26850 Haggerty Road
Farmington Hills, Michigan 48331
United States
www.ghd.com

GHD Reference No: 11208058-Whom-8

January 30, 2023

City of Bay City WWTP
Attn: IPP Coordinator
2905 North Water Street
Bay City, Michigan, 48708

Semi-Annual Compliance Report (July 1 to December 31, 2022)
RACER Bay City Industrial Land
Bay City, Michigan

To Whom It May Concern,

The following letter has been prepared by GHD on behalf of Revitalizing Auto Communities Environmental Response Trust (RACER) in accordance with Part 4 Section 3 of Industrial User (IU) permit No. 120807 as the semi-annual compliance report for the period July 1 to December 31, 2022 for RACER's groundwater extraction and treatment system located at the north end of Crotty Street in Bay City, Michigan (Site).

The groundwater extraction and treatment system operated consistently for the semi-annual period with the exception of short periods when the system was down for maintenance or as a result of an alarm condition.

Table 1 presents the results of the required semi-annual effluent sample collected from the RACER groundwater extraction and treatment system on December 20, 2022. Attachment 1 presents a copy of the laboratory analytical report. The analytical results did not identify an exceedance of the daily maximum discharge levels specified in the permit, and there were no other conditions, events or circumstances identified that did not meet other permit requirements. Table 2 presents the flow readings collected periodically from the flow meter.

The RACER groundwater extraction and treatment system is operated and maintained by John York (GHD).

See Attachment 2 for the certification statement prepared in accordance with Section 106-23(d) of the Bay City sewer ordinance.

Should you have any questions on the above, please do not hesitate to contact us.

Sincerely,

John-Eric Pardys, P.Eng.
Engineer

+1 519 340-4316
john-eric.pardys@ghd.com

JEP/kf/8

cc: Grant Trigger (RACER)
Dave Favero (RACER)

Encl. Table 1 – Effluent Results Summary
Table 2 – Flow Meter Readings
Attachment 1 - Laboratory Analytical Report
Attachment 2 – Certification Statement

Table 1

Analytical Results Summary
Effluent Sampling
Bay City Industrial Land
Bay City, Michigan

Sample Location:			**effluent-GWTS**
Sample ID:			**WT-11208058-122022-JY-002**
Sample Date:			**12/20/22**
Parameters	**Units**	**Daily Maximum (Bay City Industrial User Permit)**	
VOCs			
Vinyl chloride	mg/L	0.002	0.001 U
Metals			
Cadmium	mg/L	0.057	0.00028 J
Chromium	mg/L	6.812	0.005 U
Copper	mg/L	1.476	0.020 U
Iron	mg/L		0.1 U
Lead	mg/L	0.632	0.0035
Mercury	mg/L	ND	0.0002 U
Nickel	mg/L	2.548	0.020 U
Silver	mg/L	0.2	0.005 U
Pesticides			
Aroclor-1016 (PCB-1016)	mg/L	ND	0.000096 U
Aroclor-1221 (PCB-1221)	mg/L	ND	0.000096 U
Aroclor-1232 (PCB-1232)	mg/L	ND	0.000096 U
Aroclor-1242 (PCB-1242)	mg/L	ND	0.000096 U
Aroclor-1248 (PCB-1248)	mg/L	ND	0.000096 U
Aroclor-1254 (PCB-1254)	mg/L	ND	0.000096 U
Aroclor-1260 (PCB-1260)	mg/L	ND	0.000096 U
Wet			
Ammonia	mg/L	30	13
Biochemical oxygen demand (BOD)	mg/L	835	2.0 U H
Chemical oxygen demand (COD)	mg/L	1670	7.1 J
Oil and grease (HEM), polar	mg/L	100	1.1 J B
pH, lab	s.u.	6.5 to 11.0	7.5 HF
Phosphorus	mg/L	13.8	0.10 U
Total suspended solids (TSS)	mg/L	1336	4.0 U

Notes:

HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.
U	Not detected at the associated reporting limit
J	Estimated value
B	Compound was found in the blank and sample
H	Sample was prepped or analyzed beyond the specified holding time
H3	Sample was received and analyzed past holding time
*+	LCS and/or LCSD is outside acceptance limits, high biased

Table 2

Flow Meter Readings
Bay City Industrial Land
Bay City, Michigan

Date	Flow Meter Totalized Reading (gallons)	Cumulative Total: (gallons)	Volume to be Invoiced Annually (July to June 30)	Comments
20-Dec-22				- Collected effluent sample
5-Dec-22	700,568	1,446,666		
21-Nov-22	689,378	1,435,476		
25-Oct-22	688,227	1,434,325		
12-Sep-22	684,028	1,430,126		
23-Aug-22	672,428	1,418,526		- Collected effluent sample
17-Jun-22	619,110	1,365,208		
13-Jun-22	613,476	1,359,574	**204,431**	- City invoiced for discharge
26-May-22				- Collected effluent sample
24-May-22	610,180	1,356,278		
26-Apr-22	592,790	1,338,888		
23-Mar-22	592,060	1,338,158		
1-Mar-22	580,971	1,327,069		
24-Jan-22	580,938	1,327,036		
27-Dec-21	553,735	1,299,833		
23-Dec-21				- Collected effluent sample
29-Nov-21	533,997	1,280,095		
27-Sep-21	475,843	1,221,941		
20-Aug-21	436,048	1,182,146		
30-Jul-21	421,003	1,167,101		
23-Jun-21	409,045	1,155,143	**139,856**	- Collected effluent sample and City invoiced for discharge
27-May-21	400,420	1,146,518		
29-Apr-21	397,390	1,143,488		
23-Mar-21	371,797	1,117,895		
22-Feb-21	348,776	1,094,874		
21-Dec-20	308,935	1,055,033		
10-Dec-20				- Collected effluent sample
9-Dec-20	304,649	1,050,747		
12-Oct-20	278,099	1,024,197		
10-Sep-20	277,899	1,023,997		
25-Aug-20	277,020	1,023,118		
22-Jul-20	274,190	1,020,288		
22-Jun-20	270,975	1,017,073		
4-Jun-20	269,189	1,015,287	**124,809**	- City invoiced for discharge
28-May-20	268,089	1,014,187		- Collected effluent sample
28-Apr-20	263,922	1,010,020		
25-Mar-20	248,006	994,104		
20-Feb-20	227,965	974,063		
27-Jan-20	220,321	966,419		
5-Dec-19	200,031	946,129		- Collected PFAS effluent sample
25-Nov-19	192,582	938,680		
29-Oct-19	176,533	922,631		
28-Aug-19	168,508	914,606		
17-Jul-19	159,490	905,588		
17-Jun-19	144,380	890,478	**122,047**	- City invoiced for discharge
31-May-19				- Collected effluent sample
17-May-19	123,482	869,580		
19-Apr-19	105,745	851,843		
22-Mar-19	81,364	827,462		
28-Feb-19	77,720	823,818		
29-Jan-19	77,720	823,818		
20-Jan-19				- Collected effluent sample
12-Dec-18	77,570	823,668		- Collected effluent sample

