



MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

26 March 2019

Work Order: 1903143

Price: \$1,195.00

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



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

Project: GELMAN SCIENCES, INC
Site Code: 81000018/Location 6130
Project Manager: Dan Hamel

Reported:
03/26/2019

Analytical Report for Samples

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Qualifier
ALLEN CREEK/WEST PARK SW	1903143-01	Water	03/19/2019	03/22/2019	
ALLEN CREEK/CHAPIN-WEST PARK	1903143-02	Water	03/19/2019	03/22/2019	
ALLEN CREEK/MAPLE RIDGE-ARBORVIEW	1903143-03	Water	03/19/2019	03/22/2019	
ALLEN CREEK/WILDWOOD-ARBORVIEW	1903143-04	Water	03/19/2019	03/22/2019	
ALLEN CREEK/MURRAY-WASHINGTON	1903143-05	Water	03/19/2019	03/22/2019	
ALLEN CREEK/EIGHTH-WATERWORKS	1903143-06	Water	03/19/2019	03/22/2019	
ALLEN CREEK-MARYFIELD-WILDWOOD PARK	1903143-07	Water	03/19/2019	03/22/2019	

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 °C. 2-Methylnaphthalene & naphthalene have boiling points above 200 °C and are better suited to analysis by methods 8270 & 625 as semivolatile organics.
- 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



**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/WEST PARK SW

Lab ID: 1903143-01

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	03/22/19	B9C2203	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
540-84-1	2,2,4-Trimethylpentane	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	03/22/19	B9C2203	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	



**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/WEST PARK SW

Lab ID: 1903143-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	03/22/19	B9C2203	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	03/22/19	B9C2203	8260	
994-05-8	tertiaryAmylmeylether	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
<i>Surrogate: Bromofluorobenzene</i>			98.2 %	85-115		03/22/19	B9C2203	8260	
<i>Surrogate: Dibromofluoromethane</i>			96.0 %	82.7-115		03/22/19	B9C2203	8260	
<i>Surrogate: Toluene-d8</i>			98.6 %	85-115		03/22/19	B9C2203	8260	



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/WEST PARK SW

Lab ID: 1903143-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Dioxane									
123-91-1	1,4-dioxane	19	1.0	ug/L	1	03/22/19	B9C2507	8260 Modified	



**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/CHAPIN-WEST PARK

Lab ID: 1903143-02

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	03/22/19	B9C2203	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
540-84-1	2,2,4-Trimethylpentane	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	03/22/19	B9C2203	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	



**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/CHAPIN-WEST PARK

Lab ID: 1903143-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	03/22/19	B9C2203	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	03/22/19	B9C2203	8260	
994-05-8	tertiaryAmylmeylether	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
<i>Surrogate: Bromofluorobenzene</i>			98.6 %	85-115		03/22/19	B9C2203	8260	
<i>Surrogate: Dibromofluoromethane</i>			98.2 %	82.7-115		03/22/19	B9C2203	8260	
<i>Surrogate: Toluene-d8</i>			97.5 %	85-115		03/22/19	B9C2203	8260	



**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/MAPLE RIDGE-ARBORVIEW

Lab ID: 1903143-03

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	03/22/19	B9C2203	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
540-84-1	2,2,4-Trimethylpentane	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	03/22/19	B9C2203	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	



**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/MAPLE RIDGE-ARBORVIEW

Lab ID: 1903143-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	03/22/19	B9C2203	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	03/22/19	B9C2203	8260	
994-05-8	tertiaryAmylmehtylether	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
<i>Surrogate: Bromofluorobenzene</i>			<i>100 %</i>	<i>85-115</i>		<i>03/22/19</i>	<i>B9C2203</i>	<i>8260</i>	
<i>Surrogate: Dibromofluoromethane</i>			<i>97.1 %</i>	<i>82.7-115</i>		<i>03/22/19</i>	<i>B9C2203</i>	<i>8260</i>	
<i>Surrogate: Toluene-d8</i>			<i>97.8 %</i>	<i>85-115</i>		<i>03/22/19</i>	<i>B9C2203</i>	<i>8260</i>	



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/MAPLE RIDGE-ARBORVIEW

Lab ID: 1903143-03

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	03/22/19	B9C2507	8260 Modified	



**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/WILDWOOD-ARBORVIEW

Lab ID: 1903143-04

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	03/22/19	B9C2203	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
540-84-1	2,2,4-Trimethylpentane	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	03/22/19	B9C2203	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	



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/WILDWOOD-ARBORVIEW

Lab ID: 1903143-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	03/22/19	B9C2203	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	03/22/19	B9C2203	8260	
994-05-8	tertiaryAmylmeylether	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
Surrogate: Bromofluorobenzene			98.8 %	85-115		03/22/19	B9C2203	8260	
Surrogate: Dibromofluoromethane			99.5 %	82.7-115		03/22/19	B9C2203	8260	
Surrogate: Toluene-d8			99.0 %	85-115		03/22/19	B9C2203	8260	



**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/MURRAY-WASHINGTON

Lab ID: 1903143-05

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	03/22/19	B9C2203	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
540-84-1	2,2,4-Trimethylpentane	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	03/22/19	B9C2203	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	



