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ENVIRONMENT

Mary Vanderlaan
Supervisor, Lansing District
Michigan Department of Environmental Quality
Water Resources Division
525 W. Allegan (Constitution Hall, 4N)
P. O. Box 30242
Lansing, MI 48909-7742

Subject:
NPDES Permit No. MI0001597 – 2012 Yearly Stormwater Trend Monitoring Data
RACER – Buick City Site
Flint, Michigan

Date:
May 15, 2013

Contact:
Christopher S. Peters

Phone:
517.324.5052

Email:
Chris.Peters@arcadis-us.com

Our ref:
B0064410.4013

Dear Ms. Vanderlaan:

This report was prepared by ARCADIS on behalf of the Revitalizing Auto Communities Environmental Response (RACER) Trust, for the Buick City Site (formerly known as the GM - Powertrain Flint North). The Buick City Site (Site) is located near 902 East Leith Street in Flint, Michigan, in Genesee County and encompasses approximately 425 acres of land as shown on **Figure 1**. The portion of the Site located north of Leith Street (hereafter referred to as the Northend) was in part occupied by General Motors LLC (GM LLC) for manufacturing operations until December 6, 2010. Since December 6, 2010 there have been no manufacturing operations at the Site. Demolition of the Northend of the Site was completed in April 2012. Building demolition has also been completed in the portion of the property located south of Leith Street, which is referred to as the Southend.

RACER is submitting annual stormwater monitoring data as required by Section 1.A.7.a.1 of the above referenced National Pollutant Discharge Elimination System (NPDES) permit for the Site. A revised NPDES permit application for the Site was prepared and submitted to the MDEQ on May 15, 2012. This application superseded the previous application, which was submitted to the MDEQ in April 2010. The new application was necessary due to the significant change in Site conditions. This report covers the period of January 1, 2012 through December 31, 2012 and includes data collected from Outfalls 003, 010, 011, and 012 shown on **Figure 2**.

The yearly stormwater sampling program includes the following outfalls, analytes, and regulatory criteria:

Outfall	Analyte	Monthly Average	Daily Maximum
003	Total PCBs	0.026 ng/L	N/A
008	Total Mercury	1.3 ng/L	N/A
010	Total Mercury	1.3 ng/L	N/A
011	Total Copper	N/A	100 µg/L
012	Total Copper	N/A	100 µg/L

Background

Outfall 003

A Storm Water Diversion and Treatment System was installed to capture polychlorinated biphenyl (PCB) containing oil from the Outfall 003 and 004 storm sewers (Outfall 003/004 System). The Outfall 003/004 System has been designed to capture oil during dry weather and first-flush stormwater flow conditions though diversion structures, a BaySeparator, and an Oil-Water Separator. The system became fully operational on January 12, 2011.

The Outfall 003 storm sewer system collects flow from the Northend of the Site and upstream offsite drainage areas, and discharges to the Flint River. The majority of the stormwater flow to this system originates from offsite drainage areas, located upgradient of the Site. The total onsite (from RACER property) drainage area of the Outfall 003 system is approximately 137 acres. The NPDES permit identifies the water discharging from the Site to the Outfall 003 storm sewer system as regulated stormwater, treated groundwater and other miscellaneous waters, drinking fountain overflow, and potential groundwater infiltration. However, due to changes in Site conditions since the permit was issued, regulated stormwater and potential groundwater infiltration are the only remaining water discharged to Outfall 003.

NPDES Monitoring Point 003A (MP 003A) is the only remaining monitoring point along the Outfall 003 Sewer System. It is located downgradient of Oil Interceptor #2

and the Outfall 003/004 System. Note that during dry weather and first-flush stormwater flow water and oil are diverted through the Outfall 003/004 System from both the Outfall 003 and 004 storm sewers. Therefore, samples collected at MP 003A represent the combined flow of the Outfall 003 and 004 under these conditions. During stormwater flow conditions, however, flows are diverted around the Outfall 003/004 System and discharge through the individual outfalls. Therefore, water samples collected at MP003A during stormwater events are representative of flow only from the Outfall 003A storm sewer.

A weekly sample is collected from MP 003A (representing dry weather/first-flush flow) as required in the NPDES permit. The weekly monitoring data is reported in the monthly eDMR. In addition, a yearly wet weather sample is collected from MP 003A and submitted to the laboratory for PCB analysis.

Outfall 008

There is no data for Outfall 008 due to the installation of a permanent storm sewer bulkhead immediately downstream of Monitoring Point 008. The bulkhead was installed on May 10, 2007 because of a no flow condition in the collapsed or plugged storm sewer line for Outfall 008. Thus there is no longer a discharge to the Flint River from Outfall 008 and samples are no longer collected at this outfall.

