



**Worldwide Facilities Group  
Environmental Services**

June 3, 2009

*Transmitted electronically and by overnight mail*

Ms. Jeanette Best  
Mr. Jason Casteel  
City of Saginaw Waste Water Treatment Division  
Environmental Compliance  
2406 Veterans Memorial Parkway  
Saginaw, MI 48601

RE: Consent Order Quarterly/Semi Annual Monitoring at Outfalls CFD-01 and CFD-02 for April 2009, GMPT Saginaw Malleable Iron (SMI), Saginaw, MI.

Dear Ms. Best and Mr. Casteel:

The City of Saginaw/General Motors Consent Order Section 11.a requires General Motors to submit a quarterly report and a semi-annual report containing the PCB monitoring data. Therefore, enclosed are the requested Consent Order quarterly and semi-annual monitoring analytical results for samples collected from Outfalls CFD-01 and CFD-02.

Sampling and analysis have been performed in accordance with requirements presented in 40- CFR part 136 and any amendments. Sampling is representative of normal daily flows. Samples are 24-hour time proportional composite samples. The laboratory has an active Quality Control and Quality Assurance (QC/QA) program. Toxic materials that could cause slug loading or could have a detrimental effect on the sewer system are properly stored in a contained area to eliminate any possible discharge into the sewer system. No changes have occurred since the last monitoring report. Please note that the plant has closed since filing the permit application baseline monitoring report.

These analytical results represent sampling for the first quarter and first half of 2009. The laboratory (Merit) reports are attached for your review. The laboratory detection limit for PCBs is 0.1µg/L. The following table lists the PCB analytical results.

Sample Date	Sample Time	CFD-01 (µg/L)	CFD-02 (µg/L)	Flow (gpd)
April 14	11:00, 11:15	<0.1	<0.1	10,300***
April 15	11:00, 11:15	<0.1	<0.1	14,000***
April 16	11:00, 11:15	<0.1	<0.1	5,500***

\*\*\*Estimate - flow at CFD-02 was too low to obtain an accurate reading

All samples at CFD-02 are in compliance or are deemed to be in compliance.



**Worldwide Facilities Group  
Environmental Services**

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, 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.

We believe with this submittal that all required information has been provided.

If you have any questions or require clarification on the above information please feel free to contact me at 313-510-4328.

Sincerely,

A handwritten signature in black ink that reads "Cheryl R. Hiatt". The signature is written in a cursive, flowing style.

Cheryl Hiatt

Attachment

Cc: James Walle – GM Legal  
Cheryl Hiatt – GM Remediation  
Tom Darnell – City of Saginaw, City Manager  
Mike Tomka - CRA



# Analytical Laboratory Report

Report ID: S40429.01(01)  
Generated on 04/23/2009

Report to

Attention: Steve Hoevemeyer/Cheryl Hyatt  
GM SMI  
77 W. Center  
MC: 486-577-008  
Saginaw, Michigan 48605

Report produced by

Merit Laboratories  
2680 East Lansing Drive  
East Lansing, MI 48823

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

Phone: 989-757-0920 FAX: 989-757-0707  
Email: shoevemeyer@craworld.com

Report Summary

Lab Sample ID(s): S40429.01-S40429.02  
Project: 02 & 01 Qtly - SMI SSOW# 7878-002  
Collected Date: 04/14/2009  
Submitted Date/Time: 04/14/2009 13:40  
Sampled by: Terry Gooslin  
P.O. #: 4017090

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

Violetta F. Murshak  
Laboratory Director



## Analytical Laboratory Report

### Sample Summary (2 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S40429.01	01	Liquid	04/14/2009 11:00
S40429.02	02	Liquid	04/14/2009 11:15



# Analytical Laboratory Report

Lab Sample ID: S40429.01  
Sample Tag: 01  
Collected Date/Time: 04/14/2009 11:00  
Matrix: Liquid  
COC Reference: 49471

## Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	1L Amber	None	Yes	4.0	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	Limits	Flags
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### *Extraction / Prep.*