**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/MURRAY-WASHINGTON

Lab ID: 1903143-05

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	03/22/19	B9C2203	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	03/22/19	B9C2203	8260	
994-05-8	tertiaryAmylmeylether	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
79-01-6	Trichloroethylene	1.6	1.0	ug/L	1	03/22/19	B9C2203	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
Surrogate: Bromofluorobenzene			97.8 %	85-115		03/22/19	B9C2203	8260	
Surrogate: Dibromofluoromethane			95.5 %	82.7-115		03/22/19	B9C2203	8260	
Surrogate: Toluene-d8			99.2 %	85-115		03/22/19	B9C2203	8260	



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/MURRAY-WASHINGTON

Lab ID: 1903143-05

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Dioxane									See note Y28
123-91-1	1,4-dioxane	1.0	1.0	ug/L	1	03/22/19	B9C2507	8260 Modified	



Client ID: ALLEN CREEK/EIGHTH-WATERWORKS

Lab ID: 1903143-06

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	03/22/19	B9C2203	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
540-84-1	2,2,4-Trimethylpentane	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	03/22/19	B9C2203	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	



**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/EIGHTH-WATERWORKS

Lab ID: 1903143-06

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	03/22/19	B9C2203	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	03/22/19	B9C2203	8260	
994-05-8	tertiaryAmylmeylether	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
<i>Surrogate: Bromofluorobenzene</i>			99.9 %	85-115		03/22/19	B9C2203	8260	
<i>Surrogate: Dibromofluoromethane</i>			95.8 %	82.7-115		03/22/19	B9C2203	8260	
<i>Surrogate: Toluene-d8</i>			97.4 %	85-115		03/22/19	B9C2203	8260	



**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-MARYFIELD-WILDWOOD PARK

Lab ID: 1903143-07

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	03/22/19	B9C2203	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
540-84-1	2,2,4-Trimethylpentane	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	03/22/19	B9C2203	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	



**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-MARYFIELD-WILDWOOD PARK

Lab ID: 1903143-07

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
100-41-4	Ethylbenzene	14	1.0	ug/L	1	03/22/19	B9C2203	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	03/22/19	B9C2203	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
100-42-5	Styrene	14	1.0	ug/L	1	03/22/19	B9C2203	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	03/22/19	B9C2203	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	03/22/19	B9C2203	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	03/22/19	B9C2203	8260	
<i>Surrogate: Bromofluorobenzene</i>			<i>102 %</i>	<i>85-115</i>		<i>03/22/19</i>	<i>B9C2203</i>	<i>8260</i>	
<i>Surrogate: Dibromofluoromethane</i>			<i>96.5 %</i>	<i>82.7-115</i>		<i>03/22/19</i>	<i>B9C2203</i>	<i>8260</i>	
<i>Surrogate: Toluene-d8</i>			<i>98.6 %</i>	<i>85-115</i>		<i>03/22/19</i>	<i>B9C2203</i>	<i>8260</i>	



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 B9C2203 - Method: 5030

Prepared: 03/22/2019

Blank (B9C2203-BLK1)

1,1,1,2-Tetrachloroethane	ND	1.0	ug/L							03/22/2019	
1,1,1-Trichloroethane	ND	1.0	ug/L							03/22/2019	
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L							03/22/2019	
1,1,2-Trichloroethane	ND	1.0	ug/L							03/22/2019	
1,1-Dichloroethane	ND	1.0	ug/L							03/22/2019	
1,1-Dichloroethylene	ND	1.0	ug/L							03/22/2019	
1,2,3-Trichlorobenzene	ND	5.0	ug/L							03/22/2019	
1,2,3-Trichloropropane	ND	1.0	ug/L							03/22/2019	
1,2,3-Trimethylbenzene	ND	1.0	ug/L							03/22/2019	
1,2,4-Trichlorobenzene	ND	5.0	ug/L							03/22/2019	
1,2,4-Trimethylbenzene	ND	1.0	ug/L							03/22/2019	
1,2-Dibromoethane	ND	1.0	ug/L							03/22/2019	
1,2-Dichlorobenzene	ND	1.0	ug/L							03/22/2019	
1,2-Dichloroethane	ND	1.0	ug/L							03/22/2019	
1,2-Dichloropropane	ND	1.0	ug/L							03/22/2019	
1,3,5-Trimethylbenzene	ND	1.0	ug/L							03/22/2019	
1,3-Dichlorobenzene	ND	1.0	ug/L							03/22/2019	
1,4-Dichlorobenzene	ND	1.0	ug/L							03/22/2019	
2,2,4-Trimethylpentane	ND	5.0	ug/L							03/22/2019	
2-Butanone (MEK)	ND	5.0	ug/L							03/22/2019	
2-Methylnaphthalene	ND	5.0	ug/L							03/22/2019	X
2-Propanone (acetone)	ND	20	ug/L							03/22/2019	
4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L							03/22/2019	
Acrylonitrile	ND	5.0	ug/L							03/22/2019	
Benzene	ND	1.0	ug/L							03/22/2019	
Bromochloromethane	ND	1.0	ug/L							03/22/2019	
Bromodichloromethane	ND	1.0	ug/L							03/22/2019	
Bromoform	ND	1.0	ug/L							03/22/2019	
Bromomethane	ND	5.0	ug/L							03/22/2019	
Carbon disulfide	ND	1.0	ug/L							03/22/2019	
Carbon tetrachloride	ND	1.0	ug/L							03/22/2019	
Chlorobenzene	ND	1.0	ug/L							03/22/2019	
Chloroethane	ND	5.0	ug/L							03/22/2019	
Chloroform	ND	1.0	ug/L							03/22/2019	
Chloromethane	ND	5.0	ug/L							03/22/2019	
cis-1,2-Dichloroethylene	ND	1.0	ug/L							03/22/2019	
cis-1,3-Dichloropropylene	ND	1.0	ug/L							03/22/2019	
Cyclohexane	ND	5.0	ug/L							03/22/2019	
Dibromochloromethane	ND	1.0	ug/L							03/22/2019	
Dibromomethane	ND	1.0	ug/L							03/22/2019	
Dichlorodifluoromethane	ND	5.0	ug/L							03/22/2019	
Diethyl ether	ND	5.0	ug/L							03/22/2019	
Diisopropyl Ether	ND	5.0	ug/L							03/22/2019	
Ethylbenzene	ND	1.0	ug/L							03/22/2019	
Ethyltertiarybutylether	ND	5.0	ug/L							03/22/2019	
Hexachloroethane	ND	5.0	ug/L							03/22/2019	
Hexane	ND	1.0	ug/L							03/22/2019	



