L		92	10 - 140
Benzo[a]anthracene	32.0	37.6		ug/L		118	70 - 121
Benzo[a]pyrene	32.0	36.4		ug/L		114	60 - 123
Benzo[b]fluoranthene	32.0	38.9		ug/L		121	66 - 126
Benzo[g,h,i]perylene	32.0	33.4		ug/L		104	66 - 150
Benzo[k]fluoranthene	32.0	36.1		ug/L		113	65 - 124
Bis(2-chloroethoxy)methane	32.0	28.1		ug/L		88	50 - 128
Bis(2-chloroethyl)ether	32.0	26.0		ug/L		81	44 - 120
Bis(2-ethylhexyl) phthalate	32.0	36.8		ug/L		115	63 - 139
Butyl benzyl phthalate	32.0	38.5		ug/L		120	70 - 129
Caprolactam	64.0	23.3		ug/L		36	22 - 120
Carbazole	32.0	36.3		ug/L		113	66 - 123
Chrysene	32.0	37.4		ug/L		117	69 - 120
Dibenz(a,h)anthracene	32.0	36.2		ug/L		113	65 - 135
Di-n-butyl phthalate	32.0	35.2		ug/L		110	69 - 131
Di-n-octyl phthalate	32.0	37.0		ug/L		116	63 - 140
Dibenzofuran	32.0	35.4		ug/L		111	66 - 120
Diethyl phthalate	32.0	36.9		ug/L		115	59 - 127
Dimethyl phthalate	32.0	36.7		ug/L		115	68 - 120
Fluoranthene	32.0	36.9		ug/L		115	69 - 126
Fluorene	32.0	35.6		ug/L		111	66 - 120
Hexachlorobenzene	32.0	36.6		ug/L		114	61 - 120
Hexachlorobutadiene	32.0	34.0		ug/L		106	35 - 120
Hexachlorocyclopentadiene	32.0	26.6		ug/L		83	31 - 120
Hexachloroethane	32.0	28.5		ug/L		89	43 - 120
Indeno[1,2,3-cd]pyrene	32.0	35.2		ug/L		110	69 - 146
Isophorone	32.0	29.6		ug/L		92	55 - 120
N-Nitrosodi-n-propylamine	32.0	29.3		ug/L		92	32 - 140
N-Nitrosodiphenylamine	32.0	34.6		ug/L		108	61 - 120
Naphthalene	32.0	30.0		ug/L		94	57 - 120
Nitrobenzene	32.0	29.5		ug/L		92	53 - 123
Pentachlorophenol	64.0	54.5		ug/L		85	29 - 136
Phenanthrene	32.0	35.9		ug/L		112	68 - 120
Phenol	32.0	18.5		ug/L		58	17 - 120
Pyrene	32.0	39.4		ug/L		123	70 - 125

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Nitrobenzene-d5 (Surr)	*100*		*46 - 120*
Phenol-d5 (Surr)	*57*		*22 - 120*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-501014/2-A
Matrix: Water
Analysis Batch: 501279

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 501014

Surrogate	LCS %Recovery	LCS Qualifier	Limits
p-Terphenyl-d14 (Surr)	*126*		*60 - 148*
2,4,6-Tribromophenol (Surr)	*105*		*41 - 120*
2-Fluorobiphenyl	*108*		*48 - 120*
2-Fluorophenol (Surr)	*71*		*35 - 120*

Lab Sample ID: MB 480-501359/1-A
Matrix: Solid
Analysis Batch: 502007

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 501359

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		170	24	ug/Kg		10/31/19 06:28	11/03/19 18:52	1
bis (2-chloroisopropyl) ether	ND		170	33	ug/Kg		10/31/19 06:28	11/03/19 18:52	1
2,4,5-Trichlorophenol	ND		170	45	ug/Kg		10/31/19 06:28	11/03/19 18:52	1
2,4,6-Trichlorophenol	ND		170	33	ug/Kg		10/31/19 06:28	11/03/19 18:52	1
2,4-Dichlorophenol	ND		170	18	ug/Kg		10/31/19 06:28	11/03/19 18:52	1
2,4-Dimethylphenol	ND		170	40	ug/Kg		10/31/19 06:28	11/03/19 18:52	1
2,4-Dinitrophenol	ND		1600	770	ug/Kg		10/31/19 06:28	11/03/19 18:52	1
2,4-Dinitrotoluene	ND		170	34	ug/Kg		10/31/19 06:28	11/03/19 18:52	1
2,6-Dinitrotoluene	ND		170	20	ug/Kg		10/31/19 06:28	11/03/19 18:52	1
2-Chloronaphthalene	ND		170	27	ug/Kg		10/31/19 06:28	11/03/19 18:52	1
2-Chlorophenol	ND		170	30	ug/Kg		10/31/19 06:28	11/03/19 18:52	1
2-Methylphenol	ND		170	20	ug/Kg		10/31/19 06:28	11/03/19 18:52	1
2-Methylnaphthalene	ND		170	33	ug/Kg		10/31/19 06:28	11/03/19 18:52	1
2-Nitroaniline	ND		320	24	ug/Kg		10/31/19 06:28	11/03/19 18:52	1
2-Nitrophenol	ND		170	47	ug/Kg		10/31/19 06:28	11/03/19 18:52	1
3,3'-Dichlorobenzidine	ND		320	200	ug/Kg		10/31/19 06:28	11/03/19 18:52	1
3-Nitroaniline	ND		320	46	ug/Kg		10/31/19 06:28	11/03/19 18:52	1
4,6-Dinitro-2-methylphenol	ND		320	170	ug/Kg		10/31/19 06:28	11/03/19 18:52	1
4-Bromophenyl phenyl ether	ND		170	23	ug/Kg		10/31/19 06:28	11/03/19 18:52	1
4-Chloro-3-methylphenol	ND		170	41	ug/Kg		10/31/19 06:28	11/03/19 18:52	1
4-Chloroaniline	ND		170	41	ug/Kg		10/31/19 06:28	11/03/19 18:52	1
4-Chlorophenyl phenyl ether	ND		170	21	ug/Kg		10/31/19 06:28	11/03/19 18:52	1
4-Methylphenol	ND		320	20	ug/Kg		10/31/19 06:28	11/03/19 18:52	1
4-Nitroaniline	ND		320	87	ug/Kg		10/31/19 06:28	11/03/19 18:52	1
4-Nitrophenol	ND		320	120	ug/Kg		10/31/19 06:28	11/03/19 18:52	1
Acenaphthene	ND		170	24	ug/Kg		10/31/19 06:28	11/03/19 18:52	1
Acenaphthylene	ND		170	22	ug/Kg		10/31/19 06:28	11/03/19 18:52	1
Acetophenone	ND		170	22	ug/Kg		10/31/19 06:28	11/03/19 18:52	1
Anthracene	ND		170	41	ug/Kg		10/31/19 06:28	11/03/19 18:52	1
Atrazine	ND		170	58	ug/Kg		10/31/19 06:28	11/03/19 18:52	1
Benzaldehyde	ND		170	130	ug/Kg		10/31/19 06:28	11/03/19 18:52	1
Benzo[a]anthracene	ND		170	17	ug/Kg		10/31/19 06:28	11/03/19 18:52	1
Benzo[a]pyrene	ND		170	24	ug/Kg		10/31/19 06:28	11/03/19 18:52	1
Benzo[b]fluoranthene	ND		170	26	ug/Kg		10/31/19 06:28	11/03/19 18:52	1
Benzo[g,h,i]perylene	ND		170	18	ug/Kg		10/31/19 06:28	11/03/19 18:52	1
Benzo[k]fluoranthene	ND		170	22	ug/Kg		10/31/19 06:28	11/03/19 18:52	1
Bis(2-chloroethoxy)methane	ND		170	35	ug/Kg		10/31/19 06:28	11/03/19 18:52	1
Bis(2-chloroethyl)ether	ND		170	22	ug/Kg		10/31/19 06:28	11/03/19 18:52	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-501359/1-A
Matrix: Solid
Analysis Batch: 502007

