LABORATORY ANALYTICAL REPORTS

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

14 November 2018

Work Order: 1809100

Price: $10,415.00

Amy Keranen
MDEQ-RRD-UP
1504 W. Washington St.
Marquette, MI 49855

RE: ABANDONED MINING WASTES-QMCP

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

Sincerely,

Kirby Shane
Laboratory Director

STATE OF MICHIGAN
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MDEQ-RRD-UP	Project: ABANDONED MINING WASTES-QMCP	
1504 W. Washington St.	Site Code: 31000098	**Reported:**
Marquette MI, 49855	Project Manager: Amy Keranen	11/14/2018

Analytical Report for Samples

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Qualifier
QMCP-SB49 0-6"	1809100-01	Soil/Sediment	09/10/2018	09/12/2018	
QMCP-SB49 6"-4'	1809100-02	Soil/Sediment	09/10/2018	09/12/2018	
QMCP-SB47 0-6"	1809100-03	Soil/Sediment	09/10/2018	09/12/2018	
QMCP-SB47 6"-5'	1809100-04	Soil/Sediment	09/10/2018	09/12/2018	
QMCP-SB50 0-2'	1809100-05	Soil/Sediment	09/10/2018	09/12/2018	
QMCP-SB46 0-4'	1809100-06	Soil/Sediment	09/10/2018	09/12/2018	
QMCP-SB45 0-6"	1809100-07	Soil/Sediment	09/10/2018	09/12/2018	
QMCP-SB45 6"-5'	1809100-08	Soil/Sediment	09/10/2018	09/12/2018	
QMCP-SB48 0-6"	1809100-09	Soil/Sediment	09/10/2018	09/12/2018	
QMCP-SB48 6"-5'	1809100-10	Soil/Sediment	09/10/2018	09/12/2018	
QMCP-SB44 0-6"	1809100-11	Soil/Sediment	09/10/2018	09/12/2018	
QMCP-SB44 6"-4'	1809100-12	Soil/Sediment	09/10/2018	09/12/2018	
QMCP-SB42 0-6"	1809100-13	Soil/Sediment	09/10/2018	09/12/2018	
QMCP-SB42 6"-12'	1809100-14	Soil/Sediment	09/10/2018	09/12/2018	
QMCP-SB41 0-6"	1809100-15	Soil/Sediment	09/10/2018	09/12/2018	
QMCP-SB41 6"-9'	1809100-16	Soil/Sediment	09/10/2018	09/12/2018	
QMCP-SB40 0-6"	1809100-17	Soil/Sediment	09/10/2018	09/12/2018	
QMCP-SB40 6"-5'	1809100-18	Soil/Sediment	09/10/2018	09/12/2018	

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Notes and Definitions

A11	Result is estimated due to high initial verification standard criteria failure.
A04	Result is estimated due to high matrix spike recovery.
A05	Result and reporting limit are estimated due to low continuing calibration standard criteria failure.
A06	Result is estimated due to high continuing calibration standard criteria failure.
A07	Result(s) and reporting limit(s) are estimated due to poor precision.
A08	Result(s) and reporting limits(s) are estimated due to low recovery of batch QC.
A02	Result is estimated due to high surrogate recovery.
A10	Result and reporting limit are estimated due to low initial verification standard criteria failure.
Y21	Reporting Limits (RL) raised due to matrix interference.
LRB	Laboratory reagent blank was greater than 2.2 times the MDL, or greater than 10% of the analyte level in the sample.
T	Reported value is less than the reporting limit (RL). Result is estimated.
X	Methods 8260 & 624 are used to analyze volatile organics that have boiling points below 200 ºC. 2-Methylnaphthalene & naphthalene have boiling points above 200 ºC and are better suited to analysis by methods 8270 & 625 as semivolatile organics.
Y11	Unidentified peaks present in sample.
Y17	Probable petroleum product(s) present.
Y20	Reporting Limits (RL) raised due to matrix.
A09	Result is estimated due to high recovery of batch quality control.
ND	Indicates compound analyzed for but not detected
RL	Reporting Limit
NA	Not Applicable
dry	Sample results reported on a dry weight basis

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Client ID: QMCP-SB49 0-6"

Lab ID: 1809100-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	57	ug/kg dry	50	09/14/18	B8I1431	8260	
71-55-6	1,1,1-Trichloroethane	ND	57	ug/kg dry	50	09/14/18	B8I1431	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	57	ug/kg dry	50	09/14/18	B8I1431	8260	
79-00-5	1,1,2-Trichloroethane	ND	57	ug/kg dry	50	09/14/18	B8I1431	8260	
75-34-3	1,1-Dichloroethane	ND	57	ug/kg dry	50	09/14/18	B8I1431	8260	
75-35-4	1,1-Dichloroethylene	ND	57	ug/kg dry	50	09/14/18	B8I1431	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	290	ug/kg dry	50	09/14/18	B8I1431	8260	
96-18-4	1,2,3-Trichloropropane	ND	57	ug/kg dry	50	09/14/18	B8I1431	8260	A05, A10
526-73-8	1,2,3-Trimethylbenzene	ND	57	ug/kg dry	50	09/14/18	B8I1431	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	290	ug/kg dry	50	09/14/18	B8I1431	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	57	ug/kg dry	50	09/14/18	B8I1431	8260	
106-93-4	1,2-Dibromoethane	ND	57	ug/kg dry	50	09/14/18	B8I1431	8260	
95-50-1	1,2-Dichlorobenzene	ND	57	ug/kg dry	50	09/14/18	B8I1431	8260	
107-06-2	1,2-Dichloroethane	ND	57	ug/kg dry	50	09/14/18	B8I1431	8260	
78-87-5	1,2-Dichloropropane	ND	57	ug/kg dry	50	09/14/18	B8I1431	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	57	ug/kg dry	50	09/14/18	B8I1431	8260	
541-73-1	1,3-Dichlorobenzene	ND	57	ug/kg dry	50	09/14/18	B8I1431	8260	
106-46-7	1,4-Dichlorobenzene	ND	57	ug/kg dry	50	09/14/18	B8I1431	8260	
540-84-1	2,2,4-Trimethylpentane	ND	290	ug/kg dry	50	09/14/18	B8I1431	8260	
78-93-3	2-Butanone (MEK)	ND	290	ug/kg dry	50	09/14/18	B8I1431	8260	
91-57-6	2-Methylnaphthalene	ND	290	ug/kg dry	50	09/14/18	B8I1431	8260	X
67-64-1	2-Propanone (acetone)	ND	1100	ug/kg dry	50	09/14/18	B8I1431	8260	A05
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	290	ug/kg dry	50	09/14/18	B8I1431	8260	
107-13-1	Acrylonitrile	ND	290	ug/kg dry	50	09/14/18	B8I1431	8260	
71-43-2	Benzene	ND	57	ug/kg dry	50	09/14/18	B8I1431	8260	
74-97-5	Bromochloromethane	ND	57	ug/kg dry	50	09/14/18	B8I1431	8260	
75-27-4	Bromodichloromethane	ND	57	ug/kg dry	50	09/14/18	B8I1431	8260	
75-25-2	Bromoform	ND	57	ug/kg dry	50	09/14/18	B8I1431	8260	
74-83-9	Bromomethane	ND	230	ug/kg dry	50	09/14/18	B8I1431	8260	
75-15-0	Carbon disulfide	ND	57	ug/kg dry	50	09/14/18	B8I1431	8260	
56-23-5	Carbon tetrachloride	ND	57	ug/kg dry	50	09/14/18	B8I1431	8260	
108-90-7	Chlorobenzene	ND	57	ug/kg dry	50	09/14/18	B8I1431	8260	
75-00-3	Chloroethane	ND	290	ug/kg dry	50	09/14/18	B8I1431	8260	
67-66-3	Chloroform	ND	57	ug/kg dry	50	09/14/18	B8I1431	8260	
74-87-3	Chloromethane	ND	290	ug/kg dry	50	09/14/18	B8I1431	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	57	ug/kg dry	50	09/14/18	B8I1431	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	57	ug/kg dry	50	09/14/18	B8I1431	8260	
110-82-7	Cyclohexane	ND	290	ug/kg dry	50	09/14/18	B8I1431	8260	
124-48-1	Dibromochloromethane	ND	57	ug/kg dry	50	09/14/18	B8I1431	8260	
74-95-3	Dibromomethane	ND	57	ug/kg dry	50	09/14/18	B8I1431	8260	

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Client ID: QMCP-SB49 0-6"

Lab ID: 1809100-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	290	ug/kg dry	50	09/14/18	B8I1431	8260	
60-29-7	Diethyl ether	ND	230	ug/kg dry	50	09/14/18	B8I1431	8260	
108-20-3	Diisopropyl Ether	ND	290	ug/kg dry	50	09/14/18	B8I1431	8260	
100-41-4	Ethylbenzene	ND	57	ug/kg dry	50	09/14/18	B8I1431	8260	
637-92-3	Ethyltertiarybutylether	ND	290	ug/kg dry	50	09/14/18	B8I1431	8260	
67-72-1	Hexachloroethane	ND	290	ug/kg dry	50	09/14/18	B8I1431	8260	
110-54-3	Hexane	ND	57	ug/kg dry	50	09/14/18	B8I1431	8260	
98-82-8	Isopropylbenzene	ND	57	ug/kg dry	50	09/14/18	B8I1431	8260	
1330-20-7	m & p - Xylene	ND	110	ug/kg dry	50	09/14/18	B8I1431	8260	
75-09-2	Methylene chloride	ND	110	ug/kg dry	50	09/14/18	B8I1431	8260	
1634-04-4	Methyltertiarybutylether	ND	57	ug/kg dry	50	09/14/18	B8I1431	8260	
91-20-3	Naphthalene	ND	290	ug/kg dry	50	09/14/18	B8I1431	8260	X
104-51-8	n-Butylbenzene	ND	57	ug/kg dry	50	09/14/18	B8I1431	8260	
103-65-1	n-Propylbenzene	ND	57	ug/kg dry	50	09/14/18	B8I1431	8260	
95-47-6	o-Xylene	ND	57	ug/kg dry	50	09/14/18	B8I1431	8260	
135-98-8	sec-Butylbenzene	ND	57	ug/kg dry	50	09/14/18	B8I1431	8260	
100-42-5	Styrene	ND	57	ug/kg dry	50	09/14/18	B8I1431	8260	
98-06-6	tert-Butylbenzene	ND	57	ug/kg dry	50	09/14/18	B8I1431	8260	
75-65-0	tertiary Butyl Alcohol	ND	2900	ug/kg dry	50	09/14/18	B8I1431	8260	
994-05-8	tertiaryAmylmethylether	ND	290	ug/kg dry	50	09/14/18	B8I1431	8260	
127-18-4	Tetrachloroethylene	ND	57	ug/kg dry	50	09/14/18	B8I1431	8260	
109-99-9	Tetrahydrofuran	ND	290	ug/kg dry	50	09/14/18	B8I1431	8260	
108-88-3	Toluene	ND	57	ug/kg dry	50	09/14/18	B8I1431	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	57	ug/kg dry	50	09/14/18	B8I1431	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	57	ug/kg dry	50	09/14/18	B8I1431	8260	
79-01-6	Trichloroethylene	ND	57	ug/kg dry	50	09/14/18	B8I1431	8260	
75-69-4	Trichlorofluoromethane	ND	57	ug/kg dry	50	09/14/18	B8I1431	8260	
75-01-4	Vinyl chloride	ND	57	ug/kg dry	50	09/14/18	B8I1431	8260	
Surrogate: Bromofluorobenzene			*109 %*	*40.3-194*		*09/14/18*	B8I1431	*8260*	
Surrogate: Dibromofluoromethane			*109 %*	*52.1-217*		*09/14/18*	B8I1431	*8260*	
Surrogate: Toluene-d8			*113 %*	*55.4-196*		*09/14/18*	B8I1431	*8260*	

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Lab ID: 1809100-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	2-Methylnaphthalene	ND	540	ug/kg dry	1	10/01/18	B8I1921	8270	
83-32-9	Acenaphthene	ND	220	ug/kg dry	1	10/01/18	B8I1921	8270	
208-96-8	Acenaphthylene	ND	220	ug/kg dry	1	10/01/18	B8I1921	8270	
120-12-7	Anthracene	ND	220	ug/kg dry	1	10/01/18	B8I1921	8270	
56-55-3	Benz[a]anthracene	ND	220	ug/kg dry	1	10/01/18	B8I1921	8270	
50-32-8	Benzo[a]pyrene	ND	430	ug/kg dry	1	10/01/18	B8I1921	8270	
205-99-2	Benzo[b]fluoranthene	ND	430	ug/kg dry	1	10/01/18	B8I1921	8270	
191-24-2	Benzo[g,h,i]perylene	ND	430	ug/kg dry	1	10/01/18	B8I1921	8270	
207-08-9	Benzo[k]fluoranthene	ND	430	ug/kg dry	1	10/01/18	B8I1921	8270	
218-01-9	Chrysene	ND	220	ug/kg dry	1	10/01/18	B8I1921	8270	
53-70-3	Dibenz[a,h]anthracene	ND	430	ug/kg dry	1	10/01/18	B8I1921	8270	
206-44-0	**Fluoranthene**	**270**	220	ug/kg dry	1	10/01/18	B8I1921	8270	
86-73-7	Fluorene	ND	220	ug/kg dry	1	10/01/18	B8I1921	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	430	ug/kg dry	1	10/01/18	B8I1921	8270	
91-20-3	Naphthalene	ND	220	ug/kg dry	1	10/01/18	B8I1921	8270	
85-01-8	Phenanthrene	ND	220	ug/kg dry	1	10/01/18	B8I1921	8270	
129-00-0	**Pyrene**	**230**	220	ug/kg dry	1	10/01/18	B8I1921	8270	
Surrogate: 2-Fluorobiphenyl			*84.3 %*	*32.9-115*		*10/01/18*	B8I1921	*8270*	
Surrogate: Nitrobenzene-d5			*73.2 %*	*31.8-115*		*10/01/18*	B8I1921	*8270*	
Surrogate: p-Terphenyl-d14			*98.9 %*	*38.5-115*		*10/01/18*	B8I1921	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	110	ug/kg dry	1	10/19/18	B8J1013	8081/8082	
11104-28-2	Aroclor 1221	ND	110	ug/kg dry	1	10/19/18	B8J1013	8081/8082	
11141-16-5	Aroclor 1232	ND	110	ug/kg dry	1	10/19/18	B8J1013	8081/8082	
53469-21-9	Aroclor 1242	ND	110	ug/kg dry	1	10/19/18	B8J1013	8081/8082	
12672-29-6	Aroclor 1248	ND	110	ug/kg dry	1	10/19/18	B8J1013	8081/8082	
11097-69-1	Aroclor 1254	ND	110	ug/kg dry	1	10/19/18	B8J1013	8081/8082	
11096-82-5	Aroclor 1260	ND	110	ug/kg dry	1	10/19/18	B8J1013	8081/8082	
37324-23-5	Aroclor 1262	ND	110	ug/kg dry	1	10/19/18	B8J1013	8081/8082	
11100-14-4	Aroclor 1268	ND	110	ug/kg dry	1	10/19/18	B8J1013	8081/8082	
Surrogate: Decachlorobiphenyl			*69.1 %*	*30-150*		*10/19/18*	B8J1013	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*68.8 %*	*30-150*		*10/19/18*	B8J1013	*8081/8082*	

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Client ID: QMCP-SB49 0-6"

Lab ID: 1809100-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**92.6**	0.1	%	1	09/18/18	B8I1426	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**3.5**	0.5	mg/kg dry	10	09/26/18	B8I2113	200.8	
7440-43-9	**Cadmium**	**0.3**	0.2	mg/kg dry	10	09/26/18	B8I2113	200.8	
7440-47-3	**Chromium**	**78**	2.0	mg/kg dry	10	09/26/18	B8I2113	200.8	
7440-50-8	**Copper**	**890**	1.0	mg/kg dry	10	09/26/18	B8I2113	200.8	
7439-92-1	**Lead**	**15**	1.0	mg/kg dry	10	09/26/18	B8I2113	200.8	
7439-96-5	**Manganese**	**510**	1.0	mg/kg dry	10	09/26/18	B8I2113	200.8	
7439-97-6	Mercury	ND	0.05	mg/kg dry	1	09/26/18	B8I2413	245.5	
7440-22-4	**Silver**	**0.6**	0.1	mg/kg dry	10	09/26/18	B8I2113	200.8	
7440-66-6	**Zinc**	**72**	1.0	mg/kg dry	10	09/26/18	B8I2113	200.8	

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Client ID: QMCP-SB49 6''-4'

Lab ID: 1809100-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	60	ug/kg dry	50	09/14/18	B8I1431	8260	
71-55-6	1,1,1-Trichloroethane	ND	60	ug/kg dry	50	09/14/18	B8I1431	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	60	ug/kg dry	50	09/14/18	B8I1431	8260	
79-00-5	1,1,2-Trichloroethane	ND	60	ug/kg dry	50	09/14/18	B8I1431	8260	
75-34-3	1,1-Dichloroethane	ND	60	ug/kg dry	50	09/14/18	B8I1431	8260	
75-35-4	1,1-Dichloroethylene	ND	60	ug/kg dry	50	09/14/18	B8I1431	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	300	ug/kg dry	50	09/14/18	B8I1431	8260	
96-18-4	1,2,3-Trichloropropane	ND	60	ug/kg dry	50	09/14/18	B8I1431	8260	A05, A10
526-73-8	1,2,3-Trimethylbenzene	ND	60	ug/kg dry	50	09/14/18	B8I1431	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	300	ug/kg dry	50	09/14/18	B8I1431	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	60	ug/kg dry	50	09/14/18	B8I1431	8260	
106-93-4	1,2-Dibromoethane	ND	60	ug/kg dry	50	09/14/18	B8I1431	8260	
95-50-1	1,2-Dichlorobenzene	ND	60	ug/kg dry	50	09/14/18	B8I1431	8260	
107-06-2	1,2-Dichloroethane	ND	60	ug/kg dry	50	09/14/18	B8I1431	8260	
78-87-5	1,2-Dichloropropane	ND	60	ug/kg dry	50	09/14/18	B8I1431	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	60	ug/kg dry	50	09/14/18	B8I1431	8260	
541-73-1	1,3-Dichlorobenzene	ND	60	ug/kg dry	50	09/14/18	B8I1431	8260	
106-46-7	1,4-Dichlorobenzene	ND	60	ug/kg dry	50	09/14/18	B8I1431	8260	
540-84-1	2,2,4-Trimethylpentane	ND	300	ug/kg dry	50	09/14/18	B8I1431	8260	
78-93-3	2-Butanone (MEK)	ND	300	ug/kg dry	50	09/14/18	B8I1431	8260	
91-57-6	2-Methylnaphthalene	ND	300	ug/kg dry	50	09/14/18	B8I1431	8260	X
67-64-1	2-Propanone (acetone)	ND	1200	ug/kg dry	50	09/14/18	B8I1431	8260	A05
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	300	ug/kg dry	50	09/14/18	B8I1431	8260	
107-13-1	Acrylonitrile	ND	300	ug/kg dry	50	09/14/18	B8I1431	8260	
71-43-2	Benzene	ND	60	ug/kg dry	50	09/14/18	B8I1431	8260	
74-97-5	Bromochloromethane	ND	60	ug/kg dry	50	09/14/18	B8I1431	8260	
75-27-4	Bromodichloromethane	ND	60	ug/kg dry	50	09/14/18	B8I1431	8260	
75-25-2	Bromoform	ND	60	ug/kg dry	50	09/14/18	B8I1431	8260	
74-83-9	Bromomethane	ND	240	ug/kg dry	50	09/14/18	B8I1431	8260	
75-15-0	Carbon disulfide	ND	60	ug/kg dry	50	09/14/18	B8I1431	8260	
56-23-5	Carbon tetrachloride	ND	60	ug/kg dry	50	09/14/18	B8I1431	8260	
108-90-7	Chlorobenzene	ND	60	ug/kg dry	50	09/14/18	B8I1431	8260	
75-00-3	Chloroethane	ND	300	ug/kg dry	50	09/14/18	B8I1431	8260	
67-66-3	Chloroform	ND	60	ug/kg dry	50	09/14/18	B8I1431	8260	
74-87-3	Chloromethane	ND	300	ug/kg dry	50	09/14/18	B8I1431	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	60	ug/kg dry	50	09/14/18	B8I1431	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	60	ug/kg dry	50	09/14/18	B8I1431	8260	
110-82-7	Cyclohexane	ND	300	ug/kg dry	50	09/14/18	B8I1431	8260	
124-48-1	Dibromochloromethane	ND	60	ug/kg dry	50	09/14/18	B8I1431	8260	
74-95-3	Dibromomethane	ND	60	ug/kg dry	50	09/14/18	B8I1431	8260	

STATE OF MICHIGAN
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ENVIRONMENTAL LABORATORY

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

Client ID: QMCP-SB49 6''-4'

Lab ID: 1809100-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	300	ug/kg dry	50	09/14/18	B8I1431	8260	
60-29-7	Diethyl ether	ND	240	ug/kg dry	50	09/14/18	B8I1431	8260	
108-20-3	Diisopropyl Ether	ND	300	ug/kg dry	50	09/14/18	B8I1431	8260	
100-41-4	Ethylbenzene	ND	60	ug/kg dry	50	09/14/18	B8I1431	8260	
637-92-3	Ethyltertiarybutylether	ND	300	ug/kg dry	50	09/14/18	B8I1431	8260	
67-72-1	Hexachloroethane	ND	300	ug/kg dry	50	09/14/18	B8I1431	8260	
110-54-3	Hexane	ND	60	ug/kg dry	50	09/14/18	B8I1431	8260	
98-82-8	Isopropylbenzene	ND	60	ug/kg dry	50	09/14/18	B8I1431	8260	
1330-20-7	m & p - Xylene	ND	120	ug/kg dry	50	09/14/18	B8I1431	8260	
75-09-2	Methylene chloride	ND	120	ug/kg dry	50	09/14/18	B8I1431	8260	
1634-04-4	Methyltertiarybutylether	ND	60	ug/kg dry	50	09/14/18	B8I1431	8260	
91-20-3	Naphthalene	ND	300	ug/kg dry	50	09/14/18	B8I1431	8260	X
104-51-8	n-Butylbenzene	ND	60	ug/kg dry	50	09/14/18	B8I1431	8260	
103-65-1	n-Propylbenzene	ND	60	ug/kg dry	50	09/14/18	B8I1431	8260	
95-47-6	o-Xylene	ND	60	ug/kg dry	50	09/14/18	B8I1431	8260	
135-98-8	sec-Butylbenzene	ND	60	ug/kg dry	50	09/14/18	B8I1431	8260	
100-42-5	Styrene	ND	60	ug/kg dry	50	09/14/18	B8I1431	8260	
98-06-6	tert-Butylbenzene	ND	60	ug/kg dry	50	09/14/18	B8I1431	8260	
75-65-0	tertiary Butyl Alcohol	ND	3000	ug/kg dry	50	09/14/18	B8I1431	8260	
994-05-8	tertiaryAmylmethylether	ND	300	ug/kg dry	50	09/14/18	B8I1431	8260	
127-18-4	Tetrachloroethylene	ND	60	ug/kg dry	50	09/14/18	B8I1431	8260	
109-99-9	Tetrahydrofuran	ND	300	ug/kg dry	50	09/14/18	B8I1431	8260	
108-88-3	Toluene	ND	60	ug/kg dry	50	09/14/18	B8I1431	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	60	ug/kg dry	50	09/14/18	B8I1431	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	60	ug/kg dry	50	09/14/18	B8I1431	8260	
79-01-6	Trichloroethylene	ND	60	ug/kg dry	50	09/14/18	B8I1431	8260	
75-69-4	Trichlorofluoromethane	ND	60	ug/kg dry	50	09/14/18	B8I1431	8260	
75-01-4	Vinyl chloride	ND	60	ug/kg dry	50	09/14/18	B8I1431	8260	
Surrogate: Bromofluorobenzene			*96.2 %*	*40.3-194*		*09/14/18*	B8I1431	*8260*	
Surrogate: Dibromofluoromethane			*101 %*	*52.1-217*		*09/14/18*	B8I1431	*8260*	
Surrogate: Toluene-d8			*103 %*	*55.4-196*		*09/14/18*	B8I1431	*8260*	

STATE OF MICHIGAN
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ENVIRONMENTAL LABORATORY

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

Client ID: QMCP-SB49 6"-4'

Lab ID: 1809100-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	2-Methylnaphthalene	ND	540	ug/kg dry	1	10/01/18	B8I1921	8270	
83-32-9	Acenaphthene	ND	210	ug/kg dry	1	10/01/18	B8I1921	8270	
208-96-8	Acenaphthylene	ND	210	ug/kg dry	1	10/01/18	B8I1921	8270	
120-12-7	Anthracene	ND	210	ug/kg dry	1	10/01/18	B8I1921	8270	
56-55-3	**Benz[a]anthracene**	**390**	210	ug/kg dry	1	10/01/18	B8I1921	8270	
50-32-8	**Benzo[a]pyrene**	**430**	430	ug/kg dry	1	10/01/18	B8I1921	8270	
205-99-2	**Benzo[b]fluoranthene**	**830**	430	ug/kg dry	1	10/01/18	B8I1921	8270	
191-24-2	Benzo[g,h,i]perylene	ND	430	ug/kg dry	1	10/01/18	B8I1921	8270	
207-08-9	Benzo[k]fluoranthene	ND	430	ug/kg dry	1	10/01/18	B8I1921	8270	
218-01-9	**Chrysene**	**460**	210	ug/kg dry	1	10/01/18	B8I1921	8270	
53-70-3	Dibenz[a,h]anthracene	ND	430	ug/kg dry	1	10/01/18	B8I1921	8270	
206-44-0	**Fluoranthene**	**810**	210	ug/kg dry	1	10/01/18	B8I1921	8270	
86-73-7	Fluorene	ND	210	ug/kg dry	1	10/01/18	B8I1921	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	430	ug/kg dry	1	10/01/18	B8I1921	8270	
91-20-3	Naphthalene	ND	210	ug/kg dry	1	10/01/18	B8I1921	8270	
85-01-8	**Phenanthrene**	**420**	210	ug/kg dry	1	10/01/18	B8I1921	8270	
129-00-0	**Pyrene**	**790**	210	ug/kg dry	1	10/01/18	B8I1921	8270	
Surrogate: 2-Fluorobiphenyl			*79.7 %*	*32.9-115*		*10/01/18*	B8I1921	*8270*	
Surrogate: Nitrobenzene-d5			*70.3 %*	*31.8-115*		*10/01/18*	B8I1921	*8270*	
Surrogate: p-Terphenyl-d14			*90.6 %*	*38.5-115*		*10/01/18*	B8I1921	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	110	ug/kg dry	1	10/19/18	B8J1013	8081/8082	
11104-28-2	Aroclor 1221	ND	110	ug/kg dry	1	10/19/18	B8J1013	8081/8082	
11141-16-5	Aroclor 1232	ND	110	ug/kg dry	1	10/19/18	B8J1013	8081/8082	
53469-21-9	Aroclor 1242	ND	110	ug/kg dry	1	10/19/18	B8J1013	8081/8082	
12672-29-6	Aroclor 1248	ND	110	ug/kg dry	1	10/19/18	B8J1013	8081/8082	
11097-69-1	Aroclor 1254	ND	110	ug/kg dry	1	10/19/18	B8J1013	8081/8082	
11096-82-5	Aroclor 1260	ND	110	ug/kg dry	1	10/19/18	B8J1013	8081/8082	
37324-23-5	Aroclor 1262	ND	110	ug/kg dry	1	10/19/18	B8J1013	8081/8082	
11100-14-4	Aroclor 1268	ND	110	ug/kg dry	1	10/19/18	B8J1013	8081/8082	
Surrogate: Decachlorobiphenyl			*88.0 %*	*30-150*		*10/19/18*	B8J1013	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*81.5 %*	*30-150*		*10/19/18*	B8J1013	*8081/8082*	

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TEL: (517) 335-9800
FAX: (517) 335-9600

Client ID: QMCP-SB49 6''-4'

Lab ID: 1809100-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**93.1**	0.1	%	1	09/18/18	B8I1426	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**3.2**	0.5	mg/kg dry	10	09/26/18	B8I2113	200.8	
7440-43-9	**Cadmium**	**0.2**	0.2	mg/kg dry	10	09/26/18	B8I2113	200.8	
7440-47-3	**Chromium**	**30**	2.0	mg/kg dry	10	09/26/18	B8I2113	200.8	
7440-50-8	**Copper**	**2200**	1.0	mg/kg dry	10	09/26/18	B8I2113	200.8	
7439-92-1	**Lead**	**48**	1.0	mg/kg dry	10	09/26/18	B8I2113	200.8	
7439-96-5	**Manganese**	**360**	1.0	mg/kg dry	10	09/26/18	B8I2113	200.8	
7439-97-6	Mercury	ND	0.05	mg/kg dry	1	09/26/18	B8I2413	245.5	
7440-22-4	**Silver**	**0.9**	0.1	mg/kg dry	10	09/26/18	B8I2113	200.8	
7440-66-6	**Zinc**	**70**	1.0	mg/kg dry	10	09/26/18	B8I2113	200.8	

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TEL: (517) 335-9800
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Client ID: QMCP-SB47 0-6"

Lab ID: 1809100-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	58	ug/kg dry	50	09/14/18	B8I1431	8260	
71-55-6	1,1,1-Trichloroethane	ND	58	ug/kg dry	50	09/14/18	B8I1431	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	58	ug/kg dry	50	09/14/18	B8I1431	8260	
79-00-5	1,1,2-Trichloroethane	ND	58	ug/kg dry	50	09/14/18	B8I1431	8260	
75-34-3	1,1-Dichloroethane	ND	58	ug/kg dry	50	09/14/18	B8I1431	8260	
75-35-4	1,1-Dichloroethylene	ND	58	ug/kg dry	50	09/14/18	B8I1431	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	290	ug/kg dry	50	09/14/18	B8I1431	8260	
96-18-4	1,2,3-Trichloropropane	ND	58	ug/kg dry	50	09/14/18	B8I1431	8260	A05, A10
526-73-8	1,2,3-Trimethylbenzene	ND	58	ug/kg dry	50	09/14/18	B8I1431	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	290	ug/kg dry	50	09/14/18	B8I1431	8260	
95-63-6	**1,2,4-Trimethylbenzene**	**96**	58	ug/kg dry	50	09/14/18	B8I1431	8260	
106-93-4	1,2-Dibromoethane	ND	58	ug/kg dry	50	09/14/18	B8I1431	8260	
95-50-1	1,2-Dichlorobenzene	ND	58	ug/kg dry	50	09/14/18	B8I1431	8260	
107-06-2	1,2-Dichloroethane	ND	58	ug/kg dry	50	09/14/18	B8I1431	8260	
78-87-5	1,2-Dichloropropane	ND	58	ug/kg dry	50	09/14/18	B8I1431	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	58	ug/kg dry	50	09/14/18	B8I1431	8260	
541-73-1	1,3-Dichlorobenzene	ND	58	ug/kg dry	50	09/14/18	B8I1431	8260	
106-46-7	1,4-Dichlorobenzene	ND	58	ug/kg dry	50	09/14/18	B8I1431	8260	
540-84-1	2,2,4-Trimethylpentane	ND	290	ug/kg dry	50	09/14/18	B8I1431	8260	
78-93-3	2-Butanone (MEK)	ND	290	ug/kg dry	50	09/14/18	B8I1431	8260	
91-57-6	2-Methylnaphthalene	ND	290	ug/kg dry	50	09/14/18	B8I1431	8260	X
67-64-1	2-Propanone (acetone)	ND	1200	ug/kg dry	50	09/14/18	B8I1431	8260	A05
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	290	ug/kg dry	50	09/14/18	B8I1431	8260	
107-13-1	Acrylonitrile	ND	290	ug/kg dry	50	09/14/18	B8I1431	8260	
71-43-2	Benzene	ND	58	ug/kg dry	50	09/14/18	B8I1431	8260	
74-97-5	Bromochloromethane	ND	58	ug/kg dry	50	09/14/18	B8I1431	8260	
75-27-4	Bromodichloromethane	ND	58	ug/kg dry	50	09/14/18	B8I1431	8260	
75-25-2	Bromoform	ND	58	ug/kg dry	50	09/14/18	B8I1431	8260	
74-83-9	Bromomethane	ND	230	ug/kg dry	50	09/14/18	B8I1431	8260	
75-15-0	Carbon disulfide	ND	58	ug/kg dry	50	09/14/18	B8I1431	8260	
56-23-5	Carbon tetrachloride	ND	58	ug/kg dry	50	09/14/18	B8I1431	8260	
108-90-7	Chlorobenzene	ND	58	ug/kg dry	50	09/14/18	B8I1431	8260	
75-00-3	Chloroethane	ND	290	ug/kg dry	50	09/14/18	B8I1431	8260	
67-66-3	Chloroform	ND	58	ug/kg dry	50	09/14/18	B8I1431	8260	
74-87-3	Chloromethane	ND	290	ug/kg dry	50	09/14/18	B8I1431	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	58	ug/kg dry	50	09/14/18	B8I1431	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	58	ug/kg dry	50	09/14/18	B8I1431	8260	
110-82-7	Cyclohexane	ND	290	ug/kg dry	50	09/14/18	B8I1431	8260	
124-48-1	Dibromochloromethane	ND	58	ug/kg dry	50	09/14/18	B8I1431	8260	
74-95-3	Dibromomethane	ND	58	ug/kg dry	50	09/14/18	B8I1431	8260	

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ENVIRONMENTAL LABORATORY

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FAX: (517) 335-9600

Client ID: QMCP-SB47 0-6"

Lab ID: 1809100-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	290	ug/kg dry	50	09/14/18	B8I1431	8260	
60-29-7	Diethyl ether	ND	230	ug/kg dry	50	09/14/18	B8I1431	8260	
108-20-3	Diisopropyl Ether	ND	290	ug/kg dry	50	09/14/18	B8I1431	8260	
100-41-4	Ethylbenzene	ND	58	ug/kg dry	50	09/14/18	B8I1431	8260	
637-92-3	Ethyltertiarybutylether	ND	290	ug/kg dry	50	09/14/18	B8I1431	8260	
67-72-1	Hexachloroethane	ND	290	ug/kg dry	50	09/14/18	B8I1431	8260	
110-54-3	Hexane	ND	58	ug/kg dry	50	09/14/18	B8I1431	8260	
98-82-8	Isopropylbenzene	ND	58	ug/kg dry	50	09/14/18	B8I1431	8260	
1330-20-7	**m & p - Xylene**	**150**	120	ug/kg dry	50	09/14/18	B8I1431	8260	
75-09-2	Methylene chloride	ND	120	ug/kg dry	50	09/14/18	B8I1431	8260	
1634-04-4	Methyltertiarybutylether	ND	58	ug/kg dry	50	09/14/18	B8I1431	8260	
91-20-3	Naphthalene	ND	290	ug/kg dry	50	09/14/18	B8I1431	8260	X
104-51-8	n-Butylbenzene	ND	58	ug/kg dry	50	09/14/18	B8I1431	8260	
103-65-1	n-Propylbenzene	ND	58	ug/kg dry	50	09/14/18	B8I1431	8260	
95-47-6	**o-Xylene**	**120**	58	ug/kg dry	50	09/14/18	B8I1431	8260	
135-98-8	sec-Butylbenzene	ND	58	ug/kg dry	50	09/14/18	B8I1431	8260	
100-42-5	Styrene	ND	58	ug/kg dry	50	09/14/18	B8I1431	8260	
98-06-6	tert-Butylbenzene	ND	58	ug/kg dry	50	09/14/18	B8I1431	8260	
75-65-0	tertiary Butyl Alcohol	ND	2900	ug/kg dry	50	09/14/18	B8I1431	8260	
994-05-8	tertiaryAmylmethylether	ND	290	ug/kg dry	50	09/14/18	B8I1431	8260	
127-18-4	Tetrachloroethylene	ND	58	ug/kg dry	50	09/14/18	B8I1431	8260	
109-99-9	Tetrahydrofuran	ND	290	ug/kg dry	50	09/14/18	B8I1431	8260	
108-88-3	**Toluene**	**82**	58	ug/kg dry	50	09/14/18	B8I1431	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	58	ug/kg dry	50	09/14/18	B8I1431	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	58	ug/kg dry	50	09/14/18	B8I1431	8260	
79-01-6	Trichloroethylene	ND	58	ug/kg dry	50	09/14/18	B8I1431	8260	
75-69-4	Trichlorofluoromethane	ND	58	ug/kg dry	50	09/14/18	B8I1431	8260	
75-01-4	Vinyl chloride	ND	58	ug/kg dry	50	09/14/18	B8I1431	8260	
Surrogate: Bromofluorobenzene			*96.9 %*	*40.3-194*		*09/14/18*	B8I1431	*8260*	
Surrogate: Dibromofluoromethane			*100 %*	*52.1-217*		*09/14/18*	B8I1431	*8260*	
Surrogate: Toluene-d8			*104 %*	*55.4-196*		*09/14/18*	B8I1431	*8260*	

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TEL: (517) 335-9800
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Client ID: QMCP-SB47 0-6"

Lab ID: 1809100-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	2-Methylnaphthalene	ND	540	ug/kg dry	1	10/01/18	B8I1921	8270	
83-32-9	Acenaphthene	ND	220	ug/kg dry	1	10/01/18	B8I1921	8270	
208-96-8	**Acenaphthylene**	**210**	220	ug/kg dry	1	10/01/18	B8I1921	8270	T
120-12-7	Anthracene	ND	220	ug/kg dry	1	10/01/18	B8I1921	8270	
56-55-3	Benz[a]anthracene	ND	220	ug/kg dry	1	10/01/18	B8I1921	8270	
50-32-8	Benzo[a]pyrene	ND	430	ug/kg dry	1	10/01/18	B8I1921	8270	
205-99-2	Benzo[b]fluoranthene	ND	430	ug/kg dry	1	10/01/18	B8I1921	8270	
191-24-2	Benzo[g,h,i]perylene	ND	430	ug/kg dry	1	10/01/18	B8I1921	8270	
207-08-9	Benzo[k]fluoranthene	ND	430	ug/kg dry	1	10/01/18	B8I1921	8270	
218-01-9	Chrysene	ND	220	ug/kg dry	1	10/01/18	B8I1921	8270	
53-70-3	Dibenz[a,h]anthracene	ND	430	ug/kg dry	1	10/01/18	B8I1921	8270	
206-44-0	Fluoranthene	ND	220	ug/kg dry	1	10/01/18	B8I1921	8270	
86-73-7	Fluorene	ND	220	ug/kg dry	1	10/01/18	B8I1921	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	430	ug/kg dry	1	10/01/18	B8I1921	8270	
91-20-3	**Naphthalene**	**770**	220	ug/kg dry	1	10/01/18	B8I1921	8270	
85-01-8	**Phenanthrene**	**340**	220	ug/kg dry	1	10/01/18	B8I1921	8270	
129-00-0	**Pyrene**	**220**	220	ug/kg dry	1	10/01/18	B8I1921	8270	
Surrogate: 2-Fluorobiphenyl			*82.2 %*	*32.9-115*		*10/01/18*	B8I1921	*8270*	
Surrogate: Nitrobenzene-d5			*73.1 %*	*31.8-115*		*10/01/18*	B8I1921	*8270*	
Surrogate: p-Terphenyl-d14			*96.4 %*	*38.5-115*		*10/01/18*	B8I1921	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	110	ug/kg dry	1	10/20/18	B8J1013	8081/8082	
11104-28-2	Aroclor 1221	ND	110	ug/kg dry	1	10/20/18	B8J1013	8081/8082	
11141-16-5	Aroclor 1232	ND	110	ug/kg dry	1	10/20/18	B8J1013	8081/8082	
53469-21-9	Aroclor 1242	ND	110	ug/kg dry	1	10/20/18	B8J1013	8081/8082	
12672-29-6	Aroclor 1248	ND	110	ug/kg dry	1	10/20/18	B8J1013	8081/8082	
11097-69-1	Aroclor 1254	ND	110	ug/kg dry	1	10/20/18	B8J1013	8081/8082	
11096-82-5	Aroclor 1260	ND	110	ug/kg dry	1	10/20/18	B8J1013	8081/8082	
37324-23-5	Aroclor 1262	ND	110	ug/kg dry	1	10/20/18	B8J1013	8081/8082	
11100-14-4	Aroclor 1268	ND	110	ug/kg dry	1	10/20/18	B8J1013	8081/8082	
Surrogate: Decachlorobiphenyl			*89.0 %*	*30-150*		*10/20/18*	B8J1013	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*77.5 %*	*30-150*		*10/20/18*	B8J1013	*8081/8082*	

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ENVIRONMENTAL LABORATORY

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

Client ID: QMCP-SB47 0-6"

Lab ID: 1809100-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**92.3**	0.1	%	1	09/18/18	B8I1426	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**16**	0.5	mg/kg dry	10	09/26/18	B8I2113	200.8	
7440-43-9	**Cadmium**	**0.3**	0.2	mg/kg dry	10	09/26/18	B8I2113	200.8	
7440-47-3	**Chromium**	**59**	2.0	mg/kg dry	10	09/26/18	B8I2113	200.8	
7440-50-8	**Copper**	**7300**	100	mg/kg dry	1000	09/26/18	B8I2113	200.8	
7439-92-1	**Lead**	**43**	1.0	mg/kg dry	10	09/26/18	B8I2113	200.8	
7439-96-5	**Manganese**	**410**	1.0	mg/kg dry	10	09/26/18	B8I2113	200.8	
7439-97-6	Mercury	ND	0.05	mg/kg dry	1	09/26/18	B8I2413	245.5	
7440-22-4	**Silver**	**1.4**	0.1	mg/kg dry	10	09/26/18	B8I2113	200.8	
7440-66-6	**Zinc**	**79**	1.0	mg/kg dry	10	09/26/18	B8I2113	200.8	

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P.O. Box 30270
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TEL: (517) 335-9800
FAX: (517) 335-9600

Client ID: QMCP-SB47 6''-5'

Lab ID: 1809100-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	53	ug/kg dry	50	09/14/18	B8I1431	8260	
71-55-6	1,1,1-Trichloroethane	ND	53	ug/kg dry	50	09/14/18	B8I1431	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	53	ug/kg dry	50	09/14/18	B8I1431	8260	
79-00-5	1,1,2-Trichloroethane	ND	53	ug/kg dry	50	09/14/18	B8I1431	8260	
75-34-3	1,1-Dichloroethane	ND	53	ug/kg dry	50	09/14/18	B8I1431	8260	
75-35-4	1,1-Dichloroethylene	ND	53	ug/kg dry	50	09/14/18	B8I1431	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	260	ug/kg dry	50	09/14/18	B8I1431	8260	
96-18-4	1,2,3-Trichloropropane	ND	53	ug/kg dry	50	09/14/18	B8I1431	8260	A05, A10
526-73-8	1,2,3-Trimethylbenzene	ND	53	ug/kg dry	50	09/14/18	B8I1431	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	260	ug/kg dry	50	09/14/18	B8I1431	8260	
95-63-6	**1,2,4-Trimethylbenzene**	**72**	53	ug/kg dry	50	09/14/18	B8I1431	8260	
106-93-4	1,2-Dibromoethane	ND	53	ug/kg dry	50	09/14/18	B8I1431	8260	
95-50-1	1,2-Dichlorobenzene	ND	53	ug/kg dry	50	09/14/18	B8I1431	8260	
107-06-2	1,2-Dichloroethane	ND	53	ug/kg dry	50	09/14/18	B8I1431	8260	
78-87-5	1,2-Dichloropropane	ND	53	ug/kg dry	50	09/14/18	B8I1431	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	53	ug/kg dry	50	09/14/18	B8I1431	8260	
541-73-1	1,3-Dichlorobenzene	ND	53	ug/kg dry	50	09/14/18	B8I1431	8260	
106-46-7	1,4-Dichlorobenzene	ND	53	ug/kg dry	50	09/14/18	B8I1431	8260	
540-84-1	2,2,4-Trimethylpentane	ND	260	ug/kg dry	50	09/14/18	B8I1431	8260	
78-93-3	2-Butanone (MEK)	ND	260	ug/kg dry	50	09/14/18	B8I1431	8260	
91-57-6	**2-Methylnaphthalene**	**2200**	260	ug/kg dry	50	09/14/18	B8I1431	8260	X
67-64-1	2-Propanone (acetone)	ND	1100	ug/kg dry	50	09/14/18	B8I1431	8260	A05
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	260	ug/kg dry	50	09/14/18	B8I1431	8260	
107-13-1	Acrylonitrile	ND	260	ug/kg dry	50	09/14/18	B8I1431	8260	
71-43-2	Benzene	ND	53	ug/kg dry	50	09/14/18	B8I1431	8260	
74-97-5	Bromochloromethane	ND	53	ug/kg dry	50	09/14/18	B8I1431	8260	
75-27-4	Bromodichloromethane	ND	53	ug/kg dry	50	09/14/18	B8I1431	8260	
75-25-2	Bromoform	ND	53	ug/kg dry	50	09/14/18	B8I1431	8260	
74-83-9	Bromomethane	ND	210	ug/kg dry	50	09/14/18	B8I1431	8260	
75-15-0	Carbon disulfide	ND	53	ug/kg dry	50	09/14/18	B8I1431	8260	
56-23-5	Carbon tetrachloride	ND	53	ug/kg dry	50	09/14/18	B8I1431	8260	
108-90-7	Chlorobenzene	ND	53	ug/kg dry	50	09/14/18	B8I1431	8260	
75-00-3	Chloroethane	ND	260	ug/kg dry	50	09/14/18	B8I1431	8260	
67-66-3	Chloroform	ND	53	ug/kg dry	50	09/14/18	B8I1431	8260	
74-87-3	Chloromethane	ND	260	ug/kg dry	50	09/14/18	B8I1431	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	53	ug/kg dry	50	09/14/18	B8I1431	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	53	ug/kg dry	50	09/14/18	B8I1431	8260	
110-82-7	Cyclohexane	ND	260	ug/kg dry	50	09/14/18	B8I1431	8260	
124-48-1	Dibromochloromethane	ND	53	ug/kg dry	50	09/14/18	B8I1431	8260	
74-95-3	Dibromomethane	ND	53	ug/kg dry	50	09/14/18	B8I1431	8260	

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TEL: (517) 335-9800
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Client ID: QMCP-SB47 6''-5'

Lab ID: 1809100-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	260	ug/kg dry	50	09/14/18	B8I1431	8260	
60-29-7	Diethyl ether	ND	210	ug/kg dry	50	09/14/18	B8I1431	8260	
108-20-3	Diisopropyl Ether	ND	260	ug/kg dry	50	09/14/18	B8I1431	8260	
100-41-4	Ethylbenzene	ND	53	ug/kg dry	50	09/14/18	B8I1431	8260	
637-92-3	Ethyltertiarybutylether	ND	260	ug/kg dry	50	09/14/18	B8I1431	8260	
67-72-1	Hexachloroethane	ND	260	ug/kg dry	50	09/14/18	B8I1431	8260	
110-54-3	Hexane	ND	53	ug/kg dry	50	09/14/18	B8I1431	8260	
98-82-8	Isopropylbenzene	ND	53	ug/kg dry	50	09/14/18	B8I1431	8260	
1330-20-7	m & p - Xylene	ND	110	ug/kg dry	50	09/14/18	B8I1431	8260	
75-09-2	Methylene chloride	ND	110	ug/kg dry	50	09/14/18	B8I1431	8260	
1634-04-4	Methyltertiarybutylether	ND	53	ug/kg dry	50	09/14/18	B8I1431	8260	
91-20-3	**Naphthalene**	**4200**	260	ug/kg dry	50	09/14/18	B8I1431	8260	X
104-51-8	n-Butylbenzene	ND	53	ug/kg dry	50	09/14/18	B8I1431	8260	
103-65-1	n-Propylbenzene	ND	53	ug/kg dry	50	09/14/18	B8I1431	8260	
95-47-6	**o-Xylene**	**58**	53	ug/kg dry	50	09/14/18	B8I1431	8260	
135-98-8	sec-Butylbenzene	ND	53	ug/kg dry	50	09/14/18	B8I1431	8260	
100-42-5	Styrene	ND	53	ug/kg dry	50	09/14/18	B8I1431	8260	
98-06-6	tert-Butylbenzene	ND	53	ug/kg dry	50	09/14/18	B8I1431	8260	
75-65-0	tertiary Butyl Alcohol	ND	2600	ug/kg dry	50	09/14/18	B8I1431	8260	
994-05-8	tertiaryAmylmethylether	ND	260	ug/kg dry	50	09/14/18	B8I1431	8260	
127-18-4	Tetrachloroethylene	ND	53	ug/kg dry	50	09/14/18	B8I1431	8260	
109-99-9	Tetrahydrofuran	ND	260	ug/kg dry	50	09/14/18	B8I1431	8260	
108-88-3	Toluene	ND	53	ug/kg dry	50	09/14/18	B8I1431	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	53	ug/kg dry	50	09/14/18	B8I1431	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	53	ug/kg dry	50	09/14/18	B8I1431	8260	
79-01-6	Trichloroethylene	ND	53	ug/kg dry	50	09/14/18	B8I1431	8260	
75-69-4	Trichlorofluoromethane	ND	53	ug/kg dry	50	09/14/18	B8I1431	8260	
75-01-4	Vinyl chloride	ND	53	ug/kg dry	50	09/14/18	B8I1431	8260	
Surrogate: Bromofluorobenzene			*84.4 %*	*40.3-194*		*09/14/18*	B8I1431	*8260*	
Surrogate: Dibromofluoromethane			*89.5 %*	*52.1-217*		*09/14/18*	B8I1431	*8260*	
Surrogate: Toluene-d8			*91.4 %*	*55.4-196*		*09/14/18*	B8I1431	*8260*	

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ENVIRONMENTAL LABORATORY

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

Client ID: QMCP-SB47 6''-5'

Lab ID: 1809100-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y17, Y20**
91-57-6	**2-Methylnaphthalene**	**2700**	510	ug/kg dry	1	10/01/18	B8I1921	8270	
83-32-9	**Acenaphthene**	**1300**	200	ug/kg dry	1	10/01/18	B8I1921	8270	
208-96-8	**Acenaphthylene**	**980**	200	ug/kg dry	1	10/01/18	B8I1921	8270	
120-12-7	**Anthracene**	**2300**	200	ug/kg dry	1	10/01/18	B8I1921	8270	
56-55-3	**Benz[a]anthracene**	**4600**	200	ug/kg dry	1	10/01/18	B8I1921	8270	
50-32-8	**Benzo[a]pyrene**	**3900**	410	ug/kg dry	1	10/01/18	B8I1921	8270	
205-99-2	**Benzo[b]fluoranthene**	**6300**	410	ug/kg dry	1	10/01/18	B8I1921	8270	
191-24-2	**Benzo[g,h,i]perylene**	**940**	410	ug/kg dry	1	10/01/18	B8I1921	8270	
207-08-9	**Benzo[k]fluoranthene**	**2300**	410	ug/kg dry	1	10/01/18	B8I1921	8270	
218-01-9	**Chrysene**	**4600**	200	ug/kg dry	1	10/01/18	B8I1921	8270	
53-70-3	Dibenz[a,h]anthracene	ND	410	ug/kg dry	1	10/01/18	B8I1921	8270	
206-44-0	**Fluoranthene**	**16000**	2000	ug/kg dry	10	10/02/18	B8I1921	8270	
86-73-7	**Fluorene**	**1800**	200	ug/kg dry	1	10/01/18	B8I1921	8270	
193-39-5	**Indeno(1,2,3-c,d)pyrene**	**1100**	410	ug/kg dry	1	10/01/18	B8I1921	8270	
91-20-3	**Naphthalene**	**4400**	200	ug/kg dry	1	10/01/18	B8I1921	8270	
85-01-8	**Phenanthrene**	**25000**	2000	ug/kg dry	10	10/02/18	B8I1921	8270	
129-00-0	**Pyrene**	**14000**	2000	ug/kg dry	10	10/02/18	B8I1921	8270	
Surrogate: 2-Fluorobiphenyl			*80.6 %*	*32.9-115*		*10/01/18*	B8I1921	*8270*	
Surrogate: Nitrobenzene-d5			*69.2 %*	*31.8-115*		*10/01/18*	B8I1921	*8270*	
Surrogate: p-Terphenyl-d14			*99.6 %*	*38.5-115*		*10/01/18*	B8I1921	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	510	ug/kg dry	5	10/25/18	B8J1013	8081/8082	Y21
11104-28-2	Aroclor 1221	ND	510	ug/kg dry	5	10/25/18	B8J1013	8081/8082	Y21
11141-16-5	Aroclor 1232	ND	510	ug/kg dry	5	10/25/18	B8J1013	8081/8082	Y21
53469-21-9	Aroclor 1242	ND	510	ug/kg dry	5	10/25/18	B8J1013	8081/8082	Y21
12672-29-6	Aroclor 1248	ND	510	ug/kg dry	5	10/25/18	B8J1013	8081/8082	Y21
11097-69-1	Aroclor 1254	ND	510	ug/kg dry	5	10/25/18	B8J1013	8081/8082	Y21
11096-82-5	Aroclor 1260	ND	510	ug/kg dry	5	10/25/18	B8J1013	8081/8082	Y21
37324-23-5	Aroclor 1262	ND	510	ug/kg dry	5	10/25/18	B8J1013	8081/8082	Y21
11100-14-4	Aroclor 1268	ND	510	ug/kg dry	5	10/25/18	B8J1013	8081/8082	Y21
Surrogate: Decachlorobiphenyl			*123 %*	*30-150*		*10/25/18*	B8J1013	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*102 %*	*30-150*		*10/25/18*	B8J1013	*8081/8082*	

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FAX: (517) 335-9600

Client ID: QMCP-SB47 6''-5'

Lab ID: 1809100-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**98.2**	0.1	%	1	09/18/18	B8I1426	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**11**	0.5	mg/kg dry	10	09/26/18	B8I2113	200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	09/26/18	B8I2113	200.8	
7440-47-3	**Chromium**	**84**	2.0	mg/kg dry	10	09/26/18	B8I2113	200.8	
7440-50-8	**Copper**	**9700**	100	mg/kg dry	1000	09/26/18	B8I2113	200.8	
7439-92-1	**Lead**	**34**	1.0	mg/kg dry	10	09/26/18	B8I2113	200.8	
7439-96-5	**Manganese**	**590**	1.0	mg/kg dry	10	09/26/18	B8I2113	200.8	
7439-97-6	Mercury	ND	0.05	mg/kg dry	1	09/26/18	B8I2413	245.5	
7440-22-4	**Silver**	**0.9**	0.1	mg/kg dry	10	09/26/18	B8I2113	200.8	
7440-66-6	**Zinc**	**78**	1.0	mg/kg dry	10	09/26/18	B8I2113	200.8	

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Client ID: QMCP-SB50 0-2'

Lab ID: 1809100-05

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	66	ug/kg dry	50	09/14/18	B8I1431	8260	
71-55-6	1,1,1-Trichloroethane	ND	66	ug/kg dry	50	09/14/18	B8I1431	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	66	ug/kg dry	50	09/14/18	B8I1431	8260	
79-00-5	1,1,2-Trichloroethane	ND	66	ug/kg dry	50	09/14/18	B8I1431	8260	
75-34-3	1,1-Dichloroethane	ND	66	ug/kg dry	50	09/14/18	B8I1431	8260	
75-35-4	1,1-Dichloroethylene	ND	66	ug/kg dry	50	09/14/18	B8I1431	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	330	ug/kg dry	50	09/14/18	B8I1431	8260	
96-18-4	1,2,3-Trichloropropane	ND	66	ug/kg dry	50	09/14/18	B8I1431	8260	A05, A10
526-73-8	1,2,3-Trimethylbenzene	ND	66	ug/kg dry	50	09/14/18	B8I1431	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	330	ug/kg dry	50	09/14/18	B8I1431	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	66	ug/kg dry	50	09/14/18	B8I1431	8260	
106-93-4	1,2-Dibromoethane	ND	66	ug/kg dry	50	09/14/18	B8I1431	8260	
95-50-1	1,2-Dichlorobenzene	ND	66	ug/kg dry	50	09/14/18	B8I1431	8260	
107-06-2	1,2-Dichloroethane	ND	66	ug/kg dry	50	09/14/18	B8I1431	8260	
78-87-5	1,2-Dichloropropane	ND	66	ug/kg dry	50	09/14/18	B8I1431	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	66	ug/kg dry	50	09/14/18	B8I1431	8260	
541-73-1	1,3-Dichlorobenzene	ND	66	ug/kg dry	50	09/14/18	B8I1431	8260	
106-46-7	1,4-Dichlorobenzene	ND	66	ug/kg dry	50	09/14/18	B8I1431	8260	
540-84-1	2,2,4-Trimethylpentane	ND	330	ug/kg dry	50	09/14/18	B8I1431	8260	
78-93-3	2-Butanone (MEK)	ND	330	ug/kg dry	50	09/14/18	B8I1431	8260	
91-57-6	2-Methylnaphthalene	ND	330	ug/kg dry	50	09/14/18	B8I1431	8260	X
67-64-1	2-Propanone (acetone)	ND	1300	ug/kg dry	50	09/14/18	B8I1431	8260	A05
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	330	ug/kg dry	50	09/14/18	B8I1431	8260	
107-13-1	Acrylonitrile	ND	330	ug/kg dry	50	09/14/18	B8I1431	8260	
71-43-2	Benzene	ND	66	ug/kg dry	50	09/14/18	B8I1431	8260	
74-97-5	Bromochloromethane	ND	66	ug/kg dry	50	09/14/18	B8I1431	8260	
75-27-4	Bromodichloromethane	ND	66	ug/kg dry	50	09/14/18	B8I1431	8260	
75-25-2	Bromoform	ND	66	ug/kg dry	50	09/14/18	B8I1431	8260	
74-83-9	Bromomethane	ND	260	ug/kg dry	50	09/14/18	B8I1431	8260	
75-15-0	Carbon disulfide	ND	66	ug/kg dry	50	09/14/18	B8I1431	8260	
56-23-5	Carbon tetrachloride	ND	66	ug/kg dry	50	09/14/18	B8I1431	8260	
108-90-7	Chlorobenzene	ND	66	ug/kg dry	50	09/14/18	B8I1431	8260	
75-00-3	Chloroethane	ND	330	ug/kg dry	50	09/14/18	B8I1431	8260	
67-66-3	Chloroform	ND	66	ug/kg dry	50	09/14/18	B8I1431	8260	
74-87-3	Chloromethane	ND	330	ug/kg dry	50	09/14/18	B8I1431	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	66	ug/kg dry	50	09/14/18	B8I1431	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	66	ug/kg dry	50	09/14/18	B8I1431	8260	
110-82-7	Cyclohexane	ND	330	ug/kg dry	50	09/14/18	B8I1431	8260	
124-48-1	Dibromochloromethane	ND	66	ug/kg dry	50	09/14/18	B8I1431	8260	
74-95-3	Dibromomethane	ND	66	ug/kg dry	50	09/14/18	B8I1431	8260	

STATE OF MICHIGAN
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ENVIRONMENTAL LABORATORY

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TEL: (517) 335-9800
FAX: (517) 335-9600

Client ID: QMCP-SB50 0-2'

Lab ID: 1809100-05

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	330	ug/kg dry	50	09/14/18	B8I1431	8260	
60-29-7	Diethyl ether	ND	260	ug/kg dry	50	09/14/18	B8I1431	8260	
108-20-3	Diisopropyl Ether	ND	330	ug/kg dry	50	09/14/18	B8I1431	8260	
100-41-4	Ethylbenzene	ND	66	ug/kg dry	50	09/14/18	B8I1431	8260	
637-92-3	Ethyltertiarybutylether	ND	330	ug/kg dry	50	09/14/18	B8I1431	8260	
67-72-1	Hexachloroethane	ND	330	ug/kg dry	50	09/14/18	B8I1431	8260	
110-54-3	Hexane	ND	66	ug/kg dry	50	09/14/18	B8I1431	8260	
98-82-8	Isopropylbenzene	ND	66	ug/kg dry	50	09/14/18	B8I1431	8260	
1330-20-7	m & p - Xylene	ND	130	ug/kg dry	50	09/14/18	B8I1431	8260	
75-09-2	Methylene chloride	ND	130	ug/kg dry	50	09/14/18	B8I1431	8260	
1634-04-4	Methyltertiarybutylether	ND	66	ug/kg dry	50	09/14/18	B8I1431	8260	
91-20-3	Naphthalene	ND	330	ug/kg dry	50	09/14/18	B8I1431	8260	X
104-51-8	n-Butylbenzene	ND	66	ug/kg dry	50	09/14/18	B8I1431	8260	
103-65-1	n-Propylbenzene	ND	66	ug/kg dry	50	09/14/18	B8I1431	8260	
95-47-6	o-Xylene	ND	66	ug/kg dry	50	09/14/18	B8I1431	8260	
135-98-8	sec-Butylbenzene	ND	66	ug/kg dry	50	09/14/18	B8I1431	8260	
100-42-5	Styrene	ND	66	ug/kg dry	50	09/14/18	B8I1431	8260	
98-06-6	tert-Butylbenzene	ND	66	ug/kg dry	50	09/14/18	B8I1431	8260	
75-65-0	tertiary Butyl Alcohol	ND	3300	ug/kg dry	50	09/14/18	B8I1431	8260	
994-05-8	tertiaryAmylmethylether	ND	330	ug/kg dry	50	09/14/18	B8I1431	8260	
127-18-4	Tetrachloroethylene	ND	66	ug/kg dry	50	09/14/18	B8I1431	8260	
109-99-9	Tetrahydrofuran	ND	330	ug/kg dry	50	09/14/18	B8I1431	8260	
108-88-3	Toluene	ND	66	ug/kg dry	50	09/14/18	B8I1431	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	66	ug/kg dry	50	09/14/18	B8I1431	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	66	ug/kg dry	50	09/14/18	B8I1431	8260	
79-01-6	Trichloroethylene	ND	66	ug/kg dry	50	09/14/18	B8I1431	8260	
75-69-4	Trichlorofluoromethane	ND	66	ug/kg dry	50	09/14/18	B8I1431	8260	
75-01-4	Vinyl chloride	ND	66	ug/kg dry	50	09/14/18	B8I1431	8260	
Surrogate: Bromofluorobenzene			*101 %*	*40.3-194*		*09/14/18*	B8I1431	*8260*	
Surrogate: Dibromofluoromethane			*107 %*	*52.1-217*		*09/14/18*	B8I1431	*8260*	
Surrogate: Toluene-d8			*109 %*	*55.4-196*		*09/14/18*	B8I1431	*8260*	

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TEL: (517) 335-9800
FAX: (517) 335-9600

Client ID: QMCP-SB50 0-2'

Lab ID: 1809100-05

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y17, Y20**
91-57-6	2-Methylnaphthalene	ND	580	ug/kg dry	1	10/02/18	B8I1921	8270	
83-32-9	Acenaphthene	ND	230	ug/kg dry	1	10/02/18	B8I1921	8270	
208-96-8	Acenaphthylene	ND	230	ug/kg dry	1	10/02/18	B8I1921	8270	
120-12-7	Anthracene	ND	230	ug/kg dry	1	10/02/18	B8I1921	8270	
56-55-3	**Benz[a]anthracene**	**420**	230	ug/kg dry	1	10/02/18	B8I1921	8270	
50-32-8	Benzo[a]pyrene	ND	470	ug/kg dry	1	10/02/18	B8I1921	8270	
205-99-2	**Benzo[b]fluoranthene**	**660**	470	ug/kg dry	1	10/02/18	B8I1921	8270	
191-24-2	Benzo[g,h,i]perylene	ND	470	ug/kg dry	1	10/02/18	B8I1921	8270	
207-08-9	Benzo[k]fluoranthene	ND	470	ug/kg dry	1	10/02/18	B8I1921	8270	
218-01-9	**Chrysene**	**470**	230	ug/kg dry	1	10/02/18	B8I1921	8270	
53-70-3	Dibenz[a,h]anthracene	ND	470	ug/kg dry	1	10/02/18	B8I1921	8270	
206-44-0	**Fluoranthene**	**1100**	230	ug/kg dry	1	10/02/18	B8I1921	8270	
86-73-7	Fluorene	ND	230	ug/kg dry	1	10/02/18	B8I1921	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	470	ug/kg dry	1	10/02/18	B8I1921	8270	
91-20-3	**Naphthalene**	**260**	230	ug/kg dry	1	10/02/18	B8I1921	8270	
85-01-8	**Phenanthrene**	**1300**	230	ug/kg dry	1	10/02/18	B8I1921	8270	
129-00-0	**Pyrene**	**850**	230	ug/kg dry	1	10/02/18	B8I1921	8270	
Surrogate: 2-Fluorobiphenyl			*80.1 %*	*32.9-115*		*10/02/18*	B8I1921	*8270*	
Surrogate: Nitrobenzene-d5			*65.2 %*	*31.8-115*		*10/02/18*	B8I1921	*8270*	
Surrogate: p-Terphenyl-d14			*80.1 %*	*38.5-115*		*10/02/18*	B8I1921	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	580	ug/kg dry	5	10/25/18	B8J1013	8081/8082	Y21
11104-28-2	Aroclor 1221	ND	580	ug/kg dry	5	10/25/18	B8J1013	8081/8082	Y21
11141-16-5	Aroclor 1232	ND	580	ug/kg dry	5	10/25/18	B8J1013	8081/8082	Y21
53469-21-9	Aroclor 1242	ND	580	ug/kg dry	5	10/25/18	B8J1013	8081/8082	Y21
12672-29-6	Aroclor 1248	ND	580	ug/kg dry	5	10/25/18	B8J1013	8081/8082	Y21
11097-69-1	Aroclor 1254	ND	580	ug/kg dry	5	10/25/18	B8J1013	8081/8082	Y21
11096-82-5	Aroclor 1260	ND	580	ug/kg dry	5	10/25/18	B8J1013	8081/8082	Y21
37324-23-5	Aroclor 1262	ND	580	ug/kg dry	5	10/25/18	B8J1013	8081/8082	Y21
11100-14-4	Aroclor 1268	ND	580	ug/kg dry	5	10/25/18	B8J1013	8081/8082	Y21
Surrogate: Decachlorobiphenyl			*102 %*	*30-150*		*10/25/18*	B8J1013	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*109 %*	*30-150*		*10/25/18*	B8J1013	*8081/8082*	

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Client ID: QMCP-SB50 0-2'

Lab ID: 1809100-05

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**85.6**	0.1	%	1	09/18/18	B8I1426	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**1.7**	0.5	mg/kg dry	10	09/26/18	B8I2113	200.8	
7440-43-9	**Cadmium**	**0.3**	0.2	mg/kg dry	10	09/26/18	B8I2113	200.8	
7440-47-3	**Chromium**	**8.5**	2.0	mg/kg dry	10	09/26/18	B8I2113	200.8	
7440-50-8	**Copper**	**1000**	1.0	mg/kg dry	10	09/26/18	B8I2113	200.8	
7439-92-1	**Lead**	**170**	1.0	mg/kg dry	10	09/26/18	B8I2113	200.8	
7439-96-5	**Manganese**	**140**	1.0	mg/kg dry	10	09/26/18	B8I2113	200.8	
7439-97-6	**Mercury**	**0.4**	0.06	mg/kg dry	1	09/26/18	B8I2413	245.5	
7440-22-4	**Silver**	**0.5**	0.1	mg/kg dry	10	09/26/18	B8I2113	200.8	
7440-66-6	**Zinc**	**120**	1.0	mg/kg dry	10	09/26/18	B8I2113	200.8	

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Client ID: QMCP-SB46 0-4'

Lab ID: 1809100-06

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	57	ug/kg dry	50	09/14/18	B8I1431	8260	
71-55-6	1,1,1-Trichloroethane	ND	57	ug/kg dry	50	09/14/18	B8I1431	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	57	ug/kg dry	50	09/14/18	B8I1431	8260	
79-00-5	1,1,2-Trichloroethane	ND	57	ug/kg dry	50	09/14/18	B8I1431	8260	
75-34-3	1,1-Dichloroethane	ND	57	ug/kg dry	50	09/14/18	B8I1431	8260	
75-35-4	1,1-Dichloroethylene	ND	57	ug/kg dry	50	09/14/18	B8I1431	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	290	ug/kg dry	50	09/14/18	B8I1431	8260	
96-18-4	1,2,3-Trichloropropane	ND	57	ug/kg dry	50	09/14/18	B8I1431	8260	A05, A10
526-73-8	1,2,3-Trimethylbenzene	ND	57	ug/kg dry	50	09/14/18	B8I1431	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	290	ug/kg dry	50	09/14/18	B8I1431	8260	
95-63-6	**1,2,4-Trimethylbenzene**	**130**	57	ug/kg dry	50	09/14/18	B8I1431	8260	
106-93-4	1,2-Dibromoethane	ND	57	ug/kg dry	50	09/14/18	B8I1431	8260	
95-50-1	1,2-Dichlorobenzene	ND	57	ug/kg dry	50	09/14/18	B8I1431	8260	
107-06-2	1,2-Dichloroethane	ND	57	ug/kg dry	50	09/14/18	B8I1431	8260	
78-87-5	1,2-Dichloropropane	ND	57	ug/kg dry	50	09/14/18	B8I1431	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	57	ug/kg dry	50	09/14/18	B8I1431	8260	
541-73-1	1,3-Dichlorobenzene	ND	57	ug/kg dry	50	09/14/18	B8I1431	8260	
106-46-7	1,4-Dichlorobenzene	ND	57	ug/kg dry	50	09/14/18	B8I1431	8260	
540-84-1	2,2,4-Trimethylpentane	ND	290	ug/kg dry	50	09/14/18	B8I1431	8260	
78-93-3	2-Butanone (MEK)	ND	290	ug/kg dry	50	09/14/18	B8I1431	8260	
91-57-6	**2-Methylnaphthalene**	**310**	290	ug/kg dry	50	09/14/18	B8I1431	8260	X
67-64-1	2-Propanone (acetone)	ND	1100	ug/kg dry	50	09/14/18	B8I1431	8260	A05
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	290	ug/kg dry	50	09/14/18	B8I1431	8260	
107-13-1	Acrylonitrile	ND	290	ug/kg dry	50	09/14/18	B8I1431	8260	
71-43-2	Benzene	ND	57	ug/kg dry	50	09/14/18	B8I1431	8260	
74-97-5	Bromochloromethane	ND	57	ug/kg dry	50	09/14/18	B8I1431	8260	
75-27-4	Bromodichloromethane	ND	57	ug/kg dry	50	09/14/18	B8I1431	8260	
75-25-2	Bromoform	ND	57	ug/kg dry	50	09/14/18	B8I1431	8260	
74-83-9	Bromomethane	ND	230	ug/kg dry	50	09/14/18	B8I1431	8260	
75-15-0	Carbon disulfide	ND	57	ug/kg dry	50	09/14/18	B8I1431	8260	
56-23-5	Carbon tetrachloride	ND	57	ug/kg dry	50	09/14/18	B8I1431	8260	
108-90-7	Chlorobenzene	ND	57	ug/kg dry	50	09/14/18	B8I1431	8260	
75-00-3	Chloroethane	ND	290	ug/kg dry	50	09/14/18	B8I1431	8260	
67-66-3	Chloroform	ND	57	ug/kg dry	50	09/14/18	B8I1431	8260	
74-87-3	Chloromethane	ND	290	ug/kg dry	50	09/14/18	B8I1431	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	57	ug/kg dry	50	09/14/18	B8I1431	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	57	ug/kg dry	50	09/14/18	B8I1431	8260	
110-82-7	Cyclohexane	ND	290	ug/kg dry	50	09/14/18	B8I1431	8260	
124-48-1	Dibromochloromethane	ND	57	ug/kg dry	50	09/14/18	B8I1431	8260	
74-95-3	Dibromomethane	ND	57	ug/kg dry	50	09/14/18	B8I1431	8260	

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Client ID: QMCP-SB46 0-4'

Lab ID: 1809100-06

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	290	ug/kg dry	50	09/14/18	B8I1431	8260	
60-29-7	Diethyl ether	ND	230	ug/kg dry	50	09/14/18	B8I1431	8260	
108-20-3	Diisopropyl Ether	ND	290	ug/kg dry	50	09/14/18	B8I1431	8260	
100-41-4	Ethylbenzene	ND	57	ug/kg dry	50	09/14/18	B8I1431	8260	
637-92-3	Ethyltertiarybutylether	ND	290	ug/kg dry	50	09/14/18	B8I1431	8260	
67-72-1	Hexachloroethane	ND	290	ug/kg dry	50	09/14/18	B8I1431	8260	
110-54-3	Hexane	ND	57	ug/kg dry	50	09/14/18	B8I1431	8260	
98-82-8	Isopropylbenzene	ND	57	ug/kg dry	50	09/14/18	B8I1431	8260	
1330-20-7	**m & p - Xylene**	**230**	110	ug/kg dry	50	09/14/18	B8I1431	8260	
75-09-2	Methylene chloride	ND	110	ug/kg dry	50	09/14/18	B8I1431	8260	
1634-04-4	Methyltertiarybutylether	ND	57	ug/kg dry	50	09/14/18	B8I1431	8260	
91-20-3	Naphthalene	ND	290	ug/kg dry	50	09/14/18	B8I1431	8260	X
104-51-8	n-Butylbenzene	ND	57	ug/kg dry	50	09/14/18	B8I1431	8260	
103-65-1	n-Propylbenzene	ND	57	ug/kg dry	50	09/14/18	B8I1431	8260	
95-47-6	**o-Xylene**	**160**	57	ug/kg dry	50	09/14/18	B8I1431	8260	
135-98-8	sec-Butylbenzene	ND	57	ug/kg dry	50	09/14/18	B8I1431	8260	
100-42-5	Styrene	ND	57	ug/kg dry	50	09/14/18	B8I1431	8260	
98-06-6	tert-Butylbenzene	ND	57	ug/kg dry	50	09/14/18	B8I1431	8260	
75-65-0	tertiary Butyl Alcohol	ND	2900	ug/kg dry	50	09/14/18	B8I1431	8260	
994-05-8	tertiaryAmylmethylether	ND	290	ug/kg dry	50	09/14/18	B8I1431	8260	
127-18-4	Tetrachloroethylene	ND	57	ug/kg dry	50	09/14/18	B8I1431	8260	
109-99-9	Tetrahydrofuran	ND	290	ug/kg dry	50	09/14/18	B8I1431	8260	
108-88-3	**Toluene**	**180**	57	ug/kg dry	50	09/14/18	B8I1431	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	57	ug/kg dry	50	09/14/18	B8I1431	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	57	ug/kg dry	50	09/14/18	B8I1431	8260	
79-01-6	Trichloroethylene	ND	57	ug/kg dry	50	09/14/18	B8I1431	8260	
75-69-4	Trichlorofluoromethane	ND	57	ug/kg dry	50	09/14/18	B8I1431	8260	
75-01-4	Vinyl chloride	ND	57	ug/kg dry	50	09/14/18	B8I1431	8260	
Surrogate: Bromofluorobenzene			*101 %*	*40.3-194*		*09/14/18*	B8I1431	*8260*	
Surrogate: Dibromofluoromethane			*103 %*	*52.1-217*		*09/14/18*	B8I1431	*8260*	
Surrogate: Toluene-d8			*108 %*	*55.4-196*		*09/14/18*	B8I1431	*8260*	

STATE OF MICHIGAN
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MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

Client ID: QMCP-SB46 0-4'

Lab ID: 1809100-06

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y17, Y20**
91-57-6	**2-Methylnaphthalene**	**800**	540	ug/kg dry	1	10/02/18	B8I1921	8270	
83-32-9	Acenaphthene	ND	220	ug/kg dry	1	10/02/18	B8I1921	8270	
208-96-8	Acenaphthylene	ND	220	ug/kg dry	1	10/02/18	B8I1921	8270	
120-12-7	Anthracene	ND	220	ug/kg dry	1	10/02/18	B8I1921	8270	
56-55-3	**Benz[a]anthracene**	**330**	220	ug/kg dry	1	10/02/18	B8I1921	8270	
50-32-8	Benzo[a]pyrene	ND	430	ug/kg dry	1	10/02/18	B8I1921	8270	
205-99-2	**Benzo[b]fluoranthene**	**970**	430	ug/kg dry	1	10/02/18	B8I1921	8270	
191-24-2	Benzo[g,h,i]perylene	ND	430	ug/kg dry	1	10/02/18	B8I1921	8270	
207-08-9	Benzo[k]fluoranthene	ND	430	ug/kg dry	1	10/02/18	B8I1921	8270	
218-01-9	**Chrysene**	**600**	220	ug/kg dry	1	10/02/18	B8I1921	8270	
53-70-3	Dibenz[a,h]anthracene	ND	430	ug/kg dry	1	10/02/18	B8I1921	8270	
206-44-0	**Fluoranthene**	**660**	220	ug/kg dry	1	10/02/18	B8I1921	8270	
86-73-7	Fluorene	ND	220	ug/kg dry	1	10/02/18	B8I1921	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	430	ug/kg dry	1	10/02/18	B8I1921	8270	
91-20-3	**Naphthalene**	**560**	220	ug/kg dry	1	10/02/18	B8I1921	8270	
85-01-8	**Phenanthrene**	**680**	220	ug/kg dry	1	10/02/18	B8I1921	8270	
129-00-0	**Pyrene**	**520**	220	ug/kg dry	1	10/02/18	B8I1921	8270	
Surrogate: 2-Fluorobiphenyl			*80.2 %*	*32.9-115*		*10/02/18*	B8I1921	*8270*	
Surrogate: Nitrobenzene-d5			*67.3 %*	*31.8-115*		*10/02/18*	B8I1921	*8270*	
Surrogate: p-Terphenyl-d14			*77.2 %*	*38.5-115*		*10/02/18*	B8I1921	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	540	ug/kg dry	5	10/25/18	B8J1013	8081/8082	Y21
11104-28-2	Aroclor 1221	ND	540	ug/kg dry	5	10/25/18	B8J1013	8081/8082	Y21
11141-16-5	Aroclor 1232	ND	540	ug/kg dry	5	10/25/18	B8J1013	8081/8082	Y21
53469-21-9	Aroclor 1242	ND	540	ug/kg dry	5	10/25/18	B8J1013	8081/8082	Y21
12672-29-6	Aroclor 1248	ND	540	ug/kg dry	5	10/25/18	B8J1013	8081/8082	Y21
11097-69-1	Aroclor 1254	ND	540	ug/kg dry	5	10/25/18	B8J1013	8081/8082	Y21
11096-82-5	Aroclor 1260	ND	540	ug/kg dry	5	10/25/18	B8J1013	8081/8082	Y21
37324-23-5	Aroclor 1262	ND	540	ug/kg dry	5	10/25/18	B8J1013	8081/8082	Y21
11100-14-4	Aroclor 1268	ND	540	ug/kg dry	5	10/25/18	B8J1013	8081/8082	Y21
Surrogate: Decachlorobiphenyl			*107 %*	*30-150*		*10/25/18*	B8J1013	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*103 %*	*30-150*		*10/25/18*	B8J1013	*8081/8082*	

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TEL: (517) 335-9800
FAX: (517) 335-9600

Client ID: QMCP-SB46 0-4'

Lab ID: 1809100-06

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**92.6**	0.1	%	1	09/18/18	B8I1426	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**5.4**	0.5	mg/kg dry	10	09/26/18	B8I2113	200.8	
7440-43-9	**Cadmium**	**0.5**	0.2	mg/kg dry	10	09/26/18	B8I2113	200.8	
7440-47-3	**Chromium**	**29**	2.0	mg/kg dry	10	09/26/18	B8I2113	200.8	
7440-50-8	**Copper**	**710**	1.0	mg/kg dry	10	09/26/18	B8I2113	200.8	
7439-92-1	**Lead**	**20**	1.0	mg/kg dry	10	09/26/18	B8I2113	200.8	
7439-96-5	**Manganese**	**260**	1.0	mg/kg dry	10	09/26/18	B8I2113	200.8	
7439-97-6	Mercury	ND	0.05	mg/kg dry	1	09/26/18	B8I2413	245.5	
7440-22-4	**Silver**	**0.4**	0.1	mg/kg dry	10	09/26/18	B8I2113	200.8	
7440-66-6	**Zinc**	**130**	1.0	mg/kg dry	10	09/26/18	B8I2113	200.8	

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TEL: (517) 335-9800
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Client ID: QMCP-SB45 0-6"

