STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

17 April 2017

Work Order: 1704009

Price: $735.00

Dan Hamel
MDEQ-RRD-JACKSON
301 E. Louis Glick Highway
Jackson, MI 49201-1556

RE: GELMAN SCIENCES, INC

I certify that the analyses performed by the MDEQ Environmental Laboratory were conducted by methods approved by the U.S. Environmental Protection Agency and other appropriate regulatory agencies.

Sincerely,

Kirby Shane
Laboratory Director

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

MDEQ-RRD-JACKSON
301 E. Louis Glick Highway
Jackson MI, 49201-1556

Project: GELMAN SCIENCES, INC
Site Code: 81000018
Project Manager: Dan Hamel

Reported:
04/17/2017

Analytical Report for Samples

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Qualifier
Allen Creek-Glendale	1704009-01	Water	04/05/2017	04/06/2017	
First Sister Lake	1704009-02	Water	04/05/2017	04/06/2017	
Second Sister Lake	1704009-03	Water	04/05/2017	04/06/2017	

Notes and Definitions

Y28	1,4-dioxane analysis is performed using selective ion monitoring (SIM). Results reported below 5 ug/L (aqueous) or 1000 ug/Kg (solids) are estimated.
X	Methods 8260 & 624 are used to analyze volatile organics that have boiling points below 200 ºC. 2-Methylnaphthalene & naphthalene have boiling points above 200 ºC and are better suited to analysis by methods 8270 & 625 as semivolatile organics.
A11	Result is estimated due to high initial verification standard criteria failure.
A08	Result(s) and reporting limits(s) are estimated due to low recovery of batch QC.
A06	Result is estimated due to high continuing calibration standard criteria failure.
A05	Result and reporting limit are estimated due to low continuing calibration standard criteria failure.
A03	Result(s) and reporting limit(s) are estimated due to low matrix spike recovery.
ND	Indicates compound analyzed for but not detected
RL	Reporting Limit
NA	Not Applicable

Lab Work Order # 1704009

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

Client ID: Allen Creek-Glendale

Lab ID: 1704009-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	04/10/17	B7D1002	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	04/10/17	B7D1002	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
540-84-1	2,2,4-Trimethylpentane	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	04/10/17	B7D1002	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	04/10/17	B7D1002	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	04/10/17	B7D1002	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	04/10/17	B7D1002	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	04/10/17	B7D1002	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	A05
74-83-9	Bromomethane	ND	5.0	ug/L	1	04/10/17	B7D1002	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	04/10/17	B7D1002	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	04/10/17	B7D1002	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	04/10/17	B7D1002	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

Client ID: Allen Creek-Glendale

Lab ID: 1704009-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	04/10/17	B7D1002	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	04/10/17	B7D1002	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	04/10/17	B7D1002	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	04/10/17	B7D1002	8260	A05, A08
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	04/10/17	B7D1002	8260	A05
110-54-3	Hexane	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	04/10/17	B7D1002	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	04/10/17	B7D1002	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	04/10/17	B7D1002	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	04/10/17	B7D1002	8260	A08
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	04/10/17	B7D1002	8260	A05
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	04/10/17	B7D1002	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	A05
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
Surrogate: Bromofluorobenzene			*99.3 %*	*85-115*		*04/10/17*	B7D1002	*8260*	
Surrogate: Dibromofluoromethane			*108 %*	*82.7-115*		*04/10/17*	B7D1002	*8260*	
Surrogate: Toluene-d8			*97.0 %*	*85-115*		*04/10/17*	B7D1002	*8260*	

Lab Work Order # 1704009

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

Client ID: Allen Creek-Glendale

Lab ID: 1704009-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Dioxane									**See note Y28**
123-91-1	1,4-dioxane	ND	1.0	ug/L	1	04/12/17	B7D1311	8260 Modified	

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

Client ID: First Sister Lake

Lab ID: 1704009-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	04/10/17	B7D1002	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	04/10/17	B7D1002	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
540-84-1	2,2,4-Trimethylpentane	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	04/10/17	B7D1002	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	04/10/17	B7D1002	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	04/10/17	B7D1002	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	04/10/17	B7D1002	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	04/10/17	B7D1002	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	A05
74-83-9	Bromomethane	ND	5.0	ug/L	1	04/10/17	B7D1002	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	04/10/17	B7D1002	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	04/10/17	B7D1002	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	04/10/17	B7D1002	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

Client ID: First Sister Lake

Lab ID: 1704009-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	04/10/17	B7D1002	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	04/10/17	B7D1002	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	04/10/17	B7D1002	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	04/10/17	B7D1002	8260	A05, A08
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	04/10/17	B7D1002	8260	A05
110-54-3	Hexane	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	04/10/17	B7D1002	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	04/10/17	B7D1002	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	04/10/17	B7D1002	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	04/10/17	B7D1002	8260	A08
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	04/10/17	B7D1002	8260	A05
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	04/10/17	B7D1002	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	A05
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
Surrogate: Bromofluorobenzene			*97.2 %*	*85-115*		*04/10/17*	B7D1002	*8260*	
Surrogate: Dibromofluoromethane			*111 %*	*82.7-115*		*04/10/17*	B7D1002	*8260*	
Surrogate: Toluene-d8			*98.2 %*	*85-115*		*04/10/17*	B7D1002	*8260*	

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

Client ID: First Sister Lake

Lab ID: 1704009-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Dioxane									**See note Y28**
123-91-1	1,4-dioxane	ND	1.0	ug/L	1	04/12/17	B7D1311	8260 Modified	

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

Client ID: Second Sister Lake

Lab ID: 1704009-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	04/10/17	B7D1002	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	04/10/17	B7D1002	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
540-84-1	2,2,4-Trimethylpentane	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	04/10/17	B7D1002	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	04/10/17	B7D1002	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	04/10/17	B7D1002	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	04/10/17	B7D1002	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	04/10/17	B7D1002	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	A05
74-83-9	Bromomethane	ND	5.0	ug/L	1	04/10/17	B7D1002	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	04/10/17	B7D1002	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	04/10/17	B7D1002	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	04/10/17	B7D1002	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