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 501359

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	ND		170	57	ug/Kg		10/31/19 06:28	11/03/19 18:52	1
Butyl benzyl phthalate	ND		170	27	ug/Kg		10/31/19 06:28	11/03/19 18:52	1
Caprolactam	ND		170	50	ug/Kg		10/31/19 06:28	11/03/19 18:52	1
Carbazole	ND		170	20	ug/Kg		10/31/19 06:28	11/03/19 18:52	1
Chrysene	ND		170	37	ug/Kg		10/31/19 06:28	11/03/19 18:52	1
Dibenz(a,h)anthracene	ND		170	29	ug/Kg		10/31/19 06:28	11/03/19 18:52	1
Di-n-butyl phthalate	ND		170	28	ug/Kg		10/31/19 06:28	11/03/19 18:52	1
Di-n-octyl phthalate	ND		170	20	ug/Kg		10/31/19 06:28	11/03/19 18:52	1
Dibenzofuran	ND		170	20	ug/Kg		10/31/19 06:28	11/03/19 18:52	1
Diethyl phthalate	ND		170	22	ug/Kg		10/31/19 06:28	11/03/19 18:52	1
Dimethyl phthalate	ND		170	20	ug/Kg		10/31/19 06:28	11/03/19 18:52	1
Fluoranthene	ND		170	18	ug/Kg		10/31/19 06:28	11/03/19 18:52	1
Fluorene	ND		170	20	ug/Kg		10/31/19 06:28	11/03/19 18:52	1
Hexachlorobenzene	ND		170	22	ug/Kg		10/31/19 06:28	11/03/19 18:52	1
Hexachlorobutadiene	ND		170	24	ug/Kg		10/31/19 06:28	11/03/19 18:52	1
Hexachlorocyclopentadiene	ND		170	22	ug/Kg		10/31/19 06:28	11/03/19 18:52	1
Hexachloroethane	ND		170	22	ug/Kg		10/31/19 06:28	11/03/19 18:52	1
Indeno[1,2,3-cd]pyrene	ND		170	21	ug/Kg		10/31/19 06:28	11/03/19 18:52	1
Isophorone	ND		170	35	ug/Kg		10/31/19 06:28	11/03/19 18:52	1
N-Nitrosodi-n-propylamine	ND		170	28	ug/Kg		10/31/19 06:28	11/03/19 18:52	1
N-Nitrosodiphenylamine	ND		170	130	ug/Kg		10/31/19 06:28	11/03/19 18:52	1
Naphthalene	ND		170	22	ug/Kg		10/31/19 06:28	11/03/19 18:52	1
Nitrobenzene	ND		170	19	ug/Kg		10/31/19 06:28	11/03/19 18:52	1
Pentachlorophenol	ND		320	170	ug/Kg		10/31/19 06:28	11/03/19 18:52	1
Phenanthrene	ND		170	24	ug/Kg		10/31/19 06:28	11/03/19 18:52	1
Phenol	ND		170	25	ug/Kg		10/31/19 06:28	11/03/19 18:52	1
Pyrene	ND		170	20	ug/Kg		10/31/19 06:28	11/03/19 18:52	1
1,4-Dioxane	ND		200	54	ug/Kg		10/31/19 06:28	11/03/19 18:52	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*91*		*53 - 120*	*10/31/19 06:28*	*11/03/19 18:52*	*1*
Phenol-d5 (Surr)	*93*		*54 - 120*	*10/31/19 06:28*	*11/03/19 18:52*	*1*
p-Terphenyl-d14 (Surr)	*120*		*79 - 130*	*10/31/19 06:28*	*11/03/19 18:52*	*1*
2,4,6-Tribromophenol (Surr)	*98*		*54 - 120*	*10/31/19 06:28*	*11/03/19 18:52*	*1*
2-Fluorobiphenyl	*100*		*60 - 120*	*10/31/19 06:28*	*11/03/19 18:52*	*1*
2-Fluorophenol (Surr)	*89*		*52 - 120*	*10/31/19 06:28*	*11/03/19 18:52*	*1*

Lab Sample ID: LCS 480-501359/2-A
Matrix: Solid
Analysis Batch: 502007

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 501359

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Biphenyl	1620	1520		ug/Kg		94	59 - 120
bis (2-chloroisopropyl) ether	1620	1270		ug/Kg		78	44 - 120
2,4,5-Trichlorophenol	1620	1520		ug/Kg		94	59 - 126
2,4,6-Trichlorophenol	1620	1550		ug/Kg		95	59 - 123
2,4-Dichlorophenol	1620	1490		ug/Kg		92	61 - 120
2,4-Dimethylphenol	1620	1460		ug/Kg		90	59 - 120

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-501359/2-A
Client Sample ID: Lab Control Sample
Matrix: Solid
Prep Type: Total/NA
Analysis Batch: 502007
Prep Batch: 501359