Lab ID: 1809100-07

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									**See note Y11**
630-20-6	1,1,1,2-Tetrachloroethane	ND	66	ug/kg dry	50	09/14/18	B8I1431	8260	
71-55-6	1,1,1-Trichloroethane	ND	66	ug/kg dry	50	09/14/18	B8I1431	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	66	ug/kg dry	50	09/14/18	B8I1431	8260	
79-00-5	1,1,2-Trichloroethane	ND	66	ug/kg dry	50	09/14/18	B8I1431	8260	
75-34-3	1,1-Dichloroethane	ND	66	ug/kg dry	50	09/14/18	B8I1431	8260	
75-35-4	1,1-Dichloroethylene	ND	66	ug/kg dry	50	09/14/18	B8I1431	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	330	ug/kg dry	50	09/14/18	B8I1431	8260	
96-18-4	1,2,3-Trichloropropane	ND	66	ug/kg dry	50	09/14/18	B8I1431	8260	A05, A10
526-73-8	**1,2,3-Trimethylbenzene**	**830**	66	ug/kg dry	50	09/14/18	B8I1431	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	330	ug/kg dry	50	09/14/18	B8I1431	8260	
95-63-6	**1,2,4-Trimethylbenzene**	**2300**	66	ug/kg dry	50	09/14/18	B8I1431	8260	
106-93-4	1,2-Dibromoethane	ND	66	ug/kg dry	50	09/14/18	B8I1431	8260	
95-50-1	1,2-Dichlorobenzene	ND	66	ug/kg dry	50	09/14/18	B8I1431	8260	
107-06-2	1,2-Dichloroethane	ND	66	ug/kg dry	50	09/14/18	B8I1431	8260	
78-87-5	1,2-Dichloropropane	ND	66	ug/kg dry	50	09/14/18	B8I1431	8260	
108-67-8	**1,3,5-Trimethylbenzene**	**580**	66	ug/kg dry	50	09/14/18	B8I1431	8260	
541-73-1	1,3-Dichlorobenzene	ND	66	ug/kg dry	50	09/14/18	B8I1431	8260	
106-46-7	1,4-Dichlorobenzene	ND	66	ug/kg dry	50	09/14/18	B8I1431	8260	
540-84-1	2,2,4-Trimethylpentane	ND	330	ug/kg dry	50	09/14/18	B8I1431	8260	
78-93-3	**2-Butanone (MEK)**	**570**	330	ug/kg dry	50	09/14/18	B8I1431	8260	
91-57-6	**2-Methylnaphthalene**	**4800**	330	ug/kg dry	50	09/14/18	B8I1431	8260	X
67-64-1	2-Propanone (acetone)	ND	1300	ug/kg dry	50	09/14/18	B8I1431	8260	A05
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	330	ug/kg dry	50	09/14/18	B8I1431	8260	
107-13-1	Acrylonitrile	ND	330	ug/kg dry	50	09/14/18	B8I1431	8260	
71-43-2	**Benzene**	**520**	66	ug/kg dry	50	09/14/18	B8I1431	8260	
74-97-5	Bromochloromethane	ND	66	ug/kg dry	50	09/14/18	B8I1431	8260	
75-27-4	Bromodichloromethane	ND	66	ug/kg dry	50	09/14/18	B8I1431	8260	
75-25-2	Bromoform	ND	66	ug/kg dry	50	09/14/18	B8I1431	8260	
74-83-9	Bromomethane	ND	270	ug/kg dry	50	09/14/18	B8I1431	8260	
75-15-0	Carbon disulfide	ND	66	ug/kg dry	50	09/14/18	B8I1431	8260	
56-23-5	Carbon tetrachloride	ND	66	ug/kg dry	50	09/14/18	B8I1431	8260	
108-90-7	Chlorobenzene	ND	66	ug/kg dry	50	09/14/18	B8I1431	8260	
75-00-3	Chloroethane	ND	330	ug/kg dry	50	09/14/18	B8I1431	8260	
67-66-3	Chloroform	ND	66	ug/kg dry	50	09/14/18	B8I1431	8260	
74-87-3	Chloromethane	ND	330	ug/kg dry	50	09/14/18	B8I1431	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	66	ug/kg dry	50	09/14/18	B8I1431	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	66	ug/kg dry	50	09/14/18	B8I1431	8260	
110-82-7	**Cyclohexane**	**3600**	330	ug/kg dry	50	09/14/18	B8I1431	8260	
124-48-1	Dibromochloromethane	ND	66	ug/kg dry	50	09/14/18	B8I1431	8260	
74-95-3	Dibromomethane	ND	66	ug/kg dry	50	09/14/18	B8I1431	8260	

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TEL: (517) 335-9800
FAX: (517) 335-9600

Client ID: QMCP-SB45 0-6"

Lab ID: 1809100-07

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									**See note Y11**
75-71-8	Dichlorodifluoromethane	ND	330	ug/kg dry	50	09/14/18	B8I1431	8260	
60-29-7	Diethyl ether	ND	270	ug/kg dry	50	09/14/18	B8I1431	8260	
108-20-3	Diisopropyl Ether	ND	330	ug/kg dry	50	09/14/18	B8I1431	8260	
100-41-4	**Ethylbenzene**	**470**	66	ug/kg dry	50	09/14/18	B8I1431	8260	
637-92-3	Ethyltertiarybutylether	ND	330	ug/kg dry	50	09/14/18	B8I1431	8260	
67-72-1	Hexachloroethane	ND	330	ug/kg dry	50	09/14/18	B8I1431	8260	
110-54-3	**Hexane**	**1100**	66	ug/kg dry	50	09/14/18	B8I1431	8260	
98-82-8	**Isopropylbenzene**	**250**	66	ug/kg dry	50	09/14/18	B8I1431	8260	
1330-20-7	**m & p - Xylene**	**4600**	130	ug/kg dry	50	09/14/18	B8I1431	8260	
75-09-2	Methylene chloride	ND	130	ug/kg dry	50	09/14/18	B8I1431	8260	
1634-04-4	Methyltertiarybutylether	ND	66	ug/kg dry	50	09/14/18	B8I1431	8260	
91-20-3	**Naphthalene**	**4200**	330	ug/kg dry	50	09/14/18	B8I1431	8260	X
104-51-8	**n-Butylbenzene**	**190**	66	ug/kg dry	50	09/14/18	B8I1431	8260	
103-65-1	**n-Propylbenzene**	**310**	66	ug/kg dry	50	09/14/18	B8I1431	8260	
95-47-6	**o-Xylene**	**3000**	66	ug/kg dry	50	09/14/18	B8I1431	8260	
135-98-8	**sec-Butylbenzene**	**100**	66	ug/kg dry	50	09/14/18	B8I1431	8260	
100-42-5	Styrene	ND	66	ug/kg dry	50	09/14/18	B8I1431	8260	
98-06-6	tert-Butylbenzene	ND	66	ug/kg dry	50	09/14/18	B8I1431	8260	
75-65-0	tertiary Butyl Alcohol	ND	3300	ug/kg dry	50	09/14/18	B8I1431	8260	
994-05-8	tertiaryAmylmethylether	ND	330	ug/kg dry	50	09/14/18	B8I1431	8260	
127-18-4	Tetrachloroethylene	ND	66	ug/kg dry	50	09/14/18	B8I1431	8260	
109-99-9	Tetrahydrofuran	ND	330	ug/kg dry	50	09/14/18	B8I1431	8260	
108-88-3	**Toluene**	**3300**	66	ug/kg dry	50	09/14/18	B8I1431	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	66	ug/kg dry	50	09/14/18	B8I1431	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	66	ug/kg dry	50	09/14/18	B8I1431	8260	
79-01-6	Trichloroethylene	ND	66	ug/kg dry	50	09/14/18	B8I1431	8260	
75-69-4	Trichlorofluoromethane	ND	66	ug/kg dry	50	09/14/18	B8I1431	8260	
75-01-4	Vinyl chloride	ND	66	ug/kg dry	50	09/14/18	B8I1431	8260	
Surrogate: Bromofluorobenzene			*94.4 %*	*40.3-194*		*09/14/18*	B8I1431	*8260*	
Surrogate: Dibromofluoromethane			*103 %*	*52.1-217*		*09/14/18*	B8I1431	*8260*	
Surrogate: Toluene-d8			*107 %*	*55.4-196*		*09/14/18*	B8I1431	*8260*	

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Client ID: QMCP-SB45 0-6"

Lab ID: 1809100-07

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y17, Y20**
91-57-6	**2-Methylnaphthalene**	**10000**	550	ug/kg dry	1	10/02/18	B8I1921	8270	
83-32-9	Acenaphthene	ND	220	ug/kg dry	1	10/02/18	B8I1921	8270	
208-96-8	Acenaphthylene	ND	220	ug/kg dry	1	10/02/18	B8I1921	8270	
120-12-7	Anthracene	ND	220	ug/kg dry	1	10/02/18	B8I1921	8270	
56-55-3	**Benz[a]anthracene**	**540**	220	ug/kg dry	1	10/02/18	B8I1921	8270	
50-32-8	Benzo[a]pyrene	ND	440	ug/kg dry	1	10/02/18	B8I1921	8270	
205-99-2	**Benzo[b]fluoranthene**	**730**	440	ug/kg dry	1	10/02/18	B8I1921	8270	
191-24-2	Benzo[g,h,i]perylene	ND	440	ug/kg dry	1	10/02/18	B8I1921	8270	
207-08-9	Benzo[k]fluoranthene	ND	440	ug/kg dry	1	10/02/18	B8I1921	8270	
218-01-9	**Chrysene**	**830**	220	ug/kg dry	1	10/02/18	B8I1921	8270	
53-70-3	Dibenz[a,h]anthracene	ND	440	ug/kg dry	1	10/02/18	B8I1921	8270	
206-44-0	**Fluoranthene**	**750**	220	ug/kg dry	1	10/02/18	B8I1921	8270	
86-73-7	Fluorene	ND	220	ug/kg dry	1	10/02/18	B8I1921	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	440	ug/kg dry	1	10/02/18	B8I1921	8270	
91-20-3	**Naphthalene**	**6100**	220	ug/kg dry	1	10/02/18	B8I1921	8270	
85-01-8	**Phenanthrene**	**3900**	220	ug/kg dry	1	10/02/18	B8I1921	8270	
129-00-0	**Pyrene**	**740**	220	ug/kg dry	1	10/02/18	B8I1921	8270	
Surrogate: 2-Fluorobiphenyl			*84.6 %*	*32.9-115*		*10/02/18*	B8I1921	*8270*	
Surrogate: Nitrobenzene-d5			*70.6 %*	*31.8-115*		*10/02/18*	B8I1921	*8270*	
Surrogate: p-Terphenyl-d14			*78.7 %*	*38.5-115*		*10/02/18*	B8I1921	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	550	ug/kg dry	5	10/25/18	B8J1613	8081/8082	Y21
11104-28-2	Aroclor 1221	ND	550	ug/kg dry	5	10/25/18	B8J1613	8081/8082	Y21
11141-16-5	Aroclor 1232	ND	550	ug/kg dry	5	10/25/18	B8J1613	8081/8082	Y21
53469-21-9	Aroclor 1242	ND	550	ug/kg dry	5	10/25/18	B8J1613	8081/8082	Y21
12672-29-6	Aroclor 1248	ND	550	ug/kg dry	5	10/25/18	B8J1613	8081/8082	Y21
11097-69-1	**Aroclor 1254**	**1600**	550	ug/kg dry	5	10/25/18	B8J1613	8081/8082	
11096-82-5	Aroclor 1260	ND	1500	ug/kg dry	5	10/25/18	B8J1613	8081/8082	Y21
37324-23-5	Aroclor 1262	ND	1500	ug/kg dry	5	10/25/18	B8J1613	8081/8082	Y21
11100-14-4	Aroclor 1268	ND	550	ug/kg dry	5	10/25/18	B8J1613	8081/8082	Y21
Surrogate: Decachlorobiphenyl			*112 %*	*30-150*		*10/25/18*	B8J1613	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*91.5 %*	*30-150*		*10/25/18*	B8J1613	*8081/8082*	

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Lab ID: 1809100-07

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**90.6**	0.1	%	1	09/18/18	B8I1426	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**16**	0.5	mg/kg dry	10	09/26/18	B8I2113	200.8	
7440-43-9	**Cadmium**	**0.8**	0.2	mg/kg dry	10	09/26/18	B8I2113	200.8	
7440-47-3	**Chromium**	**58**	2.0	mg/kg dry	10	09/26/18	B8I2113	200.8	
7440-50-8	**Copper**	**2300**	1.0	mg/kg dry	10	09/26/18	B8I2113	200.8	
7439-92-1	**Lead**	**90**	1.0	mg/kg dry	10	09/26/18	B8I2113	200.8	
7439-96-5	**Manganese**	**430**	1.0	mg/kg dry	10	09/26/18	B8I2113	200.8	
7439-97-6	**Mercury**	**0.1**	0.06	mg/kg dry	1	09/26/18	B8I2413	245.5	
7440-22-4	**Silver**	**0.9**	0.1	mg/kg dry	10	09/26/18	B8I2113	200.8	
7440-66-6	**Zinc**	**120**	1.0	mg/kg dry	10	09/26/18	B8I2113	200.8	

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

Client ID: QMCP-SB45 6''-5'

Lab ID: 1809100-08

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									**See note Y11**
630-20-6	1,1,1,2-Tetrachloroethane	ND	60	ug/kg dry	50	09/17/18	B8I1704	8260	
71-55-6	1,1,1-Trichloroethane	ND	60	ug/kg dry	50	09/17/18	B8I1704	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	60	ug/kg dry	50	09/17/18	B8I1704	8260	
79-00-5	1,1,2-Trichloroethane	ND	60	ug/kg dry	50	09/17/18	B8I1704	8260	
75-34-3	1,1-Dichloroethane	ND	60	ug/kg dry	50	09/17/18	B8I1704	8260	
75-35-4	1,1-Dichloroethylene	ND	60	ug/kg dry	50	09/17/18	B8I1704	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	300	ug/kg dry	50	09/17/18	B8I1704	8260	
96-18-4	1,2,3-Trichloropropane	ND	60	ug/kg dry	50	09/17/18	B8I1704	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	60	ug/kg dry	50	09/17/18	B8I1704	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	300	ug/kg dry	50	09/17/18	B8I1704	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	60	ug/kg dry	50	09/17/18	B8I1704	8260	
106-93-4	1,2-Dibromoethane	ND	60	ug/kg dry	50	09/17/18	B8I1704	8260	
95-50-1	1,2-Dichlorobenzene	ND	60	ug/kg dry	50	09/17/18	B8I1704	8260	
107-06-2	1,2-Dichloroethane	ND	60	ug/kg dry	50	09/17/18	B8I1704	8260	
78-87-5	1,2-Dichloropropane	ND	60	ug/kg dry	50	09/17/18	B8I1704	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	60	ug/kg dry	50	09/17/18	B8I1704	8260	
541-73-1	1,3-Dichlorobenzene	ND	60	ug/kg dry	50	09/17/18	B8I1704	8260	
106-46-7	1,4-Dichlorobenzene	ND	60	ug/kg dry	50	09/17/18	B8I1704	8260	
540-84-1	2,2,4-Trimethylpentane	ND	300	ug/kg dry	50	09/17/18	B8I1704	8260	
78-93-3	2-Butanone (MEK)	ND	300	ug/kg dry	50	09/17/18	B8I1704	8260	
91-57-6	2-Methylnaphthalene	ND	300	ug/kg dry	50	09/17/18	B8I1704	8260	X
67-64-1	2-Propanone (acetone)	ND	1200	ug/kg dry	50	09/17/18	B8I1704	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	300	ug/kg dry	50	09/17/18	B8I1704	8260	
107-13-1	Acrylonitrile	ND	300	ug/kg dry	50	09/17/18	B8I1704	8260	
71-43-2	Benzene	ND	60	ug/kg dry	50	09/17/18	B8I1704	8260	
74-97-5	Bromochloromethane	ND	60	ug/kg dry	50	09/17/18	B8I1704	8260	
75-27-4	Bromodichloromethane	ND	60	ug/kg dry	50	09/17/18	B8I1704	8260	
75-25-2	Bromoform	ND	60	ug/kg dry	50	09/17/18	B8I1704	8260	
74-83-9	Bromomethane	ND	240	ug/kg dry	50	09/17/18	B8I1704	8260	
75-15-0	Carbon disulfide	ND	60	ug/kg dry	50	09/17/18	B8I1704	8260	
56-23-5	Carbon tetrachloride	ND	60	ug/kg dry	50	09/17/18	B8I1704	8260	
108-90-7	Chlorobenzene	ND	60	ug/kg dry	50	09/17/18	B8I1704	8260	
75-00-3	Chloroethane	ND	300	ug/kg dry	50	09/17/18	B8I1704	8260	
67-66-3	Chloroform	ND	60	ug/kg dry	50	09/17/18	B8I1704	8260	
74-87-3	Chloromethane	ND	300	ug/kg dry	50	09/17/18	B8I1704	8260	A07
156-59-2	cis-1,2-Dichloroethylene	ND	60	ug/kg dry	50	09/17/18	B8I1704	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	60	ug/kg dry	50	09/17/18	B8I1704	8260	
110-82-7	Cyclohexane	ND	300	ug/kg dry	50	09/17/18	B8I1704	8260	
124-48-1	Dibromochloromethane	ND	60	ug/kg dry	50	09/17/18	B8I1704	8260	
74-95-3	Dibromomethane	ND	60	ug/kg dry	50	09/17/18	B8I1704	8260	

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Client ID: QMCP-SB45 6''-5'

Lab ID: 1809100-08

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									**See note Y11**
75-71-8	Dichlorodifluoromethane	ND	300	ug/kg dry	50	09/17/18	B8I1704	8260	
60-29-7	Diethyl ether	ND	240	ug/kg dry	50	09/17/18	B8I1704	8260	
108-20-3	Diisopropyl Ether	ND	300	ug/kg dry	50	09/17/18	B8I1704	8260	
100-41-4	Ethylbenzene	ND	60	ug/kg dry	50	09/17/18	B8I1704	8260	
637-92-3	Ethyltertiarybutylether	ND	300	ug/kg dry	50	09/17/18	B8I1704	8260	
67-72-1	Hexachloroethane	ND	300	ug/kg dry	50	09/17/18	B8I1704	8260	
110-54-3	Hexane	ND	60	ug/kg dry	50	09/17/18	B8I1704	8260	A05
98-82-8	Isopropylbenzene	ND	60	ug/kg dry	50	09/17/18	B8I1704	8260	
1330-20-7	m & p - Xylene	ND	120	ug/kg dry	50	09/17/18	B8I1704	8260	
75-09-2	Methylene chloride	ND	120	ug/kg dry	50	09/17/18	B8I1704	8260	
1634-04-4	Methyltertiarybutylether	ND	60	ug/kg dry	50	09/17/18	B8I1704	8260	
91-20-3	Naphthalene	ND	300	ug/kg dry	50	09/17/18	B8I1704	8260	X
104-51-8	n-Butylbenzene	ND	60	ug/kg dry	50	09/17/18	B8I1704	8260	
103-65-1	n-Propylbenzene	ND	60	ug/kg dry	50	09/17/18	B8I1704	8260	
95-47-6	o-Xylene	ND	60	ug/kg dry	50	09/17/18	B8I1704	8260	
135-98-8	sec-Butylbenzene	ND	60	ug/kg dry	50	09/17/18	B8I1704	8260	
100-42-5	Styrene	ND	60	ug/kg dry	50	09/17/18	B8I1704	8260	
98-06-6	tert-Butylbenzene	ND	60	ug/kg dry	50	09/17/18	B8I1704	8260	
75-65-0	tertiary Butyl Alcohol	ND	3000	ug/kg dry	50	09/17/18	B8I1704	8260	
994-05-8	tertiaryAmylmethylether	ND	300	ug/kg dry	50	09/17/18	B8I1704	8260	
127-18-4	Tetrachloroethylene	ND	60	ug/kg dry	50	09/17/18	B8I1704	8260	
109-99-9	Tetrahydrofuran	ND	300	ug/kg dry	50	09/17/18	B8I1704	8260	
108-88-3	**Toluene**	**59**	60	ug/kg dry	50	09/17/18	B8I1704	8260	T
156-60-5	trans-1,2-Dichloroethylene	ND	60	ug/kg dry	50	09/17/18	B8I1704	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	60	ug/kg dry	50	09/17/18	B8I1704	8260	
79-01-6	Trichloroethylene	ND	60	ug/kg dry	50	09/17/18	B8I1704	8260	
75-69-4	Trichlorofluoromethane	ND	60	ug/kg dry	50	09/17/18	B8I1704	8260	
75-01-4	Vinyl chloride	ND	60	ug/kg dry	50	09/17/18	B8I1704	8260	A07
Surrogate: Bromofluorobenzene			*101 %*	*40.3-194*		*09/17/18*	B8I1704	*8260*	
Surrogate: Dibromofluoromethane			*115 %*	*52.1-217*		*09/17/18*	B8I1704	*8260*	
Surrogate: Toluene-d8			*112 %*	*55.4-196*		*09/17/18*	B8I1704	*8260*	

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Lab ID: 1809100-08

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y17, Y20**
91-57-6	2-Methylnaphthalene	ND	530	ug/kg dry	1	10/02/18	B8I1921	8270	
83-32-9	Acenaphthene	ND	210	ug/kg dry	1	10/02/18	B8I1921	8270	
208-96-8	Acenaphthylene	ND	210	ug/kg dry	1	10/02/18	B8I1921	8270	
120-12-7	Anthracene	ND	210	ug/kg dry	1	10/02/18	B8I1921	8270	
56-55-3	Benz[a]anthracene	ND	210	ug/kg dry	1	10/02/18	B8I1921	8270	
50-32-8	Benzo[a]pyrene	ND	430	ug/kg dry	1	10/02/18	B8I1921	8270	
205-99-2	Benzo[b]fluoranthene	ND	430	ug/kg dry	1	10/02/18	B8I1921	8270	
191-24-2	Benzo[g,h,i]perylene	ND	430	ug/kg dry	1	10/02/18	B8I1921	8270	
207-08-9	Benzo[k]fluoranthene	ND	430	ug/kg dry	1	10/02/18	B8I1921	8270	
218-01-9	Chrysene	ND	210	ug/kg dry	1	10/02/18	B8I1921	8270	
53-70-3	Dibenz[a,h]anthracene	ND	430	ug/kg dry	1	10/02/18	B8I1921	8270	
206-44-0	Fluoranthene	ND	210	ug/kg dry	1	10/02/18	B8I1921	8270	
86-73-7	Fluorene	ND	210	ug/kg dry	1	10/02/18	B8I1921	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	430	ug/kg dry	1	10/02/18	B8I1921	8270	
91-20-3	Naphthalene	ND	210	ug/kg dry	1	10/02/18	B8I1921	8270	
85-01-8	Phenanthrene	ND	210	ug/kg dry	1	10/02/18	B8I1921	8270	
129-00-0	Pyrene	ND	210	ug/kg dry	1	10/02/18	B8I1921	8270	
Surrogate: 2-Fluorobiphenyl			*80.1 %*	*32.9-115*		*10/02/18*	B8I1921	*8270*	
Surrogate: Nitrobenzene-d5			*64.5 %*	*31.8-115*		*10/02/18*	B8I1921	*8270*	
Surrogate: p-Terphenyl-d14			*80.7 %*	*38.5-115*		*10/02/18*	B8I1921	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	110	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
11104-28-2	Aroclor 1221	ND	110	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
11141-16-5	Aroclor 1232	ND	110	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
53469-21-9	Aroclor 1242	ND	110	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
12672-29-6	Aroclor 1248	ND	110	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
11097-69-1	Aroclor 1254	ND	110	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
11096-82-5	Aroclor 1260	ND	110	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
37324-23-5	Aroclor 1262	ND	110	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
11100-14-4	Aroclor 1268	ND	110	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
Surrogate: Decachlorobiphenyl			*91.7 %*	*30-150*		*10/20/18*	B8J1613	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*88.6 %*	*30-150*		*10/20/18*	B8J1613	*8081/8082*	

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Lab ID: 1809100-08

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**93.8**	0.1	%	1	09/18/18	B8I1426	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**12**	0.5	mg/kg dry	10	09/26/18	B8I2113	200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	09/26/18	B8I2113	200.8	
7440-47-3	**Chromium**	**19**	2.0	mg/kg dry	10	09/26/18	B8I2113	200.8	
7440-50-8	**Copper**	**180**	1.0	mg/kg dry	10	09/26/18	B8I2113	200.8	
7439-92-1	**Lead**	**3.4**	1.0	mg/kg dry	10	09/26/18	B8I2113	200.8	
7439-96-5	**Manganese**	**270**	1.0	mg/kg dry	10	09/26/18	B8I2113	200.8	
7439-97-6	Mercury	ND	0.05	mg/kg dry	1	09/26/18	B8I2413	245.5	
7440-22-4	Silver	ND	0.1	mg/kg dry	10	09/26/18	B8I2113	200.8	
7440-66-6	**Zinc**	**36**	1.0	mg/kg dry	10	09/26/18	B8I2113	200.8	

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TEL: (517) 335-9800
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Client ID: QMCP-SB48 0-6"

Lab ID: 1809100-09

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
71-55-6	1,1,1-Trichloroethane	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
79-00-5	1,1,2-Trichloroethane	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
75-34-3	1,1-Dichloroethane	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
75-35-4	1,1-Dichloroethylene	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	280	ug/kg dry	50	09/17/18	B8I1704	8260	
96-18-4	1,2,3-Trichloropropane	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	280	ug/kg dry	50	09/17/18	B8I1704	8260	
95-63-6	**1,2,4-Trimethylbenzene**	**130**	56	ug/kg dry	50	09/17/18	B8I1704	8260	
106-93-4	1,2-Dibromoethane	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
95-50-1	1,2-Dichlorobenzene	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
107-06-2	1,2-Dichloroethane	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
78-87-5	1,2-Dichloropropane	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
541-73-1	1,3-Dichlorobenzene	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
106-46-7	1,4-Dichlorobenzene	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
540-84-1	2,2,4-Trimethylpentane	ND	280	ug/kg dry	50	09/17/18	B8I1704	8260	
78-93-3	2-Butanone (MEK)	ND	280	ug/kg dry	50	09/17/18	B8I1704	8260	
91-57-6	**2-Methylnaphthalene**	**280**	280	ug/kg dry	50	09/17/18	B8I1704	8260	X
67-64-1	2-Propanone (acetone)	ND	1100	ug/kg dry	50	09/17/18	B8I1704	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	280	ug/kg dry	50	09/17/18	B8I1704	8260	
107-13-1	Acrylonitrile	ND	280	ug/kg dry	50	09/17/18	B8I1704	8260	
71-43-2	Benzene	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
74-97-5	Bromochloromethane	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
75-27-4	Bromodichloromethane	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
75-25-2	Bromoform	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
74-83-9	Bromomethane	ND	220	ug/kg dry	50	09/17/18	B8I1704	8260	
75-15-0	Carbon disulfide	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
56-23-5	Carbon tetrachloride	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
108-90-7	Chlorobenzene	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
75-00-3	Chloroethane	ND	280	ug/kg dry	50	09/17/18	B8I1704	8260	
67-66-3	Chloroform	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
74-87-3	Chloromethane	ND	280	ug/kg dry	50	09/17/18	B8I1704	8260	A07
156-59-2	cis-1,2-Dichloroethylene	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
110-82-7	Cyclohexane	ND	280	ug/kg dry	50	09/17/18	B8I1704	8260	
124-48-1	Dibromochloromethane	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
74-95-3	Dibromomethane	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	

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Client ID: QMCP-SB48 0-6"

Lab ID: 1809100-09

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	280	ug/kg dry	50	09/17/18	B8I1704	8260	
60-29-7	Diethyl ether	ND	220	ug/kg dry	50	09/17/18	B8I1704	8260	
108-20-3	Diisopropyl Ether	ND	280	ug/kg dry	50	09/17/18	B8I1704	8260	
100-41-4	Ethylbenzene	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
637-92-3	Ethyltertiarybutylether	ND	280	ug/kg dry	50	09/17/18	B8I1704	8260	
67-72-1	Hexachloroethane	ND	280	ug/kg dry	50	09/17/18	B8I1704	8260	
110-54-3	Hexane	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	A05
98-82-8	Isopropylbenzene	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
1330-20-7	**m & p - Xylene**	**230**	110	ug/kg dry	50	09/17/18	B8I1704	8260	
75-09-2	Methylene chloride	ND	110	ug/kg dry	50	09/17/18	B8I1704	8260	
1634-04-4	Methyltertiarybutylether	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
91-20-3	Naphthalene	ND	280	ug/kg dry	50	09/17/18	B8I1704	8260	X
104-51-8	n-Butylbenzene	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
103-65-1	n-Propylbenzene	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
95-47-6	**o-Xylene**	**170**	56	ug/kg dry	50	09/17/18	B8I1704	8260	
135-98-8	sec-Butylbenzene	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
100-42-5	Styrene	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
98-06-6	tert-Butylbenzene	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
75-65-0	tertiary Butyl Alcohol	ND	2800	ug/kg dry	50	09/17/18	B8I1704	8260	
994-05-8	tertiaryAmylmethylether	ND	280	ug/kg dry	50	09/17/18	B8I1704	8260	
127-18-4	Tetrachloroethylene	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
109-99-9	Tetrahydrofuran	ND	280	ug/kg dry	50	09/17/18	B8I1704	8260	
108-88-3	**Toluene**	**160**	56	ug/kg dry	50	09/17/18	B8I1704	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
79-01-6	Trichloroethylene	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
75-69-4	Trichlorofluoromethane	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
75-01-4	Vinyl chloride	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	A07
Surrogate: Bromofluorobenzene			*107 %*	*40.3-194*		*09/17/18*	B8I1704	*8260*	
Surrogate: Dibromofluoromethane			*115 %*	*52.1-217*		*09/17/18*	B8I1704	*8260*	
Surrogate: Toluene-d8			*116 %*	*55.4-196*		*09/17/18*	B8I1704	*8260*	

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ENVIRONMENTAL LABORATORY

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

Client ID: QMCP-SB48 0-6"

Lab ID: 1809100-09

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y17, Y20**
91-57-6	2-Methylnaphthalene	ND	530	ug/kg dry	1	10/02/18	B8I1922	8270	
83-32-9	Acenaphthene	ND	210	ug/kg dry	1	10/02/18	B8I1922	8270	
208-96-8	Acenaphthylene	ND	210	ug/kg dry	1	10/02/18	B8I1922	8270	
120-12-7	Anthracene	ND	210	ug/kg dry	1	10/02/18	B8I1922	8270	
56-55-3	**Benz[a]anthracene**	**320**	210	ug/kg dry	1	10/02/18	B8I1922	8270	
50-32-8	Benzo[a]pyrene	ND	430	ug/kg dry	1	10/02/18	B8I1922	8270	
205-99-2	**Benzo[b]fluoranthene**	**660**	430	ug/kg dry	1	10/02/18	B8I1922	8270	
191-24-2	Benzo[g,h,i]perylene	ND	430	ug/kg dry	1	10/02/18	B8I1922	8270	
207-08-9	Benzo[k]fluoranthene	ND	430	ug/kg dry	1	10/02/18	B8I1922	8270	
218-01-9	**Chrysene**	**380**	210	ug/kg dry	1	10/02/18	B8I1922	8270	
53-70-3	Dibenz[a,h]anthracene	ND	430	ug/kg dry	1	10/02/18	B8I1922	8270	
206-44-0	**Fluoranthene**	**640**	210	ug/kg dry	1	10/02/18	B8I1922	8270	
86-73-7	Fluorene	ND	210	ug/kg dry	1	10/02/18	B8I1922	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	430	ug/kg dry	1	10/02/18	B8I1922	8270	
91-20-3	**Naphthalene**	**220**	210	ug/kg dry	1	10/02/18	B8I1922	8270	
85-01-8	**Phenanthrene**	**440**	210	ug/kg dry	1	10/02/18	B8I1922	8270	
129-00-0	**Pyrene**	**490**	210	ug/kg dry	1	10/02/18	B8I1922	8270	
Surrogate: 2-Fluorobiphenyl			*97.1 %*	*32.9-115*		*10/02/18*	B8I1922	*8270*	
Surrogate: Nitrobenzene-d5			*86.7 %*	*31.8-115*		*10/02/18*	B8I1922	*8270*	
Surrogate: p-Terphenyl-d14			*102 %*	*38.5-115*		*10/02/18*	B8I1922	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	2700	ug/kg dry	5	10/25/18	B8J1613	8081/8082	Y21
11104-28-2	Aroclor 1221	ND	2700	ug/kg dry	5	10/25/18	B8J1613	8081/8082	Y21
11141-16-5	Aroclor 1232	ND	2700	ug/kg dry	5	10/25/18	B8J1613	8081/8082	Y21
53469-21-9	Aroclor 1242	ND	2700	ug/kg dry	5	10/25/18	B8J1613	8081/8082	Y21
12672-29-6	Aroclor 1248	ND	2700	ug/kg dry	5	10/25/18	B8J1613	8081/8082	Y21
11097-69-1	Aroclor 1254	ND	2700	ug/kg dry	5	10/25/18	B8J1613	8081/8082	Y21
11096-82-5	Aroclor 1260	ND	2700	ug/kg dry	5	10/25/18	B8J1613	8081/8082	Y21
37324-23-5	Aroclor 1262	ND	2700	ug/kg dry	5	10/25/18	B8J1613	8081/8082	Y21
11100-14-4	Aroclor 1268	ND	2700	ug/kg dry	5	10/25/18	B8J1613	8081/8082	Y21
Surrogate: Decachlorobiphenyl			*120 %*	*30-150*		*10/25/18*	B8J1613	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*116 %*	*30-150*		*10/25/18*	B8J1613	*8081/8082*	

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Client ID: QMCP-SB48 0-6"

Lab ID: 1809100-09

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**93.5**	0.1	%	1	09/18/18	B8I1426	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**7.8**	0.5	mg/kg dry	10	09/26/18	B8I2113	200.8	
7440-43-9	**Cadmium**	**0.8**	0.2	mg/kg dry	10	09/26/18	B8I2113	200.8	
7440-47-3	**Chromium**	**33**	2.0	mg/kg dry	10	09/26/18	B8I2113	200.8	
7440-50-8	**Copper**	**4300**	100	mg/kg dry	1000	09/26/18	B8I2113	200.8	
7439-92-1	**Lead**	**670**	1.0	mg/kg dry	10	09/26/18	B8I2113	200.8	
7439-96-5	**Manganese**	**320**	1.0	mg/kg dry	10	09/26/18	B8I2113	200.8	
7439-97-6	**Mercury**	**0.2**	0.05	mg/kg dry	1	09/26/18	B8I2413	245.5	
7440-22-4	**Silver**	**2.5**	0.1	mg/kg dry	10	09/26/18	B8I2113	200.8	
7440-66-6	**Zinc**	**1000**	1.0	mg/kg dry	10	09/26/18	B8I2113	200.8	

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TEL: (517) 335-9800
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Client ID: QMCP-SB48 6''-5'

Lab ID: 1809100-10

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	60	ug/kg dry	50	09/17/18	B8I1704	8260	
71-55-6	1,1,1-Trichloroethane	ND	60	ug/kg dry	50	09/17/18	B8I1704	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	60	ug/kg dry	50	09/17/18	B8I1704	8260	
79-00-5	1,1,2-Trichloroethane	ND	60	ug/kg dry	50	09/17/18	B8I1704	8260	
75-34-3	1,1-Dichloroethane	ND	60	ug/kg dry	50	09/17/18	B8I1704	8260	
75-35-4	1,1-Dichloroethylene	ND	60	ug/kg dry	50	09/17/18	B8I1704	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	300	ug/kg dry	50	09/17/18	B8I1704	8260	
96-18-4	1,2,3-Trichloropropane	ND	60	ug/kg dry	50	09/17/18	B8I1704	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	60	ug/kg dry	50	09/17/18	B8I1704	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	300	ug/kg dry	50	09/17/18	B8I1704	8260	
95-63-6	**1,2,4-Trimethylbenzene**	**110**	60	ug/kg dry	50	09/17/18	B8I1704	8260	
106-93-4	1,2-Dibromoethane	ND	60	ug/kg dry	50	09/17/18	B8I1704	8260	
95-50-1	1,2-Dichlorobenzene	ND	60	ug/kg dry	50	09/17/18	B8I1704	8260	
107-06-2	1,2-Dichloroethane	ND	60	ug/kg dry	50	09/17/18	B8I1704	8260	
78-87-5	1,2-Dichloropropane	ND	60	ug/kg dry	50	09/17/18	B8I1704	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	60	ug/kg dry	50	09/17/18	B8I1704	8260	
541-73-1	1,3-Dichlorobenzene	ND	60	ug/kg dry	50	09/17/18	B8I1704	8260	
106-46-7	1,4-Dichlorobenzene	ND	60	ug/kg dry	50	09/17/18	B8I1704	8260	
540-84-1	2,2,4-Trimethylpentane	ND	300	ug/kg dry	50	09/17/18	B8I1704	8260	
78-93-3	2-Butanone (MEK)	ND	300	ug/kg dry	50	09/17/18	B8I1704	8260	
91-57-6	**2-Methylnaphthalene**	**330**	300	ug/kg dry	50	09/17/18	B8I1704	8260	X
67-64-1	2-Propanone (acetone)	ND	1200	ug/kg dry	50	09/17/18	B8I1704	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	300	ug/kg dry	50	09/17/18	B8I1704	8260	
107-13-1	Acrylonitrile	ND	300	ug/kg dry	50	09/17/18	B8I1704	8260	
71-43-2	**Benzene**	**120**	60	ug/kg dry	50	09/17/18	B8I1704	8260	
74-97-5	Bromochloromethane	ND	60	ug/kg dry	50	09/17/18	B8I1704	8260	
75-27-4	Bromodichloromethane	ND	60	ug/kg dry	50	09/17/18	B8I1704	8260	
75-25-2	Bromoform	ND	60	ug/kg dry	50	09/17/18	B8I1704	8260	
74-83-9	Bromomethane	ND	240	ug/kg dry	50	09/17/18	B8I1704	8260	
75-15-0	Carbon disulfide	ND	60	ug/kg dry	50	09/17/18	B8I1704	8260	
56-23-5	Carbon tetrachloride	ND	60	ug/kg dry	50	09/17/18	B8I1704	8260	
108-90-7	Chlorobenzene	ND	60	ug/kg dry	50	09/17/18	B8I1704	8260	
75-00-3	Chloroethane	ND	300	ug/kg dry	50	09/17/18	B8I1704	8260	
67-66-3	Chloroform	ND	60	ug/kg dry	50	09/17/18	B8I1704	8260	
74-87-3	Chloromethane	ND	300	ug/kg dry	50	09/17/18	B8I1704	8260	A07
156-59-2	cis-1,2-Dichloroethylene	ND	60	ug/kg dry	50	09/17/18	B8I1704	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	60	ug/kg dry	50	09/17/18	B8I1704	8260	
110-82-7	Cyclohexane	ND	300	ug/kg dry	50	09/17/18	B8I1704	8260	
124-48-1	Dibromochloromethane	ND	60	ug/kg dry	50	09/17/18	B8I1704	8260	
74-95-3	Dibromomethane	ND	60	ug/kg dry	50	09/17/18	B8I1704	8260	

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Client ID: QMCP-SB48 6''-5'

Lab ID: 1809100-10

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	300	ug/kg dry	50	09/17/18	B8I1704	8260	
60-29-7	Diethyl ether	ND	240	ug/kg dry	50	09/17/18	B8I1704	8260	
108-20-3	Diisopropyl Ether	ND	300	ug/kg dry	50	09/17/18	B8I1704	8260	
100-41-4	Ethylbenzene	ND	60	ug/kg dry	50	09/17/18	B8I1704	8260	
637-92-3	Ethyltertiarybutylether	ND	300	ug/kg dry	50	09/17/18	B8I1704	8260	
67-72-1	Hexachloroethane	ND	300	ug/kg dry	50	09/17/18	B8I1704	8260	
110-54-3	Hexane	ND	60	ug/kg dry	50	09/17/18	B8I1704	8260	A05
98-82-8	Isopropylbenzene	ND	60	ug/kg dry	50	09/17/18	B8I1704	8260	
1330-20-7	**m & p - Xylene**	**250**	120	ug/kg dry	50	09/17/18	B8I1704	8260	
75-09-2	Methylene chloride	ND	120	ug/kg dry	50	09/17/18	B8I1704	8260	
1634-04-4	Methyltertiarybutylether	ND	60	ug/kg dry	50	09/17/18	B8I1704	8260	
91-20-3	Naphthalene	ND	300	ug/kg dry	50	09/17/18	B8I1704	8260	X
104-51-8	n-Butylbenzene	ND	60	ug/kg dry	50	09/17/18	B8I1704	8260	
103-65-1	n-Propylbenzene	ND	60	ug/kg dry	50	09/17/18	B8I1704	8260	
95-47-6	**o-Xylene**	**140**	60	ug/kg dry	50	09/17/18	B8I1704	8260	
135-98-8	sec-Butylbenzene	ND	60	ug/kg dry	50	09/17/18	B8I1704	8260	
100-42-5	Styrene	ND	60	ug/kg dry	50	09/17/18	B8I1704	8260	
98-06-6	tert-Butylbenzene	ND	60	ug/kg dry	50	09/17/18	B8I1704	8260	
75-65-0	tertiary Butyl Alcohol	ND	3000	ug/kg dry	50	09/17/18	B8I1704	8260	
994-05-8	tertiaryAmylmethylether	ND	300	ug/kg dry	50	09/17/18	B8I1704	8260	
127-18-4	Tetrachloroethylene	ND	60	ug/kg dry	50	09/17/18	B8I1704	8260	
109-99-9	Tetrahydrofuran	ND	300	ug/kg dry	50	09/17/18	B8I1704	8260	
108-88-3	**Toluene**	**300**	60	ug/kg dry	50	09/17/18	B8I1704	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	60	ug/kg dry	50	09/17/18	B8I1704	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	60	ug/kg dry	50	09/17/18	B8I1704	8260	
79-01-6	Trichloroethylene	ND	60	ug/kg dry	50	09/17/18	B8I1704	8260	
75-69-4	Trichlorofluoromethane	ND	60	ug/kg dry	50	09/17/18	B8I1704	8260	
75-01-4	Vinyl chloride	ND	60	ug/kg dry	50	09/17/18	B8I1704	8260	A07
Surrogate: Bromofluorobenzene			*101 %*	*40.3-194*		*09/17/18*	B8I1704	*8260*	
Surrogate: Dibromofluoromethane			*165 %*	*52.1-217*		*09/17/18*	B8I1704	*8260*	
Surrogate: Toluene-d8			*115 %*	*55.4-196*		*09/17/18*	B8I1704	*8260*	

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Client ID: QMCP-SB48 6''-5'

Lab ID: 1809100-10

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y17, Y20**
91-57-6	**2-Methylnaphthalene**	**540**	530	ug/kg dry	1	10/02/18	B8I1922	8270	A02
83-32-9	Acenaphthene	ND	210	ug/kg dry	1	10/02/18	B8I1922	8270	
208-96-8	Acenaphthylene	ND	210	ug/kg dry	1	10/02/18	B8I1922	8270	
120-12-7	Anthracene	ND	210	ug/kg dry	1	10/02/18	B8I1922	8270	
56-55-3	**Benz[a]anthracene**	**910**	210	ug/kg dry	1	10/02/18	B8I1922	8270	A02
50-32-8	Benzo[a]pyrene	ND	4300	ug/kg dry	10	10/03/18	B8I1922	8270	Y21
205-99-2	Benzo[b]fluoranthene	ND	4300	ug/kg dry	10	10/03/18	B8I1922	8270	Y21
191-24-2	Benzo[g,h,i]perylene	ND	4300	ug/kg dry	10	10/03/18	B8I1922	8270	Y21
207-08-9	Benzo[k]fluoranthene	ND	4300	ug/kg dry	10	10/03/18	B8I1922	8270	Y21
218-01-9	**Chrysene**	**1500**	210	ug/kg dry	1	10/02/18	B8I1922	8270	A02
53-70-3	Dibenz[a,h]anthracene	ND	4300	ug/kg dry	10	10/03/18	B8I1922	8270	Y21
206-44-0	**Fluoranthene**	**1100**	210	ug/kg dry	1	10/02/18	B8I1922	8270	A02
86-73-7	Fluorene	ND	210	ug/kg dry	1	10/02/18	B8I1922	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	4300	ug/kg dry	10	10/03/18	B8I1922	8270	Y21
91-20-3	**Naphthalene**	**310**	210	ug/kg dry	1	10/02/18	B8I1922	8270	A02
85-01-8	**Phenanthrene**	**940**	210	ug/kg dry	1	10/02/18	B8I1922	8270	A02
129-00-0	**Pyrene**	**5900**	210	ug/kg dry	1	10/02/18	B8I1922	8270	A02
Surrogate: 2-Fluorobiphenyl			*97.9 %*	*32.9-115*		*10/02/18*	B8I1922	*8270*	
Surrogate: Nitrobenzene-d5			*85.3 %*	*31.8-115*		*10/02/18*	B8I1922	*8270*	
Surrogate: p-Terphenyl-d14			*129 %*	*38.5-115*		*10/02/18*	B8I1922	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	1100	ug/kg dry	10	11/05/18	B8J1613	8081/8082	Y21
11104-28-2	Aroclor 1221	ND	1100	ug/kg dry	10	11/05/18	B8J1613	8081/8082	Y21
11141-16-5	Aroclor 1232	ND	1100	ug/kg dry	10	11/05/18	B8J1613	8081/8082	Y21
53469-21-9	Aroclor 1242	ND	1100	ug/kg dry	10	11/05/18	B8J1613	8081/8082	Y21
12672-29-6	Aroclor 1248	ND	1100	ug/kg dry	10	11/05/18	B8J1613	8081/8082	Y21
11097-69-1	Aroclor 1254	ND	1100	ug/kg dry	10	11/05/18	B8J1613	8081/8082	Y21
11096-82-5	Aroclor 1260	ND	1500	ug/kg dry	10	11/05/18	B8J1613	8081/8082	Y21
37324-23-5	Aroclor 1262	ND	1500	ug/kg dry	10	11/05/18	B8J1613	8081/8082	Y21
11100-14-4	Aroclor 1268	ND	1100	ug/kg dry	10	11/05/18	B8J1613	8081/8082	Y21
Surrogate: Decachlorobiphenyl			*176 %*	*30-150*		*11/05/18*	B8J1613	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*103 %*	*30-150*		*11/05/18*	B8J1613	*8081/8082*	

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Lab ID: 1809100-10

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**94.0**	0.1	%	1	09/18/18	B8I1426	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**4.0**	0.5	mg/kg dry	10	09/26/18	B8I2113	200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	09/26/18	B8I2113	200.8	
7440-47-3	**Chromium**	**24**	2.0	mg/kg dry	10	09/26/18	B8I2113	200.8	
7440-50-8	**Copper**	**3200**	100	mg/kg dry	1000	09/26/18	B8I2113	200.8	
7439-92-1	**Lead**	**76**	1.0	mg/kg dry	10	09/26/18	B8I2113	200.8	
7439-96-5	**Manganese**	**330**	1.0	mg/kg dry	10	09/26/18	B8I2113	200.8	
7439-97-6	Mercury	ND	0.05	mg/kg dry	1	09/26/18	B8I2413	245.5	
7440-22-4	**Silver**	**1.4**	0.1	mg/kg dry	10	09/26/18	B8I2113	200.8	
7440-66-6	**Zinc**	**78**	1.0	mg/kg dry	10	09/26/18	B8I2113	200.8	

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TEL: (517) 335-9800
FAX: (517) 335-9600

Client ID: QMCP-SB44 0-6"

Lab ID: 1809100-11

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	70	ug/kg dry	50	09/17/18	B8I1704	8260	
71-55-6	1,1,1-Trichloroethane	ND	70	ug/kg dry	50	09/17/18	B8I1704	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	70	ug/kg dry	50	09/17/18	B8I1704	8260	
79-00-5	1,1,2-Trichloroethane	ND	70	ug/kg dry	50	09/17/18	B8I1704	8260	
75-34-3	1,1-Dichloroethane	ND	70	ug/kg dry	50	09/17/18	B8I1704	8260	
75-35-4	1,1-Dichloroethylene	ND	70	ug/kg dry	50	09/17/18	B8I1704	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	350	ug/kg dry	50	09/17/18	B8I1704	8260	
96-18-4	1,2,3-Trichloropropane	ND	70	ug/kg dry	50	09/17/18	B8I1704	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	70	ug/kg dry	50	09/17/18	B8I1704	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	350	ug/kg dry	50	09/17/18	B8I1704	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	70	ug/kg dry	50	09/17/18	B8I1704	8260	
106-93-4	1,2-Dibromoethane	ND	70	ug/kg dry	50	09/17/18	B8I1704	8260	
95-50-1	1,2-Dichlorobenzene	ND	70	ug/kg dry	50	09/17/18	B8I1704	8260	
107-06-2	1,2-Dichloroethane	ND	70	ug/kg dry	50	09/17/18	B8I1704	8260	
78-87-5	1,2-Dichloropropane	ND	70	ug/kg dry	50	09/17/18	B8I1704	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	70	ug/kg dry	50	09/17/18	B8I1704	8260	
541-73-1	1,3-Dichlorobenzene	ND	70	ug/kg dry	50	09/17/18	B8I1704	8260	
106-46-7	1,4-Dichlorobenzene	ND	70	ug/kg dry	50	09/17/18	B8I1704	8260	
540-84-1	2,2,4-Trimethylpentane	ND	350	ug/kg dry	50	09/17/18	B8I1704	8260	
78-93-3	2-Butanone (MEK)	ND	350	ug/kg dry	50	09/17/18	B8I1704	8260	
91-57-6	2-Methylnaphthalene	ND	350	ug/kg dry	50	09/17/18	B8I1704	8260	X
67-64-1	2-Propanone (acetone)	ND	1400	ug/kg dry	50	09/17/18	B8I1704	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	350	ug/kg dry	50	09/17/18	B8I1704	8260	
107-13-1	Acrylonitrile	ND	350	ug/kg dry	50	09/17/18	B8I1704	8260	
71-43-2	Benzene	ND	70	ug/kg dry	50	09/17/18	B8I1704	8260	
74-97-5	Bromochloromethane	ND	70	ug/kg dry	50	09/17/18	B8I1704	8260	
75-27-4	Bromodichloromethane	ND	70	ug/kg dry	50	09/17/18	B8I1704	8260	
75-25-2	Bromoform	ND	70	ug/kg dry	50	09/17/18	B8I1704	8260	
74-83-9	Bromomethane	ND	280	ug/kg dry	50	09/17/18	B8I1704	8260	
75-15-0	Carbon disulfide	ND	70	ug/kg dry	50	09/17/18	B8I1704	8260	
56-23-5	Carbon tetrachloride	ND	70	ug/kg dry	50	09/17/18	B8I1704	8260	
108-90-7	Chlorobenzene	ND	70	ug/kg dry	50	09/17/18	B8I1704	8260	
75-00-3	Chloroethane	ND	350	ug/kg dry	50	09/17/18	B8I1704	8260	
67-66-3	Chloroform	ND	70	ug/kg dry	50	09/17/18	B8I1704	8260	
74-87-3	Chloromethane	ND	350	ug/kg dry	50	09/17/18	B8I1704	8260	A07
156-59-2	cis-1,2-Dichloroethylene	ND	70	ug/kg dry	50	09/17/18	B8I1704	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	70	ug/kg dry	50	09/17/18	B8I1704	8260	
110-82-7	Cyclohexane	ND	350	ug/kg dry	50	09/17/18	B8I1704	8260	
124-48-1	Dibromochloromethane	ND	70	ug/kg dry	50	09/17/18	B8I1704	8260	
74-95-3	Dibromomethane	ND	70	ug/kg dry	50	09/17/18	B8I1704	8260	

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Lab ID: 1809100-11

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	350	ug/kg dry	50	09/17/18	B8I1704	8260	
60-29-7	Diethyl ether	ND	280	ug/kg dry	50	09/17/18	B8I1704	8260	
108-20-3	Diisopropyl Ether	ND	350	ug/kg dry	50	09/17/18	B8I1704	8260	
100-41-4	Ethylbenzene	ND	70	ug/kg dry	50	09/17/18	B8I1704	8260	
637-92-3	Ethyltertiarybutylether	ND	350	ug/kg dry	50	09/17/18	B8I1704	8260	
67-72-1	Hexachloroethane	ND	350	ug/kg dry	50	09/17/18	B8I1704	8260	
110-54-3	Hexane	ND	70	ug/kg dry	50	09/17/18	B8I1704	8260	A05
98-82-8	Isopropylbenzene	ND	70	ug/kg dry	50	09/17/18	B8I1704	8260	
1330-20-7	m & p - Xylene	ND	140	ug/kg dry	50	09/17/18	B8I1704	8260	
75-09-2	Methylene chloride	ND	140	ug/kg dry	50	09/17/18	B8I1704	8260	
1634-04-4	Methyltertiarybutylether	ND	70	ug/kg dry	50	09/17/18	B8I1704	8260	
91-20-3	Naphthalene	ND	350	ug/kg dry	50	09/17/18	B8I1704	8260	X
104-51-8	n-Butylbenzene	ND	70	ug/kg dry	50	09/17/18	B8I1704	8260	
103-65-1	n-Propylbenzene	ND	70	ug/kg dry	50	09/17/18	B8I1704	8260	
95-47-6	o-Xylene	ND	70	ug/kg dry	50	09/17/18	B8I1704	8260	
135-98-8	sec-Butylbenzene	ND	70	ug/kg dry	50	09/17/18	B8I1704	8260	
100-42-5	Styrene	ND	70	ug/kg dry	50	09/17/18	B8I1704	8260	
98-06-6	tert-Butylbenzene	ND	70	ug/kg dry	50	09/17/18	B8I1704	8260	
75-65-0	tertiary Butyl Alcohol	ND	3500	ug/kg dry	50	09/17/18	B8I1704	8260	
994-05-8	tertiaryAmylmethylether	ND	350	ug/kg dry	50	09/17/18	B8I1704	8260	
127-18-4	Tetrachloroethylene	ND	70	ug/kg dry	50	09/17/18	B8I1704	8260	
109-99-9	Tetrahydrofuran	ND	350	ug/kg dry	50	09/17/18	B8I1704	8260	
108-88-3	Toluene	ND	70	ug/kg dry	50	09/17/18	B8I1704	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	70	ug/kg dry	50	09/17/18	B8I1704	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	70	ug/kg dry	50	09/17/18	B8I1704	8260	
79-01-6	Trichloroethylene	ND	70	ug/kg dry	50	09/17/18	B8I1704	8260	
75-69-4	Trichlorofluoromethane	ND	70	ug/kg dry	50	09/17/18	B8I1704	8260	
75-01-4	Vinyl chloride	ND	70	ug/kg dry	50	09/17/18	B8I1704	8260	A07
Surrogate: Bromofluorobenzene			*128 %*	*40.3-194*		*09/17/18*	B8I1704	*8260*	
Surrogate: Dibromofluoromethane			*145 %*	*52.1-217*		*09/17/18*	B8I1704	*8260*	
Surrogate: Toluene-d8			*137 %*	*55.4-196*		*09/17/18*	B8I1704	*8260*	

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Lab ID: 1809100-11

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y11, Y20**
91-57-6	2-Methylnaphthalene	ND	600	ug/kg dry	1	10/02/18	B8I1922	8270	
83-32-9	Acenaphthene	ND	240	ug/kg dry	1	10/02/18	B8I1922	8270	
208-96-8	Acenaphthylene	ND	240	ug/kg dry	1	10/02/18	B8I1922	8270	
120-12-7	Anthracene	ND	240	ug/kg dry	1	10/02/18	B8I1922	8270	
56-55-3	**Benz[a]anthracene**	**460**	240	ug/kg dry	1	10/02/18	B8I1922	8270	
50-32-8	Benzo[a]pyrene	ND	480	ug/kg dry	1	10/02/18	B8I1922	8270	
205-99-2	**Benzo[b]fluoranthene**	**830**	480	ug/kg dry	1	10/02/18	B8I1922	8270	
191-24-2	Benzo[g,h,i]perylene	ND	480	ug/kg dry	1	10/02/18	B8I1922	8270	
207-08-9	Benzo[k]fluoranthene	ND	480	ug/kg dry	1	10/02/18	B8I1922	8270	
218-01-9	**Chrysene**	**440**	240	ug/kg dry	1	10/02/18	B8I1922	8270	
53-70-3	Dibenz[a,h]anthracene	ND	480	ug/kg dry	1	10/02/18	B8I1922	8270	
206-44-0	**Fluoranthene**	**890**	240	ug/kg dry	1	10/02/18	B8I1922	8270	
86-73-7	Fluorene	ND	240	ug/kg dry	1	10/02/18	B8I1922	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	480	ug/kg dry	1	10/02/18	B8I1922	8270	
91-20-3	Naphthalene	ND	240	ug/kg dry	1	10/02/18	B8I1922	8270	
85-01-8	**Phenanthrene**	**380**	240	ug/kg dry	1	10/02/18	B8I1922	8270	
129-00-0	**Pyrene**	**840**	240	ug/kg dry	1	10/02/18	B8I1922	8270	
Surrogate: 2-Fluorobiphenyl			*92.5 %*	*32.9-115*		*10/02/18*	B8I1922	*8270*	
Surrogate: Nitrobenzene-d5			*84.0 %*	*31.8-115*		*10/02/18*	B8I1922	*8270*	
Surrogate: p-Terphenyl-d14			*102 %*	*38.5-115*		*10/02/18*	B8I1922	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	120	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
11104-28-2	Aroclor 1221	ND	120	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
11141-16-5	Aroclor 1232	ND	120	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
53469-21-9	Aroclor 1242	ND	120	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
12672-29-6	Aroclor 1248	ND	120	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
11097-69-1	Aroclor 1254	ND	120	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
11096-82-5	Aroclor 1260	ND	130	ug/kg dry	1	10/20/18	B8J1613	8081/8082	Y21
37324-23-5	Aroclor 1262	ND	130	ug/kg dry	1	10/20/18	B8J1613	8081/8082	Y21
11100-14-4	Aroclor 1268	ND	120	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
Surrogate: Decachlorobiphenyl			*82.7 %*	*30-150*		*10/20/18*	B8J1613	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*76.4 %*	*30-150*		*10/20/18*	B8J1613	*8081/8082*	

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Lab ID: 1809100-11

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**83.4**	0.1	%	1	09/18/18	B8I1426	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**14**	0.5	mg/kg dry	10	09/26/18	B8I2113	200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	09/26/18	B8I2113	200.8	
7440-47-3	**Chromium**	**66**	2.0	mg/kg dry	10	09/26/18	B8I2113	200.8	
7440-50-8	**Copper**	**6500**	100	mg/kg dry	1000	09/26/18	B8I2113	200.8	
7439-92-1	**Lead**	**27**	1.0	mg/kg dry	10	09/26/18	B8I2113	200.8	
7439-96-5	**Manganese**	**470**	1.0	mg/kg dry	10	09/26/18	B8I2113	200.8	
7439-97-6	**Mercury**	**0.06**	0.06	mg/kg dry	1	09/26/18	B8I2413	245.5	
7440-22-4	**Silver**	**1.7**	0.1	mg/kg dry	10	09/26/18	B8I2113	200.8	
7440-66-6	**Zinc**	**73**	1.0	mg/kg dry	10	09/26/18	B8I2113	200.8	

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Client ID: QMCP-SB44 6''-4'

Lab ID: 1809100-12

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	68	ug/kg dry	50	09/17/18	B8I1704	8260	
71-55-6	1,1,1-Trichloroethane	ND	68	ug/kg dry	50	09/17/18	B8I1704	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	68	ug/kg dry	50	09/17/18	B8I1704	8260	
79-00-5	1,1,2-Trichloroethane	ND	68	ug/kg dry	50	09/17/18	B8I1704	8260	
75-34-3	1,1-Dichloroethane	ND	68	ug/kg dry	50	09/17/18	B8I1704	8260	
75-35-4	1,1-Dichloroethylene	ND	68	ug/kg dry	50	09/17/18	B8I1704	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	340	ug/kg dry	50	09/17/18	B8I1704	8260	
96-18-4	1,2,3-Trichloropropane	ND	68	ug/kg dry	50	09/17/18	B8I1704	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	68	ug/kg dry	50	09/17/18	B8I1704	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	340	ug/kg dry	50	09/17/18	B8I1704	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	68	ug/kg dry	50	09/17/18	B8I1704	8260	
106-93-4	1,2-Dibromoethane	ND	68	ug/kg dry	50	09/17/18	B8I1704	8260	
95-50-1	1,2-Dichlorobenzene	ND	68	ug/kg dry	50	09/17/18	B8I1704	8260	
107-06-2	1,2-Dichloroethane	ND	68	ug/kg dry	50	09/17/18	B8I1704	8260	
78-87-5	1,2-Dichloropropane	ND	68	ug/kg dry	50	09/17/18	B8I1704	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	68	ug/kg dry	50	09/17/18	B8I1704	8260	
541-73-1	1,3-Dichlorobenzene	ND	68	ug/kg dry	50	09/17/18	B8I1704	8260	
106-46-7	1,4-Dichlorobenzene	ND	68	ug/kg dry	50	09/17/18	B8I1704	8260	
540-84-1	2,2,4-Trimethylpentane	ND	340	ug/kg dry	50	09/17/18	B8I1704	8260	
78-93-3	2-Butanone (MEK)	ND	340	ug/kg dry	50	09/17/18	B8I1704	8260	
91-57-6	2-Methylnaphthalene	ND	340	ug/kg dry	50	09/17/18	B8I1704	8260	X
67-64-1	2-Propanone (acetone)	ND	1400	ug/kg dry	50	09/17/18	B8I1704	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	340	ug/kg dry	50	09/17/18	B8I1704	8260	
107-13-1	Acrylonitrile	ND	340	ug/kg dry	50	09/17/18	B8I1704	8260	
71-43-2	Benzene	ND	68	ug/kg dry	50	09/17/18	B8I1704	8260	
74-97-5	Bromochloromethane	ND	68	ug/kg dry	50	09/17/18	B8I1704	8260	
75-27-4	Bromodichloromethane	ND	68	ug/kg dry	50	09/17/18	B8I1704	8260	
75-25-2	Bromoform	ND	68	ug/kg dry	50	09/17/18	B8I1704	8260	
74-83-9	Bromomethane	ND	270	ug/kg dry	50	09/17/18	B8I1704	8260	
75-15-0	Carbon disulfide	ND	68	ug/kg dry	50	09/17/18	B8I1704	8260	
56-23-5	Carbon tetrachloride	ND	68	ug/kg dry	50	09/17/18	B8I1704	8260	
108-90-7	Chlorobenzene	ND	68	ug/kg dry	50	09/17/18	B8I1704	8260	
75-00-3	Chloroethane	ND	340	ug/kg dry	50	09/17/18	B8I1704	8260	
67-66-3	Chloroform	ND	68	ug/kg dry	50	09/17/18	B8I1704	8260	
74-87-3	Chloromethane	ND	340	ug/kg dry	50	09/17/18	B8I1704	8260	A07
156-59-2	cis-1,2-Dichloroethylene	ND	68	ug/kg dry	50	09/17/18	B8I1704	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	68	ug/kg dry	50	09/17/18	B8I1704	8260	
110-82-7	Cyclohexane	ND	340	ug/kg dry	50	09/17/18	B8I1704	8260	
124-48-1	Dibromochloromethane	ND	68	ug/kg dry	50	09/17/18	B8I1704	8260	
74-95-3	Dibromomethane	ND	68	ug/kg dry	50	09/17/18	B8I1704	8260	

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CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	340	ug/kg dry	50	09/17/18	B8I1704	8260	
60-29-7	Diethyl ether	ND	270	ug/kg dry	50	09/17/18	B8I1704	8260	
108-20-3	Diisopropyl Ether	ND	340	ug/kg dry	50	09/17/18	B8I1704	8260	
100-41-4	Ethylbenzene	ND	68	ug/kg dry	50	09/17/18	B8I1704	8260	
637-92-3	Ethyltertiarybutylether	ND	340	ug/kg dry	50	09/17/18	B8I1704	8260	
67-72-1	Hexachloroethane	ND	340	ug/kg dry	50	09/17/18	B8I1704	8260	
110-54-3	Hexane	ND	68	ug/kg dry	50	09/17/18	B8I1704	8260	A05
98-82-8	Isopropylbenzene	ND	68	ug/kg dry	50	09/17/18	B8I1704	8260	
1330-20-7	m & p - Xylene	ND	140	ug/kg dry	50	09/17/18	B8I1704	8260	
75-09-2	Methylene chloride	ND	140	ug/kg dry	50	09/17/18	B8I1704	8260	
1634-04-4	Methyltertiarybutylether	ND	68	ug/kg dry	50	09/17/18	B8I1704	8260	
91-20-3	Naphthalene	ND	340	ug/kg dry	50	09/17/18	B8I1704	8260	X
104-51-8	n-Butylbenzene	ND	68	ug/kg dry	50	09/17/18	B8I1704	8260	
103-65-1	n-Propylbenzene	ND	68	ug/kg dry	50	09/17/18	B8I1704	8260	
95-47-6	o-Xylene	ND	68	ug/kg dry	50	09/17/18	B8I1704	8260	
135-98-8	sec-Butylbenzene	ND	68	ug/kg dry	50	09/17/18	B8I1704	8260	
100-42-5	Styrene	ND	68	ug/kg dry	50	09/17/18	B8I1704	8260	
98-06-6	tert-Butylbenzene	ND	68	ug/kg dry	50	09/17/18	B8I1704	8260	
75-65-0	tertiary Butyl Alcohol	ND	3400	ug/kg dry	50	09/17/18	B8I1704	8260	
994-05-8	tertiaryAmylmethylether	ND	340	ug/kg dry	50	09/17/18	B8I1704	8260	
127-18-4	Tetrachloroethylene	ND	68	ug/kg dry	50	09/17/18	B8I1704	8260	
109-99-9	Tetrahydrofuran	ND	340	ug/kg dry	50	09/17/18	B8I1704	8260	
108-88-3	Toluene	ND	68	ug/kg dry	50	09/17/18	B8I1704	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	68	ug/kg dry	50	09/17/18	B8I1704	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	68	ug/kg dry	50	09/17/18	B8I1704	8260	
79-01-6	Trichloroethylene	ND	68	ug/kg dry	50	09/17/18	B8I1704	8260	
75-69-4	Trichlorofluoromethane	ND	68	ug/kg dry	50	09/17/18	B8I1704	8260	
75-01-4	Vinyl chloride	ND	68	ug/kg dry	50	09/17/18	B8I1704	8260	A07
Surrogate: Bromofluorobenzene			*107 %*	*40.3-194*		*09/17/18*	B8I1704	*8260*	
Surrogate: Dibromofluoromethane			*122 %*	*52.1-217*		*09/17/18*	B8I1704	*8260*	
Surrogate: Toluene-d8			*119 %*	*55.4-196*		*09/17/18*	B8I1704	*8260*	

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Lansing, MI 48909
TEL: (517) 335-9800
FAX: (517) 335-9600

Client ID: QMCP-SB44 6''-4'

Lab ID: 1809100-12

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	2-Methylnaphthalene	ND	580	ug/kg dry	1	10/02/18	B8I1922	8270	
83-32-9	Acenaphthene	ND	230	ug/kg dry	1	10/02/18	B8I1922	8270	
208-96-8	Acenaphthylene	ND	230	ug/kg dry	1	10/02/18	B8I1922	8270	
120-12-7	Anthracene	ND	230	ug/kg dry	1	10/02/18	B8I1922	8270	
56-55-3	Benz[a]anthracene	ND	230	ug/kg dry	1	10/02/18	B8I1922	8270	
50-32-8	Benzo[a]pyrene	ND	460	ug/kg dry	1	10/02/18	B8I1922	8270	
205-99-2	Benzo[b]fluoranthene	ND	460	ug/kg dry	1	10/02/18	B8I1922	8270	
191-24-2	Benzo[g,h,i]perylene	ND	460	ug/kg dry	1	10/02/18	B8I1922	8270	
207-08-9	Benzo[k]fluoranthene	ND	460	ug/kg dry	1	10/02/18	B8I1922	8270	
218-01-9	Chrysene	ND	230	ug/kg dry	1	10/02/18	B8I1922	8270	
53-70-3	Dibenz[a,h]anthracene	ND	460	ug/kg dry	1	10/02/18	B8I1922	8270	
206-44-0	Fluoranthene	ND	230	ug/kg dry	1	10/02/18	B8I1922	8270	
86-73-7	Fluorene	ND	230	ug/kg dry	1	10/02/18	B8I1922	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	460	ug/kg dry	1	10/02/18	B8I1922	8270	
91-20-3	Naphthalene	ND	230	ug/kg dry	1	10/02/18	B8I1922	8270	
85-01-8	Phenanthrene	ND	230	ug/kg dry	1	10/02/18	B8I1922	8270	
129-00-0	Pyrene	ND	230	ug/kg dry	1	10/02/18	B8I1922	8270	
Surrogate: 2-Fluorobiphenyl			*86.2 %*	*32.9-115*		*10/02/18*	B8I1922	*8270*	
Surrogate: Nitrobenzene-d5			*64.5 %*	*31.8-115*		*10/02/18*	B8I1922	*8270*	
Surrogate: p-Terphenyl-d14			*101 %*	*38.5-115*		*10/02/18*	B8I1922	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	120	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
11104-28-2	Aroclor 1221	ND	120	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
11141-16-5	Aroclor 1232	ND	120	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
53469-21-9	Aroclor 1242	ND	120	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
12672-29-6	Aroclor 1248	ND	120	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
11097-69-1	Aroclor 1254	ND	120	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
11096-82-5	Aroclor 1260	ND	120	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
37324-23-5	Aroclor 1262	ND	120	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
11100-14-4	Aroclor 1268	ND	120	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
Surrogate: Decachlorobiphenyl			*83.1 %*	*30-150*		*10/20/18*	B8J1613	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*76.9 %*	*30-150*		*10/20/18*	B8J1613	*8081/8082*	

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Client ID: QMCP-SB44 6''-4'

Lab ID: 1809100-12

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**86.4**	0.1	%	1	09/18/18	B8I1426	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**8.7**	0.5	mg/kg dry	10	09/26/18	B8I2113	200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	09/26/18	B8I2113	200.8	
7440-47-3	**Chromium**	**69**	2.0	mg/kg dry	10	09/26/18	B8I2113	200.8	
7440-50-8	**Copper**	**6300**	100	mg/kg dry	1000	09/26/18	B8I2113	200.8	
7439-92-1	**Lead**	**19**	1.0	mg/kg dry	10	09/26/18	B8I2113	200.8	
7439-96-5	**Manganese**	**420**	1.0	mg/kg dry	10	09/26/18	B8I2113	200.8	
7439-97-6	Mercury	ND	0.06	mg/kg dry	1	09/26/18	B8I2413	245.5	
7440-22-4	**Silver**	**1.3**	0.1	mg/kg dry	10	09/26/18	B8I2113	200.8	
7440-66-6	**Zinc**	**59**	1.0	mg/kg dry	10	09/26/18	B8I2113	200.8	

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Client ID: QMCP-SB42 0-6"

Lab ID: 1809100-13

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									**See note Y11**
630-20-6	1,1,1,2-Tetrachloroethane	ND	57	ug/kg dry	50	09/17/18	B8I1716	8260	
71-55-6	1,1,1-Trichloroethane	ND	57	ug/kg dry	50	09/17/18	B8I1716	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	57	ug/kg dry	50	09/17/18	B8I1716	8260	
79-00-5	1,1,2-Trichloroethane	ND	57	ug/kg dry	50	09/17/18	B8I1716	8260	
75-34-3	1,1-Dichloroethane	ND	57	ug/kg dry	50	09/17/18	B8I1716	8260	
75-35-4	1,1-Dichloroethylene	ND	57	ug/kg dry	50	09/17/18	B8I1716	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	280	ug/kg dry	50	09/17/18	B8I1716	8260	
96-18-4	1,2,3-Trichloropropane	ND	57	ug/kg dry	50	09/17/18	B8I1716	8260	A05, A10
526-73-8	**1,2,3-Trimethylbenzene**	**140**	57	ug/kg dry	50	09/17/18	B8I1716	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	280	ug/kg dry	50	09/17/18	B8I1716	8260	
95-63-6	**1,2,4-Trimethylbenzene**	**380**	57	ug/kg dry	50	09/17/18	B8I1716	8260	
106-93-4	1,2-Dibromoethane	ND	57	ug/kg dry	50	09/17/18	B8I1716	8260	
95-50-1	1,2-Dichlorobenzene	ND	57	ug/kg dry	50	09/17/18	B8I1716	8260	
107-06-2	1,2-Dichloroethane	ND	57	ug/kg dry	50	09/17/18	B8I1716	8260	
78-87-5	1,2-Dichloropropane	ND	57	ug/kg dry	50	09/17/18	B8I1716	8260	
108-67-8	**1,3,5-Trimethylbenzene**	**89**	57	ug/kg dry	50	09/17/18	B8I1716	8260	
541-73-1	1,3-Dichlorobenzene	ND	57	ug/kg dry	50	09/17/18	B8I1716	8260	
106-46-7	1,4-Dichlorobenzene	ND	57	ug/kg dry	50	09/17/18	B8I1716	8260	
540-84-1	2,2,4-Trimethylpentane	ND	280	ug/kg dry	50	09/17/18	B8I1716	8260	
78-93-3	2-Butanone (MEK)	ND	280	ug/kg dry	50	09/17/18	B8I1716	8260	
91-57-6	**2-Methylnaphthalene**	**820**	280	ug/kg dry	50	09/17/18	B8I1716	8260	X
67-64-1	2-Propanone (acetone)	ND	1100	ug/kg dry	50	09/17/18	B8I1716	8260	A05
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	280	ug/kg dry	50	09/17/18	B8I1716	8260	
107-13-1	Acrylonitrile	ND	280	ug/kg dry	50	09/17/18	B8I1716	8260	
71-43-2	**Benzene**	**82**	57	ug/kg dry	50	09/17/18	B8I1716	8260	
74-97-5	Bromochloromethane	ND	57	ug/kg dry	50	09/17/18	B8I1716	8260	
75-27-4	Bromodichloromethane	ND	57	ug/kg dry	50	09/17/18	B8I1716	8260	
75-25-2	Bromoform	ND	57	ug/kg dry	50	09/17/18	B8I1716	8260	
74-83-9	Bromomethane	ND	230	ug/kg dry	50	09/17/18	B8I1716	8260	
75-15-0	Carbon disulfide	ND	57	ug/kg dry	50	09/17/18	B8I1716	8260	
56-23-5	Carbon tetrachloride	ND	57	ug/kg dry	50	09/17/18	B8I1716	8260	
108-90-7	Chlorobenzene	ND	57	ug/kg dry	50	09/17/18	B8I1716	8260	
75-00-3	Chloroethane	ND	280	ug/kg dry	50	09/17/18	B8I1716	8260	
67-66-3	Chloroform	ND	57	ug/kg dry	50	09/17/18	B8I1716	8260	
74-87-3	Chloromethane	ND	280	ug/kg dry	50	09/17/18	B8I1716	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	57	ug/kg dry	50	09/17/18	B8I1716	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	57	ug/kg dry	50	09/17/18	B8I1716	8260	
110-82-7	**Cyclohexane**	**540**	280	ug/kg dry	50	09/17/18	B8I1716	8260	
124-48-1	Dibromochloromethane	ND	57	ug/kg dry	50	09/17/18	B8I1716	8260	
74-95-3	Dibromomethane	ND	57	ug/kg dry	50	09/17/18	B8I1716	8260	

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Client ID: QMCP-SB42 0-6"

Lab ID: 1809100-13

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									**See note Y11**
75-71-8	Dichlorodifluoromethane	ND	280	ug/kg dry	50	09/17/18	B8I1716	8260	
60-29-7	Diethyl ether	ND	230	ug/kg dry	50	09/17/18	B8I1716	8260	
108-20-3	Diisopropyl Ether	ND	280	ug/kg dry	50	09/17/18	B8I1716	8260	
100-41-4	**Ethylbenzene**	**95**	57	ug/kg dry	50	09/17/18	B8I1716	8260	
637-92-3	Ethyltertiarybutylether	ND	280	ug/kg dry	50	09/17/18	B8I1716	8260	
67-72-1	Hexachloroethane	ND	280	ug/kg dry	50	09/17/18	B8I1716	8260	
110-54-3	**Hexane**	**150**	57	ug/kg dry	50	09/17/18	B8I1716	8260	
98-82-8	**Isopropylbenzene**	**59**	57	ug/kg dry	50	09/17/18	B8I1716	8260	
1330-20-7	**m & p - Xylene**	**690**	110	ug/kg dry	50	09/17/18	B8I1716	8260	
75-09-2	Methylene chloride	ND	110	ug/kg dry	50	09/17/18	B8I1716	8260	
1634-04-4	Methyltertiarybutylether	ND	57	ug/kg dry	50	09/17/18	B8I1716	8260	
91-20-3	**Naphthalene**	**740**	280	ug/kg dry	50	09/17/18	B8I1716	8260	X
104-51-8	n-Butylbenzene	ND	57	ug/kg dry	50	09/17/18	B8I1716	8260	
103-65-1	**n-Propylbenzene**	**70**	57	ug/kg dry	50	09/17/18	B8I1716	8260	
95-47-6	**o-Xylene**	**500**	57	ug/kg dry	50	09/17/18	B8I1716	8260	
135-98-8	sec-Butylbenzene	ND	57	ug/kg dry	50	09/17/18	B8I1716	8260	
100-42-5	Styrene	ND	57	ug/kg dry	50	09/17/18	B8I1716	8260	
98-06-6	tert-Butylbenzene	ND	57	ug/kg dry	50	09/17/18	B8I1716	8260	
75-65-0	tertiary Butyl Alcohol	ND	2800	ug/kg dry	50	09/17/18	B8I1716	8260	
994-05-8	tertiaryAmylmethylether	ND	280	ug/kg dry	50	09/17/18	B8I1716	8260	
127-18-4	Tetrachloroethylene	ND	57	ug/kg dry	50	09/17/18	B8I1716	8260	
109-99-9	Tetrahydrofuran	ND	280	ug/kg dry	50	09/17/18	B8I1716	8260	
108-88-3	**Toluene**	**460**	57	ug/kg dry	50	09/17/18	B8I1716	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	57	ug/kg dry	50	09/17/18	B8I1716	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	57	ug/kg dry	50	09/17/18	B8I1716	8260	
79-01-6	Trichloroethylene	ND	57	ug/kg dry	50	09/17/18	B8I1716	8260	
75-69-4	Trichlorofluoromethane	ND	57	ug/kg dry	50	09/17/18	B8I1716	8260	
75-01-4	Vinyl chloride	ND	57	ug/kg dry	50	09/17/18	B8I1716	8260	
Surrogate: Bromofluorobenzene			*113 %*	*40.3-194*		*09/17/18*	B8I1716	*8260*	
Surrogate: Dibromofluoromethane			*114 %*	*52.1-217*		*09/17/18*	B8I1716	*8260*	
Surrogate: Toluene-d8			*121 %*	*55.4-196*		*09/17/18*	B8I1716	*8260*	