Extraction, PCB	Completed			3510C	04/14/09 15:00	TAS		
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### *Organics - PCBs/Pesticides*

<b>PCB</b>								
PCB-1016	Not detected	ug/L	0.1	608	04/15/09 18:07	JANB		
PCB-1221	Not detected	ug/L	0.1	608	04/15/09 18:07	JANB		
PCB-1232	Not detected	ug/L	0.1	608	04/15/09 18:07	JANB		
PCB-1242	Not detected	ug/L	0.1	608	04/15/09 18:07	JANB		
PCB-1248	Not detected	ug/L	0.1	608	04/15/09 18:07	JANB		
PCB-1254	Not detected	ug/L	0.1	608	04/15/09 18:07	JANB		
PCB-1260	Not detected	ug/L	0.1	608	04/15/09 18:07	JANB		
PCB, Total	Not detected	ug/L	0.1	608	04/15/09 18:07	JANB		



# Analytical Laboratory Report

Lab Sample ID: S40429.02  
 Sample Tag: 02  
 Collected Date/Time: 04/14/2009 11:15  
 Matrix: Liquid  
 COC Reference: 49471

## Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	1L Amber	None	Yes	4.0	IR
2	40ml Glass	HCL	Yes	4.0	IR
1	32oz Glass	HCL	Yes	4.0	IR
1	125ml Plastic	HNO3	Yes	4.0	IR
2	250ml Plastic	H2SO4	Yes	4.0	IR
1	125ml Plastic	NaOH	Yes	4.0	IR
1	1L Plastic	None	Yes	4.0	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	Limits	Flags
<b>Extraction / Prep.</b>								
BNA Extraction	Completed			3510C	04/15/09 20:22	EMR		
Extraction, PCB	Completed			3510C	04/14/09 15:00	TAS		
Mercury Digestion	Completed			7470A	04/15/09 11:30	JRT		
Metal Digestion	Completed			3015A	04/15/09 12:00	SLS		

## Inorganics

Amenable Cyanide	Not detected	mg/L	0.005	335.4/4500-CN-E	04/17/09 10:54	JDP	0.473	
Ammonia-N	1.38	mg/L	0.04	4500-NH3 D	04/15/09 15:00	MJC	30	
COD	41	mg/L	1	410.4	04/16/09 16:00	MJC		
Field pH	7.45	STD Units	0.01	4500-H+ B	04/14/09 11:15	TG	6.0-10.5	
Field Temperature	59	oF	1	2550 B	04/14/09 11:15	TG		
Flow, Field	10,300	gpd			04/14/09 11:15	TG	580,000	
Oil & Grease	1	mg/L	1	413.1	04/17/09 16:19	TAS	100	
Phenols	Not detected	mg/L	0.01	420.1	04/20/09 14:50	JKB		
TBOD5	7	mg/L	1	5210B	04/16/09 11:39-04/21/09	DJS	150	
Total Dissolved Solids	864	mg/L	1	2540C	04/21/09 15:17	WAR		
Total Phosphorus	0.17	mg/L	0.01	4500-PE	04/20/09 16:00	MJC	3	
Total Suspended Solids	4	mg/L	1	2540 D	04/21/09 14:55	WAR	350	

## Metals

Arsenic	0.002	mg/L	0.001	200.8	04/15/09 13:38	SLS	0.473	
Cadmium	Not detected	mg/L	0.0005	200.8	04/15/09 13:38	SLS	0.11	
Chromium	0.001	mg/L	0.005	200.8	04/15/09 13:38	SLS	2.77	b
Copper	Not detected	mg/L	0.001	200.8	04/15/09 13:38	SLS	1.184	
Lead	0.001	mg/L	0.003	200.8	04/15/09 13:38	SLS	0.377	b
Mercury	Not detected	mg/L	0.0002	245.1	04/16/09 14:29	JRT	0.0002	
Molybdenum	0.010	mg/L	0.005	200.8	04/15/09 13:38	SLS		
Nickel	0.001	mg/L	0.005	200.8	04/15/09 13:38	SLS	1.786	b
Selenium	0.001	mg/L	0.005	200.8	04/15/09 13:38	SLS	0.083	b
Silver	0.0008	mg/L	0.0005	200.8	04/15/09 13:38	SLS		
Zinc	0.017	mg/L	0.005	200.8	04/15/09 13:38	SLS	1.162	

