

03 July 2019

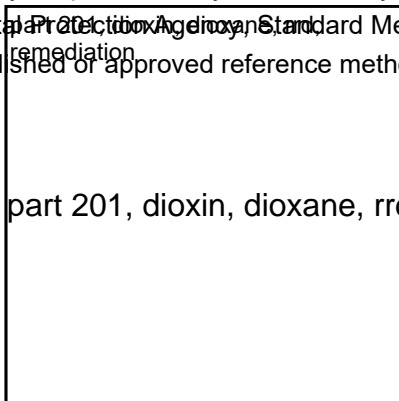
Work Order: 1906161

Price: \$1,210.00

Dan Hamel
MDEQ-RRD-JACKSON
301 E. Louis Glick Highway
Jackson, MI 49201-1556
RE: GELMAN SCIENCES, INC

This is the official environmental laboratory report for testing conducted by the Michigan Department of Environment, Great Lakes, and Energy. Analyses performed by the laboratory were conducted using methods published by the U.S. Environmental Protection Agency, Standard Methods for the Examination of Water and Wastewater, ASTM, or other published or approved reference methods.

Kirby Shane
Laboratory Director





MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY

MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY
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:
07/03/2019

Analytical Report for Samples

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Qualifier
Allen Creek/West Park SW	1906161-01	Water	06/18/2019	06/18/2019	
Allen Creek/Chapin-West Park	1906161-02	Water	06/18/2019	06/18/2019	
Allen Creek/Maple Ridge-Arborview	1906161-03	Water	06/18/2019	06/18/2019	
Allen Creek/Murray Washington	1906161-04	Water	06/18/2019	06/18/2019	
Allen Creek/Eighth-Waterworks	1906161-05	Water	06/18/2019	06/18/2019	
Allen Creek-Maryfield-Wildwood Park	1906161-06	Water	06/18/2019	06/18/2019	

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.
- ND Indicates compound analyzed for but not detected at or above the reporting limit (RL).
- RL Reporting Limit
- NA Not Applicable



MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY

MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY
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: 1906161-01

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	06/19/19	B9F1906	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	06/19/19	B9F1906	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	06/19/19	B9F1906	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
540-84-1	2,2,4-Trimethylpentane	ND	5.0	ug/L	1	06/19/19	B9F1906	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	06/19/19	B9F1906	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	06/19/19	B9F1906	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	06/19/19	B9F1906	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	06/19/19	B9F1906	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	06/19/19	B9F1906	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	06/19/19	B9F1906	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	06/19/19	B9F1906	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	06/19/19	B9F1906	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	06/19/19	B9F1906	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	



MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY

MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY
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: 1906161-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	06/19/19	B9F1906	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	06/19/19	B9F1906	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	06/19/19	B9F1906	8260	
100-41-4	Ethylbenzene	1.0	1.0	ug/L	1	06/19/19	B9F1906	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	06/19/19	B9F1906	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	06/19/19	B9F1906	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	06/19/19	B9F1906	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	06/19/19	B9F1906	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	06/19/19	B9F1906	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	06/19/19	B9F1906	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	06/19/19	B9F1906	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	06/19/19	B9F1906	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
Surrogate: Bromofluorobenzene			99.2 %	85-115		06/19/19	B9F1906	8260	
Surrogate: Dibromofluoromethane			98.1 %	82.7-115		06/19/19	B9F1906	8260	
Surrogate: Toluene-d8			97.3 %	85-115		06/19/19	B9F1906	8260	



MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY

MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY
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: 1906161-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
-------	---------	--------	----	-------	----------	---------------	----------	--------	-----------

Organics-Dioxane

123-91-1	1,4-dioxane	15	1.0	ug/L	1	06/19/19	B9F2009	8260 Modified	
----------	-------------	----	-----	------	---	----------	---------	---------------	--



MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY

MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY
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: 1906161-02

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	06/19/19	B9F1906	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	06/19/19	B9F1906	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	06/19/19	B9F1906	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
540-84-1	2,2,4-Trimethylpentane	ND	5.0	ug/L	1	06/19/19	B9F1906	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	06/19/19	B9F1906	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	06/19/19	B9F1906	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	06/19/19	B9F1906	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	06/19/19	B9F1906	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	06/19/19	B9F1906	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	06/19/19	B9F1906	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	06/19/19	B9F1906	8260	
67-66-3	Chloroform	2.6	1.0	ug/L	1	06/19/19	B9F1906	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	06/19/19	B9F1906	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	06/19/19	B9F1906	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	



MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY

MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY
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: 1906161-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	06/19/19	B9F1906	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	06/19/19	B9F1906	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	06/19/19	B9F1906	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	06/19/19	B9F1906	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	06/19/19	B9F1906	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	06/19/19	B9F1906	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	06/19/19	B9F1906	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	06/19/19	B9F1906	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	06/19/19	B9F1906	8260	
994-05-8	tertiaryAmylmeylether	ND	5.0	ug/L	1	06/19/19	B9F1906	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	06/19/19	B9F1906	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
<i>Surrogate: Bromofluorobenzene</i>			100 %	85-115		06/19/19	B9F1906	8260	
<i>Surrogate: Dibromofluoromethane</i>			99.0 %	82.7-115		06/19/19	B9F1906	8260	
<i>Surrogate: Toluene-d8</i>			97.5 %	85-115		06/19/19	B9F1906	8260	



MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY 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: 1906161-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
-------	---------	--------	----	-------	----------	---------------	----------	--------	-----------

Organics-Dioxane

123-91-1	1,4-dioxane	6.5	1.0	ug/L	1	06/19/19	B9F2009	8260 Modified	
----------	-------------	-----	-----	------	---	----------	---------	---------------	--



MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY

MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY
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: 1906161-03

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	06/19/19	B9F1906	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	06/19/19	B9F1906	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	06/19/19	B9F1906	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
540-84-1	2,2,4-Trimethylpentane	ND	5.0	ug/L	1	06/19/19	B9F1906	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	06/19/19	B9F1906	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	06/19/19	B9F1906	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	06/19/19	B9F1906	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	06/19/19	B9F1906	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	06/19/19	B9F1906	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
75-27-4	Bromodichloromethane	3.7	1.0	ug/L	1	06/19/19	B9F1906	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	06/19/19	B9F1906	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	06/19/19	B9F1906	8260	
67-66-3	Chloroform	17	1.0	ug/L	1	06/19/19	B9F1906	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	06/19/19	B9F1906	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	06/19/19	B9F1906	8260	
124-48-1	Dibromochloromethane	1.1	1.0	ug/L	1	06/19/19	B9F1906	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	



MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY

MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY
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: 1906161-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	06/19/19	B9F1906	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	06/19/19	B9F1906	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	06/19/19	B9F1906	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	06/19/19	B9F1906	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	06/19/19	B9F1906	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	06/19/19	B9F1906	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	06/19/19	B9F1906	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	06/19/19	B9F1906	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	06/19/19	B9F1906	8260	
994-05-8	tertiaryAmylmehtylether	ND	5.0	ug/L	1	06/19/19	B9F1906	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	06/19/19	B9F1906	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	06/19/19	B9F1906	8260	
<i>Surrogate: Bromofluorobenzene</i>			98.1 %	85-115		06/19/19	B9F1906	8260	
<i>Surrogate: Dibromofluoromethane</i>			100 %	82.7-115		06/19/19	B9F1906	8260	
<i>Surrogate: Toluene-d8</i>			97.6 %	85-115		06/19/19	B9F1906	8260	



MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY

MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY
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: 1906161-04

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	06/20/19	B9F1908	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	06/20/19	B9F1908	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	06/20/19	B9F1908	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
540-84-1	2,2,4-Trimethylpentane	ND	5.0	ug/L	1	06/20/19	B9F1908	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	06/20/19	B9F1908	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	06/20/19	B9F1908	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	06/20/19	B9F1908	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	06/20/19	B9F1908	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	06/20/19	B9F1908	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	06/20/19	B9F1908	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	06/20/19	B9F1908	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	06/20/19	B9F1908	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	06/20/19	B9F1908	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	



MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY

MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY
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: 1906161-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	06/20/19	B9F1908	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	06/20/19	B9F1908	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	06/20/19	B9F1908	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	06/20/19	B9F1908	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	06/20/19	B9F1908	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	06/20/19	B9F1908	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	06/20/19	B9F1908	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	06/20/19	B9F1908	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	06/20/19	B9F1908	8260	
994-05-8	tertiaryAmylmeylether	ND	5.0	ug/L	1	06/20/19	B9F1908	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	06/20/19	B9F1908	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
Surrogate: Bromofluorobenzene			101 %	85-115		06/20/19	B9F1908	8260	
Surrogate: Dibromofluoromethane			99.6 %	82.7-115		06/20/19	B9F1908	8260	
Surrogate: Toluene-d8			97.8 %	85-115		06/20/19	B9F1908	8260	



MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY

MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY
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: 1906161-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Dioxane									
123-91-1	1,4-dioxane	ND	1.0	ug/L	1	06/19/19	B9F2009	8260 Modified	Y28



MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY

MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY
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: 1906161-05

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	06/20/19	B9F1908	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	06/20/19	B9F1908	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	06/20/19	B9F1908	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
540-84-1	2,2,4-Trimethylpentane	ND	5.0	ug/L	1	06/20/19	B9F1908	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	06/20/19	B9F1908	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	06/20/19	B9F1908	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	06/20/19	B9F1908	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	06/20/19	B9F1908	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	06/20/19	B9F1908	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	06/20/19	B9F1908	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	06/20/19	B9F1908	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	06/20/19	B9F1908	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	06/20/19	B9F1908	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	



MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY

MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY
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: 1906161-05

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	06/20/19	B9F1908	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	06/20/19	B9F1908	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	06/20/19	B9F1908	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	06/20/19	B9F1908	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	06/20/19	B9F1908	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	06/20/19	B9F1908	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	06/20/19	B9F1908	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	06/20/19	B9F1908	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	06/20/19	B9F1908	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	06/20/19	B9F1908	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	06/20/19	B9F1908	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
Surrogate: Bromofluorobenzene			100 %	85-115		06/20/19	B9F1908	8260	
Surrogate: Dibromofluoromethane			96.8 %	82.7-115		06/20/19	B9F1908	8260	
Surrogate: Toluene-d8			97.8 %	85-115		06/20/19	B9F1908	8260	



MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY 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: 1906161-05

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
-------	---------	--------	----	-------	----------	---------------	----------	--------	-----------

Organics-Dioxane

123-91-1	1,4-dioxane	1.0	1.0	ug/L	1	06/19/19	B9F2009	8260 Modified	Y28
----------	-------------	-----	-----	------	---	----------	---------	---------------	-----



MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY

MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY
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: 1906161-06

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	06/20/19	B9F1908	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	06/20/19	B9F1908	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	06/20/19	B9F1908	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
540-84-1	2,2,4-Trimethylpentane	ND	5.0	ug/L	1	06/20/19	B9F1908	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	06/20/19	B9F1908	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	06/20/19	B9F1908	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	06/20/19	B9F1908	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	06/20/19	B9F1908	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	06/20/19	B9F1908	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	06/20/19	B9F1908	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	06/20/19	B9F1908	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	06/20/19	B9F1908	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	06/20/19	B9F1908	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	



MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY

MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY
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: 1906161-06

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	06/20/19	B9F1908	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	06/20/19	B9F1908	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	06/20/19	B9F1908	8260	
100-41-4	Ethylbenzene	21	1.0	ug/L	1	06/20/19	B9F1908	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	06/20/19	B9F1908	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	06/20/19	B9F1908	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	06/20/19	B9F1908	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	06/20/19	B9F1908	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	06/20/19	B9F1908	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
100-42-5	Styrene	14	1.0	ug/L	1	06/20/19	B9F1908	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	06/20/19	B9F1908	8260	
994-05-8	tertiaryAmylmetylether	ND	5.0	ug/L	1	06/20/19	B9F1908	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	06/20/19	B9F1908	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	06/20/19	B9F1908	8260	
<i>Surrogate: Bromofluorobenzene</i>			103 %	85-115		06/20/19	B9F1908	8260	
<i>Surrogate: Dibromofluoromethane</i>			98.9 %	82.7-115		06/20/19	B9F1908	8260	
<i>Surrogate: Toluene-d8</i>			97.7 %	85-115		06/20/19	B9F1908	8260	



MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY

MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY
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 B9F1906 - Method: 5030

Prepared: 06/19/2019

Blank (B9F1906-BLK1)

1,1,1,2-Tetrachloroethane	ND	1.0	ug/L							06/19/2019	
1,1,1-Trichloroethane	ND	1.0	ug/L							06/19/2019	
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L							06/19/2019	
1,1,2-Trichloroethane	ND	1.0	ug/L							06/19/2019	
1,1-Dichloroethane	ND	1.0	ug/L							06/19/2019	
1,1-Dichloroethylene	ND	1.0	ug/L							06/19/2019	
1,2,3-Trichlorobenzene	ND	5.0	ug/L							06/19/2019	
1,2,3-Trichloropropane	ND	1.0	ug/L							06/19/2019	
1,2,3-Trimethylbenzene	ND	1.0	ug/L							06/19/2019	
1,2,4-Trichlorobenzene	ND	5.0	ug/L							06/19/2019	
1,2,4-Trimethylbenzene	ND	1.0	ug/L							06/19/2019	
1,2-Dibromoethane	ND	1.0	ug/L							06/19/2019	
1,2-Dichlorobenzene	ND	1.0	ug/L							06/19/2019	
1,2-Dichloroethane	ND	1.0	ug/L							06/19/2019	
1,2-Dichloropropane	ND	1.0	ug/L							06/19/2019	
1,3,5-Trimethylbenzene	ND	1.0	ug/L							06/19/2019	
1,3-Dichlorobenzene	ND	1.0	ug/L							06/19/2019	
1,4-Dichlorobenzene	ND	1.0	ug/L							06/19/2019	
2,2,4-Trimethylpentane	ND	5.0	ug/L							06/19/2019	
2-Butanone (MEK)	ND	5.0	ug/L							06/19/2019	
2-Methylnaphthalene	ND	5.0	ug/L							06/19/2019	X
2-Propanone (acetone)	ND	20	ug/L							06/19/2019	
4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L							06/19/2019	
Acrylonitrile	ND	5.0	ug/L							06/19/2019	
Benzene	ND	1.0	ug/L							06/19/2019	
Bromochloromethane	ND	1.0	ug/L							06/19/2019	
Bromodichloromethane	ND	1.0	ug/L							06/19/2019	
Bromoform	ND	1.0	ug/L							06/19/2019	
Bromomethane	ND	5.0	ug/L							06/19/2019	
Carbon disulfide	ND	1.0	ug/L							06/19/2019	
Carbon tetrachloride	ND	1.0	ug/L							06/19/2019	
Chlorobenzene	ND	1.0	ug/L							06/19/2019	
Chloroethane	ND	5.0	ug/L							06/19/2019	
Chloroform	ND	1.0	ug/L							06/19/2019	
Chloromethane	ND	5.0	ug/L							06/19/2019	
cis-1,2-Dichloroethylene	ND	1.0	ug/L							06/19/2019	
cis-1,3-Dichloropropylene	ND	1.0	ug/L							06/19/2019	
Cyclohexane	ND	5.0	ug/L							06/19/2019	
Dibromochloromethane	ND	1.0	ug/L							06/19/2019	
Dibromomethane	ND	1.0	ug/L							06/19/2019	
Dichlorodifluoromethane	ND	5.0	ug/L							06/19/2019	
Diethyl ether	ND	5.0	ug/L							06/19/2019	
Diisopropyl Ether	ND	5.0	ug/L							06/19/2019	
Ethylbenzene	ND	1.0	ug/L							06/19/2019	
Ethyltertiarybutylether	ND	5.0	ug/L							06/19/2019	
Hexachloroethane	ND	5.0	ug/L							06/19/2019	
Hexane	ND	1.0	ug/L							06/19/2019	



MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY

MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY
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 B9F1906 - Method: 5030

Prepared: 06/19/2019

Blank (B9F1906-BLK1)

Isopropylbenzene	ND	1.0	ug/L							06/19/2019	
m & p - Xylene	ND	2.0	ug/L							06/19/2019	
Methylene chloride	ND	5.0	ug/L							06/19/2019	
Methyltertiarybutylether	ND	1.0	ug/L							06/19/2019	
Naphthalene	ND	5.0	ug/L							06/19/2019	X
n-Butylbenzene	ND	1.0	ug/L							06/19/2019	
n-Propylbenzene	ND	1.0	ug/L							06/19/2019	
o-Xylene	ND	1.0	ug/L							06/19/2019	
sec-Butylbenzene	ND	1.0	ug/L							06/19/2019	
Styrene	ND	1.0	ug/L							06/19/2019	
tert-Butylbenzene	ND	1.0	ug/L							06/19/2019	
tertiary Butyl Alcohol	ND	50	ug/L							06/19/2019	
tertiaryAmylmethylether	ND	5.0	ug/L							06/19/2019	
Tetrachloroethylene	ND	1.0	ug/L							06/19/2019	
Tetrahydrofuran	ND	5.0	ug/L							06/19/2019	
Toluene	ND	1.0	ug/L							06/19/2019	
trans-1,2-Dichloroethylene	ND	1.0	ug/L							06/19/2019	
trans-1,3-Dichloropropylene	ND	1.0	ug/L							06/19/2019	
Trichloroethylene	ND	1.0	ug/L							06/19/2019	
Trichlorofluoromethane	ND	1.0	ug/L							06/19/2019	
Vinyl chloride	ND	1.0	ug/L							06/19/2019	
Surrogate: Bromofluorobenzene	50.4		ug/L	50.00		101	85-115			06/19/2019	
Surrogate: Dibromofluoromethane	47.9		ug/L	50.00		95.8	82.7-115			06/19/2019	
Surrogate: Toluene-d8	48.8		ug/L	50.00		97.7	85-115			06/19/2019	

LCS (B9F1906-BS1)