Outfalls 010, 011, and 012

Outfalls 010, 011, and 012 are located in the Southend of the Site where all manufacturing facilities have been demolished, leaving the former building foundations or slabs at grade elevation. The water discharging from the Site through these outfalls has been identified as non-regulated stormwater and potential groundwater infiltration.

The total drainage area of the Outfall 010 system is approximately 16 acres, all of which is part of the Site property. Under the existing NPDES permit a yearly wet weather sample is collected from Outfall 010 and submitted for laboratory analysis of mercury.

Storm sewer discharge from Outfall 011 includes non-regulated stormwater and groundwater infiltration from the drainage area for Outfall 009. The storm sewer outlet for Outfall 009 is connected to manhole 11-8, which discharges through Outfall 011. A portion of the stormwater flow to Outfall 011 originates from offsite drainage areas, located upgradient of the Site. The total onsite drainage area of the Outfall 011 system (including the drainage area for Outfall 009) is approximately 25 acres.

Under the existing NPDES permit a yearly wet weather sample is collected from Outfall 011 and submitted for laboratory analysis of copper.

The Outfall 012 storm sewer system collects flow from the Southend of the Site and offsite drainage areas downstream, and discharges to the Flint River. The total onsite drainage area of the Outfall 012 system is approximately 8 acres.

Under the existing NPDES permit a yearly wet weather samples is collected from Outfall 012 and submitted for laboratory analysis of copper.

Data Collection and Analysis

ARCADIS personnel collected the yearly wet weather samples on October 18, 2012. The samples submitted for PCB and copper analysis were analyzed by Merit Laboratories, located in East Lansing, Michigan. The sample submitted for mercury analysis was analyzed by Fibertec Environmental Services, located in Holt, Michigan. **Table 1** provides sampling dates, and associated analytes for each of the samples collected from 2006 through 2012. **Attachment 1** provides the laboratory analytical reports for the 2012 samples.

Summary of Results

Sampling results for Yearly Trend Monitoring of Outfalls 003, 010, 011 and 012 are summarized in **Table 1**.

Outfall 003

PCBs were not detected in the 2012 wet weather sample collected from Outfall 003 at MP 003A. As discussed above, the Outfall 003/004 System is designed to capture oil during dry weather flow and the first-flush of stormwater flow from Outfall 003 and 004. The Outfall 003/004 System has been operational since January 2011 and PCBs have not been detected in the required weekly dry weather/first-flush samples collected from Outfall 003 since then.

Outfall 010

Mercury was detected in the 2012 wet weather sample collected from Outfall 010 at a concentration 12 nanograms per liter (ng/L), which exceeds the monthly average goal of 1.3 ng/L listed in the NPDES permit. As part of Corrective Action activities being completed at the Site, monthly dry weather samples have been collected from Outfall 010 since September 2010 and submitted for laboratory analysis. The

analytical results of the monthly sampling are being evaluated to determine the potential source of mercury in the storm sewer.

Outfall 011

Copper was detected in the 2012 wet weather sample collected from Outfall 011 at a concentration of 4 micrograms per liter (µg/L). The highest concentration of copper detected during the wet weather sampling since the permit effective date (July 1, 2006) was 21 µg/L in the September 8, 2006 sample, well below the daily maximum goal for copper of100 µg/L listed in the NPDES permit at this outfall.

Outfall 012

Copper was detected in the wet weather sample collected from Outfall 012 at a concentration of 4 µg/L. The daily maximum goal for copper listed in the NPDES permit is 100 µg/L. Copper was detected at 5 µg/L during the 2011 wet weather sample collection event and at 6 µg/L during the 2010 wet weather sample collection event. Copper was not detected in samples collected at Outfall 012 in the three years prior to that.

Conclusions

Outfall 003

PCB concentrations remain at non-detectable levels. The Outfall 003/004 System continues to operate and is functioning as intended.

Outfall 010

The mercury concentration from this outfall sample is above the monthly average goal provided in the NPDES permit. However, concentrations over the past four years remain below the highest concentration of mercury (23.8 ng/L), which was detected in the September 3, 2008 sample. RACER is continuing to work toward a remedy for this exceedance as part of the Corrective Action process at the Site.

Outfall 011

Copper was detected at a concentration of 4 µg/L during the 2012 wet weather sample collection event. Copper was not detected in Outfall 011 wet weather samples for the two years prior to 2012. Copper concentrations consistently remain

well below the daily maximum goal for copper listed in the NPDES permit of 100 µg/L.