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CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y17, Y20**
120-82-1	1,2,4-Trichlorobenzene	ND	430	ug/kg dry	1	09/26/18	B8I1922	8270	
95-95-4	2,4,5-Trichlorophenol	ND	710	ug/kg dry	1	09/26/18	B8I1922	8270	
88-06-2	2,4,6-Trichlorophenol	ND	710	ug/kg dry	1	09/26/18	B8I1922	8270	
120-83-2	2,4-Dichlorophenol	ND	710	ug/kg dry	1	09/26/18	B8I1922	8270	
105-67-9	2,4-Dimethylphenol	ND	710	ug/kg dry	1	09/26/18	B8I1922	8270	
51-28-5	2,4-Dinitrophenol	ND	3700	ug/kg dry	1	09/26/18	B8I1922	8270	
121-14-2	2,4-Dinitrotoluene	ND	540	ug/kg dry	1	09/26/18	B8I1922	8270	
606-20-2	2,6-Dinitrotoluene	ND	540	ug/kg dry	1	09/26/18	B8I1922	8270	
91-58-7	2-Chloronaphthalene	ND	430	ug/kg dry	1	09/26/18	B8I1922	8270	
95-57-8	2-Chlorophenol	ND	710	ug/kg dry	1	09/26/18	B8I1922	8270	
534-52-1	2-Methyl-4,6-dinitrophenol	ND	3700	ug/kg dry	1	09/26/18	B8I1922	8270	
91-57-6	**2-Methylnaphthalene**	**1600**	540	ug/kg dry	1	09/26/18	B8I1922	8270	
95-48-7	2-Methylphenol (o-Cresol)	ND	710	ug/kg dry	1	09/26/18	B8I1922	8270	
88-74-4	2-Nitroaniline	ND	1100	ug/kg dry	1	09/26/18	B8I1922	8270	
88-75-5	2-Nitrophenol	ND	710	ug/kg dry	1	09/26/18	B8I1922	8270	
108394,106445	3 & 4-Methylphenol	ND	1400	ug/kg dry	1	09/26/18	B8I1922	8270	
99-09-2	3-Nitroaniline	ND	1100	ug/kg dry	1	09/26/18	B8I1922	8270	
101-55-3	4-Bromophenyl phenyl ether	ND	430	ug/kg dry	1	09/26/18	B8I1922	8270	
59-50-7	4-Chloro-3-methyl-phenol	ND	430	ug/kg dry	1	09/26/18	B8I1922	8270	
7005-72-3	4-Chlorodiphenylether	ND	220	ug/kg dry	1	09/26/18	B8I1922	8270	
100-01-6	4-Nitroaniline	ND	1100	ug/kg dry	1	09/26/18	B8I1922	8270	
100-02-7	4-Nitrophenol	ND	3700	ug/kg dry	1	09/26/18	B8I1922	8270	
83-32-9	Acenaphthene	ND	220	ug/kg dry	1	09/26/18	B8I1922	8270	
208-96-8	Acenaphthylene	ND	220	ug/kg dry	1	09/26/18	B8I1922	8270	
120-12-7	Anthracene	ND	220	ug/kg dry	1	09/26/18	B8I1922	8270	
103-33-3	Azobenzene	ND	430	ug/kg dry	1	09/26/18	B8I1922	8270	
56-55-3	**Benz[a]anthracene**	**470**	220	ug/kg dry	1	09/26/18	B8I1922	8270	
50-32-8	Benzo[a]pyrene	ND	430	ug/kg dry	1	09/26/18	B8I1922	8270	
205-99-2	**Benzo[b]fluoranthene**	**670**	430	ug/kg dry	1	09/26/18	B8I1922	8270	
191-24-2	Benzo[g,h,i]perylene	ND	430	ug/kg dry	1	09/26/18	B8I1922	8270	
207-08-9	Benzo[k]fluoranthene	ND	430	ug/kg dry	1	09/26/18	B8I1922	8270	
100-51-6	Benzyl Alcohol	ND	5400	ug/kg dry	1	09/26/18	B8I1922	8270	
111-91-1	Bis(2-chloroethoxy)methane	ND	430	ug/kg dry	1	09/26/18	B8I1922	8270	
111-44-4	Bis(2-chloroethyl)ether	ND	220	ug/kg dry	1	09/26/18	B8I1922	8270	
108-60-1	Bis(2-chloroisopropyl)ether	ND	220	ug/kg dry	1	09/26/18	B8I1922	8270	
117-81-7	Bis(2-ethylhexyl)phthalate	ND	540	ug/kg dry	1	09/26/18	B8I1922	8270	
85-68-7	Butyl benzyl phthalate	ND	540	ug/kg dry	1	09/26/18	B8I1922	8270	
86-74-8	Carbazole	ND	540	ug/kg dry	1	09/26/18	B8I1922	8270	
218-01-9	**Chrysene**	**520**	220	ug/kg dry	1	09/26/18	B8I1922	8270	
53-70-3	Dibenz[a,h]anthracene	ND	430	ug/kg dry	1	09/26/18	B8I1922	8270	

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FAX: (517) 335-9600

Client ID: QMCP-SB42 0-6"

Lab ID: 1809100-13

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y17, Y20**
132-64-9	Dibenzofuran	ND	540	ug/kg dry	1	09/26/18	B8I1922	8270	
84-66-2	Diethylphthalate	ND	540	ug/kg dry	1	09/26/18	B8I1922	8270	
131-11-3	Dimethyl phthalate	ND	540	ug/kg dry	1	09/26/18	B8I1922	8270	
84-74-2	Di-n-butyl phthalate	ND	540	ug/kg dry	1	09/26/18	B8I1922	8270	
117-84-0	Di-n-octyl phthalate	ND	540	ug/kg dry	1	09/26/18	B8I1922	8270	
206-44-0	**Fluoranthene**	**1200**	220	ug/kg dry	1	09/26/18	B8I1922	8270	
86-73-7	Fluorene	ND	220	ug/kg dry	1	09/26/18	B8I1922	8270	
118-74-1	Hexachlorobenzene	ND	430	ug/kg dry	1	09/26/18	B8I1922	8270	
87-68-3	Hexachlorobutadiene	ND	220	ug/kg dry	1	09/26/18	B8I1922	8270	
77-47-4	Hexachlorocyclopentadiene	ND	2200	ug/kg dry	1	09/26/18	B8I1922	8270	
67-72-1	Hexachloroethane	ND	220	ug/kg dry	1	09/26/18	B8I1922	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	430	ug/kg dry	1	09/26/18	B8I1922	8270	
78-59-1	Isophorone	ND	220	ug/kg dry	1	09/26/18	B8I1922	8270	
91-20-3	**Naphthalene**	**1000**	220	ug/kg dry	1	09/26/18	B8I1922	8270	
98-95-3	Nitrobenzene	ND	430	ug/kg dry	1	09/26/18	B8I1922	8270	
67-75-9	N-Nitrosodimethylamine	ND	540	ug/kg dry	1	09/26/18	B8I1922	8270	
621-64-7	N-Nitrosodi-n-propylamine	ND	430	ug/kg dry	1	09/26/18	B8I1922	8270	
86-30-6	N-Nitrosodiphenylamine	ND	430	ug/kg dry	1	09/26/18	B8I1922	8270	
87-86-5	Pentachlorophenol	ND	3700	ug/kg dry	1	09/26/18	B8I1922	8270	
85-01-8	**Phenanthrene**	**1400**	220	ug/kg dry	1	09/26/18	B8I1922	8270	
108-95-2	Phenol	ND	710	ug/kg dry	1	09/26/18	B8I1922	8270	
129-00-0	**Pyrene**	**870**	220	ug/kg dry	1	09/26/18	B8I1922	8270	
Surrogate: 2,4,6-Tribromophenol			*108 %*	*20.3-115*		*09/26/18*	B8I1922	*8270*	
Surrogate: 2-Fluorobiphenyl			*97.0 %*	*32.9-115*		*09/26/18*	B8I1922	*8270*	
Surrogate: 2-Fluorophenol			*81.9 %*	*23.7-115*		*09/26/18*	B8I1922	*8270*	
Surrogate: Nitrobenzene-d5			*83.5 %*	*31.8-115*		*09/26/18*	B8I1922	*8270*	
Surrogate: Phenol-d6			*86.0 %*	*29.3-115*		*09/26/18*	B8I1922	*8270*	
Surrogate: p-Terphenyl-d14			*106 %*	*38.5-115*		*09/26/18*	B8I1922	*8270*	

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Client ID: QMCP-SB42 0-6"

Lab ID: 1809100-13

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	540	ug/kg dry	5	10/25/18	B8J1613	8081/8082	Y21
11104-28-2	Aroclor 1221	ND	540	ug/kg dry	5	10/25/18	B8J1613	8081/8082	Y21
11141-16-5	Aroclor 1232	ND	540	ug/kg dry	5	10/25/18	B8J1613	8081/8082	Y21
53469-21-9	Aroclor 1242	ND	540	ug/kg dry	5	10/25/18	B8J1613	8081/8082	Y21
12672-29-6	Aroclor 1248	ND	540	ug/kg dry	5	10/25/18	B8J1613	8081/8082	Y21
11097-69-1	Aroclor 1254	ND	540	ug/kg dry	5	10/25/18	B8J1613	8081/8082	Y21
11096-82-5	Aroclor 1260	ND	540	ug/kg dry	5	10/25/18	B8J1613	8081/8082	Y21
37324-23-5	Aroclor 1262	ND	540	ug/kg dry	5	10/25/18	B8J1613	8081/8082	Y21
11100-14-4	Aroclor 1268	ND	540	ug/kg dry	5	10/25/18	B8J1613	8081/8082	Y21
Surrogate: Decachlorobiphenyl			*113 %*	*30-150*		*10/25/18*	B8J1613	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*106 %*	*30-150*		*10/25/18*	B8J1613	*8081/8082*	
Inorganics-General Chemistry									
TS	**% Total Solids**	**92.8**	0.1	%	1	09/18/18	B8I1426	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**7.1**	0.5	mg/kg dry	10	09/26/18	B8I2113	200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	09/26/18	B8I2113	200.8	
7440-47-3	**Chromium**	**38**	2.0	mg/kg dry	10	09/26/18	B8I2113	200.8	
7440-50-8	**Copper**	**4600**	100	mg/kg dry	1000	09/26/18	B8I2113	200.8	
7439-92-1	**Lead**	**24**	1.0	mg/kg dry	10	09/26/18	B8I2113	200.8	
7439-96-5	**Manganese**	**270**	1.0	mg/kg dry	10	09/26/18	B8I2113	200.8	
7439-97-6	Mercury	ND	0.05	mg/kg dry	1	09/26/18	B8I2413	245.5	
7440-22-4	**Silver**	**1.6**	0.1	mg/kg dry	10	09/26/18	B8I2113	200.8	
7440-66-6	**Zinc**	**46**	1.0	mg/kg dry	10	09/26/18	B8I2113	200.8	

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Client ID: QMCP-SB42 6''-12'

Lab ID: 1809100-14

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	59	ug/kg dry	50	09/17/18	B8I1716	8260	
71-55-6	1,1,1-Trichloroethane	ND	59	ug/kg dry	50	09/17/18	B8I1716	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	59	ug/kg dry	50	09/17/18	B8I1716	8260	
79-00-5	1,1,2-Trichloroethane	ND	59	ug/kg dry	50	09/17/18	B8I1716	8260	
75-34-3	1,1-Dichloroethane	ND	59	ug/kg dry	50	09/17/18	B8I1716	8260	
75-35-4	1,1-Dichloroethylene	ND	59	ug/kg dry	50	09/17/18	B8I1716	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	290	ug/kg dry	50	09/17/18	B8I1716	8260	
96-18-4	1,2,3-Trichloropropane	ND	59	ug/kg dry	50	09/17/18	B8I1716	8260	A05, A10
526-73-8	1,2,3-Trimethylbenzene	ND	59	ug/kg dry	50	09/17/18	B8I1716	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	290	ug/kg dry	50	09/17/18	B8I1716	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	59	ug/kg dry	50	09/17/18	B8I1716	8260	
106-93-4	1,2-Dibromoethane	ND	59	ug/kg dry	50	09/17/18	B8I1716	8260	
95-50-1	1,2-Dichlorobenzene	ND	59	ug/kg dry	50	09/17/18	B8I1716	8260	
107-06-2	1,2-Dichloroethane	ND	59	ug/kg dry	50	09/17/18	B8I1716	8260	
78-87-5	1,2-Dichloropropane	ND	59	ug/kg dry	50	09/17/18	B8I1716	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	59	ug/kg dry	50	09/17/18	B8I1716	8260	
541-73-1	1,3-Dichlorobenzene	ND	59	ug/kg dry	50	09/17/18	B8I1716	8260	
106-46-7	1,4-Dichlorobenzene	ND	59	ug/kg dry	50	09/17/18	B8I1716	8260	
540-84-1	2,2,4-Trimethylpentane	ND	290	ug/kg dry	50	09/17/18	B8I1716	8260	
78-93-3	2-Butanone (MEK)	ND	290	ug/kg dry	50	09/17/18	B8I1716	8260	
91-57-6	2-Methylnaphthalene	ND	290	ug/kg dry	50	09/17/18	B8I1716	8260	X
67-64-1	2-Propanone (acetone)	ND	1200	ug/kg dry	50	09/17/18	B8I1716	8260	A05
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	290	ug/kg dry	50	09/17/18	B8I1716	8260	
107-13-1	Acrylonitrile	ND	290	ug/kg dry	50	09/17/18	B8I1716	8260	
71-43-2	Benzene	ND	59	ug/kg dry	50	09/17/18	B8I1716	8260	
74-97-5	Bromochloromethane	ND	59	ug/kg dry	50	09/17/18	B8I1716	8260	
75-27-4	Bromodichloromethane	ND	59	ug/kg dry	50	09/17/18	B8I1716	8260	
75-25-2	Bromoform	ND	59	ug/kg dry	50	09/17/18	B8I1716	8260	
74-83-9	Bromomethane	ND	240	ug/kg dry	50	09/17/18	B8I1716	8260	
75-15-0	Carbon disulfide	ND	59	ug/kg dry	50	09/17/18	B8I1716	8260	
56-23-5	Carbon tetrachloride	ND	59	ug/kg dry	50	09/17/18	B8I1716	8260	
108-90-7	Chlorobenzene	ND	59	ug/kg dry	50	09/17/18	B8I1716	8260	
75-00-3	Chloroethane	ND	290	ug/kg dry	50	09/17/18	B8I1716	8260	
67-66-3	Chloroform	ND	59	ug/kg dry	50	09/17/18	B8I1716	8260	
74-87-3	Chloromethane	ND	290	ug/kg dry	50	09/17/18	B8I1716	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	59	ug/kg dry	50	09/17/18	B8I1716	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	59	ug/kg dry	50	09/17/18	B8I1716	8260	
110-82-7	Cyclohexane	ND	290	ug/kg dry	50	09/17/18	B8I1716	8260	
124-48-1	Dibromochloromethane	ND	59	ug/kg dry	50	09/17/18	B8I1716	8260	
74-95-3	Dibromomethane	ND	59	ug/kg dry	50	09/17/18	B8I1716	8260	

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Lab ID: 1809100-14

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	290	ug/kg dry	50	09/17/18	B8I1716	8260	
60-29-7	Diethyl ether	ND	240	ug/kg dry	50	09/17/18	B8I1716	8260	
108-20-3	Diisopropyl Ether	ND	290	ug/kg dry	50	09/17/18	B8I1716	8260	
100-41-4	Ethylbenzene	ND	59	ug/kg dry	50	09/17/18	B8I1716	8260	
637-92-3	Ethyltertiarybutylether	ND	290	ug/kg dry	50	09/17/18	B8I1716	8260	
67-72-1	Hexachloroethane	ND	290	ug/kg dry	50	09/17/18	B8I1716	8260	
110-54-3	Hexane	ND	59	ug/kg dry	50	09/17/18	B8I1716	8260	
98-82-8	Isopropylbenzene	ND	59	ug/kg dry	50	09/17/18	B8I1716	8260	
1330-20-7	m & p - Xylene	ND	120	ug/kg dry	50	09/17/18	B8I1716	8260	
75-09-2	Methylene chloride	ND	120	ug/kg dry	50	09/17/18	B8I1716	8260	
1634-04-4	Methyltertiarybutylether	ND	59	ug/kg dry	50	09/17/18	B8I1716	8260	
91-20-3	Naphthalene	ND	290	ug/kg dry	50	09/17/18	B8I1716	8260	X
104-51-8	n-Butylbenzene	ND	59	ug/kg dry	50	09/17/18	B8I1716	8260	
103-65-1	n-Propylbenzene	ND	59	ug/kg dry	50	09/17/18	B8I1716	8260	
95-47-6	o-Xylene	ND	59	ug/kg dry	50	09/17/18	B8I1716	8260	
135-98-8	sec-Butylbenzene	ND	59	ug/kg dry	50	09/17/18	B8I1716	8260	
100-42-5	Styrene	ND	59	ug/kg dry	50	09/17/18	B8I1716	8260	
98-06-6	tert-Butylbenzene	ND	59	ug/kg dry	50	09/17/18	B8I1716	8260	
75-65-0	tertiary Butyl Alcohol	ND	2900	ug/kg dry	50	09/17/18	B8I1716	8260	
994-05-8	tertiaryAmylmethylether	ND	290	ug/kg dry	50	09/17/18	B8I1716	8260	
127-18-4	Tetrachloroethylene	ND	59	ug/kg dry	50	09/17/18	B8I1716	8260	
109-99-9	Tetrahydrofuran	ND	290	ug/kg dry	50	09/17/18	B8I1716	8260	
108-88-3	**Toluene**	**92**	59	ug/kg dry	50	09/17/18	B8I1716	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	59	ug/kg dry	50	09/17/18	B8I1716	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	59	ug/kg dry	50	09/17/18	B8I1716	8260	
79-01-6	Trichloroethylene	ND	59	ug/kg dry	50	09/17/18	B8I1716	8260	
75-69-4	Trichlorofluoromethane	ND	59	ug/kg dry	50	09/17/18	B8I1716	8260	
75-01-4	Vinyl chloride	ND	59	ug/kg dry	50	09/17/18	B8I1716	8260	
Surrogate: Bromofluorobenzene			*96.6 %*	*40.3-194*		*09/17/18*	B8I1716	*8260*	
Surrogate: Dibromofluoromethane			*100 %*	*52.1-217*		*09/17/18*	B8I1716	*8260*	
Surrogate: Toluene-d8			*103 %*	*55.4-196*		*09/17/18*	B8I1716	*8260*	

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CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
120-82-1	1,2,4-Trichlorobenzene	ND	430	ug/kg dry	1	09/26/18	B8I1922	8270	
95-95-4	2,4,5-Trichlorophenol	ND	700	ug/kg dry	1	09/26/18	B8I1922	8270	
88-06-2	2,4,6-Trichlorophenol	ND	700	ug/kg dry	1	09/26/18	B8I1922	8270	
120-83-2	2,4-Dichlorophenol	ND	700	ug/kg dry	1	09/26/18	B8I1922	8270	
105-67-9	2,4-Dimethylphenol	ND	700	ug/kg dry	1	09/26/18	B8I1922	8270	
51-28-5	2,4-Dinitrophenol	ND	3600	ug/kg dry	1	09/26/18	B8I1922	8270	
121-14-2	2,4-Dinitrotoluene	ND	530	ug/kg dry	1	09/26/18	B8I1922	8270	
606-20-2	2,6-Dinitrotoluene	ND	530	ug/kg dry	1	09/26/18	B8I1922	8270	
91-58-7	2-Chloronaphthalene	ND	430	ug/kg dry	1	09/26/18	B8I1922	8270	
95-57-8	2-Chlorophenol	ND	700	ug/kg dry	1	09/26/18	B8I1922	8270	
534-52-1	2-Methyl-4,6-dinitrophenol	ND	3600	ug/kg dry	1	09/26/18	B8I1922	8270	
91-57-6	2-Methylnaphthalene	ND	530	ug/kg dry	1	09/26/18	B8I1922	8270	
95-48-7	2-Methylphenol (o-Cresol)	ND	700	ug/kg dry	1	09/26/18	B8I1922	8270	
88-74-4	2-Nitroaniline	ND	1100	ug/kg dry	1	09/26/18	B8I1922	8270	
88-75-5	2-Nitrophenol	ND	700	ug/kg dry	1	09/26/18	B8I1922	8270	
108394,106445	3 & 4-Methylphenol	ND	1400	ug/kg dry	1	09/26/18	B8I1922	8270	
99-09-2	3-Nitroaniline	ND	1100	ug/kg dry	1	09/26/18	B8I1922	8270	
101-55-3	4-Bromophenyl phenyl ether	ND	430	ug/kg dry	1	09/26/18	B8I1922	8270	
59-50-7	4-Chloro-3-methyl-phenol	ND	430	ug/kg dry	1	09/26/18	B8I1922	8270	
7005-72-3	4-Chlorodiphenylether	ND	210	ug/kg dry	1	09/26/18	B8I1922	8270	
100-01-6	4-Nitroaniline	ND	1100	ug/kg dry	1	09/26/18	B8I1922	8270	
100-02-7	4-Nitrophenol	ND	3600	ug/kg dry	1	09/26/18	B8I1922	8270	
83-32-9	Acenaphthene	ND	210	ug/kg dry	1	09/26/18	B8I1922	8270	
208-96-8	Acenaphthylene	ND	210	ug/kg dry	1	09/26/18	B8I1922	8270	
120-12-7	Anthracene	ND	210	ug/kg dry	1	09/26/18	B8I1922	8270	
103-33-3	Azobenzene	ND	430	ug/kg dry	1	09/26/18	B8I1922	8270	
56-55-3	Benz[a]anthracene	ND	210	ug/kg dry	1	09/26/18	B8I1922	8270	
50-32-8	Benzo[a]pyrene	ND	430	ug/kg dry	1	09/26/18	B8I1922	8270	
205-99-2	Benzo[b]fluoranthene	ND	430	ug/kg dry	1	09/26/18	B8I1922	8270	
191-24-2	Benzo[g,h,i]perylene	ND	430	ug/kg dry	1	09/26/18	B8I1922	8270	
207-08-9	Benzo[k]fluoranthene	ND	430	ug/kg dry	1	09/26/18	B8I1922	8270	
100-51-6	Benzyl Alcohol	ND	5300	ug/kg dry	1	09/26/18	B8I1922	8270	
111-91-1	Bis(2-chloroethoxy)methane	ND	430	ug/kg dry	1	09/26/18	B8I1922	8270	
111-44-4	Bis(2-chloroethyl)ether	ND	210	ug/kg dry	1	09/26/18	B8I1922	8270	
108-60-1	Bis(2-chloroisopropyl)ether	ND	210	ug/kg dry	1	09/26/18	B8I1922	8270	
117-81-7	Bis(2-ethylhexyl)phthalate	ND	530	ug/kg dry	1	09/26/18	B8I1922	8270	
85-68-7	Butyl benzyl phthalate	ND	530	ug/kg dry	1	09/26/18	B8I1922	8270	
86-74-8	Carbazole	ND	530	ug/kg dry	1	09/26/18	B8I1922	8270	
218-01-9	Chrysene	ND	210	ug/kg dry	1	09/26/18	B8I1922	8270	
53-70-3	Dibenz[a,h]anthracene	ND	430	ug/kg dry	1	09/26/18	B8I1922	8270	

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ENVIRONMENTAL LABORATORY

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TEL: (517) 335-9800
FAX: (517) 335-9600

Client ID: QMCP-SB42 6''-12'

Lab ID: 1809100-14

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
132-64-9	Dibenzofuran	ND	530	ug/kg dry	1	09/26/18	B8I1922	8270	
84-66-2	Diethylphthalate	ND	530	ug/kg dry	1	09/26/18	B8I1922	8270	
131-11-3	Dimethyl phthalate	ND	530	ug/kg dry	1	09/26/18	B8I1922	8270	
84-74-2	Di-n-butyl phthalate	ND	530	ug/kg dry	1	09/26/18	B8I1922	8270	
117-84-0	Di-n-octyl phthalate	ND	530	ug/kg dry	1	09/26/18	B8I1922	8270	
206-44-0	Fluoranthene	ND	210	ug/kg dry	1	09/26/18	B8I1922	8270	
86-73-7	Fluorene	ND	210	ug/kg dry	1	09/26/18	B8I1922	8270	
118-74-1	Hexachlorobenzene	ND	430	ug/kg dry	1	09/26/18	B8I1922	8270	
87-68-3	Hexachlorobutadiene	ND	210	ug/kg dry	1	09/26/18	B8I1922	8270	
77-47-4	Hexachlorocyclopentadiene	ND	2100	ug/kg dry	1	09/26/18	B8I1922	8270	
67-72-1	Hexachloroethane	ND	210	ug/kg dry	1	09/26/18	B8I1922	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	430	ug/kg dry	1	09/26/18	B8I1922	8270	
78-59-1	Isophorone	ND	210	ug/kg dry	1	09/26/18	B8I1922	8270	
91-20-3	Naphthalene	ND	210	ug/kg dry	1	09/26/18	B8I1922	8270	
98-95-3	Nitrobenzene	ND	430	ug/kg dry	1	09/26/18	B8I1922	8270	
67-75-9	N-Nitrosodimethylamine	ND	530	ug/kg dry	1	09/26/18	B8I1922	8270	
621-64-7	N-Nitrosodi-n-propylamine	ND	430	ug/kg dry	1	09/26/18	B8I1922	8270	
86-30-6	N-Nitrosodiphenylamine	ND	430	ug/kg dry	1	09/26/18	B8I1922	8270	
87-86-5	Pentachlorophenol	ND	3600	ug/kg dry	1	09/26/18	B8I1922	8270	
85-01-8	Phenanthrene	ND	210	ug/kg dry	1	09/26/18	B8I1922	8270	
108-95-2	Phenol	ND	700	ug/kg dry	1	09/26/18	B8I1922	8270	
129-00-0	Pyrene	ND	210	ug/kg dry	1	09/26/18	B8I1922	8270	
Surrogate: 2,4,6-Tribromophenol			*85.6 %*	*20.3-115*		*09/26/18*	B8I1922	*8270*	
Surrogate: 2-Fluorobiphenyl			*87.8 %*	*32.9-115*		*09/26/18*	B8I1922	*8270*	
Surrogate: 2-Fluorophenol			*74.7 %*	*23.7-115*		*09/26/18*	B8I1922	*8270*	
Surrogate: Nitrobenzene-d5			*71.1 %*	*31.8-115*		*09/26/18*	B8I1922	*8270*	
Surrogate: Phenol-d6			*79.9 %*	*29.3-115*		*09/26/18*	B8I1922	*8270*	
Surrogate: p-Terphenyl-d14			*105 %*	*38.5-115*		*09/26/18*	B8I1922	*8270*	

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Client ID: QMCP-SB42 6''-12'

Lab ID: 1809100-14

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	110	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
11104-28-2	Aroclor 1221	ND	110	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
11141-16-5	Aroclor 1232	ND	110	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
53469-21-9	Aroclor 1242	ND	110	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
12672-29-6	Aroclor 1248	ND	110	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
11097-69-1	Aroclor 1254	ND	110	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
11096-82-5	Aroclor 1260	ND	110	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
37324-23-5	Aroclor 1262	ND	110	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
11100-14-4	Aroclor 1268	ND	110	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
Surrogate: Decachlorobiphenyl			*97.2 %*	*30-150*		*10/20/18*	B8J1613	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*90.5 %*	*30-150*		*10/20/18*	B8J1613	*8081/8082*	
Inorganics-General Chemistry									
TS	**% Total Solids**	**94.0**	0.1	%	1	09/18/18	B8I1426	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**3.9**	0.5	mg/kg dry	10	09/26/18	B8I2113	200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	09/26/18	B8I2113	200.8	
7440-47-3	**Chromium**	**29**	2.0	mg/kg dry	10	09/26/18	B8I2113	200.8	
7440-50-8	**Copper**	**1700**	1.0	mg/kg dry	10	09/26/18	B8I2113	200.8	
7439-92-1	**Lead**	**7.7**	1.0	mg/kg dry	10	09/26/18	B8I2113	200.8	
7439-96-5	**Manganese**	**280**	1.0	mg/kg dry	10	09/26/18	B8I2113	200.8	
7439-97-6	Mercury	ND	0.05	mg/kg dry	1	09/26/18	B8I2413	245.5	
7440-22-4	**Silver**	**0.5**	0.1	mg/kg dry	10	09/26/18	B8I2113	200.8	
7440-66-6	**Zinc**	**39**	1.0	mg/kg dry	10	09/26/18	B8I2113	200.8	

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Client ID: QMCP-SB41 0-6"

Lab ID: 1809100-15

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	62	ug/kg dry	50	09/17/18	B8I1716	8260	
71-55-6	1,1,1-Trichloroethane	ND	62	ug/kg dry	50	09/17/18	B8I1716	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	62	ug/kg dry	50	09/17/18	B8I1716	8260	
79-00-5	1,1,2-Trichloroethane	ND	62	ug/kg dry	50	09/17/18	B8I1716	8260	
75-34-3	1,1-Dichloroethane	ND	62	ug/kg dry	50	09/17/18	B8I1716	8260	
75-35-4	1,1-Dichloroethylene	ND	62	ug/kg dry	50	09/17/18	B8I1716	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	310	ug/kg dry	50	09/17/18	B8I1716	8260	
96-18-4	1,2,3-Trichloropropane	ND	62	ug/kg dry	50	09/17/18	B8I1716	8260	A05, A10
526-73-8	**1,2,3-Trimethylbenzene**	**62**	62	ug/kg dry	50	09/17/18	B8I1716	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	310	ug/kg dry	50	09/17/18	B8I1716	8260	
95-63-6	**1,2,4-Trimethylbenzene**	**150**	62	ug/kg dry	50	09/17/18	B8I1716	8260	
106-93-4	1,2-Dibromoethane	ND	62	ug/kg dry	50	09/17/18	B8I1716	8260	
95-50-1	1,2-Dichlorobenzene	ND	62	ug/kg dry	50	09/17/18	B8I1716	8260	
107-06-2	1,2-Dichloroethane	ND	62	ug/kg dry	50	09/17/18	B8I1716	8260	
78-87-5	1,2-Dichloropropane	ND	62	ug/kg dry	50	09/17/18	B8I1716	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	62	ug/kg dry	50	09/17/18	B8I1716	8260	
541-73-1	1,3-Dichlorobenzene	ND	62	ug/kg dry	50	09/17/18	B8I1716	8260	
106-46-7	1,4-Dichlorobenzene	ND	62	ug/kg dry	50	09/17/18	B8I1716	8260	
540-84-1	2,2,4-Trimethylpentane	ND	310	ug/kg dry	50	09/17/18	B8I1716	8260	
78-93-3	2-Butanone (MEK)	ND	310	ug/kg dry	50	09/17/18	B8I1716	8260	
91-57-6	**2-Methylnaphthalene**	**400**	310	ug/kg dry	50	09/17/18	B8I1716	8260	X
67-64-1	2-Propanone (acetone)	ND	1200	ug/kg dry	50	09/17/18	B8I1716	8260	A05
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	310	ug/kg dry	50	09/17/18	B8I1716	8260	
107-13-1	Acrylonitrile	ND	310	ug/kg dry	50	09/17/18	B8I1716	8260	
71-43-2	Benzene	ND	62	ug/kg dry	50	09/17/18	B8I1716	8260	
74-97-5	Bromochloromethane	ND	62	ug/kg dry	50	09/17/18	B8I1716	8260	
75-27-4	Bromodichloromethane	ND	62	ug/kg dry	50	09/17/18	B8I1716	8260	
75-25-2	Bromoform	ND	62	ug/kg dry	50	09/17/18	B8I1716	8260	
74-83-9	Bromomethane	ND	250	ug/kg dry	50	09/17/18	B8I1716	8260	
75-15-0	Carbon disulfide	ND	62	ug/kg dry	50	09/17/18	B8I1716	8260	
56-23-5	Carbon tetrachloride	ND	62	ug/kg dry	50	09/17/18	B8I1716	8260	
108-90-7	Chlorobenzene	ND	62	ug/kg dry	50	09/17/18	B8I1716	8260	
75-00-3	Chloroethane	ND	310	ug/kg dry	50	09/17/18	B8I1716	8260	
67-66-3	Chloroform	ND	62	ug/kg dry	50	09/17/18	B8I1716	8260	
74-87-3	Chloromethane	ND	310	ug/kg dry	50	09/17/18	B8I1716	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	62	ug/kg dry	50	09/17/18	B8I1716	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	62	ug/kg dry	50	09/17/18	B8I1716	8260	
110-82-7	Cyclohexane	ND	310	ug/kg dry	50	09/17/18	B8I1716	8260	
124-48-1	Dibromochloromethane	ND	62	ug/kg dry	50	09/17/18	B8I1716	8260	
74-95-3	Dibromomethane	ND	62	ug/kg dry	50	09/17/18	B8I1716	8260	

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Client ID: QMCP-SB41 0-6"

Lab ID: 1809100-15

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	310	ug/kg dry	50	09/17/18	B8I1716	8260	
60-29-7	Diethyl ether	ND	250	ug/kg dry	50	09/17/18	B8I1716	8260	
108-20-3	Diisopropyl Ether	ND	310	ug/kg dry	50	09/17/18	B8I1716	8260	
100-41-4	Ethylbenzene	ND	62	ug/kg dry	50	09/17/18	B8I1716	8260	
637-92-3	Ethyltertiarybutylether	ND	310	ug/kg dry	50	09/17/18	B8I1716	8260	
67-72-1	Hexachloroethane	ND	310	ug/kg dry	50	09/17/18	B8I1716	8260	
110-54-3	Hexane	ND	62	ug/kg dry	50	09/17/18	B8I1716	8260	
98-82-8	Isopropylbenzene	ND	62	ug/kg dry	50	09/17/18	B8I1716	8260	
1330-20-7	**m & p - Xylene**	**260**	120	ug/kg dry	50	09/17/18	B8I1716	8260	
75-09-2	Methylene chloride	ND	120	ug/kg dry	50	09/17/18	B8I1716	8260	
1634-04-4	Methyltertiarybutylether	ND	62	ug/kg dry	50	09/17/18	B8I1716	8260	
91-20-3	**Naphthalene**	**320**	310	ug/kg dry	50	09/17/18	B8I1716	8260	X
104-51-8	n-Butylbenzene	ND	62	ug/kg dry	50	09/17/18	B8I1716	8260	
103-65-1	n-Propylbenzene	ND	62	ug/kg dry	50	09/17/18	B8I1716	8260	
95-47-6	**o-Xylene**	**200**	62	ug/kg dry	50	09/17/18	B8I1716	8260	
135-98-8	sec-Butylbenzene	ND	62	ug/kg dry	50	09/17/18	B8I1716	8260	
100-42-5	Styrene	ND	62	ug/kg dry	50	09/17/18	B8I1716	8260	
98-06-6	tert-Butylbenzene	ND	62	ug/kg dry	50	09/17/18	B8I1716	8260	
75-65-0	tertiary Butyl Alcohol	ND	3100	ug/kg dry	50	09/17/18	B8I1716	8260	
994-05-8	tertiaryAmylmethylether	ND	310	ug/kg dry	50	09/17/18	B8I1716	8260	
127-18-4	Tetrachloroethylene	ND	62	ug/kg dry	50	09/17/18	B8I1716	8260	
109-99-9	Tetrahydrofuran	ND	310	ug/kg dry	50	09/17/18	B8I1716	8260	
108-88-3	**Toluene**	**200**	62	ug/kg dry	50	09/17/18	B8I1716	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	62	ug/kg dry	50	09/17/18	B8I1716	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	62	ug/kg dry	50	09/17/18	B8I1716	8260	
79-01-6	Trichloroethylene	ND	62	ug/kg dry	50	09/17/18	B8I1716	8260	
75-69-4	Trichlorofluoromethane	ND	62	ug/kg dry	50	09/17/18	B8I1716	8260	
75-01-4	Vinyl chloride	ND	62	ug/kg dry	50	09/17/18	B8I1716	8260	
Surrogate: Bromofluorobenzene			*95.9 %*	*40.3-194*		*09/17/18*	B8I1716	*8260*	
Surrogate: Dibromofluoromethane			*101 %*	*52.1-217*		*09/17/18*	B8I1716	*8260*	
Surrogate: Toluene-d8			*104 %*	*55.4-196*		*09/17/18*	B8I1716	*8260*	

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CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y17, Y20**
91-57-6	**2-Methylnaphthalene**	**1000**	530	ug/kg dry	1	10/02/18	B8I1922	8270	
83-32-9	Acenaphthene	ND	210	ug/kg dry	1	10/02/18	B8I1922	8270	
208-96-8	Acenaphthylene	ND	210	ug/kg dry	1	10/02/18	B8I1922	8270	
120-12-7	Anthracene	ND	210	ug/kg dry	1	10/02/18	B8I1922	8270	
56-55-3	**Benz[a]anthracene**	**660**	210	ug/kg dry	1	10/02/18	B8I1922	8270	
50-32-8	**Benzo[a]pyrene**	**580**	430	ug/kg dry	1	10/02/18	B8I1922	8270	
205-99-2	**Benzo[b]fluoranthene**	**1200**	430	ug/kg dry	1	10/02/18	B8I1922	8270	
191-24-2	Benzo[g,h,i]perylene	ND	430	ug/kg dry	1	10/02/18	B8I1922	8270	
207-08-9	Benzo[k]fluoranthene	ND	430	ug/kg dry	1	10/02/18	B8I1922	8270	
218-01-9	**Chrysene**	**650**	210	ug/kg dry	1	10/02/18	B8I1922	8270	
53-70-3	Dibenz[a,h]anthracene	ND	430	ug/kg dry	1	10/02/18	B8I1922	8270	
206-44-0	**Fluoranthene**	**1100**	210	ug/kg dry	1	10/02/18	B8I1922	8270	
86-73-7	Fluorene	ND	210	ug/kg dry	1	10/02/18	B8I1922	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	430	ug/kg dry	1	10/02/18	B8I1922	8270	
91-20-3	**Naphthalene**	**700**	210	ug/kg dry	1	10/02/18	B8I1922	8270	
85-01-8	**Phenanthrene**	**790**	210	ug/kg dry	1	10/02/18	B8I1922	8270	
129-00-0	**Pyrene**	**900**	210	ug/kg dry	1	10/02/18	B8I1922	8270	
Surrogate: 2-Fluorobiphenyl			*98.8 %*	*32.9-115*		*10/02/18*	B8I1922	*8270*	
Surrogate: Nitrobenzene-d5			*85.9 %*	*31.8-115*		*10/02/18*	B8I1922	*8270*	
Surrogate: p-Terphenyl-d14			*108 %*	*38.5-115*		*10/02/18*	B8I1922	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	530	ug/kg dry	5	10/25/18	B8J1613	8081/8082	Y21
11104-28-2	Aroclor 1221	ND	530	ug/kg dry	5	10/25/18	B8J1613	8081/8082	Y21
11141-16-5	Aroclor 1232	ND	530	ug/kg dry	5	10/25/18	B8J1613	8081/8082	Y21
53469-21-9	Aroclor 1242	ND	530	ug/kg dry	5	10/25/18	B8J1613	8081/8082	Y21
12672-29-6	Aroclor 1248	ND	530	ug/kg dry	5	10/25/18	B8J1613	8081/8082	Y21
11097-69-1	Aroclor 1254	ND	530	ug/kg dry	5	10/25/18	B8J1613	8081/8082	Y21
11096-82-5	Aroclor 1260	ND	530	ug/kg dry	5	10/25/18	B8J1613	8081/8082	Y21
37324-23-5	Aroclor 1262	ND	530	ug/kg dry	5	10/25/18	B8J1613	8081/8082	Y21
11100-14-4	Aroclor 1268	ND	530	ug/kg dry	5	10/25/18	B8J1613	8081/8082	Y21
Surrogate: Decachlorobiphenyl			*115 %*	*30-150*		*10/25/18*	B8J1613	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*108 %*	*30-150*		*10/25/18*	B8J1613	*8081/8082*	

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Lab ID: 1809100-15

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**93.7**	0.1	%	1	09/18/18	B8I1426	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**22**	0.5	mg/kg dry	10	09/26/18	B8I2113	200.8	
7440-43-9	**Cadmium**	**0.2**	0.2	mg/kg dry	10	09/26/18	B8I2113	200.8	
7440-47-3	**Chromium**	**39**	2.0	mg/kg dry	10	09/26/18	B8I2113	200.8	
7440-50-8	**Copper**	**3800**	100	mg/kg dry	1000	09/26/18	B8I2113	200.8	
7439-92-1	**Lead**	**25**	1.0	mg/kg dry	10	09/26/18	B8I2113	200.8	
7439-96-5	**Manganese**	**280**	1.0	mg/kg dry	10	09/26/18	B8I2113	200.8	
7439-97-6	**Mercury**	**0.06**	0.05	mg/kg dry	1	09/26/18	B8I2413	245.5	
7440-22-4	**Silver**	**1.5**	0.1	mg/kg dry	10	09/26/18	B8I2113	200.8	
7440-66-6	**Zinc**	**80**	1.0	mg/kg dry	10	09/26/18	B8I2113	200.8	

STATE OF MICHIGAN
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MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

Client ID: QMCP-SB41 6"-9'

Lab ID: 1809100-16

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	62	ug/kg dry	50	09/17/18	B8I1716	8260	
71-55-6	1,1,1-Trichloroethane	ND	62	ug/kg dry	50	09/17/18	B8I1716	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	62	ug/kg dry	50	09/17/18	B8I1716	8260	
79-00-5	1,1,2-Trichloroethane	ND	62	ug/kg dry	50	09/17/18	B8I1716	8260	
75-34-3	1,1-Dichloroethane	ND	62	ug/kg dry	50	09/17/18	B8I1716	8260	
75-35-4	1,1-Dichloroethylene	ND	62	ug/kg dry	50	09/17/18	B8I1716	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	310	ug/kg dry	50	09/17/18	B8I1716	8260	
96-18-4	1,2,3-Trichloropropane	ND	62	ug/kg dry	50	09/17/18	B8I1716	8260	A05, A10
526-73-8	**1,2,3-Trimethylbenzene**	**110**	62	ug/kg dry	50	09/17/18	B8I1716	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	310	ug/kg dry	50	09/17/18	B8I1716	8260	
95-63-6	**1,2,4-Trimethylbenzene**	**170**	62	ug/kg dry	50	09/17/18	B8I1716	8260	
106-93-4	1,2-Dibromoethane	ND	62	ug/kg dry	50	09/17/18	B8I1716	8260	
95-50-1	1,2-Dichlorobenzene	ND	62	ug/kg dry	50	09/17/18	B8I1716	8260	
107-06-2	1,2-Dichloroethane	ND	62	ug/kg dry	50	09/17/18	B8I1716	8260	
78-87-5	1,2-Dichloropropane	ND	62	ug/kg dry	50	09/17/18	B8I1716	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	62	ug/kg dry	50	09/17/18	B8I1716	8260	
541-73-1	1,3-Dichlorobenzene	ND	62	ug/kg dry	50	09/17/18	B8I1716	8260	
106-46-7	1,4-Dichlorobenzene	ND	62	ug/kg dry	50	09/17/18	B8I1716	8260	
540-84-1	2,2,4-Trimethylpentane	ND	310	ug/kg dry	50	09/17/18	B8I1716	8260	
78-93-3	2-Butanone (MEK)	ND	310	ug/kg dry	50	09/17/18	B8I1716	8260	
91-57-6	**2-Methylnaphthalene**	**330**	310	ug/kg dry	50	09/17/18	B8I1716	8260	X
67-64-1	2-Propanone (acetone)	ND	1200	ug/kg dry	50	09/17/18	B8I1716	8260	A05
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	310	ug/kg dry	50	09/17/18	B8I1716	8260	
107-13-1	Acrylonitrile	ND	310	ug/kg dry	50	09/17/18	B8I1716	8260	
71-43-2	Benzene	ND	62	ug/kg dry	50	09/17/18	B8I1716	8260	
74-97-5	Bromochloromethane	ND	62	ug/kg dry	50	09/17/18	B8I1716	8260	
75-27-4	Bromodichloromethane	ND	62	ug/kg dry	50	09/17/18	B8I1716	8260	
75-25-2	Bromoform	ND	62	ug/kg dry	50	09/17/18	B8I1716	8260	
74-83-9	Bromomethane	ND	250	ug/kg dry	50	09/17/18	B8I1716	8260	
75-15-0	Carbon disulfide	ND	62	ug/kg dry	50	09/17/18	B8I1716	8260	
56-23-5	Carbon tetrachloride	ND	62	ug/kg dry	50	09/17/18	B8I1716	8260	
108-90-7	Chlorobenzene	ND	62	ug/kg dry	50	09/17/18	B8I1716	8260	
75-00-3	Chloroethane	ND	310	ug/kg dry	50	09/17/18	B8I1716	8260	
67-66-3	Chloroform	ND	62	ug/kg dry	50	09/17/18	B8I1716	8260	
74-87-3	Chloromethane	ND	310	ug/kg dry	50	09/17/18	B8I1716	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	62	ug/kg dry	50	09/17/18	B8I1716	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	62	ug/kg dry	50	09/17/18	B8I1716	8260	
110-82-7	Cyclohexane	ND	310	ug/kg dry	50	09/17/18	B8I1716	8260	
124-48-1	Dibromochloromethane	ND	62	ug/kg dry	50	09/17/18	B8I1716	8260	
74-95-3	Dibromomethane	ND	62	ug/kg dry	50	09/17/18	B8I1716	8260	

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Client ID: QMCP-SB41 6''-9'

Lab ID: 1809100-16

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	310	ug/kg dry	50	09/17/18	B8I1716	8260	
60-29-7	Diethyl ether	ND	250	ug/kg dry	50	09/17/18	B8I1716	8260	
108-20-3	Diisopropyl Ether	ND	310	ug/kg dry	50	09/17/18	B8I1716	8260	
100-41-4	Ethylbenzene	ND	62	ug/kg dry	50	09/17/18	B8I1716	8260	
637-92-3	Ethyltertiarybutylether	ND	310	ug/kg dry	50	09/17/18	B8I1716	8260	
67-72-1	Hexachloroethane	ND	310	ug/kg dry	50	09/17/18	B8I1716	8260	
110-54-3	**Hexane**	**64**	62	ug/kg dry	50	09/17/18	B8I1716	8260	
98-82-8	Isopropylbenzene	ND	62	ug/kg dry	50	09/17/18	B8I1716	8260	
1330-20-7	**m & p - Xylene**	**300**	120	ug/kg dry	50	09/17/18	B8I1716	8260	
75-09-2	Methylene chloride	ND	120	ug/kg dry	50	09/17/18	B8I1716	8260	
1634-04-4	Methyltertiarybutylether	ND	62	ug/kg dry	50	09/17/18	B8I1716	8260	
91-20-3	Naphthalene	ND	310	ug/kg dry	50	09/17/18	B8I1716	8260	X
104-51-8	n-Butylbenzene	ND	62	ug/kg dry	50	09/17/18	B8I1716	8260	
103-65-1	n-Propylbenzene	ND	62	ug/kg dry	50	09/17/18	B8I1716	8260	
95-47-6	**o-Xylene**	**200**	62	ug/kg dry	50	09/17/18	B8I1716	8260	
135-98-8	sec-Butylbenzene	ND	62	ug/kg dry	50	09/17/18	B8I1716	8260	
100-42-5	Styrene	ND	62	ug/kg dry	50	09/17/18	B8I1716	8260	
98-06-6	tert-Butylbenzene	ND	62	ug/kg dry	50	09/17/18	B8I1716	8260	
75-65-0	tertiary Butyl Alcohol	ND	3100	ug/kg dry	50	09/17/18	B8I1716	8260	
994-05-8	tertiaryAmylmethylether	ND	310	ug/kg dry	50	09/17/18	B8I1716	8260	
127-18-4	Tetrachloroethylene	ND	62	ug/kg dry	50	09/17/18	B8I1716	8260	
109-99-9	Tetrahydrofuran	ND	310	ug/kg dry	50	09/17/18	B8I1716	8260	
108-88-3	**Toluene**	**230**	62	ug/kg dry	50	09/17/18	B8I1716	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	62	ug/kg dry	50	09/17/18	B8I1716	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	62	ug/kg dry	50	09/17/18	B8I1716	8260	
79-01-6	Trichloroethylene	ND	62	ug/kg dry	50	09/17/18	B8I1716	8260	
75-69-4	Trichlorofluoromethane	ND	62	ug/kg dry	50	09/17/18	B8I1716	8260	
75-01-4	Vinyl chloride	ND	62	ug/kg dry	50	09/17/18	B8I1716	8260	
Surrogate: Bromofluorobenzene			*96.9 %*	*40.3-194*		*09/17/18*	B8I1716	*8260*	
Surrogate: Dibromofluoromethane			*101 %*	*52.1-217*		*09/17/18*	B8I1716	*8260*	
Surrogate: Toluene-d8			*105 %*	*55.4-196*		*09/17/18*	B8I1716	*8260*	

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Client ID: QMCP-SB41 6''-9'

Lab ID: 1809100-16

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	2-Methylnaphthalene	ND	530	ug/kg dry	1	10/02/18	B8I1922	8270	
83-32-9	Acenaphthene	ND	210	ug/kg dry	1	10/02/18	B8I1922	8270	
208-96-8	Acenaphthylene	ND	210	ug/kg dry	1	10/02/18	B8I1922	8270	
120-12-7	Anthracene	ND	210	ug/kg dry	1	10/02/18	B8I1922	8270	
56-55-3	Benz[a]anthracene	ND	210	ug/kg dry	1	10/02/18	B8I1922	8270	
50-32-8	Benzo[a]pyrene	ND	430	ug/kg dry	1	10/02/18	B8I1922	8270	
205-99-2	Benzo[b]fluoranthene	ND	430	ug/kg dry	1	10/02/18	B8I1922	8270	
191-24-2	Benzo[g,h,i]perylene	ND	430	ug/kg dry	1	10/02/18	B8I1922	8270	
207-08-9	Benzo[k]fluoranthene	ND	430	ug/kg dry	1	10/02/18	B8I1922	8270	
218-01-9	Chrysene	ND	210	ug/kg dry	1	10/02/18	B8I1922	8270	
53-70-3	Dibenz[a,h]anthracene	ND	430	ug/kg dry	1	10/02/18	B8I1922	8270	
206-44-0	Fluoranthene	ND	210	ug/kg dry	1	10/02/18	B8I1922	8270	
86-73-7	Fluorene	ND	210	ug/kg dry	1	10/02/18	B8I1922	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	430	ug/kg dry	1	10/02/18	B8I1922	8270	
91-20-3	**Naphthalene**	**270**	210	ug/kg dry	1	10/02/18	B8I1922	8270	
85-01-8	**Phenanthrene**	**210**	210	ug/kg dry	1	10/02/18	B8I1922	8270	
129-00-0	Pyrene	ND	210	ug/kg dry	1	10/02/18	B8I1922	8270	
Surrogate: 2-Fluorobiphenyl			*92.1 %*	*32.9-115*		*10/02/18*	B8I1922	*8270*	
Surrogate: Nitrobenzene-d5			*80.6 %*	*31.8-115*		*10/02/18*	B8I1922	*8270*	
Surrogate: p-Terphenyl-d14			*105 %*	*38.5-115*		*10/02/18*	B8I1922	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	110	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
11104-28-2	Aroclor 1221	ND	110	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
11141-16-5	Aroclor 1232	ND	110	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
53469-21-9	Aroclor 1242	ND	110	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
12672-29-6	Aroclor 1248	ND	110	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
11097-69-1	Aroclor 1254	ND	110	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
11096-82-5	Aroclor 1260	ND	110	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
37324-23-5	Aroclor 1262	ND	110	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
11100-14-4	Aroclor 1268	ND	110	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
Surrogate: Decachlorobiphenyl			*99.0 %*	*30-150*		*10/20/18*	B8J1613	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*91.5 %*	*30-150*		*10/20/18*	B8J1613	*8081/8082*	

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Client ID: QMCP-SB41 6''-9'

Lab ID: 1809100-16

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**93.9**	0.1	%	1	09/18/18	B8I1426	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**17**	0.5	mg/kg dry	10	09/26/18	B8I2113	200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	09/26/18	B8I2113	200.8	
7440-47-3	**Chromium**	**41**	2.0	mg/kg dry	10	09/26/18	B8I2113	200.8	
7440-50-8	**Copper**	**1800**	1.0	mg/kg dry	10	09/26/18	B8I2113	200.8	
7439-92-1	**Lead**	**9.3**	1.0	mg/kg dry	10	09/26/18	B8I2113	200.8	
7439-96-5	**Manganese**	**250**	1.0	mg/kg dry	10	09/26/18	B8I2113	200.8	
7439-97-6	Mercury	ND	0.05	mg/kg dry	1	09/26/18	B8I2413	245.5	
7440-22-4	**Silver**	**0.8**	0.1	mg/kg dry	10	09/26/18	B8I2113	200.8	
7440-66-6	**Zinc**	**65**	1.0	mg/kg dry	10	09/26/18	B8I2113	200.8	

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TEL: (517) 335-9800
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Client ID: QMCP-SB40 0-6"

Lab ID: 1809100-17

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	53	ug/kg dry	50	09/17/18	B8I1716	8260	
71-55-6	1,1,1-Trichloroethane	ND	53	ug/kg dry	50	09/17/18	B8I1716	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	53	ug/kg dry	50	09/17/18	B8I1716	8260	
79-00-5	1,1,2-Trichloroethane	ND	53	ug/kg dry	50	09/17/18	B8I1716	8260	
75-34-3	1,1-Dichloroethane	ND	53	ug/kg dry	50	09/17/18	B8I1716	8260	
75-35-4	1,1-Dichloroethylene	ND	53	ug/kg dry	50	09/17/18	B8I1716	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	270	ug/kg dry	50	09/17/18	B8I1716	8260	
96-18-4	1,2,3-Trichloropropane	ND	53	ug/kg dry	50	09/17/18	B8I1716	8260	A05, A10
526-73-8	1,2,3-Trimethylbenzene	ND	53	ug/kg dry	50	09/17/18	B8I1716	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	270	ug/kg dry	50	09/17/18	B8I1716	8260	
95-63-6	**1,2,4-Trimethylbenzene**	**68**	53	ug/kg dry	50	09/17/18	B8I1716	8260	
106-93-4	1,2-Dibromoethane	ND	53	ug/kg dry	50	09/17/18	B8I1716	8260	
95-50-1	1,2-Dichlorobenzene	ND	53	ug/kg dry	50	09/17/18	B8I1716	8260	
107-06-2	1,2-Dichloroethane	ND	53	ug/kg dry	50	09/17/18	B8I1716	8260	
78-87-5	1,2-Dichloropropane	ND	53	ug/kg dry	50	09/17/18	B8I1716	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	53	ug/kg dry	50	09/17/18	B8I1716	8260	
541-73-1	1,3-Dichlorobenzene	ND	53	ug/kg dry	50	09/17/18	B8I1716	8260	
106-46-7	1,4-Dichlorobenzene	ND	53	ug/kg dry	50	09/17/18	B8I1716	8260	
540-84-1	2,2,4-Trimethylpentane	ND	270	ug/kg dry	50	09/17/18	B8I1716	8260	
78-93-3	2-Butanone (MEK)	ND	270	ug/kg dry	50	09/17/18	B8I1716	8260	
91-57-6	2-Methylnaphthalene	ND	270	ug/kg dry	50	09/17/18	B8I1716	8260	X
67-64-1	2-Propanone (acetone)	ND	1100	ug/kg dry	50	09/17/18	B8I1716	8260	A05
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	270	ug/kg dry	50	09/17/18	B8I1716	8260	
107-13-1	Acrylonitrile	ND	270	ug/kg dry	50	09/17/18	B8I1716	8260	
71-43-2	Benzene	ND	53	ug/kg dry	50	09/17/18	B8I1716	8260	
74-97-5	Bromochloromethane	ND	53	ug/kg dry	50	09/17/18	B8I1716	8260	
75-27-4	Bromodichloromethane	ND	53	ug/kg dry	50	09/17/18	B8I1716	8260	
75-25-2	Bromoform	ND	53	ug/kg dry	50	09/17/18	B8I1716	8260	
74-83-9	Bromomethane	ND	210	ug/kg dry	50	09/17/18	B8I1716	8260	
75-15-0	Carbon disulfide	ND	53	ug/kg dry	50	09/17/18	B8I1716	8260	
56-23-5	Carbon tetrachloride	ND	53	ug/kg dry	50	09/17/18	B8I1716	8260	
108-90-7	Chlorobenzene	ND	53	ug/kg dry	50	09/17/18	B8I1716	8260	
75-00-3	Chloroethane	ND	270	ug/kg dry	50	09/17/18	B8I1716	8260	
67-66-3	Chloroform	ND	53	ug/kg dry	50	09/17/18	B8I1716	8260	
74-87-3	Chloromethane	ND	270	ug/kg dry	50	09/17/18	B8I1716	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	53	ug/kg dry	50	09/17/18	B8I1716	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	53	ug/kg dry	50	09/17/18	B8I1716	8260	
110-82-7	Cyclohexane	ND	270	ug/kg dry	50	09/17/18	B8I1716	8260	
124-48-1	Dibromochloromethane	ND	53	ug/kg dry	50	09/17/18	B8I1716	8260	
74-95-3	Dibromomethane	ND	53	ug/kg dry	50	09/17/18	B8I1716	8260	

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Client ID: QMCP-SB40 0-6"

Lab ID: 1809100-17

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	270	ug/kg dry	50	09/17/18	B8I1716	8260	
60-29-7	Diethyl ether	ND	210	ug/kg dry	50	09/17/18	B8I1716	8260	
108-20-3	Diisopropyl Ether	ND	270	ug/kg dry	50	09/17/18	B8I1716	8260	
100-41-4	Ethylbenzene	ND	53	ug/kg dry	50	09/17/18	B8I1716	8260	
637-92-3	Ethyltertiarybutylether	ND	270	ug/kg dry	50	09/17/18	B8I1716	8260	
67-72-1	Hexachloroethane	ND	270	ug/kg dry	50	09/17/18	B8I1716	8260	
110-54-3	Hexane	ND	53	ug/kg dry	50	09/17/18	B8I1716	8260	
98-82-8	Isopropylbenzene	ND	53	ug/kg dry	50	09/17/18	B8I1716	8260	
1330-20-7	**m & p - Xylene**	**110**	110	ug/kg dry	50	09/17/18	B8I1716	8260	
75-09-2	Methylene chloride	ND	110	ug/kg dry	50	09/17/18	B8I1716	8260	
1634-04-4	Methyltertiarybutylether	ND	53	ug/kg dry	50	09/17/18	B8I1716	8260	
91-20-3	Naphthalene	ND	270	ug/kg dry	50	09/17/18	B8I1716	8260	X
104-51-8	n-Butylbenzene	ND	53	ug/kg dry	50	09/17/18	B8I1716	8260	
103-65-1	n-Propylbenzene	ND	53	ug/kg dry	50	09/17/18	B8I1716	8260	
95-47-6	**o-Xylene**	**77**	53	ug/kg dry	50	09/17/18	B8I1716	8260	
135-98-8	sec-Butylbenzene	ND	53	ug/kg dry	50	09/17/18	B8I1716	8260	
100-42-5	Styrene	ND	53	ug/kg dry	50	09/17/18	B8I1716	8260	
98-06-6	tert-Butylbenzene	ND	53	ug/kg dry	50	09/17/18	B8I1716	8260	
75-65-0	tertiary Butyl Alcohol	ND	2700	ug/kg dry	50	09/17/18	B8I1716	8260	
994-05-8	tertiaryAmylmethylether	ND	270	ug/kg dry	50	09/17/18	B8I1716	8260	
127-18-4	Tetrachloroethylene	ND	53	ug/kg dry	50	09/17/18	B8I1716	8260	
109-99-9	Tetrahydrofuran	ND	270	ug/kg dry	50	09/17/18	B8I1716	8260	
108-88-3	**Toluene**	**93**	53	ug/kg dry	50	09/17/18	B8I1716	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	53	ug/kg dry	50	09/17/18	B8I1716	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	53	ug/kg dry	50	09/17/18	B8I1716	8260	
79-01-6	Trichloroethylene	ND	53	ug/kg dry	50	09/17/18	B8I1716	8260	
75-69-4	Trichlorofluoromethane	ND	53	ug/kg dry	50	09/17/18	B8I1716	8260	
75-01-4	Vinyl chloride	ND	53	ug/kg dry	50	09/17/18	B8I1716	8260	
Surrogate: Bromofluorobenzene			*92.2 %*	*40.3-194*		*09/17/18*	B8I1716	*8260*	
Surrogate: Dibromofluoromethane			*99.3 %*	*52.1-217*		*09/17/18*	B8I1716	*8260*	
Surrogate: Toluene-d8			*103 %*	*55.4-196*		*09/17/18*	B8I1716	*8260*	

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ENVIRONMENTAL LABORATORY

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

Client ID: QMCP-SB40 0-6"

Lab ID: 1809100-17

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	2-Methylnaphthalene	ND	520	ug/kg dry	1	10/02/18	B8I1922	8270	
83-32-9	Acenaphthene	ND	210	ug/kg dry	1	10/02/18	B8I1922	8270	
208-96-8	Acenaphthylene	ND	210	ug/kg dry	1	10/02/18	B8I1922	8270	
120-12-7	Anthracene	ND	210	ug/kg dry	1	10/02/18	B8I1922	8270	
56-55-3	Benz[a]anthracene	ND	210	ug/kg dry	1	10/02/18	B8I1922	8270	
50-32-8	Benzo[a]pyrene	ND	420	ug/kg dry	1	10/02/18	B8I1922	8270	
205-99-2	Benzo[b]fluoranthene	ND	420	ug/kg dry	1	10/02/18	B8I1922	8270	
191-24-2	Benzo[g,h,i]perylene	ND	420	ug/kg dry	1	10/02/18	B8I1922	8270	
207-08-9	Benzo[k]fluoranthene	ND	420	ug/kg dry	1	10/02/18	B8I1922	8270	
218-01-9	Chrysene	ND	210	ug/kg dry	1	10/02/18	B8I1922	8270	
53-70-3	Dibenz[a,h]anthracene	ND	420	ug/kg dry	1	10/02/18	B8I1922	8270	
206-44-0	Fluoranthene	ND	210	ug/kg dry	1	10/02/18	B8I1922	8270	
86-73-7	Fluorene	ND	210	ug/kg dry	1	10/02/18	B8I1922	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	420	ug/kg dry	1	10/02/18	B8I1922	8270	
91-20-3	**Naphthalene**	**250**	210	ug/kg dry	1	10/02/18	B8I1922	8270	
85-01-8	Phenanthrene	ND	210	ug/kg dry	1	10/02/18	B8I1922	8270	
129-00-0	Pyrene	ND	210	ug/kg dry	1	10/02/18	B8I1922	8270	
Surrogate: 2-Fluorobiphenyl			*93.1 %*	*32.9-115*		*10/02/18*	B8I1922	*8270*	
Surrogate: Nitrobenzene-d5			*82.0 %*	*31.8-115*		*10/02/18*	B8I1922	*8270*	
Surrogate: p-Terphenyl-d14			*110 %*	*38.5-115*		*10/02/18*	B8I1922	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	100	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
11104-28-2	Aroclor 1221	ND	100	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
11141-16-5	Aroclor 1232	ND	100	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
53469-21-9	Aroclor 1242	ND	100	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
12672-29-6	Aroclor 1248	ND	100	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
11097-69-1	Aroclor 1254	ND	100	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
11096-82-5	Aroclor 1260	ND	100	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
37324-23-5	Aroclor 1262	ND	100	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
11100-14-4	Aroclor 1268	ND	100	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
Surrogate: Decachlorobiphenyl			*93.6 %*	*30-150*		*10/20/18*	B8J1613	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*88.7 %*	*30-150*		*10/20/18*	B8J1613	*8081/8082*	

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FAX: (517) 335-9600

Client ID: QMCP-SB40 0-6"

Lab ID: 1809100-17

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**96.0**	0.1	%	1	09/20/18	B8I2004	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**19**	0.5	mg/kg dry	10	09/27/18	B8I2504	200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	09/27/18	B8I2504	200.8	
7440-47-3	**Chromium**	**15**	2.0	mg/kg dry	10	09/27/18	B8I2504	200.8	
7440-50-8	**Copper**	**2300**	1.0	mg/kg dry	10	09/27/18	B8I2504	200.8	
7439-92-1	**Lead**	**6.5**	1.0	mg/kg dry	10	09/27/18	B8I2504	200.8	
7439-96-5	**Manganese**	**200**	1.0	mg/kg dry	10	09/27/18	B8I2504	200.8	
7439-97-6	Mercury	ND	0.05	mg/kg dry	1	09/26/18	B8I2413	245.5	
7440-22-4	**Silver**	**1.2**	0.1	mg/kg dry	10	09/27/18	B8I2504	200.8	
7440-66-6	**Zinc**	**34**	1.0	mg/kg dry	10	09/27/18	B8I2504	200.8	

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TEL: (517) 335-9800
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Client ID: QMCP-SB40 6''-5'

Lab ID: 1809100-18

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	65	ug/kg dry	50	09/17/18	B8I1716	8260	
71-55-6	1,1,1-Trichloroethane	ND	65	ug/kg dry	50	09/17/18	B8I1716	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	65	ug/kg dry	50	09/17/18	B8I1716	8260	
79-00-5	1,1,2-Trichloroethane	ND	65	ug/kg dry	50	09/17/18	B8I1716	8260	
75-34-3	1,1-Dichloroethane	ND	65	ug/kg dry	50	09/17/18	B8I1716	8260	
75-35-4	1,1-Dichloroethylene	ND	65	ug/kg dry	50	09/17/18	B8I1716	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	330	ug/kg dry	50	09/17/18	B8I1716	8260	
96-18-4	1,2,3-Trichloropropane	ND	65	ug/kg dry	50	09/17/18	B8I1716	8260	A05, A10
526-73-8	1,2,3-Trimethylbenzene	ND	65	ug/kg dry	50	09/17/18	B8I1716	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	330	ug/kg dry	50	09/17/18	B8I1716	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	65	ug/kg dry	50	09/17/18	B8I1716	8260	
106-93-4	1,2-Dibromoethane	ND	65	ug/kg dry	50	09/17/18	B8I1716	8260	
95-50-1	1,2-Dichlorobenzene	ND	65	ug/kg dry	50	09/17/18	B8I1716	8260	
107-06-2	1,2-Dichloroethane	ND	65	ug/kg dry	50	09/17/18	B8I1716	8260	
78-87-5	1,2-Dichloropropane	ND	65	ug/kg dry	50	09/17/18	B8I1716	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	65	ug/kg dry	50	09/17/18	B8I1716	8260	
541-73-1	1,3-Dichlorobenzene	ND	65	ug/kg dry	50	09/17/18	B8I1716	8260	
106-46-7	1,4-Dichlorobenzene	ND	65	ug/kg dry	50	09/17/18	B8I1716	8260	
540-84-1	2,2,4-Trimethylpentane	ND	330	ug/kg dry	50	09/17/18	B8I1716	8260	
78-93-3	2-Butanone (MEK)	ND	330	ug/kg dry	50	09/17/18	B8I1716	8260	
91-57-6	2-Methylnaphthalene	ND	330	ug/kg dry	50	09/17/18	B8I1716	8260	X
67-64-1	2-Propanone (acetone)	ND	1300	ug/kg dry	50	09/17/18	B8I1716	8260	A05
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	330	ug/kg dry	50	09/17/18	B8I1716	8260	
107-13-1	Acrylonitrile	ND	330	ug/kg dry	50	09/17/18	B8I1716	8260	
71-43-2	Benzene	ND	65	ug/kg dry	50	09/17/18	B8I1716	8260	
74-97-5	Bromochloromethane	ND	65	ug/kg dry	50	09/17/18	B8I1716	8260	
75-27-4	Bromodichloromethane	ND	65	ug/kg dry	50	09/17/18	B8I1716	8260	
75-25-2	Bromoform	ND	65	ug/kg dry	50	09/17/18	B8I1716	8260	
74-83-9	Bromomethane	ND	260	ug/kg dry	50	09/17/18	B8I1716	8260	
75-15-0	Carbon disulfide	ND	65	ug/kg dry	50	09/17/18	B8I1716	8260	
56-23-5	Carbon tetrachloride	ND	65	ug/kg dry	50	09/17/18	B8I1716	8260	
108-90-7	Chlorobenzene	ND	65	ug/kg dry	50	09/17/18	B8I1716	8260	
75-00-3	Chloroethane	ND	330	ug/kg dry	50	09/17/18	B8I1716	8260	
67-66-3	Chloroform	ND	65	ug/kg dry	50	09/17/18	B8I1716	8260	
74-87-3	Chloromethane	ND	330	ug/kg dry	50	09/17/18	B8I1716	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	65	ug/kg dry	50	09/17/18	B8I1716	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	65	ug/kg dry	50	09/17/18	B8I1716	8260	
110-82-7	Cyclohexane	ND	330	ug/kg dry	50	09/17/18	B8I1716	8260	
124-48-1	Dibromochloromethane	ND	65	ug/kg dry	50	09/17/18	B8I1716	8260	
74-95-3	Dibromomethane	ND	65	ug/kg dry	50	09/17/18	B8I1716	8260	

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Client ID: QMCP-SB40 6''-5'

Lab ID: 1809100-18

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	330	ug/kg dry	50	09/17/18	B8I1716	8260	
60-29-7	Diethyl ether	ND	260	ug/kg dry	50	09/17/18	B8I1716	8260	
108-20-3	Diisopropyl Ether	ND	330	ug/kg dry	50	09/17/18	B8I1716	8260	
100-41-4	Ethylbenzene	ND	65	ug/kg dry	50	09/17/18	B8I1716	8260	
637-92-3	Ethyltertiarybutylether	ND	330	ug/kg dry	50	09/17/18	B8I1716	8260	
67-72-1	Hexachloroethane	ND	330	ug/kg dry	50	09/17/18	B8I1716	8260	
110-54-3	Hexane	ND	65	ug/kg dry	50	09/17/18	B8I1716	8260	
98-82-8	Isopropylbenzene	ND	65	ug/kg dry	50	09/17/18	B8I1716	8260	
1330-20-7	m & p - Xylene	ND	130	ug/kg dry	50	09/17/18	B8I1716	8260	
75-09-2	Methylene chloride	ND	130	ug/kg dry	50	09/17/18	B8I1716	8260	
1634-04-4	Methyltertiarybutylether	ND	65	ug/kg dry	50	09/17/18	B8I1716	8260	
91-20-3	Naphthalene	ND	330	ug/kg dry	50	09/17/18	B8I1716	8260	X
104-51-8	n-Butylbenzene	ND	65	ug/kg dry	50	09/17/18	B8I1716	8260	
103-65-1	n-Propylbenzene	ND	65	ug/kg dry	50	09/17/18	B8I1716	8260	
95-47-6	o-Xylene	ND	65	ug/kg dry	50	09/17/18	B8I1716	8260	
135-98-8	sec-Butylbenzene	ND	65	ug/kg dry	50	09/17/18	B8I1716	8260	
100-42-5	Styrene	ND	65	ug/kg dry	50	09/17/18	B8I1716	8260	
98-06-6	tert-Butylbenzene	ND	65	ug/kg dry	50	09/17/18	B8I1716	8260	
75-65-0	tertiary Butyl Alcohol	ND	3300	ug/kg dry	50	09/17/18	B8I1716	8260	
994-05-8	tertiaryAmylmethylether	ND	330	ug/kg dry	50	09/17/18	B8I1716	8260	
127-18-4	Tetrachloroethylene	ND	65	ug/kg dry	50	09/17/18	B8I1716	8260	
109-99-9	Tetrahydrofuran	ND	330	ug/kg dry	50	09/17/18	B8I1716	8260	
108-88-3	Toluene	ND	65	ug/kg dry	50	09/17/18	B8I1716	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	65	ug/kg dry	50	09/17/18	B8I1716	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	65	ug/kg dry	50	09/17/18	B8I1716	8260	
79-01-6	Trichloroethylene	ND	65	ug/kg dry	50	09/17/18	B8I1716	8260	
75-69-4	Trichlorofluoromethane	ND	65	ug/kg dry	50	09/17/18	B8I1716	8260	
75-01-4	Vinyl chloride	ND	65	ug/kg dry	50	09/17/18	B8I1716	8260	
Surrogate: Bromofluorobenzene			*127 %*	*40.3-194*		*09/17/18*	B8I1716	*8260*	
Surrogate: Dibromofluoromethane			*131 %*	*52.1-217*		*09/17/18*	B8I1716	*8260*	
Surrogate: Toluene-d8			*137 %*	*55.4-196*		*09/17/18*	B8I1716	*8260*	

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CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	2-Methylnaphthalene	ND	550	ug/kg dry	1	10/02/18	B8I1922	8270	
83-32-9	Acenaphthene	ND	220	ug/kg dry	1	10/02/18	B8I1922	8270	
208-96-8	**Acenaphthylene**	**230**	220	ug/kg dry	1	10/02/18	B8I1922	8270	
120-12-7	Anthracene	ND	220	ug/kg dry	1	10/02/18	B8I1922	8270	
56-55-3	Benz[a]anthracene	ND	220	ug/kg dry	1	10/02/18	B8I1922	8270	
50-32-8	Benzo[a]pyrene	ND	440	ug/kg dry	1	10/02/18	B8I1922	8270	
205-99-2	Benzo[b]fluoranthene	ND	440	ug/kg dry	1	10/02/18	B8I1922	8270	
191-24-2	Benzo[g,h,i]perylene	ND	440	ug/kg dry	1	10/02/18	B8I1922	8270	
207-08-9	Benzo[k]fluoranthene	ND	440	ug/kg dry	1	10/02/18	B8I1922	8270	
218-01-9	Chrysene	ND	220	ug/kg dry	1	10/02/18	B8I1922	8270	
53-70-3	Dibenz[a,h]anthracene	ND	440	ug/kg dry	1	10/02/18	B8I1922	8270	
206-44-0	**Fluoranthene**	**220**	220	ug/kg dry	1	10/02/18	B8I1922	8270	
86-73-7	Fluorene	ND	220	ug/kg dry	1	10/02/18	B8I1922	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	440	ug/kg dry	1	10/02/18	B8I1922	8270	
91-20-3	**Naphthalene**	**700**	220	ug/kg dry	1	10/02/18	B8I1922	8270	
85-01-8	**Phenanthrene**	**370**	220	ug/kg dry	1	10/02/18	B8I1922	8270	
129-00-0	Pyrene	ND	220	ug/kg dry	1	10/02/18	B8I1922	8270	
Surrogate: 2-Fluorobiphenyl			*95.2 %*	*32.9-115*		*10/02/18*	B8I1922	*8270*	
Surrogate: Nitrobenzene-d5			*84.4 %*	*31.8-115*		*10/02/18*	B8I1922	*8270*	
Surrogate: p-Terphenyl-d14			*102 %*	*38.5-115*		*10/02/18*	B8I1922	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	110	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
11104-28-2	Aroclor 1221	ND	110	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
11141-16-5	Aroclor 1232	ND	110	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
53469-21-9	Aroclor 1242	ND	110	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
12672-29-6	Aroclor 1248	ND	110	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
11097-69-1	Aroclor 1254	ND	110	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
11096-82-5	Aroclor 1260	ND	110	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
37324-23-5	Aroclor 1262	ND	110	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
11100-14-4	Aroclor 1268	ND	110	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
Surrogate: Decachlorobiphenyl			*97.9 %*	*30-150*		*10/20/18*	B8J1613	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*90.6 %*	*30-150*		*10/20/18*	B8J1613	*8081/8082*	

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TEL: (517) 335-9800
FAX: (517) 335-9600

Client ID: QMCP-SB40 6''-5'

Lab ID: 1809100-18

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**90.5**	0.1	%	1	09/20/18	B8I2004	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**6.2**	0.5	mg/kg dry	10	09/27/18	B8I2504	200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	09/27/18	B8I2504	200.8	
7440-47-3	**Chromium**	**15**	2.0	mg/kg dry	10	09/27/18	B8I2504	200.8	
7440-50-8	**Copper**	**2000**	1.0	mg/kg dry	10	09/27/18	B8I2504	200.8	
7439-92-1	**Lead**	**8.6**	1.0	mg/kg dry	10	09/27/18	B8I2504	200.8	
7439-96-5	**Manganese**	**170**	1.0	mg/kg dry	10	09/27/18	B8I2504	200.8	
7439-97-6	Mercury	ND	0.06	mg/kg dry	1	09/26/18	B8I2413	245.5	
7440-22-4	**Silver**	**0.6**	0.1	mg/kg dry	10	09/27/18	B8I2504	200.8	
7440-66-6	**Zinc**	**25**	1.0	mg/kg dry	10	09/27/18	B8I2504	200.8	

Michigan Department of Environmental Quality
Laboratory Services Section

Analysis Request Sheet

S 9

Lab Work Order Number	Project Name	Matrix
1809100	Abandoned Mining Wastes- QMCP	SOIL

Site Code/Project Number: 31000098	AY: 17	CC Email 1: jbinkley@manniksmithgroup.com	Project TAT Days:	Sample Collector:
Dept-Division-District: DEQ RRD UP District- Calumet	Index: 7000	CC Email 2:	Project Due Date:	Sample Collector Phone:
State Project Manager: Amy Keranen	PCA: 42050/1533	CC Email 3:		Contract Firm: Mannik & Smith Group
State Project Manager Email: keranena@michigan.gov	location: 6996	Overflow Lab Choice 1: Test America- asbestos	Accept Analysis hold time codes: No	Contract Firm Primary Contact: Jeff Binkley
State Project Manager Phone: 906-337-0389	sub location: 6010	Overflow Lab Choice 2: ALS for waste characterization		Primary Contact Phone: 906-281-3404

	Lab Use Only	Field Sample Identification	Collection Date	Collection Time	Container Count	Comments
1	01	QMCP-SB 49 0-6"	9-10-18	1620		COOLER 11
2	02	QMCP-SB 49 6"-4		1050		
3	03	QMCP-SB 47 0-6"		1050		
4	04	QMCP-SB 47 6"-5'		1050		COOLER 11
5	05	QMCP-SB ~~48~~ ~~[illegible]~~' 50 0-2'		1125		COOLER 12
6	06	QMCP-SB 46 0-~~2~~ 4' ADD		1200		Sample ID 46 0-4'
7	07	QMCP-SB 45 0-6"		1330		
8	08	QMCP-SB 45 6"-5'		1330		
9	09	QMCP-SB 48 0-6"		1420		
10	10	QMCP-SB 48 6"-5'		1420		COOLER 12

ORGANIC CHEMISTRY

VOA - Volatile Organic Acidic

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

OS - Pesticides, PCBs

Pesticides & PCBs	1 2 3 4 5 6 7 8 9 10
Pesticides only	1 2 3 4 5 6 7 8 9 10
PCBs only	1 2 3 4 5 6 7 8 9 10
Toxaphene	1 2 3 4 5 6 7 8 9 10

BNA - Base Neutral Acids

BNAs	1 2 3 4 5 6 7 8 9 10
PNAs only	1 2 3 4 5 6 7 8 9 10
BNs only	1 2 3 4 5 6 7 8 9 10

Organic Specialty Requests

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

METALS CHEMISTRY PACKAGES

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

MS - TOTAL METALS

Silver - Ag	1 2 3 4 5 6 7 8 9 10
Aluminum - Al	1 2 3 4 5 6 7 8 9 10
Arsenic - As	1 2 3 4 5 6 7 8 9 10
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

BARIUM

GENERAL CHEMISTRY

GS - General Chemistry

Total Cyanide - CN	1 2 3 4 5 6 7 8 9 10
Available Cyanide - CN	1 2 3 4 5 6 7 8 9 10
Chem Oxyg Dem - COD	1 2 3 4 5 6 7 8 9 10
Total Org Carbon - TOC	1 2 3 4 5 6 7 8 9 10
Kjeldahl Nitrogen - KN	1 2 3 4 5 6 7 8 9 10
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.	JEFF PINCUMBE MAEG	Melissa Smith	
Signature:	[signature]	[signature]	9/12/18 959
Print Name & Org.			
Signature:			
Print Name & Org.			
Signature:			

Michigan Department of Environmental Quality
Laboratory Services Section

Analysis Request Sheet

S 10

Lab Work Order Number	Project Name	Matrix
1809100	Abandoned Mining Wastes- QMCP	SOIL

Site Code/Project Number: 31000098	AY: 17	CC Email 1: jbinkley@manniksmithgroup.com	Project TAT Days:	Sample Collector:
Dept-Division-District: DEQ RRD UP District- Calumet	Index: 7000	CC Email 2:	Project Due Date:	Sample Collector Phone:
State Project Manager: Amy Keranen	PCA: 42050/1533	CC Email 3:		Contract Firm: Mannik & Smith Group
State Project Manager Email: keranena@michigan.gov	location: 6996	Overflow Lab Choice 1: Test America- asbestos	Accept Analysis hold time codes: No	Contract Firm Primary Contact: Jeff Binkley
State Project Manager Phone: 906-337-0389	sub location: 6010	Overflow Lab Choice 2: ALS for waste characterization		Primary Contact Phone: 906-281-3404

	Lab Use Only	Field Sample Identification	Collection Date	Collection Time	Container Count	Comments
1	11	QMCP-SB 44 0-6"	~~9~~ 9-10-18	1450		COOLER 12
2	12	QMCP-SB 44 6"-~~8~~ 4'	9-10-18	1450		COOLER 12 Sample ID 44-6"-4'
3	13	QMCP-SB 42 0-6"		1610		COOLER 13
4	14	QMCP-SB 42 6"-12'		1610		
5	15	QMCP-SB 41 0-6"		1650		
6	16	QMCP-SB 41 6"-9'		1650		
7	17	QMCP-SB 40 0-6"		1730		
8	18	QMCP-SB 40 6"-5'	9-10-18	1730		COOLER 13
9		QMCP-SB				~~COOLER 14~~
10		QMCP-SB				

ORGANIC CHEMISTRY

VOA - Volatile Organic Acidic

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

OS - Pesticides, PCBs

Pesticides & PCBs	1 2 3 4 5 6 7 8 9 10
Pesticides only	1 2 3 4 5 6 7 8 9 10
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Toxaphene	1 2 3 4 5 6 7 8 9 10

BNA - Base Neutral Acids

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Finger Print	1 2 3 4 5 6 7 8 9 10
DRO / ORO	1 2 3 4 5 6 7 8 9 10

METALS CHEMISTRY PACKAGES

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Michigan10 - Total (As,Ba,Cd,Cr,Cu,Pb,Hg,Se,Ag,Zn)	1 2 3 4 5 6 7 8 9 10

MS - TOTAL METALS

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Aluminum - Al	1 2 3 4 5 6 7 8 9 10
Arsenic - As	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

NO BARIUM

GENERAL CHEMISTRY

GS - General Chemistry

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Available Cyanide - CN	1 2 3 4 5 6 7 8 9 10
Chem Oxyg Dem - COD	1 2 3 4 5 6 7 8 9 10
Total Org Carbon - TOC	1 2 3 4 5 6 7 8 9 10
Kjeldahl Nitrogen - KN	1 2 3 4 5 6 7 8 9 10
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.	JEFF PINOVABE MDEQ	Melissa Smith	9/12/18 959
Signature:			
Print Name & Org.			
Signature:			
Print Name & Org.			
Signature:			

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

CORRECTED REPORT

21 December 2018

Work Order: 1809084

Price: $10,450.00

Amy Keranen
MDEQ-RRD-UP
1504 W. Washington St.
Marquette, MI 49855

RE: ABANDONED MINING WASTES-QMCP

A correction has been made to the original report that was sent to you. A description of the correction should be present in the case narrative section of this report in order to clarify any changes.