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4-Dinitrophenol	3250	3280		ug/Kg		101	41 - 146
2,4-Dinitrotoluene	1620	1580		ug/Kg		97	63 - 120
2,6-Dinitrotoluene	1620	1560		ug/Kg		96	66 - 120
2-Chloronaphthalene	1620	1500		ug/Kg		92	57 - 120
2-Chlorophenol	1620	1320		ug/Kg		81	53 - 120
2-Methylphenol	1620	1390		ug/Kg		85	54 - 120
2-Methylnaphthalene	1620	1470		ug/Kg		91	59 - 120
2-Nitroaniline	1620	1510		ug/Kg		93	61 - 120
2-Nitrophenol	1620	1480		ug/Kg		91	56 - 120
3,3'-Dichlorobenzidine	3250	3250		ug/Kg		100	54 - 120
3-Nitroaniline	1620	1450		ug/Kg		89	48 - 120
4,6-Dinitro-2-methylphenol	3250	3360		ug/Kg		104	49 - 122
4-Bromophenyl phenyl ether	1620	1650		ug/Kg		102	58 - 120
4-Chloro-3-methylphenol	1620	1510		ug/Kg		93	61 - 120
4-Chloroaniline	1620	1400		ug/Kg		86	38 - 120
4-Chlorophenyl phenyl ether	1620	1560		ug/Kg		96	63 - 124
4-Methylphenol	1620	1410		ug/Kg		87	55 - 120
4-Nitroaniline	1620	1570		ug/Kg		97	56 - 120
4-Nitrophenol	3250	3070		ug/Kg		95	43 - 147
Acenaphthene	1620	1520		ug/Kg		94	62 - 120
Acenaphthylene	1620	1520		ug/Kg		93	58 - 121
Acetophenone	1620	1370		ug/Kg		85	54 - 120
Anthracene	1620	1670		ug/Kg		103	62 - 120
Atrazine	3250	3240		ug/Kg		100	60 - 127
Benzaldehyde	3250	2630	E	ug/Kg		81	10 - 150
Benzo[a]anthracene	1620	1730		ug/Kg		107	65 - 120
Benzo[a]pyrene	1620	1660		ug/Kg		102	64 - 120
Benzo[b]fluoranthene	1620	1750		ug/Kg		108	64 - 120
Benzo[g,h,i]perylene	1620	1530		ug/Kg		94	45 - 145
Benzo[k]fluoranthene	1620	1570		ug/Kg		97	65 - 120
Bis(2-chloroethoxy)methane	1620	1440		ug/Kg		88	55 - 120
Bis(2-chloroethyl)ether	1620	1270		ug/Kg		78	45 - 120
Bis(2-ethylhexyl) phthalate	1620	1800		ug/Kg		111	61 - 133
Butyl benzyl phthalate	1620	1750		ug/Kg		108	61 - 129
Caprolactam	3250	3160		ug/Kg		97	47 - 120
Carbazole	1620	1650		ug/Kg		102	65 - 120
Chrysene	1620	1760		ug/Kg		108	64 - 120
Dibenz(a,h)anthracene	1620	1610		ug/Kg		99	54 - 132
Di-n-butyl phthalate	1620	1670		ug/Kg		103	58 - 130
Di-n-octyl phthalate	1620	1800		ug/Kg		111	57 - 133
Dibenzofuran	1620	1560		ug/Kg		96	63 - 120
Diethyl phthalate	1620	1600		ug/Kg		99	66 - 120
Dimethyl phthalate	1620	1610		ug/Kg		99	65 - 124
Fluoranthene	1620	1680		ug/Kg		104	62 - 120
Fluorene	1620	1570		ug/Kg		97	63 - 120
Hexachlorobenzene	1620	1610		ug/Kg		99	60 - 120
Hexachlorobutadiene	1620	1380		ug/Kg		85	45 - 120
Hexachlorocyclopentadiene	1620	1430		ug/Kg		88	47 - 120
Hexachloroethane	1620	1170		ug/Kg		72	41 - 120

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-501359/2-A
Matrix: Solid
Analysis Batch: 502007

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 501359

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Indeno[1,2,3-cd]pyrene	1620	1560		ug/Kg		96	56 - 134
Isophorone	1620	1480		ug/Kg		91	56 - 120
N-Nitrosodi-n-propylamine	1620	1380		ug/Kg		85	52 - 120
N-Nitrosodiphenylamine	1620	1630		ug/Kg		101	51 - 128
Naphthalene	1620	1440		ug/Kg		89	55 - 120
Nitrobenzene	1620	1370		ug/Kg		84	54 - 120
Pentachlorophenol	3250	3140		ug/Kg		97	51 - 120
Phenanthrene	1620	1650		ug/Kg		102	60 - 120
Phenol	1620	1320		ug/Kg		81	53 - 120
Pyrene	1620	1760		ug/Kg		108	61 - 133
1,4-Dioxane	1620	814		ug/Kg		50	23 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Nitrobenzene-d5 (Surr)	*86*		*53 - 120*
Phenol-d5 (Surr)	*83*		*54 - 120*
p-Terphenyl-d14 (Surr)	*109*		*79 - 130*
2,4,6-Tribromophenol (Surr)	*103*		*54 - 120*
2-Fluorobiphenyl	*94*		*60 - 120*
2-Fluorophenol (Surr)	*77*		*52 - 120*

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Lab Sample ID: MB 480-501114/1-A
Matrix: Water
Analysis Batch: 501714

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 501114

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20	0.10	ug/L		10/30/19 08:05	11/02/19 19:19	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*27*		*15 - 110*	*10/30/19 08:05*	*11/02/19 19:19*	*1*

Lab Sample ID: LCS 480-501114/2-A
Matrix: Water
Analysis Batch: 501714

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 501114

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dioxane	1.00	1.17		ug/L		117	40 - 140

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,4-Dioxane-d8	*28*		*15 - 110*

Lab Sample ID: LCSD 480-501114/3-A
Matrix: Water
Analysis Batch: 501714

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 501114

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dioxane	1.00	1.19		ug/L		119	40 - 140	2	20

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution) (Continued)

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits
1,4-Dioxane-d8	29		15 - 110

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 480-500763/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 500978 — **Prep Batch: 500763**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		210	41	ug/Kg		10/28/19 15:29	10/29/19 16:58	1
PCB-1221	ND		210	41	ug/Kg		10/28/19 15:29	10/29/19 16:58	1
PCB-1232	ND		210	41	ug/Kg		10/28/19 15:29	10/29/19 16:58	1
PCB-1242	ND		210	41	ug/Kg		10/28/19 15:29	10/29/19 16:58	1
PCB-1248	ND		210	41	ug/Kg		10/28/19 15:29	10/29/19 16:58	1
PCB-1254	ND		210	99	ug/Kg		10/28/19 15:29	10/29/19 16:58	1
PCB-1260	ND		210	99	ug/Kg		10/28/19 15:29	10/29/19 16:58	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	110		60 - 154	10/28/19 15:29	10/29/19 16:58	1
DCB Decachlorobiphenyl	123		65 - 174	10/28/19 15:29	10/29/19 16:58	1

Lab Sample ID: LCS 480-500763/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 500978 — **Prep Batch: 500763**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	1920	2070		ug/Kg		108	51 - 185
PCB-1260	1920	2330		ug/Kg		122	61 - 184

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Tetrachloro-m-xylene	113		60 - 154
DCB Decachlorobiphenyl	135		65 - 174

Lab Sample ID: MB 480-501652/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 501967 — **Prep Batch: 501652**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.50	0.18	ug/L		11/01/19 08:14	11/03/19 23:08	1
PCB-1221	ND		0.50	0.18	ug/L		11/01/19 08:14	11/03/19 23:08	1
PCB-1232	ND		0.50	0.18	ug/L		11/01/19 08:14	11/03/19 23:08	1
PCB-1242	ND		0.50	0.18	ug/L		11/01/19 08:14	11/03/19 23:08	1
PCB-1248	ND		0.50	0.18	ug/L		11/01/19 08:14	11/03/19 23:08	1
PCB-1254	ND		0.50	0.25	ug/L		11/01/19 08:14	11/03/19 23:08	1
PCB-1260	ND		0.50	0.25	ug/L		11/01/19 08:14	11/03/19 23:08	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	62		39 - 121	11/01/19 08:14	11/03/19 23:08	1
DCB Decachlorobiphenyl	34		19 - 120	11/01/19 08:14	11/03/19 23:08	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCS 480-501652/2-A
Matrix: Water
Analysis Batch: 501967

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 501652

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
PCB-1016			4.00	3.54		ug/L		89	62 - 130		
PCB-1260			4.00	3.30		ug/L		82	56 - 123		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*65*		*39 - 121*
DCB Decachlorobiphenyl	*31*		*19 - 120*

Lab Sample ID: LCSD 480-501652/3-A
Matrix: Water
Analysis Batch: 501967

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 501652

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-1016			4.00	3.53		ug/L		88	62 - 130	0	50
PCB-1260			4.00	3.39		ug/L		85	56 - 123	3	50

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Tetrachloro-m-xylene	*66*		*39 - 121*
DCB Decachlorobiphenyl	*31*		*19 - 120*

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 480-500749/1-A
Matrix: Water
Analysis Batch: 501068