Organics-Volatiles - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
---------	--------	----	-------	-------------	---------------	------	-------------	-----	-----------	----------	-----------

Batch B9C2203 - Method: 5030

Prepared: 03/22/2019

Blank (B9C2203-BLK1)

Isopropylbenzene	ND	1.0	ug/L							03/22/2019	
m & p - Xylene	ND	2.0	ug/L							03/22/2019	
Methylene chloride	ND	5.0	ug/L							03/22/2019	
Methyltertiarybutylether	ND	1.0	ug/L							03/22/2019	
Naphthalene	ND	5.0	ug/L							03/22/2019	X
n-Butylbenzene	ND	1.0	ug/L							03/22/2019	
n-Propylbenzene	ND	1.0	ug/L							03/22/2019	
o-Xylene	ND	1.0	ug/L							03/22/2019	
sec-Butylbenzene	ND	1.0	ug/L							03/22/2019	
Styrene	ND	1.0	ug/L							03/22/2019	
tert-Butylbenzene	ND	1.0	ug/L							03/22/2019	
tertiary Butyl Alcohol	ND	50	ug/L							03/22/2019	
tertiaryAmylmethylether	ND	5.0	ug/L							03/22/2019	
Tetrachloroethylene	ND	1.0	ug/L							03/22/2019	
Tetrahydrofuran	ND	5.0	ug/L							03/22/2019	
Toluene	ND	1.0	ug/L							03/22/2019	
trans-1,2-Dichloroethylene	ND	1.0	ug/L							03/22/2019	
trans-1,3-Dichloropropylene	ND	1.0	ug/L							03/22/2019	
Trichloroethylene	ND	1.0	ug/L							03/22/2019	
Trichlorofluoromethane	ND	1.0	ug/L							03/22/2019	
Vinyl chloride	ND	1.0	ug/L							03/22/2019	
Surrogate: Bromofluorobenzene	50.1		ug/L	50.00		100	85-115			03/22/2019	
Surrogate: Dibromofluoromethane	48.0		ug/L	50.00		96.0	82.7-115			03/22/2019	
Surrogate: Toluene-d8	49.9		ug/L	50.00		99.8	85-115			03/22/2019	

LCS (B9C2203-BS1)

1,1,1,2-Tetrachloroethane	47.9	1.0	ug/L	50.00		95.8	70-130			03/22/2019	
1,1,1-Trichloroethane	43.3	1.0	ug/L	50.00		86.5	70-130			03/22/2019	
1,1,2,2-Tetrachloroethane	47.1	1.0	ug/L	50.00		94.2	70-130			03/22/2019	
1,1,2-Trichloroethane	46.6	1.0	ug/L	50.00		93.2	70-130			03/22/2019	
1,1-Dichloroethane	42.5	1.0	ug/L	50.00		85.0	70-130			03/22/2019	
1,1-Dichloroethylene	41.9	1.0	ug/L	50.00		83.7	70-130			03/22/2019	
1,2,3-Trichlorobenzene	50.5	5.0	ug/L	50.00		101	70-130			03/22/2019	
1,2,3-Trichloropropane	45.0	1.0	ug/L	50.00		89.9	70-130			03/22/2019	
1,2,3-Trimethylbenzene	45.1	1.0	ug/L	50.00		90.2	70-130			03/22/2019	
1,2,4-Trichlorobenzene	49.7	5.0	ug/L	50.00		99.4	70-130			03/22/2019	
1,2,4-Trimethylbenzene	44.9	1.0	ug/L	50.00		89.8	70-130			03/22/2019	
1,2-Dibromoethane	49.2	1.0	ug/L	50.00		98.3	70-130			03/22/2019	
1,2-Dichlorobenzene	46.2	1.0	ug/L	50.00		92.4	70-130			03/22/2019	
1,2-Dichloroethane	43.5	1.0	ug/L	50.00		87.1	70-130			03/22/2019	
1,2-Dichloropropane	45.3	1.0	ug/L	50.00		90.5	70-130			03/22/2019	
1,3,5-Trimethylbenzene	45.3	1.0	ug/L	50.00		90.7	70-130			03/22/2019	
1,3-Dichlorobenzene	45.2	1.0	ug/L	50.00		90.4	70-130			03/22/2019	
1,4-Dichlorobenzene	45.5	1.0	ug/L	50.00		91.0	70-130			03/22/2019	
2,2,4-Trimethylpentane	47.4	5.0	ug/L	50.00		94.7	70-130			03/22/2019	
2-Butanone (MEK)	47.1	5.0	ug/L	50.00		94.2	70-130			03/22/2019	
2-Methylnaphthalene	47.8	5.0	ug/L	50.00		95.7	70-130			03/22/2019	X