Outfall 012

Copper concentrations at Outfall 012 remain well below the daily maximum goal of 100 µg/L listed in the NPDES permit.

If you have any questions, please contact me at 517.324.5052.

Sincerely,

ARCADIS

Christopher S. Peters, P.G.
Vice President

Copies:
Grant Trigger, RACER Trust
Dave Favero, RACER Trust

Attachments:

Table 1 – Stormwater Sampling Summary
Figure 1 – Site Location Map
Figure 2 – Site Diagram – Outfall Drainage Areas
Attachment 1 – Laboratory Analytical Reports

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Tables

Table 1
Storm Water Sampling Summary
NPDES Permit No. MI0001597
Yearly Trend Monitoring - Outfalls 003, 008, 010, 011, and 012

RACER
Buick City
Flint, Michigan

Outfall	Parameter	Units	Date						
			9/12/2006	9/10/2007	9/3/2008	9/28/2009	9/28/2010	9/27/2011	10/18/2012
003	PCB-1016	µg/L	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
003	PCB-1221	µg/L	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
003	PCB-1232	µg/L	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
003	PCB-1242	µg/L	< 0.10	< 0.10	0.16	< 0.10	< 0.10	< 0.10	< 0.10
003	PCB-1248	µg/L	0.14	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
003	PCB-1254	µg/L	< 0.10	< 0.10	< 0.10	< 0.10	0.2	< 0.10	< 0.10
003	PCB-1260	µg/L	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
003	Total PCB	µg/L	0.14	< 0.10	0.16	< 0.10	0.2	< 0.10	< 0.10

Outfall 008 A permanent storm sewer bulkhead was installed immediately downstream of Manhole 8-1 (Monitoring Point 008) on May 10, 2007 due to a collapsed or plugged storm sewer line. There is no longer a discharge from Outfall 008.

Outfall	Sample Type	Units	Mercury Data (ng/L)						
			9/8/2006	9/10/2007	9/3/2008	9/28/2009	10/13/2010	9/30/2011	10/18/2012
010	Sample	ng/L	2.47	17.2	23.8	6.04	13.6	1.1	12
010	Duplicate	ng/L	2.47	4.73	25.9	5.73	NA	<0.500	11
010	Equipment Blank	ng/L	<0.500	<0.500	<0.500	2.84	NA	<0.500	4.8*
010	Trip Blank	ng/L	NA	<0.500	<0.500	<0.500	NA	<0.500	4.9*

Note:
* Merit Laboratories indicate equipment and trip blank detections were most likely caused by naturally occuring mercury in the sample environment as mercury was not detected in the laboratory blank.

Outfall	Parameter	Units	Sampling Dates						
			9/8/2006*	9/10/2007	9/3/2008	9/28/2009	9/28/2010	10/15/2011	10/18/2012
011	Copper	µg/L	21	14	<10	13	<4	<4	4

Note:
* It is assumed that the sampling date included in GM's letter to MDEQ dated May 9, 2007 had a typo and should actually be 9/8/2006 instead of 9/8/2007.

Outfall	Parameter	Units	Sampling Dates						
			9/12/2006	9/10/2007	9/3/2008	9/28/2009	11/22/2010	9/26/2011	10/18/2012
012	Copper	µg/L	3700*	<10	<10	<10	6	5	4

Note from GM's letter to MDEQ on May 9, 2007:

* There was very little flow at the monitoring point on 12/22/2006. The sample taken for analysis was partially from the minimal flow in the drainage pipe and partially from standing water in the bottom of the catch basin. The sample was also noted to be orange in color per Jim Wooster of Environmental Sampling Services.