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

Sincerely,

Kirby Shane
Laboratory Director

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

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CORRECTED REPORT

MDEQ-RRD-UP
1504 W. Washington St.
Marquette MI, 49855

Project: ABANDONED MINING WASTES-QMCP
Site Code: 31000098
Project Manager: Amy Keranen

Reported:
12/21/2018

Analytical Report for Samples

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Qualifier
QMCP-SB 10 0-6"	1809084-01	Soil/Sediment	09/07/2018	09/10/2018	
QMCP-SB 10 6"-6'	1809084-02	Soil/Sediment	09/07/2018	09/10/2018	
QMCP-SB 20 0"-6'	1809084-03	Soil/Sediment	09/07/2018	09/10/2018	
QMCP-SB 20 6"-4'	1809084-04	Soil/Sediment	09/07/2018	09/10/2018	
QMCP-SB 61 0"-6"	1809084-05	Soil/Sediment	09/07/2018	09/10/2018	
QMCP-SB 61 6"-4'	1809084-06	Soil/Sediment	09/07/2018	09/10/2018	
QMCP-SB 61 6"-4' DUP	1809084-07	Soil/Sediment	09/07/2018	09/10/2018	
QMCP-SB 64 0"-6"	1809084-08	Soil/Sediment	09/07/2018	09/10/2018	
QMCP-SB 64 6"-5'	1809084-09	Soil/Sediment	09/07/2018	09/10/2018	
QMCP-SB 17 0"-6"	1809084-10	Soil/Sediment	09/07/2018	09/10/2018	
QMCP-SB 17 6"-4'	1809084-11	Soil/Sediment	09/07/2018	09/10/2018	
QMCP-SB 18 0"-6"	1809084-12	Soil/Sediment	09/07/2018	09/10/2018	
QMCP-SB 18 6"-4'	1809084-13	Soil/Sediment	09/07/2018	09/10/2018	
QMCP-SB 21 0"-6"	1809084-14	Soil/Sediment	09/07/2018	09/10/2018	
QMCP-SB 21 6"-4'	1809084-15	Soil/Sediment	09/07/2018	09/10/2018	
QMCP-SB 62 0"-6"	1809084-16	Soil/Sediment	09/07/2018	09/10/2018	
QMCP-SB 62 6"-4'	1809084-17	Soil/Sediment	09/07/2018	09/10/2018	
QMCP-SB 63 0"-6"	1809084-18	Soil/Sediment	09/07/2018	09/10/2018	
QMCP-SB 63 6"-4'	1809084-19	Soil/Sediment	09/07/2018	09/10/2018	
QMCP-SB 23 0"-6"	1809084-20	Soil/Sediment	09/08/2018	09/10/2018	

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CORRECTED REPORT

Notes and Definitions

T	Reported value is less than the reporting limit (RL). Result is estimated.
A04	Result is estimated due to high matrix spike recovery.
A05	Result and reporting limit are estimated due to low continuing calibration standard criteria failure.
A06	Result is estimated due to high continuing calibration standard criteria failure.
A07	Result(s) and reporting limit(s) are estimated due to poor precision.
A08	Result(s) and reporting limits(s) are estimated due to low recovery of batch QC.
A09	Result is estimated due to high recovery of batch quality control.
A03	Result(s) and reporting limit(s) are estimated due to low matrix spike recovery.
LRB	Laboratory reagent blank was greater than 2.2 times the MDL, or greater than 10% of the analyte level in the sample.
Y21	Reporting Limits (RL) raised due to matrix interference.
V	Value not available due to dilution.
X	Methods 8260 & 624 are used to analyze volatile organics that have boiling points below 200 ºC. 2-Methylnaphthalene & naphthalene have boiling points above 200 ºC and are better suited to analysis by methods 8270 & 625 as semivolatile organics.
X3	Spike recovery is not applicable due to large target analyte concentration in the source sample.
Y11	Unidentified peaks present in sample.
Y17	Probable petroleum product(s) present.
Y20	Reporting Limits (RL) raised due to matrix.
A10	Result and reporting limit are estimated due to low initial verification standard criteria failure.
ND	Indicates compound analyzed for but not detected
RL	Reporting Limit
NA	Not Applicable
dry	Sample results reported on a dry weight basis

Case Narrative

This is a corrected report. This report for Laboratory work order 1809084 , ABANDONED MINING WASTES-QMCP , received on 9/10/2018 1:16:00 PM has been modified from the original report. All sample IDs corrected to match COC.

STATE OF MICHIGAN
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CORRECTED REPORT

Client ID: QMCP-SB 10 0-6"

Lab ID: 1809084-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	61	ug/kg dry	50	09/12/18	B8I1216	8260	
71-55-6	1,1,1-Trichloroethane	ND	61	ug/kg dry	50	09/12/18	B8I1216	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	61	ug/kg dry	50	09/12/18	B8I1216	8260	
79-00-5	1,1,2-Trichloroethane	ND	61	ug/kg dry	50	09/12/18	B8I1216	8260	
75-34-3	1,1-Dichloroethane	ND	61	ug/kg dry	50	09/12/18	B8I1216	8260	
75-35-4	1,1-Dichloroethylene	ND	61	ug/kg dry	50	09/12/18	B8I1216	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
96-18-4	1,2,3-Trichloropropane	ND	61	ug/kg dry	50	09/12/18	B8I1216	8260	A05, A10
526-73-8	1,2,3-Trimethylbenzene	ND	61	ug/kg dry	50	09/12/18	B8I1216	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
95-63-6	**1,2,4-Trimethylbenzene**	**110**	61	ug/kg dry	50	09/12/18	B8I1216	8260	
106-93-4	1,2-Dibromoethane	ND	61	ug/kg dry	50	09/12/18	B8I1216	8260	
95-50-1	1,2-Dichlorobenzene	ND	61	ug/kg dry	50	09/12/18	B8I1216	8260	
107-06-2	1,2-Dichloroethane	ND	61	ug/kg dry	50	09/12/18	B8I1216	8260	
78-87-5	1,2-Dichloropropane	ND	61	ug/kg dry	50	09/12/18	B8I1216	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	61	ug/kg dry	50	09/12/18	B8I1216	8260	
541-73-1	1,3-Dichlorobenzene	ND	61	ug/kg dry	50	09/12/18	B8I1216	8260	
106-46-7	1,4-Dichlorobenzene	ND	61	ug/kg dry	50	09/12/18	B8I1216	8260	
540-84-1	2,2,4-Trimethylpentane	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
78-93-3	2-Butanone (MEK)	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
91-57-6	2-Methylnaphthalene	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	X
67-64-1	2-Propanone (acetone)	ND	1200	ug/kg dry	50	09/12/18	B8I1216	8260	A03, A05
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
107-13-1	Acrylonitrile	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
71-43-2	Benzene	ND	61	ug/kg dry	50	09/12/18	B8I1216	8260	
74-97-5	Bromochloromethane	ND	61	ug/kg dry	50	09/12/18	B8I1216	8260	
75-27-4	Bromodichloromethane	ND	61	ug/kg dry	50	09/12/18	B8I1216	8260	
75-25-2	Bromoform	ND	61	ug/kg dry	50	09/12/18	B8I1216	8260	
74-83-9	Bromomethane	ND	240	ug/kg dry	50	09/12/18	B8I1216	8260	A05
75-15-0	Carbon disulfide	ND	61	ug/kg dry	50	09/12/18	B8I1216	8260	
56-23-5	Carbon tetrachloride	ND	61	ug/kg dry	50	09/12/18	B8I1216	8260	
108-90-7	Chlorobenzene	ND	61	ug/kg dry	50	09/12/18	B8I1216	8260	
75-00-3	Chloroethane	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	A05
67-66-3	Chloroform	ND	61	ug/kg dry	50	09/12/18	B8I1216	8260	
74-87-3	Chloromethane	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	61	ug/kg dry	50	09/12/18	B8I1216	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	61	ug/kg dry	50	09/12/18	B8I1216	8260	
110-82-7	Cyclohexane	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
124-48-1	Dibromochloromethane	ND	61	ug/kg dry	50	09/12/18	B8I1216	8260	
74-95-3	Dibromomethane	ND	61	ug/kg dry	50	09/12/18	B8I1216	8260	
75-71-8	Dichlorodifluoromethane	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	

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TEL: (517) 335-9800
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CORRECTED REPORT

Client ID: QMCP-SB 10 0-6"

Lab ID: 1809084-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
60-29-7	Diethyl ether	ND	240	ug/kg dry	50	09/12/18	B8I1216	8260	
108-20-3	Diisopropyl Ether	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
100-41-4	Ethylbenzene	ND	61	ug/kg dry	50	09/12/18	B8I1216	8260	
637-92-3	Ethyltertiarybutylether	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
67-72-1	Hexachloroethane	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
110-54-3	Hexane	ND	61	ug/kg dry	50	09/12/18	B8I1216	8260	
98-82-8	Isopropylbenzene	ND	61	ug/kg dry	50	09/12/18	B8I1216	8260	
1330-20-7	**m & p - Xylene**	**170**	120	ug/kg dry	50	09/12/18	B8I1216	8260	
75-09-2	Methylene chloride	ND	120	ug/kg dry	50	09/12/18	B8I1216	8260	
1634-04-4	Methyltertiarybutylether	ND	61	ug/kg dry	50	09/12/18	B8I1216	8260	
91-20-3	Naphthalene	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	X
104-51-8	n-Butylbenzene	ND	61	ug/kg dry	50	09/12/18	B8I1216	8260	
103-65-1	n-Propylbenzene	ND	61	ug/kg dry	50	09/12/18	B8I1216	8260	
95-47-6	**o-Xylene**	**160**	61	ug/kg dry	50	09/12/18	B8I1216	8260	
135-98-8	sec-Butylbenzene	ND	61	ug/kg dry	50	09/12/18	B8I1216	8260	
100-42-5	Styrene	ND	61	ug/kg dry	50	09/12/18	B8I1216	8260	
98-06-6	tert-Butylbenzene	ND	61	ug/kg dry	50	09/12/18	B8I1216	8260	
75-65-0	tertiary Butyl Alcohol	ND	3100	ug/kg dry	50	09/12/18	B8I1216	8260	
994-05-8	tertiaryAmylmethylether	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
127-18-4	Tetrachloroethylene	ND	61	ug/kg dry	50	09/12/18	B8I1216	8260	
109-99-9	Tetrahydrofuran	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
108-88-3	**Toluene**	**90**	61	ug/kg dry	50	09/12/18	B8I1216	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	61	ug/kg dry	50	09/12/18	B8I1216	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	61	ug/kg dry	50	09/12/18	B8I1216	8260	
79-01-6	Trichloroethylene	ND	61	ug/kg dry	50	09/12/18	B8I1216	8260	
75-69-4	Trichlorofluoromethane	ND	61	ug/kg dry	50	09/12/18	B8I1216	8260	
75-01-4	Vinyl chloride	ND	61	ug/kg dry	50	09/12/18	B8I1216	8260	
Surrogate: Bromofluorobenzene			*98.2 %*	*40.3-194*		*09/12/18*	B8I1216	*8260*	
Surrogate: Dibromofluoromethane			*101 %*	*52.1-217*		*09/12/18*	B8I1216	*8260*	
Surrogate: Toluene-d8			*103 %*	*55.4-196*		*09/12/18*	B8I1216	*8260*	

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CORRECTED REPORT

Client ID: QMCP-SB 10 0-6"

Lab ID: 1809084-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y17, Y20**
91-57-6	2-Methylnaphthalene	ND	550	ug/kg dry	1	09/26/18	B8I1321	8270	
83-32-9	Acenaphthene	ND	220	ug/kg dry	1	09/26/18	B8I1321	8270	
208-96-8	Acenaphthylene	ND	220	ug/kg dry	1	09/26/18	B8I1321	8270	
120-12-7	Anthracene	ND	220	ug/kg dry	1	09/26/18	B8I1321	8270	
56-55-3	**Benz[a]anthracene**	**260**	220	ug/kg dry	1	09/26/18	B8I1321	8270	
50-32-8	Benzo[a]pyrene	ND	440	ug/kg dry	1	09/26/18	B8I1321	8270	
205-99-2	**Benzo[b]fluoranthene**	**470**	440	ug/kg dry	1	09/26/18	B8I1321	8270	
191-24-2	Benzo[g,h,i]perylene	ND	440	ug/kg dry	1	09/26/18	B8I1321	8270	
207-08-9	Benzo[k]fluoranthene	ND	440	ug/kg dry	1	09/26/18	B8I1321	8270	
218-01-9	**Chrysene**	**310**	220	ug/kg dry	1	09/26/18	B8I1321	8270	
53-70-3	Dibenz[a,h]anthracene	ND	440	ug/kg dry	1	09/26/18	B8I1321	8270	
206-44-0	**Fluoranthene**	**490**	220	ug/kg dry	1	09/26/18	B8I1321	8270	
86-73-7	Fluorene	ND	220	ug/kg dry	1	09/26/18	B8I1321	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	440	ug/kg dry	1	09/26/18	B8I1321	8270	
91-20-3	**Naphthalene**	**240**	220	ug/kg dry	1	09/26/18	B8I1321	8270	
85-01-8	**Phenanthrene**	**360**	220	ug/kg dry	1	09/26/18	B8I1321	8270	
129-00-0	**Pyrene**	**430**	220	ug/kg dry	1	09/26/18	B8I1321	8270	
Surrogate: 2-Fluorobiphenyl			*84.6 %*	*32.9-115*		*09/26/18*	B8I1321	*8270*	
Surrogate: Nitrobenzene-d5			*74.9 %*	*31.8-115*		*09/26/18*	B8I1321	*8270*	
Surrogate: p-Terphenyl-d14			*92.8 %*	*38.5-115*		*09/26/18*	B8I1321	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	110	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11104-28-2	Aroclor 1221	ND	110	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11141-16-5	Aroclor 1232	ND	110	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
53469-21-9	Aroclor 1242	ND	110	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
12672-29-6	Aroclor 1248	ND	110	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11097-69-1	**Aroclor 1254**	**100**	110	ug/kg dry	1	10/13/18	B8J0906	8081/8082	T
11096-82-5	Aroclor 1260	ND	120	ug/kg dry	1	10/13/18	B8J0906	8081/8082	Y21
37324-23-5	Aroclor 1262	ND	110	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11100-14-4	Aroclor 1268	ND	110	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
Surrogate: Decachlorobiphenyl			*84.0 %*	*30-150*		*10/13/18*	B8J0906	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*71.0 %*	*30-150*		*10/13/18*	B8J0906	*8081/8082*	

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CORRECTED REPORT

Client ID: QMCP-SB 10 0-6"

Lab ID: 1809084-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**90.3**	0.1	%	1	09/18/18	B8I1416	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**7.0**	0.5	mg/kg dry	10	09/25/18	B8I1912	200.8	
7440-43-9	**Cadmium**	**0.4**	0.2	mg/kg dry	10	09/25/18	B8I1912	200.8	
7440-47-3	**Chromium**	**29**	2.0	mg/kg dry	10	09/25/18	B8I1912	200.8	
7440-50-8	**Copper**	**1100**	1.0	mg/kg dry	10	09/25/18	B8I1912	200.8	
7439-92-1	**Lead**	**110**	1.0	mg/kg dry	10	09/25/18	B8I1912	200.8	
7439-96-5	**Manganese**	**580**	100	mg/kg dry	1000	09/25/18	B8I1912	200.8	
7439-97-6	**Mercury**	**0.09**	0.06	mg/kg dry	1	09/21/18	B8I1825	245.5	
7440-22-4	**Silver**	**1.2**	0.1	mg/kg dry	10	09/25/18	B8I1912	200.8	
7440-66-6	**Zinc**	**93**	1.0	mg/kg dry	10	09/25/18	B8I1912	200.8	

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CORRECTED REPORT

Client ID: QMCP-SB 10 6"-6'

Lab ID: 1809084-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	
71-55-6	1,1,1-Trichloroethane	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	
79-00-5	1,1,2-Trichloroethane	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	
75-34-3	1,1-Dichloroethane	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	
75-35-4	1,1-Dichloroethylene	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	320	ug/kg dry	50	09/12/18	B8I1216	8260	
96-18-4	1,2,3-Trichloropropane	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	A05, A10
526-73-8	1,2,3-Trimethylbenzene	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	320	ug/kg dry	50	09/12/18	B8I1216	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	
106-93-4	1,2-Dibromoethane	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	
95-50-1	1,2-Dichlorobenzene	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	
107-06-2	1,2-Dichloroethane	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	
78-87-5	1,2-Dichloropropane	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	
541-73-1	1,3-Dichlorobenzene	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	
106-46-7	1,4-Dichlorobenzene	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	
540-84-1	2,2,4-Trimethylpentane	ND	320	ug/kg dry	50	09/12/18	B8I1216	8260	
78-93-3	2-Butanone (MEK)	ND	320	ug/kg dry	50	09/12/18	B8I1216	8260	
91-57-6	2-Methylnaphthalene	ND	320	ug/kg dry	50	09/12/18	B8I1216	8260	X
67-64-1	2-Propanone (acetone)	ND	1300	ug/kg dry	50	09/12/18	B8I1216	8260	A05
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	320	ug/kg dry	50	09/12/18	B8I1216	8260	
107-13-1	Acrylonitrile	ND	320	ug/kg dry	50	09/12/18	B8I1216	8260	
71-43-2	Benzene	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	
74-97-5	Bromochloromethane	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	
75-27-4	Bromodichloromethane	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	
75-25-2	Bromoform	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	
74-83-9	Bromomethane	ND	250	ug/kg dry	50	09/12/18	B8I1216	8260	A05
75-15-0	Carbon disulfide	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	
56-23-5	Carbon tetrachloride	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	
108-90-7	Chlorobenzene	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	
75-00-3	Chloroethane	ND	320	ug/kg dry	50	09/12/18	B8I1216	8260	A05
67-66-3	Chloroform	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	
74-87-3	Chloromethane	ND	320	ug/kg dry	50	09/12/18	B8I1216	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	
110-82-7	Cyclohexane	ND	320	ug/kg dry	50	09/12/18	B8I1216	8260	
124-48-1	Dibromochloromethane	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	
74-95-3	Dibromomethane	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	
75-71-8	Dichlorodifluoromethane	ND	320	ug/kg dry	50	09/12/18	B8I1216	8260	

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CORRECTED REPORT

Client ID: QMCP-SB 10 6''-6'

Lab ID: 1809084-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
60-29-7	Diethyl ether	ND	250	ug/kg dry	50	09/12/18	B8I1216	8260	
108-20-3	Diisopropyl Ether	ND	320	ug/kg dry	50	09/12/18	B8I1216	8260	
100-41-4	Ethylbenzene	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	
637-92-3	Ethyltertiarybutylether	ND	320	ug/kg dry	50	09/12/18	B8I1216	8260	
67-72-1	Hexachloroethane	ND	320	ug/kg dry	50	09/12/18	B8I1216	8260	
110-54-3	Hexane	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	
98-82-8	Isopropylbenzene	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	
1330-20-7	m & p - Xylene	ND	130	ug/kg dry	50	09/12/18	B8I1216	8260	
75-09-2	Methylene chloride	ND	130	ug/kg dry	50	09/12/18	B8I1216	8260	
1634-04-4	Methyltertiarybutylether	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	
91-20-3	Naphthalene	ND	320	ug/kg dry	50	09/12/18	B8I1216	8260	X
104-51-8	n-Butylbenzene	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	
103-65-1	n-Propylbenzene	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	
95-47-6	o-Xylene	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	
135-98-8	sec-Butylbenzene	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	
100-42-5	Styrene	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	
98-06-6	tert-Butylbenzene	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	
75-65-0	tertiary Butyl Alcohol	ND	3200	ug/kg dry	50	09/12/18	B8I1216	8260	
994-05-8	tertiaryAmylmethylether	ND	320	ug/kg dry	50	09/12/18	B8I1216	8260	
127-18-4	Tetrachloroethylene	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	
109-99-9	Tetrahydrofuran	ND	320	ug/kg dry	50	09/12/18	B8I1216	8260	
108-88-3	Toluene	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	
79-01-6	Trichloroethylene	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	
75-69-4	Trichlorofluoromethane	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	
75-01-4	Vinyl chloride	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	
Surrogate: Bromofluorobenzene			*99.3 %*	*40.3-194*		*09/12/18*	B8I1216	*8260*	
Surrogate: Dibromofluoromethane			*101 %*	*52.1-217*		*09/12/18*	B8I1216	*8260*	
Surrogate: Toluene-d8			*105 %*	*55.4-196*		*09/12/18*	B8I1216	*8260*	

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CORRECTED REPORT

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Lab ID: 1809084-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	2-Methylnaphthalene	ND	580	ug/kg dry	1	09/26/18	B8I1321	8270	
83-32-9	Acenaphthene	ND	230	ug/kg dry	1	09/26/18	B8I1321	8270	
208-96-8	Acenaphthylene	ND	230	ug/kg dry	1	09/26/18	B8I1321	8270	
120-12-7	Anthracene	ND	230	ug/kg dry	1	09/26/18	B8I1321	8270	
56-55-3	**Benz[a]anthracene**	**320**	230	ug/kg dry	1	09/26/18	B8I1321	8270	
50-32-8	Benzo[a]pyrene	ND	460	ug/kg dry	1	09/26/18	B8I1321	8270	
205-99-2	Benzo[b]fluoranthene	ND	460	ug/kg dry	1	09/26/18	B8I1321	8270	
191-24-2	Benzo[g,h,i]perylene	ND	460	ug/kg dry	1	09/26/18	B8I1321	8270	
207-08-9	Benzo[k]fluoranthene	ND	460	ug/kg dry	1	09/26/18	B8I1321	8270	
218-01-9	**Chrysene**	**280**	230	ug/kg dry	1	09/26/18	B8I1321	8270	
53-70-3	Dibenz[a,h]anthracene	ND	460	ug/kg dry	1	09/26/18	B8I1321	8270	
206-44-0	**Fluoranthene**	**650**	230	ug/kg dry	1	09/26/18	B8I1321	8270	
86-73-7	Fluorene	ND	230	ug/kg dry	1	09/26/18	B8I1321	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	460	ug/kg dry	1	09/26/18	B8I1321	8270	
91-20-3	Naphthalene	ND	230	ug/kg dry	1	09/26/18	B8I1321	8270	
85-01-8	**Phenanthrene**	**480**	230	ug/kg dry	1	09/26/18	B8I1321	8270	
129-00-0	**Pyrene**	**530**	230	ug/kg dry	1	09/26/18	B8I1321	8270	
Surrogate: 2-Fluorobiphenyl			*83.4 %*	*32.9-115*		*09/26/18*	B8I1321	*8270*	
Surrogate: Nitrobenzene-d5			*75.8 %*	*31.8-115*		*09/26/18*	B8I1321	*8270*	
Surrogate: p-Terphenyl-d14			*91.9 %*	*38.5-115*		*09/26/18*	B8I1321	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	120	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11104-28-2	Aroclor 1221	ND	120	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11141-16-5	Aroclor 1232	ND	120	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
53469-21-9	Aroclor 1242	ND	120	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
12672-29-6	Aroclor 1248	ND	120	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11097-69-1	Aroclor 1254	ND	120	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11096-82-5	Aroclor 1260	ND	120	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
37324-23-5	Aroclor 1262	ND	120	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11100-14-4	Aroclor 1268	ND	120	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
Surrogate: Decachlorobiphenyl			*107 %*	*30-150*		*10/13/18*	B8J0906	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*93.4 %*	*30-150*		*10/13/18*	B8J0906	*8081/8082*	

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P.O. Box 30270
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TEL: (517) 335-9800
FAX: (517) 335-9600

CORRECTED REPORT

Client ID: QMCP-SB 10 6''-6'

Lab ID: 1809084-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**86.5**	0.1	%	1	09/18/18	B8I1416	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**2.8**	0.5	mg/kg dry	10	09/25/18	B8I1912	200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	09/25/18	B8I1912	200.8	
7440-47-3	**Chromium**	**15**	2.0	mg/kg dry	10	09/25/18	B8I1912	200.8	
7440-50-8	**Copper**	**870**	1.0	mg/kg dry	10	09/25/18	B8I1912	200.8	
7439-92-1	**Lead**	**27**	1.0	mg/kg dry	10	09/25/18	B8I1912	200.8	
7439-96-5	**Manganese**	**320**	1.0	mg/kg dry	10	09/25/18	B8I1912	200.8	
7439-97-6	**Mercury**	**0.2**	0.06	mg/kg dry	1	09/21/18	B8I1825	245.5	
7440-22-4	**Silver**	**2.7**	0.1	mg/kg dry	10	09/25/18	B8I1912	200.8	
7440-66-6	**Zinc**	**59**	1.0	mg/kg dry	10	09/25/18	B8I1912	200.8	

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CORRECTED REPORT

Client ID: QMCP-SB 20 0"-6'

Lab ID: 1809084-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	69	ug/kg dry	50	09/12/18	B8I1216	8260	
71-55-6	1,1,1-Trichloroethane	ND	69	ug/kg dry	50	09/12/18	B8I1216	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	69	ug/kg dry	50	09/12/18	B8I1216	8260	
79-00-5	1,1,2-Trichloroethane	ND	69	ug/kg dry	50	09/12/18	B8I1216	8260	
75-34-3	1,1-Dichloroethane	ND	69	ug/kg dry	50	09/12/18	B8I1216	8260	
75-35-4	1,1-Dichloroethylene	ND	69	ug/kg dry	50	09/12/18	B8I1216	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	340	ug/kg dry	50	09/12/18	B8I1216	8260	
96-18-4	1,2,3-Trichloropropane	ND	69	ug/kg dry	50	09/12/18	B8I1216	8260	A05, A10
526-73-8	1,2,3-Trimethylbenzene	ND	69	ug/kg dry	50	09/12/18	B8I1216	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	340	ug/kg dry	50	09/12/18	B8I1216	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	69	ug/kg dry	50	09/12/18	B8I1216	8260	
106-93-4	1,2-Dibromoethane	ND	69	ug/kg dry	50	09/12/18	B8I1216	8260	
95-50-1	1,2-Dichlorobenzene	ND	69	ug/kg dry	50	09/12/18	B8I1216	8260	
107-06-2	1,2-Dichloroethane	ND	69	ug/kg dry	50	09/12/18	B8I1216	8260	
78-87-5	1,2-Dichloropropane	ND	69	ug/kg dry	50	09/12/18	B8I1216	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	69	ug/kg dry	50	09/12/18	B8I1216	8260	
541-73-1	1,3-Dichlorobenzene	ND	69	ug/kg dry	50	09/12/18	B8I1216	8260	
106-46-7	1,4-Dichlorobenzene	ND	69	ug/kg dry	50	09/12/18	B8I1216	8260	
540-84-1	2,2,4-Trimethylpentane	ND	340	ug/kg dry	50	09/12/18	B8I1216	8260	
78-93-3	2-Butanone (MEK)	ND	340	ug/kg dry	50	09/12/18	B8I1216	8260	
91-57-6	2-Methylnaphthalene	ND	340	ug/kg dry	50	09/12/18	B8I1216	8260	X
67-64-1	2-Propanone (acetone)	ND	1400	ug/kg dry	50	09/12/18	B8I1216	8260	A05
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	340	ug/kg dry	50	09/12/18	B8I1216	8260	
107-13-1	Acrylonitrile	ND	340	ug/kg dry	50	09/12/18	B8I1216	8260	
71-43-2	Benzene	ND	69	ug/kg dry	50	09/12/18	B8I1216	8260	
74-97-5	Bromochloromethane	ND	69	ug/kg dry	50	09/12/18	B8I1216	8260	
75-27-4	Bromodichloromethane	ND	69	ug/kg dry	50	09/12/18	B8I1216	8260	
75-25-2	Bromoform	ND	69	ug/kg dry	50	09/12/18	B8I1216	8260	
74-83-9	Bromomethane	ND	280	ug/kg dry	50	09/12/18	B8I1216	8260	A05
75-15-0	Carbon disulfide	ND	69	ug/kg dry	50	09/12/18	B8I1216	8260	
56-23-5	Carbon tetrachloride	ND	69	ug/kg dry	50	09/12/18	B8I1216	8260	
108-90-7	Chlorobenzene	ND	69	ug/kg dry	50	09/12/18	B8I1216	8260	
75-00-3	Chloroethane	ND	340	ug/kg dry	50	09/12/18	B8I1216	8260	A05
67-66-3	Chloroform	ND	69	ug/kg dry	50	09/12/18	B8I1216	8260	
74-87-3	Chloromethane	ND	340	ug/kg dry	50	09/12/18	B8I1216	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	69	ug/kg dry	50	09/12/18	B8I1216	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	69	ug/kg dry	50	09/12/18	B8I1216	8260	
110-82-7	Cyclohexane	ND	340	ug/kg dry	50	09/12/18	B8I1216	8260	
124-48-1	Dibromochloromethane	ND	69	ug/kg dry	50	09/12/18	B8I1216	8260	
74-95-3	Dibromomethane	ND	69	ug/kg dry	50	09/12/18	B8I1216	8260	
75-71-8	Dichlorodifluoromethane	ND	340	ug/kg dry	50	09/12/18	B8I1216	8260	

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CORRECTED REPORT

Client ID: QMCP-SB 20 0"-6'

Lab ID: 1809084-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
60-29-7	Diethyl ether	ND	280	ug/kg dry	50	09/12/18	B8I1216	8260	
108-20-3	Diisopropyl Ether	ND	340	ug/kg dry	50	09/12/18	B8I1216	8260	
100-41-4	Ethylbenzene	ND	69	ug/kg dry	50	09/12/18	B8I1216	8260	
637-92-3	Ethyltertiarybutylether	ND	340	ug/kg dry	50	09/12/18	B8I1216	8260	
67-72-1	Hexachloroethane	ND	340	ug/kg dry	50	09/12/18	B8I1216	8260	
110-54-3	Hexane	ND	69	ug/kg dry	50	09/12/18	B8I1216	8260	
98-82-8	Isopropylbenzene	ND	69	ug/kg dry	50	09/12/18	B8I1216	8260	
1330-20-7	m & p - Xylene	ND	140	ug/kg dry	50	09/12/18	B8I1216	8260	
75-09-2	Methylene chloride	ND	140	ug/kg dry	50	09/12/18	B8I1216	8260	
1634-04-4	Methyltertiarybutylether	ND	69	ug/kg dry	50	09/12/18	B8I1216	8260	
91-20-3	Naphthalene	ND	340	ug/kg dry	50	09/12/18	B8I1216	8260	X
104-51-8	n-Butylbenzene	ND	69	ug/kg dry	50	09/12/18	B8I1216	8260	
103-65-1	n-Propylbenzene	ND	69	ug/kg dry	50	09/12/18	B8I1216	8260	
95-47-6	o-Xylene	ND	69	ug/kg dry	50	09/12/18	B8I1216	8260	
135-98-8	sec-Butylbenzene	ND	69	ug/kg dry	50	09/12/18	B8I1216	8260	
100-42-5	Styrene	ND	69	ug/kg dry	50	09/12/18	B8I1216	8260	
98-06-6	tert-Butylbenzene	ND	69	ug/kg dry	50	09/12/18	B8I1216	8260	
75-65-0	tertiary Butyl Alcohol	ND	3400	ug/kg dry	50	09/12/18	B8I1216	8260	
994-05-8	tertiaryAmylmethylether	ND	340	ug/kg dry	50	09/12/18	B8I1216	8260	
127-18-4	Tetrachloroethylene	ND	69	ug/kg dry	50	09/12/18	B8I1216	8260	
109-99-9	Tetrahydrofuran	ND	340	ug/kg dry	50	09/12/18	B8I1216	8260	
108-88-3	Toluene	ND	69	ug/kg dry	50	09/12/18	B8I1216	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	69	ug/kg dry	50	09/12/18	B8I1216	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	69	ug/kg dry	50	09/12/18	B8I1216	8260	
79-01-6	Trichloroethylene	ND	69	ug/kg dry	50	09/12/18	B8I1216	8260	
75-69-4	Trichlorofluoromethane	ND	69	ug/kg dry	50	09/12/18	B8I1216	8260	
75-01-4	Vinyl chloride	ND	69	ug/kg dry	50	09/12/18	B8I1216	8260	
Surrogate: Bromofluorobenzene			*106 %*	*40.3-194*		*09/12/18*	B8I1216	*8260*	
Surrogate: Dibromofluoromethane			*105 %*	*52.1-217*		*09/12/18*	B8I1216	*8260*	
Surrogate: Toluene-d8			*108 %*	*55.4-196*		*09/12/18*	B8I1216	*8260*	

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CORRECTED REPORT

Client ID: QMCP-SB 20 0"-6'

Lab ID: 1809084-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	2-Methylnaphthalene	ND	1500	ug/kg dry	1	09/26/18	B8I1321	8270	
83-32-9	Acenaphthene	ND	600	ug/kg dry	1	09/26/18	B8I1321	8270	
208-96-8	Acenaphthylene	ND	600	ug/kg dry	1	09/26/18	B8I1321	8270	
120-12-7	Anthracene	ND	600	ug/kg dry	1	09/26/18	B8I1321	8270	
56-55-3	Benz[a]anthracene	ND	600	ug/kg dry	1	09/26/18	B8I1321	8270	
50-32-8	Benzo[a]pyrene	ND	1200	ug/kg dry	1	09/26/18	B8I1321	8270	
205-99-2	Benzo[b]fluoranthene	ND	1200	ug/kg dry	1	09/26/18	B8I1321	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1200	ug/kg dry	1	09/26/18	B8I1321	8270	
207-08-9	Benzo[k]fluoranthene	ND	1200	ug/kg dry	1	09/26/18	B8I1321	8270	
218-01-9	Chrysene	ND	600	ug/kg dry	1	09/26/18	B8I1321	8270	
53-70-3	Dibenz[a,h]anthracene	ND	1200	ug/kg dry	1	09/26/18	B8I1321	8270	
206-44-0	**Fluoranthene**	**580**	600	ug/kg dry	1	09/26/18	B8I1321	8270	T
86-73-7	Fluorene	ND	600	ug/kg dry	1	09/26/18	B8I1321	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	1200	ug/kg dry	1	09/26/18	B8I1321	8270	
91-20-3	Naphthalene	ND	600	ug/kg dry	1	09/26/18	B8I1321	8270	
85-01-8	Phenanthrene	ND	600	ug/kg dry	1	09/26/18	B8I1321	8270	
129-00-0	**Pyrene**	**590**	600	ug/kg dry	1	09/26/18	B8I1321	8270	T
Surrogate: 2-Fluorobiphenyl			*81.0 %*	*32.9-115*		*09/26/18*	B8I1321	*8270*	
Surrogate: Nitrobenzene-d5			*72.3 %*	*31.8-115*		*09/26/18*	B8I1321	*8270*	
Surrogate: p-Terphenyl-d14			*87.0 %*	*38.5-115*		*09/26/18*	B8I1321	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	120	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11104-28-2	Aroclor 1221	ND	120	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11141-16-5	Aroclor 1232	ND	120	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
53469-21-9	Aroclor 1242	ND	120	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
12672-29-6	Aroclor 1248	ND	120	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11097-69-1	Aroclor 1254	ND	120	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11096-82-5	Aroclor 1260	ND	120	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
37324-23-5	Aroclor 1262	ND	120	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11100-14-4	Aroclor 1268	ND	120	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
Surrogate: Decachlorobiphenyl			*111 %*	*30-150*		*10/13/18*	B8J0906	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*90.7 %*	*30-150*		*10/13/18*	B8J0906	*8081/8082*	

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CORRECTED REPORT

Client ID: QMCP-SB 20 0"-6'

Lab ID: 1809084-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**83.7**	0.1	%	1	09/18/18	B8I1417	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**2.0**	0.5	mg/kg dry	10	09/25/18	B8I1912	200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	09/25/18	B8I1912	200.8	
7440-47-3	**Chromium**	**11**	2.0	mg/kg dry	10	09/25/18	B8I1912	200.8	
7440-50-8	**Copper**	**350**	1.0	mg/kg dry	10	09/25/18	B8I1912	200.8	
7439-92-1	**Lead**	**18**	1.0	mg/kg dry	10	09/25/18	B8I1912	200.8	
7439-96-5	**Manganese**	**240**	1.0	mg/kg dry	10	09/25/18	B8I1912	200.8	
7439-97-6	**Mercury**	**0.1**	0.06	mg/kg dry	1	09/21/18	B8I1825	245.5	
7440-22-4	**Silver**	**0.5**	0.1	mg/kg dry	10	09/25/18	B8I1912	200.8	
7440-66-6	**Zinc**	**37**	1.0	mg/kg dry	10	09/25/18	B8I1912	200.8	

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CORRECTED REPORT

Client ID: QMCP-SB 20 6"-4'

Lab ID: 1809084-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
71-55-6	1,1,1-Trichloroethane	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
79-00-5	1,1,2-Trichloroethane	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
75-34-3	1,1-Dichloroethane	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
75-35-4	1,1-Dichloroethylene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
96-18-4	1,2,3-Trichloropropane	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	A05, A10
526-73-8	1,2,3-Trimethylbenzene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
106-93-4	1,2-Dibromoethane	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
95-50-1	1,2-Dichlorobenzene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
107-06-2	1,2-Dichloroethane	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
78-87-5	1,2-Dichloropropane	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
541-73-1	1,3-Dichlorobenzene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
106-46-7	1,4-Dichlorobenzene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
540-84-1	2,2,4-Trimethylpentane	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
78-93-3	2-Butanone (MEK)	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
91-57-6	2-Methylnaphthalene	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	X
67-64-1	2-Propanone (acetone)	ND	1200	ug/kg dry	50	09/12/18	B8I1216	8260	A05
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
107-13-1	Acrylonitrile	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
71-43-2	Benzene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
74-97-5	Bromochloromethane	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
75-27-4	Bromodichloromethane	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
75-25-2	Bromoform	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
74-83-9	Bromomethane	ND	250	ug/kg dry	50	09/12/18	B8I1216	8260	A05
75-15-0	Carbon disulfide	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
56-23-5	Carbon tetrachloride	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
108-90-7	Chlorobenzene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
75-00-3	Chloroethane	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	A05
67-66-3	Chloroform	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
74-87-3	Chloromethane	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
110-82-7	Cyclohexane	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
124-48-1	Dibromochloromethane	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
74-95-3	Dibromomethane	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
75-71-8	Dichlorodifluoromethane	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

CORRECTED REPORT

Client ID: QMCP-SB 20 6''-4'

Lab ID: 1809084-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
60-29-7	Diethyl ether	ND	250	ug/kg dry	50	09/12/18	B8I1216	8260	
108-20-3	Diisopropyl Ether	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
100-41-4	Ethylbenzene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
637-92-3	Ethyltertiarybutylether	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
67-72-1	Hexachloroethane	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
110-54-3	Hexane	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
98-82-8	Isopropylbenzene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
1330-20-7	m & p - Xylene	ND	120	ug/kg dry	50	09/12/18	B8I1216	8260	
75-09-2	Methylene chloride	ND	120	ug/kg dry	50	09/12/18	B8I1216	8260	
1634-04-4	Methyltertiarybutylether	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
91-20-3	Naphthalene	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	X
104-51-8	n-Butylbenzene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
103-65-1	n-Propylbenzene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
95-47-6	o-Xylene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
135-98-8	sec-Butylbenzene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
100-42-5	Styrene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
98-06-6	tert-Butylbenzene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
75-65-0	tertiary Butyl Alcohol	ND	3100	ug/kg dry	50	09/12/18	B8I1216	8260	
994-05-8	tertiaryAmylmethylether	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
127-18-4	Tetrachloroethylene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
109-99-9	Tetrahydrofuran	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
108-88-3	Toluene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
79-01-6	Trichloroethylene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
75-69-4	Trichlorofluoromethane	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
75-01-4	Vinyl chloride	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
Surrogate: Bromofluorobenzene			*92.7 %*	*40.3-194*		*09/12/18*	B8I1216	*8260*	
Surrogate: Dibromofluoromethane			*92.0 %*	*52.1-217*		*09/12/18*	B8I1216	*8260*	
Surrogate: Toluene-d8			*95.4 %*	*55.4-196*		*09/12/18*	B8I1216	*8260*	

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CORRECTED REPORT

Client ID: QMCP-SB 20 6"-4'

Lab ID: 1809084-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	2-Methylnaphthalene	ND	550	ug/kg dry	1	09/27/18	B8I1501	8270	
83-32-9	Acenaphthene	ND	220	ug/kg dry	1	09/27/18	B8I1501	8270	
208-96-8	Acenaphthylene	ND	220	ug/kg dry	1	09/27/18	B8I1501	8270	
120-12-7	Anthracene	ND	220	ug/kg dry	1	09/27/18	B8I1501	8270	
56-55-3	Benz[a]anthracene	ND	220	ug/kg dry	1	09/27/18	B8I1501	8270	
50-32-8	Benzo[a]pyrene	ND	440	ug/kg dry	1	09/27/18	B8I1501	8270	
205-99-2	Benzo[b]fluoranthene	ND	440	ug/kg dry	1	09/27/18	B8I1501	8270	
191-24-2	Benzo[g,h,i]perylene	ND	440	ug/kg dry	1	09/27/18	B8I1501	8270	
207-08-9	Benzo[k]fluoranthene	ND	440	ug/kg dry	1	09/27/18	B8I1501	8270	
218-01-9	Chrysene	ND	220	ug/kg dry	1	09/27/18	B8I1501	8270	
53-70-3	Dibenz[a,h]anthracene	ND	440	ug/kg dry	1	09/27/18	B8I1501	8270	
206-44-0	Fluoranthene	ND	220	ug/kg dry	1	09/27/18	B8I1501	8270	
86-73-7	Fluorene	ND	220	ug/kg dry	1	09/27/18	B8I1501	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	440	ug/kg dry	1	09/27/18	B8I1501	8270	
91-20-3	Naphthalene	ND	220	ug/kg dry	1	09/27/18	B8I1501	8270	
85-01-8	Phenanthrene	ND	220	ug/kg dry	1	09/27/18	B8I1501	8270	
129-00-0	Pyrene	ND	220	ug/kg dry	1	09/27/18	B8I1501	8270	
Surrogate: 2-Fluorobiphenyl			*84.7 %*	*32.9-115*		*09/27/18*	B8I1501	*8270*	
Surrogate: Nitrobenzene-d5			*69.3 %*	*31.8-115*		*09/27/18*	B8I1501	*8270*	
Surrogate: p-Terphenyl-d14			*103 %*	*38.5-115*		*09/27/18*	B8I1501	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	110	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11104-28-2	Aroclor 1221	ND	110	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11141-16-5	Aroclor 1232	ND	110	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
53469-21-9	Aroclor 1242	ND	110	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
12672-29-6	Aroclor 1248	ND	110	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11097-69-1	Aroclor 1254	ND	110	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11096-82-5	Aroclor 1260	ND	110	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
37324-23-5	Aroclor 1262	ND	110	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11100-14-4	Aroclor 1268	ND	110	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
Surrogate: Decachlorobiphenyl			*101 %*	*30-150*		*10/13/18*	B8J0906	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*86.1 %*	*30-150*		*10/13/18*	B8J0906	*8081/8082*	

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CORRECTED REPORT

Client ID: QMCP-SB 20 6"-4'

Lab ID: 1809084-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**91.2**	0.1	%	1	09/18/18	B8I1417	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**0.8**	0.5	mg/kg dry	10	09/25/18	B8I1912	200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	09/25/18	B8I1912	200.8	
7440-47-3	**Chromium**	**19**	2.0	mg/kg dry	10	09/25/18	B8I1912	200.8	
7440-50-8	**Copper**	**6300**	100	mg/kg dry	1000	09/25/18	B8I1912	200.8	
7439-92-1	**Lead**	**8.5**	1.0	mg/kg dry	10	09/25/18	B8I1912	200.8	
7439-96-5	**Manganese**	**620**	1.0	mg/kg dry	10	09/25/18	B8I1912	200.8	
7439-97-6	**Mercury**	**0.5**	0.05	mg/kg dry	1	09/21/18	B8I1825	245.5	
7440-22-4	**Silver**	**6.8**	0.1	mg/kg dry	10	09/25/18	B8I1912	200.8	
7440-66-6	**Zinc**	**74**	1.0	mg/kg dry	10	09/25/18	B8I1912	200.8	

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CORRECTED REPORT

Client ID: QMCP-SB 61 0"-6"

Lab ID: 1809084-05

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
71-55-6	1,1,1-Trichloroethane	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
79-00-5	1,1,2-Trichloroethane	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
75-34-3	1,1-Dichloroethane	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
75-35-4	1,1-Dichloroethylene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
96-18-4	1,2,3-Trichloropropane	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	A05, A10
526-73-8	**1,2,3-Trimethylbenzene**	**80**	62	ug/kg dry	50	09/12/18	B8I1216	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
95-63-6	**1,2,4-Trimethylbenzene**	**180**	62	ug/kg dry	50	09/12/18	B8I1216	8260	
106-93-4	1,2-Dibromoethane	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
95-50-1	1,2-Dichlorobenzene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
107-06-2	1,2-Dichloroethane	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
78-87-5	1,2-Dichloropropane	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
541-73-1	1,3-Dichlorobenzene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
106-46-7	1,4-Dichlorobenzene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
540-84-1	2,2,4-Trimethylpentane	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
78-93-3	2-Butanone (MEK)	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
91-57-6	**2-Methylnaphthalene**	**440**	310	ug/kg dry	50	09/12/18	B8I1216	8260	X
67-64-1	2-Propanone (acetone)	ND	1200	ug/kg dry	50	09/12/18	B8I1216	8260	A05
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
107-13-1	Acrylonitrile	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
71-43-2	Benzene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
74-97-5	Bromochloromethane	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
75-27-4	Bromodichloromethane	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
75-25-2	Bromoform	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
74-83-9	Bromomethane	ND	250	ug/kg dry	50	09/12/18	B8I1216	8260	A05
75-15-0	Carbon disulfide	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
56-23-5	Carbon tetrachloride	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
108-90-7	Chlorobenzene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
75-00-3	Chloroethane	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	A05
67-66-3	Chloroform	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
74-87-3	Chloromethane	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
110-82-7	Cyclohexane	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
124-48-1	Dibromochloromethane	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
74-95-3	Dibromomethane	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
75-71-8	Dichlorodifluoromethane	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	

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CORRECTED REPORT

Client ID: QMCP-SB 61 0"-6"

Lab ID: 1809084-05

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
60-29-7	Diethyl ether	ND	250	ug/kg dry	50	09/12/18	B8I1216	8260	
108-20-3	Diisopropyl Ether	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
100-41-4	**Ethylbenzene**	**84**	62	ug/kg dry	50	09/12/18	B8I1216	8260	
637-92-3	Ethyltertiarybutylether	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
67-72-1	Hexachloroethane	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
110-54-3	**Hexane**	**75**	62	ug/kg dry	50	09/12/18	B8I1216	8260	
98-82-8	Isopropylbenzene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
1330-20-7	**m & p - Xylene**	**370**	120	ug/kg dry	50	09/12/18	B8I1216	8260	
75-09-2	Methylene chloride	ND	120	ug/kg dry	50	09/12/18	B8I1216	8260	
1634-04-4	Methyltertiarybutylether	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
91-20-3	**Naphthalene**	**400**	310	ug/kg dry	50	09/12/18	B8I1216	8260	X
104-51-8	n-Butylbenzene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
103-65-1	n-Propylbenzene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
95-47-6	**o-Xylene**	**290**	62	ug/kg dry	50	09/12/18	B8I1216	8260	
135-98-8	sec-Butylbenzene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
100-42-5	Styrene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
98-06-6	tert-Butylbenzene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
75-65-0	tertiary Butyl Alcohol	ND	3100	ug/kg dry	50	09/12/18	B8I1216	8260	
994-05-8	tertiaryAmylmethylether	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
127-18-4	Tetrachloroethylene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
109-99-9	Tetrahydrofuran	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
108-88-3	**Toluene**	**330**	62	ug/kg dry	50	09/12/18	B8I1216	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
79-01-6	Trichloroethylene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
75-69-4	Trichlorofluoromethane	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
75-01-4	Vinyl chloride	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
Surrogate: Bromofluorobenzene			*99.6 %*	*40.3-194*		*09/12/18*	B8I1216	*8260*	
Surrogate: Dibromofluoromethane			*104 %*	*52.1-217*		*09/12/18*	B8I1216	*8260*	
Surrogate: Toluene-d8			*106 %*	*55.4-196*		*09/12/18*	B8I1216	*8260*	

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CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	**2-Methylnaphthalene**	**920**	560	ug/kg dry	1	09/27/18	B8I1501	8270	
83-32-9	Acenaphthene	ND	220	ug/kg dry	1	09/27/18	B8I1501	8270	
208-96-8	Acenaphthylene	ND	220	ug/kg dry	1	09/27/18	B8I1501	8270	
120-12-7	Anthracene	ND	220	ug/kg dry	1	09/27/18	B8I1501	8270	
56-55-3	**Benz[a]anthracene**	**380**	220	ug/kg dry	1	09/27/18	B8I1501	8270	
50-32-8	Benzo[a]pyrene	ND	450	ug/kg dry	1	09/27/18	B8I1501	8270	
205-99-2	**Benzo[b]fluoranthene**	**570**	450	ug/kg dry	1	09/27/18	B8I1501	8270	
191-24-2	Benzo[g,h,i]perylene	ND	450	ug/kg dry	1	09/27/18	B8I1501	8270	
207-08-9	Benzo[k]fluoranthene	ND	450	ug/kg dry	1	09/27/18	B8I1501	8270	
218-01-9	**Chrysene**	**420**	220	ug/kg dry	1	09/27/18	B8I1501	8270	
53-70-3	Dibenz[a,h]anthracene	ND	450	ug/kg dry	1	09/27/18	B8I1501	8270	
206-44-0	**Fluoranthene**	**740**	220	ug/kg dry	1	09/27/18	B8I1501	8270	
86-73-7	Fluorene	ND	220	ug/kg dry	1	09/27/18	B8I1501	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	450	ug/kg dry	1	09/27/18	B8I1501	8270	
91-20-3	**Naphthalene**	**680**	220	ug/kg dry	1	09/27/18	B8I1501	8270	
85-01-8	**Phenanthrene**	**670**	220	ug/kg dry	1	09/27/18	B8I1501	8270	
129-00-0	**Pyrene**	**590**	220	ug/kg dry	1	09/27/18	B8I1501	8270	
Surrogate: 2-Fluorobiphenyl			*90.4 %*	*32.9-115*		*09/27/18*	B8I1501	*8270*	
Surrogate: Nitrobenzene-d5			*81.2 %*	*31.8-115*		*09/27/18*	B8I1501	*8270*	
Surrogate: p-Terphenyl-d14			*96.1 %*	*38.5-115*		*09/27/18*	B8I1501	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	110	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11104-28-2	Aroclor 1221	ND	110	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11141-16-5	Aroclor 1232	ND	110	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
53469-21-9	Aroclor 1242	ND	110	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
12672-29-6	Aroclor 1248	ND	110	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11097-69-1	Aroclor 1254	ND	110	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11096-82-5	Aroclor 1260	ND	170	ug/kg dry	1	10/13/18	B8J0906	8081/8082	Y21
37324-23-5	Aroclor 1262	ND	170	ug/kg dry	1	10/13/18	B8J0906	8081/8082	Y21
11100-14-4	Aroclor 1268	ND	110	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
Surrogate: Decachlorobiphenyl			*96.1 %*	*30-150*		*10/13/18*	B8J0906	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*76.0 %*	*30-150*		*10/13/18*	B8J0906	*8081/8082*	

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CORRECTED REPORT

Client ID: QMCP-SB 61 0"-6"

Lab ID: 1809084-05

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**88.9**	0.1	%	1	09/18/18	B8I1417	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**3.0**	0.5	mg/kg dry	10	09/25/18	B8I1912	200.8	
7440-43-9	**Cadmium**	**0.3**	0.2	mg/kg dry	10	09/25/18	B8I1912	200.8	
7440-47-3	**Chromium**	**16**	2.0	mg/kg dry	10	09/25/18	B8I1912	200.8	
7440-50-8	**Copper**	**2400**	1.0	mg/kg dry	10	09/25/18	B8I1912	200.8	
7439-92-1	**Lead**	**39**	1.0	mg/kg dry	10	09/25/18	B8I1912	200.8	
7439-96-5	**Manganese**	**500**	1.0	mg/kg dry	10	09/25/18	B8I1912	200.8	
7439-97-6	**Mercury**	**0.2**	0.06	mg/kg dry	1	09/21/18	B8I1826	245.5	
7440-22-4	**Silver**	**4.9**	0.1	mg/kg dry	10	09/25/18	B8I1912	200.8	
7440-66-6	**Zinc**	**110**	1.0	mg/kg dry	10	09/25/18	B8I1912	200.8	

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CORRECTED REPORT

Client ID: QMCP-SB 61 6"-4'

Lab ID: 1809084-06

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	
71-55-6	1,1,1-Trichloroethane	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	
79-00-5	1,1,2-Trichloroethane	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	
75-34-3	1,1-Dichloroethane	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	
75-35-4	1,1-Dichloroethylene	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
96-18-4	1,2,3-Trichloropropane	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	A05, A10
526-73-8	1,2,3-Trimethylbenzene	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	
106-93-4	1,2-Dibromoethane	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	
95-50-1	1,2-Dichlorobenzene	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	
107-06-2	1,2-Dichloroethane	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	
78-87-5	1,2-Dichloropropane	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	
541-73-1	1,3-Dichlorobenzene	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	
106-46-7	1,4-Dichlorobenzene	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	
540-84-1	2,2,4-Trimethylpentane	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
78-93-3	2-Butanone (MEK)	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
91-57-6	2-Methylnaphthalene	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	X
67-64-1	2-Propanone (acetone)	ND	1300	ug/kg dry	50	09/12/18	B8I1216	8260	A05
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
107-13-1	Acrylonitrile	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
71-43-2	Benzene	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	
74-97-5	Bromochloromethane	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	
75-27-4	Bromodichloromethane	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	
75-25-2	Bromoform	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	
74-83-9	Bromomethane	ND	250	ug/kg dry	50	09/12/18	B8I1216	8260	A05
75-15-0	Carbon disulfide	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	
56-23-5	Carbon tetrachloride	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	
108-90-7	Chlorobenzene	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	
75-00-3	Chloroethane	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	A05
67-66-3	Chloroform	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	
74-87-3	Chloromethane	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	
110-82-7	Cyclohexane	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
124-48-1	Dibromochloromethane	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	
74-95-3	Dibromomethane	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	
75-71-8	Dichlorodifluoromethane	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	

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CORRECTED REPORT

Client ID: QMCP-SB 61 6"-4'

Lab ID: 1809084-06

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
60-29-7	Diethyl ether	ND	250	ug/kg dry	50	09/12/18	B8I1216	8260	
108-20-3	Diisopropyl Ether	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
100-41-4	Ethylbenzene	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	
637-92-3	Ethyltertiarybutylether	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
67-72-1	Hexachloroethane	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
110-54-3	Hexane	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	
98-82-8	Isopropylbenzene	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	
1330-20-7	m & p - Xylene	ND	130	ug/kg dry	50	09/12/18	B8I1216	8260	
75-09-2	Methylene chloride	ND	130	ug/kg dry	50	09/12/18	B8I1216	8260	
1634-04-4	Methyltertiarybutylether	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	
91-20-3	Naphthalene	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	X
104-51-8	n-Butylbenzene	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	
103-65-1	n-Propylbenzene	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	
95-47-6	o-Xylene	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	
135-98-8	sec-Butylbenzene	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	
100-42-5	Styrene	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	
98-06-6	tert-Butylbenzene	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	
75-65-0	tertiary Butyl Alcohol	ND	3100	ug/kg dry	50	09/12/18	B8I1216	8260	
994-05-8	tertiaryAmylmethylether	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
127-18-4	Tetrachloroethylene	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	
109-99-9	Tetrahydrofuran	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
108-88-3	Toluene	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	
79-01-6	Trichloroethylene	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	
75-69-4	Trichlorofluoromethane	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	
75-01-4	Vinyl chloride	ND	63	ug/kg dry	50	09/12/18	B8I1216	8260	
Surrogate: Bromofluorobenzene			*98.3 %*	*40.3-194*		*09/12/18*	B8I1216	*8260*	
Surrogate: Dibromofluoromethane			*96.9 %*	*52.1-217*		*09/12/18*	B8I1216	*8260*	
Surrogate: Toluene-d8			*102 %*	*55.4-196*		*09/12/18*	B8I1216	*8260*	

Lab Work Order # 1809084

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CORRECTED REPORT

Client ID: QMCP-SB 61 6"-4'

Lab ID: 1809084-06

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	2-Methylnaphthalene	ND	560	ug/kg dry	1	09/27/18	B8I1501	8270	
83-32-9	Acenaphthene	ND	220	ug/kg dry	1	09/27/18	B8I1501	8270	
208-96-8	Acenaphthylene	ND	220	ug/kg dry	1	09/27/18	B8I1501	8270	
120-12-7	Anthracene	ND	220	ug/kg dry	1	09/27/18	B8I1501	8270	
56-55-3	Benz[a]anthracene	ND	220	ug/kg dry	1	09/27/18	B8I1501	8270	
50-32-8	Benzo[a]pyrene	ND	450	ug/kg dry	1	09/27/18	B8I1501	8270	
205-99-2	Benzo[b]fluoranthene	ND	450	ug/kg dry	1	09/27/18	B8I1501	8270	
191-24-2	Benzo[g,h,i]perylene	ND	450	ug/kg dry	1	09/27/18	B8I1501	8270	
207-08-9	Benzo[k]fluoranthene	ND	450	ug/kg dry	1	09/27/18	B8I1501	8270	
218-01-9	Chrysene	ND	220	ug/kg dry	1	09/27/18	B8I1501	8270	
53-70-3	Dibenz[a,h]anthracene	ND	450	ug/kg dry	1	09/27/18	B8I1501	8270	
206-44-0	Fluoranthene	ND	220	ug/kg dry	1	09/27/18	B8I1501	8270	
86-73-7	Fluorene	ND	220	ug/kg dry	1	09/27/18	B8I1501	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	450	ug/kg dry	1	09/27/18	B8I1501	8270	
91-20-3	Naphthalene	ND	220	ug/kg dry	1	09/27/18	B8I1501	8270	
85-01-8	Phenanthrene	ND	220	ug/kg dry	1	09/27/18	B8I1501	8270	
129-00-0	Pyrene	ND	220	ug/kg dry	1	09/27/18	B8I1501	8270	
Surrogate: 2-Fluorobiphenyl			*85.8 %*	*32.9-115*		*09/27/18*	B8I1501	*8270*	
Surrogate: Nitrobenzene-d5			*70.7 %*	*31.8-115*		*09/27/18*	B8I1501	*8270*	
Surrogate: p-Terphenyl-d14			*97.7 %*	*38.5-115*		*09/27/18*	B8I1501	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	110	ug/kg dry	1	10/14/18	B8J1012	8081/8082	
11104-28-2	Aroclor 1221	ND	110	ug/kg dry	1	10/14/18	B8J1012	8081/8082	
11141-16-5	Aroclor 1232	ND	110	ug/kg dry	1	10/14/18	B8J1012	8081/8082	
53469-21-9	Aroclor 1242	ND	110	ug/kg dry	1	10/14/18	B8J1012	8081/8082	
12672-29-6	Aroclor 1248	ND	110	ug/kg dry	1	10/14/18	B8J1012	8081/8082	
11097-69-1	Aroclor 1254	ND	110	ug/kg dry	1	10/14/18	B8J1012	8081/8082	
11096-82-5	Aroclor 1260	ND	110	ug/kg dry	1	10/14/18	B8J1012	8081/8082	
37324-23-5	Aroclor 1262	ND	110	ug/kg dry	1	10/14/18	B8J1012	8081/8082	
11100-14-4	Aroclor 1268	ND	110	ug/kg dry	1	10/14/18	B8J1012	8081/8082	
Surrogate: Decachlorobiphenyl			*94.7 %*	*30-150*		*10/14/18*	B8J1012	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*80.1 %*	*30-150*		*10/14/18*	B8J1012	*8081/8082*	

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CORRECTED REPORT

Client ID: QMCP-SB 61 6"-4'

Lab ID: 1809084-06

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**89.7**	0.1	%	1	09/18/18	B8I1417	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**1.1**	0.5	mg/kg dry	10	09/25/18	B8I1912	200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	09/25/18	B8I1912	200.8	
7440-47-3	**Chromium**	**18**	2.0	mg/kg dry	10	09/25/18	B8I1912	200.8	
7440-50-8	**Copper**	**9100**	10	mg/kg dry	100	09/25/18	B8I1912	200.8	
7439-92-1	**Lead**	**11**	10	mg/kg dry	100	09/25/18	B8I1912	200.8	
7439-96-5	**Manganese**	**630**	1.0	mg/kg dry	10	09/25/18	B8I1912	200.8	
7439-97-6	**Mercury**	**0.4**	0.06	mg/kg dry	1	09/21/18	B8I1826	245.5	
7440-22-4	**Silver**	**21**	0.1	mg/kg dry	10	09/25/18	B8I1912	200.8	
7440-66-6	**Zinc**	**80**	1.0	mg/kg dry	10	09/25/18	B8I1912	200.8	

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CORRECTED REPORT

Client ID: QMCP-SB 61 6''-4' DUP

Lab ID: 1809084-07

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	60	ug/kg dry	50	09/12/18	B8I1216	8260	
71-55-6	1,1,1-Trichloroethane	ND	60	ug/kg dry	50	09/12/18	B8I1216	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	60	ug/kg dry	50	09/12/18	B8I1216	8260	
79-00-5	1,1,2-Trichloroethane	ND	60	ug/kg dry	50	09/12/18	B8I1216	8260	
75-34-3	1,1-Dichloroethane	ND	60	ug/kg dry	50	09/12/18	B8I1216	8260	
75-35-4	1,1-Dichloroethylene	ND	60	ug/kg dry	50	09/12/18	B8I1216	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	300	ug/kg dry	50	09/12/18	B8I1216	8260	
96-18-4	1,2,3-Trichloropropane	ND	60	ug/kg dry	50	09/12/18	B8I1216	8260	A05, A10
526-73-8	1,2,3-Trimethylbenzene	ND	60	ug/kg dry	50	09/12/18	B8I1216	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	300	ug/kg dry	50	09/12/18	B8I1216	8260	
95-63-6	**1,2,4-Trimethylbenzene**	**85**	60	ug/kg dry	50	09/12/18	B8I1216	8260	
106-93-4	1,2-Dibromoethane	ND	60	ug/kg dry	50	09/12/18	B8I1216	8260	
95-50-1	1,2-Dichlorobenzene	ND	60	ug/kg dry	50	09/12/18	B8I1216	8260	
107-06-2	1,2-Dichloroethane	ND	60	ug/kg dry	50	09/12/18	B8I1216	8260	
78-87-5	1,2-Dichloropropane	ND	60	ug/kg dry	50	09/12/18	B8I1216	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	60	ug/kg dry	50	09/12/18	B8I1216	8260	
541-73-1	1,3-Dichlorobenzene	ND	60	ug/kg dry	50	09/12/18	B8I1216	8260	
106-46-7	1,4-Dichlorobenzene	ND	60	ug/kg dry	50	09/12/18	B8I1216	8260	
540-84-1	2,2,4-Trimethylpentane	ND	300	ug/kg dry	50	09/12/18	B8I1216	8260	
78-93-3	2-Butanone (MEK)	ND	300	ug/kg dry	50	09/12/18	B8I1216	8260	
91-57-6	2-Methylnaphthalene	ND	300	ug/kg dry	50	09/12/18	B8I1216	8260	X
67-64-1	2-Propanone (acetone)	ND	1200	ug/kg dry	50	09/12/18	B8I1216	8260	A05
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	300	ug/kg dry	50	09/12/18	B8I1216	8260	
107-13-1	Acrylonitrile	ND	300	ug/kg dry	50	09/12/18	B8I1216	8260	
71-43-2	Benzene	ND	60	ug/kg dry	50	09/12/18	B8I1216	8260	
74-97-5	Bromochloromethane	ND	60	ug/kg dry	50	09/12/18	B8I1216	8260	
75-27-4	Bromodichloromethane	ND	60	ug/kg dry	50	09/12/18	B8I1216	8260	
75-25-2	Bromoform	ND	60	ug/kg dry	50	09/12/18	B8I1216	8260	
74-83-9	Bromomethane	ND	240	ug/kg dry	50	09/12/18	B8I1216	8260	A05
75-15-0	Carbon disulfide	ND	60	ug/kg dry	50	09/12/18	B8I1216	8260	
56-23-5	Carbon tetrachloride	ND	60	ug/kg dry	50	09/12/18	B8I1216	8260	
108-90-7	Chlorobenzene	ND	60	ug/kg dry	50	09/12/18	B8I1216	8260	
75-00-3	Chloroethane	ND	300	ug/kg dry	50	09/12/18	B8I1216	8260	A05
67-66-3	Chloroform	ND	60	ug/kg dry	50	09/12/18	B8I1216	8260	
74-87-3	Chloromethane	ND	300	ug/kg dry	50	09/12/18	B8I1216	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	60	ug/kg dry	50	09/12/18	B8I1216	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	60	ug/kg dry	50	09/12/18	B8I1216	8260	
110-82-7	Cyclohexane	ND	300	ug/kg dry	50	09/12/18	B8I1216	8260	
124-48-1	Dibromochloromethane	ND	60	ug/kg dry	50	09/12/18	B8I1216	8260	
74-95-3	Dibromomethane	ND	60	ug/kg dry	50	09/12/18	B8I1216	8260	
75-71-8	Dichlorodifluoromethane	ND	300	ug/kg dry	50	09/12/18	B8I1216	8260	

STATE OF MICHIGAN
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CORRECTED REPORT

Client ID: QMCP-SB 61 6''-4' DUP

Lab ID: 1809084-07

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
60-29-7	Diethyl ether	ND	240	ug/kg dry	50	09/12/18	B8I1216	8260	
108-20-3	Diisopropyl Ether	ND	300	ug/kg dry	50	09/12/18	B8I1216	8260	
100-41-4	Ethylbenzene	ND	60	ug/kg dry	50	09/12/18	B8I1216	8260	
637-92-3	Ethyltertiarybutylether	ND	300	ug/kg dry	50	09/12/18	B8I1216	8260	
67-72-1	Hexachloroethane	ND	300	ug/kg dry	50	09/12/18	B8I1216	8260	
110-54-3	Hexane	ND	60	ug/kg dry	50	09/12/18	B8I1216	8260	
98-82-8	Isopropylbenzene	ND	60	ug/kg dry	50	09/12/18	B8I1216	8260	
1330-20-7	**m & p - Xylene**	**180**	120	ug/kg dry	50	09/12/18	B8I1216	8260	
75-09-2	Methylene chloride	ND	120	ug/kg dry	50	09/12/18	B8I1216	8260	
1634-04-4	Methyltertiarybutylether	ND	60	ug/kg dry	50	09/12/18	B8I1216	8260	
91-20-3	Naphthalene	ND	300	ug/kg dry	50	09/12/18	B8I1216	8260	X
104-51-8	n-Butylbenzene	ND	60	ug/kg dry	50	09/12/18	B8I1216	8260	
103-65-1	n-Propylbenzene	ND	60	ug/kg dry	50	09/12/18	B8I1216	8260	
95-47-6	**o-Xylene**	**110**	60	ug/kg dry	50	09/12/18	B8I1216	8260	
135-98-8	sec-Butylbenzene	ND	60	ug/kg dry	50	09/12/18	B8I1216	8260	
100-42-5	Styrene	ND	60	ug/kg dry	50	09/12/18	B8I1216	8260	
98-06-6	tert-Butylbenzene	ND	60	ug/kg dry	50	09/12/18	B8I1216	8260	
75-65-0	tertiary Butyl Alcohol	ND	3000	ug/kg dry	50	09/12/18	B8I1216	8260	
994-05-8	tertiaryAmylmethylether	ND	300	ug/kg dry	50	09/12/18	B8I1216	8260	
127-18-4	Tetrachloroethylene	ND	60	ug/kg dry	50	09/12/18	B8I1216	8260	
109-99-9	Tetrahydrofuran	ND	300	ug/kg dry	50	09/12/18	B8I1216	8260	
108-88-3	**Toluene**	**160**	60	ug/kg dry	50	09/12/18	B8I1216	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	60	ug/kg dry	50	09/12/18	B8I1216	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	60	ug/kg dry	50	09/12/18	B8I1216	8260	
79-01-6	Trichloroethylene	ND	60	ug/kg dry	50	09/12/18	B8I1216	8260	
75-69-4	Trichlorofluoromethane	ND	60	ug/kg dry	50	09/12/18	B8I1216	8260	
75-01-4	Vinyl chloride	ND	60	ug/kg dry	50	09/12/18	B8I1216	8260	
Surrogate: Bromofluorobenzene			*93.3 %*	*40.3-194*		*09/12/18*	B8I1216	*8260*	
Surrogate: Dibromofluoromethane			*91.0 %*	*52.1-217*		*09/12/18*	B8I1216	*8260*	
Surrogate: Toluene-d8			*95.4 %*	*55.4-196*		*09/12/18*	B8I1216	*8260*	

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CORRECTED REPORT

Client ID: QMCP-SB 61 6''-4' DUP

Lab ID: 1809084-07

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	2-Methylnaphthalene	ND	550	ug/kg dry	1	09/27/18	B8I1501	8270	
83-32-9	Acenaphthene	ND	220	ug/kg dry	1	09/27/18	B8I1501	8270	
208-96-8	Acenaphthylene	ND	220	ug/kg dry	1	09/27/18	B8I1501	8270	
120-12-7	Anthracene	ND	220	ug/kg dry	1	09/27/18	B8I1501	8270	
56-55-3	Benz[a]anthracene	ND	220	ug/kg dry	1	09/27/18	B8I1501	8270	
50-32-8	Benzo[a]pyrene	ND	440	ug/kg dry	1	09/27/18	B8I1501	8270	
205-99-2	Benzo[b]fluoranthene	ND	440	ug/kg dry	1	09/27/18	B8I1501	8270	
191-24-2	Benzo[g,h,i]perylene	ND	440	ug/kg dry	1	09/27/18	B8I1501	8270	
207-08-9	Benzo[k]fluoranthene	ND	440	ug/kg dry	1	09/27/18	B8I1501	8270	
218-01-9	Chrysene	ND	220	ug/kg dry	1	09/27/18	B8I1501	8270	
53-70-3	Dibenz[a,h]anthracene	ND	440	ug/kg dry	1	09/27/18	B8I1501	8270	
206-44-0	Fluoranthene	ND	220	ug/kg dry	1	09/27/18	B8I1501	8270	
86-73-7	Fluorene	ND	220	ug/kg dry	1	09/27/18	B8I1501	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	440	ug/kg dry	1	09/27/18	B8I1501	8270	
91-20-3	**Naphthalene**	**230**	220	ug/kg dry	1	09/27/18	B8I1501	8270	
85-01-8	Phenanthrene	ND	220	ug/kg dry	1	09/27/18	B8I1501	8270	
129-00-0	Pyrene	ND	220	ug/kg dry	1	09/27/18	B8I1501	8270	
Surrogate: 2-Fluorobiphenyl			*88.1 %*	*32.9-115*		*09/27/18*	B8I1501	*8270*	
Surrogate: Nitrobenzene-d5			*80.2 %*	*31.8-115*		*09/27/18*	B8I1501	*8270*	
Surrogate: p-Terphenyl-d14			*98.2 %*	*38.5-115*		*09/27/18*	B8I1501	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	110	ug/kg dry	1	10/14/18	B8J1012	8081/8082	
11104-28-2	Aroclor 1221	ND	110	ug/kg dry	1	10/14/18	B8J1012	8081/8082	
11141-16-5	Aroclor 1232	ND	110	ug/kg dry	1	10/14/18	B8J1012	8081/8082	
53469-21-9	Aroclor 1242	ND	110	ug/kg dry	1	10/14/18	B8J1012	8081/8082	
12672-29-6	Aroclor 1248	ND	110	ug/kg dry	1	10/14/18	B8J1012	8081/8082	
11097-69-1	Aroclor 1254	ND	110	ug/kg dry	1	10/14/18	B8J1012	8081/8082	
11096-82-5	Aroclor 1260	ND	130	ug/kg dry	1	10/14/18	B8J1012	8081/8082	Y21
37324-23-5	Aroclor 1262	ND	130	ug/kg dry	1	10/14/18	B8J1012	8081/8082	Y21
11100-14-4	Aroclor 1268	ND	110	ug/kg dry	1	10/14/18	B8J1012	8081/8082	
Surrogate: Decachlorobiphenyl			*106 %*	*30-150*		*10/14/18*	B8J1012	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*89.2 %*	*30-150*		*10/14/18*	B8J1012	*8081/8082*	

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CORRECTED REPORT

Client ID: QMCP-SB 61 6''-4' DUP

Lab ID: 1809084-07

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**90.8**	0.1	%	1	09/18/18	B8I1417	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**1.3**	0.5	mg/kg dry	10	09/25/18	B8I1912	200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	09/25/18	B8I1912	200.8	
7440-47-3	**Chromium**	**17**	2.0	mg/kg dry	10	09/25/18	B8I1912	200.8	
7440-50-8	**Copper**	**5400**	10	mg/kg dry	100	09/25/18	B8I1912	200.8	
7439-92-1	**Lead**	**15**	10	mg/kg dry	100	09/25/18	B8I1912	200.8	
7439-96-5	**Manganese**	**610**	1.0	mg/kg dry	10	09/25/18	B8I1912	200.8	
7439-97-6	**Mercury**	**0.7**	0.06	mg/kg dry	1	09/21/18	B8I1826	245.5	
7440-22-4	**Silver**	**7.1**	0.1	mg/kg dry	10	09/25/18	B8I1912	200.8	
7440-66-6	**Zinc**	**81**	1.0	mg/kg dry	10	09/25/18	B8I1912	200.8	

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CORRECTED REPORT

Client ID: QMCP-SB 64 0"-6"

Lab ID: 1809084-08

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	59	ug/kg dry	50	09/12/18	B8I1216	8260	
71-55-6	1,1,1-Trichloroethane	ND	59	ug/kg dry	50	09/12/18	B8I1216	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	59	ug/kg dry	50	09/12/18	B8I1216	8260	
79-00-5	1,1,2-Trichloroethane	ND	59	ug/kg dry	50	09/12/18	B8I1216	8260	
75-34-3	1,1-Dichloroethane	ND	59	ug/kg dry	50	09/12/18	B8I1216	8260	
75-35-4	1,1-Dichloroethylene	ND	59	ug/kg dry	50	09/12/18	B8I1216	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	290	ug/kg dry	50	09/12/18	B8I1216	8260	
96-18-4	1,2,3-Trichloropropane	ND	59	ug/kg dry	50	09/12/18	B8I1216	8260	A05, A10
526-73-8	1,2,3-Trimethylbenzene	ND	59	ug/kg dry	50	09/12/18	B8I1216	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	290	ug/kg dry	50	09/12/18	B8I1216	8260	
95-63-6	**1,2,4-Trimethylbenzene**	**58**	59	ug/kg dry	50	09/12/18	B8I1216	8260	T
106-93-4	1,2-Dibromoethane	ND	59	ug/kg dry	50	09/12/18	B8I1216	8260	
95-50-1	1,2-Dichlorobenzene	ND	59	ug/kg dry	50	09/12/18	B8I1216	8260	
107-06-2	1,2-Dichloroethane	ND	59	ug/kg dry	50	09/12/18	B8I1216	8260	
78-87-5	1,2-Dichloropropane	ND	59	ug/kg dry	50	09/12/18	B8I1216	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	59	ug/kg dry	50	09/12/18	B8I1216	8260	
541-73-1	1,3-Dichlorobenzene	ND	59	ug/kg dry	50	09/12/18	B8I1216	8260	
106-46-7	1,4-Dichlorobenzene	ND	59	ug/kg dry	50	09/12/18	B8I1216	8260	
540-84-1	2,2,4-Trimethylpentane	ND	290	ug/kg dry	50	09/12/18	B8I1216	8260	
78-93-3	2-Butanone (MEK)	ND	290	ug/kg dry	50	09/12/18	B8I1216	8260	
91-57-6	2-Methylnaphthalene	ND	290	ug/kg dry	50	09/12/18	B8I1216	8260	X
67-64-1	2-Propanone (acetone)	ND	1200	ug/kg dry	50	09/12/18	B8I1216	8260	A05
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	290	ug/kg dry	50	09/12/18	B8I1216	8260	
107-13-1	Acrylonitrile	ND	290	ug/kg dry	50	09/12/18	B8I1216	8260	
71-43-2	Benzene	ND	59	ug/kg dry	50	09/12/18	B8I1216	8260	
74-97-5	Bromochloromethane	ND	59	ug/kg dry	50	09/12/18	B8I1216	8260	
75-27-4	Bromodichloromethane	ND	59	ug/kg dry	50	09/12/18	B8I1216	8260	
75-25-2	Bromoform	ND	59	ug/kg dry	50	09/12/18	B8I1216	8260	
74-83-9	Bromomethane	ND	230	ug/kg dry	50	09/12/18	B8I1216	8260	A05
75-15-0	Carbon disulfide	ND	59	ug/kg dry	50	09/12/18	B8I1216	8260	
56-23-5	Carbon tetrachloride	ND	59	ug/kg dry	50	09/12/18	B8I1216	8260	
108-90-7	Chlorobenzene	ND	59	ug/kg dry	50	09/12/18	B8I1216	8260	
75-00-3	Chloroethane	ND	290	ug/kg dry	50	09/12/18	B8I1216	8260	A05
67-66-3	Chloroform	ND	59	ug/kg dry	50	09/12/18	B8I1216	8260	
74-87-3	Chloromethane	ND	290	ug/kg dry	50	09/12/18	B8I1216	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	59	ug/kg dry	50	09/12/18	B8I1216	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	59	ug/kg dry	50	09/12/18	B8I1216	8260	
110-82-7	Cyclohexane	ND	290	ug/kg dry	50	09/12/18	B8I1216	8260	
124-48-1	Dibromochloromethane	ND	59	ug/kg dry	50	09/12/18	B8I1216	8260	
74-95-3	Dibromomethane	ND	59	ug/kg dry	50	09/12/18	B8I1216	8260	
75-71-8	Dichlorodifluoromethane	ND	290	ug/kg dry	50	09/12/18	B8I1216	8260	

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CORRECTED REPORT

Client ID: QMCP-SB 64 0"-6"

Lab ID: 1809084-08

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
60-29-7	Diethyl ether	ND	230	ug/kg dry	50	09/12/18	B8I1216	8260	
108-20-3	Diisopropyl Ether	ND	290	ug/kg dry	50	09/12/18	B8I1216	8260	
100-41-4	Ethylbenzene	ND	59	ug/kg dry	50	09/12/18	B8I1216	8260	
637-92-3	Ethyltertiarybutylether	ND	290	ug/kg dry	50	09/12/18	B8I1216	8260	
67-72-1	Hexachloroethane	ND	290	ug/kg dry	50	09/12/18	B8I1216	8260	
110-54-3	Hexane	ND	59	ug/kg dry	50	09/12/18	B8I1216	8260	
98-82-8	Isopropylbenzene	ND	59	ug/kg dry	50	09/12/18	B8I1216	8260	
1330-20-7	m & p - Xylene	ND	120	ug/kg dry	50	09/12/18	B8I1216	8260	
75-09-2	Methylene chloride	ND	120	ug/kg dry	50	09/12/18	B8I1216	8260	
1634-04-4	Methyltertiarybutylether	ND	59	ug/kg dry	50	09/12/18	B8I1216	8260	
91-20-3	Naphthalene	ND	290	ug/kg dry	50	09/12/18	B8I1216	8260	X
104-51-8	n-Butylbenzene	ND	59	ug/kg dry	50	09/12/18	B8I1216	8260	
103-65-1	n-Propylbenzene	ND	59	ug/kg dry	50	09/12/18	B8I1216	8260	
95-47-6	**o-Xylene**	**76**	59	ug/kg dry	50	09/12/18	B8I1216	8260	
135-98-8	sec-Butylbenzene	ND	59	ug/kg dry	50	09/12/18	B8I1216	8260	
100-42-5	Styrene	ND	59	ug/kg dry	50	09/12/18	B8I1216	8260	
98-06-6	tert-Butylbenzene	ND	59	ug/kg dry	50	09/12/18	B8I1216	8260	
75-65-0	tertiary Butyl Alcohol	ND	2900	ug/kg dry	50	09/12/18	B8I1216	8260	
994-05-8	tertiaryAmylmethylether	ND	290	ug/kg dry	50	09/12/18	B8I1216	8260	
127-18-4	Tetrachloroethylene	ND	59	ug/kg dry	50	09/12/18	B8I1216	8260	
109-99-9	Tetrahydrofuran	ND	290	ug/kg dry	50	09/12/18	B8I1216	8260	
108-88-3	**Toluene**	**72**	59	ug/kg dry	50	09/12/18	B8I1216	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	59	ug/kg dry	50	09/12/18	B8I1216	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	59	ug/kg dry	50	09/12/18	B8I1216	8260	
79-01-6	Trichloroethylene	ND	59	ug/kg dry	50	09/12/18	B8I1216	8260	
75-69-4	Trichlorofluoromethane	ND	59	ug/kg dry	50	09/12/18	B8I1216	8260	
75-01-4	Vinyl chloride	ND	59	ug/kg dry	50	09/12/18	B8I1216	8260	
Surrogate: Bromofluorobenzene			*100 %*	*40.3-194*		*09/12/18*	B8I1216	*8260*	
Surrogate: Dibromofluoromethane			*103 %*	*52.1-217*		*09/12/18*	B8I1216	*8260*	
Surrogate: Toluene-d8			*106 %*	*55.4-196*		*09/12/18*	B8I1216	*8260*	