1,1,1,2-Tetrachloroethane	50.4	1.0	ug/L	50.00		101	70-130			06/19/2019	
1,1,1-Trichloroethane	47.3	1.0	ug/L	50.00		94.7	70-130			06/19/2019	
1,1,2,2-Tetrachloroethane	49.7	1.0	ug/L	50.00		99.4	70-130			06/19/2019	
1,1,2-Trichloroethane	49.4	1.0	ug/L	50.00		98.8	70-130			06/19/2019	
1,1-Dichloroethane	47.8	1.0	ug/L	50.00		95.7	70-130			06/19/2019	
1,1-Dichloroethylene	45.3	1.0	ug/L	50.00		90.6	70-130			06/19/2019	
1,2,3-Trichlorobenzene	52.9	5.0	ug/L	50.00		106	70-130			06/19/2019	
1,2,3-Trichloropropane	49.7	1.0	ug/L	50.00		99.5	70-130			06/19/2019	
1,2,3-Trimethylbenzene	50.3	1.0	ug/L	50.00		101	70-130			06/19/2019	
1,2,4-Trichlorobenzene	51.3	5.0	ug/L	50.00		103	70-130			06/19/2019	
1,2,4-Trimethylbenzene	50.3	1.0	ug/L	50.00		101	70-130			06/19/2019	
1,2-Dibromoethane	51.4	1.0	ug/L	50.00		103	70-130			06/19/2019	
1,2-Dichlorobenzene	50.4	1.0	ug/L	50.00		101	70-130			06/19/2019	
1,2-Dichloroethane	50.5	1.0	ug/L	50.00		101	70-130			06/19/2019	
1,2-Dichloropropane	49.3	1.0	ug/L	50.00		98.6	70-130			06/19/2019	
1,3,5-Trimethylbenzene	50.4	1.0	ug/L	50.00		101	70-130			06/19/2019	
1,3-Dichlorobenzene	50.6	1.0	ug/L	50.00		101	70-130			06/19/2019	
1,4-Dichlorobenzene	49.5	1.0	ug/L	50.00		99.0	70-130			06/19/2019	
2,2,4-Trimethylpentane	44.6	5.0	ug/L	50.00		89.2	70-130			06/19/2019	
2-Butanone (MEK)	51.7	5.0	ug/L	50.00		103	70-130			06/19/2019	
2-Methylnaphthalene	48.6	5.0	ug/L	50.00		97.1	70-130			06/19/2019	X



MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY

MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY
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 B9F1906 - Method: 5030

Prepared: 06/19/2019

LCS (B9F1906-BS1)

2-Propanone (acetone)	49.4	20	ug/L	50.00		98.8	70-130			06/19/2019	
4-Methyl-2-pentanone (MIBK)	49.8	5.0	ug/L	50.00		99.6	70-130			06/19/2019	
Acrylonitrile	46.8	5.0	ug/L	50.00		93.6	70-130			06/19/2019	
Benzene	49.4	1.0	ug/L	50.00		98.7	70-130			06/19/2019	
Bromochloromethane	51.9	1.0	ug/L	50.00		104	70-130			06/19/2019	
Bromodichloromethane	48.8	1.0	ug/L	50.00		97.6	70-130			06/19/2019	
Bromoform	47.6	1.0	ug/L	50.00		95.1	70-130			06/19/2019	
Bromomethane	60.5	5.0	ug/L	50.00		121	70-130			06/19/2019	
Carbon disulfide	43.9	1.0	ug/L	50.00		87.9	70-130			06/19/2019	
Carbon tetrachloride	49.7	1.0	ug/L	50.00		99.4	70-130			06/19/2019	
Chlorobenzene	50.1	1.0	ug/L	50.00		100	70-130			06/19/2019	
Chloroethane	48.7	5.0	ug/L	50.00		97.5	70-130			06/19/2019	
Chloroform	48.3	1.0	ug/L	50.00		96.6	70-130			06/19/2019	
Chloromethane	51.6	5.0	ug/L	50.00		103	70-130			06/19/2019	
cis-1,2-Dichloroethylene	48.3	1.0	ug/L	50.00		96.7	70-130			06/19/2019	
cis-1,3-Dichloropropylene	50.6	1.0	ug/L	50.00		101	70-130			06/19/2019	
Cyclohexane	52.7	5.0	ug/L	50.00		105	70-130			06/19/2019	
Dibromochloromethane	49.8	1.0	ug/L	50.00		99.6	70-130			06/19/2019	
Dibromomethane	51.0	1.0	ug/L	50.00		102	70-130			06/19/2019	
Dichlorodifluoromethane	55.3	5.0	ug/L	50.00		111	70-130			06/19/2019	
Diethyl ether	48.0	5.0	ug/L	50.00		95.9	70-130			06/19/2019	
Diisopropyl Ether	48.5	5.0	ug/L	50.00		97.1	70-130			06/19/2019	
Ethylbenzene	49.6	1.0	ug/L	50.00		99.1	70-130			06/19/2019	
Ethyltertiarybutylether	47.7	5.0	ug/L	50.00		95.4	70-130			06/19/2019	
Hexachloroethane	45.4	5.0	ug/L	50.00		90.8	70-130			06/19/2019	
Hexane	48.0	1.0	ug/L	50.00		96.0	70-130			06/19/2019	
Isopropylbenzene	49.8	1.0	ug/L	50.00		99.7	70-130			06/19/2019	
m & p - Xylene	101	2.0	ug/L	100.0		101	70-130			06/19/2019	
Methylene chloride	47.3	5.0	ug/L	50.00		94.7	70-130			06/19/2019	
Methyltertiarybutylether	51.6	1.0	ug/L	50.00		103	70-130			06/19/2019	
Naphthalene	53.4	5.0	ug/L	50.00		107	70-130			06/19/2019	X
n-Butylbenzene	50.7	1.0	ug/L	50.00		101	70-130			06/19/2019	
n-Propylbenzene	49.5	1.0	ug/L	50.00		99.1	70-130			06/19/2019	
o-Xylene	50.3	1.0	ug/L	50.00		101	70-130			06/19/2019	
sec-Butylbenzene	54.9	1.0	ug/L	50.00		110	70-130			06/19/2019	
Styrene	52.4	1.0	ug/L	50.00		105	70-130			06/19/2019	
tert-Butylbenzene	50.8	1.0	ug/L	50.00		102	70-130			06/19/2019	
tertiary Butyl Alcohol	246	50	ug/L	250.0		98.3	70-130			06/19/2019	
tertiaryAmylmethylether	50.4	5.0	ug/L	50.00		101	70-130			06/19/2019	
Tetrachloroethylene	48.8	1.0	ug/L	50.00		97.6	70-130			06/19/2019	
Tetrahydrofuran	49.4	5.0	ug/L	50.00		98.8	70-130			06/19/2019	
Toluene	48.8	1.0	ug/L	50.00		97.6	70-130			06/19/2019	
trans-1,2-Dichloroethylene	46.4	1.0	ug/L	50.00		92.8	70-130			06/19/2019	
trans-1,3-Dichloropropylene	47.2	1.0	ug/L	50.00		94.4	70-130			06/19/2019	
Trichloroethylene	49.2	1.0	ug/L	50.00		98.4	70-130			06/19/2019	
Trichlorofluoromethane	49.6	1.0	ug/L	50.00		99.2	70-130			06/19/2019	
Vinyl chloride	50.1	1.0	ug/L	50.00		100	70-130			06/19/2019	



MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY 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 B9F1906 - Method: 5030

Prepared: 06/19/2019

LCS (B9F1906-BS1)

Surrogate: Bromofluorobenzene	49.2		ug/L	50.00		98.4	85-115			06/19/2019	
Surrogate: Dibromofluoromethane	49.2		ug/L	50.00		98.4	82.7-115			06/19/2019	
Surrogate: Toluene-d8	49.7		ug/L	50.00		99.3	85-115			06/19/2019	

Matrix Spike (B9F1906-MS1)

Source: 1906161-01

1,1,1,2-Tetrachloroethane	52.8	1.0	ug/L	50.00	ND	106	70-130			06/19/2019	
1,1,1-Trichloroethane	52.7	1.0	ug/L	50.00	ND	105	70-130			06/19/2019	
1,1,2,2-Tetrachloroethane	51.2	1.0	ug/L	50.00	ND	102	70-130			06/19/2019	
1,1,2-Trichloroethane	50.1	1.0	ug/L	50.00	ND	100	70-130			06/19/2019	
1,1-Dichloroethane	51.2	1.0	ug/L	50.00	ND	102	70-130			06/19/2019	
1,1-Dichloroethylene	51.4	1.0	ug/L	50.00	ND	103	70-130			06/19/2019	
1,2,3-Trichlorobenzene	53.1	5.0	ug/L	50.00	ND	106	70-130			06/19/2019	
1,2,3-Trichloropropane	51.2	1.0	ug/L	50.00	ND	102	70-130			06/19/2019	
1,2,3-Trimethylbenzene	53.3	1.0	ug/L	50.00	ND	107	70-130			06/19/2019	
1,2,4-Trichlorobenzene	53.1	5.0	ug/L	50.00	ND	106	70-130			06/19/2019	
1,2,4-Trimethylbenzene	54.0	1.0	ug/L	50.00	ND	108	70-130			06/19/2019	
1,2-Dibromoethane	51.2	1.0	ug/L	50.00	ND	102	70-130			06/19/2019	
1,2-Dichlorobenzene	52.8	1.0	ug/L	50.00	ND	106	70-130			06/19/2019	
1,2-Dichloroethane	52.6	1.0	ug/L	50.00	ND	105	70-130			06/19/2019	
1,2-Dichloropropane	51.7	1.0	ug/L	50.00	ND	103	70-130			06/19/2019	
1,3,5-Trimethylbenzene	54.6	1.0	ug/L	50.00	ND	109	70-130			06/19/2019	
1,3-Dichlorobenzene	53.4	1.0	ug/L	50.00	ND	107	70-130			06/19/2019	
1,4-Dichlorobenzene	51.6	1.0	ug/L	50.00	ND	103	70-130			06/19/2019	
2,2,4-Trimethylpentane	53.3	5.0	ug/L	50.00	ND	107	70-130			06/19/2019	
2-Butanone (MEK)	54.7	5.0	ug/L	50.00	ND	109	70-130			06/19/2019	
2-Methylnaphthalene	48.5	5.0	ug/L	50.00	ND	97.1	70-130			06/19/2019	X
2-Propanone (acetone)	52.4	20	ug/L	50.00	ND	105	70-130			06/19/2019	
4-Methyl-2-pentanone (MIBK)	50.4	5.0	ug/L	50.00	ND	101	70-130			06/19/2019	
Acrylonitrile	46.2	5.0	ug/L	50.00	ND	92.3	70-130			06/19/2019	
Benzene	52.2	1.0	ug/L	50.00	ND	104	70-130			06/19/2019	
Bromochloromethane	52.7	1.0	ug/L	50.00	ND	105	70-130			06/19/2019	
Bromodichloromethane	50.8	1.0	ug/L	50.00	ND	102	70-130			06/19/2019	
Bromoform	47.9	1.0	ug/L	50.00	ND	95.7	70-130			06/19/2019	
Bromomethane	43.3	5.0	ug/L	50.00	ND	86.6	70-130			06/19/2019	
Carbon disulfide	48.4	1.0	ug/L	50.00	ND	96.8	70-130			06/19/2019	
Carbon tetrachloride	55.1	1.0	ug/L	50.00	ND	110	70-130			06/19/2019	
Chlorobenzene	53.4	1.0	ug/L	50.00	ND	107	70-130			06/19/2019	
Chloroethane	53.8	5.0	ug/L	50.00	ND	108	70-130			06/19/2019	
Chloroform	51.5	1.0	ug/L	50.00	ND	103	70-130			06/19/2019	
Chloromethane	54.5	5.0	ug/L	50.00	ND	109	70-130			06/19/2019	
cis-1,2-Dichloroethylene	50.5	1.0	ug/L	50.00	ND	101	70-130			06/19/2019	
cis-1,3-Dichloropropylene	51.9	1.0	ug/L	50.00	ND	104	70-130			06/19/2019	
Cyclohexane	61.6	5.0	ug/L	50.00	ND	123	70-130			06/19/2019	
Dibromochloromethane	51.4	1.0	ug/L	50.00	ND	103	70-130			06/19/2019	
Dibromomethane	51.3	1.0	ug/L	50.00	ND	103	70-130			06/19/2019	
Dichlorodifluoromethane	64.5	5.0	ug/L	50.00	ND	129	70-130			06/19/2019	
Diethyl ether	48.9	5.0	ug/L	50.00	ND	97.8	70-130			06/19/2019	



MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY 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 B9F1906 - Method: 5030

Prepared: 06/19/2019

Matrix Spike (B9F1906-MS1)

Source: 1906161-01

Diisopropyl Ether	49.6	5.0	ug/L	50.00	ND	99.2	70-130			06/19/2019	
Ethylbenzene	55.1	1.0	ug/L	50.00	1.05	108	70-130			06/19/2019	
Ethyltertiarybutylether	50.0	5.0	ug/L	50.00	ND	99.9	70-130			06/19/2019	
Hexachloroethane	48.3	5.0	ug/L	50.00	ND	96.5	70-130			06/19/2019	
Hexane	54.3	1.0	ug/L	50.00	ND	109	70-130			06/19/2019	
Isopropylbenzene	55.3	1.0	ug/L	50.00	ND	111	70-130			06/19/2019	
m & p - Xylene	109	2.0	ug/L	100.0	ND	109	70-130			06/19/2019	
Methylene chloride	48.5	5.0	ug/L	50.00	ND	97.0	70-130			06/19/2019	
Methyltertiarybutylether	53.0	1.0	ug/L	50.00	ND	106	70-130			06/19/2019	
Naphthalene	54.1	5.0	ug/L	50.00	ND	108	70-130			06/19/2019	X
n-Butylbenzene	54.8	1.0	ug/L	50.00	ND	110	70-130			06/19/2019	
n-Propylbenzene	53.7	1.0	ug/L	50.00	ND	107	70-130			06/19/2019	
o-Xylene	53.1	1.0	ug/L	50.00	ND	106	70-130			06/19/2019	
sec-Butylbenzene	59.9	1.0	ug/L	50.00	ND	120	70-130			06/19/2019	
Styrene	55.8	1.0	ug/L	50.00	ND	112	70-130			06/19/2019	
tert-Butylbenzene	55.4	1.0	ug/L	50.00	ND	111	70-130			06/19/2019	
tertiary Butyl Alcohol	242	50	ug/L	250.0	ND	96.7	70-130			06/19/2019	
tertiaryAmylmethylether	51.4	5.0	ug/L	50.00	ND	103	70-130			06/19/2019	
Tetrachloroethylene	55.2	1.0	ug/L	50.00	ND	110	70-130			06/19/2019	
Tetrahydrofuran	47.6	5.0	ug/L	50.00	ND	95.2	70-130			06/19/2019	
Toluene	52.3	1.0	ug/L	50.00	ND	105	70-130			06/19/2019	
trans-1,2-Dichloroethylene	50.7	1.0	ug/L	50.00	ND	101	70-130			06/19/2019	
trans-1,3-Dichloropropylene	46.3	1.0	ug/L	50.00	ND	92.6	70-130			06/19/2019	
Trichloroethylene	54.0	1.0	ug/L	50.00	ND	108	70-130			06/19/2019	
Trichlorofluoromethane	57.1	1.0	ug/L	50.00	ND	114	70-130			06/19/2019	
Vinyl chloride	54.3	1.0	ug/L	50.00	ND	109	70-130			06/19/2019	
Surrogate: Bromofluorobenzene	51.3		ug/L	50.00		103	85-115			06/19/2019	
Surrogate: Dibromofluoromethane	50.6		ug/L	50.00		101	82.7-115			06/19/2019	
Surrogate: Toluene-d8	51.0		ug/L	50.00		102	85-115			06/19/2019	

Matrix Spike Dup (B9F1906-MSD1)

Source: 1906161-01

1,1,1,2-Tetrachloroethane	51.1	1.0	ug/L	50.00	ND	102	70-130	3.26	30	06/19/2019	
1,1,1-Trichloroethane	50.3	1.0	ug/L	50.00	ND	101	70-130	4.70	30	06/19/2019	
1,1,2,2-Tetrachloroethane	51.5	1.0	ug/L	50.00	ND	103	70-130	0.646	30	06/19/2019	
1,1,2-Trichloroethane	50.2	1.0	ug/L	50.00	ND	100	70-130	0.153	30	06/19/2019	
1,1-Dichloroethane	48.8	1.0	ug/L	50.00	ND	97.5	70-130	4.89	30	06/19/2019	
1,1-Dichloroethylene	47.4	1.0	ug/L	50.00	ND	94.8	70-130	8.20	30	06/19/2019	
1,2,3-Trichlorobenzene	53.1	5.0	ug/L	50.00	ND	106	70-130	0.00791	30	06/19/2019	
1,2,3-Trichloropropane	51.3	1.0	ug/L	50.00	ND	103	70-130	0.191	30	06/19/2019	
1,2,3-Trimethylbenzene	51.2	1.0	ug/L	50.00	ND	102	70-130	4.06	30	06/19/2019	
1,2,4-Trichlorobenzene	52.9	5.0	ug/L	50.00	ND	106	70-130	0.374	30	06/19/2019	
1,2,4-Trimethylbenzene	53.0	1.0	ug/L	50.00	ND	106	70-130	1.99	30	06/19/2019	
1,2-Dibromoethane	52.1	1.0	ug/L	50.00	ND	104	70-130	1.79	30	06/19/2019	
1,2-Dichlorobenzene	51.7	1.0	ug/L	50.00	ND	103	70-130	2.04	30	06/19/2019	
1,2-Dichloroethane	51.9	1.0	ug/L	50.00	ND	104	70-130	1.49	30	06/19/2019	
1,2-Dichloropropane	50.3	1.0	ug/L	50.00	ND	101	70-130	2.80	30	06/19/2019	
1,3,5-Trimethylbenzene	52.3	1.0	ug/L	50.00	ND	105	70-130	4.28	30	06/19/2019	



MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY

MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY
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 B9F1906 - Method: 5030

Prepared: 06/19/2019

Matrix Spike Dup (B9F1906-MSD1)