## Organics - PCBs/Pesticides

<b>PCB</b>								
PCB-1016	Not detected	ug/L	0.1	608	04/15/09 18:18	JANB		
PCB-1221	Not detected	ug/L	0.1	608	04/15/09 18:18	JANB		

b-Value detected less than reporting limit, but greater than MDL



# Analytical Laboratory Report

Lab Sample ID: S40429.02 (continued)

Sample Tag: 02

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	Limits	Flags
<b>Organics - PCBs/Pesticides (continued)</b>								
<b>PCB (continued)</b>								
PCB-1232	Not detected	ug/L	0.1	608	04/15/09 18:18	JANB		
PCB-1242	Not detected	ug/L	0.1	608	04/15/09 18:18	JANB		
PCB-1248	Not detected	ug/L	0.1	608	04/15/09 18:18	JANB		
PCB-1254	Not detected	ug/L	0.1	608	04/15/09 18:18	JANB		
PCB-1260	Not detected	ug/L	0.1	608	04/15/09 18:18	JANB		
PCB, Total	Not detected	ug/L	0.1	608	04/15/09 18:18	JANB	0.2	
<b>Organics - Semi-Volatiles</b>								
<b>Semi-Volatile Organics GM-SMI 02 TTO</b>								
Acenaphthene	Not detected	ug/L	10	625	04/16/09 14:35	ARH		
Acenaphthylene	Not detected	ug/L	10	625	04/16/09 14:35	ARH		
Anthracene	Not detected	ug/L	10	625	04/16/09 14:35	ARH		
Benzo(a)anthracene	Not detected	ug/L	10	625	04/16/09 14:35	ARH		
bis(2-Ethylhexyl)phthalate	2	ug/L	10	625	04/16/09 14:35	ARH		BJ
Butyl benzyl phthalate	Not detected	ug/L	10	625	04/16/09 14:35	ARH		
Chrysene	Not detected	ug/L	10	625	04/16/09 14:35	ARH		
di-n-Butyl phthalate	Not detected	ug/L	10	625	04/16/09 14:35	ARH		
2,4-Dichlorophenol	Not detected	ug/L	10	625	04/16/09 14:35	ARH		
Diethyl phthalate	Not detected	ug/L	10	625	04/16/09 14:35	ARH		
Dimethyl phthalate	Not detected	ug/L	10	625	04/16/09 14:35	ARH		
2,4-Dimethylphenol	Not detected	ug/L	10	625	04/16/09 14:35	ARH		
Fluoranthene	Not detected	ug/L	10	625	04/16/09 14:35	ARH		
Fluorene	Not detected	ug/L	10	625	04/16/09 14:35	ARH		
Naphthalene	Not detected	ug/L	10	625	04/16/09 14:35	ARH		
Pentachlorophenol	Not detected	ug/L	10	625	04/16/09 14:35	ARH		
Phenol	2	ug/L	10	625	04/16/09 14:35	ARH		J
Pyrene	Not detected	ug/L	10	625	04/16/09 14:35	ARH		
Phenanthrene	Not detected	ug/L	10	625	04/16/09 14:35	ARH		
<b>Organics - Volatiles</b>								
Total BTEX	Not detected	ug/L	5	624	04/15/09 16:34	JGH		
<b>Volatile Organics-GM-SMI 02 VOC TTO List</b>								
Methylene chloride	Not detected	ug/L	5	624	04/15/09 16:34	JGH		
Chloroform	Not detected	ug/L	1	624	04/15/09 16:34	JGH		
Benzene	Not detected	ug/L	1	624	04/15/09 16:34	JGH	500	
Toluene	Not detected	ug/L	1	624	04/15/09 16:34	JGH	1,000	
Ethylbenzene	Not detected	ug/L	1	624	04/15/09 16:34	JGH	1,000	
o-Xylene	Not detected	ug/L	1	624	04/15/09 16:34	JGH	1,000	
p,m-Xylene	Not detected	ug/L	1	624	04/15/09 16:34	JGH	1,000	

B-Compound also found in associated method blank J-Estimated value less than reporting limit, but greater than MDL.