Organics-Volatiles - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
---------	--------	----	-------	-------------	---------------	------	-------------	-----	-----------	----------	-----------

Batch B9C2203 - Method: 5030

Prepared: 03/22/2019

LCS (B9C2203-BS1)

2-Propanone (acetone)	44.0	20	ug/L	50.00		87.9	70-130			03/22/2019	
4-Methyl-2-pentanone (MIBK)	46.5	5.0	ug/L	50.00		93.1	70-130			03/22/2019	
Acrylonitrile	44.1	5.0	ug/L	50.00		88.2	70-130			03/22/2019	
Benzene	44.5	1.0	ug/L	50.00		89.1	70-130			03/22/2019	
Bromochloromethane	45.9	1.0	ug/L	50.00		91.7	70-130			03/22/2019	
Bromodichloromethane	45.7	1.0	ug/L	50.00		91.4	70-130			03/22/2019	
Bromoform	42.9	1.0	ug/L	50.00		85.8	70-130			03/22/2019	
Bromomethane	44.6	5.0	ug/L	50.00		89.2	70-130			03/22/2019	
Carbon disulfide	42.6	1.0	ug/L	50.00		85.2	70-130			03/22/2019	
Carbon tetrachloride	44.5	1.0	ug/L	50.00		89.1	70-130			03/22/2019	
Chlorobenzene	45.5	1.0	ug/L	50.00		90.9	70-130			03/22/2019	
Chloroethane	43.3	5.0	ug/L	50.00		86.7	70-130			03/22/2019	
Chloroform	43.5	1.0	ug/L	50.00		87.0	70-130			03/22/2019	
Chloromethane	46.1	5.0	ug/L	50.00		92.1	70-130			03/22/2019	
cis-1,2-Dichloroethylene	41.9	1.0	ug/L	50.00		83.8	70-130			03/22/2019	
cis-1,3-Dichloropropylene	44.9	1.0	ug/L	50.00		89.9	70-130			03/22/2019	
Cyclohexane	47.1	5.0	ug/L	50.00		94.2	70-130			03/22/2019	
Dibromochloromethane	42.3	1.0	ug/L	50.00		84.6	70-130			03/22/2019	
Dibromomethane	44.4	1.0	ug/L	50.00		88.8	70-130			03/22/2019	
Dichlorodifluoromethane	47.1	5.0	ug/L	50.00		94.1	70-130			03/22/2019	
Diethyl ether	41.9	5.0	ug/L	50.00		83.8	70-130			03/22/2019	
Diisopropyl Ether	43.2	5.0	ug/L	50.00		86.5	70-130			03/22/2019	
Ethylbenzene	46.8	1.0	ug/L	50.00		93.6	70-130			03/22/2019	
Ethyltertiarybutylether	39.2	5.0	ug/L	50.00		78.4	70-130			03/22/2019	
Hexachloroethane	38.2	5.0	ug/L	50.00		76.3	70-130			03/22/2019	
Hexane	44.2	1.0	ug/L	50.00		88.4	70-130			03/22/2019	
Isopropylbenzene	45.7	1.0	ug/L	50.00		91.4	70-130			03/22/2019	
m & p - Xylene	95.6	2.0	ug/L	100.0		95.6	70-130			03/22/2019	
Methylene chloride	43.2	5.0	ug/L	50.00		86.4	70-130			03/22/2019	
Methyltertiarybutylether	41.8	1.0	ug/L	50.00		83.5	70-130			03/22/2019	
Naphthalene	48.7	5.0	ug/L	50.00		97.4	70-130			03/22/2019	X
n-Butylbenzene	47.2	1.0	ug/L	50.00		94.4	70-130			03/22/2019	
n-Propylbenzene	46.3	1.0	ug/L	50.00		92.6	70-130			03/22/2019	
o-Xylene	46.9	1.0	ug/L	50.00		93.7	70-130			03/22/2019	
sec-Butylbenzene	47.3	1.0	ug/L	50.00		94.7	70-130			03/22/2019	
Styrene	47.2	1.0	ug/L	50.00		94.4	70-130			03/22/2019	
tert-Butylbenzene	45.0	1.0	ug/L	50.00		90.0	70-130			03/22/2019	
tertiary Butyl Alcohol	191	50	ug/L	250.0		76.2	70-130			03/22/2019	
tertiaryAmylmethylether	41.0	5.0	ug/L	50.00		81.9	70-130			03/22/2019	
Tetrachloroethylene	50.5	1.0	ug/L	50.00		101	70-130			03/22/2019	
Tetrahydrofuran	42.2	5.0	ug/L	50.00		84.3	70-130			03/22/2019	
Toluene	46.6	1.0	ug/L	50.00		93.3	70-130			03/22/2019	
trans-1,2-Dichloroethylene	41.6	1.0	ug/L	50.00		83.1	70-130			03/22/2019	
trans-1,3-Dichloropropylene	43.3	1.0	ug/L	50.00		86.6	70-130			03/22/2019	
Trichloroethylene	46.4	1.0	ug/L	50.00		92.7	70-130			03/22/2019	
Trichlorofluoromethane	45.8	1.0	ug/L	50.00		91.6	70-130			03/22/2019	
Vinyl chloride	44.3	1.0	ug/L	50.00		88.6	70-130			03/22/2019	