Source: 1906161-01

1,3-Dichlorobenzene	52.5	1.0	ug/L	50.00	ND	105	70-130	1.73	30	06/19/2019	
1,4-Dichlorobenzene	50.9	1.0	ug/L	50.00	ND	102	70-130	1.33	30	06/19/2019	
2,2,4-Trimethylpentane	50.0	5.0	ug/L	50.00	ND	100	70-130	6.38	30	06/19/2019	
2-Butanone (MEK)	54.0	5.0	ug/L	50.00	ND	108	70-130	1.23	30	06/19/2019	
2-Methylnaphthalene	49.2	5.0	ug/L	50.00	ND	98.3	70-130	1.31	30	06/19/2019	X
2-Propanone (acetone)	51.2	20	ug/L	50.00	ND	102	70-130	2.37	30	06/19/2019	
4-Methyl-2-pentanone (MIBK)	50.8	5.0	ug/L	50.00	ND	102	70-130	0.798	30	06/19/2019	
Acrylonitrile	47.8	5.0	ug/L	50.00	ND	95.5	70-130	3.42	30	06/19/2019	
Benzene	50.3	1.0	ug/L	50.00	ND	101	70-130	3.70	30	06/19/2019	
Bromochloromethane	53.0	1.0	ug/L	50.00	ND	106	70-130	0.445	30	06/19/2019	
Bromodichloromethane	50.2	1.0	ug/L	50.00	ND	100	70-130	1.15	30	06/19/2019	
Bromoform	48.1	1.0	ug/L	50.00	ND	96.2	70-130	0.544	30	06/19/2019	
Bromomethane	53.2	5.0	ug/L	50.00	ND	106	70-130	20.6	30	06/19/2019	
Carbon disulfide	45.5	1.0	ug/L	50.00	ND	91.1	70-130	6.13	30	06/19/2019	
Carbon tetrachloride	52.8	1.0	ug/L	50.00	ND	106	70-130	4.30	30	06/19/2019	
Chlorobenzene	52.0	1.0	ug/L	50.00	ND	104	70-130	2.67	30	06/19/2019	
Chloroethane	51.4	5.0	ug/L	50.00	ND	103	70-130	4.60	30	06/19/2019	
Chloroform	48.7	1.0	ug/L	50.00	ND	97.4	70-130	5.56	30	06/19/2019	
Chloromethane	53.2	5.0	ug/L	50.00	ND	106	70-130	2.42	30	06/19/2019	
cis-1,2-Dichloroethylene	48.4	1.0	ug/L	50.00	ND	96.9	70-130	4.20	30	06/19/2019	
cis-1,3-Dichloropropylene	50.7	1.0	ug/L	50.00	ND	101	70-130	2.24	30	06/19/2019	
Cyclohexane	57.8	5.0	ug/L	50.00	ND	116	70-130	6.27	30	06/19/2019	
Dibromochloromethane	50.5	1.0	ug/L	50.00	ND	101	70-130	1.73	30	06/19/2019	
Dibromomethane	51.0	1.0	ug/L	50.00	ND	102	70-130	0.620	30	06/19/2019	
Dichlorodifluoromethane	60.3	5.0	ug/L	50.00	ND	121	70-130	6.73	30	06/19/2019	
Diethyl ether	49.1	5.0	ug/L	50.00	ND	98.2	70-130	0.433	30	06/19/2019	
Diisopropyl Ether	49.2	5.0	ug/L	50.00	ND	98.3	70-130	0.882	30	06/19/2019	
Ethylbenzene	52.9	1.0	ug/L	50.00	1.05	104	70-130	4.02	30	06/19/2019	
Ethyltertiarybutylether	49.7	5.0	ug/L	50.00	ND	99.5	70-130	0.449	30	06/19/2019	
Hexachloroethane	46.1	5.0	ug/L	50.00	ND	92.3	70-130	4.48	30	06/19/2019	
Hexane	49.9	1.0	ug/L	50.00	ND	99.8	70-130	8.37	30	06/19/2019	
Isopropylbenzene	53.1	1.0	ug/L	50.00	ND	106	70-130	4.02	30	06/19/2019	
m & p - Xylene	105	2.0	ug/L	100.0	ND	105	70-130	4.06	30	06/19/2019	
Methylene chloride	47.7	5.0	ug/L	50.00	ND	95.4	70-130	1.64	30	06/19/2019	
Methyltertiarybutylether	52.7	1.0	ug/L	50.00	ND	105	70-130	0.580	30	06/19/2019	
Naphthalene	53.9	5.0	ug/L	50.00	ND	108	70-130	0.508	30	06/19/2019	X
n-Butylbenzene	52.7	1.0	ug/L	50.00	ND	105	70-130	3.75	30	06/19/2019	
n-Propylbenzene	52.2	1.0	ug/L	50.00	ND	104	70-130	2.83	30	06/19/2019	
o-Xylene	51.6	1.0	ug/L	50.00	ND	103	70-130	2.91	30	06/19/2019	
sec-Butylbenzene	57.6	1.0	ug/L	50.00	ND	115	70-130	3.99	30	06/19/2019	
Styrene	53.9	1.0	ug/L	50.00	ND	108	70-130	3.54	30	06/19/2019	
tert-Butylbenzene	53.6	1.0	ug/L	50.00	ND	107	70-130	3.21	30	06/19/2019	
tertiary Butyl Alcohol	245	50	ug/L	250.0	ND	97.9	70-130	1.14	30	06/19/2019	
tertiaryAmylmeylether	51.7	5.0	ug/L	50.00	ND	103	70-130	0.670	30	06/19/2019	
Tetrachloroethylene	53.1	1.0	ug/L	50.00	ND	106	70-130	3.89	30	06/19/2019	
Tetrahydrofuran	49.8	5.0	ug/L	50.00	ND	99.6	70-130	4.60	30	06/19/2019	
Toluene	50.7	1.0	ug/L	50.00	ND	101	70-130	3.25	30	06/19/2019	



MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY

MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY
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 B9F1906 - Method: 5030

Prepared: 06/19/2019

Matrix Spike Dup (B9F1906-MSD1)

Source: 1906161-01

trans-1,2-Dichloroethylene	48.4	1.0	ug/L	50.00	ND	96.8	70-130	4.68	30	06/19/2019	
trans-1,3-Dichloropropylene	46.5	1.0	ug/L	50.00	ND	93.0	70-130	0.430	30	06/19/2019	
Trichloroethylene	51.9	1.0	ug/L	50.00	ND	104	70-130	3.90	30	06/19/2019	
Trichlorofluoromethane	53.1	1.0	ug/L	50.00	ND	106	70-130	7.37	30	06/19/2019	
Vinyl chloride	51.5	1.0	ug/L	50.00	ND	103	70-130	5.39	30	06/19/2019	
Surrogate: Bromofluorobenzene	49.2		ug/L	50.00		98.4	85-115			06/19/2019	
Surrogate: Dibromofluoromethane	49.1		ug/L	50.00		98.3	82.7-115			06/19/2019	
Surrogate: Toluene-d8	49.4		ug/L	50.00		98.9	85-115			06/19/2019	

Batch B9F1908 - Method: 5030

Prepared: 06/19/2019

Blank (B9F1908-BLK1)

1,1,1,2-Tetrachloroethane	ND	1.0	ug/L							06/19/2019	
1,1,1-Trichloroethane	ND	1.0	ug/L							06/19/2019	
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L							06/19/2019	
1,1,2-Trichloroethane	ND	1.0	ug/L							06/19/2019	
1,1-Dichloroethane	ND	1.0	ug/L							06/19/2019	
1,1-Dichloroethylene	ND	1.0	ug/L							06/19/2019	
1,2,3-Trichlorobenzene	ND	5.0	ug/L							06/19/2019	
1,2,3-Trichloropropane	ND	1.0	ug/L							06/19/2019	
1,2,3-Trimethylbenzene	ND	1.0	ug/L							06/19/2019	
1,2,4-Trichlorobenzene	ND	5.0	ug/L							06/19/2019	
1,2,4-Trimethylbenzene	ND	1.0	ug/L							06/19/2019	
1,2-Dibromoethane	ND	1.0	ug/L							06/19/2019	
1,2-Dichlorobenzene	ND	1.0	ug/L							06/19/2019	
1,2-Dichloroethane	ND	1.0	ug/L							06/19/2019	
1,2-Dichloropropane	ND	1.0	ug/L							06/19/2019	
1,3,5-Trimethylbenzene	ND	1.0	ug/L							06/19/2019	
1,3-Dichlorobenzene	ND	1.0	ug/L							06/19/2019	
1,4-Dichlorobenzene	ND	1.0	ug/L							06/19/2019	
2,2,4-Trimethylpentane	ND	5.0	ug/L							06/19/2019	
2-Butanone (MEK)	ND	5.0	ug/L							06/19/2019	
2-Methylnaphthalene	ND	5.0	ug/L							06/19/2019	X
2-Propanone (acetone)	ND	20	ug/L							06/19/2019	
4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L							06/19/2019	
Acrylonitrile	ND	5.0	ug/L							06/19/2019	
Benzene	ND	1.0	ug/L							06/19/2019	
Bromochloromethane	ND	1.0	ug/L							06/19/2019	
Bromodichloromethane	ND	1.0	ug/L							06/19/2019	
Bromoform	ND	1.0	ug/L							06/19/2019	
Bromomethane	ND	5.0	ug/L							06/19/2019	
Carbon disulfide	ND	1.0	ug/L							06/19/2019	
Carbon tetrachloride	ND	1.0	ug/L							06/19/2019	
Chlorobenzene	ND	1.0	ug/L							06/19/2019	
Chloroethane	ND	5.0	ug/L							06/19/2019	



MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY

MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY
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 B9F1908 - Method: 5030

Prepared: 06/19/2019

Blank (B9F1908-BLK1)

Chloroform	ND	1.0	ug/L							06/19/2019	
Chloromethane	ND	5.0	ug/L							06/19/2019	
cis-1,2-Dichloroethylene	ND	1.0	ug/L							06/19/2019	
cis-1,3-Dichloropropylene	ND	1.0	ug/L							06/19/2019	
Cyclohexane	ND	5.0	ug/L							06/19/2019	
Dibromochloromethane	ND	1.0	ug/L							06/19/2019	
Dibromomethane	ND	1.0	ug/L							06/19/2019	
Dichlorodifluoromethane	ND	5.0	ug/L							06/19/2019	
Diethyl ether	ND	5.0	ug/L							06/19/2019	
Diisopropyl Ether	ND	5.0	ug/L							06/19/2019	
Ethylbenzene	ND	1.0	ug/L							06/19/2019	
Ethyltertiarybutylether	ND	5.0	ug/L							06/19/2019	
Hexachloroethane	ND	5.0	ug/L							06/19/2019	
Hexane	ND	1.0	ug/L							06/19/2019	
Isopropylbenzene	ND	1.0	ug/L							06/19/2019	
m & p - Xylene	ND	2.0	ug/L							06/19/2019	
Methylene chloride	ND	5.0	ug/L							06/19/2019	
Methyltertiarybutylether	ND	1.0	ug/L							06/19/2019	
Naphthalene	ND	5.0	ug/L							06/19/2019	X
n-Butylbenzene	ND	1.0	ug/L							06/19/2019	
n-Propylbenzene	ND	1.0	ug/L							06/19/2019	
o-Xylene	ND	1.0	ug/L							06/19/2019	
sec-Butylbenzene	ND	1.0	ug/L							06/19/2019	
Styrene	ND	1.0	ug/L							06/19/2019	
tert-Butylbenzene	ND	1.0	ug/L							06/19/2019	
tertiary Butyl Alcohol	ND	50	ug/L							06/19/2019	
tertiaryAmylmeylether	ND	5.0	ug/L							06/19/2019	
Tetrachloroethylene	ND	1.0	ug/L							06/19/2019	
Tetrahydrofuran	ND	5.0	ug/L							06/19/2019	
Toluene	ND	1.0	ug/L							06/19/2019	
trans-1,2-Dichloroethylene	ND	1.0	ug/L							06/19/2019	
trans-1,3-Dichloropropylene	ND	1.0	ug/L							06/19/2019	
Trichloroethylene	ND	1.0	ug/L							06/19/2019	
Trichlorofluoromethane	ND	1.0	ug/L							06/19/2019	
Vinyl chloride	ND	1.0	ug/L							06/19/2019	
Surrogate: Bromofluorobenzene	49.2		ug/L	50.00		98.5	85-115			06/19/2019	
Surrogate: Dibromofluoromethane	49.2		ug/L	50.00		98.4	82.7-115			06/19/2019	
Surrogate: Toluene-d8	47.5		ug/L	50.00		94.9	85-115			06/19/2019	