# Analytical Laboratory Report

Report ID: S40445.01(01)  
Generated on 04/23/2009

Report to

Attention: Steve Hoevemeyer/Cheryl Hyatt  
GM SMI  
77 W. Center  
MC: 486-577-008  
Saginaw, Michigan 48605

Report produced by

Merit Laboratories  
2680 East Lansing Drive  
East Lansing, MI 48823

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

Phone: 989-757-0920 FAX: 989-757-0707  
Email: shoevemeyer@craworld.com

Report Summary

Lab Sample ID(s): S40445.01-S40445.02  
Project: 02 & 01 Qtly - SMI SSOW# 7878-002  
Collected Date: 04/15/2009  
Submitted Date/Time: 04/15/2009 14:45  
Sampled by: Terry Gooslin  
P.O. #: 4017090

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

Violetta F. Murshak  
Laboratory Director



## Analytical Laboratory Report

### Sample Summary (2 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S40445.01	01	Liquid	04/15/2009 11:00
S40445.02	02	Liquid	04/15/2009 11:15



# Analytical Laboratory Report

Lab Sample ID: S40445.01  
 Sample Tag: 01  
 Collected Date/Time: 04/15/2009 11:00  
 Matrix: Liquid  
 COC Reference: 49472

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	1L Amber	None	Yes	4.1	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	Limits	Flags
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*Extraction / Prep.*

Extraction, PCB	Completed			3510C	04/16/09 09:58	TAS		
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*Organics - PCBs/Pesticides*

<b>PCB</b>								
PCB-1016	Not detected	ug/L	0.1	608	04/16/09 13:31	JANB		
PCB-1221	Not detected	ug/L	0.1	608	04/16/09 13:31	JANB		
PCB-1232	Not detected	ug/L	0.1	608	04/16/09 13:31	JANB		
PCB-1242	Not detected	ug/L	0.1	608	04/16/09 13:31	JANB		
PCB-1248	Not detected	ug/L	0.1	608	04/16/09 13:31	JANB		
PCB-1254	Not detected	ug/L	0.1	608	04/16/09 13:31	JANB		
PCB-1260	Not detected	ug/L	0.1	608	04/16/09 13:31	JANB		
PCB, Total	Not detected	ug/L	0.1	608	04/16/09 13:31	JANB		



# Analytical Laboratory Report

Lab Sample ID: S40445.02  
 Sample Tag: 02  
 Collected Date/Time: 04/15/2009 11:15  
 Matrix: Liquid  
 COC Reference: 49472

## Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	1L Amber	None	Yes	4.1	IR
2	40ml Glass	HCL	Yes	4.1	IR
1	125ml Plastic	HNO3	Yes	4.1	IR
1	32oz Glass	HCL	Yes	4.1	IR
1	250ml Plastic	H2SO4	Yes	4.1	IR
1	125ml Plastic	NaOH	Yes	4.1	IR
1	1L Plastic	None	Yes	4.1	IR
1	125ml Amber	H2SO4	Yes	4.1	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	Limits	Flags
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### Extraction / Prep.

BNA Extraction	Completed			3510C	04/15/09 20:22	EMR		
Extraction, PCB	Completed			3510C	04/16/09 09:58	TAS		
Mercury Digestion	Completed			7470A	04/17/09 10:00	JRT		
Metal Digestion	Completed			3015A	04/16/09 12:00	SLS		