Client ID: Second Sister Lake

Lab ID: 1704009-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	04/10/17	B7D1002	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	04/10/17	B7D1002	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	04/10/17	B7D1002	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	04/10/17	B7D1002	8260	A05, A08
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	04/10/17	B7D1002	8260	A05
110-54-3	Hexane	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	04/10/17	B7D1002	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	04/10/17	B7D1002	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	04/10/17	B7D1002	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	04/10/17	B7D1002	8260	A08
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	04/10/17	B7D1002	8260	A05
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	04/10/17	B7D1002	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	A05
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	04/10/17	B7D1002	8260	
Surrogate: Bromofluorobenzene			*93.8 %*	*85-115*		*04/10/17*	B7D1002	*8260*	
Surrogate: Dibromofluoromethane			*109 %*	*82.7-115*		*04/10/17*	B7D1002	*8260*	
Surrogate: Toluene-d8			*97.7 %*	*85-115*		*04/10/17*	B7D1002	*8260*	

Lab Work Order # 1704009

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

Client ID: Second Sister Lake

Lab ID: 1704009-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Dioxane									**See note Y28**
123-91-1	1,4-dioxane	ND	1.0	ug/L	1	04/12/17	B7D1311	8260 Modified	

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

Organics-Volatiles - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
Batch B7D1002 - Method: 5030				**Prepared: 04/10/2017**							
Blank (B7D1002-BLK1)											
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L							04/10/2017	
1,1,1-Trichloroethane	ND	1.0	ug/L							04/10/2017	
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L							04/10/2017	
1,1,2-Trichloroethane	ND	1.0	ug/L							04/10/2017	
1,1-Dichloroethane	ND	1.0	ug/L							04/10/2017	
1,1-Dichloroethylene	ND	1.0	ug/L							04/10/2017	
1,2,3-Trichlorobenzene	ND	5.0	ug/L							04/10/2017	
1,2,3-Trichloropropane	ND	1.0	ug/L							04/10/2017	
1,2,3-Trimethylbenzene	ND	1.0	ug/L							04/10/2017	
1,2,4-Trichlorobenzene	ND	5.0	ug/L							04/10/2017	
1,2,4-Trimethylbenzene	ND	1.0	ug/L							04/10/2017	
1,2-Dibromoethane	ND	1.0	ug/L							04/10/2017	
1,2-Dichlorobenzene	ND	1.0	ug/L							04/10/2017	
1,2-Dichloroethane	ND	1.0	ug/L							04/10/2017	
1,2-Dichloropropane	ND	1.0	ug/L							04/10/2017	
1,3,5-Trimethylbenzene	ND	1.0	ug/L							04/10/2017	
1,3-Dichlorobenzene	ND	1.0	ug/L							04/10/2017	
1,4-Dichlorobenzene	ND	1.0	ug/L							04/10/2017	
2,2,4-Trimethylpentane	ND	1.0	ug/L							04/10/2017	
2-Butanone (MEK)	ND	5.0	ug/L							04/10/2017	
2-Methylnaphthalene	ND	5.0	ug/L							04/10/2017	X
2-Propanone (acetone)	ND	20	ug/L							04/10/2017	
4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L							04/10/2017	
Acrylonitrile	ND	5.0	ug/L							04/10/2017	
Benzene	ND	1.0	ug/L							04/10/2017	
Bromochloromethane	ND	1.0	ug/L							04/10/2017	
Bromodichloromethane	ND	1.0	ug/L							04/10/2017	
Bromoform	ND	1.0	ug/L							04/10/2017	A05
Bromomethane	ND	5.0	ug/L							04/10/2017	
Carbon disulfide	ND	1.0	ug/L							04/10/2017	
Carbon tetrachloride	ND	1.0	ug/L							04/10/2017	
Chlorobenzene	ND	1.0	ug/L							04/10/2017	
Chloroethane	ND	5.0	ug/L							04/10/2017	
Chloroform	ND	1.0	ug/L							04/10/2017	
Chloromethane	ND	5.0	ug/L							04/10/2017	
cis-1,2-Dichloroethylene	ND	1.0	ug/L							04/10/2017	
cis-1,3-Dichloropropylene	ND	1.0	ug/L							04/10/2017	
Cyclohexane	ND	5.0	ug/L							04/10/2017	
Dibromochloromethane	ND	1.0	ug/L							04/10/2017	
Dibromomethane	ND	1.0	ug/L							04/10/2017	
Dichlorodifluoromethane	ND	5.0	ug/L							04/10/2017	
Diethyl ether	ND	5.0	ug/L							04/10/2017	
Diisopropyl Ether	ND	5.0	ug/L							04/10/2017	
Ethylbenzene	ND	1.0	ug/L							04/10/2017	
Ethyltertiarybutylether	ND	5.0	ug/L							04/10/2017	A05, A08
Hexachloroethane	ND	5.0	ug/L							04/10/2017	A05
Hexane	ND	1.0	ug/L							04/10/2017	