LCS (B9F1908-BS1)

1,1,1,2-Tetrachloroethane	50.6	1.0	ug/L	50.00		101	70-130			06/19/2019	
1,1,1-Trichloroethane	48.0	1.0	ug/L	50.00		96.0	70-130			06/19/2019	
1,1,2,2-Tetrachloroethane	50.5	1.0	ug/L	50.00		101	70-130			06/19/2019	
1,1,2-Trichloroethane	49.0	1.0	ug/L	50.00		97.9	70-130			06/19/2019	
1,1-Dichloroethane	47.2	1.0	ug/L	50.00		94.3	70-130			06/19/2019	
1,1-Dichloroethylene	45.9	1.0	ug/L	50.00		91.9	70-130			06/19/2019	
1,2,3-Trichlorobenzene	54.0	5.0	ug/L	50.00		108	70-130			06/19/2019	



MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY

MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY
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 B9F1908 - Method: 5030

Prepared: 06/19/2019

LCS (B9F1908-BS1)

1,2,3-Trichloropropane	50.3	1.0	ug/L	50.00		101	70-130			06/19/2019	
1,2,3-Trimethylbenzene	51.4	1.0	ug/L	50.00		103	70-130			06/19/2019	
1,2,4-Trichlorobenzene	52.5	5.0	ug/L	50.00		105	70-130			06/19/2019	
1,2,4-Trimethylbenzene	52.5	1.0	ug/L	50.00		105	70-130			06/19/2019	
1,2-Dibromoethane	50.7	1.0	ug/L	50.00		101	70-130			06/19/2019	
1,2-Dichlorobenzene	51.7	1.0	ug/L	50.00		103	70-130			06/19/2019	
1,2-Dichloroethane	50.1	1.0	ug/L	50.00		100	70-130			06/19/2019	
1,2-Dichloropropane	49.8	1.0	ug/L	50.00		99.7	70-130			06/19/2019	
1,3,5-Trimethylbenzene	51.4	1.0	ug/L	50.00		103	70-130			06/19/2019	
1,3-Dichlorobenzene	51.5	1.0	ug/L	50.00		103	70-130			06/19/2019	
1,4-Dichlorobenzene	50.5	1.0	ug/L	50.00		101	70-130			06/19/2019	
2,2,4-Trimethylpentane	47.2	5.0	ug/L	50.00		94.4	70-130			06/19/2019	
2-Butanone (MEK)	52.3	5.0	ug/L	50.00		105	70-130			06/19/2019	
2-Methylnaphthalene	49.6	5.0	ug/L	50.00		99.2	70-130			06/19/2019	X
2-Propanone (acetone)	48.6	20	ug/L	50.00		97.1	70-130			06/19/2019	
4-Methyl-2-pentanone (MIBK)	49.7	5.0	ug/L	50.00		99.3	70-130			06/19/2019	
Acrylonitrile	47.3	5.0	ug/L	50.00		94.5	70-130			06/19/2019	
Benzene	48.6	1.0	ug/L	50.00		97.2	70-130			06/19/2019	
Bromochloromethane	51.6	1.0	ug/L	50.00		103	70-130			06/19/2019	
Bromodichloromethane	48.5	1.0	ug/L	50.00		96.9	70-130			06/19/2019	
Bromoform	48.1	1.0	ug/L	50.00		96.3	70-130			06/19/2019	
Bromomethane	53.0	5.0	ug/L	50.00		106	70-130			06/19/2019	
Carbon disulfide	44.8	1.0	ug/L	50.00		89.5	70-130			06/19/2019	
Carbon tetrachloride	50.1	1.0	ug/L	50.00		100	70-130			06/19/2019	
Chlorobenzene	50.5	1.0	ug/L	50.00		101	70-130			06/19/2019	
Chloroethane	48.6	5.0	ug/L	50.00		97.1	70-130			06/19/2019	
Chloroform	47.2	1.0	ug/L	50.00		94.5	70-130			06/19/2019	
Chloromethane	51.2	5.0	ug/L	50.00		102	70-130			06/19/2019	
cis-1,2-Dichloroethylene	47.5	1.0	ug/L	50.00		95.1	70-130			06/19/2019	
cis-1,3-Dichloropropylene	50.4	1.0	ug/L	50.00		101	70-130			06/19/2019	
Cyclohexane	52.8	5.0	ug/L	50.00		106	70-130			06/19/2019	
Dibromochloromethane	50.5	1.0	ug/L	50.00		101	70-130			06/19/2019	
Dibromomethane	50.0	1.0	ug/L	50.00		100	70-130			06/19/2019	
Dichlorodifluoromethane	55.4	5.0	ug/L	50.00		111	70-130			06/19/2019	
Diethyl ether	46.9	5.0	ug/L	50.00		93.8	70-130			06/19/2019	
Diisopropyl Ether	47.5	5.0	ug/L	50.00		95.0	70-130			06/19/2019	
Ethylbenzene	50.6	1.0	ug/L	50.00		101	70-130			06/19/2019	
Ethyltertiarybutylether	47.9	5.0	ug/L	50.00		95.8	70-130			06/19/2019	
Hexachloroethane	46.3	5.0	ug/L	50.00		92.7	70-130			06/19/2019	
Hexane	47.5	1.0	ug/L	50.00		95.0	70-130			06/19/2019	
Isopropylbenzene	51.3	1.0	ug/L	50.00		103	70-130			06/19/2019	
m & p - Xylene	102	2.0	ug/L	100.0		102	70-130			06/19/2019	
Methylene chloride	46.0	5.0	ug/L	50.00		92.1	70-130			06/19/2019	
Methyltertiarybutylether	51.7	1.0	ug/L	50.00		103	70-130			06/19/2019	
Naphthalene	54.1	5.0	ug/L	50.00		108	70-130			06/19/2019	X
n-Butylbenzene	51.8	1.0	ug/L	50.00		104	70-130			06/19/2019	
n-Propylbenzene	50.5	1.0	ug/L	50.00		101	70-130			06/19/2019	



MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY 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 B9F1908 - Method: 5030

Prepared: 06/19/2019

LCS (B9F1908-BS1)

o-Xylene	50.2	1.0	ug/L	50.00		100	70-130			06/19/2019	
sec-Butylbenzene	55.7	1.0	ug/L	50.00		111	70-130			06/19/2019	
Styrene	49.3	1.0	ug/L	50.00		98.5	70-130			06/19/2019	
tert-Butylbenzene	51.3	1.0	ug/L	50.00		103	70-130			06/19/2019	
tertiary Butyl Alcohol	239	50	ug/L	250.0		95.4	70-130			06/19/2019	
tertiaryAmylmethylether	50.4	5.0	ug/L	50.00		101	70-130			06/19/2019	
Tetrachloroethylene	50.6	1.0	ug/L	50.00		101	70-130			06/19/2019	
Tetrahydrofuran	48.7	5.0	ug/L	50.00		97.3	70-130			06/19/2019	
Toluene	48.5	1.0	ug/L	50.00		96.9	70-130			06/19/2019	
trans-1,2-Dichloroethylene	46.4	1.0	ug/L	50.00		92.8	70-130			06/19/2019	
trans-1,3-Dichloropropylene	46.3	1.0	ug/L	50.00		92.5	70-130			06/19/2019	
Trichloroethylene	49.1	1.0	ug/L	50.00		98.2	70-130			06/19/2019	
Trichlorofluoromethane	49.3	1.0	ug/L	50.00		98.6	70-130			06/19/2019	
Vinyl chloride	50.3	1.0	ug/L	50.00		101	70-130			06/19/2019	
Surrogate: Bromofluorobenzene	50.0		ug/L	50.00		100	85-115			06/19/2019	
Surrogate: Dibromofluoromethane	49.4		ug/L	50.00		98.8	82.7-115			06/19/2019	
Surrogate: Toluene-d8	49.6		ug/L	50.00		99.1	85-115			06/19/2019	

Matrix Spike (B9F1908-MS1)