Organics-Volatiles - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
---------	--------	----	-------	-------------	---------------	------	-------------	-----	-----------	----------	-----------

Batch B9C2203 - Method: 5030

Prepared: 03/22/2019

LCS (B9C2203-BS1)

Surrogate: Bromofluorobenzene	47.6		ug/L	50.00		95.3	85-115			03/22/2019	
Surrogate: Dibromofluoromethane	49.4		ug/L	50.00		98.8	82.7-115			03/22/2019	
Surrogate: Toluene-d8	51.0		ug/L	50.00		102	85-115			03/22/2019	

Matrix Spike (B9C2203-MS1)

Source: 1903142-01

1,1,1,2-Tetrachloroethane	60.6	1.0	ug/L	61.90	ND	98.0	70-130			03/22/2019	
1,1,1-Trichloroethane	58.2	1.0	ug/L	61.90	ND	94.1	70-130			03/22/2019	
1,1,2,2-Tetrachloroethane	61.7	1.0	ug/L	61.90	ND	99.7	70-130			03/22/2019	
1,1,2-Trichloroethane	59.7	1.0	ug/L	61.90	ND	96.5	70-130			03/22/2019	
1,1-Dichloroethane	59.1	1.0	ug/L	61.90	ND	95.5	70-130			03/22/2019	
1,1-Dichloroethylene	59.9	1.0	ug/L	61.90	ND	96.8	70-130			03/22/2019	
1,2,3-Trichlorobenzene	67.3	5.0	ug/L	61.90	ND	109	70-130			03/22/2019	
1,2,3-Trichloropropane	57.5	1.0	ug/L	61.90	ND	92.8	70-130			03/22/2019	
1,2,3-Trimethylbenzene	61.8	1.0	ug/L	61.90	ND	99.9	70-130			03/22/2019	
1,2,4-Trichlorobenzene	66.7	5.0	ug/L	61.90	ND	108	70-130			03/22/2019	
1,2,4-Trimethylbenzene	61.4	1.0	ug/L	61.90	ND	99.2	70-130			03/22/2019	
1,2-Dibromoethane	62.3	1.0	ug/L	61.90	ND	101	70-130			03/22/2019	
1,2-Dichlorobenzene	62.3	1.0	ug/L	61.90	ND	101	70-130			03/22/2019	
1,2-Dichloroethane	60.7	1.0	ug/L	61.90	ND	98.1	70-130			03/22/2019	
1,2-Dichloropropane	62.9	1.0	ug/L	61.90	ND	102	70-130			03/22/2019	
1,3,5-Trimethylbenzene	63.0	1.0	ug/L	61.90	ND	102	70-130			03/22/2019	
1,3-Dichlorobenzene	61.9	1.0	ug/L	61.90	ND	100	70-130			03/22/2019	
1,4-Dichlorobenzene	60.9	1.0	ug/L	61.90	ND	98.4	70-130			03/22/2019	
2,2,4-Trimethylpentane	65.0	5.0	ug/L	61.90	ND	105	70-130			03/22/2019	
2-Butanone (MEK)	62.8	5.0	ug/L	61.90	ND	101	70-130			03/22/2019	
2-Methylnaphthalene	65.4	5.0	ug/L	61.90	ND	106	70-130			03/22/2019	X
2-Propanone (acetone)	59.0	20	ug/L	61.90	ND	95.3	70-130			03/22/2019	
4-Methyl-2-pentanone (MIBK)	60.5	5.0	ug/L	61.90	ND	97.8	70-130			03/22/2019	
Acrylonitrile	59.0	5.0	ug/L	61.90	ND	95.3	70-130			03/22/2019	
Benzene	62.5	1.0	ug/L	61.90	ND	101	70-130			03/22/2019	
Bromochloromethane	64.3	1.0	ug/L	61.90	ND	104	70-130			03/22/2019	
Bromodichloromethane	61.2	1.0	ug/L	61.90	ND	98.9	70-130			03/22/2019	
Bromoform	49.6	1.0	ug/L	61.90	ND	80.2	70-130			03/22/2019	
Bromomethane	60.5	5.0	ug/L	61.90	ND	97.8	70-130			03/22/2019	
Carbon disulfide	62.4	1.0	ug/L	61.90	ND	101	70-130			03/22/2019	
Carbon tetrachloride	57.2	1.0	ug/L	61.90	ND	92.4	70-130			03/22/2019	
Chlorobenzene	61.3	1.0	ug/L	61.90	ND	99.0	70-130			03/22/2019	
Chloroethane	66.6	5.0	ug/L	61.90	ND	108	70-130			03/22/2019	
Chloroform	59.9	1.0	ug/L	61.90	ND	96.8	70-130			03/22/2019	
Chloromethane	72.2	5.0	ug/L	61.90	ND	117	70-130			03/22/2019	
cis-1,2-Dichloroethylene	59.5	1.0	ug/L	61.90	ND	96.2	70-130			03/22/2019	
cis-1,3-Dichloropropylene	60.2	1.0	ug/L	61.90	ND	97.3	70-130			03/22/2019	
Cyclohexane	69.3	5.0	ug/L	61.90	ND	112	70-130			03/22/2019	
Dibromochloromethane	52.5	1.0	ug/L	61.90	ND	84.8	70-130			03/22/2019	
Dibromomethane	59.3	1.0	ug/L	61.90	ND	95.8	70-130			03/22/2019	
Dichlorodifluoromethane	78.6	5.0	ug/L	61.90	ND	127	70-130			03/22/2019	
Diethyl ether	56.7	5.0	ug/L	61.90	ND	91.6	70-130			03/22/2019	