### Inorganics

Amenable Cyanide	Not detected	mg/L	0.005	335.4/4500-CN-E	04/23/09 11:08	JDP	0.473	
Ammonia-N	1.44	mg/L	0.02	4500-NH3 D	04/22/09 12:00	MJC	30	
COD	42	mg/L	1	410.4	04/16/09 16:00	MJC		
Field pH	7.93	STD Units	0.01	4500-H+ B	04/15/09 11:15	TG	6.0-10.5	
Field Temperature	58	oF	1	2550 B	04/15/09 11:15	TG		
Flow, Field	14,000	gpd			04/15/09 11:15	TG	580,000	
Oil & Grease	1	mg/L	1	413.1	04/17/09 16:19	TAS	100	
Phenols	Not detected	mg/L	0.01	420.1	04/20/09 14:55	JKB		
TBOD5	9	mg/L	1	5210B	04/17/09 10:00-04/22/09	DJS	150	
Total Dissolved Solids	856	mg/L	1	2540C	04/21/09 15:17	WAR		
Total Phosphorus	0.15	mg/L	0.01	4500-PE	04/23/09 15:00	MJC	3	
Total Suspended Solids	4	mg/L	1	2540 D	04/21/09 14:55	WAR	350	

### Metals

Arsenic	0.001	mg/L	0.001	200.8	04/16/09 13:16	SLS	0.473	
Cadmium	0.0001	mg/L	0.0005	200.8	04/16/09 13:16	SLS	0.11	b
Chromium	Not detected	mg/L	0.005	200.8	04/16/09 13:16	SLS	2.77	
Copper	0.001	mg/L	0.001	200.8	04/16/09 13:16	SLS	1.184	
Lead	0.007	mg/L	0.003	200.8	04/16/09 13:16	SLS	0.377	
Mercury	Not detected	mg/L	0.0002	245.1	04/17/09 13:29	JRT	0.0002	
Molybdenum	0.008	mg/L	0.005	200.8	04/16/09 13:16	SLS		
Nickel	0.001	mg/L	0.005	200.8	04/16/09 13:16	SLS	1.786	b
Selenium	0.001	mg/L	0.005	200.8	04/16/09 13:16	SLS	0.083	b
Silver	Not detected	mg/L	0.0005	200.8	04/16/09 13:16	SLS		
Zinc	0.092	mg/L	0.005	200.8	04/16/09 13:16	SLS	1.162	