Source: 1906163-01

1,1,1,2-Tetrachloroethane	51.9	1.0	ug/L	50.00	ND	104	70-130			06/20/2019	
1,1,1-Trichloroethane	52.0	1.0	ug/L	50.00	ND	104	70-130			06/20/2019	
1,1,2,2-Tetrachloroethane	51.2	1.0	ug/L	50.00	ND	102	70-130			06/20/2019	
1,1,2-Trichloroethane	49.0	1.0	ug/L	50.00	ND	98.0	70-130			06/20/2019	
1,1-Dichloroethane	49.7	1.0	ug/L	50.00	ND	99.4	70-130			06/20/2019	
1,1-Dichloroethylene	49.1	1.0	ug/L	50.00	ND	98.2	70-130			06/20/2019	
1,2,3-Trichlorobenzene	53.5	5.0	ug/L	50.00	ND	107	70-130			06/20/2019	
1,2,3-Trichloropropane	50.7	1.0	ug/L	50.00	ND	101	70-130			06/20/2019	
1,2,3-Trimethylbenzene	52.7	1.0	ug/L	50.00	ND	105	70-130			06/20/2019	
1,2,4-Trichlorobenzene	51.8	5.0	ug/L	50.00	ND	104	70-130			06/20/2019	
1,2,4-Trimethylbenzene	53.3	1.0	ug/L	50.00	ND	107	70-130			06/20/2019	
1,2-Dibromoethane	51.0	1.0	ug/L	50.00	ND	102	70-130			06/20/2019	
1,2-Dichlorobenzene	52.2	1.0	ug/L	50.00	ND	104	70-130			06/20/2019	
1,2-Dichloroethane	51.9	1.0	ug/L	50.00	ND	104	70-130			06/20/2019	
1,2-Dichloropropane	50.8	1.0	ug/L	50.00	ND	102	70-130			06/20/2019	
1,3,5-Trimethylbenzene	53.7	1.0	ug/L	50.00	ND	107	70-130			06/20/2019	
1,3-Dichlorobenzene	53.5	1.0	ug/L	50.00	ND	107	70-130			06/20/2019	
1,4-Dichlorobenzene	51.7	1.0	ug/L	50.00	ND	103	70-130			06/20/2019	
2,2,4-Trimethylpentane	48.9	5.0	ug/L	50.00	ND	97.9	70-130			06/20/2019	
2-Butanone (MEK)	54.7	5.0	ug/L	50.00	ND	109	70-130			06/20/2019	
2-Methylnaphthalene	48.2	5.0	ug/L	50.00	ND	96.4	70-130			06/20/2019	X
2-Propanone (acetone)	53.7	20	ug/L	50.00	ND	107	70-130			06/20/2019	
4-Methyl-2-pentanone (MIBK)	51.9	5.0	ug/L	50.00	ND	104	70-130			06/20/2019	
Acrylonitrile	48.3	5.0	ug/L	50.00	ND	96.5	70-130			06/20/2019	
Benzene	51.7	1.0	ug/L	50.00	ND	103	70-130			06/20/2019	
Bromochloromethane	52.9	1.0	ug/L	50.00	ND	106	70-130			06/20/2019	
Bromodichloromethane	50.0	1.0	ug/L	50.00	ND	100	70-130			06/20/2019	
Bromoform	49.5	1.0	ug/L	50.00	ND	99.0	70-130			06/20/2019	



MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY 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 B9F1908 - Method: 5030

Prepared: 06/20/2019

Matrix Spike (B9F1908-MS1)

Source: 1906163-01

Bromomethane	59.2	5.0	ug/L	50.00	ND	118	70-130			06/20/2019	
Carbon disulfide	49.9	1.0	ug/L	50.00	ND	99.8	70-130			06/20/2019	
Carbon tetrachloride	55.1	1.0	ug/L	50.00	ND	110	70-130			06/20/2019	
Chlorobenzene	52.4	1.0	ug/L	50.00	ND	105	70-130			06/20/2019	
Chloroethane	53.5	5.0	ug/L	50.00	ND	107	70-130			06/20/2019	
Chloroform	50.7	1.0	ug/L	50.00	ND	101	70-130			06/20/2019	
Chloromethane	54.0	5.0	ug/L	50.00	ND	108	70-130			06/20/2019	
cis-1,2-Dichloroethylene	50.3	1.0	ug/L	50.00	ND	101	70-130			06/20/2019	
cis-1,3-Dichloropropylene	49.5	1.0	ug/L	50.00	ND	99.0	70-130			06/20/2019	
Cyclohexane	58.5	5.0	ug/L	50.00	ND	117	70-130			06/20/2019	
Dibromochloromethane	50.7	1.0	ug/L	50.00	ND	101	70-130			06/20/2019	
Dibromomethane	51.0	1.0	ug/L	50.00	ND	102	70-130			06/20/2019	
Dichlorodifluoromethane	60.3	5.0	ug/L	50.00	ND	121	70-130			06/20/2019	
Diethyl ether	47.9	5.0	ug/L	50.00	ND	95.8	70-130			06/20/2019	
Diisopropyl Ether	48.1	5.0	ug/L	50.00	ND	96.3	70-130			06/20/2019	
Ethylbenzene	52.6	1.0	ug/L	50.00	ND	105	70-130			06/20/2019	
Ethyltertiarybutylether	47.6	5.0	ug/L	50.00	ND	95.3	70-130			06/20/2019	
Hexachloroethane	49.1	5.0	ug/L	50.00	ND	98.2	70-130			06/20/2019	
Hexane	49.8	1.0	ug/L	50.00	ND	99.5	70-130			06/20/2019	
Isopropylbenzene	54.6	1.0	ug/L	50.00	ND	109	70-130			06/20/2019	
m & p - Xylene	107	2.0	ug/L	100.0	ND	107	70-130			06/20/2019	
Methylene chloride	47.6	5.0	ug/L	50.00	ND	95.2	70-130			06/20/2019	
Methyltertiarybutylether	51.3	1.0	ug/L	50.00	ND	103	70-130			06/20/2019	
Naphthalene	53.7	5.0	ug/L	50.00	ND	107	70-130			06/20/2019	X
n-Butylbenzene	54.7	1.0	ug/L	50.00	ND	109	70-130			06/20/2019	
n-Propylbenzene	53.4	1.0	ug/L	50.00	ND	107	70-130			06/20/2019	
o-Xylene	52.4	1.0	ug/L	50.00	ND	105	70-130			06/20/2019	
sec-Butylbenzene	59.5	1.0	ug/L	50.00	ND	119	70-130			06/20/2019	
Styrene	54.3	1.0	ug/L	50.00	ND	109	70-130			06/20/2019	
tert-Butylbenzene	55.1	1.0	ug/L	50.00	ND	110	70-130			06/20/2019	
tertiary Butyl Alcohol	235	50	ug/L	250.0	ND	94.0	70-130			06/20/2019	
tertiaryAmylmethylether	49.6	5.0	ug/L	50.00	ND	99.2	70-130			06/20/2019	
Tetrachloroethylene	54.1	1.0	ug/L	50.00	ND	108	70-130			06/20/2019	
Tetrahydrofuran	47.5	5.0	ug/L	50.00	ND	95.1	70-130			06/20/2019	
Toluene	51.4	1.0	ug/L	50.00	ND	103	70-130			06/20/2019	
trans-1,2-Dichloroethylene	50.2	1.0	ug/L	50.00	ND	100	70-130			06/20/2019	
trans-1,3-Dichloropropylene	45.3	1.0	ug/L	50.00	ND	90.7	70-130			06/20/2019	
Trichloroethylene	53.6	1.0	ug/L	50.00	ND	107	70-130			06/20/2019	
Trichlorofluoromethane	55.9	1.0	ug/L	50.00	ND	112	70-130			06/20/2019	
Vinyl chloride	54.9	1.0	ug/L	50.00	ND	110	70-130			06/20/2019	
Surrogate: Bromofluorobenzene	50.2		ug/L	50.00		100	85-115			06/20/2019	
Surrogate: Dibromofluoromethane	50.0		ug/L	50.00		100	82.7-115			06/20/2019	
Surrogate: Toluene-d8	50.4		ug/L	50.00		101	85-115			06/20/2019	

Matrix Spike Dup (B9F1908-MSD1)

Source: 1906163-01

1,1,1,2-Tetrachloroethane	49.8	1.0	ug/L	50.00	ND	99.5	70-130	4.11	30	06/20/2019	
1,1,1-Trichloroethane	49.7	1.0	ug/L	50.00	ND	99.4	70-130	4.38	30	06/20/2019	



MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY

MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY
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 B9F1908 - Method: 5030

Prepared: 06/20/2019

Matrix Spike Dup (B9F1908-MSD1)