Organics-Volatiles - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
---------	--------	----	-------	-------------	---------------	------	-------------	-----	-----------	----------	-----------

Batch B9C2203 - Method: 5030

Prepared: 03/22/2019

Matrix Spike (B9C2203-MS1)

Source: 1903142-01

Diisopropyl Ether	58.5	5.0	ug/L	61.90	ND	94.5	70-130			03/22/2019	
Ethylbenzene	63.6	1.0	ug/L	61.90	ND	103	70-130			03/22/2019	
Ethyltertiarybutylether	49.9	5.0	ug/L	61.90	ND	80.6	70-130			03/22/2019	
Hexachloroethane	49.3	5.0	ug/L	61.90	ND	79.6	70-130			03/22/2019	
Hexane	62.2	1.0	ug/L	61.90	ND	100	70-130			03/22/2019	
Isopropylbenzene	62.5	1.0	ug/L	61.90	ND	101	70-130			03/22/2019	
m & p - Xylene	127	2.0	ug/L	123.8	ND	103	70-130			03/22/2019	
Methylene chloride	59.9	5.0	ug/L	61.90	ND	96.8	70-130			03/22/2019	
Methyltertiarybutylether	55.1	1.0	ug/L	61.90	ND	89.0	70-130			03/22/2019	
Naphthalene	63.0	5.0	ug/L	61.90	ND	102	70-130			03/22/2019	X
n-Butylbenzene	66.5	1.0	ug/L	61.90	ND	107	70-130			03/22/2019	
n-Propylbenzene	63.7	1.0	ug/L	61.90	ND	103	70-130			03/22/2019	
o-Xylene	62.4	1.0	ug/L	61.90	ND	101	70-130			03/22/2019	
sec-Butylbenzene	69.0	1.0	ug/L	61.90	ND	112	70-130			03/22/2019	
Styrene	62.5	1.0	ug/L	61.90	ND	101	70-130			03/22/2019	
tert-Butylbenzene	62.7	1.0	ug/L	61.90	ND	101	70-130			03/22/2019	
tertiary Butyl Alcohol	209	50	ug/L	309.5	ND	67.6	70-130			03/22/2019	A03
tertiaryAmylmethylether	54.1	5.0	ug/L	61.90	ND	87.3	70-130			03/22/2019	
Tetrachloroethylene	68.2	1.0	ug/L	61.90	ND	110	70-130			03/22/2019	
Tetrahydrofuran	57.5	5.0	ug/L	61.90	ND	92.9	70-130			03/22/2019	
Toluene	62.6	1.0	ug/L	61.90	ND	101	70-130			03/22/2019	
trans-1,2-Dichloroethylene	59.7	1.0	ug/L	61.90	ND	96.5	70-130			03/22/2019	
trans-1,3-Dichloropropylene	57.1	1.0	ug/L	61.90	ND	92.3	70-130			03/22/2019	
Trichloroethylene	64.1	1.0	ug/L	61.90	ND	104	70-130			03/22/2019	
Trichlorofluoromethane	68.2	1.0	ug/L	61.90	ND	110	70-130			03/22/2019	
Vinyl chloride	68.6	1.0	ug/L	61.90	ND	111	70-130			03/22/2019	
Surrogate: Bromofluorobenzene	47.8		ug/L	50.00		95.7	85-115			03/22/2019	
Surrogate: Dibromofluoromethane	50.2		ug/L	50.00		100	82.7-115			03/22/2019	
Surrogate: Toluene-d8	50.0		ug/L	50.00		100	85-115			03/22/2019	

Matrix Spike Dup (B9C2203-MSD1)

Source: 1903142-01

1,1,1,2-Tetrachloroethane	65.0	1.0	ug/L	61.90	ND	105	70-130	6.93	30	03/22/2019	
1,1,1-Trichloroethane	61.0	1.0	ug/L	61.90	ND	98.5	70-130	4.62	30	03/22/2019	
1,1,2,2-Tetrachloroethane	65.7	1.0	ug/L	61.90	ND	106	70-130	6.26	30	03/22/2019	
1,1,2-Trichloroethane	60.2	1.0	ug/L	61.90	ND	97.2	70-130	0.791	30	03/22/2019	
1,1-Dichloroethane	61.1	1.0	ug/L	61.90	ND	98.8	70-130	3.36	30	03/22/2019	
1,1-Dichloroethylene	61.1	1.0	ug/L	61.90	ND	98.7	70-130	1.87	30	03/22/2019	
1,2,3-Trichlorobenzene	70.6	5.0	ug/L	61.90	ND	114	70-130	4.79	30	03/22/2019	
1,2,3-Trichloropropane	60.7	1.0	ug/L	61.90	ND	98.0	70-130	5.45	30	03/22/2019	
1,2,3-Trimethylbenzene	63.8	1.0	ug/L	61.90	ND	103	70-130	3.17	30	03/22/2019	
1,2,4-Trichlorobenzene	70.2	5.0	ug/L	61.90	ND	113	70-130	5.09	30	03/22/2019	
1,2,4-Trimethylbenzene	63.2	1.0	ug/L	61.90	ND	102	70-130	2.91	30	03/22/2019	
1,2-Dibromoethane	65.1	1.0	ug/L	61.90	ND	105	70-130	4.45	30	03/22/2019	
1,2-Dichlorobenzene	64.2	1.0	ug/L	61.90	ND	104	70-130	2.98	30	03/22/2019	
1,2-Dichloroethane	59.2	1.0	ug/L	61.90	ND	95.6	70-130	2.51	30	03/22/2019	
1,2-Dichloropropane	63.5	1.0	ug/L	61.90	ND	103	70-130	0.886	30	03/22/2019	
1,3,5-Trimethylbenzene	64.9	1.0	ug/L	61.90	ND	105	70-130	2.89	30	03/22/2019	