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 500749

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.020	0.0068	mg/L		10/29/19 08:39	10/29/19 15:10	1
Arsenic	ND		0.015	0.0056	mg/L		10/29/19 08:39	10/29/19 15:10	1
Barium	ND		0.0020	0.00070	mg/L		10/29/19 08:39	10/29/19 15:10	1
Beryllium	ND		0.0020	0.00030	mg/L		10/29/19 08:39	10/29/19 15:10	1
Cadmium	ND		0.0020	0.00050	mg/L		10/29/19 08:39	10/29/19 15:10	1
Calcium	ND		0.50	0.10	mg/L		10/29/19 08:39	10/29/19 15:10	1
Chromium	ND		0.0040	0.0010	mg/L		10/29/19 08:39	10/29/19 15:10	1
Cobalt	ND		0.0040	0.00063	mg/L		10/29/19 08:39	10/29/19 15:10	1
Iron	ND		0.050	0.019	mg/L		10/29/19 08:39	10/29/19 15:10	1
Lead	ND		0.010	0.0030	mg/L		10/29/19 08:39	10/29/19 15:10	1
Magnesium	ND		0.20	0.043	mg/L		10/29/19 08:39	10/29/19 15:10	1
Manganese	ND		0.0030	0.00040	mg/L		10/29/19 08:39	10/29/19 15:10	1
Nickel	ND		0.010	0.0013	mg/L		10/29/19 08:39	10/29/19 15:10	1
Potassium	ND		0.50	0.10	mg/L		10/29/19 08:39	10/29/19 15:10	1
Silver	ND		0.0060	0.0017	mg/L		10/29/19 08:39	10/29/19 15:10	1
Sodium	ND		1.0	0.32	mg/L		10/29/19 08:39	10/29/19 15:10	1
Thallium	ND		0.020	0.010	mg/L		10/29/19 08:39	10/29/19 15:10	1
Vanadium	ND		0.0050	0.0015	mg/L		10/29/19 08:39	10/29/19 15:10	1
Zinc	0.00370	J	0.010	0.0015	mg/L		10/29/19 08:39	10/29/19 15:10	1

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: MB 480-500749/1-A
Matrix: Water
Analysis Batch: 501382

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 500749

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20	0.060	mg/L		10/29/19 08:39	10/30/19 13:52	1
Copper	ND		0.010	0.0016	mg/L		10/29/19 08:39	10/30/19 13:52	1
Selenium	ND		0.025	0.0087	mg/L		10/29/19 08:39	10/30/19 13:52	1

Lab Sample ID: LCS 480-500749/2-A
Matrix: Water
Analysis Batch: 501068

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 500749

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.200	0.222		mg/L		111	80 - 120
Arsenic	0.200	0.199		mg/L		99	80 - 120
Barium	0.200	0.213		mg/L		106	80 - 120
Beryllium	0.200	0.208		mg/L		104	80 - 120
Cadmium	0.200	0.201		mg/L		101	80 - 120
Calcium	10.0	9.51		mg/L		95	80 - 120
Chromium	0.200	0.195		mg/L		98	80 - 120
Cobalt	0.200	0.193		mg/L		96	80 - 120
Iron	10.0	9.38		mg/L		94	80 - 120
Lead	0.200	0.181		mg/L		91	80 - 120
Magnesium	10.0	9.80		mg/L		98	80 - 120
Manganese	0.200	0.194		mg/L		97	80 - 120
Nickel	0.200	0.190		mg/L		95	80 - 120
Potassium	10.0	9.85		mg/L		98	80 - 120
Silver	0.0500	0.0454		mg/L		91	80 - 120
Sodium	10.0	9.95		mg/L		99	80 - 120
Thallium	0.200	0.197		mg/L		98	80 - 120
Vanadium	0.200	0.190		mg/L		95	80 - 120
Zinc	0.200	0.191		mg/L		96	80 - 120

Lab Sample ID: LCS 480-500749/2-A
Matrix: Water
Analysis Batch: 501382

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 500749

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	10.0	9.67		mg/L		97	80 - 120
Copper	0.200	0.191		mg/L		96	80 - 120
Selenium	0.200	0.188		mg/L		94	80 - 120

Lab Sample ID: MB 480-500895/1-A
Matrix: Solid
Analysis Batch: 502113

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 500895

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		10.2	4.5	mg/Kg		10/30/19 06:13	11/02/19 20:16	1
Antimony	ND		15.4	0.41	mg/Kg		10/30/19 06:13	11/02/19 20:16	1
Arsenic	ND		2.0	0.41	mg/Kg		10/30/19 06:13	11/02/19 20:16	1
Barium	ND		0.51	0.11	mg/Kg		10/30/19 06:13	11/02/19 20:16	1
Beryllium	ND		0.20	0.029	mg/Kg		10/30/19 06:13	11/02/19 20:16	1
Cadmium	ND		0.20	0.031	mg/Kg		10/30/19 06:13	11/02/19 20:16	1

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: MB 480-500895/1-A
Matrix: Solid
Analysis Batch: 502113

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 500895

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	4.60	J	51.2	3.4	mg/Kg		10/30/19 06:13	11/02/19 20:16	1
Chromium	ND		0.51	0.20	mg/Kg		10/30/19 06:13	11/02/19 20:16	1
Cobalt	ND		0.51	0.051	mg/Kg		10/30/19 06:13	11/02/19 20:16	1
Copper	ND		1.0	0.22	mg/Kg		10/30/19 06:13	11/02/19 20:16	1
Iron	ND		10.2	3.6	mg/Kg		10/30/19 06:13	11/02/19 20:16	1
Lead	ND		1.0	0.25	mg/Kg		10/30/19 06:13	11/02/19 20:16	1
Magnesium	ND		20.5	0.95	mg/Kg		10/30/19 06:13	11/02/19 20:16	1
Manganese	ND		0.20	0.033	mg/Kg		10/30/19 06:13	11/02/19 20:16	1
Nickel	ND		5.1	0.24	mg/Kg		10/30/19 06:13	11/02/19 20:16	1
Potassium	ND		30.7	20.5	mg/Kg		10/30/19 06:13	11/02/19 20:16	1
Selenium	ND		4.1	0.41	mg/Kg		10/30/19 06:13	11/02/19 20:16	1
Silver	ND		0.61	0.20	mg/Kg		10/30/19 06:13	11/02/19 20:16	1
Sodium	ND		143	13.3	mg/Kg		10/30/19 06:13	11/02/19 20:16	1
Thallium	ND		6.1	0.31	mg/Kg		10/30/19 06:13	11/02/19 20:16	1
Vanadium	ND		0.51	0.11	mg/Kg		10/30/19 06:13	11/02/19 20:16	1
Zinc	ND		2.0	0.66	mg/Kg		10/30/19 06:13	11/02/19 20:16	1