Lab Work Order # 1809084

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CORRECTED REPORT

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Lab ID: 1809084-08

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	2-Methylnaphthalene	ND	540	ug/kg dry	1	09/27/18	B8I1501	8270	
83-32-9	Acenaphthene	ND	210	ug/kg dry	1	09/27/18	B8I1501	8270	
208-96-8	Acenaphthylene	ND	210	ug/kg dry	1	09/27/18	B8I1501	8270	
120-12-7	Anthracene	ND	210	ug/kg dry	1	09/27/18	B8I1501	8270	
56-55-3	**Benz[a]anthracene**	**550**	210	ug/kg dry	1	09/27/18	B8I1501	8270	
50-32-8	**Benzo[a]pyrene**	**530**	430	ug/kg dry	1	09/27/18	B8I1501	8270	
205-99-2	**Benzo[b]fluoranthene**	**990**	430	ug/kg dry	1	09/27/18	B8I1501	8270	
191-24-2	Benzo[g,h,i]perylene	ND	430	ug/kg dry	1	09/27/18	B8I1501	8270	
207-08-9	Benzo[k]fluoranthene	ND	430	ug/kg dry	1	09/27/18	B8I1501	8270	
218-01-9	**Chrysene**	**520**	210	ug/kg dry	1	09/27/18	B8I1501	8270	
53-70-3	Dibenz[a,h]anthracene	ND	430	ug/kg dry	1	09/27/18	B8I1501	8270	
206-44-0	**Fluoranthene**	**1100**	210	ug/kg dry	1	09/27/18	B8I1501	8270	
86-73-7	Fluorene	ND	210	ug/kg dry	1	09/27/18	B8I1501	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	430	ug/kg dry	1	09/27/18	B8I1501	8270	
91-20-3	Naphthalene	ND	210	ug/kg dry	1	09/27/18	B8I1501	8270	
85-01-8	**Phenanthrene**	**560**	210	ug/kg dry	1	09/27/18	B8I1501	8270	
129-00-0	**Pyrene**	**900**	210	ug/kg dry	1	09/27/18	B8I1501	8270	
Surrogate: 2-Fluorobiphenyl			*89.9 %*	*32.9-115*		*09/27/18*	B8I1501	*8270*	
Surrogate: Nitrobenzene-d5			*82.8 %*	*31.8-115*		*09/27/18*	B8I1501	*8270*	
Surrogate: p-Terphenyl-d14			*98.0 %*	*38.5-115*		*09/27/18*	B8I1501	*8270*	
Inorganics-General Chemistry									
TS	**% Total Solids**	**93.1**	0.1	%	1	09/18/18	B8I1417	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**1.4**	0.5	mg/kg dry	10	09/25/18	B8I1912	200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	09/25/18	B8I1912	200.8	
7440-47-3	**Chromium**	**28**	2.0	mg/kg dry	10	09/25/18	B8I1912	200.8	
7440-50-8	**Copper**	**3200**	10	mg/kg dry	100	09/25/18	B8I1912	200.8	
7439-92-1	**Lead**	**15**	10	mg/kg dry	100	09/25/18	B8I1912	200.8	
7439-96-5	**Manganese**	**630**	1.0	mg/kg dry	10	09/25/18	B8I1912	200.8	
7439-97-6	**Mercury**	**0.1**	0.05	mg/kg dry	1	09/21/18	B8I1826	245.5	
7440-22-4	**Silver**	**4.1**	0.1	mg/kg dry	10	09/25/18	B8I1912	200.8	
7440-66-6	**Zinc**	**77**	1.0	mg/kg dry	10	09/25/18	B8I1912	200.8	

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CORRECTED REPORT

Client ID: QMCP-SB 64 6''-5'

Lab ID: 1809084-09

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	59	ug/kg dry	50	09/12/18	B8I1216	8260	
71-55-6	1,1,1-Trichloroethane	ND	59	ug/kg dry	50	09/12/18	B8I1216	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	59	ug/kg dry	50	09/12/18	B8I1216	8260	
79-00-5	1,1,2-Trichloroethane	ND	59	ug/kg dry	50	09/12/18	B8I1216	8260	
75-34-3	1,1-Dichloroethane	ND	59	ug/kg dry	50	09/12/18	B8I1216	8260	
75-35-4	1,1-Dichloroethylene	ND	59	ug/kg dry	50	09/12/18	B8I1216	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	290	ug/kg dry	50	09/12/18	B8I1216	8260	
96-18-4	1,2,3-Trichloropropane	ND	59	ug/kg dry	50	09/12/18	B8I1216	8260	A05, A10
526-73-8	1,2,3-Trimethylbenzene	ND	59	ug/kg dry	50	09/12/18	B8I1216	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	290	ug/kg dry	50	09/12/18	B8I1216	8260	
95-63-6	**1,2,4-Trimethylbenzene**	**66**	59	ug/kg dry	50	09/12/18	B8I1216	8260	
106-93-4	1,2-Dibromoethane	ND	59	ug/kg dry	50	09/12/18	B8I1216	8260	
95-50-1	1,2-Dichlorobenzene	ND	59	ug/kg dry	50	09/12/18	B8I1216	8260	
107-06-2	1,2-Dichloroethane	ND	59	ug/kg dry	50	09/12/18	B8I1216	8260	
78-87-5	1,2-Dichloropropane	ND	59	ug/kg dry	50	09/12/18	B8I1216	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	59	ug/kg dry	50	09/12/18	B8I1216	8260	
541-73-1	1,3-Dichlorobenzene	ND	59	ug/kg dry	50	09/12/18	B8I1216	8260	
106-46-7	1,4-Dichlorobenzene	ND	59	ug/kg dry	50	09/12/18	B8I1216	8260	
540-84-1	2,2,4-Trimethylpentane	ND	290	ug/kg dry	50	09/12/18	B8I1216	8260	
78-93-3	2-Butanone (MEK)	ND	290	ug/kg dry	50	09/12/18	B8I1216	8260	
91-57-6	2-Methylnaphthalene	ND	290	ug/kg dry	50	09/12/18	B8I1216	8260	X
67-64-1	2-Propanone (acetone)	ND	1200	ug/kg dry	50	09/12/18	B8I1216	8260	A05
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	290	ug/kg dry	50	09/12/18	B8I1216	8260	
107-13-1	Acrylonitrile	ND	290	ug/kg dry	50	09/12/18	B8I1216	8260	
71-43-2	Benzene	ND	59	ug/kg dry	50	09/12/18	B8I1216	8260	
74-97-5	Bromochloromethane	ND	59	ug/kg dry	50	09/12/18	B8I1216	8260	
75-27-4	Bromodichloromethane	ND	59	ug/kg dry	50	09/12/18	B8I1216	8260	
75-25-2	Bromoform	ND	59	ug/kg dry	50	09/12/18	B8I1216	8260	
74-83-9	Bromomethane	ND	230	ug/kg dry	50	09/12/18	B8I1216	8260	A05
75-15-0	Carbon disulfide	ND	59	ug/kg dry	50	09/12/18	B8I1216	8260	
56-23-5	Carbon tetrachloride	ND	59	ug/kg dry	50	09/12/18	B8I1216	8260	
108-90-7	Chlorobenzene	ND	59	ug/kg dry	50	09/12/18	B8I1216	8260	
75-00-3	Chloroethane	ND	290	ug/kg dry	50	09/12/18	B8I1216	8260	A05
67-66-3	Chloroform	ND	59	ug/kg dry	50	09/12/18	B8I1216	8260	
74-87-3	Chloromethane	ND	290	ug/kg dry	50	09/12/18	B8I1216	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	59	ug/kg dry	50	09/12/18	B8I1216	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	59	ug/kg dry	50	09/12/18	B8I1216	8260	
110-82-7	Cyclohexane	ND	290	ug/kg dry	50	09/12/18	B8I1216	8260	
124-48-1	Dibromochloromethane	ND	59	ug/kg dry	50	09/12/18	B8I1216	8260	
74-95-3	Dibromomethane	ND	59	ug/kg dry	50	09/12/18	B8I1216	8260	
75-71-8	Dichlorodifluoromethane	ND	290	ug/kg dry	50	09/12/18	B8I1216	8260	

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CORRECTED REPORT

Client ID: QMCP-SB 64 6''-5'

Lab ID: 1809084-09

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
60-29-7	Diethyl ether	ND	230	ug/kg dry	50	09/12/18	B8I1216	8260	
108-20-3	Diisopropyl Ether	ND	290	ug/kg dry	50	09/12/18	B8I1216	8260	
100-41-4	Ethylbenzene	ND	59	ug/kg dry	50	09/12/18	B8I1216	8260	
637-92-3	Ethyltertiarybutylether	ND	290	ug/kg dry	50	09/12/18	B8I1216	8260	
67-72-1	Hexachloroethane	ND	290	ug/kg dry	50	09/12/18	B8I1216	8260	
110-54-3	Hexane	ND	59	ug/kg dry	50	09/12/18	B8I1216	8260	
98-82-8	Isopropylbenzene	ND	59	ug/kg dry	50	09/12/18	B8I1216	8260	
1330-20-7	**m & p - Xylene**	**130**	120	ug/kg dry	50	09/12/18	B8I1216	8260	
75-09-2	Methylene chloride	ND	120	ug/kg dry	50	09/12/18	B8I1216	8260	
1634-04-4	Methyltertiarybutylether	ND	59	ug/kg dry	50	09/12/18	B8I1216	8260	
91-20-3	Naphthalene	ND	290	ug/kg dry	50	09/12/18	B8I1216	8260	X
104-51-8	n-Butylbenzene	ND	59	ug/kg dry	50	09/12/18	B8I1216	8260	
103-65-1	n-Propylbenzene	ND	59	ug/kg dry	50	09/12/18	B8I1216	8260	
95-47-6	**o-Xylene**	**78**	59	ug/kg dry	50	09/12/18	B8I1216	8260	
135-98-8	sec-Butylbenzene	ND	59	ug/kg dry	50	09/12/18	B8I1216	8260	
100-42-5	Styrene	ND	59	ug/kg dry	50	09/12/18	B8I1216	8260	
98-06-6	tert-Butylbenzene	ND	59	ug/kg dry	50	09/12/18	B8I1216	8260	
75-65-0	tertiary Butyl Alcohol	ND	2900	ug/kg dry	50	09/12/18	B8I1216	8260	
994-05-8	tertiaryAmylmethylether	ND	290	ug/kg dry	50	09/12/18	B8I1216	8260	
127-18-4	Tetrachloroethylene	ND	59	ug/kg dry	50	09/12/18	B8I1216	8260	
109-99-9	Tetrahydrofuran	ND	290	ug/kg dry	50	09/12/18	B8I1216	8260	
108-88-3	**Toluene**	**100**	59	ug/kg dry	50	09/12/18	B8I1216	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	59	ug/kg dry	50	09/12/18	B8I1216	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	59	ug/kg dry	50	09/12/18	B8I1216	8260	
79-01-6	Trichloroethylene	ND	59	ug/kg dry	50	09/12/18	B8I1216	8260	
75-69-4	Trichlorofluoromethane	ND	59	ug/kg dry	50	09/12/18	B8I1216	8260	
75-01-4	Vinyl chloride	ND	59	ug/kg dry	50	09/12/18	B8I1216	8260	
Surrogate: Bromofluorobenzene			*90.7 %*	*40.3-194*		*09/12/18*	B8I1216	*8260*	
Surrogate: Dibromofluoromethane			*95.7 %*	*52.1-217*		*09/12/18*	B8I1216	*8260*	
Surrogate: Toluene-d8			*98.9 %*	*55.4-196*		*09/12/18*	B8I1216	*8260*	

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CORRECTED REPORT

Client ID: QMCP-SB 64 6''-5'

Lab ID: 1809084-09

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	2-Methylnaphthalene	ND	540	ug/kg dry	1	09/27/18	B8I1501	8270	
83-32-9	Acenaphthene	ND	220	ug/kg dry	1	09/27/18	B8I1501	8270	
208-96-8	Acenaphthylene	ND	220	ug/kg dry	1	09/27/18	B8I1501	8270	
120-12-7	Anthracene	ND	220	ug/kg dry	1	09/27/18	B8I1501	8270	
56-55-3	Benz[a]anthracene	ND	220	ug/kg dry	1	09/27/18	B8I1501	8270	
50-32-8	Benzo[a]pyrene	ND	430	ug/kg dry	1	09/27/18	B8I1501	8270	
205-99-2	Benzo[b]fluoranthene	ND	430	ug/kg dry	1	09/27/18	B8I1501	8270	
191-24-2	Benzo[g,h,i]perylene	ND	430	ug/kg dry	1	09/27/18	B8I1501	8270	
207-08-9	Benzo[k]fluoranthene	ND	430	ug/kg dry	1	09/27/18	B8I1501	8270	
218-01-9	Chrysene	ND	220	ug/kg dry	1	09/27/18	B8I1501	8270	
53-70-3	Dibenz[a,h]anthracene	ND	430	ug/kg dry	1	09/27/18	B8I1501	8270	
206-44-0	Fluoranthene	ND	220	ug/kg dry	1	09/27/18	B8I1501	8270	
86-73-7	Fluorene	ND	220	ug/kg dry	1	09/27/18	B8I1501	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	430	ug/kg dry	1	09/27/18	B8I1501	8270	
91-20-3	Naphthalene	ND	220	ug/kg dry	1	09/27/18	B8I1501	8270	
85-01-8	Phenanthrene	ND	220	ug/kg dry	1	09/27/18	B8I1501	8270	
129-00-0	Pyrene	ND	220	ug/kg dry	1	09/27/18	B8I1501	8270	
Surrogate: 2-Fluorobiphenyl			*84.8 %*	*32.9-115*		*09/27/18*	B8I1501	*8270*	
Surrogate: Nitrobenzene-d5			*72.3 %*	*31.8-115*		*09/27/18*	B8I1501	*8270*	
Surrogate: p-Terphenyl-d14			*99.8 %*	*38.5-115*		*09/27/18*	B8I1501	*8270*	
Inorganics-General Chemistry									
TS	**% Total Solids**	**92.5**	0.1	%	1	09/18/18	B8I1417	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**1.2**	0.5	mg/kg dry	10	09/25/18	B8I1912	200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	09/25/18	B8I1912	200.8	
7440-47-3	**Chromium**	**19**	2.0	mg/kg dry	10	09/25/18	B8I1912	200.8	
7440-50-8	**Copper**	**6100**	10	mg/kg dry	100	09/25/18	B8I1912	200.8	
7439-92-1	**Lead**	**14**	10	mg/kg dry	100	09/25/18	B8I1912	200.8	
7439-96-5	**Manganese**	**600**	1.0	mg/kg dry	10	09/25/18	B8I1912	200.8	
7439-97-6	**Mercury**	**0.3**	0.05	mg/kg dry	1	09/21/18	B8I1826	245.5	
7440-22-4	**Silver**	**5.8**	0.1	mg/kg dry	10	09/25/18	B8I1912	200.8	
7440-66-6	**Zinc**	**72**	1.0	mg/kg dry	10	09/25/18	B8I1912	200.8	

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CORRECTED REPORT

Client ID: QMCP-SB 17 0"-6"

Lab ID: 1809084-10

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	55	ug/kg dry	50	09/12/18	B8I1216	8260	
71-55-6	1,1,1-Trichloroethane	ND	55	ug/kg dry	50	09/12/18	B8I1216	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	55	ug/kg dry	50	09/12/18	B8I1216	8260	
79-00-5	1,1,2-Trichloroethane	ND	55	ug/kg dry	50	09/12/18	B8I1216	8260	
75-34-3	1,1-Dichloroethane	ND	55	ug/kg dry	50	09/12/18	B8I1216	8260	
75-35-4	1,1-Dichloroethylene	ND	55	ug/kg dry	50	09/12/18	B8I1216	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	280	ug/kg dry	50	09/12/18	B8I1216	8260	
96-18-4	1,2,3-Trichloropropane	ND	55	ug/kg dry	50	09/12/18	B8I1216	8260	A05, A10
526-73-8	1,2,3-Trimethylbenzene	ND	55	ug/kg dry	50	09/12/18	B8I1216	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	280	ug/kg dry	50	09/12/18	B8I1216	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	55	ug/kg dry	50	09/12/18	B8I1216	8260	
106-93-4	1,2-Dibromoethane	ND	55	ug/kg dry	50	09/12/18	B8I1216	8260	
95-50-1	1,2-Dichlorobenzene	ND	55	ug/kg dry	50	09/12/18	B8I1216	8260	
107-06-2	1,2-Dichloroethane	ND	55	ug/kg dry	50	09/12/18	B8I1216	8260	
78-87-5	1,2-Dichloropropane	ND	55	ug/kg dry	50	09/12/18	B8I1216	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	55	ug/kg dry	50	09/12/18	B8I1216	8260	
541-73-1	1,3-Dichlorobenzene	ND	55	ug/kg dry	50	09/12/18	B8I1216	8260	
106-46-7	1,4-Dichlorobenzene	ND	55	ug/kg dry	50	09/12/18	B8I1216	8260	
540-84-1	2,2,4-Trimethylpentane	ND	280	ug/kg dry	50	09/12/18	B8I1216	8260	
78-93-3	2-Butanone (MEK)	ND	280	ug/kg dry	50	09/12/18	B8I1216	8260	
91-57-6	2-Methylnaphthalene	ND	280	ug/kg dry	50	09/12/18	B8I1216	8260	X
67-64-1	2-Propanone (acetone)	ND	1100	ug/kg dry	50	09/12/18	B8I1216	8260	A05
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	280	ug/kg dry	50	09/12/18	B8I1216	8260	
107-13-1	Acrylonitrile	ND	280	ug/kg dry	50	09/12/18	B8I1216	8260	
71-43-2	Benzene	ND	55	ug/kg dry	50	09/12/18	B8I1216	8260	
74-97-5	Bromochloromethane	ND	55	ug/kg dry	50	09/12/18	B8I1216	8260	
75-27-4	Bromodichloromethane	ND	55	ug/kg dry	50	09/12/18	B8I1216	8260	
75-25-2	Bromoform	ND	55	ug/kg dry	50	09/12/18	B8I1216	8260	
74-83-9	Bromomethane	ND	220	ug/kg dry	50	09/12/18	B8I1216	8260	A05
75-15-0	Carbon disulfide	ND	55	ug/kg dry	50	09/12/18	B8I1216	8260	
56-23-5	Carbon tetrachloride	ND	55	ug/kg dry	50	09/12/18	B8I1216	8260	
108-90-7	Chlorobenzene	ND	55	ug/kg dry	50	09/12/18	B8I1216	8260	
75-00-3	Chloroethane	ND	280	ug/kg dry	50	09/12/18	B8I1216	8260	A05
67-66-3	Chloroform	ND	55	ug/kg dry	50	09/12/18	B8I1216	8260	
74-87-3	Chloromethane	ND	280	ug/kg dry	50	09/12/18	B8I1216	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	55	ug/kg dry	50	09/12/18	B8I1216	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	55	ug/kg dry	50	09/12/18	B8I1216	8260	
110-82-7	Cyclohexane	ND	280	ug/kg dry	50	09/12/18	B8I1216	8260	
124-48-1	Dibromochloromethane	ND	55	ug/kg dry	50	09/12/18	B8I1216	8260	
74-95-3	Dibromomethane	ND	55	ug/kg dry	50	09/12/18	B8I1216	8260	
75-71-8	Dichlorodifluoromethane	ND	280	ug/kg dry	50	09/12/18	B8I1216	8260	

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CORRECTED REPORT

Client ID: QMCP-SB 17 0''-6''

Lab ID: 1809084-10

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
60-29-7	Diethyl ether	ND	220	ug/kg dry	50	09/12/18	B8I1216	8260	
108-20-3	Diisopropyl Ether	ND	280	ug/kg dry	50	09/12/18	B8I1216	8260	
100-41-4	Ethylbenzene	ND	55	ug/kg dry	50	09/12/18	B8I1216	8260	
637-92-3	Ethyltertiarybutylether	ND	280	ug/kg dry	50	09/12/18	B8I1216	8260	
67-72-1	Hexachloroethane	ND	280	ug/kg dry	50	09/12/18	B8I1216	8260	
110-54-3	Hexane	ND	55	ug/kg dry	50	09/12/18	B8I1216	8260	
98-82-8	Isopropylbenzene	ND	55	ug/kg dry	50	09/12/18	B8I1216	8260	
1330-20-7	m & p - Xylene	ND	110	ug/kg dry	50	09/12/18	B8I1216	8260	
75-09-2	Methylene chloride	ND	110	ug/kg dry	50	09/12/18	B8I1216	8260	
1634-04-4	Methyltertiarybutylether	ND	55	ug/kg dry	50	09/12/18	B8I1216	8260	
91-20-3	Naphthalene	ND	280	ug/kg dry	50	09/12/18	B8I1216	8260	X
104-51-8	n-Butylbenzene	ND	55	ug/kg dry	50	09/12/18	B8I1216	8260	
103-65-1	n-Propylbenzene	ND	55	ug/kg dry	50	09/12/18	B8I1216	8260	
95-47-6	o-Xylene	ND	55	ug/kg dry	50	09/12/18	B8I1216	8260	
135-98-8	sec-Butylbenzene	ND	55	ug/kg dry	50	09/12/18	B8I1216	8260	
100-42-5	Styrene	ND	55	ug/kg dry	50	09/12/18	B8I1216	8260	
98-06-6	tert-Butylbenzene	ND	55	ug/kg dry	50	09/12/18	B8I1216	8260	
75-65-0	tertiary Butyl Alcohol	ND	2800	ug/kg dry	50	09/12/18	B8I1216	8260	
994-05-8	tertiaryAmylmethylether	ND	280	ug/kg dry	50	09/12/18	B8I1216	8260	
127-18-4	Tetrachloroethylene	ND	55	ug/kg dry	50	09/12/18	B8I1216	8260	
109-99-9	Tetrahydrofuran	ND	280	ug/kg dry	50	09/12/18	B8I1216	8260	
108-88-3	Toluene	ND	55	ug/kg dry	50	09/12/18	B8I1216	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	55	ug/kg dry	50	09/12/18	B8I1216	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	55	ug/kg dry	50	09/12/18	B8I1216	8260	
79-01-6	Trichloroethylene	ND	55	ug/kg dry	50	09/12/18	B8I1216	8260	
75-69-4	Trichlorofluoromethane	ND	55	ug/kg dry	50	09/12/18	B8I1216	8260	
75-01-4	Vinyl chloride	ND	55	ug/kg dry	50	09/12/18	B8I1216	8260	
Surrogate: Bromofluorobenzene			*83.2 %*	*40.3-194*		*09/12/18*	B8I1216	*8260*	
Surrogate: Dibromofluoromethane			*83.8 %*	*52.1-217*		*09/12/18*	B8I1216	*8260*	
Surrogate: Toluene-d8			*87.7 %*	*55.4-196*		*09/12/18*	B8I1216	*8260*	

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FAX: (517) 335-9600

CORRECTED REPORT

Client ID: QMCP-SB 17 0"-6"

Lab ID: 1809084-10

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	2-Methylnaphthalene	ND	520	ug/kg dry	1	09/27/18	B8I1501	8270	
83-32-9	Acenaphthene	ND	210	ug/kg dry	1	09/27/18	B8I1501	8270	
208-96-8	Acenaphthylene	ND	210	ug/kg dry	1	09/27/18	B8I1501	8270	
120-12-7	Anthracene	ND	210	ug/kg dry	1	09/27/18	B8I1501	8270	
56-55-3	Benz[a]anthracene	ND	210	ug/kg dry	1	09/27/18	B8I1501	8270	
50-32-8	Benzo[a]pyrene	ND	420	ug/kg dry	1	09/27/18	B8I1501	8270	
205-99-2	Benzo[b]fluoranthene	ND	420	ug/kg dry	1	09/27/18	B8I1501	8270	
191-24-2	Benzo[g,h,i]perylene	ND	420	ug/kg dry	1	09/27/18	B8I1501	8270	
207-08-9	Benzo[k]fluoranthene	ND	420	ug/kg dry	1	09/27/18	B8I1501	8270	
218-01-9	Chrysene	ND	210	ug/kg dry	1	09/27/18	B8I1501	8270	
53-70-3	Dibenz[a,h]anthracene	ND	420	ug/kg dry	1	09/27/18	B8I1501	8270	
206-44-0	Fluoranthene	ND	210	ug/kg dry	1	09/27/18	B8I1501	8270	
86-73-7	Fluorene	ND	210	ug/kg dry	1	09/27/18	B8I1501	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	420	ug/kg dry	1	09/27/18	B8I1501	8270	
91-20-3	Naphthalene	ND	210	ug/kg dry	1	09/27/18	B8I1501	8270	
85-01-8	Phenanthrene	ND	210	ug/kg dry	1	09/27/18	B8I1501	8270	
129-00-0	Pyrene	ND	210	ug/kg dry	1	09/27/18	B8I1501	8270	
Surrogate: 2-Fluorobiphenyl			*78.1 %*	*32.9-115*		*09/27/18*	B8I1501	*8270*	
Surrogate: Nitrobenzene-d5			*69.2 %*	*31.8-115*		*09/27/18*	B8I1501	*8270*	
Surrogate: p-Terphenyl-d14			*96.2 %*	*38.5-115*		*09/27/18*	B8I1501	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	100	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11104-28-2	Aroclor 1221	ND	100	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11141-16-5	Aroclor 1232	ND	100	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
53469-21-9	Aroclor 1242	ND	100	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
12672-29-6	Aroclor 1248	ND	100	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11097-69-1	Aroclor 1254	ND	100	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11096-82-5	Aroclor 1260	ND	100	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
37324-23-5	Aroclor 1262	ND	100	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11100-14-4	Aroclor 1268	ND	100	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
Surrogate: Decachlorobiphenyl			*105 %*	*30-150*		*10/13/18*	B8J0906	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*91.7 %*	*30-150*		*10/13/18*	B8J0906	*8081/8082*	

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CORRECTED REPORT

Client ID: QMCP-SB 17 0"-6"

Lab ID: 1809084-10

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**96.4**	0.1	%	1	09/18/18	B8I1417	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**6.7**	0.5	mg/kg dry	10	09/25/18	B8I1913	200.8	
7440-43-9	**Cadmium**	**0.5**	0.2	mg/kg dry	10	09/25/18	B8I1913	200.8	
7440-47-3	**Chromium**	**87**	2.0	mg/kg dry	10	09/25/18	B8I1913	200.8	
7440-50-8	**Copper**	**1500**	1.0	mg/kg dry	10	09/25/18	B8I1913	200.8	
7439-92-1	**Lead**	**9.5**	1.0	mg/kg dry	10	09/25/18	B8I1913	200.8	
7439-96-5	**Manganese**	**850**	1.0	mg/kg dry	10	09/25/18	B8I1913	200.8	
7439-97-6	Mercury	ND	0.05	mg/kg dry	1	09/21/18	B8I1826	245.5	
7440-22-4	**Silver**	**1.8**	0.1	mg/kg dry	10	09/25/18	B8I1913	200.8	
7440-66-6	**Zinc**	**79**	1.0	mg/kg dry	10	09/25/18	B8I1913	200.8	

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CORRECTED REPORT

Client ID: QMCP-SB 17 6"-4'

Lab ID: 1809084-11

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
71-55-6	1,1,1-Trichloroethane	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
79-00-5	1,1,2-Trichloroethane	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
75-34-3	1,1-Dichloroethane	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
75-35-4	1,1-Dichloroethylene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
96-18-4	1,2,3-Trichloropropane	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	A05, A10
526-73-8	1,2,3-Trimethylbenzene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
106-93-4	1,2-Dibromoethane	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
95-50-1	1,2-Dichlorobenzene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
107-06-2	1,2-Dichloroethane	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
78-87-5	1,2-Dichloropropane	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
541-73-1	1,3-Dichlorobenzene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
106-46-7	1,4-Dichlorobenzene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
540-84-1	2,2,4-Trimethylpentane	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
78-93-3	2-Butanone (MEK)	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
91-57-6	2-Methylnaphthalene	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	X
67-64-1	2-Propanone (acetone)	ND	1200	ug/kg dry	50	09/12/18	B8I1216	8260	A05
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
107-13-1	Acrylonitrile	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
71-43-2	Benzene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
74-97-5	Bromochloromethane	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
75-27-4	Bromodichloromethane	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
75-25-2	Bromoform	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
74-83-9	Bromomethane	ND	250	ug/kg dry	50	09/12/18	B8I1216	8260	A05
75-15-0	Carbon disulfide	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
56-23-5	Carbon tetrachloride	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
108-90-7	Chlorobenzene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
75-00-3	Chloroethane	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	A05
67-66-3	Chloroform	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
74-87-3	Chloromethane	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
110-82-7	Cyclohexane	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
124-48-1	Dibromochloromethane	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
74-95-3	Dibromomethane	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
75-71-8	Dichlorodifluoromethane	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	

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CORRECTED REPORT

Client ID: QMCP-SB 17 6"-4'

Lab ID: 1809084-11

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
60-29-7	Diethyl ether	ND	250	ug/kg dry	50	09/12/18	B8I1216	8260	
108-20-3	Diisopropyl Ether	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
100-41-4	Ethylbenzene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
637-92-3	Ethyltertiarybutylether	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
67-72-1	Hexachloroethane	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
110-54-3	Hexane	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
98-82-8	Isopropylbenzene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
1330-20-7	m & p - Xylene	ND	120	ug/kg dry	50	09/12/18	B8I1216	8260	
75-09-2	Methylene chloride	ND	120	ug/kg dry	50	09/12/18	B8I1216	8260	
1634-04-4	Methyltertiarybutylether	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
91-20-3	Naphthalene	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	X
104-51-8	n-Butylbenzene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
103-65-1	n-Propylbenzene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
95-47-6	o-Xylene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
135-98-8	sec-Butylbenzene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
100-42-5	Styrene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
98-06-6	tert-Butylbenzene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
75-65-0	tertiary Butyl Alcohol	ND	3100	ug/kg dry	50	09/12/18	B8I1216	8260	
994-05-8	tertiaryAmylmethylether	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
127-18-4	Tetrachloroethylene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
109-99-9	Tetrahydrofuran	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
108-88-3	Toluene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
79-01-6	Trichloroethylene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
75-69-4	Trichlorofluoromethane	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
75-01-4	Vinyl chloride	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
Surrogate: Bromofluorobenzene			*106 %*	*40.3-194*		*09/12/18*	B8I1216	*8260*	
Surrogate: Dibromofluoromethane			*103 %*	*52.1-217*		*09/12/18*	B8I1216	*8260*	
Surrogate: Toluene-d8			*107 %*	*55.4-196*		*09/12/18*	B8I1216	*8260*	

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CORRECTED REPORT

Client ID: QMCP-SB 17 6"-4'

Lab ID: 1809084-11

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y17, Y20**
91-57-6	2-Methylnaphthalene	ND	570	ug/kg dry	1	09/27/18	B8I1501	8270	
83-32-9	Acenaphthene	ND	230	ug/kg dry	1	09/27/18	B8I1501	8270	
208-96-8	Acenaphthylene	ND	230	ug/kg dry	1	09/27/18	B8I1501	8270	
120-12-7	Anthracene	ND	230	ug/kg dry	1	09/27/18	B8I1501	8270	
56-55-3	**Benz[a]anthracene**	**1400**	230	ug/kg dry	1	09/27/18	B8I1501	8270	
50-32-8	**Benzo[a]pyrene**	**1400**	460	ug/kg dry	1	09/27/18	B8I1501	8270	
205-99-2	**Benzo[b]fluoranthene**	**3200**	460	ug/kg dry	1	09/27/18	B8I1501	8270	
191-24-2	**Benzo[g,h,i]perylene**	**590**	460	ug/kg dry	1	09/27/18	B8I1501	8270	
207-08-9	**Benzo[k]fluoranthene**	**780**	460	ug/kg dry	1	09/27/18	B8I1501	8270	
218-01-9	**Chrysene**	**1800**	230	ug/kg dry	1	09/27/18	B8I1501	8270	
53-70-3	Dibenz[a,h]anthracene	ND	460	ug/kg dry	1	09/27/18	B8I1501	8270	
206-44-0	**Fluoranthene**	**2300**	230	ug/kg dry	1	09/27/18	B8I1501	8270	
86-73-7	Fluorene	ND	230	ug/kg dry	1	09/27/18	B8I1501	8270	
193-39-5	**Indeno(1,2,3-c,d)pyrene**	**670**	460	ug/kg dry	1	09/27/18	B8I1501	8270	
91-20-3	**Naphthalene**	**230**	230	ug/kg dry	1	09/27/18	B8I1501	8270	
85-01-8	**Phenanthrene**	**1200**	230	ug/kg dry	1	09/27/18	B8I1501	8270	
129-00-0	**Pyrene**	**1800**	230	ug/kg dry	1	09/27/18	B8I1501	8270	
Surrogate: 2-Fluorobiphenyl			*87.1 %*	*32.9-115*		*09/27/18*	B8I1501	*8270*	
Surrogate: Nitrobenzene-d5			*76.5 %*	*31.8-115*		*09/27/18*	B8I1501	*8270*	
Surrogate: p-Terphenyl-d14			*92.3 %*	*38.5-115*		*09/27/18*	B8I1501	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	1100	ug/kg dry	10	11/14/18	B8J1012	8081/8082	Y21
11104-28-2	Aroclor 1221	ND	1100	ug/kg dry	10	11/14/18	B8J1012	8081/8082	Y21
11141-16-5	Aroclor 1232	ND	1100	ug/kg dry	10	11/14/18	B8J1012	8081/8082	Y21
53469-21-9	Aroclor 1242	ND	1100	ug/kg dry	10	11/14/18	B8J1012	8081/8082	Y21
12672-29-6	Aroclor 1248	ND	2600	ug/kg dry	10	11/14/18	B8J1012	8081/8082	Y21
11097-69-1	**Aroclor 1254**	**8200**	1100	ug/kg dry	10	11/14/18	B8J1012	8081/8082	
11096-82-5	Aroclor 1260	ND	1100	ug/kg dry	10	11/14/18	B8J1012	8081/8082	Y21
37324-23-5	Aroclor 1262	ND	1100	ug/kg dry	10	11/14/18	B8J1012	8081/8082	Y21
11100-14-4	Aroclor 1268	ND	1100	ug/kg dry	10	11/14/18	B8J1012	8081/8082	Y21
Surrogate: Decachlorobiphenyl			*132 %*	*30-150*		*11/14/18*	B8J1012	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*117 %*	*30-150*		*11/14/18*	B8J1012	*8081/8082*	

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ENVIRONMENTAL LABORATORY

P.O. Box 30270
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TEL: (517) 335-9800
FAX: (517) 335-9600

CORRECTED REPORT

Client ID: QMCP-SB 17 6''-4'

Lab ID: 1809084-11

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**87.7**	0.1	%	1	09/18/18	B8I1417	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**1.7**	0.5	mg/kg dry	10	09/25/18	B8I1913	200.8	
7440-43-9	**Cadmium**	**0.2**	0.2	mg/kg dry	10	09/25/18	B8I1913	200.8	
7440-47-3	**Chromium**	**16**	2.0	mg/kg dry	10	09/25/18	B8I1913	200.8	
7440-50-8	**Copper**	**3400**	100	mg/kg dry	1000	09/25/18	B8I1913	200.8	
7439-92-1	**Lead**	**52**	1.0	mg/kg dry	10	09/25/18	B8I1913	200.8	
7439-96-5	**Manganese**	**970**	1.0	mg/kg dry	10	09/25/18	B8I1913	200.8	
7439-97-6	**Mercury**	**0.2**	0.06	mg/kg dry	1	09/21/18	B8I1826	245.5	
7440-22-4	**Silver**	**3.2**	0.1	mg/kg dry	10	09/25/18	B8I1913	200.8	
7440-66-6	**Zinc**	**97**	1.0	mg/kg dry	10	09/25/18	B8I1913	200.8	

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CORRECTED REPORT

Client ID: QMCP-SB 18 0"-6"

Lab ID: 1809084-12

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	60	ug/kg dry	50	09/12/18	B8I1216	8260	
71-55-6	1,1,1-Trichloroethane	ND	60	ug/kg dry	50	09/12/18	B8I1216	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	60	ug/kg dry	50	09/12/18	B8I1216	8260	
79-00-5	1,1,2-Trichloroethane	ND	60	ug/kg dry	50	09/12/18	B8I1216	8260	
75-34-3	1,1-Dichloroethane	ND	60	ug/kg dry	50	09/12/18	B8I1216	8260	
75-35-4	1,1-Dichloroethylene	ND	60	ug/kg dry	50	09/12/18	B8I1216	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	300	ug/kg dry	50	09/12/18	B8I1216	8260	
96-18-4	1,2,3-Trichloropropane	ND	60	ug/kg dry	50	09/12/18	B8I1216	8260	A05, A10
526-73-8	**1,2,3-Trimethylbenzene**	**87**	60	ug/kg dry	50	09/12/18	B8I1216	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	300	ug/kg dry	50	09/12/18	B8I1216	8260	
95-63-6	**1,2,4-Trimethylbenzene**	**180**	60	ug/kg dry	50	09/12/18	B8I1216	8260	
106-93-4	1,2-Dibromoethane	ND	60	ug/kg dry	50	09/12/18	B8I1216	8260	
95-50-1	1,2-Dichlorobenzene	ND	60	ug/kg dry	50	09/12/18	B8I1216	8260	
107-06-2	1,2-Dichloroethane	ND	60	ug/kg dry	50	09/12/18	B8I1216	8260	
78-87-5	1,2-Dichloropropane	ND	60	ug/kg dry	50	09/12/18	B8I1216	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	60	ug/kg dry	50	09/12/18	B8I1216	8260	
541-73-1	1,3-Dichlorobenzene	ND	60	ug/kg dry	50	09/12/18	B8I1216	8260	
106-46-7	1,4-Dichlorobenzene	ND	60	ug/kg dry	50	09/12/18	B8I1216	8260	
540-84-1	2,2,4-Trimethylpentane	ND	300	ug/kg dry	50	09/12/18	B8I1216	8260	
78-93-3	2-Butanone (MEK)	ND	300	ug/kg dry	50	09/12/18	B8I1216	8260	
91-57-6	**2-Methylnaphthalene**	**440**	300	ug/kg dry	50	09/12/18	B8I1216	8260	X
67-64-1	2-Propanone (acetone)	ND	1200	ug/kg dry	50	09/12/18	B8I1216	8260	A05
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	300	ug/kg dry	50	09/12/18	B8I1216	8260	
107-13-1	Acrylonitrile	ND	300	ug/kg dry	50	09/12/18	B8I1216	8260	
71-43-2	Benzene	ND	60	ug/kg dry	50	09/12/18	B8I1216	8260	
74-97-5	Bromochloromethane	ND	60	ug/kg dry	50	09/12/18	B8I1216	8260	
75-27-4	Bromodichloromethane	ND	60	ug/kg dry	50	09/12/18	B8I1216	8260	
75-25-2	Bromoform	ND	60	ug/kg dry	50	09/12/18	B8I1216	8260	
74-83-9	Bromomethane	ND	240	ug/kg dry	50	09/12/18	B8I1216	8260	A05
75-15-0	Carbon disulfide	ND	60	ug/kg dry	50	09/12/18	B8I1216	8260	
56-23-5	Carbon tetrachloride	ND	60	ug/kg dry	50	09/12/18	B8I1216	8260	
108-90-7	Chlorobenzene	ND	60	ug/kg dry	50	09/12/18	B8I1216	8260	
75-00-3	Chloroethane	ND	300	ug/kg dry	50	09/12/18	B8I1216	8260	A05
67-66-3	Chloroform	ND	60	ug/kg dry	50	09/12/18	B8I1216	8260	
74-87-3	Chloromethane	ND	300	ug/kg dry	50	09/12/18	B8I1216	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	60	ug/kg dry	50	09/12/18	B8I1216	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	60	ug/kg dry	50	09/12/18	B8I1216	8260	
110-82-7	Cyclohexane	ND	300	ug/kg dry	50	09/12/18	B8I1216	8260	
124-48-1	Dibromochloromethane	ND	60	ug/kg dry	50	09/12/18	B8I1216	8260	
74-95-3	Dibromomethane	ND	60	ug/kg dry	50	09/12/18	B8I1216	8260	
75-71-8	Dichlorodifluoromethane	ND	300	ug/kg dry	50	09/12/18	B8I1216	8260	

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CORRECTED REPORT

Client ID: QMCP-SB 18 0"-6"

Lab ID: 1809084-12

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
60-29-7	Diethyl ether	ND	240	ug/kg dry	50	09/12/18	B8I1216	8260	
108-20-3	Diisopropyl Ether	ND	300	ug/kg dry	50	09/12/18	B8I1216	8260	
100-41-4	Ethylbenzene	ND	60	ug/kg dry	50	09/12/18	B8I1216	8260	
637-92-3	Ethyltertiarybutylether	ND	300	ug/kg dry	50	09/12/18	B8I1216	8260	
67-72-1	Hexachloroethane	ND	300	ug/kg dry	50	09/12/18	B8I1216	8260	
110-54-3	Hexane	ND	60	ug/kg dry	50	09/12/18	B8I1216	8260	
98-82-8	Isopropylbenzene	ND	60	ug/kg dry	50	09/12/18	B8I1216	8260	
1330-20-7	**m & p - Xylene**	**280**	120	ug/kg dry	50	09/12/18	B8I1216	8260	
75-09-2	Methylene chloride	ND	120	ug/kg dry	50	09/12/18	B8I1216	8260	
1634-04-4	Methyltertiarybutylether	ND	60	ug/kg dry	50	09/12/18	B8I1216	8260	
91-20-3	**Naphthalene**	**390**	300	ug/kg dry	50	09/12/18	B8I1216	8260	X
104-51-8	n-Butylbenzene	ND	60	ug/kg dry	50	09/12/18	B8I1216	8260	
103-65-1	n-Propylbenzene	ND	60	ug/kg dry	50	09/12/18	B8I1216	8260	
95-47-6	**o-Xylene**	**220**	60	ug/kg dry	50	09/12/18	B8I1216	8260	
135-98-8	sec-Butylbenzene	ND	60	ug/kg dry	50	09/12/18	B8I1216	8260	
100-42-5	Styrene	ND	60	ug/kg dry	50	09/12/18	B8I1216	8260	
98-06-6	tert-Butylbenzene	ND	60	ug/kg dry	50	09/12/18	B8I1216	8260	
75-65-0	tertiary Butyl Alcohol	ND	3000	ug/kg dry	50	09/12/18	B8I1216	8260	
994-05-8	tertiaryAmylmethylether	ND	300	ug/kg dry	50	09/12/18	B8I1216	8260	
127-18-4	Tetrachloroethylene	ND	60	ug/kg dry	50	09/12/18	B8I1216	8260	
109-99-9	Tetrahydrofuran	ND	300	ug/kg dry	50	09/12/18	B8I1216	8260	
108-88-3	**Toluene**	**180**	60	ug/kg dry	50	09/12/18	B8I1216	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	60	ug/kg dry	50	09/12/18	B8I1216	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	60	ug/kg dry	50	09/12/18	B8I1216	8260	
79-01-6	Trichloroethylene	ND	60	ug/kg dry	50	09/12/18	B8I1216	8260	
75-69-4	Trichlorofluoromethane	ND	60	ug/kg dry	50	09/12/18	B8I1216	8260	
75-01-4	Vinyl chloride	ND	60	ug/kg dry	50	09/12/18	B8I1216	8260	
Surrogate: Bromofluorobenzene			*102 %*	*40.3-194*		*09/12/18*	B8I1216	*8260*	
Surrogate: Dibromofluoromethane			*104 %*	*52.1-217*		*09/12/18*	B8I1216	*8260*	
Surrogate: Toluene-d8			*110 %*	*55.4-196*		*09/12/18*	B8I1216	*8260*	

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CORRECTED REPORT

Client ID: QMCP-SB 18 0"-6"

Lab ID: 1809084-12

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	2-Methylnaphthalene	ND	550	ug/kg dry	1	09/28/18	B8I1501	8270	
83-32-9	Acenaphthene	ND	220	ug/kg dry	1	09/28/18	B8I1501	8270	
208-96-8	Acenaphthylene	ND	220	ug/kg dry	1	09/28/18	B8I1501	8270	
120-12-7	Anthracene	ND	220	ug/kg dry	1	09/28/18	B8I1501	8270	
56-55-3	**Benz[a]anthracene**	**450**	220	ug/kg dry	1	09/28/18	B8I1501	8270	
50-32-8	Benzo[a]pyrene	ND	440	ug/kg dry	1	09/28/18	B8I1501	8270	
205-99-2	**Benzo[b]fluoranthene**	**840**	440	ug/kg dry	1	09/28/18	B8I1501	8270	
191-24-2	Benzo[g,h,i]perylene	ND	440	ug/kg dry	1	09/28/18	B8I1501	8270	
207-08-9	Benzo[k]fluoranthene	ND	440	ug/kg dry	1	09/28/18	B8I1501	8270	
218-01-9	**Chrysene**	**500**	220	ug/kg dry	1	09/28/18	B8I1501	8270	
53-70-3	Dibenz[a,h]anthracene	ND	440	ug/kg dry	1	09/28/18	B8I1501	8270	
206-44-0	**Fluoranthene**	**520**	220	ug/kg dry	1	09/28/18	B8I1501	8270	
86-73-7	Fluorene	ND	220	ug/kg dry	1	09/28/18	B8I1501	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	440	ug/kg dry	1	09/28/18	B8I1501	8270	
91-20-3	**Naphthalene**	**380**	220	ug/kg dry	1	09/28/18	B8I1501	8270	
85-01-8	**Phenanthrene**	**400**	220	ug/kg dry	1	09/28/18	B8I1501	8270	
129-00-0	**Pyrene**	**450**	220	ug/kg dry	1	09/28/18	B8I1501	8270	
Surrogate: 2-Fluorobiphenyl			*88.7 %*	*32.9-115*		*09/28/18*	B8I1501	*8270*	
Surrogate: Nitrobenzene-d5			*76.2 %*	*31.8-115*		*09/28/18*	B8I1501	*8270*	
Surrogate: p-Terphenyl-d14			*98.6 %*	*38.5-115*		*09/28/18*	B8I1501	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	110	ug/kg dry	1	10/14/18	B8J1012	8081/8082	
11104-28-2	Aroclor 1221	ND	110	ug/kg dry	1	10/14/18	B8J1012	8081/8082	
11141-16-5	Aroclor 1232	ND	110	ug/kg dry	1	10/14/18	B8J1012	8081/8082	
53469-21-9	Aroclor 1242	ND	110	ug/kg dry	1	10/14/18	B8J1012	8081/8082	
12672-29-6	Aroclor 1248	ND	110	ug/kg dry	1	10/14/18	B8J1012	8081/8082	
11097-69-1	Aroclor 1254	ND	110	ug/kg dry	1	10/14/18	B8J1012	8081/8082	
11096-82-5	Aroclor 1260	ND	170	ug/kg dry	1	10/14/18	B8J1012	8081/8082	Y21
37324-23-5	Aroclor 1262	ND	170	ug/kg dry	1	10/14/18	B8J1012	8081/8082	Y21
11100-14-4	Aroclor 1268	ND	110	ug/kg dry	1	10/14/18	B8J1012	8081/8082	
Surrogate: Decachlorobiphenyl			*89.3 %*	*30-150*		*10/14/18*	B8J1012	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*73.7 %*	*30-150*		*10/14/18*	B8J1012	*8081/8082*	

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CORRECTED REPORT

Client ID: QMCP-SB 18 0"-6"

Lab ID: 1809084-12

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**90.3**	0.1	%	1	09/18/18	B8I1417	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**1.7**	0.5	mg/kg dry	10	09/25/18	B8I1913	200.8	
7440-43-9	**Cadmium**	**0.2**	0.2	mg/kg dry	10	09/25/18	B8I1913	200.8	
7440-47-3	**Chromium**	**21**	2.0	mg/kg dry	10	09/25/18	B8I1913	200.8	
7440-50-8	**Copper**	**3100**	100	mg/kg dry	1000	09/25/18	B8I1913	200.8	
7439-92-1	**Lead**	**22**	1.0	mg/kg dry	10	09/25/18	B8I1913	200.8	
7439-96-5	**Manganese**	**610**	1.0	mg/kg dry	10	09/25/18	B8I1913	200.8	
7439-97-6	**Mercury**	**0.2**	0.06	mg/kg dry	1	09/21/18	B8I1826	245.5	
7440-22-4	**Silver**	**4.6**	0.1	mg/kg dry	10	09/25/18	B8I1913	200.8	
7440-66-6	**Zinc**	**81**	1.0	mg/kg dry	10	09/25/18	B8I1913	200.8	

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CORRECTED REPORT

Client ID: QMCP-SB 18 6"-4'

Lab ID: 1809084-13

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	66	ug/kg dry	50	09/12/18	B8I1216	8260	
71-55-6	1,1,1-Trichloroethane	ND	66	ug/kg dry	50	09/12/18	B8I1216	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	66	ug/kg dry	50	09/12/18	B8I1216	8260	
79-00-5	1,1,2-Trichloroethane	ND	66	ug/kg dry	50	09/12/18	B8I1216	8260	
75-34-3	1,1-Dichloroethane	ND	66	ug/kg dry	50	09/12/18	B8I1216	8260	
75-35-4	1,1-Dichloroethylene	ND	66	ug/kg dry	50	09/12/18	B8I1216	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	330	ug/kg dry	50	09/12/18	B8I1216	8260	
96-18-4	1,2,3-Trichloropropane	ND	66	ug/kg dry	50	09/12/18	B8I1216	8260	A05, A10
526-73-8	1,2,3-Trimethylbenzene	ND	66	ug/kg dry	50	09/12/18	B8I1216	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	330	ug/kg dry	50	09/12/18	B8I1216	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	66	ug/kg dry	50	09/12/18	B8I1216	8260	
106-93-4	1,2-Dibromoethane	ND	66	ug/kg dry	50	09/12/18	B8I1216	8260	
95-50-1	1,2-Dichlorobenzene	ND	66	ug/kg dry	50	09/12/18	B8I1216	8260	
107-06-2	1,2-Dichloroethane	ND	66	ug/kg dry	50	09/12/18	B8I1216	8260	
78-87-5	1,2-Dichloropropane	ND	66	ug/kg dry	50	09/12/18	B8I1216	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	66	ug/kg dry	50	09/12/18	B8I1216	8260	
541-73-1	1,3-Dichlorobenzene	ND	66	ug/kg dry	50	09/12/18	B8I1216	8260	
106-46-7	1,4-Dichlorobenzene	ND	66	ug/kg dry	50	09/12/18	B8I1216	8260	
540-84-1	2,2,4-Trimethylpentane	ND	330	ug/kg dry	50	09/12/18	B8I1216	8260	
78-93-3	2-Butanone (MEK)	ND	330	ug/kg dry	50	09/12/18	B8I1216	8260	
91-57-6	2-Methylnaphthalene	ND	330	ug/kg dry	50	09/12/18	B8I1216	8260	X
67-64-1	2-Propanone (acetone)	ND	1300	ug/kg dry	50	09/12/18	B8I1216	8260	A05
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	330	ug/kg dry	50	09/12/18	B8I1216	8260	
107-13-1	Acrylonitrile	ND	330	ug/kg dry	50	09/12/18	B8I1216	8260	
71-43-2	Benzene	ND	66	ug/kg dry	50	09/12/18	B8I1216	8260	
74-97-5	Bromochloromethane	ND	66	ug/kg dry	50	09/12/18	B8I1216	8260	
75-27-4	Bromodichloromethane	ND	66	ug/kg dry	50	09/12/18	B8I1216	8260	
75-25-2	Bromoform	ND	66	ug/kg dry	50	09/12/18	B8I1216	8260	
74-83-9	Bromomethane	ND	260	ug/kg dry	50	09/12/18	B8I1216	8260	A05
75-15-0	Carbon disulfide	ND	66	ug/kg dry	50	09/12/18	B8I1216	8260	
56-23-5	Carbon tetrachloride	ND	66	ug/kg dry	50	09/12/18	B8I1216	8260	
108-90-7	Chlorobenzene	ND	66	ug/kg dry	50	09/12/18	B8I1216	8260	
75-00-3	Chloroethane	ND	330	ug/kg dry	50	09/12/18	B8I1216	8260	A05
67-66-3	Chloroform	ND	66	ug/kg dry	50	09/12/18	B8I1216	8260	
74-87-3	Chloromethane	ND	330	ug/kg dry	50	09/12/18	B8I1216	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	66	ug/kg dry	50	09/12/18	B8I1216	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	66	ug/kg dry	50	09/12/18	B8I1216	8260	
110-82-7	Cyclohexane	ND	330	ug/kg dry	50	09/12/18	B8I1216	8260	
124-48-1	Dibromochloromethane	ND	66	ug/kg dry	50	09/12/18	B8I1216	8260	
74-95-3	Dibromomethane	ND	66	ug/kg dry	50	09/12/18	B8I1216	8260	
75-71-8	Dichlorodifluoromethane	ND	330	ug/kg dry	50	09/12/18	B8I1216	8260	

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CORRECTED REPORT

Client ID: QMCP-SB 18 6"-4'

Lab ID: 1809084-13

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
60-29-7	Diethyl ether	ND	260	ug/kg dry	50	09/12/18	B8I1216	8260	
108-20-3	Diisopropyl Ether	ND	330	ug/kg dry	50	09/12/18	B8I1216	8260	
100-41-4	Ethylbenzene	ND	66	ug/kg dry	50	09/12/18	B8I1216	8260	
637-92-3	Ethyltertiarybutylether	ND	330	ug/kg dry	50	09/12/18	B8I1216	8260	
67-72-1	Hexachloroethane	ND	330	ug/kg dry	50	09/12/18	B8I1216	8260	
110-54-3	**Hexane**	**180**	66	ug/kg dry	50	09/12/18	B8I1216	8260	
98-82-8	Isopropylbenzene	ND	66	ug/kg dry	50	09/12/18	B8I1216	8260	
1330-20-7	m & p - Xylene	ND	130	ug/kg dry	50	09/12/18	B8I1216	8260	
75-09-2	Methylene chloride	ND	130	ug/kg dry	50	09/12/18	B8I1216	8260	
1634-04-4	Methyltertiarybutylether	ND	66	ug/kg dry	50	09/12/18	B8I1216	8260	
91-20-3	Naphthalene	ND	330	ug/kg dry	50	09/12/18	B8I1216	8260	X
104-51-8	n-Butylbenzene	ND	66	ug/kg dry	50	09/12/18	B8I1216	8260	
103-65-1	n-Propylbenzene	ND	66	ug/kg dry	50	09/12/18	B8I1216	8260	
95-47-6	o-Xylene	ND	66	ug/kg dry	50	09/12/18	B8I1216	8260	
135-98-8	sec-Butylbenzene	ND	66	ug/kg dry	50	09/12/18	B8I1216	8260	
100-42-5	Styrene	ND	66	ug/kg dry	50	09/12/18	B8I1216	8260	
98-06-6	tert-Butylbenzene	ND	66	ug/kg dry	50	09/12/18	B8I1216	8260	
75-65-0	tertiary Butyl Alcohol	ND	3300	ug/kg dry	50	09/12/18	B8I1216	8260	
994-05-8	tertiaryAmylmethylether	ND	330	ug/kg dry	50	09/12/18	B8I1216	8260	
127-18-4	Tetrachloroethylene	ND	66	ug/kg dry	50	09/12/18	B8I1216	8260	
109-99-9	Tetrahydrofuran	ND	330	ug/kg dry	50	09/12/18	B8I1216	8260	
108-88-3	Toluene	ND	66	ug/kg dry	50	09/12/18	B8I1216	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	66	ug/kg dry	50	09/12/18	B8I1216	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	66	ug/kg dry	50	09/12/18	B8I1216	8260	
79-01-6	Trichloroethylene	ND	66	ug/kg dry	50	09/12/18	B8I1216	8260	
75-69-4	Trichlorofluoromethane	ND	66	ug/kg dry	50	09/12/18	B8I1216	8260	
75-01-4	Vinyl chloride	ND	66	ug/kg dry	50	09/12/18	B8I1216	8260	
Surrogate: Bromofluorobenzene			*97.7 %*	*40.3-194*		*09/12/18*	B8I1216	*8260*	
Surrogate: Dibromofluoromethane			*101 %*	*52.1-217*		*09/12/18*	B8I1216	*8260*	
Surrogate: Toluene-d8			*104 %*	*55.4-196*		*09/12/18*	B8I1216	*8260*	

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CORRECTED REPORT

Client ID: QMCP-SB 18 6"-4'

Lab ID: 1809084-13

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	2-Methylnaphthalene	ND	560	ug/kg dry	1	09/28/18	B8I1501	8270	
83-32-9	Acenaphthene	ND	220	ug/kg dry	1	09/28/18	B8I1501	8270	
208-96-8	Acenaphthylene	ND	220	ug/kg dry	1	09/28/18	B8I1501	8270	
120-12-7	Anthracene	ND	220	ug/kg dry	1	09/28/18	B8I1501	8270	
56-55-3	Benz[a]anthracene	ND	220	ug/kg dry	1	09/28/18	B8I1501	8270	
50-32-8	Benzo[a]pyrene	ND	450	ug/kg dry	1	09/28/18	B8I1501	8270	
205-99-2	Benzo[b]fluoranthene	ND	450	ug/kg dry	1	09/28/18	B8I1501	8270	
191-24-2	Benzo[g,h,i]perylene	ND	450	ug/kg dry	1	09/28/18	B8I1501	8270	
207-08-9	Benzo[k]fluoranthene	ND	450	ug/kg dry	1	09/28/18	B8I1501	8270	
218-01-9	Chrysene	ND	220	ug/kg dry	1	09/28/18	B8I1501	8270	
53-70-3	Dibenz[a,h]anthracene	ND	450	ug/kg dry	1	09/28/18	B8I1501	8270	
206-44-0	Fluoranthene	ND	220	ug/kg dry	1	09/28/18	B8I1501	8270	
86-73-7	Fluorene	ND	220	ug/kg dry	1	09/28/18	B8I1501	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	450	ug/kg dry	1	09/28/18	B8I1501	8270	
91-20-3	Naphthalene	ND	220	ug/kg dry	1	09/28/18	B8I1501	8270	
85-01-8	Phenanthrene	ND	220	ug/kg dry	1	09/28/18	B8I1501	8270	
129-00-0	Pyrene	ND	220	ug/kg dry	1	09/28/18	B8I1501	8270	
Surrogate: 2-Fluorobiphenyl			*90.1 %*	*32.9-115*		*09/28/18*	B8I1501	*8270*	
Surrogate: Nitrobenzene-d5			*82.6 %*	*31.8-115*		*09/28/18*	B8I1501	*8270*	
Surrogate: p-Terphenyl-d14			*102 %*	*38.5-115*		*09/28/18*	B8I1501	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	110	ug/kg dry	1	10/14/18	B8J1012	8081/8082	
11104-28-2	Aroclor 1221	ND	110	ug/kg dry	1	10/14/18	B8J1012	8081/8082	
11141-16-5	Aroclor 1232	ND	110	ug/kg dry	1	10/14/18	B8J1012	8081/8082	
53469-21-9	Aroclor 1242	ND	110	ug/kg dry	1	10/14/18	B8J1012	8081/8082	
12672-29-6	Aroclor 1248	ND	110	ug/kg dry	1	10/14/18	B8J1012	8081/8082	
11097-69-1	Aroclor 1254	ND	110	ug/kg dry	1	10/14/18	B8J1012	8081/8082	
11096-82-5	Aroclor 1260	ND	110	ug/kg dry	1	10/14/18	B8J1012	8081/8082	
37324-23-5	Aroclor 1262	ND	110	ug/kg dry	1	10/14/18	B8J1012	8081/8082	
11100-14-4	Aroclor 1268	ND	110	ug/kg dry	1	10/14/18	B8J1012	8081/8082	
Surrogate: Decachlorobiphenyl			*93.7 %*	*30-150*		*10/14/18*	B8J1012	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*81.7 %*	*30-150*		*10/14/18*	B8J1012	*8081/8082*	

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CORRECTED REPORT

Client ID: QMCP-SB 18 6"-4'

Lab ID: 1809084-13

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**89.3**	0.1	%	1	09/18/18	B8I1417	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**6.2**	0.5	mg/kg dry	10	09/25/18	B8I1913	200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	09/25/18	B8I1913	200.8	
7440-47-3	**Chromium**	**19**	2.0	mg/kg dry	10	09/25/18	B8I1913	200.8	
7440-50-8	**Copper**	**3400**	100	mg/kg dry	1000	09/25/18	B8I1913	200.8	
7439-92-1	**Lead**	**31**	1.0	mg/kg dry	10	09/25/18	B8I1913	200.8	
7439-96-5	**Manganese**	**730**	1.0	mg/kg dry	10	09/25/18	B8I1913	200.8	
7439-97-6	**Mercury**	**0.1**	0.06	mg/kg dry	1	09/21/18	B8I1826	245.5	
7440-22-4	**Silver**	**2.9**	0.1	mg/kg dry	10	09/25/18	B8I1913	200.8	
7440-66-6	**Zinc**	**91**	1.0	mg/kg dry	10	09/25/18	B8I1913	200.8	

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CORRECTED REPORT

Client ID: QMCP-SB 21 0"-6"

Lab ID: 1809084-14

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	61	ug/kg dry	50	09/12/18	B8I1216	8260	
71-55-6	1,1,1-Trichloroethane	ND	61	ug/kg dry	50	09/12/18	B8I1216	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	61	ug/kg dry	50	09/12/18	B8I1216	8260	
79-00-5	1,1,2-Trichloroethane	ND	61	ug/kg dry	50	09/12/18	B8I1216	8260	
75-34-3	1,1-Dichloroethane	ND	61	ug/kg dry	50	09/12/18	B8I1216	8260	
75-35-4	1,1-Dichloroethylene	ND	61	ug/kg dry	50	09/12/18	B8I1216	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
96-18-4	1,2,3-Trichloropropane	ND	61	ug/kg dry	50	09/12/18	B8I1216	8260	A05, A10
526-73-8	1,2,3-Trimethylbenzene	ND	61	ug/kg dry	50	09/12/18	B8I1216	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
95-63-6	**1,2,4-Trimethylbenzene**	**61**	61	ug/kg dry	50	09/12/18	B8I1216	8260	
106-93-4	1,2-Dibromoethane	ND	61	ug/kg dry	50	09/12/18	B8I1216	8260	
95-50-1	1,2-Dichlorobenzene	ND	61	ug/kg dry	50	09/12/18	B8I1216	8260	
107-06-2	1,2-Dichloroethane	ND	61	ug/kg dry	50	09/12/18	B8I1216	8260	
78-87-5	1,2-Dichloropropane	ND	61	ug/kg dry	50	09/12/18	B8I1216	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	61	ug/kg dry	50	09/12/18	B8I1216	8260	
541-73-1	1,3-Dichlorobenzene	ND	61	ug/kg dry	50	09/12/18	B8I1216	8260	
106-46-7	1,4-Dichlorobenzene	ND	61	ug/kg dry	50	09/12/18	B8I1216	8260	
540-84-1	2,2,4-Trimethylpentane	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
78-93-3	2-Butanone (MEK)	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
91-57-6	2-Methylnaphthalene	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	X
67-64-1	2-Propanone (acetone)	ND	1200	ug/kg dry	50	09/12/18	B8I1216	8260	A05
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
107-13-1	Acrylonitrile	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
71-43-2	Benzene	ND	61	ug/kg dry	50	09/12/18	B8I1216	8260	
74-97-5	Bromochloromethane	ND	61	ug/kg dry	50	09/12/18	B8I1216	8260	
75-27-4	Bromodichloromethane	ND	61	ug/kg dry	50	09/12/18	B8I1216	8260	
75-25-2	Bromoform	ND	61	ug/kg dry	50	09/12/18	B8I1216	8260	
74-83-9	Bromomethane	ND	240	ug/kg dry	50	09/12/18	B8I1216	8260	A05
75-15-0	Carbon disulfide	ND	61	ug/kg dry	50	09/12/18	B8I1216	8260	
56-23-5	Carbon tetrachloride	ND	61	ug/kg dry	50	09/12/18	B8I1216	8260	
108-90-7	Chlorobenzene	ND	61	ug/kg dry	50	09/12/18	B8I1216	8260	
75-00-3	Chloroethane	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	A05
67-66-3	Chloroform	ND	61	ug/kg dry	50	09/12/18	B8I1216	8260	
74-87-3	Chloromethane	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	61	ug/kg dry	50	09/12/18	B8I1216	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	61	ug/kg dry	50	09/12/18	B8I1216	8260	
110-82-7	Cyclohexane	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
124-48-1	Dibromochloromethane	ND	61	ug/kg dry	50	09/12/18	B8I1216	8260	
74-95-3	Dibromomethane	ND	61	ug/kg dry	50	09/12/18	B8I1216	8260	
75-71-8	Dichlorodifluoromethane	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	

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CORRECTED REPORT

Client ID: QMCP-SB 21 0"-6"

Lab ID: 1809084-14

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
60-29-7	Diethyl ether	ND	240	ug/kg dry	50	09/12/18	B8I1216	8260	
108-20-3	Diisopropyl Ether	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
100-41-4	Ethylbenzene	ND	61	ug/kg dry	50	09/12/18	B8I1216	8260	
637-92-3	Ethyltertiarybutylether	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
67-72-1	Hexachloroethane	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
110-54-3	Hexane	ND	61	ug/kg dry	50	09/12/18	B8I1216	8260	
98-82-8	Isopropylbenzene	ND	61	ug/kg dry	50	09/12/18	B8I1216	8260	
1330-20-7	m & p - Xylene	ND	120	ug/kg dry	50	09/12/18	B8I1216	8260	
75-09-2	Methylene chloride	ND	120	ug/kg dry	50	09/12/18	B8I1216	8260	
1634-04-4	Methyltertiarybutylether	ND	61	ug/kg dry	50	09/12/18	B8I1216	8260	
91-20-3	Naphthalene	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	X
104-51-8	n-Butylbenzene	ND	61	ug/kg dry	50	09/12/18	B8I1216	8260	
103-65-1	n-Propylbenzene	ND	61	ug/kg dry	50	09/12/18	B8I1216	8260	
95-47-6	**o-Xylene**	**73**	61	ug/kg dry	50	09/12/18	B8I1216	8260	
135-98-8	sec-Butylbenzene	ND	61	ug/kg dry	50	09/12/18	B8I1216	8260	
100-42-5	Styrene	ND	61	ug/kg dry	50	09/12/18	B8I1216	8260	
98-06-6	tert-Butylbenzene	ND	61	ug/kg dry	50	09/12/18	B8I1216	8260	
75-65-0	tertiary Butyl Alcohol	ND	3100	ug/kg dry	50	09/12/18	B8I1216	8260	
994-05-8	tertiaryAmylmethylether	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
127-18-4	Tetrachloroethylene	ND	61	ug/kg dry	50	09/12/18	B8I1216	8260	
109-99-9	Tetrahydrofuran	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
108-88-3	Toluene	ND	61	ug/kg dry	50	09/12/18	B8I1216	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	61	ug/kg dry	50	09/12/18	B8I1216	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	61	ug/kg dry	50	09/12/18	B8I1216	8260	
79-01-6	Trichloroethylene	ND	61	ug/kg dry	50	09/12/18	B8I1216	8260	
75-69-4	Trichlorofluoromethane	ND	61	ug/kg dry	50	09/12/18	B8I1216	8260	
75-01-4	Vinyl chloride	ND	61	ug/kg dry	50	09/12/18	B8I1216	8260	
Surrogate: Bromofluorobenzene			*108 %*	*40.3-194*		*09/12/18*	B8I1216	*8260*	
Surrogate: Dibromofluoromethane			*111 %*	*52.1-217*		*09/12/18*	B8I1216	*8260*	
Surrogate: Toluene-d8			*115 %*	*55.4-196*		*09/12/18*	B8I1216	*8260*	

Lab Work Order # 1809084

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CORRECTED REPORT

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Lab ID: 1809084-14

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	2-Methylnaphthalene	ND	550	ug/kg dry	1	09/28/18	B8I1501	8270	
83-32-9	Acenaphthene	ND	220	ug/kg dry	1	09/28/18	B8I1501	8270	
208-96-8	Acenaphthylene	ND	220	ug/kg dry	1	09/28/18	B8I1501	8270	
120-12-7	Anthracene	ND	220	ug/kg dry	1	09/28/18	B8I1501	8270	
56-55-3	**Benz[a]anthracene**	**280**	220	ug/kg dry	1	09/28/18	B8I1501	8270	
50-32-8	Benzo[a]pyrene	ND	440	ug/kg dry	1	09/28/18	B8I1501	8270	
205-99-2	**Benzo[b]fluoranthene**	**470**	440	ug/kg dry	1	09/28/18	B8I1501	8270	
191-24-2	Benzo[g,h,i]perylene	ND	440	ug/kg dry	1	09/28/18	B8I1501	8270	
207-08-9	Benzo[k]fluoranthene	ND	440	ug/kg dry	1	09/28/18	B8I1501	8270	
218-01-9	**Chrysene**	**300**	220	ug/kg dry	1	09/28/18	B8I1501	8270	
53-70-3	Dibenz[a,h]anthracene	ND	440	ug/kg dry	1	09/28/18	B8I1501	8270	
206-44-0	**Fluoranthene**	**520**	220	ug/kg dry	1	09/28/18	B8I1501	8270	
86-73-7	Fluorene	ND	220	ug/kg dry	1	09/28/18	B8I1501	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	440	ug/kg dry	1	09/28/18	B8I1501	8270	
91-20-3	Naphthalene	ND	220	ug/kg dry	1	09/28/18	B8I1501	8270	
85-01-8	**Phenanthrene**	**290**	220	ug/kg dry	1	09/28/18	B8I1501	8270	
129-00-0	**Pyrene**	**400**	220	ug/kg dry	1	09/28/18	B8I1501	8270	
Surrogate: 2-Fluorobiphenyl			*84.6 %*	*32.9-115*		*09/28/18*	B8I1501	*8270*	
Surrogate: Nitrobenzene-d5			*75.9 %*	*31.8-115*		*09/28/18*	B8I1501	*8270*	
Surrogate: p-Terphenyl-d14			*93.4 %*	*38.5-115*		*09/28/18*	B8I1501	*8270*	
Inorganics-General Chemistry									
TS	**% Total Solids**	**90.3**	0.1	%	1	09/18/18	B8I1417	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**1.9**	0.5	mg/kg dry	10	09/25/18	B8I1913	200.8	
7440-43-9	**Cadmium**	**0.3**	0.2	mg/kg dry	10	09/25/18	B8I1913	200.8	
7440-47-3	**Chromium**	**19**	2.0	mg/kg dry	10	09/25/18	B8I1913	200.8	
7440-50-8	**Copper**	**3900**	100	mg/kg dry	1000	09/25/18	B8I1913	200.8	
7439-92-1	**Lead**	**37**	1.0	mg/kg dry	10	09/25/18	B8I1913	200.8	
7439-96-5	**Manganese**	**600**	1.0	mg/kg dry	10	09/25/18	B8I1913	200.8	
7439-97-6	**Mercury**	**0.4**	0.06	mg/kg dry	1	09/21/18	B8I1826	245.5	
7440-22-4	**Silver**	**4.5**	0.1	mg/kg dry	10	09/25/18	B8I1913	200.8	
7440-66-6	**Zinc**	**100**	1.0	mg/kg dry	10	09/25/18	B8I1913	200.8	

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CORRECTED REPORT

Client ID: QMCP-SB 21 6"-4'

Lab ID: 1809084-15

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
71-55-6	1,1,1-Trichloroethane	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
79-00-5	1,1,2-Trichloroethane	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
75-34-3	1,1-Dichloroethane	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
75-35-4	1,1-Dichloroethylene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
96-18-4	1,2,3-Trichloropropane	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	A05, A10
526-73-8	1,2,3-Trimethylbenzene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
106-93-4	1,2-Dibromoethane	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
95-50-1	1,2-Dichlorobenzene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
107-06-2	1,2-Dichloroethane	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
78-87-5	1,2-Dichloropropane	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
541-73-1	1,3-Dichlorobenzene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
106-46-7	1,4-Dichlorobenzene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
540-84-1	2,2,4-Trimethylpentane	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
78-93-3	2-Butanone (MEK)	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
91-57-6	2-Methylnaphthalene	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	X
67-64-1	2-Propanone (acetone)	ND	1200	ug/kg dry	50	09/12/18	B8I1216	8260	A05
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
107-13-1	Acrylonitrile	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
71-43-2	Benzene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
74-97-5	Bromochloromethane	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
75-27-4	Bromodichloromethane	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
75-25-2	Bromoform	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
74-83-9	Bromomethane	ND	250	ug/kg dry	50	09/12/18	B8I1216	8260	A05
75-15-0	Carbon disulfide	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
56-23-5	Carbon tetrachloride	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
108-90-7	Chlorobenzene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
75-00-3	Chloroethane	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	A05
67-66-3	Chloroform	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
74-87-3	Chloromethane	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
110-82-7	Cyclohexane	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
124-48-1	Dibromochloromethane	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
74-95-3	Dibromomethane	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
75-71-8	Dichlorodifluoromethane	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	

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CORRECTED REPORT

Client ID: QMCP-SB 21 6"-4'

Lab ID: 1809084-15

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
60-29-7	Diethyl ether	ND	250	ug/kg dry	50	09/12/18	B8I1216	8260	
108-20-3	Diisopropyl Ether	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
100-41-4	Ethylbenzene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
637-92-3	Ethyltertiarybutylether	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
67-72-1	Hexachloroethane	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
110-54-3	Hexane	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
98-82-8	Isopropylbenzene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
1330-20-7	m & p - Xylene	ND	120	ug/kg dry	50	09/12/18	B8I1216	8260	
75-09-2	Methylene chloride	ND	120	ug/kg dry	50	09/12/18	B8I1216	8260	
1634-04-4	Methyltertiarybutylether	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
91-20-3	Naphthalene	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	X
104-51-8	n-Butylbenzene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
103-65-1	n-Propylbenzene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
95-47-6	o-Xylene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
135-98-8	sec-Butylbenzene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
100-42-5	Styrene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
98-06-6	tert-Butylbenzene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
75-65-0	tertiary Butyl Alcohol	ND	3100	ug/kg dry	50	09/12/18	B8I1216	8260	
994-05-8	tertiaryAmylmethylether	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
127-18-4	Tetrachloroethylene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
109-99-9	Tetrahydrofuran	ND	310	ug/kg dry	50	09/12/18	B8I1216	8260	
108-88-3	Toluene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
79-01-6	Trichloroethylene	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
75-69-4	Trichlorofluoromethane	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
75-01-4	Vinyl chloride	ND	62	ug/kg dry	50	09/12/18	B8I1216	8260	
Surrogate: Bromofluorobenzene			*101 %*	*40.3-194*		*09/12/18*	B8I1216	*8260*	
Surrogate: Dibromofluoromethane			*105 %*	*52.1-217*		*09/12/18*	B8I1216	*8260*	
Surrogate: Toluene-d8			*107 %*	*55.4-196*		*09/12/18*	B8I1216	*8260*	

Lab Work Order # 1809084

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CORRECTED REPORT

Client ID: QMCP-SB 21 6"-4'

Lab ID: 1809084-15

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	2-Methylnaphthalene	ND	560	ug/kg dry	1	09/28/18	B8I1501	8270	
83-32-9	Acenaphthene	ND	220	ug/kg dry	1	09/28/18	B8I1501	8270	
208-96-8	Acenaphthylene	ND	220	ug/kg dry	1	09/28/18	B8I1501	8270	
120-12-7	Anthracene	ND	220	ug/kg dry	1	09/28/18	B8I1501	8270	
56-55-3	Benz[a]anthracene	ND	220	ug/kg dry	1	09/28/18	B8I1501	8270	
50-32-8	Benzo[a]pyrene	ND	450	ug/kg dry	1	09/28/18	B8I1501	8270	
205-99-2	Benzo[b]fluoranthene	ND	450	ug/kg dry	1	09/28/18	B8I1501	8270	
191-24-2	Benzo[g,h,i]perylene	ND	450	ug/kg dry	1	09/28/18	B8I1501	8270	
207-08-9	Benzo[k]fluoranthene	ND	450	ug/kg dry	1	09/28/18	B8I1501	8270	
218-01-9	**Chrysene**	**230**	220	ug/kg dry	1	09/28/18	B8I1501	8270	
53-70-3	Dibenz[a,h]anthracene	ND	450	ug/kg dry	1	09/28/18	B8I1501	8270	
206-44-0	**Fluoranthene**	**390**	220	ug/kg dry	1	09/28/18	B8I1501	8270	
86-73-7	Fluorene	ND	220	ug/kg dry	1	09/28/18	B8I1501	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	450	ug/kg dry	1	09/28/18	B8I1501	8270	
91-20-3	Naphthalene	ND	220	ug/kg dry	1	09/28/18	B8I1501	8270	
85-01-8	Phenanthrene	ND	220	ug/kg dry	1	09/28/18	B8I1501	8270	
129-00-0	**Pyrene**	**320**	220	ug/kg dry	1	09/28/18	B8I1501	8270	
Surrogate: 2-Fluorobiphenyl			*88.1 %*	*32.9-115*		*09/28/18*	B8I1501	*8270*	
Surrogate: Nitrobenzene-d5			*73.6 %*	*31.8-115*		*09/28/18*	B8I1501	*8270*	
Surrogate: p-Terphenyl-d14			*101 %*	*38.5-115*		*09/28/18*	B8I1501	*8270*	
Inorganics-General Chemistry									
TS	**% Total Solids**	**89.3**	0.1	%	1	09/18/18	B8I1417	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**3.7**	0.5	mg/kg dry	10	09/25/18	B8I1913	200.8	
7440-43-9	**Cadmium**	**0.3**	0.2	mg/kg dry	10	09/25/18	B8I1913	200.8	
7440-47-3	**Chromium**	**21**	2.0	mg/kg dry	10	09/25/18	B8I1913	200.8	
7440-50-8	**Copper**	**2400**	1.0	mg/kg dry	10	09/25/18	B8I1913	200.8	
7439-92-1	**Lead**	**47**	1.0	mg/kg dry	10	09/25/18	B8I1913	200.8	
7439-96-5	**Manganese**	**570**	1.0	mg/kg dry	10	09/25/18	B8I1913	200.8	
7439-97-6	**Mercury**	**0.2**	0.06	mg/kg dry	1	09/21/18	B8I1826	245.5	
7440-22-4	**Silver**	**4.1**	0.1	mg/kg dry	10	09/25/18	B8I1913	200.8	
7440-66-6	**Zinc**	**140**	1.0	mg/kg dry	10	09/25/18	B8I1913	200.8	

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CORRECTED REPORT

Client ID: QMCP-SB 62 0"-6"