Table 2

Flow Meter Readings
Bay City Industrial Land
Bay City, Michigan

Date	Flow Meter Totalized Reading (gallons)	Cumulative Total: (gallons)	Volume to be Invoiced Annually (July to June 30)	Comments
29-Nov-18	76,972	823,070		
26-Sep-18	59,303	805,401		
30-Aug-18	53,199	799,297		
30-Jul-18	52,454	798,552		
20-Jun-18	35,274	781,372		
1-Jun-18				- Collected effluent sample
1-Jun-18	22,333	768,431	**88,271**	- City invoiced for discharge
31-May-18	20,490	766,588		
30-Apr-18	18,529	764,627		
29-Mar-18	11,243	757,341		
8-Mar-18	122,667	746,098		- Last reading before
8-Mar-18	0	746,098		- New Flow meter installed
30-Nov-17				- Collected effluent sample
25-Oct-17	73,702	697,133		
12-Jul-17	60,991	684,422		
28-Jun-17	56,911	680,342		
13-Jun-17	56,729	680,160	**137,544**	- City invoiced for discharge
22-May-17	56,722	680,153		
9-May-17				- Collected effluent sample
27-Apr-17	55,126	678,557		
2-Feb-17	5,813	629,244		
16-Jan-17				- Collected effluent sample
14-Jan-17	609,074	623,431		
14-Jan-17	0	623,431		
16-Dec-16	609,074	623,431		
11-Nov-16	608,980	623,337		
28-Oct-16	608,865	623,222		
30-Sep-16	607,717	622,074		
31-Aug-16	607,298	621,655		
20-Jul-16	561,893	576,250		
29-Jun-16	556,457	570,814		
14-Jun-16	528,259	542,616	**523,666**	- Collected effluent sample,
31-May-16	521,920	536,277		
27-Apr-16	462,204	476,561		
21-Mar-16	409,836	424,193		
29-Feb-16	394,550	408,907		
10-Feb-16	387,410	401,767		
30-Dec-15	351,550	365,907		
10-Dec-15				- Collected effluent sample
23-Nov-15	289,731	304,088		
30-Oct-15	260,771	275,128		
29-Sep-15	252,638	266,995		
28-Aug-15	241,397	255,754		
29-Jul-15	232,315	246,672		
30-Jun-15	232,315	246,672		
25-Jun-15	232,315	246,672		
18-Jun-15	224,490	238,847		
6-May-15	197,766	212,123		
30-Apr-15	175,234	189,591		
19-Mar-15	67,425	81,782		
16-Mar-15				- Collected effluent sample

Table 2

Flow Meter Readings
Bay City Industrial Land
Bay City, Michigan

Date	Flow Meter Totalized Reading (gallons)	Cumulative Total: (gallons)	Volume to be Invoiced Annually (July to June 30)	Comments
13-Feb-15	46,303	60,660		
27-Jan-15	31,004	45,361		
29-Dec-14	31,004	45,361		
26-Nov-14	31,004	45,361		
23-Oct-14	31,004	45,361		
23-Sep-14	11,504	25,861		
5-Sep-14	6,337	20,694		- Collected effluent sample
18-Aug-14	4,593	18,950		
28-Jul-14	4,593	18,950		
16-Jun-14	4,593	18,950	**18,950**	- City invoiced for discharge

Attachment 1

Laboratory Analytical Report

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Ruth Mickle
GHD Services Inc.
26850 Haggerty Rd.
Farmington Hills, Michigan 48331

Generated 1/7/2023 11:19:35 AM

JOB DESCRIPTION

11208058-C04, RACER Bay City

JOB NUMBER

240-178320-1

Eurofins Canton
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.

Job Notes

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. This report is confidential and is intended for the sole use of Eurofins Environment Testing North Central, LLC and its client. All questions regarding this report should be directed to the Eurofins Environment Testing North Central, LLC Project Manager who has signed this report.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

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Authorized for release by
Denise Heckler, Project Manager II
Denise.Heckler@et.eurofinsus.com
(330)966-9477

Table of Contents

Job ID: 240-178320-1

Laboratory: Eurofins Canton

Narrative

Job Narrative
240-178320-1

Comments
No additional comments.

Receipt
The samples were received on 12/21/2022 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.5º C.

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

GC Semi VOA
Method 608.3: The following sample required a tetrabutylammonium sulfite (TBA) clean-up to reduce matrix interferences cause by sulfur: GW-11208058-121922-JY-001 (240-178320-1).

Method 608.3: The following sample appears to contain polychlorinated biphenyls (PCBs); however, due to weathering or other environmental processes, the PCBs in the sample do not directly match any of the laboratory's Aroclor standards used for instrument calibration: GW-11208058-121922-JY-001 (240-178320-1). The sample has been quantified and reported using the overall Aroclor/standard pattern match relative to the reference standards.

