

OBG | There's a way

October 27, 2016

Mr. Tom Hutchings

City of Flint Water Pollution
Water Pollution Control Facilities
G4652 Beecher Rd.
Flint, MI, 48532

RE: ***Discharge Permit Submittal-July 2016 through September 2016***
Permit No.: 6-08-04-04-GML1

FILE: 15388/62658/Docs

Dear **Mr. Hutchings**:

In accordance with requirements of the above referenced discharge permit, we are providing you with the following discharge information for the period July 1, 2016 to September 30, 2016 for the Coldwater Road Landfill facility, located at 6220 Horton Avenue, Flint, Michigan.

- Periodic Report on Continued Compliance, certification
- Periodic Report on Continued Compliance (Table 1)
- Daily Discharge Summary Table (Table 2)
- Analytical Reports provided by Merit Laboratories, Inc. for samples from the on-site, above ground collection tank collected on September 7, 2016 and September 16, 2016 (mercury resample)
- Copy of Chain-of-Custody forms.

The laboratory analytical results indicate concentrations were below the Sewer Use Permit limits for the parameters analyzed for the water discharged to the POTW during the discharge period. The sample collected by O'Brien & Gere on September 7, 2016 contained a detection of mercury at a value of 0.0003 mg/L. Per the direction of the City of Flint, O'Brien & Gere collected an additional sample for mercury from the accumulation tank on September 16, 2016. The mercury result from the sample collected on September 16, 2016 was non-detect at a detection limit of 0.0002 mg/L. The split sample collected by the City of Flint on September 7, 2016 during the annual inspection had a mercury result that was also non-detect at a detection limit of 0.0002 mg/L. Per the City of Flint, O'Brien & Gere used the two non-detect results (City of Flint, OBG 9/16/19 result) to confirm the mercury concentration was below the Sewer Use Permit limit and the September 7, 2016 result was thrown out as an outlier.



37000 Grand River Avenue, Suite 260
Farmington Hills, MI 48335



p 248-477-5701
f 248-477-5962



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www.obg.com

Please call me at 248-477-5701 x16 if you have any questions.

Very truly yours,

O'BRIEN & GERE ENGINEERS, INC.



Clifford S. Yantz
Scientist-3

cc: Mr. Kevin Forbes – Beecher Metropolitan District, Flint, MI
Mr. Grant Trigger – RACER Trust
Mr. David Favero – RACER Trust
Mr. Kevin Schneider – O'Brien & Gere



City of Flint Industrial Pretreatment Program

Periodic Report on Continued Compliance

Company Name: RACER Trust, Coldwater Road
Street Address: 6220 Horton Avenue, Flint, Michigan
Permit Number: 6-08-04-04-GML1
Outfall Number: 001

Reporting Period: July 1, 2016 through September 30, 2016

Average Volume of Daily Discharge (during reporting period): 3,076 gallons.
(1-day event)

Complete the following:

"I certify under penalty of law that this document and all attachments were prepared under my 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 the 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."

Name of Authorized Representative: Clifford Yantz

Title of Authorized Representative: Scientist-3, O'Brien & Gere Engineers, Inc.
As agent for the RACER Trust

Signature of Authorized Representative: 

Date Signed by Authorized Representative: 10/27/16

If required to implement a Toxic Organics Management Plan (TOMP), complete the following:

"Based on my inquiry of the person or persons directly responsible for managing compliance with the pretreatment standard for total toxic organics (TTO), I certify that, to the best of my knowledge and belief, no dumping of concentrated toxic organics into the wastewaters has occurred since filing of the last Periodic Report on Continued Compliance. I further certify that, this facility is implementing the toxic organic management plan submitted to the control authority."

Name of Authorized Representative: N/A

Title of Authorized Representative: N/A

Signature of Authorized Representative: N/A

Date Signed by Authorized Representative: N/A

Table 1
Coldwater Road Landfill
City of Flint Sewer User Self-Monitoring Report
Third Quarter - 2016
6-08-04-04-GML1

City of Flint Sewer User Self-Monitoring Report Coldwater Road Facility												
Analytical Parameter	Ammonia-N	QL*	BOD	QL*	HEM	QL*	pH	QL*	TP	QL*	TSS	QL*
Units	mg/L		mg/L		mg/L		SU		mg/L		mg/L	
Sampling Frequency	Sample one (1) batch of accumulated wastewater prior to discharge, once every three (3) months.		Sample one (1) batch of accumulated wastewater prior to discharge, once every three (3) months.		Sample one (1) batch of accumulated wastewater prior to discharge, once every three (3) months.		Sample one (1) batch of accumulated wastewater prior to discharge, once every three (3) months.		Sample one (1) batch of accumulated wastewater prior to discharge, once every three (3) months.		Sample one (1) batch of accumulated wastewater prior to discharge, once every three (3) months.	
Daily Maximum Limit	37		427		100		N/A		7		305	
Maximum Limit	N/A		N/A		N/A		10.5		N/A		N/A	
Minimum Limit	N/A		N/A		N/A		6.0		N/A		N/A	
Monthly Average Limit	N/A		N/A		N/A		N/A		N/A		N/A	
Test Result	6.80	0.02	65.00	1	1.00	1	7.80	0.01	0.09	0.01	89	1
Test Method	4500-NH3 D		10360		1664A		4500-H+ B		4500-PE		2540 D	
Test Date	08-Sep-16		08-Sep-16		09-Sep-16		07-Sep-16		09-Sep-16		08-Sep-16	
Sample Date	07-Sep-16		07-Sep-16		07-Sep-16		07-Sep-16		07-Sep-16		07-Sep-16	
Sample Type	wastewater		wastewater		wastewater		wastewater		wastewater		wastewater	
Test Result												
Test Method												
Test Date												
Sample Date												
Sample Type												
Test Result												
Test Method												
Test Date												
Sample Date												
Sample Type												
Test Result												
Test Method												
Test Date												
Sample Date												
Sample Type												
Average Daily Conc.	6.800		65.000		1.000		7.800		0.090		89.000	
Monthly Average Conc.	N/A		N/A		N/A		N/A		N/A		N/A	
No. of Samples	1		1		1		1		1		1	
Number of Limit Exceedances	0		0		0		0		0		0	

Notes: * Quantification Level: The lowest level at which the test result is reported by the analytical laboratory as a quantitative numerical value, below which test results are reported as "less than" (<) that value.