Lab Sample ID: LCDSRM 480-500895/25-A
Matrix: Solid
Analysis Batch: 502113

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 500895

Analyte	Spike Added	LCDSRM Result	LCDSRM Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aluminum	10100	8152		mg/Kg		80.7	37.6 - 114.9	8	20
Antimony	86.3	27.21		mg/Kg		31.5	10.0 - 135.6	9	20
Arsenic	138	100.9		mg/Kg		73.1	63.3 - 117.4	7	20
Barium	589	427.1		mg/Kg		72.5	67.4 - 112.4	6	20
Beryllium	168	123.1		mg/Kg		73.3	69.0 - 115.5	9	20
Calcium	5190	3676		mg/Kg		70.8	65.9 - 115.8	12	20
Chromium	62.7	48.42		mg/Kg		77.2	65.1 - 120.9	11	20
Cobalt	210	179.0		mg/Kg		85.2	70.0 - 116.7	9	20
Copper	82.3	62.03		mg/Kg		75.4	71.1 - 118.5	9	20
Lead	115	100.2		mg/Kg		87.1	68.4 - 124.3	10	20
Magnesium	2570	1938		mg/Kg		75.4	53.7 - 120.6	7	20
Manganese	325	336.6		mg/Kg		103.6	71.1 - 119.4	19	20
Nickel	363	300.6		mg/Kg		82.8	64.2 - 119.3	9	20
Potassium	2420	1897		mg/Kg		78.4	47.5 - 114.9	5	20
Selenium	281	201.5		mg/Kg		71.7	61.9 - 117.1	4	20

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: LCDSRM 480-500895/25-A
Matrix: Solid
Analysis Batch: 502113

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 500895

Analyte	Spike Added	LCDSRM Result	LCDSRM Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Silver	30.0	20.98		mg/Kg		69.9	61.3 - 119.7	9	20
Sodium	256	195.7		mg/Kg		76.4	41.4 - 130.5	10	20
Thallium	265	220.6		mg/Kg		83.3	66.0 - 115.8	8	20
Vanadium	137	106.3		mg/Kg		77.6	64.0 - 118.2	9	20
Zinc	377	275.1		mg/Kg		73.0	65.0 - 121.0	9	20

Lab Sample ID: LCDSRM 480-500895/25-A
Matrix: Solid
Analysis Batch: 502317

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 500895

Analyte	Spike Added	LCDSRM Result	LCDSRM Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cadmium	42.3	29.01		mg/Kg		68.6	66.7 - 111.3	8	20
Iron	15000	12700		mg/Kg		84.7	31.7 - 152.7	8	20

Lab Sample ID: LCSSRM 480-500895/2-A
Matrix: Solid
Analysis Batch: 502113

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 500895

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	10100	8873		mg/Kg		87.8	37.6 - 114.9
Antimony	86.3	29.82		mg/Kg		34.6	10.0 - 135.6
Arsenic	138	108.1		mg/Kg		78.3	63.3 - 117.4
Barium	589	452.6		mg/Kg		76.8	67.4 - 112.4
Beryllium	168	135.2		mg/Kg		80.5	69.0 - 115.5
Cadmium	42.3	31.33		mg/Kg		74.1	66.7 - 111.3
Calcium	5190	4126		mg/Kg		79.5	65.9 - 115.8
Chromium	62.7	54.12		mg/Kg		86.3	65.1 - 120.9
Cobalt	210	195.0		mg/Kg		92.9	70.0 - 116.7
Copper	82.3	67.64		mg/Kg		82.2	71.1 - 118.5
Iron	15000	13830		mg/Kg		92.2	31.7 - 152.7
Lead	115	110.9		mg/Kg		96.4	68.4 - 124.3
Magnesium	2570	2082		mg/Kg		81.0	53.7 - 120.6
Manganese	325	277.1		mg/Kg		85.2	71.1 - 119.4

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: LCSSRM 480-500895/2-A
Matrix: Solid
Analysis Batch: 502113

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 500895

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Nickel	363	327.4		mg/Kg		90.2	64.2 - 119.3
Potassium	2420	1987		mg/Kg		82.1	47.5 - 114.9
Selenium	281	209.3		mg/Kg		74.5	61.9 - 117.1
Silver	30.0	22.99		mg/Kg		76.6	61.3 - 119.7
Sodium	256	216.9		mg/Kg		84.7	41.4 - 130.5
Thallium	265	239.4		mg/Kg		90.3	66.0 - 115.8
Vanadium	137	115.8		mg/Kg		84.5	64.0 - 118.2
Zinc	377	300.2		mg/Kg		79.6	65.0 - 121.0

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 480-502779/1-A
Matrix: Water
Analysis Batch: 503035

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 502779

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		11/07/19 11:15	11/07/19 14:24	1

Lab Sample ID: LCS 480-502779/2-A
Matrix: Water
Analysis Batch: 503035

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 502779

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00667	0.00675		mg/L		101	80 - 120

Lab Sample ID: LCSD 480-502779/3-A
Matrix: Water
Analysis Batch: 503035

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 502779

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.00667	0.00680		mg/L		102	80 - 120	1	20

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 480-502784/1-A
Matrix: Solid
Analysis Batch: 503078

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 502784

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.020	0.0080	mg/Kg		11/07/19 16:25	11/07/19 18:26	1

Method: 7471B - Mercury (CVAA) (Continued)

Lab Sample ID: LCDSRM 480-502784/25-A ^5
Matrix: Solid
Analysis Batch: 503078

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 502784

Analyte			Spike Added	LCDSRM Result	LCDSRM Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury			3.12	2.75		mg/Kg		88.2	56.4 - 131.4	3	20

Lab Sample ID: LCSSRM 480-502784/2-A ^5
Matrix: Solid
Analysis Batch: 503078

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 502784

Analyte			Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury			3.12	2.85		mg/Kg		91.3	56.4 - 131.4		

QC Association Summary

Client: GHD Services Inc.
Job ID: 480-161635-1
Project/Site: 11123680/203 - 160 Center Street Phase I

GC/MS VOA

Analysis Batch: 500853

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-161635-5	SB-1	Total/NA	Solid	8260C	500912
480-161635-6	SB-3	Total/NA	Solid	8260C	500912
480-161635-7	SB-5	Total/NA	Solid	8260C	500912
MB 480-500912/2-A	Method Blank	Total/NA	Solid	8260C	500912
LCS 480-500912/1-A	Lab Control Sample	Total/NA	Solid	8260C	500912

Prep Batch: 500912

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-161635-5	SB-1	Total/NA	Solid	5035A_L	
480-161635-6	SB-3	Total/NA	Solid	5035A_L	
480-161635-7	SB-5	Total/NA	Solid	5035A_L	
MB 480-500912/2-A	Method Blank	Total/NA	Solid	5035A_L	
LCS 480-500912/1-A	Lab Control Sample	Total/NA	Solid	5035A_L	

Analysis Batch: 502370

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-161635-1	TW-1	Total/NA	Water	8260C	
480-161635-2	TW-2	Total/NA	Water	8260C	
480-161635-3	TW-3	Total/NA	Water	8260C	
480-161635-4	TRIP BLANK	Total/NA	Water	8260C	
MB 480-502370/7	Method Blank	Total/NA	Water	8260C	
LCS 480-502370/5	Lab Control Sample	Total/NA	Water	8260C	

GC/MS Semi VOA

Prep Batch: 501014

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-161635-1	TW-1	Total/NA	Water	3510C	
480-161635-2	TW-2	Total/NA	Water	3510C	
480-161635-3	TW-3	Total/NA	Water	3510C	
MB 480-501014/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-501014/2-A	Lab Control Sample	Total/NA	Water	3510C	

Prep Batch: 501114

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-161635-1	TW-1	Total/NA	Water	3510C	
480-161635-2	TW-2	Total/NA	Water	3510C	
480-161635-3	TW-3	Total/NA	Water	3510C	
MB 480-501114/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-501114/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 480-501114/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 501279