Method 608.3: The following sample was diluted due to the abundance of target analytes: GW-11208058-121922-JY-001 (240-178320-1). As such, 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.

Metals
Method 200.7 Rev 4.4: Some requested practical quantitation limits (PQLs) fall below the laboratory's verified standard quantitat limit. The continuing calibration blanks and method blanks may not support the lower PQL.

Method 245.1: The continuing calibration verification (CCV) associated with batch 240-557434 recovered above the upper contr limit for Mercury. The samples associated with this CCV were below the reporting limit for the affected analytes; therefore, the data have been reported. The associated sample is impacted: WT-11208058-122022-JY-002 (240-178320-2).

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

General Chemistry
Method SM 5210B: The following sample was analyzed past the 48 hour holding time due to Eurofins holidays: WT-11208058-122022-JY-002 (240-178320-2).

Method SM 5210B: The USB dilution water D.O. depletion was greater than 0.2 mg/L. The associated sample results in batch 240-557040 are qualified and reported.

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

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

Definitions/Glossary

Client: GHD Services Inc.
Job ID: 240-178320-1
Project/Site: 11208058-C04, RACER Bay City

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Metals

Qualifier	Qualifier Description
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
H	Sample was prepped or analyzed beyond the specified holding time
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
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)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
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)

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
TNTC	Too Numerous To Count

Sample Summary

Client: GHD Services Inc.
Project/Site: 11208058-C04, RACER Bay City

Job ID: 240-178320-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-178320-1	GW-11208058-121922-JY-001	Water	12/19/22 08:00	12/21/22 08:00
240-178320-2	WT-11208058-122022-JY-002	Water	12/20/22 08:00	12/21/22 08:00
240-178320-3	WT-11208058-122022-JY-002	Water	12/20/22 07:50	12/21/22 08:00
240-178320-4	TRIP BLANK	Water	12/20/22 00:00	12/21/22 08:00

Detection Summary

Client: GHD Services Inc.
Project/Site: 11208058-C04, RACER Bay City

Job ID: 240-178320-1

Client Sample ID: GW-11208058-121922-JY-001 — Lab Sample ID: 240-178320-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aroclor-1221	15		0.96	0.55	ug/L	10		608.3	Total/NA

Client Sample ID: WT-11208058-122022-JY-002 — Lab Sample ID: 240-178320-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cadmium	0.28	J	2.0	0.20	ug/L	1		200.7 Rev 4.4	Total Recoverable
Lead	3.5		3.0	2.8	ug/L	1		200.7 Rev 4.4	Total Recoverable
Chemical Oxygen Demand	7.1	J	10	1.8	mg/L	1		410.4	Total/NA
Ammonia	13		2.0	0.76	mg/L	10		4500 NH3 H	Total/NA

Client Sample ID: WT-11208058-122022-JY-002 — Lab Sample ID: 240-178320-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
HEM	1.1	J B	5.1	1.0	mg/L	1		1664A	Total/NA
pH	7.5	HF	0.1	0.1	SU	1		4500 H+ B-2000	Total/NA

Client Sample ID: TRIP BLANK — Lab Sample ID: 240-178320-4

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Canton

Method Summary

Client: GHD Services Inc.
Job ID: 240-178320-1
Project/Site: 11208058-C04, RACER Bay City

Method	Method Description	Protocol	Laboratory
624.1	Volatile Organic Compounds (GC/MS)	40CFR136A	EET CAN
608.3	Polychlorinated Biphenyls (PCBs) (GC)	40CFR136A	EET CAN
200.7 Rev 4.4	Metals (ICP)	EPA	EET CAN
245.1	Mercury (CVAA)	EPA	EET CAN
1664A	HEM and SGT-HEM	1664A	EET CAN
410.4	COD	MCAWW	EET CAN
4500 H+ B-2000	pH	SM	EET CAN
4500 NH3 H	Ammonia	SM	EET CAN
5210B-2001	BOD, 5-Day	SM	EET CAN
SM 2540D	Solids, Total Suspended (TSS)	SM	EET CAN
SM4500 P E-1999	Phosphorus	SM	EET CAN
200.7	Preparation, Total Recoverable Metals	EPA	EET CAN
245.1	Preparation, Mercury	EPA	EET CAN
608	Liquid-Liquid Extraction (Separatory Funnel)	40CFR136A	EET CAN

Protocol References:

1664A = EPA-821-98-002

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

EET CAN = Eurofins Canton, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Client: GHD Services Inc.
Job ID: 240-178320-1
Project/Site: 11208058-C04, RACER Bay City

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS)

Client Sample ID: WT-11208058-122022-JY-002
Lab Sample ID: 240-178320-3
Date Collected: 12/20/22 07:50
Matrix: Water
Date Received: 12/21/22 08:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	1.0	U	1.0	0.45	ug/L			12/28/22 16:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*111*		*62 - 137*		*12/28/22 16:49*	*1*
4-Bromofluorobenzene (Surr)	*90*		*56 - 136*		*12/28/22 16:49*	*1*
Toluene-d8 (Surr)	*93*		*78 - 122*		*12/28/22 16:49*	*1*

Client: GHD Services Inc.
Job ID: 240-178320-1
Project/Site: 11208058-C04, RACER Bay City

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS)

Client Sample ID: TRIP BLANK
Lab Sample ID: 240-178320-4
Date Collected: 12/20/22 00:00
Matrix: Water
Date Received: 12/21/22 08:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	1.0	U	1.0	0.45	ug/L			12/28/22 17:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*112*		*62 - 137*		*12/28/22 17:12*	*1*
4-Bromofluorobenzene (Surr)	*94*		*56 - 136*		*12/28/22 17:12*	*1*
Toluene-d8 (Surr)	*95*		*78 - 122*		*12/28/22 17:12*	*1*

Client: GHD Services Inc.
Project/Site: 11208058-C04, RACER Bay City

Job ID: 240-178320-1

Method: 40CFR136A 608.3 - Polychlorinated Biphenyls (PCBs) (GC)