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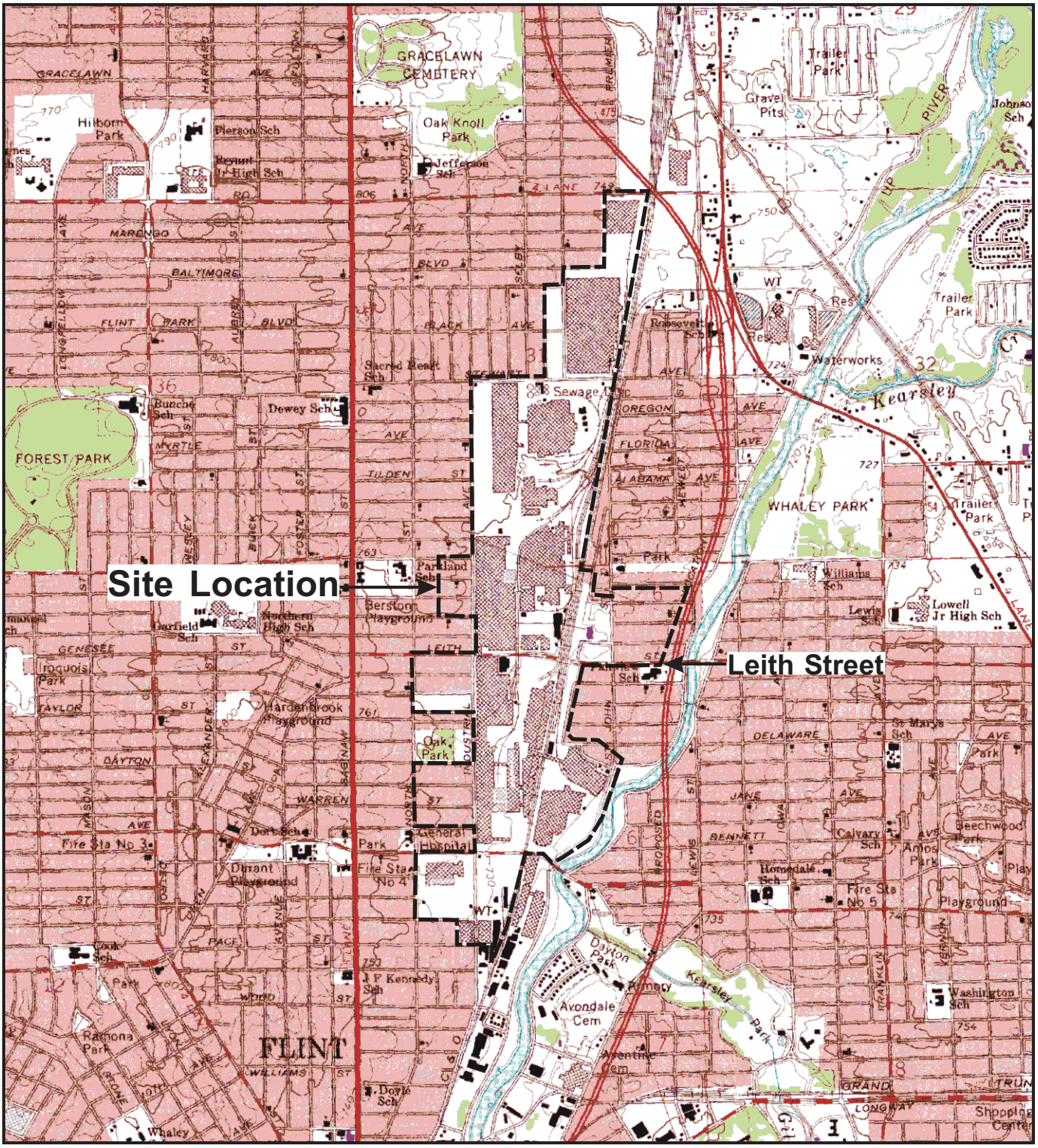
Figures



REFERENCE: Base Map Source: USGS 7.5 Min. Topo. Quad., Flint North, Mich. (1969, Photorevised 1975).

2000' 0 2000'

Approximate Scale: 1" = 2000'