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-161635-1	TW-1	Total/NA	Water	8270D	501014
480-161635-2	TW-2	Total/NA	Water	8270D	501014
480-161635-3	TW-3	Total/NA	Water	8270D	501014
MB 480-501014/1-A	Method Blank	Total/NA	Water	8270D	501014
LCS 480-501014/2-A	Lab Control Sample	Total/NA	Water	8270D	501014

GC/MS Semi VOA

Prep Batch: 501359

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-161635-5	SB-1	Total/NA	Solid	3550C	
480-161635-6	SB-3	Total/NA	Solid	3550C	
480-161635-7	SB-5	Total/NA	Solid	3550C	
MB 480-501359/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 480-501359/2-A	Lab Control Sample	Total/NA	Solid	3550C	

Analysis Batch: 501714

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-161635-1	TW-1	Total/NA	Water	8270D SIM ID	501114
480-161635-2	TW-2	Total/NA	Water	8270D SIM ID	501114
MB 480-501114/1-A	Method Blank	Total/NA	Water	8270D SIM ID	501114
LCS 480-501114/2-A	Lab Control Sample	Total/NA	Water	8270D SIM ID	501114
LCSD 480-501114/3-A	Lab Control Sample Dup	Total/NA	Water	8270D SIM ID	501114

Analysis Batch: 501744

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-161635-3	TW-3	Total/NA	Water	8270D SIM ID	501114

Analysis Batch: 502007

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-161635-5	SB-1	Total/NA	Solid	8270D	501359
480-161635-6	SB-3	Total/NA	Solid	8270D	501359
480-161635-7	SB-5	Total/NA	Solid	8270D	501359
MB 480-501359/1-A	Method Blank	Total/NA	Solid	8270D	501359
LCS 480-501359/2-A	Lab Control Sample	Total/NA	Solid	8270D	501359

GC Semi VOA

Prep Batch: 500763

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-161635-5	SB-1	Total/NA	Solid	3550C	
480-161635-6	SB-3	Total/NA	Solid	3550C	
480-161635-7	SB-5	Total/NA	Solid	3550C	
MB 480-500763/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 480-500763/2-A	Lab Control Sample	Total/NA	Solid	3550C	

Analysis Batch: 500978

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-161635-5	SB-1	Total/NA	Solid	8082A	500763
480-161635-6	SB-3	Total/NA	Solid	8082A	500763
480-161635-7	SB-5	Total/NA	Solid	8082A	500763
MB 480-500763/1-A	Method Blank	Total/NA	Solid	8082A	500763
LCS 480-500763/2-A	Lab Control Sample	Total/NA	Solid	8082A	500763

Prep Batch: 501652

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-161635-1	TW-1	Total/NA	Water	3510C	
480-161635-2	TW-2	Total/NA	Water	3510C	
480-161635-3	TW-3	Total/NA	Water	3510C	
MB 480-501652/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-501652/2-A	Lab Control Sample	Total/NA	Water	3510C	

GC Semi VOA (Continued)

Prep Batch: 501652 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 480-501652/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 501967

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-161635-1	TW-1	Total/NA	Water	8082A	501652
480-161635-2	TW-2	Total/NA	Water	8082A	501652
480-161635-3	TW-3	Total/NA	Water	8082A	501652
MB 480-501652/1-A	Method Blank	Total/NA	Water	8082A	501652
LCS 480-501652/2-A	Lab Control Sample	Total/NA	Water	8082A	501652
LCSD 480-501652/3-A	Lab Control Sample Dup	Total/NA	Water	8082A	501652

Metals

Prep Batch: 500749

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-161635-1	TW-1	Total/NA	Water	3005A	
480-161635-2	TW-2	Total/NA	Water	3005A	
480-161635-3	TW-3	Total/NA	Water	3005A	
MB 480-500749/1-A	Method Blank	Total/NA	Water	3005A	
LCS 480-500749/2-A	Lab Control Sample	Total/NA	Water	3005A	

Prep Batch: 500895

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-161635-5	SB-1	Total/NA	Solid	3050B	
480-161635-6	SB-3	Total/NA	Solid	3050B	
480-161635-7	SB-5	Total/NA	Solid	3050B	
MB 480-500895/1-A	Method Blank	Total/NA	Solid	3050B	
LCDSRM 480-500895/25-A	Lab Control Sample Dup	Total/NA	Solid	3050B	
LCSSRM 480-500895/2-A	Lab Control Sample	Total/NA	Solid	3050B	

Analysis Batch: 501068

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-161635-1	TW-1	Total/NA	Water	6010C	500749
480-161635-2	TW-2	Total/NA	Water	6010C	500749
480-161635-3	TW-3	Total/NA	Water	6010C	500749
480-161635-3	TW-3	Total/NA	Water	6010C	500749
MB 480-500749/1-A	Method Blank	Total/NA	Water	6010C	500749
LCS 480-500749/2-A	Lab Control Sample	Total/NA	Water	6010C	500749

Analysis Batch: 501382

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-161635-1	TW-1	Total/NA	Water	6010C	500749
480-161635-2	TW-2	Total/NA	Water	6010C	500749
480-161635-3	TW-3	Total/NA	Water	6010C	500749
MB 480-500749/1-A	Method Blank	Total/NA	Water	6010C	500749
LCS 480-500749/2-A	Lab Control Sample	Total/NA	Water	6010C	500749

Analysis Batch: 502113

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-161635-5	SB-1	Total/NA	Solid	6010C	500895
480-161635-6	SB-3	Total/NA	Solid	6010C	500895

Metals (Continued)

Analysis Batch: 502113 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-161635-7	SB-5	Total/NA	Solid	6010C	500895
MB 480-500895/1-A	Method Blank	Total/NA	Solid	6010C	500895
LCDSRM 480-500895/25-A	Lab Control Sample Dup	Total/NA	Solid	6010C	500895
LCSSRM 480-500895/2-A	Lab Control Sample	Total/NA	Solid	6010C	500895

Analysis Batch: 502317

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCDSRM 480-500895/25-A	Lab Control Sample Dup	Total/NA	Solid	6010C	500895

Prep Batch: 502779

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-161635-1	TW-1	Total/NA	Water	7470A	
480-161635-2	TW-2	Total/NA	Water	7470A	
480-161635-3	TW-3	Total/NA	Water	7470A	
MB 480-502779/1-A	Method Blank	Total/NA	Water	7470A	
LCS 480-502779/2-A	Lab Control Sample	Total/NA	Water	7470A	
LCSD 480-502779/3-A	Lab Control Sample Dup	Total/NA	Water	7470A	

Prep Batch: 502784

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-161635-5	SB-1	Total/NA	Solid	7471B	
480-161635-6	SB-3	Total/NA	Solid	7471B	
480-161635-7	SB-5	Total/NA	Solid	7471B	
MB 480-502784/1-A	Method Blank	Total/NA	Solid	7471B	
LCDSRM 480-502784/25-A ^	Lab Control Sample Dup	Total/NA	Solid	7471B	
LCSSRM 480-502784/2-A ^5	Lab Control Sample	Total/NA	Solid	7471B	

Analysis Batch: 503035

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-161635-1	TW-1	Total/NA	Water	7470A	502779
480-161635-2	TW-2	Total/NA	Water	7470A	502779
480-161635-3	TW-3	Total/NA	Water	7470A	502779
MB 480-502779/1-A	Method Blank	Total/NA	Water	7470A	502779
LCS 480-502779/2-A	Lab Control Sample	Total/NA	Water	7470A	502779
LCSD 480-502779/3-A	Lab Control Sample Dup	Total/NA	Water	7470A	502779