Client Sample ID: GW-11208058-121922-JY-001
Date Collected: 12/19/22 08:00
Date Received: 12/21/22 08:00

Lab Sample ID: 240-178320-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.96	U	0.96	0.54	ug/L		12/27/22 08:19	12/29/22 14:06	10
Aroclor-1221	**15**		0.96	0.55	ug/L		12/27/22 08:19	12/29/22 14:06	10
Aroclor-1232	0.96	U	0.96	0.71	ug/L		12/27/22 08:19	12/29/22 14:06	10
Aroclor-1242	0.96	U	0.96	0.73	ug/L		12/27/22 08:19	12/29/22 14:06	10
Aroclor-1248	0.96	U	0.96	0.48	ug/L		12/27/22 08:19	12/29/22 14:06	10
Aroclor-1254	0.96	U	0.96	0.38	ug/L		12/27/22 08:19	12/29/22 14:06	10
Aroclor-1260	0.96	U	0.96	0.44	ug/L		12/27/22 08:19	12/29/22 14:06	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*28*		*10 - 174*	*12/27/22 08:19*	*12/29/22 14:06*	*10*
Tetrachloro-m-xylene	*72*		*10 - 149*	*12/27/22 08:19*	*12/29/22 14:06*	*10*

Client: GHD Services Inc.
Project/Site: 11208058-C04, RACER Bay City

Job ID: 240-178320-1

Method: 40CFR136A 608.3 - Polychlorinated Biphenyls (PCBs) (GC)

Client Sample ID: WT-11208058-122022-JY-002
Date Collected: 12/20/22 08:00
Date Received: 12/21/22 08:00

Lab Sample ID: 240-178320-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.096	U	0.096	0.054	ug/L		12/27/22 08:19	12/28/22 20:22	1
Aroclor-1221	0.096	U	0.096	0.055	ug/L		12/27/22 08:19	12/28/22 20:22	1
Aroclor-1232	0.096	U	0.096	0.071	ug/L		12/27/22 08:19	12/28/22 20:22	1
Aroclor-1242	0.096	U	0.096	0.073	ug/L		12/27/22 08:19	12/28/22 20:22	1
Aroclor-1248	0.096	U	0.096	0.048	ug/L		12/27/22 08:19	12/28/22 20:22	1
Aroclor-1254	0.096	U	0.096	0.038	ug/L		12/27/22 08:19	12/28/22 20:22	1
Aroclor-1260	0.096	U	0.096	0.044	ug/L		12/27/22 08:19	12/28/22 20:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*81*		*10 - 174*	*12/27/22 08:19*	*12/28/22 20:22*	*1*
Tetrachloro-m-xylene	*78*		*10 - 149*	*12/27/22 08:19*	*12/28/22 20:22*	*1*

Client Sample Results

Client: GHD Services Inc.
Project/Site: 11208058-C04, RACER Bay City

Job ID: 240-178320-1

Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Client Sample ID: WT-11208058-122022-JY-002
Date Collected: 12/20/22 08:00
Date Received: 12/21/22 08:00

Lab Sample ID: 240-178320-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	5.0	U	5.0	0.62	ug/L		12/22/22 12:00	12/29/22 03:00	1
Cadmium	**0.28**	**J**	2.0	0.20	ug/L		12/22/22 12:00	12/29/22 03:00	1
Chromium	5.0	U	5.0	4.0	ug/L		12/22/22 12:00	12/29/22 03:00	1
Copper	20	U	20	3.5	ug/L		12/22/22 12:00	12/29/22 03:00	1
Iron	100	U	100	83	ug/L		12/22/22 12:00	12/29/22 03:00	1
Nickel	20	U	20	2.2	ug/L		12/22/22 12:00	12/29/22 03:00	1
Lead	**3.5**		3.0	2.8	ug/L		12/22/22 12:00	12/29/22 03:00	1

Client: GHD Services Inc.
Job ID: 240-178320-1
Project/Site: 11208058-C04, RACER Bay City

Method: EPA 245.1 - Mercury (CVAA)

Client Sample ID: WT-11208058-122022-JY-002
Lab Sample ID: 240-178320-2
Date Collected: 12/20/22 08:00
Matrix: Water
Date Received: 12/21/22 08:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U ^+	0.20	0.13	ug/L		12/22/22 12:00	12/28/22 15:05	1

Client: GHD Services Inc.
Job ID: 240-178320-1
Project/Site: 11208058-C04, RACER Bay City

General Chemistry

Client Sample ID: WT-11208058-122022-JY-002
Lab Sample ID: 240-178320-2
Date Collected: 12/20/22 08:00
Matrix: Water
Date Received: 12/21/22 08:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand (MCAWW 410.4)	**7.1**	**J**	10	1.8	mg/L			12/30/22 16:18	1
Ammonia (SM 4500 NH3 H)	**13**		2.0	0.76	mg/L			12/22/22 13:23	10
Biochemical Oxygen Demand (SM 5210B-2001)	2.0	U H	2.0	2.0	mg/L			12/22/22 09:18	1
Total Suspended Solids (SM 2540D)	4.0	U	4.0	1.0	mg/L			12/27/22 13:56	1
Total Phosphorus as P (SM4500 P E-1999)	0.10	U	0.10	0.017	mg/L			12/29/22 10:05	1

Client: GHD Services Inc.
Job ID: 240-178320-1
Project/Site: 11208058-C04, RACER Bay City

General Chemistry

Client Sample ID: WT-11208058-122022-JY-002
Lab Sample ID: 240-178320-3
Date Collected: 12/20/22 07:50
Matrix: Water
Date Received: 12/21/22 08:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (1664A)	1.1	J B	5.1	1.0	mg/L			01/05/23 09:04	1
pH (SM 4500 H+ B-2000)	7.5	HF	0.1	0.1	SU			12/21/22 16:46	1