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 B9C2203 - Method: 5030

Prepared: 03/22/2019

Matrix Spike Dup (B9C2203-MSD1)

Source: 1903142-01

1,3-Dichlorobenzene	64.1	1.0	ug/L	61.90	ND	103	70-130	3.39	30	03/22/2019	
1,4-Dichlorobenzene	63.0	1.0	ug/L	61.90	ND	102	70-130	3.41	30	03/22/2019	
2,2,4-Trimethylpentane	59.1	5.0	ug/L	61.90	ND	95.5	70-130	9.52	30	03/22/2019	
2-Butanone (MEK)	65.6	5.0	ug/L	61.90	ND	106	70-130	4.37	30	03/22/2019	
2-Methylnaphthalene	75.2	5.0	ug/L	61.90	ND	122	70-130	14.0	30	03/22/2019	X
2-Propanone (acetone)	62.3	20	ug/L	61.90	ND	101	70-130	5.47	30	03/22/2019	
4-Methyl-2-pentanone (MIBK)	64.3	5.0	ug/L	61.90	ND	104	70-130	6.00	30	03/22/2019	
Acrylonitrile	61.1	5.0	ug/L	61.90	ND	98.7	70-130	3.54	30	03/22/2019	
Benzene	61.5	1.0	ug/L	61.90	ND	99.3	70-130	1.64	30	03/22/2019	
Bromochloromethane	64.1	1.0	ug/L	61.90	ND	104	70-130	0.386	30	03/22/2019	
Bromodichloromethane	63.1	1.0	ug/L	61.90	ND	102	70-130	3.01	30	03/22/2019	
Bromoform	54.7	1.0	ug/L	61.90	ND	88.4	70-130	9.68	30	03/22/2019	
Bromomethane	64.9	5.0	ug/L	61.90	ND	105	70-130	6.92	30	03/22/2019	
Carbon disulfide	64.4	1.0	ug/L	61.90	ND	104	70-130	3.21	30	03/22/2019	
Carbon tetrachloride	62.8	1.0	ug/L	61.90	ND	101	70-130	9.27	30	03/22/2019	
Chlorobenzene	62.4	1.0	ug/L	61.90	ND	101	70-130	1.87	30	03/22/2019	
Chloroethane	65.9	5.0	ug/L	61.90	ND	107	70-130	1.01	30	03/22/2019	
Chloroform	60.8	1.0	ug/L	61.90	ND	98.3	70-130	1.55	30	03/22/2019	
Chloromethane	73.4	5.0	ug/L	61.90	ND	119	70-130	1.63	30	03/22/2019	
cis-1,2-Dichloroethylene	60.1	1.0	ug/L	61.90	ND	97.0	70-130	0.921	30	03/22/2019	
cis-1,3-Dichloropropylene	61.7	1.0	ug/L	61.90	ND	99.6	70-130	2.36	30	03/22/2019	
Cyclohexane	66.2	5.0	ug/L	61.90	ND	107	70-130	4.65	30	03/22/2019	
Dibromochloromethane	57.6	1.0	ug/L	61.90	ND	93.1	70-130	9.35	30	03/22/2019	
Dibromomethane	60.2	1.0	ug/L	61.90	ND	97.3	70-130	1.52	30	03/22/2019	
Dichlorodifluoromethane	73.2	5.0	ug/L	61.90	ND	118	70-130	7.12	30	03/22/2019	
Diethyl ether	58.6	5.0	ug/L	61.90	ND	94.7	70-130	3.33	30	03/22/2019	
Diisopropyl Ether	59.7	5.0	ug/L	61.90	ND	96.5	70-130	2.07	30	03/22/2019	
Ethylbenzene	64.1	1.0	ug/L	61.90	ND	104	70-130	0.729	30	03/22/2019	
Ethyltertiarybutylether	52.4	5.0	ug/L	61.90	ND	84.6	70-130	4.84	30	03/22/2019	
Hexachloroethane	56.1	5.0	ug/L	61.90	ND	90.6	70-130	13.0	30	03/22/2019	
Hexane	56.2	1.0	ug/L	61.90	ND	90.7	70-130	10.2	30	03/22/2019	
Isopropylbenzene	64.7	1.0	ug/L	61.90	ND	105	70-130	3.53	30	03/22/2019	
m & p - Xylene	128	2.0	ug/L	123.8	ND	104	70-130	0.984	30	03/22/2019	
Methylene chloride	60.2	5.0	ug/L	61.90	ND	97.3	70-130	0.442	30	03/22/2019	
Methyltertiarybutylether	57.3	1.0	ug/L	61.90	ND	92.6	70-130	3.95	30	03/22/2019	
Naphthalene	67.8	5.0	ug/L	61.90	ND	110	70-130	7.39	30	03/22/2019	X
n-Butylbenzene	68.6	1.0	ug/L	61.90	ND	111	70-130	3.06	30	03/22/2019	
n-Propylbenzene	65.9	1.0	ug/L	61.90	ND	106	70-130	3.39	30	03/22/2019	
o-Xylene	63.6	1.0	ug/L	61.90	ND	103	70-130	1.86	30	03/22/2019	
sec-Butylbenzene	70.9	1.0	ug/L	61.90	ND	115	70-130	2.67	30	03/22/2019	
Styrene	63.3	1.0	ug/L	61.90	ND	102	70-130	1.29	30	03/22/2019	
tert-Butylbenzene	64.6	1.0	ug/L	61.90	ND	104	70-130	2.96	30	03/22/2019	
tertiary Butyl Alcohol	258	50	ug/L	309.5	ND	83.3	70-130	20.9	30	03/22/2019	
tertiaryAmylmeylether	54.9	5.0	ug/L	61.90	ND	88.6	70-130	1.49	30	03/22/2019	
Tetrachloroethylene	67.8	1.0	ug/L	61.90	ND	110	70-130	0.544	30	03/22/2019	
Tetrahydrofuran	59.8	5.0	ug/L	61.90	ND	96.6	70-130	3.93	30	03/22/2019	
Toluene	62.7	1.0	ug/L	61.90	ND	101	70-130	0.119	30	03/22/2019	