Lab Work Order # 1704009

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

Organics-Volatiles - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
Batch B7D1002 - Method: 5030				**Prepared: 04/10/2017**							
Blank (B7D1002-BLK1)											
Isopropylbenzene	ND	1.0	ug/L							04/10/2017	
m & p - Xylene	ND	2.0	ug/L							04/10/2017	
Methylene chloride	ND	5.0	ug/L							04/10/2017	
Methyltertiarybutylether	ND	1.0	ug/L							04/10/2017	
Naphthalene	ND	5.0	ug/L							04/10/2017	X
n-Butylbenzene	ND	1.0	ug/L							04/10/2017	
n-Propylbenzene	ND	1.0	ug/L							04/10/2017	
o-Xylene	ND	1.0	ug/L							04/10/2017	
sec-Butylbenzene	ND	1.0	ug/L							04/10/2017	
Styrene	ND	1.0	ug/L							04/10/2017	
tert-Butylbenzene	ND	1.0	ug/L							04/10/2017	
tertiary Butyl Alcohol	ND	50	ug/L							04/10/2017	A08
tertiaryAmylmethylether	ND	5.0	ug/L							04/10/2017	A05
Tetrachloroethylene	ND	1.0	ug/L							04/10/2017	
Tetrahydrofuran	ND	5.0	ug/L							04/10/2017	
Toluene	ND	1.0	ug/L							04/10/2017	
trans-1,2-Dichloroethylene	ND	1.0	ug/L							04/10/2017	
trans-1,3-Dichloropropylene	ND	1.0	ug/L							04/10/2017	A05
Trichloroethylene	ND	1.0	ug/L							04/10/2017	
Trichlorofluoromethane	ND	1.0	ug/L							04/10/2017	
Vinyl chloride	ND	1.0	ug/L							04/10/2017	
Surrogate: Bromofluorobenzene	*48.7*		ug/L	*50.00*		*97.5*	*85-115*			04/10/2017	
Surrogate: Dibromofluoromethane	*53.0*		ug/L	*50.00*		*106*	*82.7-115*			04/10/2017	
Surrogate: Toluene-d8	*48.2*		ug/L	*50.00*		*96.5*	*85-115*			04/10/2017	
LCS (B7D1002-BS1)											
1,1,1,2-Tetrachloroethane	50.0	1.0	ug/L	50.00		100	70-130			04/10/2017	
1,1,1-Trichloroethane	46.5	1.0	ug/L	50.00		93.0	70-130			04/10/2017	
1,1,2,2-Tetrachloroethane	55.5	1.0	ug/L	50.00		111	70-130			04/10/2017	
1,1,2-Trichloroethane	54.7	1.0	ug/L	50.00		109	70-130			04/10/2017	
1,1-Dichloroethane	54.6	1.0	ug/L	50.00		109	70-130			04/10/2017	
1,1-Dichloroethylene	55.9	1.0	ug/L	50.00		112	70-130			04/10/2017	
1,2,3-Trichlorobenzene	57.9	5.0	ug/L	50.00		116	70-130			04/10/2017	
1,2,3-Trichloropropane	45.2	1.0	ug/L	50.00		90.5	70-130			04/10/2017	
1,2,3-Trimethylbenzene	59.3	1.0	ug/L	50.00		119	70-130			04/10/2017	
1,2,4-Trichlorobenzene	58.9	5.0	ug/L	50.00		118	70-130			04/10/2017	
1,2,4-Trimethylbenzene	60.2	1.0	ug/L	50.00		120	70-130			04/10/2017	
1,2-Dibromoethane	56.0	1.0	ug/L	50.00		112	70-130			04/10/2017	
1,2-Dichlorobenzene	58.7	1.0	ug/L	50.00		117	70-130			04/10/2017	
1,2-Dichloroethane	55.4	1.0	ug/L	50.00		111	70-130			04/10/2017	
1,2-Dichloropropane	53.5	1.0	ug/L	50.00		107	70-130			04/10/2017	
1,3,5-Trimethylbenzene	61.1	1.0	ug/L	50.00		122	70-130			04/10/2017	
1,3-Dichlorobenzene	58.4	1.0	ug/L	50.00		117	70-130			04/10/2017	
1,4-Dichlorobenzene	58.8	1.0	ug/L	50.00		118	70-130			04/10/2017	
2,2,4-Trimethylpentane	52.7	1.0	ug/L	50.00		105	70-130			04/10/2017	
2-Butanone (MEK)	50.3	5.0	ug/L	50.00		101	70-130			04/10/2017	
2-Methylnaphthalene	58.8	5.0	ug/L	50.00		118	70-130			04/10/2017	X

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

Organics-Volatiles - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
Batch B7D1002 - Method: 5030				**Prepared: 04/10/2017**							
LCS (B7D1002-BS1)											
2-Propanone (acetone)	49.0	20	ug/L	50.00		98.1	70-130			04/10/2017	
4-Methyl-2-pentanone (MIBK)	52.4	5.0	ug/L	50.00		105	70-130			04/10/2017	
Acrylonitrile	54.3	5.0	ug/L	50.00		109	70-130			04/10/2017	
Benzene	54.7	1.0	ug/L	50.00		109	70-130			04/10/2017	
Bromochloromethane	57.0	1.0	ug/L	50.00		114	70-130			04/10/2017	
Bromodichloromethane	53.4	1.0	ug/L	50.00		107	70-130			04/10/2017	
Bromoform	41.6	1.0	ug/L	50.00		83.2	70-130			04/10/2017	A05
Bromomethane	64.6	5.0	ug/L	50.00		129	70-130			04/10/2017	A06, A11
Carbon disulfide	57.0	1.0	ug/L	50.00		114	70-130			04/10/2017	
Carbon tetrachloride	46.0	1.0	ug/L	50.00		91.9	70-130			04/10/2017	
Chlorobenzene	57.5	1.0	ug/L	50.00		115	70-130			04/10/2017	
Chloroethane	58.0	5.0	ug/L	50.00		116	70-130			04/10/2017	
Chloroform	57.8	1.0	ug/L	50.00		116	70-130			04/10/2017	
Chloromethane	46.1	5.0	ug/L	50.00		92.3	70-130			04/10/2017	A11
cis-1,2-Dichloroethylene	55.4	1.0	ug/L	50.00		111	70-130			04/10/2017	
cis-1,3-Dichloropropylene	46.7	1.0	ug/L	50.00		93.4	70-130			04/10/2017	
Cyclohexane	57.0	5.0	ug/L	50.00		114	70-130			04/10/2017	
Dibromochloromethane	54.5	1.0	ug/L	50.00		109	70-130			04/10/2017	
Dibromomethane	54.8	1.0	ug/L	50.00		110	70-130			04/10/2017	
Dichlorodifluoromethane	54.6	5.0	ug/L	50.00		109	70-130			04/10/2017	
Diethyl ether	54.0	5.0	ug/L	50.00		108	70-130			04/10/2017	
Diisopropyl Ether	52.7	5.0	ug/L	50.00		105	70-130			04/10/2017	
Ethylbenzene	57.9	1.0	ug/L	50.00		116	70-130			04/10/2017	
Ethyltertiarybutylether	30.2	5.0	ug/L	50.00		60.5	70-130			04/10/2017	A05, A08
Hexachloroethane	39.7	5.0	ug/L	50.00		79.5	70-130			04/10/2017	A05
Hexane	51.3	1.0	ug/L	50.00		103	70-130			04/10/2017	
Isopropylbenzene	61.1	1.0	ug/L	50.00		122	70-130			04/10/2017	
m & p - Xylene	117	2.0	ug/L	100.0		117	70-130			04/10/2017	
Methylene chloride	57.0	5.0	ug/L	50.00		114	70-130			04/10/2017	
Methyltertiarybutylether	44.3	1.0	ug/L	50.00		88.7	70-130			04/10/2017	
Naphthalene	60.7	5.0	ug/L	50.00		121	70-130			04/10/2017	X
n-Butylbenzene	58.3	1.0	ug/L	50.00		117	70-130			04/10/2017	
n-Propylbenzene	58.4	1.0	ug/L	50.00		117	70-130			04/10/2017	
o-Xylene	58.4	1.0	ug/L	50.00		117	70-130			04/10/2017	
sec-Butylbenzene	60.0	1.0	ug/L	50.00		120	70-130			04/10/2017	
Styrene	61.6	1.0	ug/L	50.00		123	70-130			04/10/2017	
tert-Butylbenzene	58.8	1.0	ug/L	50.00		118	70-130			04/10/2017	
tertiary Butyl Alcohol	149	50	ug/L	250.0		59.5	70-130			04/10/2017	A08
tertiaryAmylmethylether	35.8	5.0	ug/L	50.00		71.7	70-130			04/10/2017	A05
Tetrachloroethylene	55.8	1.0	ug/L	50.00		112	70-130			04/10/2017	
Tetrahydrofuran	47.6	5.0	ug/L	50.00		95.2	70-130			04/10/2017	
Toluene	56.5	1.0	ug/L	50.00		113	70-130			04/10/2017	
trans-1,2-Dichloroethylene	54.4	1.0	ug/L	50.00		109	70-130			04/10/2017	
trans-1,3-Dichloropropylene	42.8	1.0	ug/L	50.00		85.5	70-130			04/10/2017	A05
Trichloroethylene	58.3	1.0	ug/L	50.00		117	70-130			04/10/2017	
Trichlorofluoromethane	59.9	1.0	ug/L	50.00		120	70-130			04/10/2017	
Vinyl chloride	55.0	1.0	ug/L	50.00		110	70-130			04/10/2017	