Lab ID: 1809084-16

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	52	ug/kg dry	50	09/12/18	B8I1216	8260	
71-55-6	1,1,1-Trichloroethane	ND	52	ug/kg dry	50	09/12/18	B8I1216	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	52	ug/kg dry	50	09/12/18	B8I1216	8260	
79-00-5	1,1,2-Trichloroethane	ND	52	ug/kg dry	50	09/12/18	B8I1216	8260	
75-34-3	1,1-Dichloroethane	ND	52	ug/kg dry	50	09/12/18	B8I1216	8260	
75-35-4	1,1-Dichloroethylene	ND	52	ug/kg dry	50	09/12/18	B8I1216	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	260	ug/kg dry	50	09/12/18	B8I1216	8260	
96-18-4	1,2,3-Trichloropropane	ND	52	ug/kg dry	50	09/12/18	B8I1216	8260	A05, A10
526-73-8	1,2,3-Trimethylbenzene	ND	52	ug/kg dry	50	09/12/18	B8I1216	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	260	ug/kg dry	50	09/12/18	B8I1216	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	52	ug/kg dry	50	09/12/18	B8I1216	8260	
106-93-4	1,2-Dibromoethane	ND	52	ug/kg dry	50	09/12/18	B8I1216	8260	
95-50-1	1,2-Dichlorobenzene	ND	52	ug/kg dry	50	09/12/18	B8I1216	8260	
107-06-2	1,2-Dichloroethane	ND	52	ug/kg dry	50	09/12/18	B8I1216	8260	
78-87-5	1,2-Dichloropropane	ND	52	ug/kg dry	50	09/12/18	B8I1216	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	52	ug/kg dry	50	09/12/18	B8I1216	8260	
541-73-1	1,3-Dichlorobenzene	ND	52	ug/kg dry	50	09/12/18	B8I1216	8260	
106-46-7	1,4-Dichlorobenzene	ND	52	ug/kg dry	50	09/12/18	B8I1216	8260	
540-84-1	2,2,4-Trimethylpentane	ND	260	ug/kg dry	50	09/12/18	B8I1216	8260	
78-93-3	2-Butanone (MEK)	ND	260	ug/kg dry	50	09/12/18	B8I1216	8260	
91-57-6	2-Methylnaphthalene	ND	260	ug/kg dry	50	09/12/18	B8I1216	8260	X
67-64-1	2-Propanone (acetone)	ND	1000	ug/kg dry	50	09/12/18	B8I1216	8260	A05
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	260	ug/kg dry	50	09/12/18	B8I1216	8260	
107-13-1	Acrylonitrile	ND	260	ug/kg dry	50	09/12/18	B8I1216	8260	
71-43-2	Benzene	ND	52	ug/kg dry	50	09/12/18	B8I1216	8260	
74-97-5	Bromochloromethane	ND	52	ug/kg dry	50	09/12/18	B8I1216	8260	
75-27-4	Bromodichloromethane	ND	52	ug/kg dry	50	09/12/18	B8I1216	8260	
75-25-2	Bromoform	ND	52	ug/kg dry	50	09/12/18	B8I1216	8260	
74-83-9	Bromomethane	ND	210	ug/kg dry	50	09/12/18	B8I1216	8260	A05
75-15-0	Carbon disulfide	ND	52	ug/kg dry	50	09/12/18	B8I1216	8260	
56-23-5	Carbon tetrachloride	ND	52	ug/kg dry	50	09/12/18	B8I1216	8260	
108-90-7	Chlorobenzene	ND	52	ug/kg dry	50	09/12/18	B8I1216	8260	
75-00-3	Chloroethane	ND	260	ug/kg dry	50	09/12/18	B8I1216	8260	A05
67-66-3	Chloroform	ND	52	ug/kg dry	50	09/12/18	B8I1216	8260	
74-87-3	Chloromethane	ND	260	ug/kg dry	50	09/12/18	B8I1216	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	52	ug/kg dry	50	09/12/18	B8I1216	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	52	ug/kg dry	50	09/12/18	B8I1216	8260	
110-82-7	Cyclohexane	ND	260	ug/kg dry	50	09/12/18	B8I1216	8260	
124-48-1	Dibromochloromethane	ND	52	ug/kg dry	50	09/12/18	B8I1216	8260	
74-95-3	Dibromomethane	ND	52	ug/kg dry	50	09/12/18	B8I1216	8260	
75-71-8	Dichlorodifluoromethane	ND	260	ug/kg dry	50	09/12/18	B8I1216	8260	

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CORRECTED REPORT

Client ID: QMCP-SB 62 0"-6"

Lab ID: 1809084-16

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
60-29-7	Diethyl ether	ND	210	ug/kg dry	50	09/12/18	B8I1216	8260	
108-20-3	Diisopropyl Ether	ND	260	ug/kg dry	50	09/12/18	B8I1216	8260	
100-41-4	Ethylbenzene	ND	52	ug/kg dry	50	09/12/18	B8I1216	8260	
637-92-3	Ethyltertiarybutylether	ND	260	ug/kg dry	50	09/12/18	B8I1216	8260	
67-72-1	Hexachloroethane	ND	260	ug/kg dry	50	09/12/18	B8I1216	8260	
110-54-3	Hexane	ND	52	ug/kg dry	50	09/12/18	B8I1216	8260	
98-82-8	Isopropylbenzene	ND	52	ug/kg dry	50	09/12/18	B8I1216	8260	
1330-20-7	m & p - Xylene	ND	100	ug/kg dry	50	09/12/18	B8I1216	8260	
75-09-2	Methylene chloride	ND	100	ug/kg dry	50	09/12/18	B8I1216	8260	
1634-04-4	Methyltertiarybutylether	ND	52	ug/kg dry	50	09/12/18	B8I1216	8260	
91-20-3	Naphthalene	ND	260	ug/kg dry	50	09/12/18	B8I1216	8260	X
104-51-8	n-Butylbenzene	ND	52	ug/kg dry	50	09/12/18	B8I1216	8260	
103-65-1	n-Propylbenzene	ND	52	ug/kg dry	50	09/12/18	B8I1216	8260	
95-47-6	o-Xylene	ND	52	ug/kg dry	50	09/12/18	B8I1216	8260	
135-98-8	sec-Butylbenzene	ND	52	ug/kg dry	50	09/12/18	B8I1216	8260	
100-42-5	Styrene	ND	52	ug/kg dry	50	09/12/18	B8I1216	8260	
98-06-6	tert-Butylbenzene	ND	52	ug/kg dry	50	09/12/18	B8I1216	8260	
75-65-0	tertiary Butyl Alcohol	ND	2600	ug/kg dry	50	09/12/18	B8I1216	8260	
994-05-8	tertiaryAmylmethylether	ND	260	ug/kg dry	50	09/12/18	B8I1216	8260	
127-18-4	Tetrachloroethylene	ND	52	ug/kg dry	50	09/12/18	B8I1216	8260	
109-99-9	Tetrahydrofuran	ND	260	ug/kg dry	50	09/12/18	B8I1216	8260	
108-88-3	Toluene	ND	52	ug/kg dry	50	09/12/18	B8I1216	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	52	ug/kg dry	50	09/12/18	B8I1216	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	52	ug/kg dry	50	09/12/18	B8I1216	8260	
79-01-6	Trichloroethylene	ND	52	ug/kg dry	50	09/12/18	B8I1216	8260	
75-69-4	Trichlorofluoromethane	ND	52	ug/kg dry	50	09/12/18	B8I1216	8260	
75-01-4	Vinyl chloride	ND	52	ug/kg dry	50	09/12/18	B8I1216	8260	
Surrogate: Bromofluorobenzene			*93.6 %*	*40.3-194*		*09/12/18*	B8I1216	*8260*	
Surrogate: Dibromofluoromethane			*93.5 %*	*52.1-217*		*09/12/18*	B8I1216	*8260*	
Surrogate: Toluene-d8			*97.8 %*	*55.4-196*		*09/12/18*	B8I1216	*8260*	

STATE OF MICHIGAN
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CORRECTED REPORT

Client ID: QMCP-SB 62 0"-6"

Lab ID: 1809084-16

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	2-Methylnaphthalene	ND	520	ug/kg dry	1	09/27/18	B8I1501	8270	
83-32-9	Acenaphthene	ND	210	ug/kg dry	1	09/27/18	B8I1501	8270	
208-96-8	Acenaphthylene	ND	210	ug/kg dry	1	09/27/18	B8I1501	8270	
120-12-7	Anthracene	ND	210	ug/kg dry	1	09/27/18	B8I1501	8270	
56-55-3	Benz[a]anthracene	ND	210	ug/kg dry	1	09/27/18	B8I1501	8270	
50-32-8	Benzo[a]pyrene	ND	420	ug/kg dry	1	09/27/18	B8I1501	8270	
205-99-2	Benzo[b]fluoranthene	ND	420	ug/kg dry	1	09/27/18	B8I1501	8270	
191-24-2	Benzo[g,h,i]perylene	ND	420	ug/kg dry	1	09/27/18	B8I1501	8270	
207-08-9	Benzo[k]fluoranthene	ND	420	ug/kg dry	1	09/27/18	B8I1501	8270	
218-01-9	Chrysene	ND	210	ug/kg dry	1	09/27/18	B8I1501	8270	
53-70-3	Dibenz[a,h]anthracene	ND	420	ug/kg dry	1	09/27/18	B8I1501	8270	
206-44-0	Fluoranthene	ND	210	ug/kg dry	1	09/27/18	B8I1501	8270	
86-73-7	Fluorene	ND	210	ug/kg dry	1	09/27/18	B8I1501	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	420	ug/kg dry	1	09/27/18	B8I1501	8270	
91-20-3	Naphthalene	ND	210	ug/kg dry	1	09/27/18	B8I1501	8270	
85-01-8	Phenanthrene	ND	210	ug/kg dry	1	09/27/18	B8I1501	8270	
129-00-0	Pyrene	ND	210	ug/kg dry	1	09/27/18	B8I1501	8270	
Surrogate: 2-Fluorobiphenyl			*83.8 %*	*32.9-115*		*09/27/18*	B8I1501	*8270*	
Surrogate: Nitrobenzene-d5			*70.0 %*	*31.8-115*		*09/27/18*	B8I1501	*8270*	
Surrogate: p-Terphenyl-d14			*91.8 %*	*38.5-115*		*09/27/18*	B8I1501	*8270*	
Inorganics-General Chemistry									
TS	**% Total Solids**	**96.1**	0.1	%	1	09/18/18	B8I1417	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**1.4**	0.5	mg/kg dry	10	09/25/18	B8I1913	200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	09/25/18	B8I1913	200.8	
7440-47-3	**Chromium**	**17**	2.0	mg/kg dry	10	09/25/18	B8I1913	200.8	A07
7440-50-8	**Copper**	**580**	1.0	mg/kg dry	10	09/25/18	B8I1913	200.8	A07
7439-92-1	**Lead**	**12**	1.0	mg/kg dry	10	09/25/18	B8I1913	200.8	
7439-96-5	**Manganese**	**240**	1.0	mg/kg dry	10	09/25/18	B8I1913	200.8	
7439-97-6	Mercury	ND	0.05	mg/kg dry	1	09/21/18	B8I1826	245.5	
7440-22-4	**Silver**	**0.4**	0.1	mg/kg dry	10	09/25/18	B8I1913	200.8	
7440-66-6	**Zinc**	**37**	1.0	mg/kg dry	10	09/25/18	B8I1913	200.8	

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CORRECTED REPORT

Client ID: QMCP-SB 62 6"-4'

Lab ID: 1809084-17

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									**See note Y11**
630-20-6	1,1,1,2-Tetrachloroethane	ND	130	ug/kg dry	100	09/13/18	B8I1314	8260	
71-55-6	1,1,1-Trichloroethane	ND	130	ug/kg dry	100	09/13/18	B8I1314	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	130	ug/kg dry	100	09/13/18	B8I1314	8260	
79-00-5	1,1,2-Trichloroethane	ND	130	ug/kg dry	100	09/13/18	B8I1314	8260	
75-34-3	1,1-Dichloroethane	ND	130	ug/kg dry	100	09/13/18	B8I1314	8260	
75-35-4	1,1-Dichloroethylene	ND	130	ug/kg dry	100	09/13/18	B8I1314	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	630	ug/kg dry	100	09/13/18	B8I1314	8260	
96-18-4	1,2,3-Trichloropropane	ND	130	ug/kg dry	100	09/13/18	B8I1314	8260	A05, A10
526-73-8	**1,2,3-Trimethylbenzene**	**2000**	130	ug/kg dry	100	09/13/18	B8I1314	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	630	ug/kg dry	100	09/13/18	B8I1314	8260	
95-63-6	**1,2,4-Trimethylbenzene**	**6400**	130	ug/kg dry	100	09/13/18	B8I1314	8260	
106-93-4	1,2-Dibromoethane	ND	130	ug/kg dry	100	09/13/18	B8I1314	8260	
95-50-1	1,2-Dichlorobenzene	ND	130	ug/kg dry	100	09/13/18	B8I1314	8260	
107-06-2	1,2-Dichloroethane	ND	130	ug/kg dry	100	09/13/18	B8I1314	8260	
78-87-5	1,2-Dichloropropane	ND	130	ug/kg dry	100	09/13/18	B8I1314	8260	
108-67-8	**1,3,5-Trimethylbenzene**	**2200**	130	ug/kg dry	100	09/13/18	B8I1314	8260	
541-73-1	1,3-Dichlorobenzene	ND	130	ug/kg dry	100	09/13/18	B8I1314	8260	
106-46-7	1,4-Dichlorobenzene	ND	130	ug/kg dry	100	09/13/18	B8I1314	8260	
540-84-1	**2,2,4-Trimethylpentane**	**4100**	630	ug/kg dry	100	09/13/18	B8I1314	8260	
78-93-3	2-Butanone (MEK)	ND	630	ug/kg dry	100	09/13/18	B8I1314	8260	A05
91-57-6	**2-Methylnaphthalene**	**3500**	630	ug/kg dry	100	09/13/18	B8I1314	8260	X
67-64-1	2-Propanone (acetone)	ND	2500	ug/kg dry	100	09/13/18	B8I1314	8260	A05
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	630	ug/kg dry	100	09/13/18	B8I1314	8260	
107-13-1	Acrylonitrile	ND	630	ug/kg dry	100	09/13/18	B8I1314	8260	
71-43-2	Benzene	ND	130	ug/kg dry	100	09/13/18	B8I1314	8260	
74-97-5	Bromochloromethane	ND	130	ug/kg dry	100	09/13/18	B8I1314	8260	
75-27-4	Bromodichloromethane	ND	130	ug/kg dry	100	09/13/18	B8I1314	8260	
75-25-2	Bromoform	ND	130	ug/kg dry	100	09/13/18	B8I1314	8260	
74-83-9	Bromomethane	ND	500	ug/kg dry	100	09/13/18	B8I1314	8260	
75-15-0	Carbon disulfide	ND	130	ug/kg dry	100	09/13/18	B8I1314	8260	
56-23-5	Carbon tetrachloride	ND	130	ug/kg dry	100	09/13/18	B8I1314	8260	
108-90-7	Chlorobenzene	ND	130	ug/kg dry	100	09/13/18	B8I1314	8260	
75-00-3	Chloroethane	ND	630	ug/kg dry	100	09/13/18	B8I1314	8260	
67-66-3	Chloroform	ND	130	ug/kg dry	100	09/13/18	B8I1314	8260	
74-87-3	Chloromethane	ND	630	ug/kg dry	100	09/13/18	B8I1314	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	130	ug/kg dry	100	09/13/18	B8I1314	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	130	ug/kg dry	100	09/13/18	B8I1314	8260	
110-82-7	**Cyclohexane**	**650**	630	ug/kg dry	100	09/13/18	B8I1314	8260	
124-48-1	Dibromochloromethane	ND	130	ug/kg dry	100	09/13/18	B8I1314	8260	
74-95-3	Dibromomethane	ND	130	ug/kg dry	100	09/13/18	B8I1314	8260	

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CORRECTED REPORT

Client ID: QMCP-SB 62 6''-4'

Lab ID: 1809084-17

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									**See note Y11**
75-71-8	Dichlorodifluoromethane	ND	630	ug/kg dry	100	09/13/18	B8I1314	8260	
60-29-7	Diethyl ether	ND	500	ug/kg dry	100	09/13/18	B8I1314	8260	
108-20-3	Diisopropyl Ether	ND	630	ug/kg dry	100	09/13/18	B8I1314	8260	
100-41-4	**Ethylbenzene**	**920**	130	ug/kg dry	100	09/13/18	B8I1314	8260	
637-92-3	Ethyltertiarybutylether	ND	630	ug/kg dry	100	09/13/18	B8I1314	8260	
67-72-1	Hexachloroethane	ND	630	ug/kg dry	100	09/13/18	B8I1314	8260	
110-54-3	**Hexane**	**970**	130	ug/kg dry	100	09/13/18	B8I1314	8260	
98-82-8	**Isopropylbenzene**	**180**	130	ug/kg dry	100	09/13/18	B8I1314	8260	
1330-20-7	**m & p - Xylene**	**2100**	250	ug/kg dry	100	09/13/18	B8I1314	8260	
75-09-2	Methylene chloride	ND	250	ug/kg dry	100	09/13/18	B8I1314	8260	
1634-04-4	Methyltertiarybutylether	ND	130	ug/kg dry	100	09/13/18	B8I1314	8260	
91-20-3	**Naphthalene**	**1100**	630	ug/kg dry	100	09/13/18	B8I1314	8260	X
104-51-8	n-Butylbenzene	ND	130	ug/kg dry	100	09/13/18	B8I1314	8260	
103-65-1	**n-Propylbenzene**	**650**	130	ug/kg dry	100	09/13/18	B8I1314	8260	
95-47-6	o-Xylene	ND	130	ug/kg dry	100	09/13/18	B8I1314	8260	
135-98-8	**sec-Butylbenzene**	**220**	130	ug/kg dry	100	09/13/18	B8I1314	8260	
100-42-5	Styrene	ND	130	ug/kg dry	100	09/13/18	B8I1314	8260	
98-06-6	tert-Butylbenzene	ND	130	ug/kg dry	100	09/13/18	B8I1314	8260	
75-65-0	tertiary Butyl Alcohol	ND	6300	ug/kg dry	100	09/13/18	B8I1314	8260	
994-05-8	tertiaryAmylmethylether	ND	630	ug/kg dry	100	09/13/18	B8I1314	8260	
127-18-4	Tetrachloroethylene	ND	130	ug/kg dry	100	09/13/18	B8I1314	8260	
109-99-9	Tetrahydrofuran	ND	630	ug/kg dry	100	09/13/18	B8I1314	8260	
108-88-3	Toluene	ND	130	ug/kg dry	100	09/13/18	B8I1314	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	130	ug/kg dry	100	09/13/18	B8I1314	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	130	ug/kg dry	100	09/13/18	B8I1314	8260	
79-01-6	Trichloroethylene	ND	130	ug/kg dry	100	09/13/18	B8I1314	8260	
75-69-4	Trichlorofluoromethane	ND	130	ug/kg dry	100	09/13/18	B8I1314	8260	
75-01-4	Vinyl chloride	ND	130	ug/kg dry	100	09/13/18	B8I1314	8260	
Surrogate: Bromofluorobenzene		*Not Applicable*		*40.3-194*		*09/13/18*	B8I1314	*8260*	*V*
Surrogate: Dibromofluoromethane		*Not Applicable*		*52.1-217*		*09/13/18*	B8I1314	*8260*	*V*
Surrogate: Toluene-d8		*Not Applicable*		*55.4-196*		*09/13/18*	B8I1314	*8260*	*V*

Lab Work Order # 1809084

STATE OF MICHIGAN
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CORRECTED REPORT

Client ID: QMCP-SB 62 6"-4'

Lab ID: 1809084-17

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y17, Y20**
91-57-6	2-Methylnaphthalene	ND	540	ug/kg dry	1	09/28/18	B8I1501	8270	
83-32-9	Acenaphthene	ND	220	ug/kg dry	1	09/28/18	B8I1501	8270	
208-96-8	Acenaphthylene	ND	220	ug/kg dry	1	09/28/18	B8I1501	8270	
120-12-7	Anthracene	ND	220	ug/kg dry	1	09/28/18	B8I1501	8270	
56-55-3	**Benz[a]anthracene**	**780**	220	ug/kg dry	1	09/28/18	B8I1501	8270	
50-32-8	**Benzo[a]pyrene**	**980**	430	ug/kg dry	1	09/28/18	B8I1501	8270	
205-99-2	**Benzo[b]fluoranthene**	**2400**	430	ug/kg dry	1	09/28/18	B8I1501	8270	
191-24-2	**Benzo[g,h,i]perylene**	**470**	430	ug/kg dry	1	09/28/18	B8I1501	8270	
207-08-9	**Benzo[k]fluoranthene**	**780**	430	ug/kg dry	1	09/28/18	B8I1501	8270	
218-01-9	**Chrysene**	**850**	220	ug/kg dry	1	09/28/18	B8I1501	8270	
53-70-3	Dibenz[a,h]anthracene	ND	430	ug/kg dry	1	09/28/18	B8I1501	8270	
206-44-0	**Fluoranthene**	**1100**	220	ug/kg dry	1	09/28/18	B8I1501	8270	
86-73-7	**Fluorene**	**290**	220	ug/kg dry	1	09/28/18	B8I1501	8270	
193-39-5	**Indeno(1,2,3-c,d)pyrene**	**520**	430	ug/kg dry	1	09/28/18	B8I1501	8270	
91-20-3	**Naphthalene**	**300**	220	ug/kg dry	1	09/28/18	B8I1501	8270	
85-01-8	**Phenanthrene**	**710**	220	ug/kg dry	1	09/28/18	B8I1501	8270	
129-00-0	**Pyrene**	**1300**	220	ug/kg dry	1	09/28/18	B8I1501	8270	
Surrogate: 2-Fluorobiphenyl			*98.7 %*	*32.9-115*		*09/28/18*	B8I1501	*8270*	
Surrogate: Nitrobenzene-d5			*76.1 %*	*31.8-115*		*09/28/18*	B8I1501	*8270*	
Surrogate: p-Terphenyl-d14			*103 %*	*38.5-115*		*09/28/18*	B8I1501	*8270*	
Inorganics-General Chemistry									
TS	**% Total Solids**	**92.6**	0.1	%	1	09/18/18	B8I1417	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**11**	0.5	mg/kg dry	10	09/25/18	B8I1913	200.8	
7440-43-9	**Cadmium**	**0.3**	0.2	mg/kg dry	10	09/25/18	B8I1913	200.8	
7440-47-3	**Chromium**	**83**	2.0	mg/kg dry	10	09/25/18	B8I1913	200.8	
7440-50-8	**Copper**	**2100**	1.0	mg/kg dry	10	09/25/18	B8I1913	200.8	
7439-92-1	**Lead**	**32**	1.0	mg/kg dry	10	09/25/18	B8I1913	200.8	
7439-96-5	**Manganese**	**560**	1.0	mg/kg dry	10	09/25/18	B8I1913	200.8	
7439-97-6	**Mercury**	**0.1**	0.05	mg/kg dry	1	09/21/18	B8I1826	245.5	
7440-22-4	**Silver**	**1.5**	0.1	mg/kg dry	10	09/25/18	B8I1913	200.8	
7440-66-6	**Zinc**	**59**	1.0	mg/kg dry	10	09/25/18	B8I1913	200.8	

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CORRECTED REPORT

Client ID: QMCP-SB 63 0"-6"

Lab ID: 1809084-18

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									**See note Y11**
630-20-6	1,1,1,2-Tetrachloroethane	ND	60	ug/kg dry	50	09/13/18	B8I1314	8260	
71-55-6	1,1,1-Trichloroethane	ND	60	ug/kg dry	50	09/13/18	B8I1314	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	60	ug/kg dry	50	09/13/18	B8I1314	8260	
79-00-5	1,1,2-Trichloroethane	ND	60	ug/kg dry	50	09/13/18	B8I1314	8260	
75-34-3	1,1-Dichloroethane	ND	60	ug/kg dry	50	09/13/18	B8I1314	8260	
75-35-4	1,1-Dichloroethylene	ND	60	ug/kg dry	50	09/13/18	B8I1314	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	300	ug/kg dry	50	09/13/18	B8I1314	8260	
96-18-4	1,2,3-Trichloropropane	ND	60	ug/kg dry	50	09/13/18	B8I1314	8260	A05, A10
526-73-8	**1,2,3-Trimethylbenzene**	**750**	60	ug/kg dry	50	09/13/18	B8I1314	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	300	ug/kg dry	50	09/13/18	B8I1314	8260	
95-63-6	**1,2,4-Trimethylbenzene**	**2200**	60	ug/kg dry	50	09/13/18	B8I1314	8260	
106-93-4	1,2-Dibromoethane	ND	60	ug/kg dry	50	09/13/18	B8I1314	8260	
95-50-1	1,2-Dichlorobenzene	ND	60	ug/kg dry	50	09/13/18	B8I1314	8260	
107-06-2	1,2-Dichloroethane	ND	60	ug/kg dry	50	09/13/18	B8I1314	8260	
78-87-5	1,2-Dichloropropane	ND	60	ug/kg dry	50	09/13/18	B8I1314	8260	
108-67-8	**1,3,5-Trimethylbenzene**	**740**	60	ug/kg dry	50	09/13/18	B8I1314	8260	
541-73-1	1,3-Dichlorobenzene	ND	60	ug/kg dry	50	09/13/18	B8I1314	8260	
106-46-7	1,4-Dichlorobenzene	ND	60	ug/kg dry	50	09/13/18	B8I1314	8260	
540-84-1	**2,2,4-Trimethylpentane**	**1000**	300	ug/kg dry	50	09/13/18	B8I1314	8260	
78-93-3	2-Butanone (MEK)	ND	300	ug/kg dry	50	09/13/18	B8I1314	8260	A05
91-57-6	**2-Methylnaphthalene**	**1600**	300	ug/kg dry	50	09/13/18	B8I1314	8260	X
67-64-1	2-Propanone (acetone)	ND	1200	ug/kg dry	50	09/13/18	B8I1314	8260	A05
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	300	ug/kg dry	50	09/13/18	B8I1314	8260	
107-13-1	Acrylonitrile	ND	300	ug/kg dry	50	09/13/18	B8I1314	8260	
71-43-2	Benzene	ND	60	ug/kg dry	50	09/13/18	B8I1314	8260	
74-97-5	Bromochloromethane	ND	60	ug/kg dry	50	09/13/18	B8I1314	8260	
75-27-4	Bromodichloromethane	ND	60	ug/kg dry	50	09/13/18	B8I1314	8260	
75-25-2	Bromoform	ND	60	ug/kg dry	50	09/13/18	B8I1314	8260	
74-83-9	Bromomethane	ND	240	ug/kg dry	50	09/13/18	B8I1314	8260	
75-15-0	Carbon disulfide	ND	60	ug/kg dry	50	09/13/18	B8I1314	8260	
56-23-5	Carbon tetrachloride	ND	60	ug/kg dry	50	09/13/18	B8I1314	8260	
108-90-7	Chlorobenzene	ND	60	ug/kg dry	50	09/13/18	B8I1314	8260	
75-00-3	Chloroethane	ND	300	ug/kg dry	50	09/13/18	B8I1314	8260	
67-66-3	Chloroform	ND	60	ug/kg dry	50	09/13/18	B8I1314	8260	
74-87-3	Chloromethane	ND	300	ug/kg dry	50	09/13/18	B8I1314	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	60	ug/kg dry	50	09/13/18	B8I1314	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	60	ug/kg dry	50	09/13/18	B8I1314	8260	
110-82-7	Cyclohexane	ND	300	ug/kg dry	50	09/13/18	B8I1314	8260	
124-48-1	Dibromochloromethane	ND	60	ug/kg dry	50	09/13/18	B8I1314	8260	
74-95-3	Dibromomethane	ND	60	ug/kg dry	50	09/13/18	B8I1314	8260	
75-71-8	Dichlorodifluoromethane	ND	300	ug/kg dry	50	09/13/18	B8I1314	8260	

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CORRECTED REPORT

Client ID: QMCP-SB 63 0"-6"

Lab ID: 1809084-18

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									**See note Y11**
60-29-7	Diethyl ether	ND	240	ug/kg dry	50	09/13/18	B8I1314	8260	
108-20-3	Diisopropyl Ether	ND	300	ug/kg dry	50	09/13/18	B8I1314	8260	
100-41-4	**Ethylbenzene**	**210**	60	ug/kg dry	50	09/13/18	B8I1314	8260	
637-92-3	Ethyltertiarybutylether	ND	300	ug/kg dry	50	09/13/18	B8I1314	8260	
67-72-1	Hexachloroethane	ND	300	ug/kg dry	50	09/13/18	B8I1314	8260	
110-54-3	**Hexane**	**240**	60	ug/kg dry	50	09/13/18	B8I1314	8260	
98-82-8	Isopropylbenzene	ND	60	ug/kg dry	50	09/13/18	B8I1314	8260	
1330-20-7	**m & p - Xylene**	**510**	120	ug/kg dry	50	09/13/18	B8I1314	8260	
75-09-2	Methylene chloride	ND	120	ug/kg dry	50	09/13/18	B8I1314	8260	
1634-04-4	Methyltertiarybutylether	ND	60	ug/kg dry	50	09/13/18	B8I1314	8260	
91-20-3	**Naphthalene**	**530**	300	ug/kg dry	50	09/13/18	B8I1314	8260	X
104-51-8	n-Butylbenzene	ND	60	ug/kg dry	50	09/13/18	B8I1314	8260	
103-65-1	**n-Propylbenzene**	**210**	60	ug/kg dry	50	09/13/18	B8I1314	8260	
95-47-6	o-Xylene	ND	60	ug/kg dry	50	09/13/18	B8I1314	8260	
135-98-8	**sec-Butylbenzene**	**81**	60	ug/kg dry	50	09/13/18	B8I1314	8260	
100-42-5	Styrene	ND	60	ug/kg dry	50	09/13/18	B8I1314	8260	
98-06-6	tert-Butylbenzene	ND	60	ug/kg dry	50	09/13/18	B8I1314	8260	
75-65-0	tertiary Butyl Alcohol	ND	3000	ug/kg dry	50	09/13/18	B8I1314	8260	
994-05-8	tertiaryAmylmethylether	ND	300	ug/kg dry	50	09/13/18	B8I1314	8260	
127-18-4	Tetrachloroethylene	ND	60	ug/kg dry	50	09/13/18	B8I1314	8260	
109-99-9	Tetrahydrofuran	ND	300	ug/kg dry	50	09/13/18	B8I1314	8260	
108-88-3	Toluene	ND	60	ug/kg dry	50	09/13/18	B8I1314	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	60	ug/kg dry	50	09/13/18	B8I1314	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	60	ug/kg dry	50	09/13/18	B8I1314	8260	
79-01-6	Trichloroethylene	ND	60	ug/kg dry	50	09/13/18	B8I1314	8260	
75-69-4	Trichlorofluoromethane	ND	60	ug/kg dry	50	09/13/18	B8I1314	8260	
75-01-4	Vinyl chloride	ND	60	ug/kg dry	50	09/13/18	B8I1314	8260	
Surrogate: Bromofluorobenzene			*102 %*	*40.3-194*		*09/13/18*	B8I1314	*8260*	
Surrogate: Dibromofluoromethane			*104 %*	*52.1-217*		*09/13/18*	B8I1314	*8260*	
Surrogate: Toluene-d8			*108 %*	*55.4-196*		*09/13/18*	B8I1314	*8260*	

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CORRECTED REPORT

Client ID: QMCP-SB 63 0"-6"

Lab ID: 1809084-18

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y17, Y20**
91-57-6	2-Methylnaphthalene	ND	540	ug/kg dry	1	09/27/18	B8I1718	8270	
83-32-9	Acenaphthene	ND	210	ug/kg dry	1	09/27/18	B8I1718	8270	
208-96-8	Acenaphthylene	ND	210	ug/kg dry	1	09/27/18	B8I1718	8270	
120-12-7	Anthracene	ND	210	ug/kg dry	1	09/27/18	B8I1718	8270	
56-55-3	**Benz[a]anthracene**	**360**	210	ug/kg dry	1	09/27/18	B8I1718	8270	
50-32-8	**Benzo[a]pyrene**	**520**	430	ug/kg dry	1	09/27/18	B8I1718	8270	
205-99-2	**Benzo[b]fluoranthene**	**1100**	430	ug/kg dry	1	09/27/18	B8I1718	8270	
191-24-2	**Benzo[g,h,i]perylene**	**460**	430	ug/kg dry	1	09/27/18	B8I1718	8270	A08
207-08-9	Benzo[k]fluoranthene	ND	430	ug/kg dry	1	09/27/18	B8I1718	8270	
218-01-9	**Chrysene**	**390**	210	ug/kg dry	1	09/27/18	B8I1718	8270	
53-70-3	Dibenz[a,h]anthracene	ND	430	ug/kg dry	1	09/27/18	B8I1718	8270	
206-44-0	**Fluoranthene**	**450**	210	ug/kg dry	1	09/27/18	B8I1718	8270	
86-73-7	Fluorene	ND	210	ug/kg dry	1	09/27/18	B8I1718	8270	
193-39-5	**Indeno(1,2,3-c,d)pyrene**	**460**	430	ug/kg dry	1	09/27/18	B8I1718	8270	
91-20-3	Naphthalene	ND	210	ug/kg dry	1	09/27/18	B8I1718	8270	
85-01-8	Phenanthrene	ND	210	ug/kg dry	1	09/27/18	B8I1718	8270	
129-00-0	**Pyrene**	**520**	210	ug/kg dry	1	09/27/18	B8I1718	8270	
Surrogate: 2-Fluorobiphenyl			*77.1 %*	*32.9-115*		*09/27/18*	B8I1718	*8270*	
Surrogate: Nitrobenzene-d5			*65.1 %*	*31.8-115*		*09/27/18*	B8I1718	*8270*	
Surrogate: p-Terphenyl-d14			*87.2 %*	*38.5-115*		*09/27/18*	B8I1718	*8270*	
Inorganics-General Chemistry									
TS	**% Total Solids**	**93.3**	0.1	%	1	09/18/18	B8I1417	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**1.8**	0.5	mg/kg dry	10	09/25/18	B8I1913	200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	09/25/18	B8I1913	200.8	
7440-47-3	**Chromium**	**25**	2.0	mg/kg dry	10	09/25/18	B8I1913	200.8	
7440-50-8	**Copper**	**1000**	1.0	mg/kg dry	10	09/25/18	B8I1913	200.8	
7439-92-1	**Lead**	**18**	1.0	mg/kg dry	10	09/25/18	B8I1913	200.8	
7439-96-5	**Manganese**	**330**	1.0	mg/kg dry	10	09/25/18	B8I1913	200.8	
7439-97-6	Mercury	ND	0.05	mg/kg dry	1	09/21/18	B8I1826	245.5	
7440-22-4	**Silver**	**1.8**	0.1	mg/kg dry	10	09/25/18	B8I1913	200.8	
7440-66-6	**Zinc**	**49**	1.0	mg/kg dry	10	09/25/18	B8I1913	200.8	

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CORRECTED REPORT

Client ID: QMCP-SB 63 6"-4'

Lab ID: 1809084-19

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									**See note Y11**
630-20-6	1,1,1,2-Tetrachloroethane	ND	59	ug/kg dry	50	09/14/18	B8I1431	8260	
71-55-6	1,1,1-Trichloroethane	ND	59	ug/kg dry	50	09/14/18	B8I1431	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	59	ug/kg dry	50	09/14/18	B8I1431	8260	
79-00-5	1,1,2-Trichloroethane	ND	59	ug/kg dry	50	09/14/18	B8I1431	8260	
75-34-3	1,1-Dichloroethane	ND	59	ug/kg dry	50	09/14/18	B8I1431	8260	
75-35-4	1,1-Dichloroethylene	ND	59	ug/kg dry	50	09/14/18	B8I1431	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	300	ug/kg dry	50	09/14/18	B8I1431	8260	
96-18-4	1,2,3-Trichloropropane	ND	59	ug/kg dry	50	09/14/18	B8I1431	8260	A05, A10
526-73-8	1,2,3-Trimethylbenzene	ND	59	ug/kg dry	50	09/14/18	B8I1431	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	300	ug/kg dry	50	09/14/18	B8I1431	8260	
95-63-6	**1,2,4-Trimethylbenzene**	**100**	59	ug/kg dry	50	09/14/18	B8I1431	8260	
106-93-4	1,2-Dibromoethane	ND	59	ug/kg dry	50	09/14/18	B8I1431	8260	
95-50-1	1,2-Dichlorobenzene	ND	59	ug/kg dry	50	09/14/18	B8I1431	8260	
107-06-2	1,2-Dichloroethane	ND	59	ug/kg dry	50	09/14/18	B8I1431	8260	
78-87-5	1,2-Dichloropropane	ND	59	ug/kg dry	50	09/14/18	B8I1431	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	59	ug/kg dry	50	09/14/18	B8I1431	8260	
541-73-1	1,3-Dichlorobenzene	ND	59	ug/kg dry	50	09/14/18	B8I1431	8260	
106-46-7	1,4-Dichlorobenzene	ND	59	ug/kg dry	50	09/14/18	B8I1431	8260	
540-84-1	**2,2,4-Trimethylpentane**	**300**	300	ug/kg dry	50	09/14/18	B8I1431	8260	
78-93-3	2-Butanone (MEK)	ND	300	ug/kg dry	50	09/14/18	B8I1431	8260	
91-57-6	2-Methylnaphthalene	ND	300	ug/kg dry	50	09/14/18	B8I1431	8260	X
67-64-1	2-Propanone (acetone)	ND	1200	ug/kg dry	50	09/14/18	B8I1431	8260	A05
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	300	ug/kg dry	50	09/14/18	B8I1431	8260	
107-13-1	Acrylonitrile	ND	300	ug/kg dry	50	09/14/18	B8I1431	8260	
71-43-2	**Benzene**	**67**	59	ug/kg dry	50	09/14/18	B8I1431	8260	
74-97-5	Bromochloromethane	ND	59	ug/kg dry	50	09/14/18	B8I1431	8260	
75-27-4	Bromodichloromethane	ND	59	ug/kg dry	50	09/14/18	B8I1431	8260	
75-25-2	Bromoform	ND	59	ug/kg dry	50	09/14/18	B8I1431	8260	
74-83-9	Bromomethane	ND	240	ug/kg dry	50	09/14/18	B8I1431	8260	
75-15-0	Carbon disulfide	ND	59	ug/kg dry	50	09/14/18	B8I1431	8260	
56-23-5	Carbon tetrachloride	ND	59	ug/kg dry	50	09/14/18	B8I1431	8260	
108-90-7	Chlorobenzene	ND	59	ug/kg dry	50	09/14/18	B8I1431	8260	
75-00-3	Chloroethane	ND	300	ug/kg dry	50	09/14/18	B8I1431	8260	
67-66-3	Chloroform	ND	59	ug/kg dry	50	09/14/18	B8I1431	8260	
74-87-3	Chloromethane	ND	300	ug/kg dry	50	09/14/18	B8I1431	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	59	ug/kg dry	50	09/14/18	B8I1431	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	59	ug/kg dry	50	09/14/18	B8I1431	8260	
110-82-7	Cyclohexane	ND	300	ug/kg dry	50	09/14/18	B8I1431	8260	
124-48-1	Dibromochloromethane	ND	59	ug/kg dry	50	09/14/18	B8I1431	8260	
74-95-3	Dibromomethane	ND	59	ug/kg dry	50	09/14/18	B8I1431	8260	
75-71-8	Dichlorodifluoromethane	ND	300	ug/kg dry	50	09/14/18	B8I1431	8260	

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CORRECTED REPORT

Client ID: QMCP-SB 63 6''-4'

Lab ID: 1809084-19

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									**See note Y11**
60-29-7	Diethyl ether	ND	240	ug/kg dry	50	09/14/18	B8I1431	8260	
108-20-3	Diisopropyl Ether	ND	300	ug/kg dry	50	09/14/18	B8I1431	8260	
100-41-4	**Ethylbenzene**	**59**	59	ug/kg dry	50	09/14/18	B8I1431	8260	
637-92-3	Ethyltertiarybutylether	ND	300	ug/kg dry	50	09/14/18	B8I1431	8260	
67-72-1	Hexachloroethane	ND	300	ug/kg dry	50	09/14/18	B8I1431	8260	
110-54-3	**Hexane**	**270**	59	ug/kg dry	50	09/14/18	B8I1431	8260	
98-82-8	Isopropylbenzene	ND	59	ug/kg dry	50	09/14/18	B8I1431	8260	
1330-20-7	**m & p - Xylene**	**240**	120	ug/kg dry	50	09/14/18	B8I1431	8260	
75-09-2	Methylene chloride	ND	120	ug/kg dry	50	09/14/18	B8I1431	8260	
1634-04-4	Methyltertiarybutylether	ND	59	ug/kg dry	50	09/14/18	B8I1431	8260	
91-20-3	Naphthalene	ND	300	ug/kg dry	50	09/14/18	B8I1431	8260	X
104-51-8	n-Butylbenzene	ND	59	ug/kg dry	50	09/14/18	B8I1431	8260	
103-65-1	n-Propylbenzene	ND	59	ug/kg dry	50	09/14/18	B8I1431	8260	
95-47-6	**o-Xylene**	**91**	59	ug/kg dry	50	09/14/18	B8I1431	8260	
135-98-8	sec-Butylbenzene	ND	59	ug/kg dry	50	09/14/18	B8I1431	8260	
100-42-5	Styrene	ND	59	ug/kg dry	50	09/14/18	B8I1431	8260	
98-06-6	tert-Butylbenzene	ND	59	ug/kg dry	50	09/14/18	B8I1431	8260	
75-65-0	tertiary Butyl Alcohol	ND	3000	ug/kg dry	50	09/14/18	B8I1431	8260	
994-05-8	tertiaryAmylmethylether	ND	300	ug/kg dry	50	09/14/18	B8I1431	8260	
127-18-4	Tetrachloroethylene	ND	59	ug/kg dry	50	09/14/18	B8I1431	8260	
109-99-9	Tetrahydrofuran	ND	300	ug/kg dry	50	09/14/18	B8I1431	8260	
108-88-3	**Toluene**	**220**	59	ug/kg dry	50	09/14/18	B8I1431	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	59	ug/kg dry	50	09/14/18	B8I1431	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	59	ug/kg dry	50	09/14/18	B8I1431	8260	
79-01-6	Trichloroethylene	ND	59	ug/kg dry	50	09/14/18	B8I1431	8260	
75-69-4	Trichlorofluoromethane	ND	59	ug/kg dry	50	09/14/18	B8I1431	8260	
75-01-4	Vinyl chloride	ND	59	ug/kg dry	50	09/14/18	B8I1431	8260	
Surrogate: Bromofluorobenzene			*96.7 %*	*40.3-194*		*09/14/18*	B8I1431	*8260*	
Surrogate: Dibromofluoromethane			*96.5 %*	*52.1-217*		*09/14/18*	B8I1431	*8260*	
Surrogate: Toluene-d8			*102 %*	*55.4-196*		*09/14/18*	B8I1431	*8260*	

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Lab ID: 1809084-19

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y17, Y20**
91-57-6	2-Methylnaphthalene	ND	540	ug/kg dry	1	09/27/18	B8I1718	8270	
83-32-9	Acenaphthene	ND	220	ug/kg dry	1	09/27/18	B8I1718	8270	
208-96-8	**Acenaphthylene**	**430**	220	ug/kg dry	1	09/27/18	B8I1718	8270	
120-12-7	**Anthracene**	**330**	220	ug/kg dry	1	09/27/18	B8I1718	8270	
56-55-3	**Benz[a]anthracene**	**2100**	220	ug/kg dry	1	09/27/18	B8I1718	8270	
50-32-8	**Benzo[a]pyrene**	**2200**	430	ug/kg dry	1	09/27/18	B8I1718	8270	
205-99-2	**Benzo[b]fluoranthene**	**5500**	430	ug/kg dry	1	09/27/18	B8I1718	8270	
191-24-2	**Benzo[g,h,i]perylene**	**1100**	430	ug/kg dry	1	09/27/18	B8I1718	8270	A08
207-08-9	**Benzo[k]fluoranthene**	**1900**	430	ug/kg dry	1	09/27/18	B8I1718	8270	
218-01-9	**Chrysene**	**2200**	220	ug/kg dry	1	09/27/18	B8I1718	8270	
53-70-3	Dibenz[a,h]anthracene	ND	430	ug/kg dry	1	09/27/18	B8I1718	8270	
206-44-0	**Fluoranthene**	**3300**	220	ug/kg dry	1	09/27/18	B8I1718	8270	
86-73-7	Fluorene	ND	220	ug/kg dry	1	09/27/18	B8I1718	8270	
193-39-5	**Indeno(1,2,3-c,d)pyrene**	**1200**	430	ug/kg dry	1	09/27/18	B8I1718	8270	
91-20-3	**Naphthalene**	**430**	220	ug/kg dry	1	09/27/18	B8I1718	8270	
85-01-8	**Phenanthrene**	**1000**	220	ug/kg dry	1	09/27/18	B8I1718	8270	
129-00-0	**Pyrene**	**3100**	220	ug/kg dry	1	09/27/18	B8I1718	8270	
Surrogate: 2-Fluorobiphenyl			*82.0 %*	*32.9-115*		*09/27/18*	B8I1718	*8270*	
Surrogate: Nitrobenzene-d5			*72.3 %*	*31.8-115*		*09/27/18*	B8I1718	*8270*	
Surrogate: p-Terphenyl-d14			*92.3 %*	*38.5-115*		*09/27/18*	B8I1718	*8270*	
Inorganics-General Chemistry									
TS	**% Total Solids**	**92.7**	0.1	%	1	09/18/18	B8I1417	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**17**	0.5	mg/kg dry	10	09/25/18	B8I1913	200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	09/25/18	B8I1913	200.8	
7440-47-3	**Chromium**	**64**	2.0	mg/kg dry	10	09/25/18	B8I1913	200.8	
7440-50-8	**Copper**	**3400**	100	mg/kg dry	1000	09/25/18	B8I1913	200.8	
7439-92-1	**Lead**	**25**	1.0	mg/kg dry	10	09/25/18	B8I1913	200.8	
7439-96-5	**Manganese**	**460**	1.0	mg/kg dry	10	09/25/18	B8I1913	200.8	
7439-97-6	**Mercury**	**0.1**	0.05	mg/kg dry	1	09/21/18	B8I1826	245.5	
7440-22-4	**Silver**	**2.0**	0.1	mg/kg dry	10	09/25/18	B8I1913	200.8	
7440-66-6	**Zinc**	**53**	1.0	mg/kg dry	10	09/25/18	B8I1913	200.8	

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TEL: (517) 335-9800
FAX: (517) 335-9600

CORRECTED REPORT

Client ID: QMCP-SB 23 0"-6"

Lab ID: 1809084-20

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	60	ug/kg dry	50	09/13/18	B8I1314	8260	
71-55-6	1,1,1-Trichloroethane	ND	60	ug/kg dry	50	09/13/18	B8I1314	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	60	ug/kg dry	50	09/13/18	B8I1314	8260	
79-00-5	1,1,2-Trichloroethane	ND	60	ug/kg dry	50	09/13/18	B8I1314	8260	
75-34-3	1,1-Dichloroethane	ND	60	ug/kg dry	50	09/13/18	B8I1314	8260	
75-35-4	1,1-Dichloroethylene	ND	60	ug/kg dry	50	09/13/18	B8I1314	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	300	ug/kg dry	50	09/13/18	B8I1314	8260	
96-18-4	1,2,3-Trichloropropane	ND	60	ug/kg dry	50	09/13/18	B8I1314	8260	A05, A10
526-73-8	**1,2,3-Trimethylbenzene**	**160**	60	ug/kg dry	50	09/13/18	B8I1314	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	300	ug/kg dry	50	09/13/18	B8I1314	8260	
95-63-6	**1,2,4-Trimethylbenzene**	**450**	60	ug/kg dry	50	09/13/18	B8I1314	8260	
106-93-4	1,2-Dibromoethane	ND	60	ug/kg dry	50	09/13/18	B8I1314	8260	
95-50-1	1,2-Dichlorobenzene	ND	60	ug/kg dry	50	09/13/18	B8I1314	8260	
107-06-2	1,2-Dichloroethane	ND	60	ug/kg dry	50	09/13/18	B8I1314	8260	
78-87-5	1,2-Dichloropropane	ND	60	ug/kg dry	50	09/13/18	B8I1314	8260	
108-67-8	**1,3,5-Trimethylbenzene**	**95**	60	ug/kg dry	50	09/13/18	B8I1314	8260	
541-73-1	1,3-Dichlorobenzene	ND	60	ug/kg dry	50	09/13/18	B8I1314	8260	
106-46-7	1,4-Dichlorobenzene	ND	60	ug/kg dry	50	09/13/18	B8I1314	8260	
540-84-1	2,2,4-Trimethylpentane	ND	300	ug/kg dry	50	09/13/18	B8I1314	8260	
78-93-3	2-Butanone (MEK)	ND	300	ug/kg dry	50	09/13/18	B8I1314	8260	A05
91-57-6	**2-Methylnaphthalene**	**950**	300	ug/kg dry	50	09/13/18	B8I1314	8260	X
67-64-1	2-Propanone (acetone)	ND	1200	ug/kg dry	50	09/13/18	B8I1314	8260	A05
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	300	ug/kg dry	50	09/13/18	B8I1314	8260	
107-13-1	Acrylonitrile	ND	300	ug/kg dry	50	09/13/18	B8I1314	8260	
71-43-2	**Benzene**	**110**	60	ug/kg dry	50	09/13/18	B8I1314	8260	
74-97-5	Bromochloromethane	ND	60	ug/kg dry	50	09/13/18	B8I1314	8260	
75-27-4	Bromodichloromethane	ND	60	ug/kg dry	50	09/13/18	B8I1314	8260	
75-25-2	Bromoform	ND	60	ug/kg dry	50	09/13/18	B8I1314	8260	
74-83-9	Bromomethane	ND	240	ug/kg dry	50	09/13/18	B8I1314	8260	
75-15-0	Carbon disulfide	ND	60	ug/kg dry	50	09/13/18	B8I1314	8260	
56-23-5	Carbon tetrachloride	ND	60	ug/kg dry	50	09/13/18	B8I1314	8260	
108-90-7	Chlorobenzene	ND	60	ug/kg dry	50	09/13/18	B8I1314	8260	
75-00-3	Chloroethane	ND	300	ug/kg dry	50	09/13/18	B8I1314	8260	
67-66-3	Chloroform	ND	60	ug/kg dry	50	09/13/18	B8I1314	8260	
74-87-3	Chloromethane	ND	300	ug/kg dry	50	09/13/18	B8I1314	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	60	ug/kg dry	50	09/13/18	B8I1314	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	60	ug/kg dry	50	09/13/18	B8I1314	8260	
110-82-7	**Cyclohexane**	**400**	300	ug/kg dry	50	09/13/18	B8I1314	8260	
124-48-1	Dibromochloromethane	ND	60	ug/kg dry	50	09/13/18	B8I1314	8260	
74-95-3	Dibromomethane	ND	60	ug/kg dry	50	09/13/18	B8I1314	8260	

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CORRECTED REPORT

Client ID: QMCP-SB 23 0"-6"

Lab ID: 1809084-20

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	300	ug/kg dry	50	09/13/18	B8I1314	8260	
60-29-7	Diethyl ether	ND	240	ug/kg dry	50	09/13/18	B8I1314	8260	
108-20-3	Diisopropyl Ether	ND	300	ug/kg dry	50	09/13/18	B8I1314	8260	
100-41-4	**Ethylbenzene**	**130**	60	ug/kg dry	50	09/13/18	B8I1314	8260	
637-92-3	Ethyltertiarybutylether	ND	300	ug/kg dry	50	09/13/18	B8I1314	8260	
67-72-1	Hexachloroethane	ND	300	ug/kg dry	50	09/13/18	B8I1314	8260	
110-54-3	**Hexane**	**140**	60	ug/kg dry	50	09/13/18	B8I1314	8260	
98-82-8	**Isopropylbenzene**	**72**	60	ug/kg dry	50	09/13/18	B8I1314	8260	
1330-20-7	**m & p - Xylene**	**710**	120	ug/kg dry	50	09/13/18	B8I1314	8260	
75-09-2	Methylene chloride	ND	120	ug/kg dry	50	09/13/18	B8I1314	8260	
1634-04-4	Methyltertiarybutylether	ND	60	ug/kg dry	50	09/13/18	B8I1314	8260	
91-20-3	**Naphthalene**	**790**	300	ug/kg dry	50	09/13/18	B8I1314	8260	X
104-51-8	n-Butylbenzene	ND	60	ug/kg dry	50	09/13/18	B8I1314	8260	
103-65-1	**n-Propylbenzene**	**90**	60	ug/kg dry	50	09/13/18	B8I1314	8260	
95-47-6	**o-Xylene**	**530**	60	ug/kg dry	50	09/13/18	B8I1314	8260	
135-98-8	sec-Butylbenzene	ND	60	ug/kg dry	50	09/13/18	B8I1314	8260	
100-42-5	Styrene	ND	60	ug/kg dry	50	09/13/18	B8I1314	8260	
98-06-6	tert-Butylbenzene	ND	60	ug/kg dry	50	09/13/18	B8I1314	8260	
75-65-0	tertiary Butyl Alcohol	ND	3000	ug/kg dry	50	09/13/18	B8I1314	8260	
994-05-8	tertiaryAmylmethylether	ND	300	ug/kg dry	50	09/13/18	B8I1314	8260	
127-18-4	Tetrachloroethylene	ND	60	ug/kg dry	50	09/13/18	B8I1314	8260	
109-99-9	Tetrahydrofuran	ND	300	ug/kg dry	50	09/13/18	B8I1314	8260	
108-88-3	**Toluene**	**580**	60	ug/kg dry	50	09/13/18	B8I1314	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	60	ug/kg dry	50	09/13/18	B8I1314	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	60	ug/kg dry	50	09/13/18	B8I1314	8260	
79-01-6	Trichloroethylene	ND	60	ug/kg dry	50	09/13/18	B8I1314	8260	
75-69-4	Trichlorofluoromethane	ND	60	ug/kg dry	50	09/13/18	B8I1314	8260	
75-01-4	Vinyl chloride	ND	60	ug/kg dry	50	09/13/18	B8I1314	8260	
Surrogate: Bromofluorobenzene			*97.7 %*	*40.3-194*		*09/13/18*	B8I1314	*8260*	
Surrogate: Dibromofluoromethane			*102 %*	*52.1-217*		*09/13/18*	B8I1314	*8260*	
Surrogate: Toluene-d8			*106 %*	*55.4-196*		*09/13/18*	B8I1314	*8260*	

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CORRECTED REPORT

Client ID: QMCP-SB 23 0"-6"

Lab ID: 1809084-20

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y17, Y20**
91-57-6	**2-Methylnaphthalene**	**740**	540	ug/kg dry	1	09/28/18	B8I1718	8270	
83-32-9	Acenaphthene	ND	220	ug/kg dry	1	09/28/18	B8I1718	8270	
208-96-8	Acenaphthylene	ND	220	ug/kg dry	1	09/28/18	B8I1718	8270	
120-12-7	Anthracene	ND	220	ug/kg dry	1	09/28/18	B8I1718	8270	
56-55-3	Benz[a]anthracene	ND	220	ug/kg dry	1	09/28/18	B8I1718	8270	
50-32-8	Benzo[a]pyrene	ND	430	ug/kg dry	1	09/28/18	B8I1718	8270	
205-99-2	Benzo[b]fluoranthene	ND	430	ug/kg dry	1	09/28/18	B8I1718	8270	
191-24-2	Benzo[g,h,i]perylene	ND	430	ug/kg dry	1	09/28/18	B8I1718	8270	A08
207-08-9	Benzo[k]fluoranthene	ND	430	ug/kg dry	1	09/28/18	B8I1718	8270	
218-01-9	Chrysene	ND	220	ug/kg dry	1	09/28/18	B8I1718	8270	
53-70-3	Dibenz[a,h]anthracene	ND	430	ug/kg dry	1	09/28/18	B8I1718	8270	
206-44-0	**Fluoranthene**	**280**	220	ug/kg dry	1	09/28/18	B8I1718	8270	
86-73-7	Fluorene	ND	220	ug/kg dry	1	09/28/18	B8I1718	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	430	ug/kg dry	1	09/28/18	B8I1718	8270	
91-20-3	**Naphthalene**	**520**	220	ug/kg dry	1	09/28/18	B8I1718	8270	
85-01-8	**Phenanthrene**	**480**	220	ug/kg dry	1	09/28/18	B8I1718	8270	
129-00-0	**Pyrene**	**220**	220	ug/kg dry	1	09/28/18	B8I1718	8270	
Surrogate: 2-Fluorobiphenyl			*77.3 %*	*32.9-115*		*09/28/18*	B8I1718	*8270*	
Surrogate: Nitrobenzene-d5			*66.9 %*	*31.8-115*		*09/28/18*	B8I1718	*8270*	
Surrogate: p-Terphenyl-d14			*91.8 %*	*38.5-115*		*09/28/18*	B8I1718	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	110	ug/kg dry	1	10/14/18	B8J1012	8081/8082	
11104-28-2	Aroclor 1221	ND	110	ug/kg dry	1	10/14/18	B8J1012	8081/8082	
11141-16-5	Aroclor 1232	ND	110	ug/kg dry	1	10/14/18	B8J1012	8081/8082	
53469-21-9	Aroclor 1242	ND	110	ug/kg dry	1	10/14/18	B8J1012	8081/8082	
12672-29-6	Aroclor 1248	ND	110	ug/kg dry	1	10/14/18	B8J1012	8081/8082	
11097-69-1	Aroclor 1254	ND	110	ug/kg dry	1	10/14/18	B8J1012	8081/8082	
11096-82-5	Aroclor 1260	ND	130	ug/kg dry	1	10/14/18	B8J1012	8081/8082	Y21
37324-23-5	Aroclor 1262	ND	130	ug/kg dry	1	10/14/18	B8J1012	8081/8082	Y21
11100-14-4	Aroclor 1268	ND	110	ug/kg dry	1	10/14/18	B8J1012	8081/8082	
Surrogate: Decachlorobiphenyl			*91.6 %*	*30-150*		*10/14/18*	B8J1012	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*76.8 %*	*30-150*		*10/14/18*	B8J1012	*8081/8082*	

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CORRECTED REPORT

Client ID: QMCP-SB 23 0"-6"

Lab ID: 1809084-20

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**92.9**	0.1	%	1	09/18/18	B8I1417	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**2.2**	0.5	mg/kg dry	10	09/25/18	B8I1913	200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	09/25/18	B8I1913	200.8	
7440-47-3	**Chromium**	**15**	2.0	mg/kg dry	10	09/25/18	B8I1913	200.8	
7440-50-8	**Copper**	**790**	1.0	mg/kg dry	10	09/25/18	B8I1913	200.8	
7439-92-1	**Lead**	**160**	1.0	mg/kg dry	10	09/25/18	B8I1913	200.8	
7439-96-5	**Manganese**	**270**	1.0	mg/kg dry	10	09/25/18	B8I1913	200.8	
7439-97-6	**Mercury**	**0.07**	0.05	mg/kg dry	1	09/21/18	B8I1826	245.5	
7440-22-4	**Silver**	**1.3**	0.1	mg/kg dry	10	09/25/18	B8I1913	200.8	
7440-66-6	**Zinc**	**46**	1.0	mg/kg dry	10	09/25/18	B8I1913	200.8	

Michigan Department of Environmental Quality
Laboratory Services Section

Analysis Request Sheet

53

Lab Work Order Number	Project Name	Matrix
1809084	Abandoned Mining Wastes- QMCP	SOIL

Site Code/Project Number: 31000098	AY: 17	CC Email 1: jbinkley@manniksmithgroup.com	Project TAT Days:	Sample Collector: PINCUMBE
Dept-Division-District: DEQ RRD UP District- Calumet	Index: 7000	CC Email 2:	Project Due Date:	Sample Collector Phone: 517 243 3171
State Project Manager: Amy Keranen	PCA: 42050/1533	CC Email 3:		Contract Firm: Mannik & Smith Group
State Project Manager Email: keranena@michigan.gov	location: 6996	Overflow Lab Choice 1: Test America- asbestos	Accept Analysis hold time codes: No	Contract Firm Primary Contact: Jeff Binkley
State Project Manager Phone: 906-337-0389	sub location: 6010	Overflow Lab Choice 2: ALS for waste characterization		Primary Contact Phone: 906-281-3404

	Lab Use Only	Field Sample Identification	Collection Date	Collection Time	Container Count	Comments
1	01	QMCP-SB 10 0-6" GW-10	9-7-18	830		
2	02	QMCP-SB 10 6"-6' GW-10	9-7-18	830		
3	03	QMCP-SB 20 0-6"		915		
4	04	QMCP-SB 20 6"-4'		915		
5	05	QMCP-SB 61 0-6"		1000		
6	06	QMCP-SB 61 6"-4'		1000		
7	07	QMCP-SB 61 6"-4' DUP		1000		
8	08	QMCP-SB 64 0-6"		1100		
9	09	QMCP-SB 64 6"-4.5' DUP		1100		4.5'
10	10	QMCP-SB 17 0-6"		1200		COOLERS 3 & 4

ORGANIC CHEMISTRY

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

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

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

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

METALS CHEMISTRY PACKAGES

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

MS - TOTAL METALS

- Silver - Ag: 1 2 3 4 5 6 7 8 9 10
- Aluminum - Al: 1 2 3 4 5 6 7 8 9 10
- Arsenic - As: 1 2 3 4 5 6 7 8 9 10
- 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

GENERAL CHEMISTRY

GS - General Chemistry
- Total Cyanide - CN: 1 2 3 4 5 6 7 8 9 10
- Available Cyanide - CN: 1 2 3 4 5 6 7 8 9 10
- Chem Oxyg Dem - COD: 1 2 3 4 5 6 7 8 9 10
- Total Org Carbon - TOC: 1 2 3 4 5 6 7 8 9 10
- Kjeldahl Nitrogen - KN: 1 2 3 4 5 6 7 8 9 10
- 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.: JEFF PINCUMBE MDEQ Signature:	Ari Muller	9-8-18 7:00
Print Name & Org.: Ari Muller MDEQ-RRD-GSA Signature:	Nicole Hardigan Nicole Hardigan	9/10/18 1314
Print Name & Org.: Signature:		

Michigan Department of Environmental Quality
Laboratory Services Section

Analysis Request Sheet

S 4

Lab Work Order Number	Project Name	Matrix
1809084	Abandoned Mining Wastes- QMCP	SOIL

Site Code/Project Number: 31000098	AY: 17	CC Email 1: jbinkley@manniksmithgroup.com	Project TAT Days:	Sample Collector: PINCUMBE
Dept-Division-District: DEQ RRD UP District- Calumet	Index: 7000	CC Email 2:	Project Due Date:	Sample Collector Phone: 517 243 3171
State Project Manager: Amy Keranen	PCA: 42050/1533	CC Email 3:		Contract Firm: Mannik & Smith Group
State Project Manager Email: keranena@michigan.gov	location: 6996	Overflow Lab Choice 1: Test America- asbestos	Accept Analysis hold time codes: No	Contract Firm Primary Contact: Jeff Binkley
State Project Manager Phone: 906-337-0389	sub location: 6010	Overflow Lab Choice 2: ALS for waste characterization		Primary Contact Phone: 906-281-3404

	Lab Use Only	Field Sample Identification	Collection Date	Collection Time	Container Count	Comments
1	11	QMCP-SB 17 6"-4'	9-7-18	1200		
2	12	QMCP-SB 18 0-6"		1345		
3	13	QMCP-SB 18 6"-4'		1345		
4	14	QMCP-SB 21 0-6"		1425		
5	15	QMCP-SB 21 6"-4'		1425		COOLERS 3 & 4
6	16	QMCP-SB 62 0-6"		1500		COOLER 5
7	17	QMCP-SB 62 6"-4'		1500		
8	18	QMCP-SB 63 0-6"		1515		
9	19	QMCP-SB 63 6"-4'		1515		
10	20	QMCP-SB 23 0-6"	9-8-18	800		

ORGANIC CHEMISTRY

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

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

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

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

METALS CHEMISTRY PACKAGES

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

MS - TOTAL METALS

- Silver - Ag
- Aluminum - Al: 1 2 3 4 5 6 7 8 9 10
- Arsenic - As
- 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
- Cobalt - Co: 1 2 3 4 5 6 7 8 9 10
- Chromium - Cr
- Copper - Cu
- Iron - Fe: 1 2 3 4 5 6 7 8 9 10
- Mercury - Hg
- Lithium - Li: 1 2 3 4 5 6 7 8 9 10
- Manganese - Mn
- 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
- 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
- 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

GENERAL CHEMISTRY

GS - General Chemistry
- Total Cyanide - CN: 1 2 3 4 5 6 7 8 9 10
- Available Cyanide - CN: 1 2 3 4 5 6 7 8 9 10
- Chem Oxyg Dem - COD: 1 2 3 4 5 6 7 8 9 10
- Total Org Carbon - TOC: 1 2 3 4 5 6 7 8 9 10
- Kjeldahl Nitrogen - KN: 1 2 3 4 5 6 7 8 9 10
- 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.	JEFF PINCUMBE MDEQ	Ari Meneer	9-9-18 7:00
Signature:	Jeff Pinc		
Print Name & Org.	Ari Meneer MDEQ-RRD-OSU	Nicole Hardigan	9/10/18
Signature:			1310
Print Name & Org.			
Signature:			

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

CORRECTED REPORT

29 November 2018

Work Order: 1809120

Price: $4,986.50

Amy Keranen
MDEQ-RRD-UP
1504 W. Washington St.
Marquette, MI 49855

RE: ABANDONED MINING WASTES-QMCP

A correction has been made to the original report that was sent to you. A description of the correction should be present in the case narrative section of this report in order to clarify any changes.

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

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CORRECTED REPORT

MDEQ-RRD-UP	Project: ABANDONED MINING WASTES-QMCP	
1504 W. Washington St.	Site Code: 31000098	**Reported:** 11/29/2018
Marquette MI, 49855	Project Manager: Amy Keranen	

Analytical Report for Samples

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Qualifier
QMCP-SB39 0-6"	1809120-01	Soil/Sediment	09/11/2018	09/13/2018	
QMCP-SB39 6"-8'	1809120-02	Soil/Sediment	09/11/2018	09/13/2018	
QMCP-SB38 0-6"	1809120-03	Soil/Sediment	09/11/2018	09/13/2018	
QMCP-SB38 6"-5'	1809120-04	Soil/Sediment	09/11/2018	09/13/2018	
QMCP-SB37 0-6"	1809120-05	Soil/Sediment	09/11/2018	09/13/2018	
QMCP-SB37 6"-5'	1809120-06	Soil/Sediment	09/11/2018	09/13/2018	
QMCP-SB7 0-3	1809120-07	Soil/Sediment	09/11/2018	09/13/2018	
QMCP-SB68 0-3	1809120-08	Soil/Sediment	09/11/2018	09/13/2018	
QMCP-SB67 0-3	1809120-09	Soil/Sediment	09/11/2018	09/13/2018	
QMCP-SB74 0-12"	1809120-10	Soil/Sediment	09/11/2018	09/13/2018	

Notes and Definitions

Y21	Reporting Limits (RL) raised due to matrix interference.
Y20	Reporting Limits (RL) raised due to matrix.
Y17	Probable petroleum product(s) present.
X	Methods 8260 & 624 are used to analyze volatile organics that have boiling points below 200 ºC. 2-Methylnaphthalene & naphthalene have boiling points above 200 ºC and are better suited to analysis by methods 8270 & 625 as semivolatile organics.
T	Reported value is less than the reporting limit (RL). Result is estimated.
LRB	Laboratory reagent blank was greater than 2.2 times the MDL, or greater than 10% of the analyte level in the sample.
A11	Result is estimated due to high initial verification standard criteria failure.
A09	Result is estimated due to high recovery of batch quality control.
A07	Result(s) and reporting limit(s) are estimated due to poor precision.
A06	Result is estimated due to high continuing calibration standard criteria failure.
A05	Result and reporting limit are estimated due to low continuing calibration standard criteria failure.
A04	Result is estimated due to high matrix spike recovery.
A03	Result(s) and reporting limit(s) are estimated due to low matrix spike recovery.
100	Unidentified peak present in the sample.
ND	Indicates compound analyzed for but not detected
RL	Reporting Limit
NA	Not Applicable
dry	Sample results reported on a dry weight basis

Case Narrative

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CORRECTED REPORT

This is a corrected report. This report for Laboratory work order 1809120 , ABANDONED MINING WASTES-QMCP , received on 9/13/2018 9:48:00 AM has been modified from the original report. Sample 1809120-01 ID corrected per Jeff Binkley (Manniksmithgroup)

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CORRECTED REPORT

Client ID: QMCP-SB39 0-6"

Lab ID: 1809120-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	57	ug/kg dry	50	09/18/18	B8I1818	8260	
71-55-6	1,1,1-Trichloroethane	ND	57	ug/kg dry	50	09/18/18	B8I1818	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	57	ug/kg dry	50	09/18/18	B8I1818	8260	
79-00-5	1,1,2-Trichloroethane	ND	57	ug/kg dry	50	09/18/18	B8I1818	8260	
75-34-3	1,1-Dichloroethane	ND	57	ug/kg dry	50	09/18/18	B8I1818	8260	
75-35-4	1,1-Dichloroethylene	ND	57	ug/kg dry	50	09/18/18	B8I1818	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	290	ug/kg dry	50	09/18/18	B8I1818	8260	
96-18-4	1,2,3-Trichloropropane	ND	57	ug/kg dry	50	09/18/18	B8I1818	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	57	ug/kg dry	50	09/18/18	B8I1818	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	290	ug/kg dry	50	09/18/18	B8I1818	8260	
95-63-6	**1,2,4-Trimethylbenzene**	**89**	57	ug/kg dry	50	09/18/18	B8I1818	8260	
106-93-4	1,2-Dibromoethane	ND	57	ug/kg dry	50	09/18/18	B8I1818	8260	
95-50-1	1,2-Dichlorobenzene	ND	57	ug/kg dry	50	09/18/18	B8I1818	8260	
107-06-2	1,2-Dichloroethane	ND	57	ug/kg dry	50	09/18/18	B8I1818	8260	
78-87-5	1,2-Dichloropropane	ND	57	ug/kg dry	50	09/18/18	B8I1818	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	57	ug/kg dry	50	09/18/18	B8I1818	8260	
541-73-1	1,3-Dichlorobenzene	ND	57	ug/kg dry	50	09/18/18	B8I1818	8260	
106-46-7	1,4-Dichlorobenzene	ND	57	ug/kg dry	50	09/18/18	B8I1818	8260	
540-84-1	2,2,4-Trimethylpentane	ND	290	ug/kg dry	50	09/18/18	B8I1818	8260	
78-93-3	2-Butanone (MEK)	ND	290	ug/kg dry	50	09/18/18	B8I1818	8260	
91-57-6	2-Methylnaphthalene	ND	290	ug/kg dry	50	09/18/18	B8I1818	8260	X
67-64-1	2-Propanone (acetone)	ND	1100	ug/kg dry	50	09/18/18	B8I1818	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	290	ug/kg dry	50	09/18/18	B8I1818	8260	
107-13-1	Acrylonitrile	ND	290	ug/kg dry	50	09/18/18	B8I1818	8260	
71-43-2	Benzene	ND	57	ug/kg dry	50	09/18/18	B8I1818	8260	
74-97-5	Bromochloromethane	ND	57	ug/kg dry	50	09/18/18	B8I1818	8260	
75-27-4	Bromodichloromethane	ND	57	ug/kg dry	50	09/18/18	B8I1818	8260	
75-25-2	Bromoform	ND	57	ug/kg dry	50	09/18/18	B8I1818	8260	
74-83-9	Bromomethane	ND	230	ug/kg dry	50	09/18/18	B8I1818	8260	
75-15-0	Carbon disulfide	ND	57	ug/kg dry	50	09/18/18	B8I1818	8260	
56-23-5	Carbon tetrachloride	ND	57	ug/kg dry	50	09/18/18	B8I1818	8260	
108-90-7	Chlorobenzene	ND	57	ug/kg dry	50	09/18/18	B8I1818	8260	
75-00-3	Chloroethane	ND	290	ug/kg dry	50	09/18/18	B8I1818	8260	
67-66-3	Chloroform	ND	57	ug/kg dry	50	09/18/18	B8I1818	8260	
74-87-3	Chloromethane	ND	290	ug/kg dry	50	09/18/18	B8I1818	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	57	ug/kg dry	50	09/18/18	B8I1818	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	57	ug/kg dry	50	09/18/18	B8I1818	8260	
110-82-7	Cyclohexane	ND	290	ug/kg dry	50	09/18/18	B8I1818	8260	
124-48-1	Dibromochloromethane	ND	57	ug/kg dry	50	09/18/18	B8I1818	8260	
74-95-3	Dibromomethane	ND	57	ug/kg dry	50	09/18/18	B8I1818	8260	
75-71-8	Dichlorodifluoromethane	ND	290	ug/kg dry	50	09/18/18	B8I1818	8260	

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CORRECTED REPORT

Client ID: QMCP-SB39 0-6"

Lab ID: 1809120-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
60-29-7	Diethyl ether	ND	230	ug/kg dry	50	09/18/18	B8I1818	8260	
108-20-3	Diisopropyl Ether	ND	290	ug/kg dry	50	09/18/18	B8I1818	8260	
100-41-4	Ethylbenzene	ND	57	ug/kg dry	50	09/18/18	B8I1818	8260	
637-92-3	Ethyltertiarybutylether	ND	290	ug/kg dry	50	09/18/18	B8I1818	8260	
67-72-1	Hexachloroethane	ND	290	ug/kg dry	50	09/18/18	B8I1818	8260	
110-54-3	Hexane	ND	57	ug/kg dry	50	09/18/18	B8I1818	8260	
98-82-8	Isopropylbenzene	ND	57	ug/kg dry	50	09/18/18	B8I1818	8260	
1330-20-7	**m & p - Xylene**	**200**	110	ug/kg dry	50	09/18/18	B8I1818	8260	
75-09-2	Methylene chloride	ND	110	ug/kg dry	50	09/18/18	B8I1818	8260	
1634-04-4	Methyltertiarybutylether	ND	57	ug/kg dry	50	09/18/18	B8I1818	8260	
91-20-3	Naphthalene	ND	290	ug/kg dry	50	09/18/18	B8I1818	8260	X
104-51-8	n-Butylbenzene	ND	57	ug/kg dry	50	09/18/18	B8I1818	8260	
103-65-1	n-Propylbenzene	ND	57	ug/kg dry	50	09/18/18	B8I1818	8260	
95-47-6	**o-Xylene**	**130**	57	ug/kg dry	50	09/18/18	B8I1818	8260	
135-98-8	sec-Butylbenzene	ND	57	ug/kg dry	50	09/18/18	B8I1818	8260	
100-42-5	Styrene	ND	57	ug/kg dry	50	09/18/18	B8I1818	8260	
98-06-6	tert-Butylbenzene	ND	57	ug/kg dry	50	09/18/18	B8I1818	8260	
75-65-0	tertiary Butyl Alcohol	ND	2900	ug/kg dry	50	09/18/18	B8I1818	8260	
994-05-8	tertiaryAmylmethylether	ND	290	ug/kg dry	50	09/18/18	B8I1818	8260	
127-18-4	Tetrachloroethylene	ND	57	ug/kg dry	50	09/18/18	B8I1818	8260	
109-99-9	Tetrahydrofuran	ND	290	ug/kg dry	50	09/18/18	B8I1818	8260	
108-88-3	**Toluene**	**150**	57	ug/kg dry	50	09/18/18	B8I1818	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	57	ug/kg dry	50	09/18/18	B8I1818	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	57	ug/kg dry	50	09/18/18	B8I1818	8260	
79-01-6	Trichloroethylene	ND	57	ug/kg dry	50	09/18/18	B8I1818	8260	
75-69-4	Trichlorofluoromethane	ND	57	ug/kg dry	50	09/18/18	B8I1818	8260	
75-01-4	Vinyl chloride	ND	57	ug/kg dry	50	09/18/18	B8I1818	8260	
Surrogate: Bromofluorobenzene			*98.6 %*	*40.3-194*		*09/18/18*	B8I1818	*8260*	
Surrogate: Dibromofluoromethane			*112 %*	*52.1-217*		*09/18/18*	B8I1818	*8260*	
Surrogate: Toluene-d8			*109 %*	*55.4-196*		*09/18/18*	B8I1818	*8260*	

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CORRECTED REPORT

Client ID: QMCP-SB39 0-6"

Lab ID: 1809120-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y17, Y20**
91-57-6	2-Methylnaphthalene	ND	550	ug/kg dry	1	10/02/18	B8I1922	8270	
83-32-9	Acenaphthene	ND	220	ug/kg dry	1	10/02/18	B8I1922	8270	
208-96-8	Acenaphthylene	ND	220	ug/kg dry	1	10/02/18	B8I1922	8270	
120-12-7	**Anthracene**	**560**	220	ug/kg dry	1	10/02/18	B8I1922	8270	
56-55-3	**Benz[a]anthracene**	**2500**	220	ug/kg dry	1	10/02/18	B8I1922	8270	
50-32-8	**Benzo[a]pyrene**	**2000**	440	ug/kg dry	1	10/03/18	B8I1922	8270	
205-99-2	**Benzo[b]fluoranthene**	**4200**	440	ug/kg dry	1	10/03/18	B8I1922	8270	
191-24-2	**Benzo[g,h,i]perylene**	**660**	440	ug/kg dry	1	10/03/18	B8I1922	8270	
207-08-9	**Benzo[k]fluoranthene**	**1200**	440	ug/kg dry	1	10/03/18	B8I1922	8270	
218-01-9	**Chrysene**	**2400**	220	ug/kg dry	1	10/02/18	B8I1922	8270	
53-70-3	Dibenz[a,h]anthracene	ND	440	ug/kg dry	1	10/03/18	B8I1922	8270	
206-44-0	**Fluoranthene**	**5800**	220	ug/kg dry	1	10/02/18	B8I1922	8270	
86-73-7	Fluorene	ND	220	ug/kg dry	1	10/02/18	B8I1922	8270	
193-39-5	**Indeno(1,2,3-c,d)pyrene**	**770**	440	ug/kg dry	1	10/03/18	B8I1922	8270	
91-20-3	**Naphthalene**	**400**	220	ug/kg dry	1	10/02/18	B8I1922	8270	
85-01-8	**Phenanthrene**	**4100**	220	ug/kg dry	1	10/02/18	B8I1922	8270	
129-00-0	**Pyrene**	**4600**	220	ug/kg dry	1	10/02/18	B8I1922	8270	
Surrogate: 2-Fluorobiphenyl			*96.0 %*	*32.9-115*		*10/02/18*	B8I1922	*8270*	
Surrogate: Nitrobenzene-d5			*82.3 %*	*31.8-115*		*10/02/18*	B8I1922	*8270*	
Surrogate: p-Terphenyl-d14			*100 %*	*38.5-115*		*10/02/18*	B8I1922	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	550	ug/kg dry	5	10/25/18	B8J1613	8081/8082	Y21
11104-28-2	Aroclor 1221	ND	550	ug/kg dry	5	10/25/18	B8J1613	8081/8082	Y21
11141-16-5	Aroclor 1232	ND	550	ug/kg dry	5	10/25/18	B8J1613	8081/8082	Y21
53469-21-9	Aroclor 1242	ND	550	ug/kg dry	5	10/25/18	B8J1613	8081/8082	Y21
12672-29-6	Aroclor 1248	ND	550	ug/kg dry	5	10/25/18	B8J1613	8081/8082	Y21
11097-69-1	Aroclor 1254	ND	550	ug/kg dry	5	10/25/18	B8J1613	8081/8082	Y21
11096-82-5	Aroclor 1260	ND	550	ug/kg dry	5	10/25/18	B8J1613	8081/8082	Y21
37324-23-5	Aroclor 1262	ND	550	ug/kg dry	5	10/25/18	B8J1613	8081/8082	Y21
11100-14-4	Aroclor 1268	ND	550	ug/kg dry	5	10/25/18	B8J1613	8081/8082	Y21
Surrogate: Decachlorobiphenyl			*104 %*	*30-150*		*10/25/18*	B8J1613	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*112 %*	*30-150*		*10/25/18*	B8J1613	*8081/8082*	

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CORRECTED REPORT

Client ID: QMCP-SB39 0-6"

Lab ID: 1809120-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**91.6**	0.1	%	1	09/20/18	B8I2004	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**78**	0.5	mg/kg dry	10	09/27/18	B8I2504	200.8	
7440-43-9	**Cadmium**	**0.5**	0.2	mg/kg dry	10	09/27/18	B8I2504	200.8	
7440-47-3	**Chromium**	**38**	2.0	mg/kg dry	10	09/27/18	B8I2504	200.8	
7440-50-8	**Copper**	**12000**	100	mg/kg dry	1000	09/27/18	B8I2504	200.8	
7439-92-1	**Lead**	**160**	1.0	mg/kg dry	10	09/27/18	B8I2504	200.8	
7439-96-5	**Manganese**	**360**	1.0	mg/kg dry	10	09/27/18	B8I2504	200.8	
7439-97-6	**Mercury**	**0.2**	0.05	mg/kg dry	1	09/26/18	B8I2414	245.5	
7440-22-4	**Silver**	**4.2**	0.1	mg/kg dry	10	09/27/18	B8I2504	200.8	
7440-66-6	**Zinc**	**160**	1.0	mg/kg dry	10	09/27/18	B8I2504	200.8	