Area Location

RACER TRUST
BUICK CITY - FLINT, MICHIGAN

SITE LOCATION

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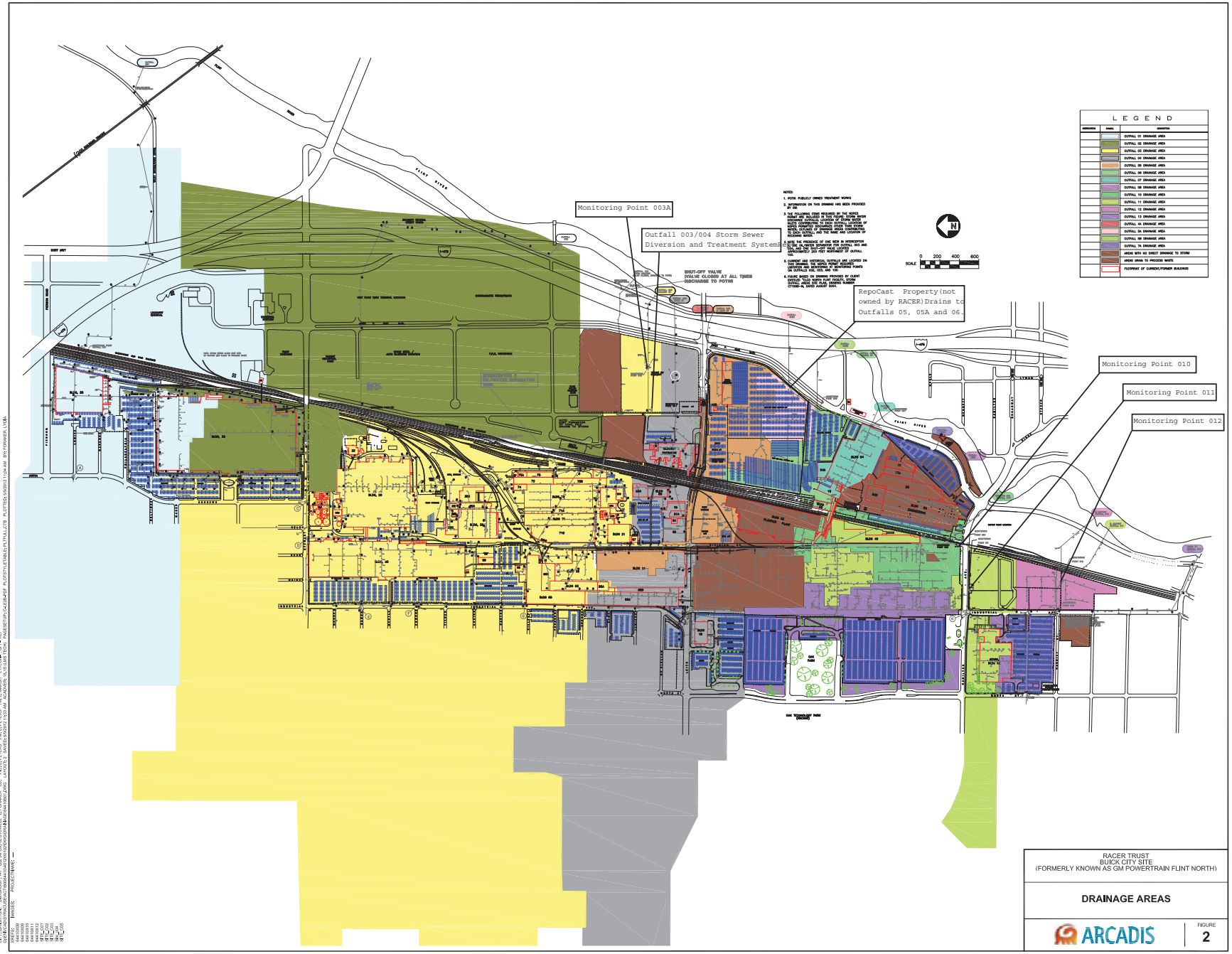
FIGURE
1

05/07/2012 SYRACUSE, NY-ENV/CAD-DJHOWES
B0064410/4012/00104/CDR/64410N02.CDR



RACER TRUST
BUICK CITY SITE
(FORMERLY KNOWN AS GM POWERTRAIN FLINT NORTH)

DRAINAGE AREAS

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FIGURE
2

Attachment 1

Laboratory Analytical Reports

Analytical Laboratory Report

Report ID: S54287.01(01)
Generated on 10/26/2012

Report to

Attention: Beth Nanzer/Erin Kozak/Deb Newco
Arcadis
28550 Cabot Drive
Suite 500
Novi, MI 48377

Phone: 248-994-2314 FAX: 810-229-8837
Email: Bethany.Nanzer@arcadis-us.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:
Andy Ball (andyball@meritlabs.com)
Tabitha Faust (tfaust@meritlabs.com)

Report Summary

Lab Sample ID(s): S54287.01-S54287.07
Project: B0064410.4012.00102 / Buick City -Site # 12950, Task #102
Collected Date: 10/18/2012
Submitted Date/Time: 10/18/2012 13:00
Sampled by: D. Newcom
P.O. #: PO137296

Report Notes

Results relate only to items tested as 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).
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.

Laboratory Certifications:
Michigan DNRE (#9956), DOD/ISO 17025 (#L11-184), WBENC (#2005110032), Ohio EPA (#CL0002), IN Drinking Water (#C-MI-07), NELAC NY (#11814)
Some analytes reported may not be certified. Full certification lists are available upon request.