E1 = Limit Exceedance; **E2** = Sample Expired

**Table 1
Coldwater Road Landfill
City of Flint Sewer User Self-Monitoring Report
Third Quarter - 2016
6-08-04-04-GML1**

City of Flint Sewer User Self-Monitoring Report Coldwater Road Facility														
Analytical Parameter	Arsenic	QL*	Chromium	QL*	Copper	QL*	Mercury	QL*	Nickel	QL*	Zinc	QL*	Amenable Cyanide	QL*
Units	mg/L		mg/L		mg/L		mg/L		mg/L		mg/L		mg/L	
Sampling Frequency	Sample one (1) batch of accumulated wastewater prior to discharge, once every three (3) months.		Sample one (1) batch of accumulated wastewater prior to discharge, once every three (3) months.		Sample one (1) batch of accumulated wastewater prior to discharge, once every three (3) months.		Sample one (1) batch of accumulated wastewater prior to discharge, once every three (3) months.		Sample one (1) batch of accumulated wastewater prior to discharge, once every three (3) months.		Sample one (1) batch of accumulated wastewater prior to discharge, once every three (3) months.		Sample one (1) batch of accumulated wastewater prior to discharge, once every three (3) months.	
Daily Maximum Limit	0.048		0.319		3.12		0.000012		0.795		0.445		N/A	
Maximum Limit	N/A		N/A		N/A		N/A		N/A		N/A		0.087	
Minimum Limit	N/A		N/A		N/A		N/A		N/A		N/A		N/A	
Monthly Average Limit	N/A		N/A		N/A		N/A		N/A		N/A		N/A	
Test Result	0.019	0.002	0.043	0.005	0.610	0.004	0.000	0.0002	0.211	0.005	0.025	0.005	0.000	0.005
Test Method	200.8		200.8		200.8		245.1		200.8		200.8		335.4/4500-CN-G	
Test Date	08-Sep-16		08-Sep-16		08-Sep-16		19-Sep-16		08-Sep-16		08-Sep-16		08-Sep-16	
Sample Date	07-Sep-16		07-Sep-16		07-Sep-16		16-Sep-19		07-Sep-16		07-Sep-16		07-Sep-16	
Sample Type	wastewater		wastewater		wastewater		wastewater		wastewater		wastewater		wastewater	
Test Result														
Test Method														
Test Date														
Sample Date														
Sample Type														
Test Result														
Test Method														
Test Date														
Sample Date														
Sample Type														
Test Result														
Test Method														
Test Date														
Sample Date														
Sample Type														
Average Daily Conc.	0.019		0.043		0.610		0.000		0.211		0.025		0.000	
Monthly Average Conc.	N/A		N/A		N/A		N/A		N/A		N/A		N/A	
No. of Samples	1		1		1		1		1		1		1	
Number of Limit Exceedances	0		0		0		0		0		0		0	

Notes: * Quantification Level: The lowest level at which the test result is reported by the analytical laboratory as a quantitative numerical value, below which test results are reported as "less than" (<) that value.

E1 = Limit Exceedance; E2 = Sample Expired

**Table 2
Coldwater Road Landfill
Daily Discharge Summary Table
Third Quarter - 2016
6-08-04-04-GML1**

Date	Beginning Flow Meter Reading	End Flow Meter Reading	Gallons Discharged	Begin Time of Discharge	End Time of Discharge	Average Flow (gal/min)	Temperature at Discharge		pH
							(C)	(F)	
9/26/2016	523,408	526,484	3,076	9:00	12:00	17.1	24.7	76.5	7.77

Total Discharge Volume: 3,076

NOTES :



Analytical Laboratory Report

Report ID: S75883.01(01)
Generated on 09/15/2016

Report to

Attention: Clifford Yantz
O'Brien & Gere Engineers, Inc.
37000 Grand River Ave.
Suite 260
Farmington, MI 48335

Phone: 248-477-5701 FAX:
Email: Clifford.Yantz@obg.com

Report produced by

Merit Laboratories, Inc.
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Contacts for report questions:
John Laverty (johnlaverty@meritlabs.com)
Barbara Ball (bball@meritlabs.com)

Report Summary

Lab Sample ID(s): S75883.01
Project: RACER Coldwater Rd Landfill
Collected Date: 09/07/2016
Submitted Date/Time: 09/07/2016 14:15
Sampled by: Kevin Schneider
P.O. #: 11600279

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Maya Murshak
Technical Director



Analytical Laboratory Report

General Report Notes

Analytical results relate only to the samples tested, in the condition received by the laboratory.

Methods may be modified for improved performance.

Results reported on a dry weight basis where applicable.

'Not detected' indicates that parameter was not found at a level equal to or greater than the reporting limit (RL).

40 CFR Part 136 Table II Required Containers, Preservation Techniques and Holding Times for the Clean Water Act specify that samples for acrolein and acrylonitrile need to be preserved at a pH in the range of 4 to 5 or if not preserved, analyzed within 3 days of sampling.

QA/QC corresponding to this analytical report is a separate document with the same Merit ID reference and is available upon request.

Full accreditation certificates are available upon request. Starred (*) analytes are not NELAP accredited.

Samples are held by the lab for 30 days from the final report date unless a written request to hold longer is provided by the client.

Report shall not be reproduced except in full, without the written approval of Merit Laboratories, Inc.