### Organics - PCBs/Pesticides

<b>PCB</b>								
PCB-1016	Not detected	ug/L	0.1	608	04/16/09 13:43	JANB		

b-Value detected less than reporting limit, but greater than MDL



# Analytical Laboratory Report

Lab Sample ID: S40445.02 (continued)  
 Sample Tag: 02

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	Limits	Flags
<b>Organics - PCBs/Pesticides (continued)</b>								
<b>PCB (continued)</b>								
PCB-1221	Not detected	ug/L	0.1	608	04/16/09 13:43	JANB		
PCB-1232	Not detected	ug/L	0.1	608	04/16/09 13:43	JANB		
PCB-1242	Not detected	ug/L	0.1	608	04/16/09 13:43	JANB		
PCB-1248	Not detected	ug/L	0.1	608	04/16/09 13:43	JANB		
PCB-1254	Not detected	ug/L	0.1	608	04/16/09 13:43	JANB		
PCB-1260	Not detected	ug/L	0.1	608	04/16/09 13:43	JANB		
PCB, Total	Not detected	ug/L	0.1	608	04/16/09 13:43	JANB	0.2	
<b>Organics - Semi-Volatiles</b>								
<b>Semi-Volatile Organics GM-SMI 02 TTO</b>								
Acenaphthene	Not detected	ug/L	10	625	04/16/09 15:09	ARH		
Acenaphthylene	Not detected	ug/L	10	625	04/16/09 15:09	ARH		
Anthracene	Not detected	ug/L	10	625	04/16/09 15:09	ARH		
Benzo(a)anthracene	Not detected	ug/L	10	625	04/16/09 15:09	ARH		
bis(2-Ethylhexyl)phthalate	2	ug/L	10	625	04/16/09 15:09	ARH		BJ
Butyl benzyl phthalate	Not detected	ug/L	10	625	04/16/09 15:09	ARH		
Chrysene	Not detected	ug/L	10	625	04/16/09 15:09	ARH		
di-n-Butyl phthalate	Not detected	ug/L	10	625	04/16/09 15:09	ARH		
2,4-Dichlorophenol	Not detected	ug/L	10	625	04/16/09 15:09	ARH		
Diethyl phthalate	Not detected	ug/L	10	625	04/16/09 15:09	ARH		
Dimethyl phthalate	Not detected	ug/L	10	625	04/16/09 15:09	ARH		
2,4-Dimethylphenol	Not detected	ug/L	10	625	04/16/09 15:09	ARH		
Fluoranthene	Not detected	ug/L	10	625	04/16/09 15:09	ARH		
Fluorene	Not detected	ug/L	10	625	04/16/09 15:09	ARH		
Naphthalene	Not detected	ug/L	10	625	04/16/09 15:09	ARH		
Pentachlorophenol	Not detected	ug/L	10	625	04/16/09 15:09	ARH		
Phenol	1	ug/L	10	625	04/16/09 15:09	ARH		J
Pyrene	Not detected	ug/L	10	625	04/16/09 15:09	ARH		
Phenanthrene	Not detected	ug/L	10	625	04/16/09 15:09	ARH		
<b>Organics - Volatiles</b>								
Total BTEX	Not detected	ug/L	5	624	04/16/09 18:50	JGH		
<b>Volatile Organics-GM-SMI 02 VOC TTO List</b>								
Methylene chloride	Not detected	ug/L	5	624	04/16/09 18:50	JGH		
Chloroform	Not detected	ug/L	1	624	04/16/09 18:50	JGH		
Benzene	Not detected	ug/L	1	624	04/16/09 18:50	JGH	500	
Toluene	Not detected	ug/L	1	624	04/16/09 18:50	JGH	1,000	
Ethylbenzene	Not detected	ug/L	1	624	04/16/09 18:50	JGH	1,000	
o-Xylene	Not detected	ug/L	1	624	04/16/09 18:50	JGH	1,000	
p,m-Xylene	Not detected	ug/L	1	624	04/16/09 18:50	JGH	1,000	

B-Compound also found in associated method blank J-Estimated value less than reporting limit, but greater than MDL





# Analytical Laboratory Report

Report ID: S40461.01(01)  
Generated on 04/24/2009

Report to

Attention: Steve Hoevemeyer/Cheryl Hyatt  
GM SMI  
77 W. Center  
MC: 486-577-008  
Saginaw, Michigan 48605

Report produced by

Merit Laboratories  
2680 East Lansing Drive  
East Lansing, MI 48823

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

Phone: 989-757-0920 FAX: 989-757-0707  
Email: shoevemeyer@craworld.com

Report Summary

Lab Sample ID(s): S40461.01-S40461.02  
Project: 02 & 01 Qtly - SMI SSOW# 7878-002  
Collected Date: 04/16/2009  
Submitted Date/Time: 04/16/2009 15:30  
Sampled by: Terry Gooslin  
P.O. #: 4017090

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

Violetta F. Murshak  
Laboratory Director



## Analytical Laboratory Report

### Sample Summary (2 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S40461.01	01	Liquid	04/16/2009 11:00
S40461.02	02	Liquid	04/16/2009 11:15



# Analytical Laboratory Report

Lab Sample ID: S40461.01  
Sample Tag: 01  
Collected Date/Time: 04/16/2009 11:00  
Matrix: Liquid  
COC Reference: 49474

## Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	1L Amber	None	Yes	4.1	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	Limits	Flags
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### *Extraction / Prep.*

Extraction, PCB	Completed			3510C	04/20/09 11:05	DJS		
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### *Organics - PCBs/Pesticides*