Violetta F. Murshak
Laboratory Director

Analytical Laboratory Report

Sample Summary (7 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S54287.01	Outfall003A_10182012	Liquid	10/18/2012 11:20
S54287.02	MP011_101812_WW	Liquid	10/18/2012 10:30
S54287.03	MP012_101812_WW	Liquid	10/18/2012 10:00
S54287.04	MP010_101812_WW	Liquid	10/18/2012 10:45
S54287.05	Duplicate_101812_WW	Liquid	10/18/2012 10:50
S54287.06	Equip_Blank_101812_WW	Liquid	10/18/2012 10:40
S54287.07	Trip_Blank_101812_WW	Liquid	10/18/2012 00:01

Analytical Laboratory Report

Lab Sample ID: S54287.01
Sample Tag: Outfall003A_10182012
Collected Date/Time: 10/18/2012 11:20
Matrix: Liquid
COC Reference: BC101812.1

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	1L Amber	None	Yes	5.8	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Extraction, PCB	Completed			3510C	10/19/12 13:45	CCM		
Organics - PCBs/Pesticides								
PCB								
PCB-1016	Not detected	ug/L	0.1	E608	10/22/12 09:49	JAN	12674-11-2	
PCB-1221	Not detected	ug/L	0.1	E608	10/22/12 09:49	JAN	11104-28-2	
PCB-1232	Not detected	ug/L	0.1	E608	10/22/12 09:49	JAN	11141-16-5	
PCB-1242	Not detected	ug/L	0.1	E608	10/22/12 09:49	JAN	53469-21-9	
PCB-1248	Not detected	ug/L	0.1	E608	10/22/12 09:49	JAN	12672-29-6	
PCB-1254	Not detected	ug/L	0.1	E608	10/22/12 09:49	JAN	11097-69-1	
PCB-1260	Not detected	ug/L	0.1	E608	10/22/12 09:49	JAN	11096-82-5	
PCB, Total	Not detected	ug/L	0.1	E608	10/22/12 09:49	JAN	1336-36-3	

Analytical Laboratory Report

Lab Sample ID: S54287.02
Sample Tag: MP011_101812_WW
Collected Date/Time: 10/18/2012 10:30
Matrix: Liquid
COC Reference: BC101812.1

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	125ml Plastic	HNO3	Yes	5.8	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3015A	10/22/12 01:00	SLR		
Metals								
Copper	0.004	mg/L	0.004	E200.8	10/22/12 14:51	SLS	7440-50-8	

Analytical Laboratory Report

Lab Sample ID: S54287.03
Sample Tag: MP012_101812_WW
Collected Date/Time: 10/18/2012 10:00
Matrix: Liquid
COC Reference: BC101812.1

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	125ml Plastic	HNO3	Yes	5.8	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3015A	10/22/12 01:00	SLR		
Metals								
Copper	0.004	mg/L	0.004	E200.8	10/22/12 14:55	SLS	7440-50-8	

Analytical Laboratory Report

Lab Sample ID: S54287.04
Sample Tag: MP010_101812_WW
Collected Date/Time: 10/18/2012 10:45
Matrix: Liquid
COC Reference: BC101812.1

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	LL Hg Kit	None	Yes	5.8	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Metals								
Mercury, Low Level	12	ng/L	1.0	1631E	10/25/12 12:00	Fib	7439-97-6	O

O-Analysis performed by outside laboratory. See attached report.

Analytical Laboratory Report

Lab Sample ID: S54287.05
Sample Tag: Duplicate_101812_WW
Collected Date/Time: 10/18/2012 10:50
Matrix: Liquid
COC Reference: BC101812.1

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	LL Hg Kit	None	Yes	5.8	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Metals								
Mercury, Low Level	11	ng/L	1.0	1631E	10/25/12 12:00	Fib	7439-97-6	O

O-Analysis performed by outside laboratory. See attached report.

Analytical Laboratory Report

Lab Sample ID: S54287.06
Sample Tag: Equip_Blank_101812_WW
Collected Date/Time: 10/18/2012 10:40
Matrix: Liquid
COC Reference: BC101812.1

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	LL Hg Kit	None	Yes	5.8	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Metals								
Mercury, Low Level	4.8	ng/L	0.5	1631E	10/25/12 12:00	Fib	7439-97-6	O

O-Analysis performed by outside laboratory. See attached report.

Analytical Laboratory Report

Lab Sample ID: S54287.07
Sample Tag: Trip_Blank_101812_WW
Collected Date/Time: 10/18/2012 00:01
Matrix: Liquid
COC Reference: BC101812.1

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	LL Hg Kit	None	Yes	5.8	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Metals								
Mercury, Low Level	4.9	ng/L	0.5	1631E	10/25/12 12:00	Fib	7439-97-6	O

O-Analysis performed by outside laboratory. See attached report.