Analysis Batch: 503078

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-161635-5	SB-1	Total/NA	Solid	7471B	502784
480-161635-6	SB-3	Total/NA	Solid	7471B	502784
480-161635-7	SB-5	Total/NA	Solid	7471B	502784
MB 480-502784/1-A	Method Blank	Total/NA	Solid	7471B	502784
LCDSRM 480-502784/25-A ^	Lab Control Sample Dup	Total/NA	Solid	7471B	502784
LCSSRM 480-502784/2-A ^5	Lab Control Sample	Total/NA	Solid	7471B	502784

General Chemistry

Analysis Batch: 500779

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-161635-5	SB-1	Total/NA	Solid	Moisture	
480-161635-6	SB-3	Total/NA	Solid	Moisture	

General Chemistry (Continued)

Analysis Batch: 500779 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-161635-7	SB-5	Total/NA	Solid	Moisture	

Lab Chronicle

Client: GHD Services Inc. Job ID: 480-161635-1
Project/Site: 11123680/203 - 160 Center Street Phase I

Client Sample ID: TW-1 — Lab Sample ID: 480-161635-1

Date Collected: 10/25/19 10:00 **Matrix: Water**
Date Received: 10/26/19 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		5	502370	11/05/19 15:35	AMM	TAL BUF
Total/NA	Prep	3510C			501014	10/29/19 15:34	AAP	TAL BUF
Total/NA	Analysis	8270D		1	501279	10/30/19 20:39	RJS	TAL BUF
Total/NA	Prep	3510C			501114	10/30/19 08:05	JMP	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	501714	11/02/19 20:29	JMM	TAL BUF
Total/NA	Prep	3510C			501652	11/01/19 08:14	JMP	TAL BUF
Total/NA	Analysis	8082A		1	501967	11/04/19 01:41	DSC	TAL BUF
Total/NA	Prep	3005A			500749	10/29/19 08:39	NSW	TAL BUF
Total/NA	Analysis	6010C		1	501068	10/29/19 16:35	AMH	TAL BUF
Total/NA	Prep	3005A			500749	10/29/19 08:39	NSW	TAL BUF
Total/NA	Analysis	6010C		1	501382	10/30/19 14:03	AMH	TAL BUF
Total/NA	Prep	7470A			502779	11/07/19 11:15	BMB	TAL BUF
Total/NA	Analysis	7470A		1	503035	11/07/19 14:50	BMB	TAL BUF

Client Sample ID: TW-2 — Lab Sample ID: 480-161635-2

Date Collected: 10/25/19 11:15 **Matrix: Water**
Date Received: 10/26/19 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	502370	11/05/19 15:59	AMM	TAL BUF
Total/NA	Prep	3510C			501014	10/29/19 15:34	AAP	TAL BUF
Total/NA	Analysis	8270D		1	501279	10/30/19 21:07	RJS	TAL BUF
Total/NA	Prep	3510C			501114	10/30/19 08:05	JMP	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	501714	11/02/19 20:52	JMM	TAL BUF
Total/NA	Prep	3510C			501652	11/01/19 08:14	JMP	TAL BUF
Total/NA	Analysis	8082A		1	501967	11/04/19 01:54	DSC	TAL BUF
Total/NA	Prep	3005A			500749	10/29/19 08:39	NSW	TAL BUF
Total/NA	Analysis	6010C		1	501068	10/29/19 16:39	AMH	TAL BUF
Total/NA	Prep	3005A			500749	10/29/19 08:39	NSW	TAL BUF
Total/NA	Analysis	6010C		1	501382	10/30/19 14:06	AMH	TAL BUF
Total/NA	Prep	7470A			502779	11/07/19 11:15	BMB	TAL BUF
Total/NA	Analysis	7470A		1	503035	11/07/19 14:51	BMB	TAL BUF

Client Sample ID: TW-3 — Lab Sample ID: 480-161635-3

Date Collected: 10/25/19 12:00 **Matrix: Water**
Date Received: 10/26/19 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	502370	11/05/19 16:23	AMM	TAL BUF
Total/NA	Prep	3510C			501014	10/29/19 15:34	AAP	TAL BUF
Total/NA	Analysis	8270D		1	501279	10/30/19 21:35	RJS	TAL BUF
Total/NA	Prep	3510C			501114	10/30/19 08:05	JMP	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	501744	11/02/19 22:30	JMM	TAL BUF
Total/NA	Prep	3510C			501652	11/01/19 08:14	JMP	TAL BUF
Total/NA	Analysis	8082A		1	501967	11/04/19 02:07	DSC	TAL BUF

Lab Chronicle

Client: GHD Services Inc. Job ID: 480-161635-1
Project/Site: 11123680/203 - 160 Center Street Phase I

Client Sample ID: TW-3 — Lab Sample ID: 480-161635-3
Date Collected: 10/25/19 12:00 — **Matrix: Water**
Date Received: 10/26/19 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3005A			500749	10/29/19 08:39	NSW	TAL BUF
Total/NA	Analysis	6010C		1	501068	10/29/19 16:42	AMH	TAL BUF
Total/NA	Prep	3005A			500749	10/29/19 08:39	NSW	TAL BUF
Total/NA	Analysis	6010C		5	501068	10/29/19 16:46	AMH	TAL BUF
Total/NA	Prep	3005A			500749	10/29/19 08:39	NSW	TAL BUF
Total/NA	Analysis	6010C		1	501382	10/30/19 14:10	AMH	TAL BUF
Total/NA	Prep	7470A			502779	11/07/19 11:15	BMB	TAL BUF
Total/NA	Analysis	7470A		1	503035	11/07/19 14:55	BMB	TAL BUF

Client Sample ID: TRIP BLANK — Lab Sample ID: 480-161635-4
Date Collected: 10/25/19 00:00 — **Matrix: Water**
Date Received: 10/26/19 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	502370	11/05/19 16:47	AMM	TAL BUF

Client Sample ID: SB-1 — Lab Sample ID: 480-161635-5
Date Collected: 10/25/19 12:20 — **Matrix: Solid**
Date Received: 10/26/19 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	500779	10/28/19 16:01	WJD	TAL BUF

Client Sample ID: SB-1 — Lab Sample ID: 480-161635-5
Date Collected: 10/25/19 12:20 — **Matrix: Solid**
Date Received: 10/26/19 08:00 — **Percent Solids: 73.8**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A_L			500912	10/26/19 18:00	WJD	TAL BUF
Total/NA	Analysis	8260C		1	500853	10/29/19 12:52	WJD	TAL BUF
Total/NA	Prep	3550C			501359	10/31/19 06:28	ELS	TAL BUF
Total/NA	Analysis	8270D		1	502007	11/03/19 20:57	PJQ	TAL BUF
Total/NA	Prep	3550C			500763	10/28/19 15:29	SGD	TAL BUF
Total/NA	Analysis	8082A		1	500978	10/29/19 18:00	W1T	TAL BUF
Total/NA	Prep	3050B			500895	10/30/19 06:13	ADM	TAL BUF
Total/NA	Analysis	6010C		1	502113	11/02/19 20:23	AMH	TAL BUF
Total/NA	Prep	7471B			502784	11/07/19 16:25	BMB	TAL BUF
Total/NA	Analysis	7471B		1	503078	11/07/19 18:48	BMB	TAL BUF