PCB	Results	Units	RL	Method	Run Date/Time	Analyst	Limits	Flags
PCB-1016	Not detected	ug/L	0.1	608	04/20/09 13:41	JANB		
PCB-1221	Not detected	ug/L	0.1	608	04/20/09 13:41	JANB		
PCB-1232	Not detected	ug/L	0.1	608	04/20/09 13:41	JANB		
PCB-1242	Not detected	ug/L	0.1	608	04/20/09 13:41	JANB		
PCB-1248	Not detected	ug/L	0.1	608	04/20/09 13:41	JANB		
PCB-1254	Not detected	ug/L	0.1	608	04/20/09 13:41	JANB		
PCB-1260	Not detected	ug/L	0.1	608	04/20/09 13:41	JANB		
PCB, Total	Not detected	ug/L	0.1	608	04/20/09 13:41	JANB		



# Analytical Laboratory Report

Lab Sample ID: S40461.02  
 Sample Tag: 02  
 Collected Date/Time: 04/16/2009 11:15  
 Matrix: Liquid  
 COC Reference: 49474

## Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	1L Amber	None	Yes	4.1	IR
2	40ml Glass	HCL	Yes	4.1	IR
1	32oz Glass	HCL	Yes	4.1	IR
1	1L Plastic	None	Yes	4.1	IR
1	125ml Plastic	HNO3	Yes	4.1	IR
1	125ml Plastic	NaOH	Yes	4.1	IR
1	250ml Plastic	H2SO4	Yes	4.1	IR
1	125ml Amber	H2SO4	Yes	4.1	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	Limits	Flags
<b>Extraction / Prep.</b>								
BNA Extraction	Completed			3510C	04/17/09 19:32	EMR		
Extraction, PCB	Completed			3510C	04/20/09 11:05	DJS		
Mercury Digestion	Completed			7470A	04/22/09 09:30	JRT		
Metal Digestion	Completed			3015A	04/17/09 12:00	SLS		
<b>Inorganics</b>								
Amenable Cyanide	Not detected	mg/L	0.005	335.4/4500-CN-E	04/23/09 11:16	JDP	0.473	
Ammonia-N	1.24	mg/L	0.02	4500-NH3 D	04/22/09 12:00	MJC	30	
COD	28	mg/L	1	410.4	04/24/09 13:00	MJC		
Field pH	7.33	STD Units	0.01	4500-H+ B	04/16/09 11:15	TG	6.0-10.5	
Field Temperature	56	oF	1	2550 B	04/16/09 11:15	TG		
Flow, Field	5,500	gpd			04/16/09 11:15	TG	580,000	
Oil & Grease	1	mg/L	1	413.1	04/17/09 16:19	TAS	100	
Phenols	Not detected	mg/L	0.01	420.1	04/20/09 15:00	JKB		
TBOD5	8	mg/L	1	5210B	04/17/09 10:00-04/22/09	DJS	150	
Total Dissolved Solids	776	mg/L	1	2540C	04/21/09 15:17	WAR		
Total Phosphorus	0.15	mg/L	0.01	4500-PE	04/23/09 18:00	MJC	3	
Total Suspended Solids	8	mg/L	1	2540 D	04/21/09 14:55	WAR	350	
<b>Metals</b>								
Arsenic	0.001	mg/L	0.001	200.8	04/17/09 12:47	SLS	0.473	
Cadmium	0.0004	mg/L	0.0005	200.8	04/17/09 12:47	SLS	0.11	b
Chromium	Not detected	mg/L	0.005	200.8	04/17/09 12:47	SLS	2.77	
Copper	0.001	mg/L	0.001	200.8	04/17/09 12:47	SLS	1.184	
Lead	0.004	mg/L	0.003	200.8	04/17/09 12:47	SLS	0.377	
Mercury	Not detected	mg/L	0.0002	245.1	04/22/09 16:12	JRT	0.0002	
Molybdenum	0.008	mg/L	0.005	200.8	04/17/09 12:47	SLS		
Nickel	0.001	mg/L	0.005	200.8	04/17/09 12:47	SLS	1.786	b
Selenium	Not detected	mg/L	0.005	200.8	04/17/09 12:47	SLS	0.083	
Silver	Not detected	mg/L	0.0005	200.8	04/17/09 12:47	SLS		
Zinc	0.078	mg/L	0.005	200.8	04/17/09 12:47	SLS	1.162	
<b>Organics - PCBs/Pesticides</b>								
<b>PCB</b>								
PCB-1016	Not detected	ug/L	0.1	608	04/20/09 13:52	JANB		