Report Narrative

There is no additional narrative for this analytical report



Analytical Laboratory Report

Laboratory Certifications

Authority	Certification ID
Michigan DEQ	#9956
DOD ELAP/ISO 17025	#69699
WBENC	#2005110032
Ohio VAP	#CL0002
Indiana DOH	#C-MI-07
New York NELAC	#11814
North Carolina DENR	#680
North Carolina DOH	#26702

Qualifier Descriptions

Qualifier	Description
!	Result is outside of stated limit criteria
B	Compound also found in associated method blank
E	Concentration exceeds calibration range
F	Analysis run outside of holding time
G	Estimated result due to extraction run outside of holding time
H	Sample submitted and run outside of holding time
I	Matrix interference with internal standard
J	Estimated value less than reporting limit, but greater than MDL
L	Elevated reporting limit due to low sample amount
M	Result reported to MDL not RDL
O	Analysis performed by outside laboratory. See attached report.
R	Preliminary result
S	Surrogate recovery outside of control limits
T	No correction for total solids
X	Elevated reporting limit due to matrix interference
Y	Elevated reporting limit due to high target concentration
b	Value detected less than reporting limit, but greater than MDL
e	Reported value estimated due to interference
j	Analyte also found in associated method blank
p	Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.
x	Preserved from bulk sample

Glossary of Abbreviations

Abbreviation	Description
RL/RDL	Reporting Limit
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
SW	EPA SW 846 (Soil and Wastewater) Methods
E	EPA Methods
SM	Standard Methods



Analytical Laboratory Report

Method Summary

Method	Version
E1664A	EPA Method 1664 Revision A February 1999
E200.8	EPA Method 200.8 Revision 5.4
E245.1	EPA Method 245.1 Revision 3.0
E335.4/SM4500-CN	EPA Method 335.4 Revision 1.0 / Standard Method 4500-CN E 20th Edition
HACH 10360	HACH 10360
SM2540D	Standard Method 2540 D 20th Edition
SM2550B	Standard Method 2550 B 20th Edition
SM4500-H+ B	Standard Method 4500 H + B 20th Edition
SM4500-NH3 D	Standard Method 4500 NH3 D 20th Edition
SM4500-PE	Standard Method 4500 P E 20th Edition
SW3015A	SW 846 Method 3015A Revision 1 February 2007



Analytical Laboratory Report

Sample Summary (1 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S75883.01	03-PRCC-16	Wastewater	09/07/16 10:50



Analytical Laboratory Report

Lab Sample ID: S75883.01
 Sample Tag: 03-PRCC-16
 Collected Date/Time: 09/07/2016 10:50
 Matrix: Wastewater
 COC Reference: 098040

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	32oz Glass	HCL	Yes	5.8	IR
1	1L Plastic	None	Yes	5.8	IR
1	125ml Plastic	HNO3	Yes	5.8	IR
1	250ml Plastic	H2SO4	Yes	5.8	IR
1	125ml Plastic	NaOH	Yes	5.8	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Tech	CAS #	Flags
Extraction / Prep.								
Mercury Digestion	Completed			E245.1	09/08/16 10:00	RGS		
Metal Digestion	Completed			SW3015A	09/08/16 10:00	CCM		
Inorganics								
Amenable Cyanide	Not detected	mg/L	0.005	E335.4/SM4500-CN	09/08/16 11:26	JDP	57-12-5AM	1
Ammonia-N (Undistilled)	6.8	mg/L	0.1	SM4500-NH3 D	09/08/16 15:43	MJC	7664-41-7	
Field pH*	7.8	STD Units	0.1	SM4500-H+ B	09/07/16 10:50	KS		
Field Temperature*	78	oF	1	SM2550B	09/07/16 10:50	KS		
Oil & Grease n-Hexane Extract.	1	mg/L	1	E1664A	09/09/16 14:51	PLB		
TBOD5 - Set*	Completed	mg/L		HACH 10360	09/08/16 08:00	ASB		
TBOD5*	65	mg/L	3	HACH 10360	09/13/16 13:00	ASB		
Total Phosphorus	0.09	mg/L	0.05	SM4500-PE	09/09/16 22:53	MJC	7723-14-0	
Total Suspended Solids	89	mg/L	3	SM2540D	09/08/16 15:45	WAR		
Metals								
Arsenic	0.019	mg/L	0.002	E200.8	09/08/16 11:55	CCM	7440-38-2	
Chromium	0.043	mg/L	0.005	E200.8	09/08/16 11:55	CCM	7440-47-3	
Copper	0.610	mg/L	0.005	E200.8	09/08/16 11:55	CCM	7440-50-8	
Mercury	0.0003	mg/L	0.0002	E245.1	09/08/16 14:38	RGS	7439-97-6	
Nickel	0.211	mg/L	0.005	E200.8	09/08/16 11:55	CCM	7440-02-0	
Zinc	0.025	mg/L	0.005	E200.8	09/08/16 11:55	CCM	7440-66-6	

1-* Total CN- = < 0.005 mg/L



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C.O.C. PAGE # 1 OF 1

098040

REPORT TO

CHAIN OF CUSTODY RECORD

INVOICE TO

CONTACT NAME Cliff Yantz
 COMPANY O'Brien & Gere
 ADDRESS 37000 Grand River Ste 260
 CITY Farmington Hills STATE MI ZIP CODE 48335
 PHONE NO. 248-477-5701 FAX NO. _____ P.O. NO. 11600279
 E-MAIL ADDRESS clifford.yantz@obg.com QUOTE NO. _____

CONTACT NAME X SAME
 COMPANY _____
 ADDRESS _____
 CITY _____ STATE _____ ZIP CODE _____
 PHONE NO. _____ E-MAIL ADDRESS _____

PROJECT NO./NAME RACER Coldwater RD Landfill SAMPLER(S) - PLEASE PRINT/SIGN NAME Kevin Schneider
 TURNAROUND TIME REQUIRED 1 DAY 2 DAYS 3 DAYS STANDARD OTHER _____
 DELIVERABLES REQUIRED STD LEVEL II LEVEL III LEVEL IV EDD OTHER _____

MATRIX GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID
 CODE: SL=SLUDGE DW=DRINKING WATER O=OIL WP=WIFE A=AIR W=WASTE

Containers & Preservatives

MERIT LAB NO. <small>FOR LAB USE ONLY</small>	YEAR		SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	NONE	HCl	HNO ₃	H ₂ SO ₄	NaOH	MeOH	OTHER	Total Metals	Ameable Cyanide	BOD / TSS	Ammonia - Nitrogen	Total Phosphorus	FOG (Hex-Ext)	Certifications		Project Locations		Special Instructions
	DATE	TIME																	<input type="checkbox"/> OHIO VAP	<input type="checkbox"/> Drinking Water	<input type="checkbox"/> DoD	<input type="checkbox"/> NPDES	
<u>75883.01</u>	<u>9/7/16</u>	<u>1050</u>	<u>03-PRCC-16</u>	<u>Ww</u>	<u>5</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>			<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>					<u>Metals Are: As, Cr, Cu, Hg, Ni, Zn</u>
Analysis per city of Flint Permit																							
Field pH: 7.8 Field Temp: 78°F																							