ARCADIS

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

eCOC ID: BC101812.1

Send Results To:

Contact & Company Name:	Telephone:
Beth Nanzer	248.994.2314
Address:	**Fax:**
28550 Cabot Drive Ste 500	248.994.2241
City State Zip	**Email**
Novi, MI 48377	bethany.nanzer@arcadis-us.com

Project Name/Location (City, State):	Project #:
Buick City Site #1295 Task 00102	B0064410.4012.00102
Sampler's Printed Name:	**Sampler's Signature:**
D. Newcom	

Preservative	E	D	E					
Filtered (✓)								
# of Containers	2	1	3					
Container Information	2	3	1					

PARAMETER ANALYSIS & METHOD

Sample ID	Collection Date	Collection Time	Type Comp	Type Grab	Matrix		Total PCB's	T- Copper	LL Hg					REMARKS
54287.01 Outfall003A_10182012_WW	10/18/12	1120		x	w		x							
.02 MP011_101812_WW	10/18/12	1030		x	w			x						
.03 MP012_101812_WW	10/18/12	1000		x	w			x						
.04 MP010_101812_WW	10/18/12	1045		x	w				x					
.05 Duplicate_101812_WW	10/18/12	1050		x	w				x					
.06 Equip_Blank_101812_WW	10/18/12	1040		x	w				x					
.07 Trip_Blank_101812_WW	Lab filled			x	w				x					Lab filled

KEYS

Preservation Key:
- A. H_2SO_4
- B. HCL
- C. NaOH
- D. HNO_3
- E. None
- F.
- G.
- H.

Container Information Key:
1. 40 mL VOA
2. 1 L Amber
3. 125 mL Plastic
4. 250 mL Plastic
5. 500 mL Plastic
6. 1 L Plastic
7. 2 oz. Glass
8. 4 oz. Glass
9. 8 oz. Glass
10. Other

Matrix Key:
SE = Sediment, A = Air, SL = Sludge, SO = Soil, NL = NAPL / Oil, SW = Surface Wipe, W = Water, T = Tissue

Special Instructions/Comments: Invoice to: Ms. Monica Wallingford, Racer Trust, 2930 Ecorse Road, Ypsilanti, MI 48198, (313) 486.2928, P.O.No: PO137296 Buick City Site #1295 Task 102 - Please also send copy of Invoicing to Micki Maki (ARCADIS).

Special QA/QC Instructions: EDD Requested, STD TAT

Laboratory Information and Receipt		Relinquished By	Received By	Laboratory Received By
Lab Name: Merit	Cooler Custody Seal ☐ Intact ☐ Not Intact	Printed Name: D. Newcom	Printed Name: Chris Gauthier	Printed Name: Andrew Ball
☑ Cooler packed with ice (✓)		Signature:	Signature:	Signature: Andrew Ball
Specify Turnaround Requirements:	Sample Receipt:	Firm: ARCADIS	Firm: Merit	Firm: Merit
Fed-Ex Tracking #:	Condition/Cooler Temp: 5.8	Date/Time: 10/18/12 1300	Date/Time:	Date/Time: 18OCT12 1300

Fibertec
environmental
services

Thursday, October 25, 2012

Fibertec Project Number: 52552
Project Identification: S54287 /
Submittal Date: 10/18/2012

Mr. Andy Ball
Merit Laboratories, Inc.
2680 East Lansing Drive
East Lansing, MI 48823

Dear Mr. Ball,

Thank you for selecting Fibertec Environmental Services as your analytical laboratory. The samples you submitted have been analyzed in accordance with NELAC standards and the results compiled in the attached report. Any exceptions to NELAC compliance are noted in the report. These results apply only to those samples submitted. Please note samples will be disposed of 30 days after reporting date.

If you have any questions regarding these results or if we may be of further assistance to you, please contact me at (517) 699-0345.

Sincerely,

Daryl P. Strandbergh
Laboratory Director

DPS/kc

Enclosures

Client Identification:	**Merit Laboratories, Inc.**	Sample Description:	**54287.04**	Chain of Custody:	**68608**
Client Project Name:	**S54287**	Sample No:	**1**	Collect Date:	**10/18/12**
Client Project No:	**NA**	Sample Matrix:	**Ground Water**	Collect Time:	**10:45**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Mercury by CVAFS, Low-Level, Total (EPA 1631E) **Aliquot ID: 52552-001** **Matrix: Ground Water** **Analyst: JLP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Mercury (NN)	**12**		ng/L	1.0	2.0	10/25/12	PM12J25B	10/25/12	M512J25A