STATE OF MICHIGAN
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ENVIRONMENTAL LABORATORY

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CORRECTED REPORT

Client ID: QMCP-SB39 6''-8'

Lab ID: 1809120-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									**See note 100**
630-20-6	1,1,1,2-Tetrachloroethane	ND	59	ug/kg dry	50	09/18/18	B8I1818	8260	
71-55-6	1,1,1-Trichloroethane	ND	59	ug/kg dry	50	09/18/18	B8I1818	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	59	ug/kg dry	50	09/18/18	B8I1818	8260	
79-00-5	1,1,2-Trichloroethane	ND	59	ug/kg dry	50	09/18/18	B8I1818	8260	
75-34-3	1,1-Dichloroethane	ND	59	ug/kg dry	50	09/18/18	B8I1818	8260	
75-35-4	1,1-Dichloroethylene	ND	59	ug/kg dry	50	09/18/18	B8I1818	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	300	ug/kg dry	50	09/18/18	B8I1818	8260	
96-18-4	1,2,3-Trichloropropane	ND	59	ug/kg dry	50	09/18/18	B8I1818	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	59	ug/kg dry	50	09/18/18	B8I1818	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	300	ug/kg dry	50	09/18/18	B8I1818	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	59	ug/kg dry	50	09/18/18	B8I1818	8260	
106-93-4	1,2-Dibromoethane	ND	59	ug/kg dry	50	09/18/18	B8I1818	8260	
95-50-1	1,2-Dichlorobenzene	ND	59	ug/kg dry	50	09/18/18	B8I1818	8260	
107-06-2	1,2-Dichloroethane	ND	59	ug/kg dry	50	09/18/18	B8I1818	8260	
78-87-5	1,2-Dichloropropane	ND	59	ug/kg dry	50	09/18/18	B8I1818	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	59	ug/kg dry	50	09/18/18	B8I1818	8260	
541-73-1	1,3-Dichlorobenzene	ND	59	ug/kg dry	50	09/18/18	B8I1818	8260	
106-46-7	1,4-Dichlorobenzene	ND	59	ug/kg dry	50	09/18/18	B8I1818	8260	
540-84-1	2,2,4-Trimethylpentane	ND	300	ug/kg dry	50	09/18/18	B8I1818	8260	
78-93-3	2-Butanone (MEK)	ND	300	ug/kg dry	50	09/18/18	B8I1818	8260	
91-57-6	2-Methylnaphthalene	ND	300	ug/kg dry	50	09/18/18	B8I1818	8260	X
67-64-1	2-Propanone (acetone)	ND	1200	ug/kg dry	50	09/18/18	B8I1818	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	300	ug/kg dry	50	09/18/18	B8I1818	8260	
107-13-1	Acrylonitrile	ND	300	ug/kg dry	50	09/18/18	B8I1818	8260	
71-43-2	Benzene	ND	59	ug/kg dry	50	09/18/18	B8I1818	8260	
74-97-5	Bromochloromethane	ND	59	ug/kg dry	50	09/18/18	B8I1818	8260	
75-27-4	Bromodichloromethane	ND	59	ug/kg dry	50	09/18/18	B8I1818	8260	
75-25-2	Bromoform	ND	59	ug/kg dry	50	09/18/18	B8I1818	8260	
74-83-9	Bromomethane	ND	240	ug/kg dry	50	09/18/18	B8I1818	8260	
75-15-0	Carbon disulfide	ND	59	ug/kg dry	50	09/18/18	B8I1818	8260	
56-23-5	Carbon tetrachloride	ND	59	ug/kg dry	50	09/18/18	B8I1818	8260	
108-90-7	Chlorobenzene	ND	59	ug/kg dry	50	09/18/18	B8I1818	8260	
75-00-3	Chloroethane	ND	300	ug/kg dry	50	09/18/18	B8I1818	8260	
67-66-3	Chloroform	ND	59	ug/kg dry	50	09/18/18	B8I1818	8260	
74-87-3	Chloromethane	ND	300	ug/kg dry	50	09/18/18	B8I1818	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	59	ug/kg dry	50	09/18/18	B8I1818	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	59	ug/kg dry	50	09/18/18	B8I1818	8260	
110-82-7	Cyclohexane	ND	300	ug/kg dry	50	09/18/18	B8I1818	8260	
124-48-1	Dibromochloromethane	ND	59	ug/kg dry	50	09/18/18	B8I1818	8260	
74-95-3	Dibromomethane	ND	59	ug/kg dry	50	09/18/18	B8I1818	8260	
75-71-8	Dichlorodifluoromethane	ND	300	ug/kg dry	50	09/18/18	B8I1818	8260	

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CORRECTED REPORT

Client ID: QMCP-SB39 6''-8'

Lab ID: 1809120-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									**See note 100**
60-29-7	Diethyl ether	ND	240	ug/kg dry	50	09/18/18	B8I1818	8260	
108-20-3	Diisopropyl Ether	ND	300	ug/kg dry	50	09/18/18	B8I1818	8260	
100-41-4	Ethylbenzene	ND	59	ug/kg dry	50	09/18/18	B8I1818	8260	
637-92-3	Ethyltertiarybutylether	ND	300	ug/kg dry	50	09/18/18	B8I1818	8260	
67-72-1	Hexachloroethane	ND	300	ug/kg dry	50	09/18/18	B8I1818	8260	
110-54-3	Hexane	ND	59	ug/kg dry	50	09/18/18	B8I1818	8260	
98-82-8	Isopropylbenzene	ND	59	ug/kg dry	50	09/18/18	B8I1818	8260	
1330-20-7	m & p - Xylene	ND	120	ug/kg dry	50	09/18/18	B8I1818	8260	
75-09-2	Methylene chloride	ND	120	ug/kg dry	50	09/18/18	B8I1818	8260	
1634-04-4	Methyltertiarybutylether	ND	59	ug/kg dry	50	09/18/18	B8I1818	8260	
91-20-3	Naphthalene	ND	300	ug/kg dry	50	09/18/18	B8I1818	8260	X
104-51-8	n-Butylbenzene	ND	59	ug/kg dry	50	09/18/18	B8I1818	8260	
103-65-1	n-Propylbenzene	ND	59	ug/kg dry	50	09/18/18	B8I1818	8260	
95-47-6	o-Xylene	ND	59	ug/kg dry	50	09/18/18	B8I1818	8260	
135-98-8	sec-Butylbenzene	ND	59	ug/kg dry	50	09/18/18	B8I1818	8260	
100-42-5	Styrene	ND	59	ug/kg dry	50	09/18/18	B8I1818	8260	
98-06-6	tert-Butylbenzene	ND	59	ug/kg dry	50	09/18/18	B8I1818	8260	
75-65-0	tertiary Butyl Alcohol	ND	3000	ug/kg dry	50	09/18/18	B8I1818	8260	
994-05-8	tertiaryAmylmethylether	ND	300	ug/kg dry	50	09/18/18	B8I1818	8260	
127-18-4	Tetrachloroethylene	ND	59	ug/kg dry	50	09/18/18	B8I1818	8260	
109-99-9	Tetrahydrofuran	ND	300	ug/kg dry	50	09/18/18	B8I1818	8260	
108-88-3	Toluene	ND	59	ug/kg dry	50	09/18/18	B8I1818	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	59	ug/kg dry	50	09/18/18	B8I1818	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	59	ug/kg dry	50	09/18/18	B8I1818	8260	
79-01-6	Trichloroethylene	ND	59	ug/kg dry	50	09/18/18	B8I1818	8260	
75-69-4	Trichlorofluoromethane	ND	59	ug/kg dry	50	09/18/18	B8I1818	8260	
75-01-4	Vinyl chloride	ND	59	ug/kg dry	50	09/18/18	B8I1818	8260	
Surrogate: Bromofluorobenzene			*101 %*	*40.3-194*		*09/18/18*	B8I1818	*8260*	
Surrogate: Dibromofluoromethane			*115 %*	*52.1-217*		*09/18/18*	B8I1818	*8260*	
Surrogate: Toluene-d8			*116 %*	*55.4-196*		*09/18/18*	B8I1818	*8260*	

Lab Work Order # 1809120

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CORRECTED REPORT

Client ID: QMCP-SB39 6''-8'

Lab ID: 1809120-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	2-Methylnaphthalene	ND	530	ug/kg dry	1	10/02/18	B8I1922	8270	
83-32-9	Acenaphthene	ND	210	ug/kg dry	1	10/02/18	B8I1922	8270	
208-96-8	Acenaphthylene	ND	210	ug/kg dry	1	10/02/18	B8I1922	8270	
120-12-7	Anthracene	ND	210	ug/kg dry	1	10/02/18	B8I1922	8270	
56-55-3	**Benz[a]anthracene**	**960**	210	ug/kg dry	1	10/02/18	B8I1922	8270	
50-32-8	**Benzo[a]pyrene**	**690**	420	ug/kg dry	1	10/02/18	B8I1922	8270	
205-99-2	**Benzo[b]fluoranthene**	**1400**	420	ug/kg dry	1	10/02/18	B8I1922	8270	
191-24-2	Benzo[g,h,i]perylene	ND	420	ug/kg dry	1	10/02/18	B8I1922	8270	
207-08-9	**Benzo[k]fluoranthene**	**440**	420	ug/kg dry	1	10/02/18	B8I1922	8270	
218-01-9	**Chrysene**	**880**	210	ug/kg dry	1	10/02/18	B8I1922	8270	
53-70-3	Dibenz[a,h]anthracene	ND	420	ug/kg dry	1	10/02/18	B8I1922	8270	
206-44-0	**Fluoranthene**	**1600**	210	ug/kg dry	1	10/02/18	B8I1922	8270	
86-73-7	Fluorene	ND	210	ug/kg dry	1	10/02/18	B8I1922	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	420	ug/kg dry	1	10/02/18	B8I1922	8270	
91-20-3	Naphthalene	ND	210	ug/kg dry	1	10/02/18	B8I1922	8270	
85-01-8	**Phenanthrene**	**690**	210	ug/kg dry	1	10/02/18	B8I1922	8270	
129-00-0	**Pyrene**	**1500**	210	ug/kg dry	1	10/02/18	B8I1922	8270	
Surrogate: 2-Fluorobiphenyl			*90.9 %*	*32.9-115*		*10/02/18*	B8I1922	*8270*	
Surrogate: Nitrobenzene-d5			*83.1 %*	*31.8-115*		*10/02/18*	B8I1922	*8270*	
Surrogate: p-Terphenyl-d14			*103 %*	*38.5-115*		*10/02/18*	B8I1922	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	110	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
11104-28-2	Aroclor 1221	ND	110	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
11141-16-5	Aroclor 1232	ND	110	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
53469-21-9	Aroclor 1242	ND	110	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
12672-29-6	Aroclor 1248	ND	110	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
11097-69-1	Aroclor 1254	ND	110	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
11096-82-5	Aroclor 1260	ND	110	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
37324-23-5	Aroclor 1262	ND	110	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
11100-14-4	Aroclor 1268	ND	110	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
Surrogate: Decachlorobiphenyl			*92.5 %*	*30-150*		*10/20/18*	B8J1613	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*85.8 %*	*30-150*		*10/20/18*	B8J1613	*8081/8082*	

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CORRECTED REPORT

Client ID: QMCP-SB39 6''-8'

Lab ID: 1809120-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**94.3**	0.1	%	1	09/20/18	B8I2004	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**110**	0.5	mg/kg dry	10	09/27/18	B8I2504	200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	09/27/18	B8I2504	200.8	
7440-47-3	**Chromium**	**44**	2.0	mg/kg dry	10	09/27/18	B8I2504	200.8	
7440-50-8	**Copper**	**24000**	100	mg/kg dry	1000	09/27/18	B8I2504	200.8	
7439-92-1	**Lead**	**30**	1.0	mg/kg dry	10	09/27/18	B8I2504	200.8	
7439-96-5	**Manganese**	**390**	1.0	mg/kg dry	10	09/27/18	B8I2504	200.8	
7439-97-6	**Mercury**	**0.06**	0.05	mg/kg dry	1	09/26/18	B8I2414	245.5	
7440-22-4	**Silver**	**30**	0.1	mg/kg dry	10	09/27/18	B8I2504	200.8	
7440-66-6	**Zinc**	**84**	1.0	mg/kg dry	10	09/27/18	B8I2504	200.8	

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CORRECTED REPORT

Client ID: QMCP-SB38 0-6"

Lab ID: 1809120-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	67	ug/kg dry	50	09/17/18	B8I1704	8260	
71-55-6	1,1,1-Trichloroethane	ND	67	ug/kg dry	50	09/17/18	B8I1704	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	67	ug/kg dry	50	09/17/18	B8I1704	8260	
79-00-5	1,1,2-Trichloroethane	ND	67	ug/kg dry	50	09/17/18	B8I1704	8260	
75-34-3	1,1-Dichloroethane	ND	67	ug/kg dry	50	09/17/18	B8I1704	8260	
75-35-4	1,1-Dichloroethylene	ND	67	ug/kg dry	50	09/17/18	B8I1704	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	330	ug/kg dry	50	09/17/18	B8I1704	8260	
96-18-4	1,2,3-Trichloropropane	ND	67	ug/kg dry	50	09/17/18	B8I1704	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	67	ug/kg dry	50	09/17/18	B8I1704	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	330	ug/kg dry	50	09/17/18	B8I1704	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	67	ug/kg dry	50	09/17/18	B8I1704	8260	
106-93-4	1,2-Dibromoethane	ND	67	ug/kg dry	50	09/17/18	B8I1704	8260	
95-50-1	1,2-Dichlorobenzene	ND	67	ug/kg dry	50	09/17/18	B8I1704	8260	
107-06-2	1,2-Dichloroethane	ND	67	ug/kg dry	50	09/17/18	B8I1704	8260	
78-87-5	1,2-Dichloropropane	ND	67	ug/kg dry	50	09/17/18	B8I1704	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	67	ug/kg dry	50	09/17/18	B8I1704	8260	
541-73-1	1,3-Dichlorobenzene	ND	67	ug/kg dry	50	09/17/18	B8I1704	8260	
106-46-7	1,4-Dichlorobenzene	ND	67	ug/kg dry	50	09/17/18	B8I1704	8260	
540-84-1	2,2,4-Trimethylpentane	ND	330	ug/kg dry	50	09/17/18	B8I1704	8260	
78-93-3	2-Butanone (MEK)	ND	330	ug/kg dry	50	09/17/18	B8I1704	8260	
91-57-6	2-Methylnaphthalene	ND	330	ug/kg dry	50	09/17/18	B8I1704	8260	X
67-64-1	2-Propanone (acetone)	ND	1300	ug/kg dry	50	09/17/18	B8I1704	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	330	ug/kg dry	50	09/17/18	B8I1704	8260	
107-13-1	Acrylonitrile	ND	330	ug/kg dry	50	09/17/18	B8I1704	8260	
71-43-2	Benzene	ND	67	ug/kg dry	50	09/17/18	B8I1704	8260	
74-97-5	Bromochloromethane	ND	67	ug/kg dry	50	09/17/18	B8I1704	8260	
75-27-4	Bromodichloromethane	ND	67	ug/kg dry	50	09/17/18	B8I1704	8260	
75-25-2	Bromoform	ND	67	ug/kg dry	50	09/17/18	B8I1704	8260	
74-83-9	Bromomethane	ND	270	ug/kg dry	50	09/17/18	B8I1704	8260	
75-15-0	Carbon disulfide	ND	67	ug/kg dry	50	09/17/18	B8I1704	8260	
56-23-5	Carbon tetrachloride	ND	67	ug/kg dry	50	09/17/18	B8I1704	8260	
108-90-7	Chlorobenzene	ND	67	ug/kg dry	50	09/17/18	B8I1704	8260	
75-00-3	Chloroethane	ND	330	ug/kg dry	50	09/17/18	B8I1704	8260	
67-66-3	Chloroform	ND	67	ug/kg dry	50	09/17/18	B8I1704	8260	
74-87-3	Chloromethane	ND	330	ug/kg dry	50	09/17/18	B8I1704	8260	A07
156-59-2	cis-1,2-Dichloroethylene	ND	67	ug/kg dry	50	09/17/18	B8I1704	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	67	ug/kg dry	50	09/17/18	B8I1704	8260	
110-82-7	Cyclohexane	ND	330	ug/kg dry	50	09/17/18	B8I1704	8260	
124-48-1	Dibromochloromethane	ND	67	ug/kg dry	50	09/17/18	B8I1704	8260	
74-95-3	Dibromomethane	ND	67	ug/kg dry	50	09/17/18	B8I1704	8260	
75-71-8	Dichlorodifluoromethane	ND	330	ug/kg dry	50	09/17/18	B8I1704	8260	

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CORRECTED REPORT

Client ID: QMCP-SB38 0-6"

Lab ID: 1809120-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
60-29-7	Diethyl ether	ND	270	ug/kg dry	50	09/17/18	B8I1704	8260	
108-20-3	Diisopropyl Ether	ND	330	ug/kg dry	50	09/17/18	B8I1704	8260	
100-41-4	Ethylbenzene	ND	67	ug/kg dry	50	09/17/18	B8I1704	8260	
637-92-3	Ethyltertiarybutylether	ND	330	ug/kg dry	50	09/17/18	B8I1704	8260	
67-72-1	Hexachloroethane	ND	330	ug/kg dry	50	09/17/18	B8I1704	8260	
110-54-3	Hexane	ND	67	ug/kg dry	50	09/17/18	B8I1704	8260	A05
98-82-8	Isopropylbenzene	ND	67	ug/kg dry	50	09/17/18	B8I1704	8260	
1330-20-7	m & p - Xylene	ND	130	ug/kg dry	50	09/17/18	B8I1704	8260	
75-09-2	Methylene chloride	ND	130	ug/kg dry	50	09/17/18	B8I1704	8260	
1634-04-4	Methyltertiarybutylether	ND	67	ug/kg dry	50	09/17/18	B8I1704	8260	
91-20-3	Naphthalene	ND	330	ug/kg dry	50	09/17/18	B8I1704	8260	X
104-51-8	n-Butylbenzene	ND	67	ug/kg dry	50	09/17/18	B8I1704	8260	
103-65-1	n-Propylbenzene	ND	67	ug/kg dry	50	09/17/18	B8I1704	8260	
95-47-6	o-Xylene	ND	67	ug/kg dry	50	09/17/18	B8I1704	8260	
135-98-8	sec-Butylbenzene	ND	67	ug/kg dry	50	09/17/18	B8I1704	8260	
100-42-5	Styrene	ND	67	ug/kg dry	50	09/17/18	B8I1704	8260	
98-06-6	tert-Butylbenzene	ND	67	ug/kg dry	50	09/17/18	B8I1704	8260	
75-65-0	tertiary Butyl Alcohol	ND	3300	ug/kg dry	50	09/17/18	B8I1704	8260	
994-05-8	tertiaryAmylmethylether	ND	330	ug/kg dry	50	09/17/18	B8I1704	8260	
127-18-4	Tetrachloroethylene	ND	67	ug/kg dry	50	09/17/18	B8I1704	8260	
109-99-9	Tetrahydrofuran	ND	330	ug/kg dry	50	09/17/18	B8I1704	8260	
108-88-3	Toluene	ND	67	ug/kg dry	50	09/17/18	B8I1704	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	67	ug/kg dry	50	09/17/18	B8I1704	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	67	ug/kg dry	50	09/17/18	B8I1704	8260	
79-01-6	Trichloroethylene	ND	67	ug/kg dry	50	09/17/18	B8I1704	8260	
75-69-4	Trichlorofluoromethane	ND	67	ug/kg dry	50	09/17/18	B8I1704	8260	
75-01-4	Vinyl chloride	ND	67	ug/kg dry	50	09/17/18	B8I1704	8260	A07
Surrogate: Bromofluorobenzene			*106 %*	*40.3-194*		*09/17/18*	B8I1704	*8260*	
Surrogate: Dibromofluoromethane			*119 %*	*52.1-217*		*09/17/18*	B8I1704	*8260*	
Surrogate: Toluene-d8			*118 %*	*55.4-196*		*09/17/18*	B8I1704	*8260*	

Lab Work Order # 1809120

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

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ENVIRONMENTAL LABORATORY

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Lansing, MI 48909
TEL: (517) 335-9800
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CORRECTED REPORT

Client ID: QMCP-SB38 0-6"

Lab ID: 1809120-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	2-Methylnaphthalene	ND	550	ug/kg dry	1	10/02/18	B8I1922	8270	
83-32-9	Acenaphthene	ND	220	ug/kg dry	1	10/02/18	B8I1922	8270	
208-96-8	Acenaphthylene	ND	220	ug/kg dry	1	10/02/18	B8I1922	8270	
120-12-7	Anthracene	ND	220	ug/kg dry	1	10/02/18	B8I1922	8270	
56-55-3	Benz[a]anthracene	ND	220	ug/kg dry	1	10/02/18	B8I1922	8270	
50-32-8	Benzo[a]pyrene	ND	440	ug/kg dry	1	10/03/18	B8I1922	8270	
205-99-2	Benzo[b]fluoranthene	ND	440	ug/kg dry	1	10/03/18	B8I1922	8270	
191-24-2	Benzo[g,h,i]perylene	ND	440	ug/kg dry	1	10/03/18	B8I1922	8270	
207-08-9	Benzo[k]fluoranthene	ND	440	ug/kg dry	1	10/03/18	B8I1922	8270	
218-01-9	Chrysene	ND	220	ug/kg dry	1	10/02/18	B8I1922	8270	
53-70-3	Dibenz[a,h]anthracene	ND	440	ug/kg dry	1	10/03/18	B8I1922	8270	
206-44-0	Fluoranthene	ND	220	ug/kg dry	1	10/02/18	B8I1922	8270	
86-73-7	Fluorene	ND	220	ug/kg dry	1	10/02/18	B8I1922	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	440	ug/kg dry	1	10/03/18	B8I1922	8270	
91-20-3	Naphthalene	ND	220	ug/kg dry	1	10/02/18	B8I1922	8270	
85-01-8	Phenanthrene	ND	220	ug/kg dry	1	10/02/18	B8I1922	8270	
129-00-0	Pyrene	ND	220	ug/kg dry	1	10/02/18	B8I1922	8270	
Surrogate: 2-Fluorobiphenyl			*87.9 %*	*32.9-115*		*10/02/18*	B8I1922	*8270*	
Surrogate: Nitrobenzene-d5			*70.7 %*	*31.8-115*		*10/02/18*	B8I1922	*8270*	
Surrogate: p-Terphenyl-d14			*114 %*	*38.5-115*		*10/02/18*	B8I1922	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	110	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
11104-28-2	Aroclor 1221	ND	110	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
11141-16-5	Aroclor 1232	ND	110	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
53469-21-9	Aroclor 1242	ND	110	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
12672-29-6	Aroclor 1248	ND	110	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
11097-69-1	Aroclor 1254	ND	110	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
11096-82-5	Aroclor 1260	ND	110	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
37324-23-5	Aroclor 1262	ND	110	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
11100-14-4	Aroclor 1268	ND	110	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
Surrogate: Decachlorobiphenyl			*104 %*	*30-150*		*10/20/18*	B8J1613	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*96.0 %*	*30-150*		*10/20/18*	B8J1613	*8081/8082*	

STATE OF MICHIGAN
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CORRECTED REPORT

Client ID: QMCP-SB38 0-6"

Lab ID: 1809120-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**90.9**	0.1	%	1	09/20/18	B8I2004	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**2.7**	0.5	mg/kg dry	10	09/27/18	B8I2504	200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	09/27/18	B8I2504	200.8	
7440-47-3	**Chromium**	**25**	2.0	mg/kg dry	10	09/27/18	B8I2504	200.8	
7440-50-8	**Copper**	**610**	1.0	mg/kg dry	10	09/27/18	B8I2504	200.8	
7439-92-1	**Lead**	**3.8**	1.0	mg/kg dry	10	09/27/18	B8I2504	200.8	
7439-96-5	**Manganese**	**380**	1.0	mg/kg dry	10	09/27/18	B8I2504	200.8	
7439-97-6	Mercury	ND	0.06	mg/kg dry	1	09/26/18	B8I2414	245.5	
7440-22-4	**Silver**	**0.9**	0.1	mg/kg dry	10	09/27/18	B8I2504	200.8	
7440-66-6	**Zinc**	**43**	1.0	mg/kg dry	10	09/27/18	B8I2504	200.8	

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CORRECTED REPORT

Client ID: QMCP-SB38 6''-5'

Lab ID: 1809120-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									**See note 100**
630-20-6	1,1,1,2-Tetrachloroethane	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
71-55-6	1,1,1-Trichloroethane	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
79-00-5	1,1,2-Trichloroethane	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
75-34-3	1,1-Dichloroethane	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
75-35-4	1,1-Dichloroethylene	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	280	ug/kg dry	50	09/17/18	B8I1704	8260	
96-18-4	1,2,3-Trichloropropane	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	280	ug/kg dry	50	09/17/18	B8I1704	8260	
95-63-6	**1,2,4-Trimethylbenzene**	**83**	56	ug/kg dry	50	09/17/18	B8I1704	8260	
106-93-4	1,2-Dibromoethane	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
95-50-1	1,2-Dichlorobenzene	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
107-06-2	1,2-Dichloroethane	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
78-87-5	1,2-Dichloropropane	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
541-73-1	1,3-Dichlorobenzene	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
106-46-7	1,4-Dichlorobenzene	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
540-84-1	2,2,4-Trimethylpentane	ND	280	ug/kg dry	50	09/17/18	B8I1704	8260	
78-93-3	2-Butanone (MEK)	ND	280	ug/kg dry	50	09/17/18	B8I1704	8260	
91-57-6	2-Methylnaphthalene	ND	280	ug/kg dry	50	09/17/18	B8I1704	8260	X
67-64-1	2-Propanone (acetone)	ND	1100	ug/kg dry	50	09/17/18	B8I1704	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	280	ug/kg dry	50	09/17/18	B8I1704	8260	
107-13-1	Acrylonitrile	ND	280	ug/kg dry	50	09/17/18	B8I1704	8260	
71-43-2	Benzene	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
74-97-5	Bromochloromethane	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
75-27-4	Bromodichloromethane	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
75-25-2	Bromoform	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
74-83-9	Bromomethane	ND	220	ug/kg dry	50	09/17/18	B8I1704	8260	
75-15-0	Carbon disulfide	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
56-23-5	Carbon tetrachloride	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
108-90-7	Chlorobenzene	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
75-00-3	Chloroethane	ND	280	ug/kg dry	50	09/17/18	B8I1704	8260	
67-66-3	Chloroform	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
74-87-3	Chloromethane	ND	280	ug/kg dry	50	09/17/18	B8I1704	8260	A07
156-59-2	cis-1,2-Dichloroethylene	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
110-82-7	Cyclohexane	ND	280	ug/kg dry	50	09/17/18	B8I1704	8260	
124-48-1	Dibromochloromethane	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
74-95-3	Dibromomethane	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
75-71-8	Dichlorodifluoromethane	ND	280	ug/kg dry	50	09/17/18	B8I1704	8260	

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CORRECTED REPORT

Client ID: QMCP-SB38 6''-5'

Lab ID: 1809120-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									**See note 100**
60-29-7	Diethyl ether	ND	220	ug/kg dry	50	09/17/18	B8I1704	8260	
108-20-3	Diisopropyl Ether	ND	280	ug/kg dry	50	09/17/18	B8I1704	8260	
100-41-4	Ethylbenzene	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
637-92-3	Ethyltertiarybutylether	ND	280	ug/kg dry	50	09/17/18	B8I1704	8260	
67-72-1	Hexachloroethane	ND	280	ug/kg dry	50	09/17/18	B8I1704	8260	
110-54-3	Hexane	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	A05
98-82-8	Isopropylbenzene	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
1330-20-7	m & p - Xylene	ND	110	ug/kg dry	50	09/17/18	B8I1704	8260	
75-09-2	Methylene chloride	ND	110	ug/kg dry	50	09/17/18	B8I1704	8260	
1634-04-4	Methyltertiarybutylether	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
91-20-3	Naphthalene	ND	280	ug/kg dry	50	09/17/18	B8I1704	8260	X
104-51-8	n-Butylbenzene	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
103-65-1	n-Propylbenzene	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
95-47-6	**o-Xylene**	**65**	56	ug/kg dry	50	09/17/18	B8I1704	8260	
135-98-8	sec-Butylbenzene	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
100-42-5	Styrene	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
98-06-6	tert-Butylbenzene	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
75-65-0	tertiary Butyl Alcohol	ND	2800	ug/kg dry	50	09/17/18	B8I1704	8260	
994-05-8	tertiaryAmylmethylether	ND	280	ug/kg dry	50	09/17/18	B8I1704	8260	
127-18-4	Tetrachloroethylene	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
109-99-9	Tetrahydrofuran	ND	280	ug/kg dry	50	09/17/18	B8I1704	8260	
108-88-3	**Toluene**	**55**	56	ug/kg dry	50	09/17/18	B8I1704	8260	T
156-60-5	trans-1,2-Dichloroethylene	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
79-01-6	Trichloroethylene	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
75-69-4	Trichlorofluoromethane	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
75-01-4	Vinyl chloride	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	A07
Surrogate: Bromofluorobenzene			*124 %*	*40.3-194*		*09/17/18*	B8I1704	*8260*	
Surrogate: Dibromofluoromethane			*137 %*	*52.1-217*		*09/17/18*	B8I1704	*8260*	
Surrogate: Toluene-d8			*132 %*	*55.4-196*		*09/17/18*	B8I1704	*8260*	

Lab Work Order # 1809120

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CORRECTED REPORT

Client ID: QMCP-SB38 6''-5'

Lab ID: 1809120-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	2-Methylnaphthalene	ND	540	ug/kg dry	1	10/02/18	B8I1922	8270	
83-32-9	Acenaphthene	ND	220	ug/kg dry	1	10/02/18	B8I1922	8270	
208-96-8	Acenaphthylene	ND	220	ug/kg dry	1	10/02/18	B8I1922	8270	
120-12-7	Anthracene	ND	220	ug/kg dry	1	10/02/18	B8I1922	8270	
56-55-3	**Benz[a]anthracene**	**220**	220	ug/kg dry	1	10/02/18	B8I1922	8270	
50-32-8	Benzo[a]pyrene	ND	430	ug/kg dry	1	10/02/18	B8I1922	8270	
205-99-2	**Benzo[b]fluoranthene**	**710**	430	ug/kg dry	1	10/02/18	B8I1922	8270	
191-24-2	Benzo[g,h,i]perylene	ND	430	ug/kg dry	1	10/02/18	B8I1922	8270	
207-08-9	Benzo[k]fluoranthene	ND	430	ug/kg dry	1	10/02/18	B8I1922	8270	
218-01-9	**Chrysene**	**230**	220	ug/kg dry	1	10/02/18	B8I1922	8270	
53-70-3	Dibenz[a,h]anthracene	ND	430	ug/kg dry	1	10/02/18	B8I1922	8270	
206-44-0	**Fluoranthene**	**400**	220	ug/kg dry	1	10/02/18	B8I1922	8270	
86-73-7	Fluorene	ND	220	ug/kg dry	1	10/02/18	B8I1922	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	430	ug/kg dry	1	10/02/18	B8I1922	8270	
91-20-3	**Naphthalene**	**290**	220	ug/kg dry	1	10/02/18	B8I1922	8270	
85-01-8	**Phenanthrene**	**360**	220	ug/kg dry	1	10/02/18	B8I1922	8270	
129-00-0	**Pyrene**	**320**	220	ug/kg dry	1	10/02/18	B8I1922	8270	
Surrogate: 2-Fluorobiphenyl			*87.7 %*	*32.9-115*		*10/02/18*	B8I1922	*8270*	
Surrogate: Nitrobenzene-d5			*76.3 %*	*31.8-115*		*10/02/18*	B8I1922	*8270*	
Surrogate: p-Terphenyl-d14			*103 %*	*38.5-115*		*10/02/18*	B8I1922	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	110	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
11104-28-2	Aroclor 1221	ND	110	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
11141-16-5	Aroclor 1232	ND	110	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
53469-21-9	Aroclor 1242	ND	110	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
12672-29-6	Aroclor 1248	ND	110	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
11097-69-1	Aroclor 1254	ND	110	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
11096-82-5	Aroclor 1260	ND	110	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
37324-23-5	Aroclor 1262	ND	110	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
11100-14-4	Aroclor 1268	ND	110	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
Surrogate: Decachlorobiphenyl			*103 %*	*30-150*		*10/20/18*	B8J1613	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*96.3 %*	*30-150*		*10/20/18*	B8J1613	*8081/8082*	

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P.O. Box 30270
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TEL: (517) 335-9800
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CORRECTED REPORT

Client ID: QMCP-SB38 6''-5'

Lab ID: 1809120-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**92.1**	0.1	%	1	09/20/18	B8I2004	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**48**	0.5	mg/kg dry	10	09/27/18	B8I2504	200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	09/27/18	B8I2504	200.8	
7440-47-3	**Chromium**	**30**	2.0	mg/kg dry	10	09/27/18	B8I2504	200.8	
7440-50-8	**Copper**	**5100**	100	mg/kg dry	1000	09/27/18	B8I2504	200.8	
7439-92-1	**Lead**	**15**	1.0	mg/kg dry	10	09/27/18	B8I2504	200.8	
7439-96-5	**Manganese**	**320**	1.0	mg/kg dry	10	09/27/18	B8I2504	200.8	
7439-97-6	**Mercury**	**0.07**	0.05	mg/kg dry	1	09/26/18	B8I2414	245.5	
7440-22-4	**Silver**	**2.5**	0.1	mg/kg dry	10	09/27/18	B8I2504	200.8	
7440-66-6	**Zinc**	**54**	1.0	mg/kg dry	10	09/27/18	B8I2504	200.8	

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CORRECTED REPORT

Client ID: QMCP-SB37 0-6"

Lab ID: 1809120-05

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									**See note 100**
630-20-6	1,1,1,2-Tetrachloroethane	ND	66	ug/kg dry	50	09/18/18	B8I1818	8260	
71-55-6	1,1,1-Trichloroethane	ND	66	ug/kg dry	50	09/18/18	B8I1818	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	66	ug/kg dry	50	09/18/18	B8I1818	8260	
79-00-5	1,1,2-Trichloroethane	ND	66	ug/kg dry	50	09/18/18	B8I1818	8260	
75-34-3	1,1-Dichloroethane	ND	66	ug/kg dry	50	09/18/18	B8I1818	8260	
75-35-4	1,1-Dichloroethylene	ND	66	ug/kg dry	50	09/18/18	B8I1818	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	330	ug/kg dry	50	09/18/18	B8I1818	8260	
96-18-4	1,2,3-Trichloropropane	ND	66	ug/kg dry	50	09/18/18	B8I1818	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	66	ug/kg dry	50	09/18/18	B8I1818	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	330	ug/kg dry	50	09/18/18	B8I1818	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	66	ug/kg dry	50	09/18/18	B8I1818	8260	
106-93-4	1,2-Dibromoethane	ND	66	ug/kg dry	50	09/18/18	B8I1818	8260	
95-50-1	1,2-Dichlorobenzene	ND	66	ug/kg dry	50	09/18/18	B8I1818	8260	
107-06-2	1,2-Dichloroethane	ND	66	ug/kg dry	50	09/18/18	B8I1818	8260	
78-87-5	1,2-Dichloropropane	ND	66	ug/kg dry	50	09/18/18	B8I1818	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	66	ug/kg dry	50	09/18/18	B8I1818	8260	
541-73-1	1,3-Dichlorobenzene	ND	66	ug/kg dry	50	09/18/18	B8I1818	8260	
106-46-7	1,4-Dichlorobenzene	ND	66	ug/kg dry	50	09/18/18	B8I1818	8260	
540-84-1	2,2,4-Trimethylpentane	ND	330	ug/kg dry	50	09/18/18	B8I1818	8260	
78-93-3	2-Butanone (MEK)	ND	330	ug/kg dry	50	09/18/18	B8I1818	8260	
91-57-6	2-Methylnaphthalene	ND	330	ug/kg dry	50	09/18/18	B8I1818	8260	X
67-64-1	2-Propanone (acetone)	ND	1300	ug/kg dry	50	09/18/18	B8I1818	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	330	ug/kg dry	50	09/18/18	B8I1818	8260	
107-13-1	Acrylonitrile	ND	330	ug/kg dry	50	09/18/18	B8I1818	8260	
71-43-2	Benzene	ND	66	ug/kg dry	50	09/18/18	B8I1818	8260	
74-97-5	Bromochloromethane	ND	66	ug/kg dry	50	09/18/18	B8I1818	8260	
75-27-4	Bromodichloromethane	ND	66	ug/kg dry	50	09/18/18	B8I1818	8260	
75-25-2	Bromoform	ND	66	ug/kg dry	50	09/18/18	B8I1818	8260	
74-83-9	Bromomethane	ND	260	ug/kg dry	50	09/18/18	B8I1818	8260	
75-15-0	Carbon disulfide	ND	66	ug/kg dry	50	09/18/18	B8I1818	8260	
56-23-5	Carbon tetrachloride	ND	66	ug/kg dry	50	09/18/18	B8I1818	8260	
108-90-7	Chlorobenzene	ND	66	ug/kg dry	50	09/18/18	B8I1818	8260	
75-00-3	Chloroethane	ND	330	ug/kg dry	50	09/18/18	B8I1818	8260	
67-66-3	Chloroform	ND	66	ug/kg dry	50	09/18/18	B8I1818	8260	
74-87-3	Chloromethane	ND	330	ug/kg dry	50	09/18/18	B8I1818	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	66	ug/kg dry	50	09/18/18	B8I1818	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	66	ug/kg dry	50	09/18/18	B8I1818	8260	
110-82-7	Cyclohexane	ND	330	ug/kg dry	50	09/18/18	B8I1818	8260	
124-48-1	Dibromochloromethane	ND	66	ug/kg dry	50	09/18/18	B8I1818	8260	
74-95-3	Dibromomethane	ND	66	ug/kg dry	50	09/18/18	B8I1818	8260	
75-71-8	Dichlorodifluoromethane	ND	330	ug/kg dry	50	09/18/18	B8I1818	8260	

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CORRECTED REPORT

Client ID: QMCP-SB37 0-6"

Lab ID: 1809120-05

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									**See note 100**
60-29-7	Diethyl ether	ND	260	ug/kg dry	50	09/18/18	B8I1818	8260	
108-20-3	Diisopropyl Ether	ND	330	ug/kg dry	50	09/18/18	B8I1818	8260	
100-41-4	Ethylbenzene	ND	66	ug/kg dry	50	09/18/18	B8I1818	8260	
637-92-3	Ethyltertiarybutylether	ND	330	ug/kg dry	50	09/18/18	B8I1818	8260	
67-72-1	Hexachloroethane	ND	330	ug/kg dry	50	09/18/18	B8I1818	8260	
110-54-3	Hexane	ND	66	ug/kg dry	50	09/18/18	B8I1818	8260	
98-82-8	Isopropylbenzene	ND	66	ug/kg dry	50	09/18/18	B8I1818	8260	
1330-20-7	m & p - Xylene	ND	130	ug/kg dry	50	09/18/18	B8I1818	8260	
75-09-2	Methylene chloride	ND	130	ug/kg dry	50	09/18/18	B8I1818	8260	
1634-04-4	Methyltertiarybutylether	ND	66	ug/kg dry	50	09/18/18	B8I1818	8260	
91-20-3	Naphthalene	ND	330	ug/kg dry	50	09/18/18	B8I1818	8260	X
104-51-8	n-Butylbenzene	ND	66	ug/kg dry	50	09/18/18	B8I1818	8260	
103-65-1	n-Propylbenzene	ND	66	ug/kg dry	50	09/18/18	B8I1818	8260	
95-47-6	o-Xylene	ND	66	ug/kg dry	50	09/18/18	B8I1818	8260	
135-98-8	sec-Butylbenzene	ND	66	ug/kg dry	50	09/18/18	B8I1818	8260	
100-42-5	Styrene	ND	66	ug/kg dry	50	09/18/18	B8I1818	8260	
98-06-6	tert-Butylbenzene	ND	66	ug/kg dry	50	09/18/18	B8I1818	8260	
75-65-0	tertiary Butyl Alcohol	ND	3300	ug/kg dry	50	09/18/18	B8I1818	8260	
994-05-8	tertiaryAmylmethylether	ND	330	ug/kg dry	50	09/18/18	B8I1818	8260	
127-18-4	Tetrachloroethylene	ND	66	ug/kg dry	50	09/18/18	B8I1818	8260	
109-99-9	Tetrahydrofuran	ND	330	ug/kg dry	50	09/18/18	B8I1818	8260	
108-88-3	Toluene	ND	66	ug/kg dry	50	09/18/18	B8I1818	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	66	ug/kg dry	50	09/18/18	B8I1818	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	66	ug/kg dry	50	09/18/18	B8I1818	8260	
79-01-6	Trichloroethylene	ND	66	ug/kg dry	50	09/18/18	B8I1818	8260	
75-69-4	Trichlorofluoromethane	ND	66	ug/kg dry	50	09/18/18	B8I1818	8260	
75-01-4	Vinyl chloride	ND	66	ug/kg dry	50	09/18/18	B8I1818	8260	
Surrogate: Bromofluorobenzene			*117 %*	*40.3-194*		*09/18/18*	B8I1818	*8260*	
Surrogate: Dibromofluoromethane			*134 %*	*52.1-217*		*09/18/18*	B8I1818	*8260*	
Surrogate: Toluene-d8			*126 %*	*55.4-196*		*09/18/18*	B8I1818	*8260*	

Lab Work Order # 1809120

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CORRECTED REPORT

Client ID: QMCP-SB37 0-6"

Lab ID: 1809120-05

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	2-Methylnaphthalene	ND	540	ug/kg dry	1	10/02/18	B8I1922	8270	
83-32-9	Acenaphthene	ND	210	ug/kg dry	1	10/02/18	B8I1922	8270	
208-96-8	Acenaphthylene	ND	210	ug/kg dry	1	10/02/18	B8I1922	8270	
120-12-7	Anthracene	ND	210	ug/kg dry	1	10/02/18	B8I1922	8270	
56-55-3	Benz[a]anthracene	ND	210	ug/kg dry	1	10/02/18	B8I1922	8270	
50-32-8	Benzo[a]pyrene	ND	430	ug/kg dry	1	10/02/18	B8I1922	8270	
205-99-2	Benzo[b]fluoranthene	ND	430	ug/kg dry	1	10/02/18	B8I1922	8270	
191-24-2	Benzo[g,h,i]perylene	ND	430	ug/kg dry	1	10/02/18	B8I1922	8270	
207-08-9	Benzo[k]fluoranthene	ND	430	ug/kg dry	1	10/02/18	B8I1922	8270	
218-01-9	Chrysene	ND	210	ug/kg dry	1	10/02/18	B8I1922	8270	
53-70-3	Dibenz[a,h]anthracene	ND	430	ug/kg dry	1	10/02/18	B8I1922	8270	
206-44-0	Fluoranthene	ND	210	ug/kg dry	1	10/02/18	B8I1922	8270	
86-73-7	Fluorene	ND	210	ug/kg dry	1	10/02/18	B8I1922	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	430	ug/kg dry	1	10/02/18	B8I1922	8270	
91-20-3	Naphthalene	ND	210	ug/kg dry	1	10/02/18	B8I1922	8270	
85-01-8	Phenanthrene	ND	210	ug/kg dry	1	10/02/18	B8I1922	8270	
129-00-0	Pyrene	ND	210	ug/kg dry	1	10/02/18	B8I1922	8270	
Surrogate: 2-Fluorobiphenyl			*88.6 %*	*32.9-115*		*10/02/18*	B8I1922	*8270*	
Surrogate: Nitrobenzene-d5			*67.7 %*	*31.8-115*		*10/02/18*	B8I1922	*8270*	
Surrogate: p-Terphenyl-d14			*111 %*	*38.5-115*		*10/02/18*	B8I1922	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	110	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
11104-28-2	Aroclor 1221	ND	110	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
11141-16-5	Aroclor 1232	ND	110	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
53469-21-9	Aroclor 1242	ND	110	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
12672-29-6	Aroclor 1248	ND	110	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
11097-69-1	Aroclor 1254	ND	110	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
11096-82-5	Aroclor 1260	ND	110	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
37324-23-5	Aroclor 1262	ND	110	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
11100-14-4	Aroclor 1268	ND	110	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
Surrogate: Decachlorobiphenyl			*96.0 %*	*30-150*		*10/20/18*	B8J1613	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*88.2 %*	*30-150*		*10/20/18*	B8J1613	*8081/8082*	

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CORRECTED REPORT

Client ID: QMCP-SB37 0-6"

Lab ID: 1809120-05

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**93.2**	0.1	%	1	09/20/18	B8I2004	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**3.6**	0.5	mg/kg dry	10	09/27/18	B8I2504	200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	09/27/18	B8I2504	200.8	
7440-47-3	**Chromium**	**18**	2.0	mg/kg dry	10	09/27/18	B8I2504	200.8	
7440-50-8	**Copper**	**270**	1.0	mg/kg dry	10	09/27/18	B8I2504	200.8	
7439-92-1	**Lead**	**2.7**	1.0	mg/kg dry	10	09/27/18	B8I2504	200.8	
7439-96-5	**Manganese**	**180**	1.0	mg/kg dry	10	09/27/18	B8I2504	200.8	
7439-97-6	Mercury	ND	0.05	mg/kg dry	1	09/26/18	B8I2414	245.5	
7440-22-4	**Silver**	**0.1**	0.1	mg/kg dry	10	09/27/18	B8I2504	200.8	
7440-66-6	**Zinc**	**25**	1.0	mg/kg dry	10	09/27/18	B8I2504	200.8	

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CORRECTED REPORT

Client ID: QMCP-SB37 6''-5'

Lab ID: 1809120-06

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
71-55-6	1,1,1-Trichloroethane	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
79-00-5	1,1,2-Trichloroethane	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
75-34-3	1,1-Dichloroethane	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
75-35-4	1,1-Dichloroethylene	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	280	ug/kg dry	50	09/17/18	B8I1704	8260	
96-18-4	1,2,3-Trichloropropane	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	280	ug/kg dry	50	09/17/18	B8I1704	8260	
95-63-6	**1,2,4-Trimethylbenzene**	**76**	56	ug/kg dry	50	09/17/18	B8I1704	8260	
106-93-4	1,2-Dibromoethane	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
95-50-1	1,2-Dichlorobenzene	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
107-06-2	1,2-Dichloroethane	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
78-87-5	1,2-Dichloropropane	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
541-73-1	1,3-Dichlorobenzene	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
106-46-7	1,4-Dichlorobenzene	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
540-84-1	2,2,4-Trimethylpentane	ND	280	ug/kg dry	50	09/17/18	B8I1704	8260	
78-93-3	2-Butanone (MEK)	ND	280	ug/kg dry	50	09/17/18	B8I1704	8260	
91-57-6	2-Methylnaphthalene	ND	280	ug/kg dry	50	09/17/18	B8I1704	8260	X
67-64-1	2-Propanone (acetone)	ND	1100	ug/kg dry	50	09/17/18	B8I1704	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	280	ug/kg dry	50	09/17/18	B8I1704	8260	
107-13-1	Acrylonitrile	ND	280	ug/kg dry	50	09/17/18	B8I1704	8260	
71-43-2	Benzene	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
74-97-5	Bromochloromethane	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
75-27-4	Bromodichloromethane	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
75-25-2	Bromoform	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
74-83-9	Bromomethane	ND	230	ug/kg dry	50	09/17/18	B8I1704	8260	
75-15-0	Carbon disulfide	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
56-23-5	Carbon tetrachloride	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
108-90-7	Chlorobenzene	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
75-00-3	Chloroethane	ND	280	ug/kg dry	50	09/17/18	B8I1704	8260	
67-66-3	Chloroform	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
74-87-3	Chloromethane	ND	280	ug/kg dry	50	09/17/18	B8I1704	8260	A07
156-59-2	cis-1,2-Dichloroethylene	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
110-82-7	Cyclohexane	ND	280	ug/kg dry	50	09/17/18	B8I1704	8260	
124-48-1	Dibromochloromethane	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
74-95-3	Dibromomethane	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
75-71-8	Dichlorodifluoromethane	ND	280	ug/kg dry	50	09/17/18	B8I1704	8260	

STATE OF MICHIGAN
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CORRECTED REPORT

Client ID: QMCP-SB37 6''-5'

Lab ID: 1809120-06

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
60-29-7	Diethyl ether	ND	230	ug/kg dry	50	09/17/18	B8I1704	8260	
108-20-3	Diisopropyl Ether	ND	280	ug/kg dry	50	09/17/18	B8I1704	8260	
100-41-4	Ethylbenzene	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
637-92-3	Ethyltertiarybutylether	ND	280	ug/kg dry	50	09/17/18	B8I1704	8260	
67-72-1	Hexachloroethane	ND	280	ug/kg dry	50	09/17/18	B8I1704	8260	
110-54-3	Hexane	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	A05
98-82-8	Isopropylbenzene	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
1330-20-7	**m & p - Xylene**	**150**	110	ug/kg dry	50	09/17/18	B8I1704	8260	
75-09-2	Methylene chloride	ND	110	ug/kg dry	50	09/17/18	B8I1704	8260	
1634-04-4	Methyltertiarybutylether	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
91-20-3	Naphthalene	ND	280	ug/kg dry	50	09/17/18	B8I1704	8260	X
104-51-8	n-Butylbenzene	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
103-65-1	n-Propylbenzene	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
95-47-6	**o-Xylene**	**100**	56	ug/kg dry	50	09/17/18	B8I1704	8260	
135-98-8	sec-Butylbenzene	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
100-42-5	Styrene	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
98-06-6	tert-Butylbenzene	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
75-65-0	tertiary Butyl Alcohol	ND	2800	ug/kg dry	50	09/17/18	B8I1704	8260	
994-05-8	tertiaryAmylmethylether	ND	280	ug/kg dry	50	09/17/18	B8I1704	8260	
127-18-4	Tetrachloroethylene	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
109-99-9	Tetrahydrofuran	ND	280	ug/kg dry	50	09/17/18	B8I1704	8260	
108-88-3	**Toluene**	**110**	56	ug/kg dry	50	09/17/18	B8I1704	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
79-01-6	Trichloroethylene	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
75-69-4	Trichlorofluoromethane	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	
75-01-4	Vinyl chloride	ND	56	ug/kg dry	50	09/17/18	B8I1704	8260	A07
Surrogate: Bromofluorobenzene			*108 %*	*40.3-194*		*09/17/18*	B8I1704	*8260*	
Surrogate: Dibromofluoromethane			*122 %*	*52.1-217*		*09/17/18*	B8I1704	*8260*	
Surrogate: Toluene-d8			*122 %*	*55.4-196*		*09/17/18*	B8I1704	*8260*	

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CORRECTED REPORT

Client ID: QMCP-SB37 6''-5'

Lab ID: 1809120-06

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	2-Methylnaphthalene	ND	540	ug/kg dry	1	10/02/18	B8I1922	8270	
83-32-9	Acenaphthene	ND	220	ug/kg dry	1	10/02/18	B8I1922	8270	
208-96-8	Acenaphthylene	ND	220	ug/kg dry	1	10/02/18	B8I1922	8270	
120-12-7	Anthracene	ND	220	ug/kg dry	1	10/02/18	B8I1922	8270	
56-55-3	Benz[a]anthracene	ND	220	ug/kg dry	1	10/02/18	B8I1922	8270	
50-32-8	Benzo[a]pyrene	ND	430	ug/kg dry	1	10/03/18	B8I1922	8270	
205-99-2	Benzo[b]fluoranthene	ND	430	ug/kg dry	1	10/03/18	B8I1922	8270	
191-24-2	Benzo[g,h,i]perylene	ND	430	ug/kg dry	1	10/03/18	B8I1922	8270	
207-08-9	Benzo[k]fluoranthene	ND	430	ug/kg dry	1	10/03/18	B8I1922	8270	
218-01-9	Chrysene	ND	220	ug/kg dry	1	10/02/18	B8I1922	8270	
53-70-3	Dibenz[a,h]anthracene	ND	430	ug/kg dry	1	10/03/18	B8I1922	8270	
206-44-0	Fluoranthene	ND	220	ug/kg dry	1	10/02/18	B8I1922	8270	
86-73-7	Fluorene	ND	220	ug/kg dry	1	10/02/18	B8I1922	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	430	ug/kg dry	1	10/03/18	B8I1922	8270	
91-20-3	Naphthalene	ND	220	ug/kg dry	1	10/02/18	B8I1922	8270	
85-01-8	Phenanthrene	ND	220	ug/kg dry	1	10/02/18	B8I1922	8270	
129-00-0	Pyrene	ND	220	ug/kg dry	1	10/02/18	B8I1922	8270	
Surrogate: 2-Fluorobiphenyl			*83.8 %*	*32.9-115*		*10/02/18*	B8I1922	*8270*	
Surrogate: Nitrobenzene-d5			*78.5 %*	*31.8-115*		*10/02/18*	B8I1922	*8270*	
Surrogate: p-Terphenyl-d14			*105 %*	*38.5-115*		*10/02/18*	B8I1922	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	110	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
11104-28-2	Aroclor 1221	ND	110	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
11141-16-5	Aroclor 1232	ND	110	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
53469-21-9	Aroclor 1242	ND	110	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
12672-29-6	Aroclor 1248	ND	110	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
11097-69-1	Aroclor 1254	ND	110	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
11096-82-5	Aroclor 1260	ND	110	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
37324-23-5	Aroclor 1262	ND	110	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
11100-14-4	Aroclor 1268	ND	110	ug/kg dry	1	10/20/18	B8J1613	8081/8082	
Surrogate: Decachlorobiphenyl			*94.6 %*	*30-150*		*10/20/18*	B8J1613	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*87.5 %*	*30-150*		*10/20/18*	B8J1613	*8081/8082*	

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CORRECTED REPORT

Client ID: QMCP-SB37 6''-5'

Lab ID: 1809120-06

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**92.3**	0.1	%	1	09/20/18	B8I2004	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**38**	0.5	mg/kg dry	10	09/27/18	B8I2504	200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	09/27/18	B8I2504	200.8	
7440-47-3	**Chromium**	**27**	2.0	mg/kg dry	10	09/27/18	B8I2504	200.8	
7440-50-8	**Copper**	**1600**	1.0	mg/kg dry	10	09/27/18	B8I2504	200.8	
7439-92-1	**Lead**	**8.7**	1.0	mg/kg dry	10	09/27/18	B8I2504	200.8	
7439-96-5	**Manganese**	**350**	1.0	mg/kg dry	10	09/27/18	B8I2504	200.8	
7439-97-6	Mercury	ND	0.05	mg/kg dry	1	09/26/18	B8I2414	245.5	
7440-22-4	**Silver**	**0.6**	0.1	mg/kg dry	10	09/27/18	B8I2504	200.8	
7440-66-6	**Zinc**	**53**	1.0	mg/kg dry	10	09/27/18	B8I2504	200.8	

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CORRECTED REPORT

Client ID: QMCP-SB7 0-3

Lab ID: 1809120-07

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	69	ug/kg dry	50	09/17/18	B8I1704	8260	
71-55-6	1,1,1-Trichloroethane	ND	69	ug/kg dry	50	09/17/18	B8I1704	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	69	ug/kg dry	50	09/17/18	B8I1704	8260	
79-00-5	1,1,2-Trichloroethane	ND	69	ug/kg dry	50	09/17/18	B8I1704	8260	
75-34-3	1,1-Dichloroethane	ND	69	ug/kg dry	50	09/17/18	B8I1704	8260	
75-35-4	1,1-Dichloroethylene	ND	69	ug/kg dry	50	09/17/18	B8I1704	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	340	ug/kg dry	50	09/17/18	B8I1704	8260	
96-18-4	1,2,3-Trichloropropane	ND	69	ug/kg dry	50	09/17/18	B8I1704	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	69	ug/kg dry	50	09/17/18	B8I1704	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	340	ug/kg dry	50	09/17/18	B8I1704	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	69	ug/kg dry	50	09/17/18	B8I1704	8260	
106-93-4	1,2-Dibromoethane	ND	69	ug/kg dry	50	09/17/18	B8I1704	8260	
95-50-1	1,2-Dichlorobenzene	ND	69	ug/kg dry	50	09/17/18	B8I1704	8260	
107-06-2	1,2-Dichloroethane	ND	69	ug/kg dry	50	09/17/18	B8I1704	8260	
78-87-5	1,2-Dichloropropane	ND	69	ug/kg dry	50	09/17/18	B8I1704	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	69	ug/kg dry	50	09/17/18	B8I1704	8260	
541-73-1	1,3-Dichlorobenzene	ND	69	ug/kg dry	50	09/17/18	B8I1704	8260	
106-46-7	1,4-Dichlorobenzene	ND	69	ug/kg dry	50	09/17/18	B8I1704	8260	
540-84-1	2,2,4-Trimethylpentane	ND	340	ug/kg dry	50	09/17/18	B8I1704	8260	
78-93-3	2-Butanone (MEK)	ND	340	ug/kg dry	50	09/17/18	B8I1704	8260	
91-57-6	2-Methylnaphthalene	ND	340	ug/kg dry	50	09/17/18	B8I1704	8260	X
67-64-1	2-Propanone (acetone)	ND	1400	ug/kg dry	50	09/17/18	B8I1704	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	340	ug/kg dry	50	09/17/18	B8I1704	8260	
107-13-1	Acrylonitrile	ND	340	ug/kg dry	50	09/17/18	B8I1704	8260	
71-43-2	Benzene	ND	69	ug/kg dry	50	09/17/18	B8I1704	8260	
74-97-5	Bromochloromethane	ND	69	ug/kg dry	50	09/17/18	B8I1704	8260	
75-27-4	Bromodichloromethane	ND	69	ug/kg dry	50	09/17/18	B8I1704	8260	
75-25-2	Bromoform	ND	69	ug/kg dry	50	09/17/18	B8I1704	8260	
74-83-9	Bromomethane	ND	280	ug/kg dry	50	09/17/18	B8I1704	8260	
75-15-0	Carbon disulfide	ND	69	ug/kg dry	50	09/17/18	B8I1704	8260	
56-23-5	Carbon tetrachloride	ND	69	ug/kg dry	50	09/17/18	B8I1704	8260	
108-90-7	Chlorobenzene	ND	69	ug/kg dry	50	09/17/18	B8I1704	8260	
75-00-3	Chloroethane	ND	340	ug/kg dry	50	09/17/18	B8I1704	8260	
67-66-3	Chloroform	ND	69	ug/kg dry	50	09/17/18	B8I1704	8260	
74-87-3	Chloromethane	ND	340	ug/kg dry	50	09/17/18	B8I1704	8260	A07
156-59-2	cis-1,2-Dichloroethylene	ND	69	ug/kg dry	50	09/17/18	B8I1704	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	69	ug/kg dry	50	09/17/18	B8I1704	8260	
110-82-7	Cyclohexane	ND	340	ug/kg dry	50	09/17/18	B8I1704	8260	
124-48-1	Dibromochloromethane	ND	69	ug/kg dry	50	09/17/18	B8I1704	8260	
74-95-3	Dibromomethane	ND	69	ug/kg dry	50	09/17/18	B8I1704	8260	
75-71-8	Dichlorodifluoromethane	ND	340	ug/kg dry	50	09/17/18	B8I1704	8260	

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CORRECTED REPORT

Client ID: QMCP-SB7 0-3

Lab ID: 1809120-07

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
60-29-7	Diethyl ether	ND	280	ug/kg dry	50	09/17/18	B8I1704	8260	
108-20-3	Diisopropyl Ether	ND	340	ug/kg dry	50	09/17/18	B8I1704	8260	
100-41-4	Ethylbenzene	ND	69	ug/kg dry	50	09/17/18	B8I1704	8260	
637-92-3	Ethyltertiarybutylether	ND	340	ug/kg dry	50	09/17/18	B8I1704	8260	
67-72-1	Hexachloroethane	ND	340	ug/kg dry	50	09/17/18	B8I1704	8260	
110-54-3	Hexane	ND	69	ug/kg dry	50	09/17/18	B8I1704	8260	A05
98-82-8	Isopropylbenzene	ND	69	ug/kg dry	50	09/17/18	B8I1704	8260	
1330-20-7	m & p - Xylene	ND	140	ug/kg dry	50	09/17/18	B8I1704	8260	
75-09-2	Methylene chloride	ND	140	ug/kg dry	50	09/17/18	B8I1704	8260	
1634-04-4	Methyltertiarybutylether	ND	69	ug/kg dry	50	09/17/18	B8I1704	8260	
91-20-3	Naphthalene	ND	340	ug/kg dry	50	09/17/18	B8I1704	8260	X
104-51-8	n-Butylbenzene	ND	69	ug/kg dry	50	09/17/18	B8I1704	8260	
103-65-1	n-Propylbenzene	ND	69	ug/kg dry	50	09/17/18	B8I1704	8260	
95-47-6	o-Xylene	ND	69	ug/kg dry	50	09/17/18	B8I1704	8260	
135-98-8	sec-Butylbenzene	ND	69	ug/kg dry	50	09/17/18	B8I1704	8260	
100-42-5	Styrene	ND	69	ug/kg dry	50	09/17/18	B8I1704	8260	
98-06-6	tert-Butylbenzene	ND	69	ug/kg dry	50	09/17/18	B8I1704	8260	
75-65-0	tertiary Butyl Alcohol	ND	3400	ug/kg dry	50	09/17/18	B8I1704	8260	
994-05-8	tertiaryAmylmethylether	ND	340	ug/kg dry	50	09/17/18	B8I1704	8260	
127-18-4	Tetrachloroethylene	ND	69	ug/kg dry	50	09/17/18	B8I1704	8260	
109-99-9	Tetrahydrofuran	ND	340	ug/kg dry	50	09/17/18	B8I1704	8260	
108-88-3	Toluene	ND	69	ug/kg dry	50	09/17/18	B8I1704	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	69	ug/kg dry	50	09/17/18	B8I1704	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	69	ug/kg dry	50	09/17/18	B8I1704	8260	
79-01-6	Trichloroethylene	ND	69	ug/kg dry	50	09/17/18	B8I1704	8260	
75-69-4	Trichlorofluoromethane	ND	69	ug/kg dry	50	09/17/18	B8I1704	8260	
75-01-4	Vinyl chloride	ND	69	ug/kg dry	50	09/17/18	B8I1704	8260	A07
Surrogate: Bromofluorobenzene			*118 %*	*40.3-194*		*09/17/18*	B8I1704	*8260*	
Surrogate: Dibromofluoromethane			*133 %*	*52.1-217*		*09/17/18*	B8I1704	*8260*	
Surrogate: Toluene-d8			*129 %*	*55.4-196*		*09/17/18*	B8I1704	*8260*	

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CORRECTED REPORT

Client ID: QMCP-SB7 0-3

Lab ID: 1809120-07

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	2-Methylnaphthalene	ND	600	ug/kg dry	1	10/02/18	B8I1922	8270	
83-32-9	Acenaphthene	ND	240	ug/kg dry	1	10/02/18	B8I1922	8270	
208-96-8	Acenaphthylene	ND	240	ug/kg dry	1	10/02/18	B8I1922	8270	
120-12-7	Anthracene	ND	240	ug/kg dry	1	10/02/18	B8I1922	8270	
56-55-3	**Benz[a]anthracene**	**480**	240	ug/kg dry	1	10/02/18	B8I1922	8270	
50-32-8	Benzo[a]pyrene	ND	480	ug/kg dry	1	10/02/18	B8I1922	8270	
205-99-2	**Benzo[b]fluoranthene**	**710**	480	ug/kg dry	1	10/02/18	B8I1922	8270	
191-24-2	Benzo[g,h,i]perylene	ND	480	ug/kg dry	1	10/02/18	B8I1922	8270	
207-08-9	Benzo[k]fluoranthene	ND	480	ug/kg dry	1	10/02/18	B8I1922	8270	
218-01-9	**Chrysene**	**380**	240	ug/kg dry	1	10/02/18	B8I1922	8270	
53-70-3	Dibenz[a,h]anthracene	ND	480	ug/kg dry	1	10/02/18	B8I1922	8270	
206-44-0	**Fluoranthene**	**770**	240	ug/kg dry	1	10/02/18	B8I1922	8270	
86-73-7	Fluorene	ND	240	ug/kg dry	1	10/02/18	B8I1922	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	480	ug/kg dry	1	10/02/18	B8I1922	8270	
91-20-3	Naphthalene	ND	240	ug/kg dry	1	10/02/18	B8I1922	8270	
85-01-8	**Phenanthrene**	**260**	240	ug/kg dry	1	10/02/18	B8I1922	8270	
129-00-0	**Pyrene**	**660**	240	ug/kg dry	1	10/02/18	B8I1922	8270	
Surrogate: 2-Fluorobiphenyl			*91.6 %*	*32.9-115*		*10/02/18*	B8I1922	*8270*	
Surrogate: Nitrobenzene-d5			*81.9 %*	*31.8-115*		*10/02/18*	B8I1922	*8270*	
Surrogate: p-Terphenyl-d14			*106 %*	*38.5-115*		*10/02/18*	B8I1922	*8270*	
Inorganics-General Chemistry									
TS	**% Total Solids**	**83.0**	0.1	%	1	09/20/18	B8I2004	2540 B	
Inorganics-Metals									
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	09/27/18	B8I2504	200.8	
7440-47-3	**Chromium**	**10**	2.0	mg/kg dry	10	09/27/18	B8I2504	200.8	
7439-92-1	**Lead**	**5.4**	1.0	mg/kg dry	10	09/27/18	B8I2504	200.8	

STATE OF MICHIGAN
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CORRECTED REPORT

Client ID: QMCP-SB68 0-3

Lab ID: 1809120-08

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									**See note 100**
630-20-6	1,1,1,2-Tetrachloroethane	ND	78	ug/kg dry	50	09/17/18	B8I1704	8260	
71-55-6	1,1,1-Trichloroethane	ND	78	ug/kg dry	50	09/17/18	B8I1704	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	78	ug/kg dry	50	09/17/18	B8I1704	8260	
79-00-5	1,1,2-Trichloroethane	ND	78	ug/kg dry	50	09/17/18	B8I1704	8260	
75-34-3	1,1-Dichloroethane	ND	78	ug/kg dry	50	09/17/18	B8I1704	8260	
75-35-4	1,1-Dichloroethylene	ND	78	ug/kg dry	50	09/17/18	B8I1704	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	390	ug/kg dry	50	09/17/18	B8I1704	8260	
96-18-4	1,2,3-Trichloropropane	ND	78	ug/kg dry	50	09/17/18	B8I1704	8260	
526-73-8	**1,2,3-Trimethylbenzene**	**87**	78	ug/kg dry	50	09/17/18	B8I1704	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	390	ug/kg dry	50	09/17/18	B8I1704	8260	
95-63-6	**1,2,4-Trimethylbenzene**	**230**	78	ug/kg dry	50	09/17/18	B8I1704	8260	
106-93-4	1,2-Dibromoethane	ND	78	ug/kg dry	50	09/17/18	B8I1704	8260	
95-50-1	1,2-Dichlorobenzene	ND	78	ug/kg dry	50	09/17/18	B8I1704	8260	
107-06-2	1,2-Dichloroethane	ND	78	ug/kg dry	50	09/17/18	B8I1704	8260	
78-87-5	1,2-Dichloropropane	ND	78	ug/kg dry	50	09/17/18	B8I1704	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	78	ug/kg dry	50	09/17/18	B8I1704	8260	
541-73-1	1,3-Dichlorobenzene	ND	78	ug/kg dry	50	09/17/18	B8I1704	8260	
106-46-7	1,4-Dichlorobenzene	ND	78	ug/kg dry	50	09/17/18	B8I1704	8260	
540-84-1	2,2,4-Trimethylpentane	ND	390	ug/kg dry	50	09/17/18	B8I1704	8260	
78-93-3	2-Butanone (MEK)	ND	390	ug/kg dry	50	09/17/18	B8I1704	8260	
91-57-6	2-Methylnaphthalene	ND	390	ug/kg dry	50	09/17/18	B8I1704	8260	X
67-64-1	2-Propanone (acetone)	ND	1600	ug/kg dry	50	09/17/18	B8I1704	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	390	ug/kg dry	50	09/17/18	B8I1704	8260	
107-13-1	Acrylonitrile	ND	390	ug/kg dry	50	09/17/18	B8I1704	8260	
71-43-2	Benzene	ND	78	ug/kg dry	50	09/17/18	B8I1704	8260	
74-97-5	Bromochloromethane	ND	78	ug/kg dry	50	09/17/18	B8I1704	8260	
75-27-4	Bromodichloromethane	ND	78	ug/kg dry	50	09/17/18	B8I1704	8260	
75-25-2	Bromoform	ND	78	ug/kg dry	50	09/17/18	B8I1704	8260	
74-83-9	Bromomethane	ND	310	ug/kg dry	50	09/17/18	B8I1704	8260	
75-15-0	Carbon disulfide	ND	78	ug/kg dry	50	09/17/18	B8I1704	8260	
56-23-5	Carbon tetrachloride	ND	78	ug/kg dry	50	09/17/18	B8I1704	8260	
108-90-7	Chlorobenzene	ND	78	ug/kg dry	50	09/17/18	B8I1704	8260	
75-00-3	Chloroethane	ND	390	ug/kg dry	50	09/17/18	B8I1704	8260	
67-66-3	Chloroform	ND	78	ug/kg dry	50	09/17/18	B8I1704	8260	
74-87-3	Chloromethane	ND	390	ug/kg dry	50	09/17/18	B8I1704	8260	A07
156-59-2	cis-1,2-Dichloroethylene	ND	78	ug/kg dry	50	09/17/18	B8I1704	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	78	ug/kg dry	50	09/17/18	B8I1704	8260	
110-82-7	Cyclohexane	ND	390	ug/kg dry	50	09/17/18	B8I1704	8260	
124-48-1	Dibromochloromethane	ND	78	ug/kg dry	50	09/17/18	B8I1704	8260	
74-95-3	Dibromomethane	ND	78	ug/kg dry	50	09/17/18	B8I1704	8260	
75-71-8	Dichlorodifluoromethane	ND	390	ug/kg dry	50	09/17/18	B8I1704	8260	

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CORRECTED REPORT

Client ID: QMCP-SB68 0-3

Lab ID: 1809120-08

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									**See note 100**
60-29-7	Diethyl ether	ND	310	ug/kg dry	50	09/17/18	B8I1704	8260	
108-20-3	Diisopropyl Ether	ND	390	ug/kg dry	50	09/17/18	B8I1704	8260	
100-41-4	**Ethylbenzene**	**82**	78	ug/kg dry	50	09/17/18	B8I1704	8260	
637-92-3	Ethyltertiarybutylether	ND	390	ug/kg dry	50	09/17/18	B8I1704	8260	
67-72-1	Hexachloroethane	ND	390	ug/kg dry	50	09/17/18	B8I1704	8260	
110-54-3	**Hexane**	**77**	78	ug/kg dry	50	09/17/18	B8I1704	8260	A05, T
98-82-8	Isopropylbenzene	ND	78	ug/kg dry	50	09/17/18	B8I1704	8260	
1330-20-7	**m & p - Xylene**	**420**	160	ug/kg dry	50	09/17/18	B8I1704	8260	
75-09-2	Methylene chloride	ND	160	ug/kg dry	50	09/17/18	B8I1704	8260	
1634-04-4	Methyltertiarybutylether	ND	78	ug/kg dry	50	09/17/18	B8I1704	8260	
91-20-3	**Naphthalene**	**390**	390	ug/kg dry	50	09/17/18	B8I1704	8260	X
104-51-8	n-Butylbenzene	ND	78	ug/kg dry	50	09/17/18	B8I1704	8260	
103-65-1	n-Propylbenzene	ND	78	ug/kg dry	50	09/17/18	B8I1704	8260	
95-47-6	**o-Xylene**	**330**	78	ug/kg dry	50	09/17/18	B8I1704	8260	
135-98-8	sec-Butylbenzene	ND	78	ug/kg dry	50	09/17/18	B8I1704	8260	
100-42-5	Styrene	ND	78	ug/kg dry	50	09/17/18	B8I1704	8260	
98-06-6	tert-Butylbenzene	ND	78	ug/kg dry	50	09/17/18	B8I1704	8260	
75-65-0	tertiary Butyl Alcohol	ND	3900	ug/kg dry	50	09/17/18	B8I1704	8260	
994-05-8	tertiaryAmylmethylether	ND	390	ug/kg dry	50	09/17/18	B8I1704	8260	
127-18-4	Tetrachloroethylene	ND	78	ug/kg dry	50	09/17/18	B8I1704	8260	
109-99-9	Tetrahydrofuran	ND	390	ug/kg dry	50	09/17/18	B8I1704	8260	
108-88-3	**Toluene**	**310**	78	ug/kg dry	50	09/17/18	B8I1704	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	78	ug/kg dry	50	09/17/18	B8I1704	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	78	ug/kg dry	50	09/17/18	B8I1704	8260	
79-01-6	Trichloroethylene	ND	78	ug/kg dry	50	09/17/18	B8I1704	8260	
75-69-4	Trichlorofluoromethane	ND	78	ug/kg dry	50	09/17/18	B8I1704	8260	
75-01-4	Vinyl chloride	ND	78	ug/kg dry	50	09/17/18	B8I1704	8260	A07
Surrogate: Bromofluorobenzene			*134 %*	*40.3-194*		*09/17/18*	B8I1704	*8260*	
Surrogate: Dibromofluoromethane			*153 %*	*52.1-217*		*09/17/18*	B8I1704	*8260*	
Surrogate: Toluene-d8			*149 %*	*55.4-196*		*09/17/18*	B8I1704	*8260*	

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CORRECTED REPORT

Client ID: QMCP-SB68 0-3

Lab ID: 1809120-08

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y17, Y20**
91-57-6	**2-Methylnaphthalene**	**990**	650	ug/kg dry	1	10/02/18	B8I1922	8270	
83-32-9	Acenaphthene	ND	260	ug/kg dry	1	10/02/18	B8I1922	8270	
208-96-8	Acenaphthylene	ND	260	ug/kg dry	1	10/02/18	B8I1922	8270	
120-12-7	Anthracene	ND	260	ug/kg dry	1	10/02/18	B8I1922	8270	
56-55-3	**Benz[a]anthracene**	**360**	260	ug/kg dry	1	10/02/18	B8I1922	8270	
50-32-8	Benzo[a]pyrene	ND	520	ug/kg dry	1	10/02/18	B8I1922	8270	
205-99-2	**Benzo[b]fluoranthene**	**770**	520	ug/kg dry	1	10/02/18	B8I1922	8270	
191-24-2	Benzo[g,h,i]perylene	ND	520	ug/kg dry	1	10/02/18	B8I1922	8270	
207-08-9	Benzo[k]fluoranthene	ND	520	ug/kg dry	1	10/02/18	B8I1922	8270	
218-01-9	**Chrysene**	**460**	260	ug/kg dry	1	10/02/18	B8I1922	8270	
53-70-3	Dibenz[a,h]anthracene	ND	520	ug/kg dry	1	10/02/18	B8I1922	8270	
206-44-0	**Fluoranthene**	**790**	260	ug/kg dry	1	10/02/18	B8I1922	8270	
86-73-7	Fluorene	ND	260	ug/kg dry	1	10/02/18	B8I1922	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	520	ug/kg dry	1	10/02/18	B8I1922	8270	
91-20-3	**Naphthalene**	**780**	260	ug/kg dry	1	10/02/18	B8I1922	8270	
85-01-8	**Phenanthrene**	**700**	260	ug/kg dry	1	10/02/18	B8I1922	8270	
129-00-0	**Pyrene**	**620**	260	ug/kg dry	1	10/02/18	B8I1922	8270	
Surrogate: 2-Fluorobiphenyl			*87.1 %*	*32.9-115*		*10/02/18*	B8I1922	*8270*	
Surrogate: Nitrobenzene-d5			*69.5 %*	*31.8-115*		*10/02/18*	B8I1922	*8270*	
Surrogate: p-Terphenyl-d14			*84.2 %*	*38.5-115*		*10/02/18*	B8I1922	*8270*	
Inorganics-General Chemistry									
TS	**% Total Solids**	**76.7**	0.1	%	1	09/20/18	B8I2004	2540 B	
Inorganics-Metals									
7440-43-9	**Cadmium**	**0.7**	0.2	mg/kg dry	10	09/27/18	B8I2504	200.8	
7440-47-3	**Chromium**	**63**	2.0	mg/kg dry	10	09/27/18	B8I2504	200.8	
7439-92-1	**Lead**	**63**	1.0	mg/kg dry	10	09/27/18	B8I2504	200.8	

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CORRECTED REPORT

Client ID: QMCP-SB67 0-3

Lab ID: 1809120-09

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									**See note 100**
630-20-6	1,1,1,2-Tetrachloroethane	ND	68	ug/kg dry	50	09/17/18	B8I1704	8260	
71-55-6	1,1,1-Trichloroethane	ND	68	ug/kg dry	50	09/17/18	B8I1704	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	68	ug/kg dry	50	09/17/18	B8I1704	8260	
79-00-5	1,1,2-Trichloroethane	ND	68	ug/kg dry	50	09/17/18	B8I1704	8260	
75-34-3	1,1-Dichloroethane	ND	68	ug/kg dry	50	09/17/18	B8I1704	8260	
75-35-4	1,1-Dichloroethylene	ND	68	ug/kg dry	50	09/17/18	B8I1704	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	340	ug/kg dry	50	09/17/18	B8I1704	8260	
96-18-4	1,2,3-Trichloropropane	ND	68	ug/kg dry	50	09/17/18	B8I1704	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	68	ug/kg dry	50	09/17/18	B8I1704	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	340	ug/kg dry	50	09/17/18	B8I1704	8260	
95-63-6	**1,2,4-Trimethylbenzene**	**130**	68	ug/kg dry	50	09/17/18	B8I1704	8260	
106-93-4	1,2-Dibromoethane	ND	68	ug/kg dry	50	09/17/18	B8I1704	8260	
95-50-1	1,2-Dichlorobenzene	ND	68	ug/kg dry	50	09/17/18	B8I1704	8260	
107-06-2	1,2-Dichloroethane	ND	68	ug/kg dry	50	09/17/18	B8I1704	8260	
78-87-5	1,2-Dichloropropane	ND	68	ug/kg dry	50	09/17/18	B8I1704	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	68	ug/kg dry	50	09/17/18	B8I1704	8260	
541-73-1	1,3-Dichlorobenzene	ND	68	ug/kg dry	50	09/17/18	B8I1704	8260	
106-46-7	1,4-Dichlorobenzene	ND	68	ug/kg dry	50	09/17/18	B8I1704	8260	
540-84-1	2,2,4-Trimethylpentane	ND	340	ug/kg dry	50	09/17/18	B8I1704	8260	
78-93-3	2-Butanone (MEK)	ND	340	ug/kg dry	50	09/17/18	B8I1704	8260	
91-57-6	2-Methylnaphthalene	ND	340	ug/kg dry	50	09/17/18	B8I1704	8260	X
67-64-1	2-Propanone (acetone)	ND	1400	ug/kg dry	50	09/17/18	B8I1704	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	340	ug/kg dry	50	09/17/18	B8I1704	8260	
107-13-1	Acrylonitrile	ND	340	ug/kg dry	50	09/17/18	B8I1704	8260	
71-43-2	Benzene	ND	68	ug/kg dry	50	09/17/18	B8I1704	8260	
74-97-5	Bromochloromethane	ND	68	ug/kg dry	50	09/17/18	B8I1704	8260	
75-27-4	Bromodichloromethane	ND	68	ug/kg dry	50	09/17/18	B8I1704	8260	
75-25-2	Bromoform	ND	68	ug/kg dry	50	09/17/18	B8I1704	8260	
74-83-9	Bromomethane	ND	270	ug/kg dry	50	09/17/18	B8I1704	8260	
75-15-0	Carbon disulfide	ND	68	ug/kg dry	50	09/17/18	B8I1704	8260	
56-23-5	Carbon tetrachloride	ND	68	ug/kg dry	50	09/17/18	B8I1704	8260	
108-90-7	Chlorobenzene	ND	68	ug/kg dry	50	09/17/18	B8I1704	8260	
75-00-3	Chloroethane	ND	340	ug/kg dry	50	09/17/18	B8I1704	8260	
67-66-3	Chloroform	ND	68	ug/kg dry	50	09/17/18	B8I1704	8260	
74-87-3	Chloromethane	ND	340	ug/kg dry	50	09/17/18	B8I1704	8260	A07
156-59-2	cis-1,2-Dichloroethylene	ND	68	ug/kg dry	50	09/17/18	B8I1704	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	68	ug/kg dry	50	09/17/18	B8I1704	8260	
110-82-7	Cyclohexane	ND	340	ug/kg dry	50	09/17/18	B8I1704	8260	
124-48-1	Dibromochloromethane	ND	68	ug/kg dry	50	09/17/18	B8I1704	8260	
74-95-3	Dibromomethane	ND	68	ug/kg dry	50	09/17/18	B8I1704	8260	
75-71-8	Dichlorodifluoromethane	ND	340	ug/kg dry	50	09/17/18	B8I1704	8260	