RELINQUISHED BY: [Signature] OBG X Sampler DATE 9/7/16 TIME 1330
 RECEIVED BY: [Signature] DATE 9/7/16 TIME 12:30
 RELINQUISHED BY: [Signature] DATE 9/7/16 TIME 14:15
 RECEIVED BY: [Signature] DATE 9/7/16 TIME 14:15

RELINQUISHED BY: _____ DATE _____ TIME _____
 RECEIVED BY: _____ DATE _____ TIME _____
 SEAL NO. SEAL INTACT YES NO INITIALS _____
 SEAL NO. SEAL INTACT YES NO INITIALS _____
 NOTES: TEMP. ON ARRIVAL 5.8

PLEASE NOTE: SIGNING ACKNOWLEDGES ADHERENCE TO MERIT'S SAMPLE ACCEPTANCE POLICY ON REVERSE SIDE



Quality Control Report

Report ID: QC-S75883-01
Generated on 09/21/2016

Report to

Attention: Clifford Yantz
O'Brien & Gere Engineers, Inc.
37000 Grand River Ave.
Suite 260
Farmington, MI 48335

Phone: 248-477-5701 FAX:

Report Produced by

Merit Laboratories
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Report Summary

Lab Sample ID(s): S75883.01
Project: RACER Coldwater Rd Landfill
Submitted Date/Time: 09/07/2016 14:15
Sampled by: Kevin Schneider
P.O. #: 11600279

QC Report Sections

Cover Page (Page 1)
Analysis Summary (Page 2)
Prep Batch Summary (Page 3)
Batch QC Results (Pages 4-11)

Report Flag Descriptions

*: QC result is outside of indicated control limits
W: Surrogate result not applicable due to sample dilution

I certify that this data package is in compliance with the terms and conditions of the program, and project, and contractual requirements both technically and for completeness. Release of the data contained in this hardcopy data package and its computer-readable data submitted has been authorized by the Quality Assurance Manager and his/her designee, as verified by the following signature.

Barbara Ball
Quality Assurance Manager

QC Report - Analysis Summary

Lab Sample ID: S75883.01

Sample Tag: 03-PRCC-16

Collected Date/Time: 09/07/2016 10:50

Matrix: Wastewater

COC Reference: 098040

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
<i>Inorganics</i>						
Amenable Cyanide	E335.4/SM4500-CN	09/08/16 11:26	CN160908-W1	CN160908-W1	No	BLK/LCS/MS/MSD/DUP
Ammonia-N (Undistilled)	SM4500-NH3 D	09/08/16 15:43	AMN160908QC	AMN160908QC	No	BLK/LCS/MS/MSD/DUP
Oil & Grease n-Hexane Extract.	E1664A	09/09/16 14:51	OGHEX160909W01	OGHEX160909W01	No	BLK/LCS
Total Phosphorus	SM4500-PE	09/09/16 22:53	PHS160909QC	PHS160909QC	No	BLK/LCS/MS/DUP
Total Suspended Solids	SM2540D	09/08/16 15:45	TSS160908	TSS160908	No	BLK/LCS/DUP
<i>Metals</i>						
Arsenic	E200.8	09/08/16 11:55	MT2-16-0908-MT4A	MTD-090816-2	No	LCS/BLK/MS/MSD
Chromium	E200.8	09/08/16 11:55	MT2-16-0908-MT4A	MTD-090816-2	No	LCS/BLK/MS/MSD
Copper	E200.8	09/08/16 11:55	MT2-16-0908-MT4A	MTD-090816-2	No	LCS/BLK/MS/MSD
Mercury	E245.1	09/08/16 14:38	HG2-16-0908A	HGD-090816-1	No	LCS/BLK/MS/MSD/DUP
Nickel	E200.8	09/08/16 11:55	MT2-16-0908-MT4A	MTD-090816-2	No	LCS/BLK/MS/MSD
Zinc	E200.8	09/08/16 11:55	MT2-16-0908-MT4A	MTD-090816-2	No	LCS/BLK/MS/MSD

QC Report - Prep Batch Summary

Inorganics, Prep Batch ID: AMN160908QC

Surrogates: No, QC Types: BLK/LCS/MS/MSD/DUP

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S75883.01	Ammonia-N (Undistilled)	SM4500-NH3 D	09/08/16 15:43	AMN160908QC

Inorganics, Prep Batch ID: CN160908-W1

Surrogates: No, QC Types: BLK/LCS/MS/MSD/DUP

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S75883.01	Amenable Cyanide	E335.4/SM4500-CN	09/08/16 11:26	CN160908-W1

Inorganics, Prep Batch ID: OGHEX160909W01

Surrogates: No, QC Types: BLK/LCS

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S75883.01	Oil & Grease n-Hexane Extract.	E1664A	09/09/16 14:51	OGHEX160909W01

Inorganics, Prep Batch ID: PHS160909QC

Surrogates: No, QC Types: BLK/LCS/MS/DUP

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S75883.01	Total Phosphorus	SM4500-PE	09/09/16 22:53	PHS160909QC

Inorganics, Prep Batch ID: TSS160908

Surrogates: No, QC Types: BLK/LCS/DUP

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S75883.01	Total Suspended Solids	SM2540D	09/08/16 15:45	TSS160908

Metals, Prep Batch ID: HGD-090816-1

Surrogates: No, QC Types: LCS/BLK/MS/MSD/DUP

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S75883.01	Mercury	E245.1	09/08/16 14:38	HG2-16-0908A

Metals, Prep Batch ID: MTD-090816-2

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S75883.01	Arsenic	E200.8	09/08/16 11:55	MT2-16-0908-MT4A
S75883.01	Chromium	E200.8	09/08/16 11:55	MT2-16-0908-MT4A
S75883.01	Copper	E200.8	09/08/16 11:55	MT2-16-0908-MT4A
S75883.01	Nickel	E200.8	09/08/16 11:55	MT2-16-0908-MT4A
S75883.01	Zinc	E200.8	09/08/16 11:55	MT2-16-0908-MT4A

QC Report - Batch QC Results

Inorganics, Prep Batch ID: AMN160908QC

Surrogates: No, QC Types: BLK/LCS/MS/MSD/DUP

Blank (BLK)