Client Identification:	**Merit Laboratories, Inc.**	Sample Description:	**54287.05**	Chain of Custody:	**68608**
Client Project Name:	**S54287**	Sample No:	**2**	Collect Date:	**10/18/12**
Client Project No:	**NA**	Sample Matrix:	**Ground Water**	Collect Time:	**10:50**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Mercury by CVAFS, Low-Level, Total (EPA 1631E) **Aliquot ID: 52552-002** **Matrix: Ground Water** **Analyst: JLP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Mercury (NN)	**11**		ng/L	1.0	2.0	10/25/12	PM12J25B	10/25/12	M512J25A

Client Identification:	**Merit Laboratories, Inc.**	Sample Description:	**54287.06**	Chain of Custody:	**68608**
Client Project Name:	**S54287**	Sample No:	**3**	Collect Date:	**10/18/12**
Client Project No:	**NA**	Sample Matrix:	**Ground Water**	Collect Time:	**10:40**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Mercury by CVAFS, Low-Level, Total (EPA 1631E) **Aliquot ID: 52552-003** **Matrix: Ground Water** **Analyst: JLP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Mercury (NN)	**4.8**		ng/L	0.50	1.0	10/25/12	PM12J25B	10/25/12	M512J25A

Client Identification:	**Merit Laboratories, Inc.**	Sample Description:	**54287.07**	Chain of Custody:	**68608**
Client Project Name:	**S54287**	Sample No:	**4**	Collect Date:	**10/18/12**
Client Project No:	**NA**	Sample Matrix:	**Ground Water**	Collect Time:	**NA**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Mercury by CVAFS, Low-Level, Total (EPA 1631E) **Aliquot ID: 52552-004** **Matrix: Ground Water** **Analyst: JLP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Mercury (NN)	**4.9**		ng/L	0.50	1.0	10/25/12	PM12J25B	10/25/12	M512J25A

Definitions/ Qualifiers:

A: Spike recovery or precision unusable due to dilution.
B: The analyte was detected in the associated method blank.
E: The analyte was detected at a concentration greater than the calibration range, therefore the result is estimated.
J: The concentration is an estimated value.
M: Modified Method
U: The analyte was not detected at or above the reporting limit.
X: Matrix Interference has resulted in a raised reporting limit or distorted result.
W: Results reported on a wet-weight basis.
***:** Value reported is outside QA limits

Exception Summary:

ACCREDITED IN ACCORDANCE WITH nelac

Accreditation Number:

E-10395

Merit Laboratories, Inc.

2680 East Lansing Dr., East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-4034
www.meritlabs.com

C.O.C. PAGE # ______ OF ______

68608

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Andy Ball /Tabitha Faust
COMPANY: Merit Labs
ADDRESS:
CITY: STATE: ZIP CODE:
PHONE NO.: FAX NO.: P.O. NO.:
E-MAIL ADDRESS: QUOTE NO.:

INVOICE TO

CONTACT NAME: Julie Teague ☒ SAME
COMPANY: Merit Labs
ADDRESS:
CITY: STATE: ZIP CODE:
PHONE NO.: E-MAIL ADDRESS:

PROJECT NO./NAME: 554287
SAMPLER(S) - PLEASE PRINT/SIGN NAME:

TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☐ STANDARD ☐ OTHER ______

DELIVERABLES REQUIRED ☐ 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

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

MERIT LAB NO. (FOR LAB USE ONLY)	DATE (YEAR)	TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	NONE	HCl	HNO_3	H_2SO_4	NaOH	MeOH	OTHER	LL Hg
	10/18/12	1045	54287.04	L	1							X	X
	↓	1050	54287.05	↓	1							X	X
	↓	1040	54287.06	↓	1							X	X
	↓		54287.07	↓	1							X	X

Certifications
☐ OHIO VAP ☐ Drinking Water
☐ DoD ☐ NPDES

Project Locations
☐ Detroit ☐ New York
☐ Other ______

Special Instructions
MP010-101812-WW
Duplicate-101812-W
put in same bag ~~test~~ due to error in field

RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE	TIME
Tabitha Faust	☐ Sampler	10/18/12	1330
[signature]		10/18/12	1538

RELINQUISHED BY: SIGNATURE/ORGANIZATION	DATE	TIME
52552		

SEAL NO. SEAL INTACT YES ☐ NO ☐ INITIALS
SEAL NO. SEAL INTACT YES ☐ NO ☐ INITIALS

NOTES: TEMP. ON ARRIVAL 20.4°C

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

Rev. 1.15.12