QC Association Summary

Client: GHD Services Inc.
Project/Site: 11208058-C04, RACER Bay City

Job ID: 240-178320-1

GC/MS VOA

Analysis Batch: 557268

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-178320-3	WT-11208058-122022-JY-002	Total/NA	Water	624.1	
240-178320-4	TRIP BLANK	Total/NA	Water	624.1	
MB 240-557268/9	Method Blank	Total/NA	Water	624.1	
LCS 240-557268/5	Lab Control Sample	Total/NA	Water	624.1	

GC Semi VOA

Prep Batch: 557120

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-178320-1	GW-11208058-121922-JY-001	Total/NA	Water	608	
240-178320-2	WT-11208058-122022-JY-002	Total/NA	Water	608	
MB 240-557120/23-A	Method Blank	Total/NA	Water	608	
LCS 240-557120/24-A	Lab Control Sample	Total/NA	Water	608	

Analysis Batch: 557382

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-178320-2	WT-11208058-122022-JY-002	Total/NA	Water	608.3	557120
MB 240-557120/23-A	Method Blank	Total/NA	Water	608.3	557120
LCS 240-557120/24-A	Lab Control Sample	Total/NA	Water	608.3	557120

Analysis Batch: 557519

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-178320-1	GW-11208058-121922-JY-001	Total/NA	Water	608.3	557120

Metals

Prep Batch: 556991

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-178320-2	WT-11208058-122022-JY-002	Total Recoverable	Water	200.7	
MB 240-556991/1-A	Method Blank	Total Recoverable	Water	200.7	
LCS 240-556991/2-A	Lab Control Sample	Total Recoverable	Water	200.7	

Prep Batch: 556997

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-178320-2	WT-11208058-122022-JY-002	Total/NA	Water	245.1	
MB 240-556997/1-A	Method Blank	Total/NA	Water	245.1	
LCS 240-556997/2-A	Lab Control Sample	Total/NA	Water	245.1	

Analysis Batch: 557398

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-178320-2	WT-11208058-122022-JY-002	Total Recoverable	Water	200.7 Rev 4.4	556991
MB 240-556991/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	556991
LCS 240-556991/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	556991

Analysis Batch: 557434

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-178320-2	WT-11208058-122022-JY-002	Total/NA	Water	245.1	556997
MB 240-556997/1-A	Method Blank	Total/NA	Water	245.1	556997
LCS 240-556997/2-A	Lab Control Sample	Total/NA	Water	245.1	556997

QC Association Summary

Client: GHD Services Inc.
Project/Site: 11208058-C04, RACER Bay City

Job ID: 240-178320-1

General Chemistry

Analysis Batch: 556903

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-178320-3	WT-11208058-122022-JY-002	Total/NA	Water	4500 H+ B-2000	
LCS 240-556903/3	Lab Control Sample	Total/NA	Water	4500 H+ B-2000	

Analysis Batch: 557040

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-178320-2	WT-11208058-122022-JY-002	Total/NA	Water	5210B-2001	
SCB 240-557040/2	Method Blank	Total/NA	Water	5210B-2001	
USB 240-557040/1	Method Blank	Total/NA	Water	5210B-2001	
LCS 240-557040/3	Lab Control Sample	Total/NA	Water	5210B-2001	
240-178320-2 DU	WT-11208058-122022-JY-002	Total/NA	Water	5210B-2001	

Analysis Batch: 557043

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-178320-2	WT-11208058-122022-JY-002	Total/NA	Water	4500 NH3 H	
MB 240-557043/15	Method Blank	Total/NA	Water	4500 NH3 H	
MB 240-557043/47	Method Blank	Total/NA	Water	4500 NH3 H	
LCS 240-557043/16	Lab Control Sample	Total/NA	Water	4500 NH3 H	
LCS 240-557043/48	Lab Control Sample	Total/NA	Water	4500 NH3 H	

Analysis Batch: 557212

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-178320-2	WT-11208058-122022-JY-002	Total/NA	Water	SM 2540D	
MB 240-557212/1	Method Blank	Total/NA	Water	SM 2540D	
LCS 240-557212/2	Lab Control Sample	Total/NA	Water	SM 2540D	

Analysis Batch: 557487

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-178320-2	WT-11208058-122022-JY-002	Total/NA	Water	SM4500 P E-1999	
MB 240-557487/3	Method Blank	Total/NA	Water	SM4500 P E-1999	
LCS 240-557487/4	Lab Control Sample	Total/NA	Water	SM4500 P E-1999	

Analysis Batch: 557642

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-178320-2	WT-11208058-122022-JY-002	Total/NA	Water	410.4	
MB 240-557642/9	Method Blank	Total/NA	Water	410.4	
LCS 240-557642/10	Lab Control Sample	Total/NA	Water	410.4	

Analysis Batch: 557982

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-178320-3	WT-11208058-122022-JY-002	Total/NA	Water	1664A	
MB 240-557982/1	Method Blank	Total/NA	Water	1664A	
LCS 240-557982/2	Lab Control Sample	Total/NA	Water	1664A	

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 240-557268/9
Matrix: Water
Analysis Batch: 557268

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	1.0	U	1.0	0.45	ug/L			12/28/22 10:20	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*62 - 137*		*12/28/22 10:20*	*1*
4-Bromofluorobenzene (Surr)	*89*		*56 - 136*		*12/28/22 10:20*	*1*
Toluene-d8 (Surr)	*94*		*78 - 122*		*12/28/22 10:20*	*1*

Lab Sample ID: LCS 240-557268/5
Matrix: Water
Analysis Batch: 557268

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Vinyl chloride	20.0	19.2		ug/L		96	5 - 195

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*95*		*62 - 137*
4-Bromofluorobenzene (Surr)	*87*		*56 - 136*
Toluene-d8 (Surr)	*87*		*78 - 122*

Method: 608.3 - Polychlorinated Biphenyls (PCBs) (GC)