**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 B9C2203 - Method: 5030

Prepared: 03/22/2019

Matrix Spike Dup (B9C2203-MSD1)

Source: 1903142-01

trans-1,2-Dichloroethylene	59.2	1.0	ug/L	61.90	ND	95.6	70-130	0.929	30	03/22/2019	
trans-1,3-Dichloropropylene	59.3	1.0	ug/L	61.90	ND	95.7	70-130	3.69	30	03/22/2019	
Trichloroethylene	63.8	1.0	ug/L	61.90	ND	103	70-130	0.541	30	03/22/2019	
Trichlorofluoromethane	68.1	1.0	ug/L	61.90	ND	110	70-130	0.175	30	03/22/2019	
Vinyl chloride	69.0	1.0	ug/L	61.90	ND	111	70-130	0.593	30	03/22/2019	
<i>Surrogate: Bromofluorobenzene</i>	<i>48.9</i>		ug/L	<i>50.00</i>		<i>97.8</i>	<i>85-115</i>			03/22/2019	
<i>Surrogate: Dibromofluoromethane</i>	<i>49.1</i>		ug/L	<i>50.00</i>		<i>98.2</i>	<i>82.7-115</i>			03/22/2019	
<i>Surrogate: Toluene-d8</i>	<i>50.5</i>		ug/L	<i>50.00</i>		<i>101</i>	<i>85-115</i>			03/22/2019	



**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 B9C2507 - Method: 5030				Prepared: 03/22/2019							
Blank (B9C2507-BLK1)											
1,4-dioxane	ND	1.0	ug/L							03/22/2019	
LCS (B9C2507-BS1)											
1,4-dioxane	10.2	1.0	ug/L	10.00		102	70-130			03/22/2019	
Matrix Spike (B9C2507-MS1)											
Source: 1903143-03											
1,4-dioxane	9.92	1.0	ug/L	10.00	ND	99.2	70-130			03/22/2019	
Matrix Spike Dup (B9C2507-MSD1)											
Source: 1903143-03											
1,4-dioxane	8.15	1.0	ug/L	10.00	ND	81.5	70-130	19.6	30	03/22/2019	



Analysis Request Sheet

Lab Work Order Number 1903143	Project Name Gelman Sciences	Matrix WATER
Site Code/Project Number 81000018/Location 6130	AY 19	CC Email 1 lundk@michigan.gov
Dept-Division-District DEQ-RRD-Jackson	Index	CC Email 2
State Project Manager Dan Hamel	PCA	CC Email 3
State Project Manager Email hameld@michigan.gov	Project Location-6130	Overflow Lab Choice 1
State Project Manager Phone 517-745-6595	Phase	Overflow Lab Choice 2
		Project TAT Days
		Sample Collector Dan Hamel
		Project Due Date
		Sample Collector Phone 517-745-6595
		Contract Firm
		Accept Analysis hold time codes
		Contract Firm Primary Contact
		Primary Contact Phone

Lab Use Only	Field Sample Identification	Collection Date	Collection Time	Container Count	Comments
1 01	Allen Creek/West Park SW	3/19/19	10:02	5	Please include QA/QC with Lab Data Report(s)
2 02	Allen Creek/Chapin-West Park	3/19/19	0940	3	
3 03	Allen Creek/Maple Ridge-Arborview	3/19/19	10:16	5	
4 04	Allen Creek/Wildwood-Arborview	3/19/19	10:30	3	SWW
5 05	Allen Creek/Murray-Washington	3/19/19	11:20	5	
6 06	Allen Creek/Eighth-Waterworks	3/19/19	11:06	3	
7 07	Allen Creek-Maryfield-Wildwood Park	3/19/19	1044	3	
8					
9					
10					

ORGANIC CHEMISTRY	MAD - DISSOLVED METALS	MA - TOTAL METALS	GENERAL 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	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	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	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 - SO ₄ 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 - NH ₃ 1 2 3 4 5 6 7 8 9 10 GA Nitrate+Nitrite - NO ₃ +NO ₂ 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 Print Name & Org. DAN HAMEL DEQ-RRD Signature: <i>[Signature]</i>	Received By <i>[Signature]</i>	Date / Time 3/22/19 1108
	Print Name & Org. Signature:		
	Print Name & Org. Signature:		
	Print Name & Org. Signature:		