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

Organics-Volatiles - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
Batch B7D1002 - Method: 5030				**Prepared: 04/10/2017**							
LCS (B7D1002-BS1)											
Surrogate: Bromofluorobenzene	*48.5*		ug/L	*50.00*		*96.9*	*85-115*			04/10/2017	
Surrogate: Dibromofluoromethane	*54.7*		ug/L	*50.00*		*109*	*82.7-115*			04/10/2017	
Surrogate: Toluene-d8	*49.3*		ug/L	*50.00*		*98.6*	*85-115*			04/10/2017	
Matrix Spike (B7D1002-MS1)	**Source: 1704012-05**										
1,1,1,2-Tetrachloroethane	43.7	1.0	ug/L	50.00	ND	87.4	70-130			04/10/2017	
1,1,1-Trichloroethane	39.7	1.0	ug/L	50.00	ND	79.4	70-130			04/10/2017	
1,1,2,2-Tetrachloroethane	48.1	1.0	ug/L	50.00	ND	96.1	70-130			04/10/2017	
1,1,2-Trichloroethane	53.0	1.0	ug/L	50.00	ND	106	70-130			04/10/2017	
1,1-Dichloroethane	52.9	1.0	ug/L	50.00	ND	106	70-130			04/10/2017	
1,1-Dichloroethylene	53.2	1.0	ug/L	50.00	ND	106	70-130			04/10/2017	
1,2,3-Trichlorobenzene	48.2	5.0	ug/L	50.00	ND	96.4	70-130			04/10/2017	
1,2,3-Trichloropropane	41.6	1.0	ug/L	50.00	ND	83.3	70-130			04/10/2017	
1,2,3-Trimethylbenzene	55.0	1.0	ug/L	50.00	ND	110	70-130			04/10/2017	
1,2,4-Trichlorobenzene	48.6	5.0	ug/L	50.00	ND	97.1	70-130			04/10/2017	
1,2,4-Trimethylbenzene	56.0	1.0	ug/L	50.00	ND	112	70-130			04/10/2017	
1,2-Dibromoethane	50.1	1.0	ug/L	50.00	ND	100	70-130			04/10/2017	
1,2-Dichlorobenzene	55.0	1.0	ug/L	50.00	ND	110	70-130			04/10/2017	
1,2-Dichloroethane	55.7	1.0	ug/L	50.00	ND	111	70-130			04/10/2017	
1,2-Dichloropropane	50.2	1.0	ug/L	50.00	ND	100	70-130			04/10/2017	
1,3,5-Trimethylbenzene	56.7	1.0	ug/L	50.00	ND	113	70-130			04/10/2017	
1,3-Dichlorobenzene	54.5	1.0	ug/L	50.00	ND	109	70-130			04/10/2017	
1,4-Dichlorobenzene	53.8	1.0	ug/L	50.00	ND	108	70-130			04/10/2017	
2,2,4-Trimethylpentane	39.0	1.0	ug/L	50.00	ND	78.1	70-130			04/10/2017	
2-Butanone (MEK)	37.8	5.0	ug/L	50.00	ND	75.6	70-130			04/10/2017	
2-Methylnaphthalene	39.0	5.0	ug/L	50.00	ND	77.9	70-130			04/10/2017	X
2-Propanone (acetone)	39.0	20	ug/L	50.00	ND	77.9	70-130			04/10/2017	
4-Methyl-2-pentanone (MIBK)	40.7	5.0	ug/L	50.00	ND	81.5	70-130			04/10/2017	
Acrylonitrile	47.2	5.0	ug/L	50.00	ND	94.4	70-130			04/10/2017	
Benzene	53.8	1.0	ug/L	50.00	ND	108	70-130			04/10/2017	
Bromochloromethane	54.6	1.0	ug/L	50.00	ND	109	70-130			04/10/2017	
Bromodichloromethane	47.7	1.0	ug/L	50.00	ND	95.3	70-130			04/10/2017	
Bromoform	32.0	1.0	ug/L	50.00	ND	63.9	70-130			04/10/2017	A03, A05
Bromomethane	53.1	5.0	ug/L	50.00	ND	106	70-130			04/10/2017	A06, A11
Carbon disulfide	52.3	1.0	ug/L	50.00	ND	105	70-130			04/10/2017	
Carbon tetrachloride	34.4	1.0	ug/L	50.00	ND	68.7	70-130			04/10/2017	A03
Chlorobenzene	56.7	1.0	ug/L	50.00	ND	113	70-130			04/10/2017	
Chloroethane	51.1	5.0	ug/L	50.00	ND	102	70-130			04/10/2017	
Chloroform	55.3	1.0	ug/L	50.00	ND	111	70-130			04/10/2017	
Chloromethane	40.7	5.0	ug/L	50.00	ND	81.4	70-130			04/10/2017	A11
cis-1,2-Dichloroethylene	53.6	1.0	ug/L	50.00	ND	107	70-130			04/10/2017	
cis-1,3-Dichloropropylene	35.9	1.0	ug/L	50.00	ND	71.7	70-130			04/10/2017	
Cyclohexane	54.7	5.0	ug/L	50.00	ND	109	70-130			04/10/2017	
Dibromochloromethane	45.2	1.0	ug/L	50.00	ND	90.3	70-130			04/10/2017	
Dibromomethane	52.5	1.0	ug/L	50.00	ND	105	70-130			04/10/2017	
Dichlorodifluoromethane	55.3	5.0	ug/L	50.00	ND	111	70-130			04/10/2017	
Diethyl ether	49.5	5.0	ug/L	50.00	ND	99.0	70-130			04/10/2017	