Lab Sample ID: AMN160908QC.LRB1

Run in Batch: AMN160908QC, Run Date: 09/08/2016 09:23, Prep Date: 09/08/2016, Matrix: Liquid, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Ammonia-N (Undistilled)		ND	0.02	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: AMN160908QC.LCS1

Run in Batch: AMN160908QC, Run Date: 09/08/2016 10:18, Prep Date: 09/08/2016, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Ammonia-N (Undistilled)		109	90	110

Matrix Spike (MS)

Lab Sample ID: AMN160908QC.MS1, Parent Sample ID: S75891.01

Run in Batch: AMN160908QC, Run Date: 09/08/2016 10:44, Prep Date: 09/08/2016, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Ammonia-N (Undistilled)		104	80	120

Matrix Spike Duplicate (MSD)

Lab Sample ID: AMN160908QC.MSD1, Parent Sample ID: AMN160908QC.MS1

Run in Batch: AMN160908QC, Run Date: 09/08/2016 11:02, Prep Date: 09/08/2016, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Ammonia-N (Undistilled)		103	80	120	0	15

Duplicate (DUP)

Lab Sample ID: AMN160908QC.DP1, Parent Sample ID: S75891.01

Run in Batch: AMN160908QC, Run Date: 09/08/2016 10:55, Prep Date: 09/08/2016, Matrix: Liquid, Dilution: 1

Analyte	Flags	RPD	RPD CL
Ammonia-N (Undistilled)		4.0	20

QC Report - Batch QC Results

Inorganics, Prep Batch ID: CN160908-W1

Surrogates: No, QC Types: BLK/LCS/MS/MSD/DUP

Blank (BLK)

Lab Sample ID: CN160908-W1.LRB1

Run in Batch: CN160908-W1, Run Date: 09/08/2016 11:00, Prep Date: 09/08/2016, Matrix: Liquid, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Amenable Cyanide		ND	0.005	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: CN160908-W1.LCS1

Run in Batch: CN160908-W1, Run Date: 09/08/2016 11:06, Prep Date: 09/08/2016, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Amenable Cyanide		99	90	110

Matrix Spike (MS)

Lab Sample ID: CN160908-W1.MS1, Parent Sample ID: S75726.01

Run in Batch: CN160908-W1, Run Date: 09/08/2016 11:12, Prep Date: 09/08/2016, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Amenable Cyanide		93	80	120

Matrix Spike Duplicate (MSD)

Lab Sample ID: CN160908-W1.MSD1, Parent Sample ID: CN160908-W1.MS1

Run in Batch: CN160908-W1, Run Date: 09/08/2016 11:14, Prep Date: 09/08/2016, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Amenable Cyanide		94	80	120	1	15

Duplicate (DUP)

Lab Sample ID: CN160908-W1.DP1, Parent Sample ID: S75726.01

Run in Batch: CN160908-W1, Run Date: 09/08/2016 11:10, Prep Date: 09/08/2016, Matrix: Liquid, Dilution: 1

Analyte	Flags	RPD	RPD CL
Amenable Cyanide		<1	15

QC Report - Batch QC Results

Inorganics, Prep Batch ID: OGHEX160909W01

Surrogates: No, QC Types: BLK/LCS

Blank (BLK)

Lab Sample ID: OGHEX160909W01.LRB1

Run in Batch: OGHEX160909W01, Run Date: 09/09/2016 14:52, Prep Date: 09/09/2016, Matrix: Liquid, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Oil & Grease n-Hexane Extract.		ND	1	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: OGHEX160909W01.LCS1

Run in Batch: OGHEX160909W01, Run Date: 09/09/2016 14:52, Prep Date: 09/09/2016, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Oil & Grease n-Hexane Extract.		96	78	114

Laboratory Control Sample (LCS)

Lab Sample ID: OGHEX160909W01.LCS2

Run in Batch: OGHEX160909W01, Run Date: 09/09/2016 14:52, Prep Date: 09/09/2016, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Oil & Grease n-Hexane Extract.		94	78	114

QC Report - Batch QC Results

Inorganics, Prep Batch ID: PHS160909QC

Surrogates: No, QC Types: BLK/LCS/MS/DUP

Blank (BLK)

Lab Sample ID: PHS160909QC.LRB1

Run in Batch: PHS160909QC, Run Date: 09/09/2016 16:36, Prep Date: 09/09/2016, Matrix: Liquid, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Total Phosphorus		ND	0.01	mg/L

Blank (BLK)

Lab Sample ID: PHS160909QC.LRB2

Run in Batch: PHS160909QC, Run Date: 09/09/2016 16:43, Prep Date: 09/09/2016, Matrix: Liquid, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Total Phosphorus		ND	0.01	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: PHS160909QC.LCS1

Run in Batch: PHS160909QC, Run Date: 09/09/2016 22:27, Prep Date: 09/09/2016, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Total Phosphorus		101	90	110

Matrix Spike (MS)

Lab Sample ID: PHS160909QC.MS1, Parent Sample ID: S75897.01

Run in Batch: PHS160909QC, Run Date: 09/09/2016 23:20, Prep Date: 09/09/2016, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Total Phosphorus		90	80	120

Duplicate (DUP)

Lab Sample ID: PHS160909QC.DP1, Parent Sample ID: S75918.01

Run in Batch: PHS160909QC, Run Date: 09/09/2016 23:16, Prep Date: 09/09/2016, Matrix: Liquid, Dilution: 1

Analyte	Flags	RPD	RPD CL
Total Phosphorus		4.5	20

QC Report - Batch QC Results

Inorganics, Prep Batch ID: TSS160908

Surrogates: No, QC Types: BLK/LCS/DUP

Blank (BLK)

Lab Sample ID: TSS160908.LRB1

Run in Batch: TSS160908, Run Date: 09/08/2016 16:22, Prep Date: 09/08/2016, Matrix: Liquid, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Total Suspended Solids		ND	1	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: TSS160908.LCS1

Run in Batch: TSS160908, Run Date: 09/08/2016 16:22, Prep Date: 09/08/2016, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Total Suspended Solids		102.56	81.4	112

Duplicate (DUP)

Lab Sample ID: TSS160908.DP1, Parent Sample ID: S75862.01

Run in Batch: TSS160908, Run Date: 09/08/2016 16:23, Prep Date: 09/08/2016, Matrix: Liquid, Dilution: 1

