



MICHIGAN DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENT
 ENVIRONMENTAL LABORATORY

P.O. Box 30270
 Lansing, MI 48909
 TEL: (517) 335-9800
 FAX: (517) 335-9600

Division: RD
Report to: SYBIL KOLON
 MDEQ-RD-JACKSON
 JACKSON DISTRICT OFFICE
 301 EAST LOUIS GLICK HWY, JACKSON, MI 49201-1551

Lab Work Order # : 10700103
Work Site ID : 81000018
Site Name : GELMAN SCIENCES, INC.
Received: 07/14/2011
Reported: 08/11/2011
Collected By: JIM COGER

Total: \$910.00

Samples Received :

No:	Sample ID	Sample Description	Matrix:	Collection Date
01	AB78108	MW-49	WATER	07/13/2011
02	AB78109	MW-27	WATER	07/13/2011
03	AB78110	MW-46	WATER	07/13/2011
04	AB78111	MW-58d	WATER	07/13/2011
05	AB78112	MW-52	WATER	07/13/2011
06	AB78113	MW-52i	WATER	07/13/2011
07	AB78114	MW-26	WATER	07/13/2011

I certify that the analysis performed by the MDEQ Environmental Laboratory are accurate and that the laboratory tests were conducted by methods approved by the U.S. Environmental Protection Agency and other appropriate regulatory agencies.

George L. Krisztian,
 Acting Laboratory Director



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Sample Number: AB78108 MW-49

1,4-dioxane

Analytical Method: 8260SIM **Date Tested:** 07/26/2011 **Analyst:** PCR

CAS #	Compound	Result ug/L	RL	Qualifier	Dilution Factor
123-91-1	1,4-dioxane	Not Detected	1.0		1.0

This analysis is performed using selected ion monitoring (SIM). Due to the nature of 1,4-dioxane, results reported below 5 ug/L should be considered estimated.

Sample Number: AB78109 MW-27

1,4-dioxane

Analytical Method: 8260SIM **Date Tested:** 07/26/2011 **Analyst:** PCR

CAS #	Compound	Result ug/L	RL	Qualifier	Dilution Factor
123-91-1	1,4-dioxane	4.8	1.0		1.0

This analysis is performed using selected ion monitoring (SIM). Due to the nature of 1,4-dioxane, results reported below 5 ug/L should be considered estimated.

Sample Number: AB78110 MW-46

1,4-dioxane

Analytical Method: 8260SIM **Date Tested:** 07/27/2011 **Analyst:** PCR

CAS #	Compound	Result ug/L	RL	Qualifier	Dilution Factor
123-91-1	1,4-dioxane	110	10		10

CAS# : Chemical Abstract Service Registry Number
 RL : Reporting Limit
 ND : Not Detected

ug / L : microgram / liter (ppb)
 mg / L : milligram / liter (ppm)
 ug / Kg : microgram / kilogram (ppb)
 mg / Kg : milligram / kilogram (ppm)

Laboratory Contacts
 Inorganic Unit Mgr: Sandy Gregg
 Organic Unit Mgr: Carol Smith
 Systems Mgmt Unit: George Krisztian



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Sample Number: AB78111 MW-58d

1,4-dioxane

Analytical Method: 8260SIM **Date Tested:** 07/26/2011 **Analyst:** PCR

CAS #	Compound	Result ug/L	RL	Qualifier	Dilution Factor
123-91-1	1,4-dioxane	34	1.0		1.0

Sample Number: AB78112 MW-52

1,4-dioxane

Analytical Method: 8260SIM **Date Tested:** 07/26/2011 **Analyst:** PCR

CAS #	Compound	Result ug/L	RL	Qualifier	Dilution Factor
123-91-1	1,4-dioxane	Not Detected	1.0		1.0

This analysis is performed using selected ion monitoring (SIM). Due to the nature of 1,4-dioxane, results reported below 5 ug/L should be considered estimated.