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

Organics-Volatiles - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
Batch B7D1002 - Method: 5030				**Prepared: 04/10/2017**							
Matrix Spike (B7D1002-MS1)	**Source: 1704012-05**										
Diisopropyl Ether	48.5	5.0	ug/L	50.00	ND	97.1	70-130			04/10/2017	
Ethylbenzene	57.7	1.0	ug/L	50.00	ND	115	70-130			04/10/2017	
Ethyltertiarybutylether	25.2	5.0	ug/L	50.00	ND	50.3	70-130			04/10/2017	A03, A05
Hexachloroethane	28.5	5.0	ug/L	50.00	ND	56.9	70-130			04/10/2017	A03, A05
Hexane	34.2	1.0	ug/L	50.00	ND	68.3	70-130			04/10/2017	A03
Isopropylbenzene	56.6	1.0	ug/L	50.00	ND	113	70-130			04/10/2017	
m & p - Xylene	116	2.0	ug/L	100.0	ND	116	70-130			04/10/2017	
Methylene chloride	54.2	5.0	ug/L	50.00	ND	108	70-130			04/10/2017	
Methyltertiarybutylether	39.0	1.0	ug/L	50.00	ND	78.1	70-130			04/10/2017	
Naphthalene	49.8	5.0	ug/L	50.00	ND	99.6	70-130			04/10/2017	X
n-Butylbenzene	49.0	1.0	ug/L	50.00	ND	97.9	70-130			04/10/2017	
n-Propylbenzene	53.2	1.0	ug/L	50.00	ND	106	70-130			04/10/2017	
o-Xylene	58.2	1.0	ug/L	50.00	ND	116	70-130			04/10/2017	
sec-Butylbenzene	55.3	1.0	ug/L	50.00	ND	111	70-130			04/10/2017	
Styrene	60.2	1.0	ug/L	50.00	ND	120	70-130			04/10/2017	
tert-Butylbenzene	55.4	1.0	ug/L	50.00	ND	111	70-130			04/10/2017	
tertiary Butyl Alcohol	162	50	ug/L	250.0	ND	64.7	70-130			04/10/2017	A03
tertiaryAmylmethylether	29.2	5.0	ug/L	50.00	ND	58.5	70-130			04/10/2017	A03, A05
Tetrachloroethylene	53.5	1.0	ug/L	50.00	ND	107	70-130			04/10/2017	
Tetrahydrofuran	40.0	5.0	ug/L	50.00	ND	80.1	70-130			04/10/2017	
Toluene	55.8	1.0	ug/L	50.00	ND	112	70-130			04/10/2017	
trans-1,2-Dichloroethylene	51.8	1.0	ug/L	50.00	ND	104	70-130			04/10/2017	
trans-1,3-Dichloropropylene	31.0	1.0	ug/L	50.00	ND	62.1	70-130			04/10/2017	A03, A05
Trichloroethylene	56.6	1.0	ug/L	50.00	ND	113	70-130			04/10/2017	
Trichlorofluoromethane	58.1	1.0	ug/L	50.00	ND	116	70-130			04/10/2017	
Vinyl chloride	48.6	1.0	ug/L	50.00	ND	97.2	70-130			04/10/2017	
Surrogate: Bromofluorobenzene	*48.5*		ug/L	*50.00*		*97.1*	*85-115*			04/10/2017	
Surrogate: Dibromofluoromethane	*52.2*		ug/L	*50.00*		*104*	*82.7-115*			04/10/2017	
Surrogate: Toluene-d8	*49.5*		ug/L	*50.00*		*99.1*	*85-115*			04/10/2017	
Matrix Spike Dup (B7D1002-MSD1)	**Source: 1704012-05**										
1,1,1,2-Tetrachloroethane	46.4	1.0	ug/L	50.00	ND	92.7	70-130	5.94	30	04/10/2017	
1,1,1-Trichloroethane	46.8	1.0	ug/L	50.00	ND	93.7	70-130	16.5	30	04/10/2017	
1,1,2,2-Tetrachloroethane	49.9	1.0	ug/L	50.00	ND	99.9	70-130	3.87	30	04/10/2017	
1,1,2-Trichloroethane	52.7	1.0	ug/L	50.00	ND	105	70-130	0.467	30	04/10/2017	
1,1-Dichloroethane	53.6	1.0	ug/L	50.00	ND	107	70-130	1.31	30	04/10/2017	
1,1-Dichloroethylene	55.4	1.0	ug/L	50.00	ND	111	70-130	4.01	30	04/10/2017	
1,2,3-Trichlorobenzene	50.9	5.0	ug/L	50.00	ND	102	70-130	5.45	30	04/10/2017	
1,2,3-Trichloropropane	40.5	1.0	ug/L	50.00	ND	81.1	70-130	2.69	30	04/10/2017	
1,2,3-Trimethylbenzene	56.1	1.0	ug/L	50.00	ND	112	70-130	1.98	30	04/10/2017	
1,2,4-Trichlorobenzene	51.3	5.0	ug/L	50.00	ND	103	70-130	5.44	30	04/10/2017	
1,2,4-Trimethylbenzene	56.4	1.0	ug/L	50.00	ND	113	70-130	0.658	30	04/10/2017	
1,2-Dibromoethane	53.1	1.0	ug/L	50.00	ND	106	70-130	5.75	30	04/10/2017	
1,2-Dichlorobenzene	55.6	1.0	ug/L	50.00	ND	111	70-130	1.14	30	04/10/2017	
1,2-Dichloroethane	57.5	1.0	ug/L	50.00	ND	115	70-130	3.24	30	04/10/2017	
1,2-Dichloropropane	52.0	1.0	ug/L	50.00	ND	104	70-130	3.52	30	04/10/2017	
1,3,5-Trimethylbenzene	56.7	1.0	ug/L	50.00	ND	113	70-130	0.0772	30	04/10/2017	