Analyte	Flags	RPD	RPD CL
Total Suspended Solids		2.857	5

QC Report - Batch QC Results

Metals, Prep Batch ID: HGD-090816-1

Surrogates: No, QC Types: LCS/BLK/MS/MSD/DUP

Laboratory Control Sample (LCS)

Lab Sample ID: HG2-16-0908A.016.LCS

Run in Batch: HG2-16-0908A, Run Date: 09/08/2016 13:42, Prep Date: 09/08/2016, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Mercury		108	85	115

Blank (BLK)

Lab Sample ID: HG2-16-0908A.035.LRB

Run in Batch: HG2-16-0908A, Run Date: 09/08/2016 14:20, Prep Date: 09/08/2016, Matrix: Liquid, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Mercury		ND	0.03	ug/L

Matrix Spike (MS)

Lab Sample ID: HG2-16-0908A.029.MS, Parent Sample ID: S75863.01

Run in Batch: HG2-16-0908A, Run Date: 09/08/2016 14:07, Prep Date: 09/08/2016, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Mercury		120	75	125

Matrix Spike (MS)

Lab Sample ID: HG2-16-0908A.048.MS, Parent Sample ID: S75883.01

Run in Batch: HG2-16-0908A, Run Date: 09/08/2016 14:48, Prep Date: 09/08/2016, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Mercury		121	75	125

Matrix Spike Duplicate (MSD)

Lab Sample ID: HG2-16-0908A.030.MSD, Parent Sample ID: HG2-16-0908A.029.MS

Run in Batch: HG2-16-0908A, Run Date: 09/08/2016 14:09, Prep Date: 09/08/2016, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Mercury		121	75	125	1	20

Matrix Spike Duplicate (MSD)

Lab Sample ID: HG2-16-0908A.049.MSD, Parent Sample ID: HG2-16-0908A.048.MS

Run in Batch: HG2-16-0908A, Run Date: 09/08/2016 14:50, Prep Date: 09/08/2016, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Mercury		120	75	125	1	20

QC Report - Batch QC Results

Metals, Prep Batch ID: MTD-090816-2

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Laboratory Control Sample (LCS)

Lab Sample ID: MT2-16-0908-MT4A.022

Run in Batch: MT2-16-0908-MT4A, Run Date: 09/08/2016 11:20, Prep Date: 09/08/2016, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Arsenic		98	85	115
Chromium		97	85	115
Copper		101	85	115
Nickel		101	85	115
Zinc		101	85	115

Blank (BLK)

Lab Sample ID: MT2-16-0908-MT4A.024

Run in Batch: MT2-16-0908-MT4A, Run Date: 09/08/2016 11:22, Prep Date: 09/08/2016, Matrix: Liquid, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Arsenic		ND	0.0006	mg/L
Chromium		ND	0.001	mg/L
Copper		ND	0.001	mg/L
Nickel		ND	0.001	mg/L
Zinc		ND	0.002	mg/L

Matrix Spike (MS)

Lab Sample ID: MT2-16-0908-MT4A.036, Parent Sample ID: S75890.02

Run in Batch: MT2-16-0908-MT4A, Run Date: 09/08/2016 11:46, Prep Date: 09/08/2016, Matrix: Liquid, Dilution: 5

Analyte	Flags	% Rec	LCL	UCL
Arsenic		105	75	125
Chromium		101	75	125
Copper		97	75	125
Nickel		98	75	125
Zinc		97	75	125

Matrix Spike (MS)

Lab Sample ID: MT2-16-0908-MT4A.046, Parent Sample ID: S75823.03

Run in Batch: MT2-16-0908-MT4A, Run Date: 09/08/2016 12:04, Prep Date: 09/08/2016, Matrix: Liquid, Dilution: 5

Analyte	Flags	% Rec	LCL	UCL
Arsenic		98	75	125
Chromium		99	75	125
Copper		92	75	125
Nickel		95	75	125
Zinc		97	75	125

Matrix Spike Duplicate (MSD)

Lab Sample ID: MT2-16-0908-MT4A.037, Parent Sample ID: MT2-16-0908-MT4A.036

Run in Batch: MT2-16-0908-MT4A, Run Date: 09/08/2016 11:47, Prep Date: 09/08/2016, Matrix: Liquid, Dilution: 5

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Arsenic		102	75	125	3	20
Chromium		102	75	125	0	20
Copper		96	75	125	1	20
Nickel		100	75	125	1	20
Zinc		98	75	125	1	20

QC Report - Batch QC Results

Metals, Prep Batch ID: MTD-090816-2 (continued)

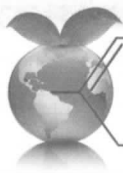
Surrogates: No, QC Types: LCS/BLK/MS/MSD

Matrix Spike Duplicate (MSD)

Lab Sample ID: MT2-16-0908-MT4A.047, Parent Sample ID: MT2-16-0908-MT4A.046

Run in Batch: MT2-16-0908-MT4A, Run Date: 09/08/2016 12:05, Prep Date: 09/08/2016, Matrix: Liquid, Dilution: 5

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Arsenic		101	75	125	3	20
Chromium		101	75	125	2	20
Copper		94	75	125	2	20
Nickel		97	75	125	2	20
Zinc		100	75	125	4	20



Merit Laboratories, Inc.

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C.O.C. PAGE # 1 OF 1

098040

REPORT TO

CHAIN OF CUSTODY RECORD

INVOICE TO

CONTACT NAME: **Cliff Yantz**
 COMPANY: **O'Brien & Gere**
 ADDRESS: **37000 Grand River Ste 260**
 CITY: **Farmington Hills** STATE: **MI** ZIP CODE: **48335**
 PHONE NO.: **248-477-5701** FAX NO.: P.O. NO.: **11600279**
 E-MAIL ADDRESS: **clifford.yantz@obg.com** QUOTE NO.:

CONTACT NAME: SAME
 COMPANY:
 ADDRESS:
 CITY: STATE: ZIP CODE:
 PHONE NO.: E-MAIL ADDRESS:

PROJECT NO./NAME: **RACER Coldwater RD Landfill** SAMPLER(S) - PLEASE PRINT/SIGN NAME: **Kevin Schneider**
 TURNAROUND TIME REQUIRED: 1 DAY 2 DAYS 3 DAYS STANDARD OTHER
 DELIVERABLES REQUIRED: STD LEVEL II LEVEL III LEVEL IV EDD OTHER