Source: 1906163-01

1,1,2,2-Tetrachloroethane	50.3	1.0	ug/L	50.00	ND	101	70-130	1.66	30	06/20/2019	
1,1,2-Trichloroethane	47.7	1.0	ug/L	50.00	ND	95.4	70-130	2.72	30	06/20/2019	
1,1-Dichloroethane	47.5	1.0	ug/L	50.00	ND	94.9	70-130	4.64	30	06/20/2019	
1,1-Dichloroethylene	47.4	1.0	ug/L	50.00	ND	94.8	70-130	3.54	30	06/20/2019	
1,2,3-Trichlorobenzene	52.5	5.0	ug/L	50.00	ND	105	70-130	1.87	30	06/20/2019	
1,2,3-Trichloropropane	49.9	1.0	ug/L	50.00	ND	99.8	70-130	1.66	30	06/20/2019	
1,2,3-Trimethylbenzene	49.6	1.0	ug/L	50.00	ND	99.1	70-130	6.15	30	06/20/2019	
1,2,4-Trichlorobenzene	49.8	5.0	ug/L	50.00	ND	99.6	70-130	3.90	30	06/20/2019	
1,2,4-Trimethylbenzene	50.0	1.0	ug/L	50.00	ND	100	70-130	6.43	30	06/20/2019	
1,2-Dibromoethane	50.0	1.0	ug/L	50.00	ND	100	70-130	2.07	30	06/20/2019	
1,2-Dichlorobenzene	50.1	1.0	ug/L	50.00	ND	100	70-130	4.20	30	06/20/2019	
1,2-Dichloroethane	50.2	1.0	ug/L	50.00	ND	100	70-130	3.45	30	06/20/2019	
1,2-Dichloropropane	48.7	1.0	ug/L	50.00	ND	97.3	70-130	4.20	30	06/20/2019	
1,3,5-Trimethylbenzene	51.1	1.0	ug/L	50.00	ND	102	70-130	4.93	30	06/20/2019	
1,3-Dichlorobenzene	50.2	1.0	ug/L	50.00	ND	100	70-130	6.36	30	06/20/2019	
1,4-Dichlorobenzene	49.0	1.0	ug/L	50.00	ND	97.9	70-130	5.37	30	06/20/2019	
2,2,4-Trimethylpentane	39.1	5.0	ug/L	50.00	ND	78.2	70-130	22.4	30	06/20/2019	
2-Butanone (MEK)	55.5	5.0	ug/L	50.00	ND	111	70-130	1.39	30	06/20/2019	
2-Methylnaphthalene	47.5	5.0	ug/L	50.00	ND	95.1	70-130	1.38	30	06/20/2019	X
2-Propanone (acetone)	53.7	20	ug/L	50.00	ND	107	70-130	0.0756	30	06/20/2019	
4-Methyl-2-pentanone (MIBK)	51.2	5.0	ug/L	50.00	ND	102	70-130	1.38	30	06/20/2019	
Acrylonitrile	45.6	5.0	ug/L	50.00	ND	91.2	70-130	5.65	30	06/20/2019	
Benzene	48.4	1.0	ug/L	50.00	ND	96.8	70-130	6.65	30	06/20/2019	
Bromochloromethane	52.6	1.0	ug/L	50.00	ND	105	70-130	0.661	30	06/20/2019	
Bromodichloromethane	48.1	1.0	ug/L	50.00	ND	96.3	70-130	3.83	30	06/20/2019	
Bromoform	47.1	1.0	ug/L	50.00	ND	94.1	70-130	5.03	30	06/20/2019	
Bromomethane	59.5	5.0	ug/L	50.00	ND	119	70-130	0.354	30	06/20/2019	
Carbon disulfide	45.5	1.0	ug/L	50.00	ND	91.0	70-130	9.16	30	06/20/2019	
Carbon tetrachloride	52.1	1.0	ug/L	50.00	ND	104	70-130	5.69	30	06/20/2019	
Chlorobenzene	50.1	1.0	ug/L	50.00	ND	100	70-130	4.50	30	06/20/2019	
Chloroethane	50.5	5.0	ug/L	50.00	ND	101	70-130	5.79	30	06/20/2019	
Chloroform	48.0	1.0	ug/L	50.00	ND	95.9	70-130	5.53	30	06/20/2019	
Chloromethane	51.8	5.0	ug/L	50.00	ND	104	70-130	4.13	30	06/20/2019	
cis-1,2-Dichloroethylene	48.0	1.0	ug/L	50.00	ND	96.1	70-130	4.60	30	06/20/2019	
cis-1,3-Dichloropropylene	48.4	1.0	ug/L	50.00	ND	96.9	70-130	2.16	30	06/20/2019	
Cyclohexane	52.9	5.0	ug/L	50.00	ND	106	70-130	10.0	30	06/20/2019	
Dibromochloromethane	48.9	1.0	ug/L	50.00	ND	97.7	70-130	3.62	30	06/20/2019	
Dibromomethane	50.2	1.0	ug/L	50.00	ND	100	70-130	1.60	30	06/20/2019	
Dichlorodifluoromethane	54.2	5.0	ug/L	50.00	ND	108	70-130	10.6	30	06/20/2019	
Diethyl ether	46.9	5.0	ug/L	50.00	ND	93.8	70-130	2.10	30	06/20/2019	
Diisopropyl Ether	47.4	5.0	ug/L	50.00	ND	94.8	70-130	1.58	30	06/20/2019	
Ethylbenzene	49.9	1.0	ug/L	50.00	ND	99.8	70-130	5.31	30	06/20/2019	
Ethyltertiarybutylether	46.1	5.0	ug/L	50.00	ND	92.2	70-130	3.28	30	06/20/2019	
Hexachloroethane	46.5	5.0	ug/L	50.00	ND	93.0	70-130	5.49	30	06/20/2019	
Hexane	41.0	1.0	ug/L	50.00	ND	81.9	70-130	19.4	30	06/20/2019	
Isopropylbenzene	51.1	1.0	ug/L	50.00	ND	102	70-130	6.49	30	06/20/2019	
m & p - Xylene	100	2.0	ug/L	100.0	ND	100	70-130	6.43	30	06/20/2019	



MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY

MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY
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 B9F1908 - Method: 5030

Prepared: 06/20/2019

Matrix Spike Dup (B9F1908-MSD1)

Source: 1906163-01

Methylene chloride	46.2	5.0	ug/L	50.00	ND	92.4	70-130	3.00	30	06/20/2019	
Methyltertiarybutylether	51.0	1.0	ug/L	50.00	ND	102	70-130	0.693	30	06/20/2019	
Naphthalene	52.0	5.0	ug/L	50.00	ND	104	70-130	3.24	30	06/20/2019	X
n-Butylbenzene	49.2	1.0	ug/L	50.00	ND	98.3	70-130	10.7	30	06/20/2019	
n-Propylbenzene	49.2	1.0	ug/L	50.00	ND	98.3	70-130	8.34	30	06/20/2019	
o-Xylene	49.9	1.0	ug/L	50.00	ND	99.8	70-130	4.97	30	06/20/2019	
sec-Butylbenzene	55.8	1.0	ug/L	50.00	ND	112	70-130	6.43	30	06/20/2019	
Styrene	51.5	1.0	ug/L	50.00	ND	103	70-130	5.23	30	06/20/2019	
tert-Butylbenzene	51.7	1.0	ug/L	50.00	ND	103	70-130	6.39	30	06/20/2019	
tertiary Butyl Alcohol	241	50	ug/L	250.0	ND	96.3	70-130	2.43	30	06/20/2019	
tertiaryAmylmehtylether	49.0	5.0	ug/L	50.00	ND	98.0	70-130	1.21	30	06/20/2019	
Tetrachloroethylene	49.3	1.0	ug/L	50.00	ND	98.6	70-130	9.20	30	06/20/2019	
Tetrahydrofuran	50.0	5.0	ug/L	50.00	ND	100	70-130	5.08	30	06/20/2019	
Toluene	48.4	1.0	ug/L	50.00	ND	96.8	70-130	6.07	30	06/20/2019	
trans-1,2-Dichloroethylene	47.4	1.0	ug/L	50.00	ND	94.8	70-130	5.78	30	06/20/2019	
trans-1,3-Dichloropropylene	44.7	1.0	ug/L	50.00	ND	89.5	70-130	1.35	30	06/20/2019	
Trichloroethylene	49.7	1.0	ug/L	50.00	ND	99.4	70-130	7.55	30	06/20/2019	
Trichlorofluoromethane	51.3	1.0	ug/L	50.00	ND	103	70-130	8.63	30	06/20/2019	
Vinyl chloride	52.5	1.0	ug/L	50.00	ND	105	70-130	4.32	30	06/20/2019	
Surrogate: Bromofluorobenzene	50.0		ug/L	50.00		100	85-115			06/20/2019	
Surrogate: Dibromofluoromethane	50.1		ug/L	50.00		100	82.7-115			06/20/2019	
Surrogate: Toluene-d8	49.8		ug/L	50.00		99.6	85-115			06/20/2019	



MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY

MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY
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 B9F2009 - Method: 5030				Prepared: 06/19/2019							
Blank (B9F2009-BLK1)											
1,4-dioxane	ND	1.0	ug/L							06/19/2019	
LCS (B9F2009-BS1)											
1,4-dioxane	10.8	1.0	ug/L	10.00		108	70-130			06/19/2019	
Matrix Spike (B9F2009-MS1) Source: 1906161-05											
1,4-dioxane	11.0	1.0	ug/L	10.00	1.01	99.7	70-130			06/19/2019	
Matrix Spike Dup (B9F2009-MSD1) Source: 1906161-05											
1,4-dioxane	10.4	1.0	ug/L	10.00	1.01	94.0	70-130	5.33	30	06/19/2019	



Analysis Request Sheet

Lab Work Order Number 1906161	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 NedrichS@michigan.gov
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
		Project Due Date
		Sample Collector Kevin Lund
		Sample Collector Phone 517-5131846
		Contract Firm
		Contract Firm Primary Contact
		Primary Contact Phone
		Accept Analysis hold time codes

Lab Use Only	Field Sample Identification	Collection Date	Collection Time	Container Count	Comments
01	Allen Creek/West Park SW	6/18/19	9:50	5	Please include QA/QC with Lab Data Report(s)
02	Allen Creek/Chapin-West Park	6/18/19	9:35	5	
03	Allen Creek/Maple Ridge-Arborview	6/18/19	10:00	3	
04	Allen Creek/Wildwood-Arborview	6/18/19	—	3	DRY-NO SAMPLE
05	Allen Creek/Murray-Washington	6/18/19	11:00	5	
06	Allen Creek/Eighth-Waterworks	6/18/19	10:45	5	
06	Allen Creek-Maryfield-Wildwood Park	6/18/19	10:25	3	

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 BTX/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 MD - Metals Dissolved Lab Filtration 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 LHG - Low Level Mercury Mercury Low Level - Hg 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) 1 2 3 4 5 6 7 8 9 10 (Field - Filtered & Preserved) GN Diss Org Carbon - DOC (LF) 1 2 3 4 5 6 7 8 9 10 (Lab - Filtered & Preserved) 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	Received By	Date / Time
	Print Name & Org. <i>Kevin Lund</i> Signature: <i>Kevin Lund</i>	<i>Melissa Smith</i>	6/18/19 1535
	Print Name & Org. Signature:		
Print Name & Org. Signature:			

SAFETY INFORMATION