Lab Work Order # 1704009

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

Organics-Volatiles - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
Batch B7D1002 - Method: 5030				**Prepared: 04/10/2017**							
Matrix Spike Dup (B7D1002-MSD1)	**Source: 1704012-05**										
1,3-Dichlorobenzene	54.6	1.0	ug/L	50.00	ND	109	70-130	0.226	30	04/10/2017	
1,4-Dichlorobenzene	53.8	1.0	ug/L	50.00	ND	108	70-130	0.139	30	04/10/2017	
2,2,4-Trimethylpentane	39.0	1.0	ug/L	50.00	ND	78.0	70-130	0.0846	30	04/10/2017	
2-Butanone (MEK)	41.3	5.0	ug/L	50.00	ND	82.7	70-130	8.96	30	04/10/2017	
2-Methylnaphthalene	47.0	5.0	ug/L	50.00	ND	94.0	70-130	18.7	30	04/10/2017	X
2-Propanone (acetone)	40.5	20	ug/L	50.00	ND	81.0	70-130	3.86	30	04/10/2017	
4-Methyl-2-pentanone (MIBK)	44.5	5.0	ug/L	50.00	ND	89.0	70-130	8.77	30	04/10/2017	
Acrylonitrile	48.0	5.0	ug/L	50.00	ND	96.0	70-130	1.73	30	04/10/2017	
Benzene	55.1	1.0	ug/L	50.00	ND	110	70-130	2.27	30	04/10/2017	
Bromochloromethane	57.7	1.0	ug/L	50.00	ND	115	70-130	5.56	30	04/10/2017	
Bromodichloromethane	53.1	1.0	ug/L	50.00	ND	106	70-130	10.8	30	04/10/2017	
Bromoform	36.1	1.0	ug/L	50.00	ND	72.3	70-130	12.3	30	04/10/2017	A05
Bromomethane	55.5	5.0	ug/L	50.00	ND	111	70-130	4.51	30	04/10/2017	A06, A11
Carbon disulfide	53.8	1.0	ug/L	50.00	ND	108	70-130	2.66	30	04/10/2017	
Carbon tetrachloride	43.5	1.0	ug/L	50.00	ND	87.0	70-130	23.5	30	04/10/2017	
Chlorobenzene	56.5	1.0	ug/L	50.00	ND	113	70-130	0.374	30	04/10/2017	
Chloroethane	55.8	5.0	ug/L	50.00	ND	112	70-130	8.68	30	04/10/2017	
Chloroform	57.5	1.0	ug/L	50.00	ND	115	70-130	3.93	30	04/10/2017	
Chloromethane	47.4	5.0	ug/L	50.00	ND	94.8	70-130	15.2	30	04/10/2017	A11
cis-1,2-Dichloroethylene	55.2	1.0	ug/L	50.00	ND	110	70-130	2.95	30	04/10/2017	
cis-1,3-Dichloropropylene	40.9	1.0	ug/L	50.00	ND	81.8	70-130	13.1	30	04/10/2017	
Cyclohexane	56.8	5.0	ug/L	50.00	ND	114	70-130	3.77	30	04/10/2017	
Dibromochloromethane	51.1	1.0	ug/L	50.00	ND	102	70-130	12.2	30	04/10/2017	
Dibromomethane	53.8	1.0	ug/L	50.00	ND	108	70-130	2.44	30	04/10/2017	
Dichlorodifluoromethane	53.9	5.0	ug/L	50.00	ND	108	70-130	2.65	30	04/10/2017	
Diethyl ether	52.9	5.0	ug/L	50.00	ND	106	70-130	6.50	30	04/10/2017	
Diisopropyl Ether	50.2	5.0	ug/L	50.00	ND	100	70-130	3.35	30	04/10/2017	
Ethylbenzene	56.7	1.0	ug/L	50.00	ND	113	70-130	1.72	30	04/10/2017	
Ethyltertiarybutylether	30.7	5.0	ug/L	50.00	ND	61.4	70-130	19.7	30	04/10/2017	A03, A05
Hexachloroethane	34.4	5.0	ug/L	50.00	ND	68.8	70-130	18.9	30	04/10/2017	A03, A05
Hexane	34.8	1.0	ug/L	50.00	ND	69.5	70-130	1.75	30	04/10/2017	A03
Isopropylbenzene	56.9	1.0	ug/L	50.00	ND	114	70-130	0.604	30	04/10/2017	
m & p - Xylene	115	2.0	ug/L	100.0	ND	115	70-130	1.16	30	04/10/2017	
Methylene chloride	55.5	5.0	ug/L	50.00	ND	111	70-130	2.29	30	04/10/2017	
Methyltertiarybutylether	42.9	1.0	ug/L	50.00	ND	85.9	70-130	9.51	30	04/10/2017	
Naphthalene	53.3	5.0	ug/L	50.00	ND	107	70-130	6.72	30	04/10/2017	X
n-Butylbenzene	49.8	1.0	ug/L	50.00	ND	99.7	70-130	1.77	30	04/10/2017	
n-Propylbenzene	53.6	1.0	ug/L	50.00	ND	107	70-130	0.846	30	04/10/2017	
o-Xylene	56.7	1.0	ug/L	50.00	ND	113	70-130	2.70	30	04/10/2017	
sec-Butylbenzene	55.2	1.0	ug/L	50.00	ND	110	70-130	0.0901	30	04/10/2017	
Styrene	58.5	1.0	ug/L	50.00	ND	117	70-130	2.94	30	04/10/2017	
tert-Butylbenzene	56.5	1.0	ug/L	50.00	ND	113	70-130	2.00	30	04/10/2017	
tertiary Butyl Alcohol	206	50	ug/L	250.0	ND	82.2	70-130	23.8	30	04/10/2017	
tertiaryAmylmethylether	34.6	5.0	ug/L	50.00	ND	69.1	70-130	16.7	30	04/10/2017	A03, A05
Tetrachloroethylene	53.7	1.0	ug/L	50.00	ND	107	70-130	0.221	30	04/10/2017	
Tetrahydrofuran	43.6	5.0	ug/L	50.00	ND	87.2	70-130	8.48	30	04/10/2017	
Toluene	55.1	1.0	ug/L	50.00	ND	110	70-130	1.23	30	04/10/2017	