MATRIX CODE: GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID
 SL=SLUDGE DW=DRINKING WATER O=OIL WP=WIFE A=AIR W=WASTE

Containers & Preservatives

MERIT LAB NO. <small>FOR LAB USE ONLY</small>	YEAR		SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	NONE	HCl	HNO ₃	H ₂ SO ₄	NaOH	MeOH	OTHER	Total Metals	Ameable Cyanide	BOD / TSS	Ammonia - Nitrogen	Total Phosphorus	FOG (Hex-Ext)	Certifications		Project Locations		Special Instructions
	DATE	TIME																	<input type="checkbox"/> OHIO VAP	<input type="checkbox"/> Drinking Water	<input type="checkbox"/> DoD	<input type="checkbox"/> NPDES	
75883.01	9/7/16	1050	03-PRCC-16	Ww	5	1	1	1	1	1			X	X	X	X	X	X					Metals Are: As, Cr, Cu, Hg, Ni, Zn
Analysis per city of Flint Permit																							
Field pH: 7.8 Field Temp: 78°F																							

RELINQUISHED BY: **[Signature]** OBG X Sampler DATE: **9/7/16** TIME: **1330**
 RECEIVED BY: **[Signature]** DATE: **9/7/16** TIME: **12:30**
 RELINQUISHED BY: **[Signature]** DATE: **9/7/16** TIME: **14:15**
 RECEIVED BY: **[Signature]** DATE: **9/7/16** TIME: **14:15**

RELINQUISHED BY: _____ DATE: _____ TIME: _____
 RECEIVED BY: _____ DATE: _____ TIME: _____
 SEAL NO. SEAL INTACT INITIALS NOTES: TEMP. ON ARRIVAL _____
 YES NO
 SEAL NO. SEAL INTACT INITIALS
 YES NO

PLEASE NOTE: SIGNING ACKNOWLEDGES ADHERENCE TO MERIT'S SAMPLE ACCEPTANCE POLICY ON REVERSE SIDE



Analytical Laboratory Report

Report ID: S76131.01(01)
Generated on 09/19/2016

Report to

Attention: Clifford Yantz
O'Brien & Gere Engineers, Inc.
37000 Grand River Ave.
Suite 260
Farmington, MI 48335

Phone: 248-477-5701 FAX:
Email: Clifford.Yantz@obg.com

Report produced by

Merit Laboratories, Inc.
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Contacts for report questions:
John Laverty (johnlaverty@meritlabs.com)
Barbara Ball (bball@meritlabs.com)

Report Summary

Lab Sample ID(s): S76131.01
Project: RACER Coldwater Rd Landfill
Collected Date: 09/16/2016
Submitted Date/Time: 09/16/2016 15:30
Sampled by: Kevin Schneider
P.O. #: 11600279

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Maya Murshak
Technical Director



Analytical Laboratory Report

General Report Notes

Analytical results relate only to the samples tested, in the condition received by the laboratory.

Methods may be modified for improved performance.

Results reported on a dry weight basis where applicable.

'Not detected' indicates that parameter was not found at a level equal to or greater than the reporting limit (RL).

40 CFR Part 136 Table II Required Containers, Preservation Techniques and Holding Times for the Clean Water Act specify that samples for acrolein and acrylonitrile need to be preserved at a pH in the range of 4 to 5 or if not preserved, analyzed within 3 days of sampling.

QA/QC corresponding to this analytical report is a separate document with the same Merit ID reference and is available upon request.

Full accreditation certificates are available upon request. Starred (*) analytes are not NELAP accredited.

Samples are held by the lab for 30 days from the final report date unless a written request to hold longer is provided by the client.

Report shall not be reproduced except in full, without the written approval of Merit Laboratories, Inc.

Report Narrative

There is no additional narrative for this analytical report



Analytical Laboratory Report

Laboratory Certifications

Authority	Certification ID
Michigan DEQ	#9956
DOD ELAP/ISO 17025	#69699
WBENC	#2005110032
Ohio VAP	#CL0002
Indiana DOH	#C-MI-07
New York NELAC	#11814
North Carolina DENR	#680
North Carolina DOH	#26702

Qualifier Descriptions

Qualifier	Description
!	Result is outside of stated limit criteria
B	Compound also found in associated method blank
E	Concentration exceeds calibration range
F	Analysis run outside of holding time
G	Estimated result due to extraction run outside of holding time
H	Sample submitted and run outside of holding time
I	Matrix interference with internal standard
J	Estimated value less than reporting limit, but greater than MDL
L	Elevated reporting limit due to low sample amount
M	Result reported to MDL not RDL
O	Analysis performed by outside laboratory. See attached report.
R	Preliminary result
S	Surrogate recovery outside of control limits
T	No correction for total solids
X	Elevated reporting limit due to matrix interference
Y	Elevated reporting limit due to high target concentration
b	Value detected less than reporting limit, but greater than MDL
e	Reported value estimated due to interference
j	Analyte also found in associated method blank
p	Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.
x	Preserved from bulk sample

Glossary of Abbreviations

Abbreviation	Description
RL/RDL	Reporting Limit
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
SW	EPA SW 846 (Soil and Wastewater) Methods
E	EPA Methods
SM	Standard Methods



Analytical Laboratory Report

Method Summary

Method	Version
E245.1	EPA Method 245.1 Revision 3.0



Analytical Laboratory Report

Sample Summary (1 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S76131.01	03-PRCC-16-A	Wastewater	09/16/16 11:15



Analytical Laboratory Report

Lab Sample ID: S76131.01
Sample Tag: 03-PRCC-16-A
Collected Date/Time: 09/16/2016 11:15
Matrix: Wastewater
COC Reference: 097607

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	125ml Plastic	HNO3	Yes	5.4	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Tech	CAS #	Flags
Extraction / Prep.								
Mercury Digestion	Completed			E245.1	09/19/16 10:00	RGS		
Metals								
Mercury	Not detected	mg/L	0.0002	E245.1	09/19/16 13:50	RGS	7439-97-6	



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C.O.C. PAGE # 1 OF 1

097607

REPORT TO

CHAIN OF CUSTODY RECORD

INVOICE TO

CONTACT NAME Cliff Yantz
 COMPANY O'Brien + Gere
 ADDRESS 37000 Grand River ste 200
 CITY Farmington Hills STATE MI ZIP CODE 48335
 PHONE NO. 248-477-5701 FAX NO. 248-477-5962 P.O. NO. 11600279
 E-MAIL ADDRESS clifford.yantz@obg.com QUOTE NO.