Client Sample ID: SB-3 — Lab Sample ID: 480-161635-6
Date Collected: 10/25/19 12:40 — **Matrix: Solid**
Date Received: 10/26/19 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	500779	10/28/19 16:01	WJD	TAL BUF

Lab Chronicle

Client: GHD Services Inc. Job ID: 480-161635-1
Project/Site: 11123680/203 - 160 Center Street Phase I

Client Sample ID: SB-3 — Lab Sample ID: 480-161635-6

Date Collected: 10/25/19 12:40 — **Matrix: Solid**
Date Received: 10/26/19 08:00 — **Percent Solids: 74.7**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A_L			500912	10/26/19 18:00	WJD	TAL BUF
Total/NA	Analysis	8260C		1	500853	10/29/19 13:18	WJD	TAL BUF
Total/NA	Prep	3550C			501359	10/31/19 06:28	ELS	TAL BUF
Total/NA	Analysis	8270D		1	502007	11/03/19 21:22	PJQ	TAL BUF
Total/NA	Prep	3550C			500763	10/28/19 15:29	SGD	TAL BUF
Total/NA	Analysis	8082A		1	500978	10/29/19 18:12	W1T	TAL BUF
Total/NA	Prep	3050B			500895	10/30/19 06:13	ADM	TAL BUF
Total/NA	Analysis	6010C		1	502113	11/02/19 20:27	AMH	TAL BUF
Total/NA	Prep	7471B			502784	11/07/19 16:25	BMB	TAL BUF
Total/NA	Analysis	7471B		1	503078	11/07/19 18:49	BMB	TAL BUF

Client Sample ID: SB-5 — Lab Sample ID: 480-161635-7

Date Collected: 10/25/19 13:00 — **Matrix: Solid**
Date Received: 10/26/19 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	500779	10/28/19 16:01	WJD	TAL BUF

Client Sample ID: SB-5 — Lab Sample ID: 480-161635-7

Date Collected: 10/25/19 13:00 — **Matrix: Solid**
Date Received: 10/26/19 08:00 — **Percent Solids: 81.8**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A_L			500912	10/26/19 18:00	WJD	TAL BUF
Total/NA	Analysis	8260C		1	500853	10/29/19 13:43	WJD	TAL BUF
Total/NA	Prep	3550C			501359	10/31/19 06:28	ELS	TAL BUF
Total/NA	Analysis	8270D		5	502007	11/03/19 21:47	PJQ	TAL BUF
Total/NA	Prep	3550C			500763	10/28/19 15:29	SGD	TAL BUF
Total/NA	Analysis	8082A		1	500978	10/29/19 18:25	W1T	TAL BUF
Total/NA	Prep	3050B			500895	10/30/19 06:13	ADM	TAL BUF
Total/NA	Analysis	6010C		1	502113	11/02/19 20:31	AMH	TAL BUF
Total/NA	Prep	7471B			502784	11/07/19 16:25	BMB	TAL BUF
Total/NA	Analysis	7471B		1	503078	11/07/19 18:51	BMB	TAL BUF

Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Accreditation/Certification Summary

Client: GHD Services Inc. Job ID: 480-161635-1
Project/Site: 11123680/203 - 160 Center Street Phase I

Laboratory: Eurofins TestAmerica, Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	03-31-20

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Method Summary

Client: GHD Services Inc.
Job ID: 480-161635-1
Project/Site: 11123680/203 - 160 Center Street Phase I

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL BUF
8270D SIM ID	Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)	SW846	TAL BUF
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL BUF
6010C	Metals (ICP)	SW846	TAL BUF
7470A	Mercury (CVAA)	SW846	TAL BUF
7471B	Mercury (CVAA)	SW846	TAL BUF
Moisture	Percent Moisture	EPA	TAL BUF
3005A	Preparation, Total Metals	SW846	TAL BUF
3050B	Preparation, Metals	SW846	TAL BUF
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL BUF
3550C	Ultrasonic Extraction	SW846	TAL BUF
5030C	Purge and Trap	SW846	TAL BUF
5035A_L	Closed System Purge and Trap	SW846	TAL BUF
7470A	Preparation, Mercury	SW846	TAL BUF
7471B	Preparation, Mercury	SW846	TAL BUF

Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: GHD Services Inc.
Job ID: 480-161635-1
Project/Site: 11123680/203 - 160 Center Street Phase I

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-161635-1	TW-1	Water	10/25/19 10:00	10/26/19 08:00	
480-161635-2	TW-2	Water	10/25/19 11:15	10/26/19 08:00	
480-161635-3	TW-3	Water	10/25/19 12:00	10/26/19 08:00	
480-161635-4	TRIP BLANK	Water	10/25/19 00:00	10/26/19 08:00	
480-161635-5	SB-1	Solid	10/25/19 12:20	10/26/19 08:00	
480-161635-6	SB-3	Solid	10/25/19 12:40	10/26/19 08:00	
480-161635-7	SB-5	Solid	10/25/19 13:00	10/26/19 08:00	

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Syracuse

Client Information	Sampler: IAN McNAMARA	Lab PM: Heckler, Denise D	Carrier Tracking No(s): #225	COC No: 480-137476-30914.1
Client Contact: Ian McNamara	Phone: 315-368-8432	E-Mail: denise.heckler@testamericainc.com		Page: Page 1 of 1
Company: GHD Services Inc.		Analysis Requested		Job #:
Address: One Remington Park Drive	Due Date Requested:			Preservation Codes: A - HCL ... L - EDA ... W - pH 4-5, Z - other (specify) ... ydrate
City: Cazenovia	TAT Requested (days): STANDARD			Other:
State, Zip: NY, 13035	PO #: Purchase Order Requested			
Phone:	WO #: 256038			
Email: ian.mcnamara@ghd.com	Project #: 48021158			
Project Name: 11123680/203 - 160 Center Street Phase I	SSOW#:			
Site:				

480-161635 Chain of Custody

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8082A - PCBs	8270D - SVOCs	6010C, 7470A	8260C - VOCs	8270D_SIM_MS_ID - 1,4-Dioxane	8260C - VOCs--Med Level	8260C - VOCs-LL	6010C, 7471B	8082A, 8270D	Moisture - Percent Moist	Total Number of containers	Special Instructions/Note:
				Preservation Code:			N	N	D	A	N	N	N	N	N	N		
TW-1	10-25-19	10:00	G	Water	N	N	X	X	X	X	X						10	
TW-2	10-25-19	11:15	G	Water	N	N	X	X	X	X	X						10	
TW-3	10-25-19	12:00	G	Water	N	N	X	X	X	X	X						10	
TRIP BLANK	10-25-19	0:00	G	Water	N	N				X							2	
	— RE			Water														
SB-1	10-25-19	12:20	G	Solid	N	N						X	X	X	X	X	11	
SB-3	10-25-19	12:40	G	Solid	N	N						X	X	X	X	X	11	
~~SB-3~~ SB-5	10-25-19	13:00	G	Solid	N	N						X	X	X	X	X	11	
10.25.19 RE																		

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For ______ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
ITM [signature]	10-25-19, 17:00	GHD	R. English	10.25.19, 17:00	Syr
R. English	10.25.19, 19:00	Syr	[signature]	10/26/19 0800	TAB

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: #1 3.4, 3.1

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: GHD Services Inc.

Job Number: 480-161635-1

Login Number: 161635
List Number: 1
Creator: Hulbert, Michael J

List Source: Eurofins TestAmerica, Buffalo

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	FT on 10/26/19 @ 1000
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	