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

Organics-Volatiles - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
Batch B7D1002 - Method: 5030				**Prepared: 04/10/2017**							
Matrix Spike Dup (B7D1002-MSD1)	**Source: 1704012-05**										
trans-1,2-Dichloroethylene	53.0	1.0	ug/L	50.00	ND	106	70-130	2.29	30	04/10/2017	
trans-1,3-Dichloropropylene	36.1	1.0	ug/L	50.00	ND	72.2	70-130	15.2	30	04/10/2017	A05
Trichloroethylene	57.9	1.0	ug/L	50.00	ND	116	70-130	2.29	30	04/10/2017	
Trichlorofluoromethane	60.5	1.0	ug/L	50.00	ND	121	70-130	4.06	30	04/10/2017	
Vinyl chloride	54.7	1.0	ug/L	50.00	ND	109	70-130	11.8	30	04/10/2017	
Surrogate: Bromofluorobenzene	*49.1*		ug/L	*50.00*		*98.2*	*85-115*			04/10/2017	
Surrogate: Dibromofluoromethane	*55.9*		ug/L	*50.00*		*112*	*82.7-115*			04/10/2017	
Surrogate: Toluene-d8	*50.1*		ug/L	*50.00*		*100*	*85-115*			04/10/2017	

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

Organics-Dioxane - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
Batch B7D1311 - Method: 5030				**Prepared: 04/12/2017**							
Blank (B7D1311-BLK1)											
1,4-dioxane	ND	1.0	ug/L							04/12/2017	
LCS (B7D1311-BS1)											
1,4-dioxane	10.3	1.0	ug/L	10.00		103	70-130			04/12/2017	
Matrix Spike (B7D1311-MS1)	**Source: 1704009-01**										
1,4-dioxane	9.77	1.0	ug/L	10.00	ND	97.7	70-130			04/12/2017	
Matrix Spike Dup (B7D1311-MSD1)	**Source: 1704009-01**										
1,4-dioxane	10.6	1.0	ug/L	10.00	ND	106	70-130	8.34	30	04/12/2017	

Michigan Department of Environmental Quality
Laboratory Services Section

Analysis Request Sheet

Lab Work Order Number	Project Name	Matrix
1704009	Gelman Sciences	WATER

Site Code/Project Number	AY	CC Email 1	Project TAT Days	Sample Collector
81000018	17	adelman@michigan.gov		Dan Hamel
Dept-Division-District	**Index**	**CC Email 2**	**Project Due Date**	**Sample Collector Phone**
DEQ-RRD-Jackson	44410	lundk@michigan.gov		517-745-6595
State Project Manager	**PCA**	**CC Email 3**		**Contract Firm**
Dan Hamel	30740			
State Project Manager Email	**Project**	**Overflow Lab Choice 1**	**Accept Analysis hold time codes**	**Contract Firm Primary Contact**
hameld@michigan.gov	451586			
State Project Manager Phone	**Phase**	**Overflow Lab Choice 2**		**Primary Contact Phone**
517-745-6595	00			

	Lab Use Only	Field Sample Identification	Collection Date	Collection Time	Container Count	Comments
1	01	ALLEN CREEK - GLENDALE	4/5/17	0958	6	PLEASE INCLUDE QA/QC INFO
2	02	FIRST SISTER LAKE	4/5/17	1035	6	WITH LAB DATA REPORTS
3	03	SECOND SISTER LAKE	4/5/17	1055	6	↓ ↓ ↓
4						
5						
6						
7						
8						
9						
10						

ORGANIC CHEMISTRY

VOA - Volatile Organic Acidic
Volatiles - Full List 1 2 3 4 5 6 7 8 9 10
BTEX/MTBE/TMB only 1 2 3 4 5 6 7 8 9 10
Chlorinated only 1 2 3 4 5 6 7 8 9 10
GRO 1 2 3 4 5 6 7 8 9 10
1,4 Dioxane 1 2 3 4 5 6 7 8 9 10

METH - Methane, Ethane, Ethene
Methane, Ethane, Ethene 1 2 3 4 5 6 7 8 9 10

ON - Pesticides, PCBs
Pesticides & PCBs 1 2 3 4 5 6 7 8 9 10
Pesticides only 1 2 3 4 5 6 7 8 9 10
PCBs only 1 2 3 4 5 6 7 8 9 10
Toxaphene 1 2 3 4 5 6 7 8 9 10
Chlordane 1 2 3 4 5 6 7 8 9 10

BNA - Base Neutral Acids
BNAs 1 2 3 4 5 6 7 8 9 10
Benzidines 1 2 3 4 5 6 7 8 9 10
PNAs only 1 2 3 4 5 6 7 8 9 10
BNs only 1 2 3 4 5 6 7 8 9 10
Acids only 1 2 3 4 5 6 7 8 9 10

Organic Specialty Requests
Library search - Volatiles 1 2 3 4 5 6 7 8 9 10
Library search - SemiVols 1 2 3 4 5 6 7 8 9 10
Finger Print 1 2 3 4 5 6 7 8 9 10
DRO / ORO 1 2 3 4 5 6 7 8 9 10

METALS CHEMISTRY PACKAGES

OpMemo2 - Total 1 2 3 4 5 6 7 8 9 10
OpMemo2 - Dissolved 1 2 3 4 5 6 7 8 9 10
(Sb,As,Ba,Be,Cd,Cr,Cu,Co,Fe,Pb,Mn,Hg,Mo,Ni,Se,Ag,Tl,V,Zn)
Michigan10 - Total 1 2 3 4 5 6 7 8 9 10
Michigan10 - Dissolved 1 2 3 4 5 6 7 8 9 10
(As,Ba,Cd,Cr,Cu,Pb,Hg,Se,Ag,Zn)

MAD - DISSOLVED METALS

Diss - Silver - Ag 1 2 3 4 5 6 7 8 9 10
Diss - Aluminum - Al 1 2 3 4 5 6 7 8 9 10
Diss - Arsenic - As 1 2 3 4 5 6 7 8 9 10
Diss - Boron - B 1 2 3 4 5 6 7 8 9 10
Diss - Barium - Ba 1 2 3 4 5 6 7 8 9 10
Diss - Beryllium - Be 1 2 3 4 5 6 7 8 9 10
Diss - Cadmium - Cd 1 2 3 4 5 6 7 8 9 10
Diss - Cobalt - Co 1 2 3 4 5 6 7 8 9 10
Diss - Chromium - Cr 1 2 3 4 5 6 7 8 9 10
Diss - Copper - Cu 1 2 3 4 5 6 7 8 9 10
Diss - Iron - Fe 1 2 3 4 5 6 7 8 9 10
Diss - Mercury - Hg 1 2 3 4 5 6 7 8 9 10
Diss - Lithium - Li 1 2 3 4 5 6 7 8 9 10
Diss - Manganese - Mn 1 2 3 4 5 6 7 8 9 10
Diss - Molybdenum - Mo 1 2 3 4 5 6 7 8 9 10
Diss - Nickel - Ni 1 2 3 4 5 6 7 8 9 10
Diss - Lead - Pb 1 2 3 4 5 6 7 8 9 10
Diss - Antimony - Sb 1 2 3 4 5 6 7 8 9 10
Diss - Selenium - Se 1 2 3 4 5 6 7 8 9 10
Diss - Strontium - Sr 1 2 3 4 5 6 7 8 9 10
Diss - Titanium - Ti 1 2 3 4 5 6 7 8 9 10
Diss - Thallium - Tl 1 2 3 4 5 6 7 8 9 10
Diss - Uranium - U 1 2 3 4 5 6 7 8 9 10
Diss - Vanadium - V 1 2 3 4 5 6 7 8 9 10
Diss - Zinc - Zn 1 2 3 4 5 6 7 8 9 10
Diss - Calcium - Ca 1 2 3 4 5 6 7 8 9 10
Diss - Potassium - K 1 2 3 4 5 6 7 8 9 10
Diss - Magnesium - Mg 1 2 3 4 5 6 7 8 9 10
Diss - Sodium - Na 1 2 3 4 5 6 7 8 9 10
Diss - Hardness - Ca, Mg 1 2 3 4 5 6 7 8 9 10