CONTACT NAME X SAME
 COMPANY
 ADDRESS
 CITY STATE ZIP CODE
 PHONE NO. E-MAIL ADDRESS

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

PROJECT NO./NAME RACER Coldwater Rd Landfill SAMPLER(S) - PLEASE PRINT/SIGN NAME Kevin Schneider K S
 TURNAROUND TIME REQUIRED 1 DAY 2 DAYS 3 DAYS STANDARD OTHER
 DELIVERABLES REQUIRED STD LEVEL II LEVEL III LEVEL IV EDD OTHER

MATRIX CODE: GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID
 SL=SLUDGE DW=DRINKING WATER O=OIL WP=WIPE A=AIR W=WASTE

Containers & Preservatives

MERIT LAB NO. <small>FOR LAB USE ONLY</small>	YEAR		SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	NONE	HCl	HNO ₃	H ₂ SO ₄	NaOH	MeOH	OTHER	Total Mercury (µg/L)	Certifications	
	DATE	TIME												<input type="checkbox"/> OHIO VAP	<input type="checkbox"/> Drinking Water
<u>7631.01</u>	<u>9/16/16</u>	<u>1115</u>	<u>03-PRCC-16-A</u>	<u>ww</u>	<u>1</u>			<u>1</u>					<u>X</u>	<input type="checkbox"/> DoD	<input type="checkbox"/> NPDES
													Project Locations		
													<input type="checkbox"/> Detroit	<input type="checkbox"/> New York	
													Special Instructions		
													<u>Analysis Per city of Flint Permit</u>		
													<u>Field pH: 7.75</u>		
													<u>Field Temp: 25.8 °C</u>		

RELINQUISHED BY: K S OBG X Sampler DATE 9/16/16 TIME 1118
 RECEIVED BY: [Signature] DATE 9/16/16 TIME 11:18
 RELINQUISHED BY: [Signature] DATE 9/16/16 TIME 15:30
 RECEIVED BY: [Signature] DATE 9/16/16 TIME 15:30

RELINQUISHED BY: SIGNATURE/ORGANIZATION DATE TIME
 RECEIVED BY: SIGNATURE/ORGANIZATION DATE TIME
 SEAL NO. SEAL INTACT YES NO INITIALS
 SEAL NO. SEAL INTACT YES NO INITIALS
 NOTES: 5.4 TEMP. ON ARRIVAL

PLEASE NOTE: SIGNING ACKNOWLEDGES ADHERENCE TO MERIT'S SAMPLE ACCEPTANCE POLICY ON REVERSE SIDE



Quality Control Report

Report ID: QC-S76131-01
Generated on 09/20/2016

Report to

Attention: Clifford Yantz
O'Brien & Gere Engineers, Inc.
37000 Grand River Ave.
Suite 260
Farmington, MI 48335

Phone: 248-477-5701 FAX:

Report Produced by

Merit Laboratories
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Report Summary

Lab Sample ID(s): S76131.01
Project: RACER Coldwater Rd Landfill
Submitted Date/Time: 09/16/2016 15:30
Sampled by: Kevin Schneider
P.O. #: 11600279

QC Report Sections

Cover Page (Page 1)
Analysis Summary (Page 2)
Prep Batch Summary (Page 3)
Batch QC Results (Page 4)

Report Flag Descriptions

*: QC result is outside of indicated control limits
W: Surrogate result not applicable due to sample dilution

I certify that this data package is in compliance with the terms and conditions of the program, and project, and contractual requirements both technically and for completeness. Release of the data contained in this hardcopy data package and its computer-readable data submitted has been authorized by the Quality Assurance Manager and his/her designee, as verified by the following signature.

Barbara Ball
Quality Assurance Manager

QC Report - Analysis Summary

Lab Sample ID: S76131.01

Sample Tag: 03-PRCC-16-A

Collected Date/Time: 09/16/2016 11:15

Matrix: Wastewater

COC Reference: 097607

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Metals						
Mercury	E245.1	09/19/16 13:50	HG2-16-0919A	HGD-091916-1	No	LCS/BLK/MS/MSD

QC Report - Prep Batch Summary

Metals, Prep Batch ID: HGD-091916-1

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S76131.01	Mercury	E245.1	09/19/16 13:50	HG2-16-0919A

QC Report - Batch QC Results

Metals, Prep Batch ID: HGD-091916-1

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Laboratory Control Sample (LCS)

Lab Sample ID: HG2-16-0919A.016.LCS

Run in Batch: HG2-16-0919A, Run Date: 09/19/2016 12:50, Prep Date: 09/19/2016, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Mercury		95	85	115

Blank (BLK)

Lab Sample ID: HG2-16-0919A.017.LRB

Run in Batch: HG2-16-0919A, Run Date: 09/19/2016 12:52, Prep Date: 09/19/2016, Matrix: Liquid, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Mercury		ND	0.03	ug/L

Matrix Spike (MS)

Lab Sample ID: HG2-16-0919A.031.MS, Parent Sample ID: S76078.06

Run in Batch: HG2-16-0919A, Run Date: 09/19/2016 13:26, Prep Date: 09/19/2016, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Mercury		96	75	125

Matrix Spike (MS)

Lab Sample ID: HG2-16-0919A.045.MS, Parent Sample ID: S76131.01

Run in Batch: HG2-16-0919A, Run Date: 09/19/2016 13:52, Prep Date: 09/19/2016, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Mercury		103	75	125

Matrix Spike Duplicate (MSD)

Lab Sample ID: HG2-16-0919A.032.MSD, Parent Sample ID: HG2-16-0919A.031.MS

Run in Batch: HG2-16-0919A, Run Date: 09/19/2016 13:28, Prep Date: 09/19/2016, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Mercury		94	75	125	2	20

Matrix Spike Duplicate (MSD)

Lab Sample ID: HG2-16-0919A.046.MSD, Parent Sample ID: HG2-16-0919A.045.MS

Run in Batch: HG2-16-0919A, Run Date: 09/19/2016 13:53, Prep Date: 09/19/2016, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Mercury		115	75	125	11	20