b-Value detected less than reporting limit, but greater than MDL



# Analytical Laboratory Report

Lab Sample ID: S40461.02 (continued)  
 Sample Tag: 02

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	Limits	Flags
<b>Organics - PCBs/Pesticides (continued)</b>								
<b>PCB (continued)</b>								
PCB-1221	Not detected	ug/L	0.1	608	04/20/09 13:52	JANB		
PCB-1232	Not detected	ug/L	0.1	608	04/20/09 13:52	JANB		
PCB-1242	Not detected	ug/L	0.1	608	04/20/09 13:52	JANB		
PCB-1248	Not detected	ug/L	0.1	608	04/20/09 13:52	JANB		
PCB-1254	Not detected	ug/L	0.1	608	04/20/09 13:52	JANB		
PCB-1260	Not detected	ug/L	0.1	608	04/20/09 13:52	JANB		
PCB, Total	Not detected	ug/L	0.1	608	04/20/09 13:52	JANB	0.2	
<b>Organics - Semi-Volatiles</b>								
<b>Semi-Volatile Organics GM-SMI 02 TTO</b>								
Acenaphthene	Not detected	ug/L	10	625	04/20/09 13:56	ARH		
Acenaphthylene	Not detected	ug/L	10	625	04/20/09 13:56	ARH		
Anthracene	Not detected	ug/L	10	625	04/20/09 13:56	ARH		
Benzo(a)anthracene	Not detected	ug/L	10	625	04/20/09 13:56	ARH		
bis(2-Ethylhexyl)phthalate	2	ug/L	10	625	04/20/09 13:56	ARH		BJ
Butyl benzyl phthalate	Not detected	ug/L	10	625	04/20/09 13:56	ARH		
Chrysene	Not detected	ug/L	10	625	04/20/09 13:56	ARH		
di-n-Butyl phthalate	Not detected	ug/L	10	625	04/20/09 13:56	ARH		
2,4-Dichlorophenol	Not detected	ug/L	10	625	04/20/09 13:56	ARH		
Diethyl phthalate	Not detected	ug/L	10	625	04/20/09 13:56	ARH		
Dimethyl phthalate	Not detected	ug/L	10	625	04/20/09 13:56	ARH		
2,4-Dimethylphenol	Not detected	ug/L	10	625	04/20/09 13:56	ARH		
Fluoranthene	Not detected	ug/L	10	625	04/20/09 13:56	ARH		
Fluorene	Not detected	ug/L	10	625	04/20/09 13:56	ARH		
Naphthalene	Not detected	ug/L	10	625	04/20/09 13:56	ARH		
Pentachlorophenol	Not detected	ug/L	10	625	04/20/09 13:56	ARH		
Phenol	Not detected	ug/L	10	625	04/20/09 13:56	ARH		
Pyrene	Not detected	ug/L	10	625	04/20/09 13:56	ARH		
Phenanthrene	Not detected	ug/L	10	625	04/20/09 13:56	ARH		
<b>Organics - Volatiles</b>								
Total BTEX	Not detected	ug/L	5	624	04/16/09 19:42	JGH		
<b>Volatile Organics-GM-SMI 02 VOC TTO List</b>								
Methylene chloride	Not detected	ug/L	5	624	04/16/09 19:42	JGH		
Chloroform	0.1	ug/L	1	624	04/16/09 19:42	JGH		J
Benzene	Not detected	ug/L	1	624	04/16/09 19:42	JGH	500	
Toluene	0.1	ug/L	1	624	04/16/09 19:42	JGH	1,000	J
Ethylbenzene	Not detected	ug/L	1	624	04/16/09 19:42	JGH	1,000	
o-Xylene	Not detected	ug/L	1	624	04/16/09 19:42	JGH	1,000	
p,m-Xylene	Not detected	ug/L	1	624	04/16/09 19:42	JGH	1,000	

B-Compound also found in associated method blank J-Estimated value less than reporting limit, but greater than MDL