Sample Number: AB78113 MW-52i

1,4-dioxane

Analytical Method: 8260SIM **Date Tested:** 07/26/2011 **Analyst:** PCR

CAS #	Compound	Result ug/L	RL	Qualifier	Dilution Factor
123-91-1	1,4-dioxane	Not Detected	1.0		1.0

This analysis is performed using selected ion monitoring (SIM). Due to the nature of 1,4-dioxane, results reported below 5 ug/L should be considered estimated.

CAS# : Chemical Abstract Service Registry Number
 RL : Reporting Limit
 ND : Not Detected

ug / L : microgram / liter (ppb)
 mg / L : milligram / liter (ppm)
 ug / Kg : microgram / kilogram (ppb)
 mg / Kg : milligram / kilogram (ppm)

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Sample Number: AB78114 MW-26

1,4-dioxane

Analytical Method: 8260SIM **Date Tested:** 07/26/2011 **Analyst:** PCR

CAS #	Compound	Result ug/L	RL	Qualifier	Dilution Factor
123-91-1	1,4-dioxane	1.9	1.0		1.0

This analysis is performed using selected ion monitoring (SIM). Due to the nature of 1,4-dioxane, results reported below 5 ug/L should be considered estimated.

CAS# : Chemical Abstract Service Registry Number
 RL : Reporting Limit
 ND : Not Detected

ug / L : microgram / liter (ppb)
 mg / L : milligram / liter (ppm)
 ug / Kg : microgram / kilogram (ppb)
 mg / Kg : milligram / kilogram (ppm)

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<u>Qualifier Code</u>	<u>Qualifier Description</u>
1	Result(s) and RL(s) are estimated due to low surrogate recovery.
2	Result is estimated due to high surrogate recovery.
3	Result(s) and RL(s) are estimated due to low matrix spike recovery.
4	Result is estimated due to high matrix spike recovery.
5	Result and RL are estimated due to low continuing calibration standard criteria failure.
6	Result is estimated due to high continuing calibration standard criteria failure.
7	Result(s) and RL(s) are estimated due to poor precision.
8	Result(s) and RL(s) are estimated due to low recovery of batch QC.
9	Result outside QC acceptance criteria.
A	Value reported is the mean of two or more determinations.
C	Value calculated from other independent parameters.
D	Analyte value quantified from a dilution(s); reporting limit (RL) raised.
E	Result is estimated due to high recovery of batch QC.
F	Amenable cyanide was not analyzed due to low level of total cyanide.
G	Result and RL are estimated due to initial calibration standard criteria failure.
H	Recommended laboratory holding time was exceeded.
I	Dilution required due to matrix interference; reporting limit (RL) raised.
J	Analyte was positively identified. Value is an estimate.
JA	Result is estimated due to multiple Aroclors present.
JC	Result is estimated since confirmation analysis did not meet acceptance criteria
JD	Due to severe degradation, specific Aroclor identification is difficult and quantitation is estimated.
K	RL(s) raised due to matrix interferences.
KR	RL(s) raised due to low sample volume submitted.
KS	RL(s) raised due to low total solids.
KW	RL(s) raised due to light sample weight.
LB	Reported library search compounds are tentative identifications with estimated concentrations.
M	The level of the method preparation blank (MPB) is reported in the qualifier column.
N	Non-homogeneous sample made analysis of sample questionable.
O	Result and RL estimated due to analysis from an open vial.
P	Recommended sample collection/preservation technique not used; reported result(s) is an estimate.
Q	Quantity of sample insufficient to perform analyses requested.
R	Result confirmed by re-extraction and analysis.
S	Supernatant analyzed.
T	Reported value is less than the reporting limit (RL). Result is estimated.
V	Value not available due to dilution.
W	Reported value is less than the method detection limit (MDL).
X	Methods 8260 & 624 are used to analyze volatile organics that have boiling points below 200°C. 2-Methylnaphthalene & naphthalene have boiling points above 200°C and are better suited to analysis by methods 8270 or 625 as semivolatile organics.
PI	Possible interference may have affected the accuracy of the laboratory result
Z	Result reported below the RL to meet the TDL in RRD Op Memo 2 (10/22/04) multiplied by applicable dilution factor.

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