Lab Sample ID: MB 240-557120/23-A
Matrix: Water
Analysis Batch: 557382

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 557120

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.10	U	0.10	0.056	ug/L		12/27/22 08:19	12/28/22 18:47	1
Aroclor-1221	0.10	U	0.10	0.057	ug/L		12/27/22 08:19	12/28/22 18:47	1
Aroclor-1232	0.10	U	0.10	0.074	ug/L		12/27/22 08:19	12/28/22 18:47	1
Aroclor-1242	0.10	U	0.10	0.076	ug/L		12/27/22 08:19	12/28/22 18:47	1
Aroclor-1248	0.10	U	0.10	0.050	ug/L		12/27/22 08:19	12/28/22 18:47	1
Aroclor-1254	0.10	U	0.10	0.040	ug/L		12/27/22 08:19	12/28/22 18:47	1
Aroclor-1260	0.10	U	0.10	0.046	ug/L		12/27/22 08:19	12/28/22 18:47	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*93*		*10 - 174*	*12/27/22 08:19*	*12/28/22 18:47*	*1*
Tetrachloro-m-xylene	*82*		*10 - 149*	*12/27/22 08:19*	*12/28/22 18:47*	*1*

Lab Sample ID: LCS 240-557120/24-A
Matrix: Water
Analysis Batch: 557382

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 557120

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aroclor-1016	2.50	1.87		ug/L		75	50 - 140
Aroclor-1260	2.50	1.93		ug/L		77	8 - 140

Method: 608.3 - Polychlorinated Biphenyls (PCBs) (GC) (Continued)

Lab Sample ID: LCS 240-557120/24-A
Matrix: Water
Analysis Batch: 557382

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 557120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*92*		*10 - 174*
Tetrachloro-m-xylene	*86*		*10 - 149*

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 240-556991/1-A
Matrix: Water
Analysis Batch: 557398

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 556991

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	5.0	U	5.0	0.62	ug/L		12/22/22 12:00	12/29/22 01:12	1
Cadmium	2.0	U	2.0	0.20	ug/L		12/22/22 12:00	12/29/22 01:12	1
Chromium	5.0	U	5.0	4.0	ug/L		12/22/22 12:00	12/29/22 01:12	1
Copper	20	U	20	3.5	ug/L		12/22/22 12:00	12/29/22 01:12	1
Iron	100	U	100	83	ug/L		12/22/22 12:00	12/29/22 01:12	1
Nickel	20	U	20	2.2	ug/L		12/22/22 12:00	12/29/22 01:12	1
Lead	3.0	U	3.0	2.8	ug/L		12/22/22 12:00	12/29/22 01:12	1

Lab Sample ID: LCS 240-556991/2-A
Matrix: Water
Analysis Batch: 557398

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 556991

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Silver	100	101		ug/L		101	85 - 115
Cadmium	1000	982		ug/L		98	85 - 115
Chromium	1000	985		ug/L		98	85 - 115
Copper	1000	955		ug/L		96	85 - 115
Iron	10000	9150		ug/L		92	85 - 115
Nickel	1000	970		ug/L		97	85 - 115
Lead	1000	944		ug/L		94	85 - 115

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 240-556997/1-A
Matrix: Water
Analysis Batch: 557434

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 556997

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U ^+	0.20	0.13	ug/L		12/22/22 12:00	12/28/22 14:32	1

Lab Sample ID: LCS 240-556997/2-A
Matrix: Water
Analysis Batch: 557434

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 556997

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	5.59	^+	ug/L		112	85 - 115

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 240-557982/1
Matrix: Water
Analysis Batch: 557982

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	1.80	J	5.0	1.0	mg/L			01/05/23 09:04	1

Lab Sample ID: LCS 240-557982/2
Matrix: Water
Analysis Batch: 557982

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
HEM	40.0	32.80		mg/L		82	78 - 114

Method: 410.4 - COD

Lab Sample ID: MB 240-557642/9
Matrix: Water
Analysis Batch: 557642

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	10	U	10	1.8	mg/L			12/30/22 15:53	1

Lab Sample ID: LCS 240-557642/10
Matrix: Water
Analysis Batch: 557642

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chemical Oxygen Demand	46.4	45.4		mg/L		98	90 - 110

Method: 4500 H+ B-2000 - pH

Lab Sample ID: LCS 240-556903/3
Matrix: Water
Analysis Batch: 556903

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
pH	9.20	9.2		SU		100	97 - 103

Method: 4500 NH3 H - Ammonia

Lab Sample ID: MB 240-557043/15
Matrix: Water
Analysis Batch: 557043

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.20	U	0.20	0.076	mg/L			12/22/22 10:23	1

Lab Sample ID: MB 240-557043/47
Matrix: Water
Analysis Batch: 557043

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.20	U	0.20	0.076	mg/L			12/22/22 11:53	1

Method: 4500 NH3 H - Ammonia (Continued)

Lab Sample ID: LCS 240-557043/16
Matrix: Water
Analysis Batch: 557043

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ammonia	6.37	6.15		mg/L		97	90 - 110

Lab Sample ID: LCS 240-557043/48
Matrix: Water
Analysis Batch: 557043

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ammonia	6.37	6.26		mg/L		98	90 - 110

Method: 5210B-2001 - BOD, 5-Day

Lab Sample ID: SCB 240-557040/2
Matrix: Water
Analysis Batch: 557040

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

Analyte	SCB Result	SCB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	2.0	U	2.0	2.0	mg/L			12/22/22 09:12	1

Lab Sample ID: USB 240-557040/1
Matrix: Water
Analysis Batch: 557040

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

Analyte	USB Result	USB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	2.0	U	2.0	2.0	mg/L			12/22/22 09:09	1

Lab Sample ID: LCS 240-557040/3
Matrix: Water
Analysis Batch: 557040

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Biochemical Oxygen Demand	198	193		mg/L		97	85 - 115

Lab Sample ID: 240-178320-2 DU
Matrix: Water
Analysis Batch: 557040

Client Sample ID: WT-11208058-122022-JY-002
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Biochemical Oxygen Demand	2.0	U H	2.0	U	mg/L		NC	15

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 240-557212/1
Matrix: Water
Analysis Batch: 557212