MD - Metals Dissolved
Lab Filtration 1 2 3 4 5 6 7 8 9 10

MA - TOTAL METALS

Silver - Ag 1 2 3 4 5 6 7 8 9 10
Aluminum - Al 1 2 3 4 5 6 7 8 9 10
Arsenic - As 1 2 3 4 5 6 7 8 9 10
Boron - B 1 2 3 4 5 6 7 8 9 10
Barium - Ba 1 2 3 4 5 6 7 8 9 10
Beryllium - Be 1 2 3 4 5 6 7 8 9 10
Cadmium - Cd 1 2 3 4 5 6 7 8 9 10
Cobalt - Co 1 2 3 4 5 6 7 8 9 10
Chromium - Cr 1 2 3 4 5 6 7 8 9 10
Copper - Cu 1 2 3 4 5 6 7 8 9 10
Iron - Fe 1 2 3 4 5 6 7 8 9 10
Mercury - Hg 1 2 3 4 5 6 7 8 9 10
Lithium - Li 1 2 3 4 5 6 7 8 9 10
Manganese - Mn 1 2 3 4 5 6 7 8 9 10
Molybdenum - Mo 1 2 3 4 5 6 7 8 9 10
Nickel - Ni 1 2 3 4 5 6 7 8 9 10
Lead - Pb 1 2 3 4 5 6 7 8 9 10
Antimony - Sb 1 2 3 4 5 6 7 8 9 10
Selenium - Se 1 2 3 4 5 6 7 8 9 10
Strontium - Sr 1 2 3 4 5 6 7 8 9 10
Titanium - Ti 1 2 3 4 5 6 7 8 9 10
Thallium - Tl 1 2 3 4 5 6 7 8 9 10
Uranium - U 1 2 3 4 5 6 7 8 9 10
Vanadium - V 1 2 3 4 5 6 7 8 9 10
Zinc - Zn 1 2 3 4 5 6 7 8 9 10
Calcium - Ca 1 2 3 4 5 6 7 8 9 10
Potassium - K 1 2 3 4 5 6 7 8 9 10
Magnesium - Mg 1 2 3 4 5 6 7 8 9 10
Sodium - Na 1 2 3 4 5 6 7 8 9 10
Hardness - Ca, Mg 1 2 3 4 5 6 7 8 9 10

LHG - Low Level Mercury
Mercury Low Level - Hg 1 2 3 4 5 6 7 8 9 10

GENERAL CHEMISTRY

GB Total Cyanide - CN 1 2 3 4 5 6 7 8 9 10
GB Amenable Cyanide - CN 1 2 3 4 5 6 7 8 9 10
GCN Available Cyanide - CN 1 2 3 4 5 6 7 8 9 10
CA Chlorophyll 1 2 3 4 5 6 7 8 9 10
GN Ortho Phosphate - OP 1 2 3 4 5 6 7 8 9 10
GN Nitrite - NO_2 1 2 3 4 5 6 7 8 9 10
GN Nitrate - NO_3 (Calc.) 1 2 3 4 5 6 7 8 9 10
GN Suspended Solids - SS 1 2 3 4 5 6 7 8 9 10
GN Dissolved Solids - TDS 1 2 3 4 5 6 7 8 9 10
MN Diss Solids - TDS (Calc.) 1 2 3 4 5 6 7 8 9 10
GN Turbidity 1 2 3 4 5 6 7 8 9 10
MN Total Alkalinity 1 2 3 4 5 6 7 8 9 10
MN Bicarb/Carb Alkalinity (includes Total Alkalinity) 1 2 3 4 5 6 7 8 9 10
MN Chloride - Cl 1 2 3 4 5 6 7 8 9 10
MN Fluoride - F 1 2 3 4 5 6 7 8 9 10
MN Sulfate - SO4 1 2 3 4 5 6 7 8 9 10
MN Chromium 6 - Cr+6 1 2 3 4 5 6 7 8 9 10
MN Conductivity 1 2 3 4 5 6 7 8 9 10
MN pH 1 2 3 4 5 6 7 8 9 10
GA Chem Oxyg Dem - COD 1 2 3 4 5 6 7 8 9 10
GA Diss Org Carbon - DOC (FF) (Field - Filtered & Preserved) 1 2 3 4 5 6 7 8 9 10
GN Diss Org Carbon - DOC (LF) (Lab - Filtered & Preserved) 1 2 3 4 5 6 7 8 9 10
GA Total Org Carbon - TOC 1 2 3 4 5 6 7 8 9 10
GA Ammonia - NH3 1 2 3 4 5 6 7 8 9 10
GA Nitrate+Nitrite - NO3+NO2 1 2 3 4 5 6 7 8 9 10
GA Kjeldahl Nitrogen - KN 1 2 3 4 5 6 7 8 9 10
GA Total Phosphorus - TP 1 2 3 4 5 6 7 8 9 10

Chain of Custody

	Relinquished by	Received By	Date / Time
Print Name & Org.	DAN HAMEL DEQ-RRD	Terry Histe DEQ-RRD	4/6/17
Signature:	Dan Hamel	Terry Histe	15:09
Print Name & Org.	Terry Histe DEQ-RRD	Melissa Smith	
Signature:	Terry Histe	CLOSE	4/6/17 1600
Print Name & Org.			
Signature:			