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	4.0	U	4.0	1.0	mg/L			12/27/22 11:53	1

Method: SM 2540D - Solids, Total Suspended (TSS) (Continued)

Lab Sample ID: LCS 240-557212/2
Matrix: Water
Analysis Batch: 557212

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Suspended Solids			88.4	59.5		mg/L		67	64 - 120		

Method: SM4500 P E-1999 - Phosphorus

Lab Sample ID: MB 240-557487/3
Matrix: Water
Analysis Batch: 557487

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P	0.10	U	0.10	0.017	mg/L			12/29/22 10:05	1

Lab Sample ID: LCS 240-557487/4
Matrix: Water
Analysis Batch: 557487

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Phosphorus as P			0.784	0.819		mg/L		104	77 - 120		

Surrogate Summary

Client: GHD Services Inc.
Project/Site: 11208058-C04, RACER Bay City

Job ID: 240-178320-1

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
		DCA	BFB	TOL
Lab Sample ID	Client Sample ID	(62-137)	(56-136)	(78-122)
240-178320-3	WT-11208058-122022-JY-002	111	90	93
240-178320-4	TRIP BLANK	112	94	95
LCS 240-557268/5	Lab Control Sample	95	87	87
MB 240-557268/9	Method Blank	105	89	94

Surrogate Legend

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

Method: 608.3 - Polychlorinated Biphenyls (PCBs) (GC)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
		DCBP1	TCX1
Lab Sample ID	Client Sample ID	(10-174)	(10-149)
240-178320-1	GW-11208058-121922-JY-001	28	72
240-178320-2	WT-11208058-122022-JY-002	81	78
LCS 240-557120/24-A	Lab Control Sample	92	86
MB 240-557120/23-A	Method Blank	93	82

Surrogate Legend

DCBP = DCB Decachlorobiphenyl
TCX = Tetrachloro-m-xylene

Lab Chronicle

Client: GHD Services Inc.
Project/Site: 11208058-C04, RACER Bay City

Job ID: 240-178320-1

Client Sample ID: GW-11208058-121922-JY-001

Lab Sample ID: 240-178320-1

Date Collected: 12/19/22 08:00
Matrix: Water
Date Received: 12/21/22 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	608			557120	MDH	EET CAN	12/27/22 08:19
Total/NA	Analysis	608.3		10	557519	RR	EET CAN	12/29/22 14:06

Client Sample ID: WT-11208058-122022-JY-002

Lab Sample ID: 240-178320-2

Date Collected: 12/20/22 08:00
Matrix: Water
Date Received: 12/21/22 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	608			557120	MDH	EET CAN	12/27/22 08:19
Total/NA	Analysis	608.3		1	557382	RR	EET CAN	12/28/22 20:22
Total Recoverable	Prep	200.7			556991	SHB	EET CAN	12/22/22 12:00
Total Recoverable	Analysis	200.7 Rev 4.4		1	557398	RKT	EET CAN	12/29/22 03:00
Total/NA	Prep	245.1			556997	SHB	EET CAN	12/22/22 12:00
Total/NA	Analysis	245.1		1	557434	MRL	EET CAN	12/28/22 15:05
Total/NA	Analysis	410.4		1	557642	JMB	EET CAN	12/30/22 16:18
Total/NA	Analysis	4500 NH3 H		10	557043	MED	EET CAN	12/22/22 13:23
Total/NA	Analysis	5210B-2001		1	557040	JMR	EET CAN	12/22/22 09:18
Total/NA	Analysis	SM 2540D		1	557212	MS	EET CAN	12/27/22 13:56
Total/NA	Analysis	SM4500 P E-1999		1	557487	BLW	EET CAN	12/29/22 10:05

Client Sample ID: WT-11208058-122022-JY-002

Lab Sample ID: 240-178320-3

Date Collected: 12/20/22 07:50
Matrix: Water
Date Received: 12/21/22 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	624.1		1	557268	TJL1	EET CAN	12/28/22 16:49
Total/NA	Analysis	1664A		1	557982	MMS	EET CAN	01/05/23 09:04
Total/NA	Analysis	4500 H+ B-2000		1	556903	JWW	EET CAN	12/21/22 16:46

Client Sample ID: TRIP BLANK

Lab Sample ID: 240-178320-4

Date Collected: 12/20/22 00:00
Matrix: Water
Date Received: 12/21/22 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	624.1		1	557268	TJL1	EET CAN	12/28/22 17:12

Laboratory References:

EET CAN = Eurofins Canton, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Accreditation/Certification Summary

Client: GHD Services Inc. Job ID: 240-178320-1
Project/Site: 11208058-C04, RACER Bay City

Laboratory: Eurofins Canton

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

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-27-23
Connecticut	State	PH-0590	12-31-23
Florida	NELAP	E87225	06-30-23
Georgia	State	4062	02-27-23
Illinois	NELAP	200004	07-31-23
Iowa	State	421	06-01-23
Kentucky (UST)	State	112225	02-27-23
Kentucky (WW)	State	KY98016	12-31-22 *
Michigan	State	9135	02-27-23
Minnesota	NELAP	039-999-348	12-31-23
Minnesota (Petrofund)	State	3506	08-01-23
New Jersey	NELAP	OH001	06-30-23
New York	NELAP	10975	04-01-23
Ohio	State	8303	02-27-23
Ohio VAP	State	CL0024	02-27-23
Oregon	NELAP	4062	02-27-23
Pennsylvania	NELAP	68-00340	08-31-23
Texas	NELAP	T104704517-22-17	08-31-23
Virginia	NELAP	460175	09-14-23
Washington	State	C971	01-12-23
West Virginia DEP	State	210	12-31-22 *

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Canton
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

MICHIGAN 190

Chain of Custody Record

2.6.25 MICHIGAN 190

eurofins | Environment Testing

Client Information	Sampler: John York	Lab PM: Heckler, Denise D	Carrier Tracking No(s): GHD to Bright	COC No: 240-101256-28266.2
Client Contact: Ms. Ruth Mickle	Phone: 734 231 6088	E-Mail: Denise.Heckler@et.eurofinsus.com	State of Origin: Michigan	Page: Page 1 of 1
Company: GHD Services Inc.	PWSID:			Job #:

Address: 26850 Haggerty Rd.	Due Date Requested:	Analysis Requested	Preservation Codes:
City: Farmington Hills	TAT Requested (days): STD		A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
State, Zip: MI, 48331	Compliance Project: Δ Yes Δ No		
Phone: 248 893 3400	PO #: Purchase Order Requested		
Email: ruth.mickle@ghd.com	WO #: 11208058		
Project Name: 11208058, RACER Bay City	Project #: 24006288		
Site:	SSOW#:		Other:

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)	608.3 - PCBs	COD, T. Phos (P), Ammonia	Mercury 1631	Select Metals	BOD	TSS	pH	HEM - HEM	Vinyl chloride 624.1	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N										
GW-11208058-121922-JY-001	12-19-22	0800	G	Water			X										
WT-11208058-122022-JY-002	12-20-22	0800	C	W			X	X	X	X	X	X					
WT-11208058-122022-JY-002 (Trip Blank)	12-20-22	0750	G	W									X	X	X		

240-178320 Chain of Custody

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological	☐ 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
1	[signature]	12-20-22 0900	GHD	[signature]	12/20/22 10:15	EFM
2	[signature]	12/20/22 1016	EFM	[signature]	12.21.22 - 800	ETNC
3						

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Eurofins - Canton Sample Receipt Form/Narrative **Login # :** 178320
Barberton Facility

Client GHD Site Name _____ Cooler unpacked by: Tammy Boyle

Cooler Received on 12-21-22 Opened on 12-21-22

FedEx: 1st Grd Exp UPS FAS Clipper Client Drop Off Eurofins Courier Other _____

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

Eurofins Cooler # 1A Foam Box Client Cooler Box Other _____

Packing material used: Bubble Wrap Foam Plastic Bag None Other _____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☐ See Multiple Cooler Form

IR GUN # IR-13 (CF -0.2 °C) Observed Cooler Temp. 2.6 °C Corrected Cooler Temp. 2.5 °C

IR GUN # IR-16 (CF -0.1°C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

IR GUN # IR-17 (CF -0.3°C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1	Yes	No
-Were the seals on the outside of the cooler(s) signed & dated?	Yes	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	No
-Were tamper/custody seals intact and uncompromised?	Yes	No NA
3. Shippers' packing slip attached to the cooler(s)?	Yes	No
4. Did custody papers accompany the sample(s)?	Yes	No
5. Were the custody papers relinquished & signed in the appropriate place?	Yes	No
6. Was/were the person(s) who collected the samples clearly identified on the COC?	Yes	No
7. Did all bottles arrive in good condition (Unbroken)?	Yes	No
8. Could all bottle labels (ID/Date/Time) be reconciled with the COC?	Yes	No
9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp(Y/N)?		
10. Were correct bottle(s) used for the test(s) indicated?	Yes	No
11. Sufficient quantity received to perform indicated analyses?	Yes	No
12. Are these work share samples and all listed on the COC?	Yes	No
If yes, Questions 13-17 have been checked at the originating laboratory.		
13. Were all preserved sample(s) at the correct pH upon receipt?	Yes	No NA pH Strip Lot# **HC291590**
14. Were VOAs on the COC?	Yes	No
15. Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this.	Yes	No NA
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # 62070	Yes	No
17. Was a LL Hg or Me Hg trip blank present? _____	Yes	No

Tests that are not checked for pH by Receiving:

VOAs
Oil and Grease
TOC

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

Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Samples processed by:

19. SAMPLE CONDITION

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

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

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

20. SAMPLE PRESERVATION

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

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

VOA Sample Preservation - Date/Time VOAs Frozen: _____

Login Container Summary Report

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservative Added (mls)	Lot #
GW-11208058-121922-JY-001	240-178320-A-1	Amber Glass 1 liter - unpreserved				
GW-11208058-121922-JY-001	240-178320-B-1	Amber Glass 1 liter - unpreserved				
GW-11208058-121922-JY-002	240-178320-A-2	Plastic 250ml - with Sulfuric Acid	<2			
GW-11208058-121922-JY-002	240-178320-B-2	Plastic 500ml - with Nitric Acid	<2			
GW-11208058-121922-JY-002	240-178320-C-2	Plastic 1 liter - unpreserved				
GW-11208058-121922-JY-002	240-178320-D-2	Plastic 1 liter - unpreserved				
GW-11208058-121922-JY-002	240-178320-E-2	Amber Glass 1 liter - unpreserved				
GW-11208058-121922-JY-002	240-178320-F-2	Amber Glass 1 liter - unpreserved				
GW-11208058-121922-JY-002	240-178320-A-3	Voa Vial 40ml - Hydrochloric Acid				
GW-11208058-121922-JY-002	240-178320-B-3	Voa Vial 40ml - Hydrochloric Acid				
GW-11208058-121922-JY-002	240-178320-C-3	Voa Vial 40ml - Hydrochloric Acid				
GW-11208058-121922-JY-002	240-178320-D-3	Plastic 125mL - unpreserved				
GW-11208058-121922-JY-002	240-178320-E-3	Amber Glass 1 liter - Sulfuric Acid				
GW-11208058-121922-JY-002	240-178320-F-3	Amber Glass 1 liter - Sulfuric Acid				
TRIP BLANK	240-178320-A-4	Voa Vial 40ml - Hydrochloric Acid				

Attachment 2

Certification Statement

Certification Statement

"I, David Favero, certify under penalty of law that this document (January 30, 2023 GHD Semi-Annual Compliance Report (July 1 to December 31, 2022)), and all attachments were prepared under by direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

David Favero Digitally signed by David Favero
Date: 2023.01.30 14:45:23 -05'00'

RACER, Deputy Cleanup Manager – Michigan

January 30, 2023
(Date)