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CORRECTED REPORT

Client ID: QMCP-SB67 0-3

Lab ID: 1809120-09

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									**See note 100**
60-29-7	Diethyl ether	ND	270	ug/kg dry	50	09/17/18	B8I1704	8260	
108-20-3	Diisopropyl Ether	ND	340	ug/kg dry	50	09/17/18	B8I1704	8260	
100-41-4	Ethylbenzene	ND	68	ug/kg dry	50	09/17/18	B8I1704	8260	
637-92-3	Ethyltertiarybutylether	ND	340	ug/kg dry	50	09/17/18	B8I1704	8260	
67-72-1	Hexachloroethane	ND	340	ug/kg dry	50	09/17/18	B8I1704	8260	
110-54-3	Hexane	ND	68	ug/kg dry	50	09/17/18	B8I1704	8260	A05
98-82-8	Isopropylbenzene	ND	68	ug/kg dry	50	09/17/18	B8I1704	8260	
1330-20-7	**m & p - Xylene**	**270**	140	ug/kg dry	50	09/17/18	B8I1704	8260	
75-09-2	Methylene chloride	ND	140	ug/kg dry	50	09/17/18	B8I1704	8260	
1634-04-4	Methyltertiarybutylether	ND	68	ug/kg dry	50	09/17/18	B8I1704	8260	
91-20-3	Naphthalene	ND	340	ug/kg dry	50	09/17/18	B8I1704	8260	X
104-51-8	n-Butylbenzene	ND	68	ug/kg dry	50	09/17/18	B8I1704	8260	
103-65-1	n-Propylbenzene	ND	68	ug/kg dry	50	09/17/18	B8I1704	8260	
95-47-6	**o-Xylene**	**180**	68	ug/kg dry	50	09/17/18	B8I1704	8260	
135-98-8	sec-Butylbenzene	ND	68	ug/kg dry	50	09/17/18	B8I1704	8260	
100-42-5	Styrene	ND	68	ug/kg dry	50	09/17/18	B8I1704	8260	
98-06-6	tert-Butylbenzene	ND	68	ug/kg dry	50	09/17/18	B8I1704	8260	
75-65-0	tertiary Butyl Alcohol	ND	3400	ug/kg dry	50	09/17/18	B8I1704	8260	
994-05-8	tertiaryAmylmethylether	ND	340	ug/kg dry	50	09/17/18	B8I1704	8260	
127-18-4	Tetrachloroethylene	ND	68	ug/kg dry	50	09/17/18	B8I1704	8260	
109-99-9	Tetrahydrofuran	ND	340	ug/kg dry	50	09/17/18	B8I1704	8260	
108-88-3	**Toluene**	**300**	68	ug/kg dry	50	09/17/18	B8I1704	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	68	ug/kg dry	50	09/17/18	B8I1704	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	68	ug/kg dry	50	09/17/18	B8I1704	8260	
79-01-6	Trichloroethylene	ND	68	ug/kg dry	50	09/17/18	B8I1704	8260	
75-69-4	Trichlorofluoromethane	ND	68	ug/kg dry	50	09/17/18	B8I1704	8260	
75-01-4	Vinyl chloride	ND	68	ug/kg dry	50	09/17/18	B8I1704	8260	A07
Surrogate: Bromofluorobenzene			*112 %*	*40.3-194*		*09/17/18*	B8I1704	*8260*	
Surrogate: Dibromofluoromethane			*125 %*	*52.1-217*		*09/17/18*	B8I1704	*8260*	
Surrogate: Toluene-d8			*165 %*	*55.4-196*		*09/17/18*	B8I1704	*8260*	

Lab Work Order # 1809120

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

CORRECTED REPORT

Client ID: QMCP-SB67 0-3

Lab ID: 1809120-09

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	**2-Methylnaphthalene**	**700**	580	ug/kg dry	1	10/03/18	B8I2407	8270	
83-32-9	Acenaphthene	ND	230	ug/kg dry	1	10/03/18	B8I2407	8270	
208-96-8	Acenaphthylene	ND	230	ug/kg dry	1	10/03/18	B8I2407	8270	
120-12-7	Anthracene	ND	230	ug/kg dry	1	10/03/18	B8I2407	8270	
56-55-3	**Benz[a]anthracene**	**680**	230	ug/kg dry	1	10/03/18	B8I2407	8270	
50-32-8	**Benzo[a]pyrene**	**580**	460	ug/kg dry	1	10/03/18	B8I2407	8270	
205-99-2	**Benzo[b]fluoranthene**	**830**	460	ug/kg dry	1	10/03/18	B8I2407	8270	
191-24-2	Benzo[g,h,i]perylene	ND	460	ug/kg dry	1	10/03/18	B8I2407	8270	
207-08-9	Benzo[k]fluoranthene	ND	460	ug/kg dry	1	10/03/18	B8I2407	8270	
218-01-9	**Chrysene**	**680**	230	ug/kg dry	1	10/03/18	B8I2407	8270	
53-70-3	Dibenz[a,h]anthracene	ND	460	ug/kg dry	1	10/03/18	B8I2407	8270	
206-44-0	**Fluoranthene**	**1200**	230	ug/kg dry	1	10/03/18	B8I2407	8270	
86-73-7	Fluorene	ND	230	ug/kg dry	1	10/03/18	B8I2407	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	460	ug/kg dry	1	10/03/18	B8I2407	8270	
91-20-3	**Naphthalene**	**490**	230	ug/kg dry	1	10/03/18	B8I2407	8270	
85-01-8	**Phenanthrene**	**590**	230	ug/kg dry	1	10/03/18	B8I2407	8270	
129-00-0	**Pyrene**	**890**	230	ug/kg dry	1	10/03/18	B8I2407	8270	
Surrogate: 2-Fluorobiphenyl			*89.7 %*	*32.9-115*		*10/03/18*	B8I2407	*8270*	
Surrogate: Nitrobenzene-d5			*72.1 %*	*31.8-115*		*10/03/18*	B8I2407	*8270*	
Surrogate: p-Terphenyl-d14			*89.0 %*	*38.5-115*		*10/03/18*	B8I2407	*8270*	
Inorganics-General Chemistry									
TS	**% Total Solids**	**86.6**	0.1	%	1	09/20/18	B8I2004	2540 B	
Inorganics-Metals									
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	09/27/18	B8I2504	200.8	
7440-47-3	**Chromium**	**13**	2.0	mg/kg dry	10	09/27/18	B8I2504	200.8	
7439-92-1	**Lead**	**31**	1.0	mg/kg dry	10	09/27/18	B8I2504	200.8	

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FAX: (517) 335-9600

CORRECTED REPORT

Client ID: QMCP-SB74 0-12"

Lab ID: 1809120-10

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y17, Y20**
91-57-6	2-Methylnaphthalene	ND	540	ug/kg dry	1	10/03/18	B8I2407	8270	
83-32-9	Acenaphthene	ND	220	ug/kg dry	1	10/03/18	B8I2407	8270	
208-96-8	Acenaphthylene	ND	220	ug/kg dry	1	10/03/18	B8I2407	8270	
120-12-7	**Anthracene**	**800**	220	ug/kg dry	1	10/03/18	B8I2407	8270	
56-55-3	**Benz[a]anthracene**	**11000**	220	ug/kg dry	1	10/03/18	B8I2407	8270	
50-32-8	**Benzo[a]pyrene**	**11000**	430	ug/kg dry	1	10/03/18	B8I2407	8270	
205-99-2	**Benzo[b]fluoranthene**	**23000**	4300	ug/kg dry	10	10/05/18	B8I2407	8270	
191-24-2	**Benzo[g,h,i]perylene**	**3600**	430	ug/kg dry	1	10/03/18	B8I2407	8270	
207-08-9	**Benzo[k]fluoranthene**	**6200**	430	ug/kg dry	1	10/03/18	B8I2407	8270	
218-01-9	**Chrysene**	**13000**	220	ug/kg dry	1	10/03/18	B8I2407	8270	
53-70-3	**Dibenz[a,h]anthracene**	**4600**	430	ug/kg dry	1	10/03/18	B8I2407	8270	
206-44-0	**Fluoranthene**	**15000**	2200	ug/kg dry	10	10/05/18	B8I2407	8270	
86-73-7	Fluorene	ND	220	ug/kg dry	1	10/03/18	B8I2407	8270	
193-39-5	**Indeno(1,2,3-c,d)pyrene**	**4800**	430	ug/kg dry	1	10/03/18	B8I2407	8270	
91-20-3	Naphthalene	ND	220	ug/kg dry	1	10/03/18	B8I2407	8270	
85-01-8	**Phenanthrene**	**4500**	220	ug/kg dry	1	10/03/18	B8I2407	8270	
129-00-0	**Pyrene**	**10000**	220	ug/kg dry	1	10/03/18	B8I2407	8270	
Surrogate: 2-Fluorobiphenyl			*91.7 %*	*32.9-115*		*10/03/18*	B8I2407	*8270*	
Surrogate: Nitrobenzene-d5			*74.3 %*	*31.8-115*		*10/03/18*	B8I2407	*8270*	
Surrogate: p-Terphenyl-d14			*88.7 %*	*38.5-115*		*10/03/18*	B8I2407	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	540	ug/kg dry	5	11/06/18	B8J1613	8081/8082	Y21
11104-28-2	Aroclor 1221	ND	540	ug/kg dry	5	11/06/18	B8J1613	8081/8082	Y21
11141-16-5	Aroclor 1232	ND	540	ug/kg dry	5	11/06/18	B8J1613	8081/8082	Y21
53469-21-9	Aroclor 1242	ND	540	ug/kg dry	5	11/06/18	B8J1613	8081/8082	Y21
12672-29-6	Aroclor 1248	ND	540	ug/kg dry	5	11/06/18	B8J1613	8081/8082	Y21
11097-69-1	Aroclor 1254	ND	540	ug/kg dry	5	11/06/18	B8J1613	8081/8082	Y21
11096-82-5	Aroclor 1260	ND	710	ug/kg dry	5	11/06/18	B8J1613	8081/8082	Y21
37324-23-5	Aroclor 1262	ND	710	ug/kg dry	5	11/06/18	B8J1613	8081/8082	Y21
11100-14-4	Aroclor 1268	ND	600	ug/kg dry	5	11/06/18	B8J1613	8081/8082	Y21
Surrogate: Decachlorobiphenyl			*146 %*	*30-150*		*11/06/18*	B8J1613	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*154 %*	*30-150*		*11/06/18*	B8J1613	*8081/8082*	

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TEL: (517) 335-9800
FAX: (517) 335-9600

CORRECTED REPORT

Client ID: QMCP-SB74 0-12"

Lab ID: 1809120-10

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**92.8**	0.1	%	1	09/20/18	B8I2004	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**7.4**	0.5	mg/kg dry	10	09/27/18	B8I2504	200.8	
7440-43-9	**Cadmium**	**0.5**	0.2	mg/kg dry	10	09/27/18	B8I2504	200.8	
7440-47-3	**Chromium**	**22**	2.0	mg/kg dry	10	09/27/18	B8I2504	200.8	
7440-50-8	**Copper**	**500**	1.0	mg/kg dry	10	09/27/18	B8I2504	200.8	
7439-92-1	**Lead**	**97**	1.0	mg/kg dry	10	09/27/18	B8I2504	200.8	
7439-96-5	**Manganese**	**2000**	1.0	mg/kg dry	10	09/27/18	B8I2504	200.8	
7439-97-6	**Mercury**	**0.2**	0.05	mg/kg dry	1	09/26/18	B8I2414	245.5	
7440-22-4	**Silver**	**0.7**	0.1	mg/kg dry	10	09/27/18	B8I2504	200.8	
7440-66-6	**Zinc**	**94**	1.0	mg/kg dry	10	09/27/18	B8I2504	200.8	

Michigan Department of Environmental Quality
Laboratory Services Section

Analysis Request Sheet

5 11

Lab Work Order Number	Project Name	Matrix
1809120	Abandoned Mining Wastes- QMCP	SOIL

Site Code/Project Number	AY	CC Email 1	Project TAT Days	Sample Collector
31000098	17	jbinkley@manniksmithgroup.com		
Dept-Division-District	**Index**	**CC Email 2**	**Project Due Date**	**Sample Collector Phone**
DEQ RRD UP District- Calumet	7000			
State Project Manager	**PCA**	**CC Email 3**		**Contract Firm**
Amy Keranen	42050/1533			Mannik & Smith Group
State Project Manager Email	**location**	**Overflow Lab Choice 1**	**Accept Analysis hold time codes**	**Contract Firm Primary Contact**
keranena@michigan.gov	6996	Test America- asbestos	No	Jeff Binkley
State Project Manager Phone	**sub location**	**Overflow Lab Choice 2**		**Primary Contact Phone**
906-337-0389	6010	ALS for waste characterization		906-281-3404

	Lab Use Only	Field Sample Identification	Collection Date	Collection Time	Container Count	Comments
1	01	QMCP-SB 39 0-6"	9-11-18	810		COOLER 14
2	02	QMCP-SB 39 6"-8'		810		
3	03	QMCP-SB 38 0-6"		845		
4	04	QMCP-SB 38 6"-5'		845		
5	05	QMCP-SB 37 0-6"		920		
6	06	QMCP-SB 37 6"-5'		920		COOLER 14
7	07	QMCP-SB 7 0-3		1320		COOLER 15
8	08	QMCP-SB 68 0-3		1347		
9	09	QMCP-SB 67 0-3		1405		
10	10	QMCP-SB 74 0-12"		1430		

ORGANIC CHEMISTRY

VOA - Volatile Organic Acidic

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

OS - Pesticides, PCBs

Pesticides & PCBs	1 2 3 4 5 6 7 8 9 10
Pesticides only	1 2 3 4 5 6 7 8 9 10
PCBs only	1 2 3 4 5 6 7 8 9 10
Toxaphene	1 2 3 4 5 6 7 8 9 10

BNA - Base Neutral Acids

BNAs	1 2 3 4 5 6 7 8 9 10
PNAs only	1 2 3 4 5 6 7 8 9 10
BNs only	1 2 3 4 5 6 7 8 9 10

Organic Specialty Requests

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

METALS CHEMISTRY PACKAGES

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

MS - TOTAL METALS

Silver - Ag	1 2 3 4 5 6 7 8 9 10
Aluminum - Al	1 2 3 4 5 6 7 8 9 10
Arsenic - As	1 2 3 4 5 6 7 8 9 10
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

NO BARIUM

GENERAL CHEMISTRY

GS - General Chemistry

Total Cyanide - CN	1 2 3 4 5 6 7 8 9 10
Available Cyanide - CN	1 2 3 4 5 6 7 8 9 10
Chem Oxyg Dem - COD	1 2 3 4 5 6 7 8 9 10
Total Org Carbon - TOC	1 2 3 4 5 6 7 8 9 10
Kjeldahl Nitrogen - KN	1 2 3 4 5 6 7 8 9 10
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.: JEFF PINCUMBE MDEQ Signature:	Melissa Smith	9/13/18 9:48
Print Name & Org.: Signature:		
Print Name & Org.: Signature:		

Smith, Carol (DEQ)

From: Jeff Binkley <JBinkley@manniksmithgroup.com>
Sent: Wednesday, November 28, 2018 1:29 PM
To: Smith, Carol (DEQ)
Cc: Keranen, Amy (DEQ)
Subject: AMW QMCP Data Package Variances

Carol,

In reviewing the lab data packages sample nomenclature versus the COCs and boring logs we noted the followings variances related to units (green highlighting indicates the correct units and yellow highlighting indicates the units in the lab data package):

QMCP-SB09-6"-12 is listed as QMCP-SB09-6"-12" in the lab data (Work Order Number 1809071).
QMCP-SB51-6"-10 is listed as QMCP-SB51-6"-10" in the lab data (Work Order Number 1809071).
QMCP-SB39-0-6 is listed as QMCP-SB39-0-6' in the lab data (Work Order Number 1809120)

In this scenario do you regenerate the lab reports and EDDs (or should we manually note the variances)?

Thank you,

Jeff

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P.O. Box 30270
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19 October 2018

Work Order: 1809080

Price: $4,350.00

Amy Keranen
MDEQ-RRD-UP
1504 W. Washington St.
Marquette, MI 49855

RE: ABANDONED MINING WASTES-QMCP

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

Page 1 of 23

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MDEQ-RRD-UP	Project: ABANDONED MINING WASTES-QMCP	
1504 W. Washington St.	Site Code: 31000098	**Reported:**
Marquette MI, 49855	Project Manager: Amy Keranen	10/19/2018

Analytical Report for Samples

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Qualifier
QMCP-SS-23-0-6"	1809080-01	Soil/Sediment	09/06/2018	09/10/2018	
QMCP-SS-22-0-6"	1809080-02	Soil/Sediment	09/06/2018	09/10/2018	
QMCP-SS-22-0-6" DUP3	1809080-03	Soil/Sediment	09/06/2018	09/10/2018	
QMCP-SS-24-0-6"	1809080-04	Soil/Sediment	09/06/2018	09/10/2018	
QMCP-SS-25-0-6"	1809080-05	Soil/Sediment	09/06/2018	09/10/2018	
QMCP-SS-26-0-6"	1809080-06	Soil/Sediment	09/06/2018	09/10/2018	
QMCP-SS-27-0-6"	1809080-07	Soil/Sediment	09/06/2018	09/10/2018	
QMCP-SS-28-0-6"	1809080-08	Soil/Sediment	09/06/2018	09/10/2018	
QMCP-SS-29-0-6"	1809080-09	Soil/Sediment	09/06/2018	09/10/2018	
QMCP-SS-30-0-6"	1809080-10	Soil/Sediment	09/06/2018	09/10/2018	

Notes and Definitions

Y20	Reporting Limits (RL) raised due to matrix.
Y17	Probable petroleum product(s) present.
X3	Spike recovery is not applicable due to large target analyte concentration in the source sample.
T	Reported value is less than the reporting limit (RL). Result is estimated.
N	Result is estimated due to Non-homogeneous sample.
LRB	Laboratory reagent blank was greater than 2.2 times the MDL, or greater than 10% of the analyte level in the sample.
I	Dilution required due to matrix interference; reporting limit (RL) raised.
A07	Result(s) and reporting limit(s) are estimated due to poor precision.
A04	Result is estimated due to high matrix spike recovery.
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
dry	Sample results reported on a dry weight basis

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P.O. Box 30270
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TEL: (517) 335-9800
FAX: (517) 335-9600

Client ID: QMCP-SS-23-0-6"

Lab ID: 1809080-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	2-Methylnaphthalene	ND	520	ug/kg dry	1	09/24/18	B8I1312	8270	
83-32-9	Acenaphthene	ND	210	ug/kg dry	1	09/24/18	B8I1312	8270	
208-96-8	Acenaphthylene	ND	210	ug/kg dry	1	09/24/18	B8I1312	8270	
120-12-7	Anthracene	ND	210	ug/kg dry	1	09/24/18	B8I1312	8270	
56-55-3	Benz[a]anthracene	ND	210	ug/kg dry	1	09/24/18	B8I1312	8270	
50-32-8	Benzo[a]pyrene	ND	420	ug/kg dry	1	09/24/18	B8I1312	8270	
205-99-2	Benzo[b]fluoranthene	ND	420	ug/kg dry	1	09/24/18	B8I1312	8270	
191-24-2	Benzo[g,h,i]perylene	ND	420	ug/kg dry	1	09/24/18	B8I1312	8270	
207-08-9	Benzo[k]fluoranthene	ND	420	ug/kg dry	1	09/24/18	B8I1312	8270	
218-01-9	Chrysene	ND	210	ug/kg dry	1	09/24/18	B8I1312	8270	
53-70-3	Dibenz[a,h]anthracene	ND	420	ug/kg dry	1	09/24/18	B8I1312	8270	
206-44-0	Fluoranthene	ND	210	ug/kg dry	1	09/24/18	B8I1312	8270	
86-73-7	Fluorene	ND	210	ug/kg dry	1	09/24/18	B8I1312	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	420	ug/kg dry	1	09/24/18	B8I1312	8270	
91-20-3	Naphthalene	ND	210	ug/kg dry	1	09/24/18	B8I1312	8270	
85-01-8	Phenanthrene	ND	210	ug/kg dry	1	09/24/18	B8I1312	8270	
129-00-0	Pyrene	ND	210	ug/kg dry	1	09/24/18	B8I1312	8270	
Surrogate: 2-Fluorobiphenyl			*67.5 %*	*32.9-115*		*09/24/18*	B8I1312	*8270*	
Surrogate: Nitrobenzene-d5			*62.6 %*	*31.8-115*		*09/24/18*	B8I1312	*8270*	
Surrogate: p-Terphenyl-d14			*81.8 %*	*38.5-115*		*09/24/18*	B8I1312	*8270*	
Inorganics-General Chemistry									
TS	**% Total Solids**	**95.6**	0.1	%	1	09/13/18	B8I1212	2540 B	
57-12-5	Available Cyanide	ND	0.10	mg/kg dry	1	09/20/18	B8I1320	OIA-1677	

Lab Work Order # 1809080

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

Client ID: QMCP-SS-23-0-6"

Lab ID: 1809080-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-Metals									
7440-38-2	**Arsenic**	**1.4**	0.5	mg/kg dry	10	09/24/18	B8I1805	200.8	
7440-39-3	**Barium**	**8.9**	1.0	mg/kg dry	10	09/24/18	B8I1805	200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	09/24/18	B8I1805	200.8	
7440-47-3	**Chromium**	**7.5**	2.0	mg/kg dry	10	09/25/18	B8I1805	200.8	
7440-50-8	**Copper**	**53**	1.0	mg/kg dry	10	09/24/18	B8I1805	200.8	
7439-92-1	**Lead**	**1.3**	1.0	mg/kg dry	10	09/24/18	B8I1805	200.8	
7439-96-5	**Manganese**	**68**	1.0	mg/kg dry	10	09/24/18	B8I1805	200.8	
7439-97-6	Mercury	ND	0.05	mg/kg dry	1	09/17/18	B8I1319	245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	09/24/18	B8I1805	200.8	
7440-22-4	Silver	ND	0.1	mg/kg dry	10	09/24/18	B8I1805	200.8	
7440-66-6	**Zinc**	**9.6**	1.0	mg/kg dry	10	09/24/18	B8I1805	200.8	

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TEL: (517) 335-9800
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Client ID: QMCP-SS-22-0-6"

Lab ID: 1809080-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	2-Methylnaphthalene	ND	610	ug/kg dry	1	09/25/18	B8I1312	8270	
83-32-9	Acenaphthene	ND	240	ug/kg dry	1	09/25/18	B8I1312	8270	
208-96-8	Acenaphthylene	ND	240	ug/kg dry	1	09/25/18	B8I1312	8270	
120-12-7	Anthracene	ND	240	ug/kg dry	1	09/25/18	B8I1312	8270	
56-55-3	Benz[a]anthracene	ND	240	ug/kg dry	1	09/25/18	B8I1312	8270	
50-32-8	Benzo[a]pyrene	ND	490	ug/kg dry	1	09/25/18	B8I1312	8270	
205-99-2	Benzo[b]fluoranthene	ND	490	ug/kg dry	1	09/25/18	B8I1312	8270	
191-24-2	Benzo[g,h,i]perylene	ND	490	ug/kg dry	1	09/25/18	B8I1312	8270	
207-08-9	Benzo[k]fluoranthene	ND	490	ug/kg dry	1	09/25/18	B8I1312	8270	
218-01-9	Chrysene	ND	240	ug/kg dry	1	09/25/18	B8I1312	8270	
53-70-3	Dibenz[a,h]anthracene	ND	490	ug/kg dry	1	09/25/18	B8I1312	8270	
206-44-0	Fluoranthene	ND	240	ug/kg dry	1	09/25/18	B8I1312	8270	
86-73-7	Fluorene	ND	240	ug/kg dry	1	09/25/18	B8I1312	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	490	ug/kg dry	1	09/25/18	B8I1312	8270	
91-20-3	Naphthalene	ND	240	ug/kg dry	1	09/25/18	B8I1312	8270	
85-01-8	Phenanthrene	ND	240	ug/kg dry	1	09/25/18	B8I1312	8270	
129-00-0	Pyrene	ND	240	ug/kg dry	1	09/25/18	B8I1312	8270	
Surrogate: 2-Fluorobiphenyl			*79.4 %*	*32.9-115*		*09/25/18*	B8I1312	*8270*	
Surrogate: Nitrobenzene-d5			*80.2 %*	*31.8-115*		*09/25/18*	B8I1312	*8270*	
Surrogate: p-Terphenyl-d14			*96.9 %*	*38.5-115*		*09/25/18*	B8I1312	*8270*	
Inorganics-General Chemistry									
TS	**% Total Solids**	**81.7**	0.1	%	1	09/13/18	B8I1212	2540 B	
57-12-5	Available Cyanide	ND	0.12	mg/kg dry	1	09/20/18	B8I1320	OIA-1677	

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Client ID: QMCP-SS-22-0-6"

Lab ID: 1809080-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-Metals									
7440-38-2	**Arsenic**	**6.6**	0.5	mg/kg dry	10	09/24/18	B8I1805	200.8	
7440-39-3	**Barium**	**35**	1.0	mg/kg dry	10	09/24/18	B8I1805	200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	09/24/18	B8I1805	200.8	
7440-47-3	**Chromium**	**15**	2.0	mg/kg dry	10	09/25/18	B8I1805	200.8	
7440-50-8	**Copper**	**990**	1.0	mg/kg dry	10	09/24/18	B8I1805	200.8	
7439-92-1	**Lead**	**20**	1.0	mg/kg dry	10	09/24/18	B8I1805	200.8	
7439-96-5	**Manganese**	**200**	1.0	mg/kg dry	10	09/24/18	B8I1805	200.8	
7439-97-6	Mercury	ND	0.06	mg/kg dry	1	09/17/18	B8I1319	245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	09/24/18	B8I1805	200.8	
7440-22-4	**Silver**	**0.8**	0.1	mg/kg dry	10	09/24/18	B8I1805	200.8	
7440-66-6	**Zinc**	**31**	1.0	mg/kg dry	10	09/24/18	B8I1805	200.8	

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TEL: (517) 335-9800
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Client ID: QMCP-SS-22-0-6" DUP3

Lab ID: 1809080-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	2-Methylnaphthalene	ND	610	ug/kg dry	1	09/25/18	B8I1321	8270	
83-32-9	Acenaphthene	ND	240	ug/kg dry	1	09/25/18	B8I1321	8270	
208-96-8	Acenaphthylene	ND	240	ug/kg dry	1	09/25/18	B8I1321	8270	
120-12-7	Anthracene	ND	240	ug/kg dry	1	09/25/18	B8I1321	8270	
56-55-3	Benz[a]anthracene	ND	240	ug/kg dry	1	09/25/18	B8I1321	8270	
50-32-8	Benzo[a]pyrene	ND	490	ug/kg dry	1	09/25/18	B8I1321	8270	
205-99-2	Benzo[b]fluoranthene	ND	490	ug/kg dry	1	09/25/18	B8I1321	8270	
191-24-2	Benzo[g,h,i]perylene	ND	490	ug/kg dry	1	09/25/18	B8I1321	8270	
207-08-9	Benzo[k]fluoranthene	ND	490	ug/kg dry	1	09/25/18	B8I1321	8270	
218-01-9	Chrysene	ND	240	ug/kg dry	1	09/25/18	B8I1321	8270	
53-70-3	Dibenz[a,h]anthracene	ND	490	ug/kg dry	1	09/25/18	B8I1321	8270	
206-44-0	Fluoranthene	ND	240	ug/kg dry	1	09/25/18	B8I1321	8270	
86-73-7	Fluorene	ND	240	ug/kg dry	1	09/25/18	B8I1321	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	490	ug/kg dry	1	09/25/18	B8I1321	8270	
91-20-3	Naphthalene	ND	240	ug/kg dry	1	09/25/18	B8I1321	8270	
85-01-8	Phenanthrene	ND	240	ug/kg dry	1	09/25/18	B8I1321	8270	
129-00-0	Pyrene	ND	240	ug/kg dry	1	09/25/18	B8I1321	8270	
Surrogate: 2-Fluorobiphenyl			*84.2 %*	*32.9-115*		*09/25/18*	B8I1321	*8270*	
Surrogate: Nitrobenzene-d5			*77.2 %*	*31.8-115*		*09/25/18*	B8I1321	*8270*	
Surrogate: p-Terphenyl-d14			*90.7 %*	*38.5-115*		*09/25/18*	B8I1321	*8270*	
Inorganics-General Chemistry									
TS	**% Total Solids**	**82.3**	0.1	%	1	09/13/18	B8I1212	2540 B	
57-12-5	Available Cyanide	ND	0.12	mg/kg dry	1	09/20/18	B8I1320	OIA-1677	

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Client ID: QMCP-SS-22-0-6" DUP3

Lab ID: 1809080-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-Metals									
7440-38-2	**Arsenic**	**5.6**	0.5	mg/kg dry	10	09/21/18	B8I1806	200.8	
7440-39-3	**Barium**	**35**	1.0	mg/kg dry	10	09/21/18	B8I1806	200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	09/21/18	B8I1806	200.8	
7440-47-3	**Chromium**	**16**	2.0	mg/kg dry	10	09/24/18	B8I1806	200.8	
7440-50-8	**Copper**	**910**	1.0	mg/kg dry	10	09/21/18	B8I1806	200.8	
7439-92-1	**Lead**	**17**	1.0	mg/kg dry	10	09/21/18	B8I1806	200.8	
7439-96-5	**Manganese**	**210**	1.0	mg/kg dry	10	09/21/18	B8I1806	200.8	
7439-97-6	Mercury	ND	0.06	mg/kg dry	1	09/17/18	B8I1319	245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	09/21/18	B8I1806	200.8	
7440-22-4	**Silver**	**0.5**	0.1	mg/kg dry	10	09/21/18	B8I1806	200.8	
7440-66-6	**Zinc**	**35**	1.0	mg/kg dry	10	09/21/18	B8I1806	200.8	

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TEL: (517) 335-9800
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Client ID: QMCP-SS-24-0-6"

Lab ID: 1809080-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	2-Methylnaphthalene	ND	530	ug/kg dry	1	09/25/18	B8I1321	8270	
83-32-9	Acenaphthene	ND	210	ug/kg dry	1	09/25/18	B8I1321	8270	
208-96-8	Acenaphthylene	ND	210	ug/kg dry	1	09/25/18	B8I1321	8270	
120-12-7	Anthracene	ND	210	ug/kg dry	1	09/25/18	B8I1321	8270	
56-55-3	Benz[a]anthracene	ND	210	ug/kg dry	1	09/25/18	B8I1321	8270	
50-32-8	Benzo[a]pyrene	ND	420	ug/kg dry	1	09/25/18	B8I1321	8270	
205-99-2	Benzo[b]fluoranthene	ND	420	ug/kg dry	1	09/25/18	B8I1321	8270	
191-24-2	Benzo[g,h,i]perylene	ND	420	ug/kg dry	1	09/25/18	B8I1321	8270	
207-08-9	Benzo[k]fluoranthene	ND	420	ug/kg dry	1	09/25/18	B8I1321	8270	
218-01-9	Chrysene	ND	210	ug/kg dry	1	09/25/18	B8I1321	8270	
53-70-3	Dibenz[a,h]anthracene	ND	420	ug/kg dry	1	09/25/18	B8I1321	8270	
206-44-0	Fluoranthene	ND	210	ug/kg dry	1	09/25/18	B8I1321	8270	
86-73-7	Fluorene	ND	210	ug/kg dry	1	09/25/18	B8I1321	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	420	ug/kg dry	1	09/25/18	B8I1321	8270	
91-20-3	Naphthalene	ND	210	ug/kg dry	1	09/25/18	B8I1321	8270	
85-01-8	Phenanthrene	ND	210	ug/kg dry	1	09/25/18	B8I1321	8270	
129-00-0	Pyrene	ND	210	ug/kg dry	1	09/25/18	B8I1321	8270	
Surrogate: 2-Fluorobiphenyl			*81.7 %*	*32.9-115*		*09/25/18*	B8I1321	*8270*	
Surrogate: Nitrobenzene-d5			*75.6 %*	*31.8-115*		*09/25/18*	B8I1321	*8270*	
Surrogate: p-Terphenyl-d14			*91.4 %*	*38.5-115*		*09/25/18*	B8I1321	*8270*	
Inorganics-General Chemistry									
TS	**% Total Solids**	**94.5**	0.1	%	1	09/13/18	B8I1212	2540 B	
57-12-5	Available Cyanide	ND	0.11	mg/kg dry	1	09/20/18	B8I1320	OIA-1677	

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Client ID: QMCP-SS-24-0-6"

Lab ID: 1809080-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-Metals									
7440-38-2	**Arsenic**	**73**	0.5	mg/kg dry	10	09/21/18	B8I1806	200.8	
7440-39-3	**Barium**	**280**	1.0	mg/kg dry	10	09/21/18	B8I1806	200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	09/21/18	B8I1806	200.8	
7440-47-3	**Chromium**	**230**	200	mg/kg dry	1000	09/24/18	B8I1806	200.8	
7440-50-8	**Copper**	**6200**	1000	mg/kg dry	10000	09/24/18	B8I1806	200.8	
7439-92-1	**Lead**	**30**	1.0	mg/kg dry	10	09/21/18	B8I1806	200.8	
7439-96-5	**Manganese**	**850**	1.0	mg/kg dry	10	09/21/18	B8I1806	200.8	
7439-97-6	Mercury	ND	0.05	mg/kg dry	1	09/17/18	B8I1319	245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	09/21/18	B8I1806	200.8	
7440-22-4	**Silver**	**1.3**	0.1	mg/kg dry	10	09/21/18	B8I1806	200.8	
7440-66-6	**Zinc**	**140**	1.0	mg/kg dry	10	09/21/18	B8I1806	200.8	

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FAX: (517) 335-9600

Client ID: QMCP-SS-25-0-6"

Lab ID: 1809080-05

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	2-Methylnaphthalene	ND	530	ug/kg dry	1	09/25/18	B8I1321	8270	
83-32-9	Acenaphthene	ND	210	ug/kg dry	1	09/25/18	B8I1321	8270	
208-96-8	Acenaphthylene	ND	210	ug/kg dry	1	09/25/18	B8I1321	8270	
120-12-7	Anthracene	ND	210	ug/kg dry	1	09/25/18	B8I1321	8270	
56-55-3	Benz[a]anthracene	ND	210	ug/kg dry	1	09/25/18	B8I1321	8270	
50-32-8	Benzo[a]pyrene	ND	430	ug/kg dry	1	09/25/18	B8I1321	8270	
205-99-2	Benzo[b]fluoranthene	ND	430	ug/kg dry	1	09/25/18	B8I1321	8270	
191-24-2	Benzo[g,h,i]perylene	ND	430	ug/kg dry	1	09/25/18	B8I1321	8270	
207-08-9	Benzo[k]fluoranthene	ND	430	ug/kg dry	1	09/25/18	B8I1321	8270	
218-01-9	Chrysene	ND	210	ug/kg dry	1	09/25/18	B8I1321	8270	
53-70-3	Dibenz[a,h]anthracene	ND	430	ug/kg dry	1	09/25/18	B8I1321	8270	
206-44-0	Fluoranthene	ND	210	ug/kg dry	1	09/25/18	B8I1321	8270	
86-73-7	Fluorene	ND	210	ug/kg dry	1	09/25/18	B8I1321	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	430	ug/kg dry	1	09/25/18	B8I1321	8270	
91-20-3	Naphthalene	ND	210	ug/kg dry	1	09/25/18	B8I1321	8270	
85-01-8	Phenanthrene	ND	210	ug/kg dry	1	09/25/18	B8I1321	8270	
129-00-0	Pyrene	ND	210	ug/kg dry	1	09/25/18	B8I1321	8270	
Surrogate: 2-Fluorobiphenyl			*85.6 %*	*32.9-115*		*09/25/18*	B8I1321	*8270*	
Surrogate: Nitrobenzene-d5			*79.2 %*	*31.8-115*		*09/25/18*	B8I1321	*8270*	
Surrogate: p-Terphenyl-d14			*96.7 %*	*38.5-115*		*09/25/18*	B8I1321	*8270*	
Inorganics-General Chemistry									
TS	**% Total Solids**	**93.8**	0.1	%	1	09/13/18	B8I1212	2540 B	N
57-12-5	Available Cyanide	ND	0.11	mg/kg dry	1	09/20/18	B8I1320	OIA-1677	

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Client ID: QMCP-SS-25-0-6"

Lab ID: 1809080-05

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-Metals									
7440-38-2	**Arsenic**	**4.8**	0.5	mg/kg dry	10	09/21/18	B8I1806	200.8	
7440-39-3	**Barium**	**14**	1.0	mg/kg dry	10	09/21/18	B8I1806	200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	09/21/18	B8I1806	200.8	
7440-47-3	**Chromium**	**33**	2.0	mg/kg dry	10	09/24/18	B8I1806	200.8	
7440-50-8	**Copper**	**1100**	1.0	mg/kg dry	10	09/21/18	B8I1806	200.8	
7439-92-1	**Lead**	**5.0**	1.0	mg/kg dry	10	09/21/18	B8I1806	200.8	
7439-96-5	**Manganese**	**460**	1.0	mg/kg dry	10	09/21/18	B8I1806	200.8	
7439-97-6	Mercury	ND	0.05	mg/kg dry	1	09/17/18	B8I1319	245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	09/21/18	B8I1806	200.8	
7440-22-4	**Silver**	**0.8**	0.1	mg/kg dry	10	09/21/18	B8I1806	200.8	
7440-66-6	**Zinc**	**51**	1.0	mg/kg dry	10	09/21/18	B8I1806	200.8	

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TEL: (517) 335-9800
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Client ID: QMCP-SS-26-0-6"

Lab ID: 1809080-06

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y17, Y20**
91-57-6	**2-Methylnaphthalene**	**3000**	700	ug/kg dry	1	09/25/18	B8I1321	8270	
83-32-9	Acenaphthene	ND	280	ug/kg dry	1	09/25/18	B8I1321	8270	
208-96-8	Acenaphthylene	ND	280	ug/kg dry	1	09/25/18	B8I1321	8270	
120-12-7	Anthracene	ND	280	ug/kg dry	1	09/25/18	B8I1321	8270	
56-55-3	**Benz[a]anthracene**	**730**	280	ug/kg dry	1	09/25/18	B8I1321	8270	
50-32-8	**Benzo[a]pyrene**	**550**	560	ug/kg dry	1	09/25/18	B8I1321	8270	T
205-99-2	**Benzo[b]fluoranthene**	**1000**	560	ug/kg dry	1	09/25/18	B8I1321	8270	
191-24-2	Benzo[g,h,i]perylene	ND	560	ug/kg dry	1	09/25/18	B8I1321	8270	
207-08-9	Benzo[k]fluoranthene	ND	560	ug/kg dry	1	09/25/18	B8I1321	8270	
218-01-9	**Chrysene**	**900**	280	ug/kg dry	1	09/25/18	B8I1321	8270	
53-70-3	Dibenz[a,h]anthracene	ND	560	ug/kg dry	1	09/25/18	B8I1321	8270	
206-44-0	**Fluoranthene**	**1400**	280	ug/kg dry	1	09/25/18	B8I1321	8270	
86-73-7	Fluorene	ND	280	ug/kg dry	1	09/25/18	B8I1321	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	560	ug/kg dry	1	09/25/18	B8I1321	8270	
91-20-3	**Naphthalene**	**2200**	280	ug/kg dry	1	09/25/18	B8I1321	8270	
85-01-8	**Phenanthrene**	**2100**	280	ug/kg dry	1	09/25/18	B8I1321	8270	
129-00-0	**Pyrene**	**1100**	280	ug/kg dry	1	09/25/18	B8I1321	8270	
Surrogate: 2-Fluorobiphenyl			*82.3 %*	*32.9-115*		*09/25/18*	B8I1321	*8270*	
Surrogate: Nitrobenzene-d5			*75.0 %*	*31.8-115*		*09/25/18*	B8I1321	*8270*	
Surrogate: p-Terphenyl-d14			*87.9 %*	*38.5-115*		*09/25/18*	B8I1321	*8270*	
Inorganics-General Chemistry									
TS	**% Total Solids**	**71.6**	0.1	%	1	09/13/18	B8I1212	2540 B	N
57-12-5	Available Cyanide	ND	0.14	mg/kg dry	1	09/20/18	B8I1320	OIA-1677	

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P.O. Box 30270
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TEL: (517) 335-9800
FAX: (517) 335-9600

Client ID: QMCP-SS-26-0-6"

Lab ID: 1809080-06

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-Metals									
7440-38-2	**Arsenic**	**110**	0.5	mg/kg dry	10	09/21/18	B8I1806	200.8	
7440-39-3	**Barium**	**53**	1.0	mg/kg dry	10	09/21/18	B8I1806	200.8	
7440-43-9	**Cadmium**	**0.8**	0.2	mg/kg dry	10	09/21/18	B8I1806	200.8	
7440-47-3	**Chromium**	**13**	2.0	mg/kg dry	10	09/24/18	B8I1806	200.8	LRB
7440-50-8	**Copper**	**6400**	1000	mg/kg dry	10000	09/24/18	B8I1806	200.8	
7439-92-1	**Lead**	**42**	1.0	mg/kg dry	10	09/21/18	B8I1806	200.8	
7439-96-5	**Manganese**	**210**	1.0	mg/kg dry	10	09/21/18	B8I1806	200.8	
7439-97-6	Mercury	ND	0.07	mg/kg dry	1	09/21/18	B8I1824	245.5	
7782-49-2	**Selenium**	**0.3**	0.2	mg/kg dry	10	09/21/18	B8I1806	200.8	
7440-22-4	**Silver**	**4.8**	0.1	mg/kg dry	10	09/21/18	B8I1806	200.8	
7440-66-6	**Zinc**	**200**	1.0	mg/kg dry	10	09/21/18	B8I1806	200.8	

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Client ID: QMCP-SS-27-0-6"

Lab ID: 1809080-07

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	2-Methylnaphthalene	ND	530	ug/kg dry	1	09/25/18	B8I1321	8270	
83-32-9	Acenaphthene	ND	210	ug/kg dry	1	09/25/18	B8I1321	8270	
208-96-8	Acenaphthylene	ND	210	ug/kg dry	1	09/25/18	B8I1321	8270	
120-12-7	Anthracene	ND	210	ug/kg dry	1	09/25/18	B8I1321	8270	
56-55-3	Benz[a]anthracene	ND	210	ug/kg dry	1	09/25/18	B8I1321	8270	
50-32-8	Benzo[a]pyrene	ND	420	ug/kg dry	1	09/25/18	B8I1321	8270	
205-99-2	Benzo[b]fluoranthene	ND	420	ug/kg dry	1	09/25/18	B8I1321	8270	
191-24-2	Benzo[g,h,i]perylene	ND	420	ug/kg dry	1	09/25/18	B8I1321	8270	
207-08-9	Benzo[k]fluoranthene	ND	420	ug/kg dry	1	09/25/18	B8I1321	8270	
218-01-9	Chrysene	ND	210	ug/kg dry	1	09/25/18	B8I1321	8270	
53-70-3	Dibenz[a,h]anthracene	ND	420	ug/kg dry	1	09/25/18	B8I1321	8270	
206-44-0	Fluoranthene	ND	210	ug/kg dry	1	09/25/18	B8I1321	8270	
86-73-7	Fluorene	ND	210	ug/kg dry	1	09/25/18	B8I1321	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	420	ug/kg dry	1	09/25/18	B8I1321	8270	
91-20-3	Naphthalene	ND	210	ug/kg dry	1	09/25/18	B8I1321	8270	
85-01-8	Phenanthrene	ND	210	ug/kg dry	1	09/25/18	B8I1321	8270	
129-00-0	Pyrene	ND	210	ug/kg dry	1	09/25/18	B8I1321	8270	
Surrogate: 2-Fluorobiphenyl			*81.7 %*	*32.9-115*		*09/25/18*	B8I1321	*8270*	
Surrogate: Nitrobenzene-d5			*76.8 %*	*31.8-115*		*09/25/18*	B8I1321	*8270*	
Surrogate: p-Terphenyl-d14			*93.2 %*	*38.5-115*		*09/25/18*	B8I1321	*8270*	
Inorganics-General Chemistry									
TS	**% Total Solids**	**94.3**	0.1	%	1	09/13/18	B8I1212	2540 B	
57-12-5	Available Cyanide	ND	0.11	mg/kg dry	1	09/20/18	B8I1320	OIA-1677	

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Client ID: QMCP-SS-27-0-6"

Lab ID: 1809080-07

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-Metals									
7440-38-2	**Arsenic**	**6.6**	0.5	mg/kg dry	10	09/21/18	B8I1806	200.8	
7440-39-3	**Barium**	**6.1**	1.0	mg/kg dry	10	09/21/18	B8I1806	200.8	
7440-43-9	**Cadmium**	**0.4**	0.2	mg/kg dry	10	09/21/18	B8I1806	200.8	
7440-47-3	**Chromium**	**94**	2.0	mg/kg dry	10	09/24/18	B8I1806	200.8	
7440-50-8	**Copper**	**1100**	1.0	mg/kg dry	10	09/21/18	B8I1806	200.8	
7439-92-1	**Lead**	**4.3**	1.0	mg/kg dry	10	09/21/18	B8I1806	200.8	
7439-96-5	**Manganese**	**900**	1.0	mg/kg dry	10	09/21/18	B8I1806	200.8	
7439-97-6	Mercury	ND	0.05	mg/kg dry	1	09/21/18	B8I1824	245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	09/21/18	B8I1806	200.8	
7440-22-4	**Silver**	**1.6**	0.1	mg/kg dry	10	09/21/18	B8I1806	200.8	
7440-66-6	**Zinc**	**74**	1.0	mg/kg dry	10	09/21/18	B8I1806	200.8	

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Client ID: QMCP-SS-28-0-6"

Lab ID: 1809080-08

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	2-Methylnaphthalene	ND	550	ug/kg dry	1	09/25/18	B8I1321	8270	
83-32-9	Acenaphthene	ND	220	ug/kg dry	1	09/25/18	B8I1321	8270	
208-96-8	Acenaphthylene	ND	220	ug/kg dry	1	09/25/18	B8I1321	8270	
120-12-7	Anthracene	ND	220	ug/kg dry	1	09/25/18	B8I1321	8270	
56-55-3	Benz[a]anthracene	ND	220	ug/kg dry	1	09/25/18	B8I1321	8270	
50-32-8	Benzo[a]pyrene	ND	440	ug/kg dry	1	09/25/18	B8I1321	8270	
205-99-2	Benzo[b]fluoranthene	ND	440	ug/kg dry	1	09/25/18	B8I1321	8270	
191-24-2	Benzo[g,h,i]perylene	ND	440	ug/kg dry	1	09/25/18	B8I1321	8270	
207-08-9	Benzo[k]fluoranthene	ND	440	ug/kg dry	1	09/25/18	B8I1321	8270	
218-01-9	Chrysene	ND	220	ug/kg dry	1	09/25/18	B8I1321	8270	
53-70-3	Dibenz[a,h]anthracene	ND	440	ug/kg dry	1	09/25/18	B8I1321	8270	
206-44-0	Fluoranthene	ND	220	ug/kg dry	1	09/25/18	B8I1321	8270	
86-73-7	Fluorene	ND	220	ug/kg dry	1	09/25/18	B8I1321	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	440	ug/kg dry	1	09/25/18	B8I1321	8270	
91-20-3	Naphthalene	ND	220	ug/kg dry	1	09/25/18	B8I1321	8270	
85-01-8	Phenanthrene	ND	220	ug/kg dry	1	09/25/18	B8I1321	8270	
129-00-0	Pyrene	ND	220	ug/kg dry	1	09/25/18	B8I1321	8270	
Surrogate: 2-Fluorobiphenyl			*84.2 %*	*32.9-115*		*09/25/18*	B8I1321	*8270*	
Surrogate: Nitrobenzene-d5			*78.2 %*	*31.8-115*		*09/25/18*	B8I1321	*8270*	
Surrogate: p-Terphenyl-d14			*93.0 %*	*38.5-115*		*09/25/18*	B8I1321	*8270*	
Inorganics-General Chemistry									
TS	**% Total Solids**	**90.9**	0.1	%	1	09/13/18	B8I1212	2540 B	
57-12-5	Available Cyanide	ND	0.11	mg/kg dry	1	09/20/18	B8I1320	OIA-1677	

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Client ID: QMCP-SS-28-0-6"

Lab ID: 1809080-08

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-Metals									
7440-38-2	**Arsenic**	**2.5**	0.5	mg/kg dry	10	09/24/18	B8I1806	200.8	
7440-39-3	**Barium**	**41**	1.0	mg/kg dry	10	09/21/18	B8I1806	200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	09/21/18	B8I1806	200.8	
7440-47-3	**Chromium**	**14**	2.0	mg/kg dry	10	09/24/18	B8I1806	200.8	
7440-50-8	**Copper**	**220**	1.0	mg/kg dry	10	09/21/18	B8I1806	200.8	
7439-92-1	**Lead**	**83**	1.0	mg/kg dry	10	09/21/18	B8I1806	200.8	
7439-96-5	**Manganese**	**200**	1.0	mg/kg dry	10	09/21/18	B8I1806	200.8	
7439-97-6	**Mercury**	**0.2**	0.05	mg/kg dry	1	09/21/18	B8I1824	245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	09/21/18	B8I1806	200.8	
7440-22-4	**Silver**	**0.3**	0.1	mg/kg dry	10	09/21/18	B8I1806	200.8	
7440-66-6	**Zinc**	**70**	1.0	mg/kg dry	10	09/21/18	B8I1806	200.8	

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Client ID: QMCP-SS-29-0-6"

Lab ID: 1809080-09

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y17, Y20**
91-57-6	**2-Methylnaphthalene**	**1500**	550	ug/kg dry	1	09/25/18	B8I1321	8270	
83-32-9	Acenaphthene	ND	220	ug/kg dry	1	09/25/18	B8I1321	8270	
208-96-8	Acenaphthylene	ND	220	ug/kg dry	1	09/25/18	B8I1321	8270	
120-12-7	Anthracene	ND	220	ug/kg dry	1	09/25/18	B8I1321	8270	
56-55-3	**Benz[a]anthracene**	**540**	220	ug/kg dry	1	09/25/18	B8I1321	8270	
50-32-8	Benzo[a]pyrene	ND	440	ug/kg dry	1	09/25/18	B8I1321	8270	
205-99-2	**Benzo[b]fluoranthene**	**1200**	440	ug/kg dry	1	09/25/18	B8I1321	8270	
191-24-2	Benzo[g,h,i]perylene	ND	440	ug/kg dry	1	09/25/18	B8I1321	8270	
207-08-9	Benzo[k]fluoranthene	ND	440	ug/kg dry	1	09/25/18	B8I1321	8270	
218-01-9	**Chrysene**	**780**	220	ug/kg dry	1	09/25/18	B8I1321	8270	
53-70-3	Dibenz[a,h]anthracene	ND	440	ug/kg dry	1	09/25/18	B8I1321	8270	
206-44-0	**Fluoranthene**	**800**	220	ug/kg dry	1	09/25/18	B8I1321	8270	
86-73-7	Fluorene	ND	220	ug/kg dry	1	09/25/18	B8I1321	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	440	ug/kg dry	1	09/25/18	B8I1321	8270	
91-20-3	**Naphthalene**	**1100**	220	ug/kg dry	1	09/25/18	B8I1321	8270	
85-01-8	**Phenanthrene**	**1000**	220	ug/kg dry	1	09/25/18	B8I1321	8270	
129-00-0	**Pyrene**	**710**	220	ug/kg dry	1	09/25/18	B8I1321	8270	
Surrogate: 2-Fluorobiphenyl			*86.0 %*	*32.9-115*		*09/25/18*	B8I1321	*8270*	
Surrogate: Nitrobenzene-d5			*74.8 %*	*31.8-115*		*09/25/18*	B8I1321	*8270*	
Surrogate: p-Terphenyl-d14			*93.4 %*	*38.5-115*		*09/25/18*	B8I1321	*8270*	
Inorganics-General Chemistry									
TS	**% Total Solids**	**90.7**	0.1	%	1	09/13/18	B8I1212	2540 B	
57-12-5	Available Cyanide	ND	0.11	mg/kg dry	1	09/20/18	B8I1320	OIA-1677	

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Client ID: QMCP-SS-29-0-6"

Lab ID: 1809080-09

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-Metals									
7440-38-2	**Arsenic**	**12**	0.5	mg/kg dry	10	09/21/18	B8I1806	200.8	
7440-39-3	**Barium**	**64**	1.0	mg/kg dry	10	09/21/18	B8I1806	200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	09/24/18	B8I1806	200.8	
7440-47-3	Chromium	ND	200	mg/kg dry	1000	09/24/18	B8I1806	200.8	
7440-50-8	**Copper**	**41000**	1000	mg/kg dry	10000	09/24/18	B8I1806	200.8	
7439-92-1	**Lead**	**110**	1.0	mg/kg dry	10	09/21/18	B8I1806	200.8	
7439-96-5	**Manganese**	**280**	1.0	mg/kg dry	10	09/21/18	B8I1806	200.8	
7439-97-6	**Mercury**	**0.07**	0.06	mg/kg dry	1	09/21/18	B8I1824	245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	09/21/18	B8I1806	200.8	
7440-22-4	**Silver**	**4.6**	0.1	mg/kg dry	10	09/21/18	B8I1806	200.8	
7440-66-6	**Zinc**	**160**	1.0	mg/kg dry	10	09/21/18	B8I1806	200.8	

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Client ID: QMCP-SS-30-0-6"

Lab ID: 1809080-10

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y17, Y20**
91-57-6	**2-Methylnaphthalene**	**2100**	570	ug/kg dry	1	09/25/18	B8I1321	8270	
83-32-9	**Acenaphthene**	**2000**	230	ug/kg dry	1	09/25/18	B8I1321	8270	
208-96-8	**Acenaphthylene**	**1200**	230	ug/kg dry	1	09/25/18	B8I1321	8270	
120-12-7	**Anthracene**	**6300**	230	ug/kg dry	1	09/25/18	B8I1321	8270	
56-55-3	**Benz[a]anthracene**	**16000**	2300	ug/kg dry	10	09/26/18	B8I1321	8270	
50-32-8	**Benzo[a]pyrene**	**12000**	450	ug/kg dry	1	09/25/18	B8I1321	8270	
205-99-2	**Benzo[b]fluoranthene**	**20000**	4500	ug/kg dry	10	09/26/18	B8I1321	8270	
191-24-2	**Benzo[g,h,i]perylene**	**2300**	450	ug/kg dry	1	09/25/18	B8I1321	8270	
207-08-9	**Benzo[k]fluoranthene**	**7800**	450	ug/kg dry	1	09/25/18	B8I1321	8270	
218-01-9	**Chrysene**	**16000**	2300	ug/kg dry	10	09/26/18	B8I1321	8270	
53-70-3	**Dibenz[a,h]anthracene**	**1100**	450	ug/kg dry	1	09/25/18	B8I1321	8270	
206-44-0	**Fluoranthene**	**41000**	2300	ug/kg dry	10	09/26/18	B8I1321	8270	
86-73-7	**Fluorene**	**5600**	230	ug/kg dry	1	09/25/18	B8I1321	8270	
193-39-5	**Indeno(1,2,3-c,d)pyrene**	**3000**	450	ug/kg dry	1	09/25/18	B8I1321	8270	
91-20-3	**Naphthalene**	**5600**	230	ug/kg dry	1	09/25/18	B8I1321	8270	
85-01-8	**Phenanthrene**	**43000**	2300	ug/kg dry	10	09/26/18	B8I1321	8270	
129-00-0	**Pyrene**	**27000**	2300	ug/kg dry	10	09/26/18	B8I1321	8270	
Surrogate: 2-Fluorobiphenyl			*90.3 %*	*32.9-115*		*09/25/18*	B8I1321	*8270*	
Surrogate: Nitrobenzene-d5			*81.1 %*	*31.8-115*		*09/25/18*	B8I1321	*8270*	
Surrogate: p-Terphenyl-d14			*103 %*	*38.5-115*		*09/25/18*	B8I1321	*8270*	
Inorganics-General Chemistry									
TS	**% Total Solids**	**88.3**	0.1	%	1	09/13/18	B8I1212	2540 B	
57-12-5	Available Cyanide	ND	1.1	mg/kg dry	10	09/20/18	B8I1320	OIA-1677	I

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Client ID: QMCP-SS-30-0-6"

Lab ID: 1809080-10

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-Metals									
7440-38-2	**Arsenic**	**9.8**	0.5	mg/kg dry	10	09/21/18	B8I1806	200.8	
7440-39-3	**Barium**	**50**	1.0	mg/kg dry	10	09/21/18	B8I1806	200.8	
7440-43-9	**Cadmium**	**0.3**	0.2	mg/kg dry	10	09/21/18	B8I1806	200.8	
7440-47-3	**Chromium**	**27**	2.0	mg/kg dry	10	09/24/18	B8I1806	200.8	
7440-50-8	**Copper**	**1600**	1.0	mg/kg dry	10	09/21/18	B8I1806	200.8	
7439-92-1	**Lead**	**68**	1.0	mg/kg dry	10	09/21/18	B8I1806	200.8	
7439-96-5	**Manganese**	**290**	1.0	mg/kg dry	10	09/21/18	B8I1806	200.8	
7439-97-6	**Mercury**	**0.2**	0.06	mg/kg dry	1	09/21/18	B8I1824	245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	09/21/18	B8I1806	200.8	
7440-22-4	**Silver**	**1.7**	0.1	mg/kg dry	10	09/21/18	B8I1806	200.8	
7440-66-6	**Zinc**	**110**	1.0	mg/kg dry	10	09/21/18	B8I1806	200.8	

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY

4

ENVIRONMENTAL LABORATORY - ANALYSIS REQUEST SHEET

Lab Work Order Number	1809080
Project Name	Abandoned mining wastes - OMCP
Matrix	SOIL/SEDIMENT
Site Code/Project Number	31000098
AY	17
CC Email 1	jbinkley@mannikSmith.com gov
Project TAT Days	
Sample Collector	Dr. [illegible]
Dept-Division-District	DEQ-ARD UP-District
Index	7000
CC Email 2	
Project Due Date	
Sample Collector Phone	810-955-4138
State Project Manager	Amy Kerenan
PCA	41200/1590
CC Email 3	
Contract Firm	Mannik & Smith Group
State Project Manager Email	kerenana@michigan gov
Project	6996
Overflow Lab Choice 1	
Accept Analysis hold time codes	
Contract Firm Primary Contact	Jeff Binkley
State Project Manager Phone	906-337-0389
Phase	6010
Overflow Lab Choice 2	
Primary Contact Phone	906 281-3401

	Lab Use Only	Field Sample Identification	Collection Date	Collection Time	Container Count	Comments
1	01	OMCP-SS-23-0-6"	9-6-18	8:50	1	
2	02	OMCP-SS-22-0-6"	9-6-18	9:10	1	
3	03	OMCP-SS-22-0-6" DUP 3	9-6-18	9:10	1	
4	04	OMCP-SS-24-0-6"	9-6-18	9:20	1	
5	05	OMCP-SS-25-0-6"	9-6-18	9:30	1	
6	06	OMCP-SS-26-0-6"	9-6-18	9:45	1	
7	07	OMCP-SS-27-0-6"	9-6-18	10:15	1	
8	08	OMCP-SS-28-0-6"	9-6-18	10:25	1	
9	09	OMCP-SS-29-0-6"	9-6-18	10:35	1	
10	10	OMCP-SS-30-0-6"	9-6-18	11:00	1	

ORGANIC CHEMISTRY

VOA - Volatile Organic Acidic

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

OS - Pesticides, PCBs

Pesticides & PCBs	1 2 3 4 5 6 7 8 9 10
Pesticides only	1 2 3 4 5 6 7 8 9 10
PCBs only	1 2 3 4 5 6 7 8 9 10
Toxaphene	1 2 3 4 5 6 7 8 9 10

BNA - Base Neutral Acids

BNAs	1 2 3 4 5 6 7 8 9 10
PNAs only	1 2 3 4 5 6 7 8 9 10
BNs only	1 2 3 4 5 6 7 8 9 10

Organic Specialty Requests

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

METALS CHEMISTRY PACKAGES

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

MS - TOTAL METALS

Silver - Ag	1 2 3 4 5 6 7 8 9 10
Aluminum - Al	1 2 3 4 5 6 7 8 9 10
Arsenic - As	1 2 3 4 5 6 7 8 9 10
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
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

GENERAL CHEMISTRY

GS - General Chemistry

Total Cyanide - CN	1 2 3 4 5 6 7 8 9 10
Available Cyanide - CN	1 2 3 4 5 6 7 8 9 10
Chem Oxyg Dem - COD	1 2 3 4 5 6 7 8 9 10
Total Org Carbon - TOC	1 2 3 4 5 6 7 8 9 10
Kjeldahl Nitrogen - KN	1 2 3 4 5 6 7 8 9 10
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.	A. Mikeur MDEQ-ARD-GSU	Nicole Hoodigan	9/10/18
Signature:		[illegible]	1306
Print Name & Org.			
Signature:			
Print Name & Org.			
Signature:			

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

20 November 2018

Work Order: 1810006

Price: $6,646.50

Amy Keranen
MDEQ-RRD-UP
1504 W. Washington St.
Marquette, MI 49855

RE: ABANDONED MINING WASTES-QMCP

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

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FAX: (517) 335-9600

MDEQ-RRD-UP	Project: ABANDONED MINING WASTES-QMCP	
1504 W. Washington St.	Site Code: 31000098	**Reported:**
Marquette MI, 49855	Project Manager: Amy Keranen	11/20/2018

Analytical Report for Samples

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Qualifier
QMCP-SS47-0-3"	1810006-01	Soil/Sediment	09/28/2018	10/02/2018	
QMCP-SS48-0-3"	1810006-02	Soil/Sediment	09/28/2018	10/02/2018	
QMCP-SS49-0-3"	1810006-03	Soil/Sediment	09/28/2018	10/02/2018	
QMCP-SS50-0-3"	1810006-04	Soil/Sediment	09/28/2018	10/02/2018	
QMCP-SS51-0-3"	1810006-05	Soil/Sediment	09/28/2018	10/02/2018	
QMCP-SS52-0-3"	1810006-06	Soil/Sediment	09/28/2018	10/02/2018	
QMCP-SS53-0-3"	1810006-07	Soil/Sediment	09/28/2018	10/02/2018	
QMCP-SS54-0-3"	1810006-08	Soil/Sediment	09/28/2018	10/02/2018	
QMCP-SS55-0-3"	1810006-09	Soil/Sediment	09/28/2018	10/02/2018	
QMCP-SS56-0-3"	1810006-10	Soil/Sediment	09/28/2018	10/02/2018	
QMCP-SS57-0-3"	1810006-11	Soil/Sediment	10/01/2018	10/02/2018	
QMCP-SS58-0-3"	1810006-12	Soil/Sediment	10/01/2018	10/02/2018	
QMCP-SS59-0-3"	1810006-13	Soil/Sediment	10/01/2018	10/02/2018	
QMCP-SS60-0-3"	1810006-14	Soil/Sediment	10/01/2018	10/02/2018	
QMCP-SS61-0-3"	1810006-15	Soil/Sediment	09/28/2018	10/02/2018	
QMCP-SS62-0-3"	1810006-16	Soil/Sediment	09/28/2018	10/02/2018	

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Notes and Definitions

I	Dilution required due to matrix interference; reporting limit (RL) raised.
A02	Result is estimated due to high surrogate recovery.
A04	Result is estimated due to high matrix spike recovery.
A05	Result and reporting limit are estimated due to low continuing calibration standard criteria failure.
A06	Result is estimated due to high continuing calibration standard criteria failure.
A07	Result(s) and reporting limit(s) are estimated due to poor precision.
A09	Result is estimated due to high recovery of batch quality control.
A01	Result(s) and reporting limit(s) are estimated due to low surrogate recovery.
A11	Result is estimated due to high initial verification standard criteria failure.
Y21	Reporting Limits (RL) raised due to matrix interference.
JA	Result is estimated due to multiple Aroclors present.
LRB	Laboratory reagent blank was greater than 2.2 times the MDL, or greater than 10% of the analyte level in the sample.
T	Reported value is less than the reporting limit (RL). Result is estimated.
V	Value not available due to dilution.
X	Methods 8260 & 624 are used to analyze volatile organics that have boiling points below 200 ºC. 2-Methylnaphthalene & naphthalene have boiling points above 200 ºC and are better suited to analysis by methods 8270 & 625 as semivolatile organics.
Y17	Probable petroleum product(s) present.
Y20	Reporting Limits (RL) raised due to matrix.
A10	Result and reporting limit are estimated due to low initial verification standard criteria failure.
ND	Indicates compound analyzed for but not detected
RL	Reporting Limit
NA	Not Applicable
dry	Sample results reported on a dry weight basis

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P.O. Box 30270
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TEL: (517) 335-9800
FAX: (517) 335-9600

Client ID: QMCP-SS47-0-3"

Lab ID: 1810006-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	1100	ug/kg dry	10	11/13/18	B8J1614	8081/8082	Y21
11104-28-2	Aroclor 1221	ND	1100	ug/kg dry	10	11/13/18	B8J1614	8081/8082	Y21
11141-16-5	Aroclor 1232	ND	1100	ug/kg dry	10	11/13/18	B8J1614	8081/8082	Y21
53469-21-9	Aroclor 1242	ND	1100	ug/kg dry	10	11/13/18	B8J1614	8081/8082	Y21
12672-29-6	Aroclor 1248	ND	1600	ug/kg dry	10	11/13/18	B8J1614	8081/8082	Y21
11097-69-1	**Aroclor 1254**	**8200**	1100	ug/kg dry	10	11/13/18	B8J1614	8081/8082	
11096-82-5	Aroclor 1260	ND	1300	ug/kg dry	10	11/13/18	B8J1614	8081/8082	Y21
37324-23-5	Aroclor 1262	ND	1300	ug/kg dry	10	11/13/18	B8J1614	8081/8082	Y21
11100-14-4	Aroclor 1268	ND	1100	ug/kg dry	10	11/13/18	B8J1614	8081/8082	Y21
Surrogate: Decachlorobiphenyl			*119 %*	*30-150*		*11/13/18*	B8J1614	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*112 %*	*30-150*		*11/13/18*	B8J1614	*8081/8082*	
Inorganics-General Chemistry									
TS	**% Total Solids**	**87.7**	0.1	%	1	10/11/18	B8J0901	2540 B	
57-12-5	Available Cyanide	ND	0.57	mg/kg dry	5	10/15/18	B8J1201	OIA-1677	I
Inorganics-Metals									
7440-38-2	**Arsenic**	**8.9**	0.5	mg/kg dry	10	10/22/18	B8J1801	200.8	
7440-39-3	**Barium**	**180**	1.0	mg/kg dry	10	10/22/18	B8J1801	200.8	
7440-43-9	**Cadmium**	**11**	0.2	mg/kg dry	10	10/22/18	B8J1801	200.8	
7440-47-3	**Chromium**	**160**	2.0	mg/kg dry	10	10/22/18	B8J1801	200.8	
7440-50-8	**Copper**	**1500**	1.0	mg/kg dry	10	10/22/18	B8J1801	200.8	
7439-92-1	**Lead**	**810**	1.0	mg/kg dry	10	10/22/18	B8J1801	200.8	
7439-96-5	**Manganese**	**1100**	1.0	mg/kg dry	10	10/22/18	B8J1801	200.8	
7439-97-6	**Mercury**	**1.1**	0.1	mg/kg dry	2	10/17/18	B8J1505	245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	10/22/18	B8J1801	200.8	
7440-22-4	**Silver**	**2.3**	0.1	mg/kg dry	10	10/22/18	B8J1801	200.8	
7440-66-6	**Zinc**	**940**	1.0	mg/kg dry	10	10/22/18	B8J1801	200.8	

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Lansing, MI 48909
TEL: (517) 335-9800
FAX: (517) 335-9600

Client ID: QMCP-SS48-0-3"

Lab ID: 1810006-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	120000	ug/kg dry	1000	11/13/18	B8J1614	8081/8082	Y21
11104-28-2	Aroclor 1221	ND	120000	ug/kg dry	1000	11/13/18	B8J1614	8081/8082	Y21
11141-16-5	Aroclor 1232	ND	120000	ug/kg dry	1000	11/13/18	B8J1614	8081/8082	Y21
53469-21-9	Aroclor 1242	ND	120000	ug/kg dry	1000	11/13/18	B8J1614	8081/8082	Y21
12672-29-6	Aroclor 1248	ND	120000	ug/kg dry	1000	11/13/18	B8J1614	8081/8082	Y21
11097-69-1	**Aroclor 1254**	**360000**	120000	ug/kg dry	1000	11/13/18	B8J1614	8081/8082	
11096-82-5	Aroclor 1260	ND	120000	ug/kg dry	1000	11/13/18	B8J1614	8081/8082	Y21
37324-23-5	Aroclor 1262	ND	120000	ug/kg dry	1000	11/13/18	B8J1614	8081/8082	Y21
11100-14-4	Aroclor 1268	ND	120000	ug/kg dry	1000	11/13/18	B8J1614	8081/8082	Y21
Surrogate: Decachlorobiphenyl		*Not Applicable*		*30-150*		*11/13/18*	B8J1614	*8081/8082*	*V*
Surrogate: Tetrachloro-m-xylene		*Not Applicable*		*30-150*		*11/13/18*	B8J1614	*8081/8082*	*V*
Inorganics-General Chemistry									
TS	**% Total Solids**	**86.9**	0.1	%	1	10/11/18	B8J0901	2540 B	
57-12-5	Available Cyanide	ND	0.58	mg/kg dry	5	10/15/18	B8J1201	OIA-1677	I
Inorganics-Metals									
7440-38-2	**Arsenic**	**13**	0.5	mg/kg dry	10	10/22/18	B8J1801	200.8	
7440-39-3	**Barium**	**270**	1.0	mg/kg dry	10	10/22/18	B8J1801	200.8	
7440-43-9	**Cadmium**	**12**	0.2	mg/kg dry	10	10/22/18	B8J1801	200.8	
7440-47-3	**Chromium**	**140**	2.0	mg/kg dry	10	10/22/18	B8J1801	200.8	
7440-50-8	**Copper**	**1600**	1.0	mg/kg dry	10	10/22/18	B8J1801	200.8	
7439-92-1	**Lead**	**930**	1.0	mg/kg dry	10	10/22/18	B8J1801	200.8	
7439-96-5	**Manganese**	**1100**	1.0	mg/kg dry	10	10/22/18	B8J1801	200.8	
7439-97-6	**Mercury**	**3.6**	0.6	mg/kg dry	10	10/17/18	B8J1505	245.5	
7782-49-2	**Selenium**	**0.3**	0.2	mg/kg dry	10	10/22/18	B8J1801	200.8	
7440-22-4	**Silver**	**2.1**	0.1	mg/kg dry	10	10/22/18	B8J1801	200.8	
7440-66-6	**Zinc**	**1800**	1.0	mg/kg dry	10	10/22/18	B8J1801	200.8	

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Lansing, MI 48909
TEL: (517) 335-9800
FAX: (517) 335-9600

Client ID: QMCP-SS49-0-3"

Lab ID: 1810006-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y17, Y20**
91-57-6	2-Methylnaphthalene	ND	600	ug/kg dry	1	10/16/18	B8J0818	8270	
83-32-9	Acenaphthene	ND	240	ug/kg dry	1	10/16/18	B8J0818	8270	
208-96-8	Acenaphthylene	ND	240	ug/kg dry	1	10/16/18	B8J0818	8270	
120-12-7	Anthracene	ND	240	ug/kg dry	1	10/16/18	B8J0818	8270	
56-55-3	**Benz[a]anthracene**	**1100**	240	ug/kg dry	1	10/16/18	B8J0818	8270	
50-32-8	**Benzo[a]pyrene**	**1200**	480	ug/kg dry	1	10/16/18	B8J0818	8270	
205-99-2	**Benzo[b]fluoranthene**	**2100**	480	ug/kg dry	1	10/16/18	B8J0818	8270	
191-24-2	**Benzo[g,h,i]perylene**	**560**	480	ug/kg dry	1	10/16/18	B8J0818	8270	
207-08-9	**Benzo[k]fluoranthene**	**680**	480	ug/kg dry	1	10/16/18	B8J0818	8270	
218-01-9	**Chrysene**	**1300**	240	ug/kg dry	1	10/16/18	B8J0818	8270	
53-70-3	**Dibenz[a,h]anthracene**	**680**	480	ug/kg dry	1	10/16/18	B8J0818	8270	
206-44-0	**Fluoranthene**	**2100**	240	ug/kg dry	1	10/16/18	B8J0818	8270	
86-73-7	Fluorene	ND	240	ug/kg dry	1	10/16/18	B8J0818	8270	
193-39-5	**Indeno(1,2,3-c,d)pyrene**	**660**	480	ug/kg dry	1	10/16/18	B8J0818	8270	
91-20-3	**Naphthalene**	**430**	240	ug/kg dry	1	10/16/18	B8J0818	8270	
85-01-8	**Phenanthrene**	**1600**	240	ug/kg dry	1	10/16/18	B8J0818	8270	
129-00-0	**Pyrene**	**1500**	240	ug/kg dry	1	10/16/18	B8J0818	8270	
Surrogate: 2-Fluorobiphenyl			*77.9 %*	*32.9-115*		*10/16/18*	B8J0818	*8270*	
Surrogate: Nitrobenzene-d5			*51.4 %*	*31.8-115*		*10/16/18*	B8J0818	*8270*	
Surrogate: p-Terphenyl-d14			*83.9 %*	*38.5-115*		*10/16/18*	B8J0818	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	1200	ug/kg dry	10	11/06/18	B8J1614	8081/8082	Y21
11104-28-2	Aroclor 1221	ND	1200	ug/kg dry	10	11/06/18	B8J1614	8081/8082	Y21
11141-16-5	Aroclor 1232	ND	1200	ug/kg dry	10	11/06/18	B8J1614	8081/8082	Y21
53469-21-9	Aroclor 1242	ND	1200	ug/kg dry	10	11/06/18	B8J1614	8081/8082	Y21
12672-29-6	Aroclor 1248	ND	1300	ug/kg dry	10	11/06/18	B8J1614	8081/8082	Y21
11097-69-1	**Aroclor 1254**	**5100**	1200	ug/kg dry	10	11/06/18	B8J1614	8081/8082	
11096-82-5	Aroclor 1260	ND	1200	ug/kg dry	10	11/06/18	B8J1614	8081/8082	Y21
37324-23-5	Aroclor 1262	ND	1200	ug/kg dry	10	11/06/18	B8J1614	8081/8082	Y21
11100-14-4	Aroclor 1268	ND	1200	ug/kg dry	10	11/06/18	B8J1614	8081/8082	Y21
Surrogate: Decachlorobiphenyl			*127 %*	*30-150*		*11/06/18*	B8J1614	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*107 %*	*30-150*		*11/06/18*	B8J1614	*8081/8082*	

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DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

Client ID: QMCP-SS49-0-3"

Lab ID: 1810006-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**83.5**	0.1	%	1	10/11/18	B8J0901	2540 B	

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P.O. Box 30270
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TEL: (517) 335-9800
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Client ID: QMCP-SS50-0-3"

Lab ID: 1810006-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y17, Y21**
91-57-6	2-Methylnaphthalene	ND	3000	ug/kg dry	1	10/16/18	B8J0818	8270	
83-32-9	Acenaphthene	ND	1200	ug/kg dry	1	10/16/18	B8J0818	8270	
208-96-8	Acenaphthylene	ND	1200	ug/kg dry	1	10/16/18	B8J0818	8270	
120-12-7	Anthracene	ND	1200	ug/kg dry	1	10/16/18	B8J0818	8270	
56-55-3	**Benz[a]anthracene**	**1900**	1200	ug/kg dry	1	10/16/18	B8J0818	8270	
50-32-8	Benzo[a]pyrene	ND	2400	ug/kg dry	1	10/16/18	B8J0818	8270	
205-99-2	**Benzo[b]fluoranthene**	**4700**	2400	ug/kg dry	1	10/16/18	B8J0818	8270	
191-24-2	Benzo[g,h,i]perylene	ND	2400	ug/kg dry	1	10/16/18	B8J0818	8270	
207-08-9	Benzo[k]fluoranthene	ND	2400	ug/kg dry	1	10/16/18	B8J0818	8270	
218-01-9	**Chrysene**	**3000**	1200	ug/kg dry	1	10/16/18	B8J0818	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2400	ug/kg dry	1	10/16/18	B8J0818	8270	
206-44-0	**Fluoranthene**	**2900**	1200	ug/kg dry	1	10/16/18	B8J0818	8270	
86-73-7	Fluorene	ND	1200	ug/kg dry	1	10/16/18	B8J0818	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2400	ug/kg dry	1	10/16/18	B8J0818	8270	
91-20-3	Naphthalene	ND	1200	ug/kg dry	1	10/16/18	B8J0818	8270	
85-01-8	**Phenanthrene**	**1500**	1200	ug/kg dry	1	10/16/18	B8J0818	8270	
129-00-0	**Pyrene**	**2200**	1200	ug/kg dry	1	10/16/18	B8J0818	8270	
Surrogate: 2-Fluorobiphenyl			*73.8 %*	*32.9-115*		*10/16/18*	B8J0818	*8270*	
Surrogate: Nitrobenzene-d5			*49.1 %*	*31.8-115*		*10/16/18*	B8J0818	*8270*	
Surrogate: p-Terphenyl-d14			*79.0 %*	*38.5-115*		*10/16/18*	B8J0818	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	120	ug/kg dry	1	11/02/18	B8J1614	8081/8082	
11104-28-2	Aroclor 1221	ND	120	ug/kg dry	1	11/02/18	B8J1614	8081/8082	
11141-16-5	Aroclor 1232	ND	120	ug/kg dry	1	11/02/18	B8J1614	8081/8082	
53469-21-9	Aroclor 1242	ND	120	ug/kg dry	1	11/02/18	B8J1614	8081/8082	
12672-29-6	Aroclor 1248	ND	120	ug/kg dry	1	11/02/18	B8J1614	8081/8082	
11097-69-1	**Aroclor 1254**	**170**	120	ug/kg dry	1	11/02/18	B8J1614	8081/8082	JA
11096-82-5	**Aroclor 1260**	**170**	120	ug/kg dry	1	11/02/18	B8J1614	8081/8082	JA
37324-23-5	Aroclor 1262	ND	180	ug/kg dry	1	11/02/18	B8J1614	8081/8082	Y21
11100-14-4	Aroclor 1268	ND	120	ug/kg dry	1	11/02/18	B8J1614	8081/8082	
Surrogate: Decachlorobiphenyl			*93.4 %*	*30-150*		*11/02/18*	B8J1614	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*82.0 %*	*30-150*		*11/02/18*	B8J1614	*8081/8082*	

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Client ID: QMCP-SS50-0-3"

Lab ID: 1810006-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**84.0**	0.1	%	1	10/11/18	B8J0901	2540 B	

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Client ID: QMCP-SS51-0-3"

Lab ID: 1810006-05

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	83	ug/kg dry	50	10/05/18	B8J0516	8260	
71-55-6	1,1,1-Trichloroethane	ND	83	ug/kg dry	50	10/05/18	B8J0516	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	83	ug/kg dry	50	10/05/18	B8J0516	8260	
79-00-5	1,1,2-Trichloroethane	ND	83	ug/kg dry	50	10/05/18	B8J0516	8260	
75-34-3	1,1-Dichloroethane	ND	83	ug/kg dry	50	10/05/18	B8J0516	8260	
75-35-4	1,1-Dichloroethylene	ND	83	ug/kg dry	50	10/05/18	B8J0516	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	410	ug/kg dry	50	10/05/18	B8J0516	8260	
96-18-4	1,2,3-Trichloropropane	ND	83	ug/kg dry	50	10/05/18	B8J0516	8260	A05
526-73-8	1,2,3-Trimethylbenzene	ND	83	ug/kg dry	50	10/05/18	B8J0516	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	410	ug/kg dry	50	10/05/18	B8J0516	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	83	ug/kg dry	50	10/05/18	B8J0516	8260	
106-93-4	1,2-Dibromoethane	ND	83	ug/kg dry	50	10/05/18	B8J0516	8260	
95-50-1	1,2-Dichlorobenzene	ND	83	ug/kg dry	50	10/05/18	B8J0516	8260	
107-06-2	1,2-Dichloroethane	ND	83	ug/kg dry	50	10/05/18	B8J0516	8260	
78-87-5	1,2-Dichloropropane	ND	83	ug/kg dry	50	10/05/18	B8J0516	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	83	ug/kg dry	50	10/05/18	B8J0516	8260	
541-73-1	1,3-Dichlorobenzene	ND	83	ug/kg dry	50	10/05/18	B8J0516	8260	
106-46-7	1,4-Dichlorobenzene	ND	83	ug/kg dry	50	10/05/18	B8J0516	8260	
540-84-1	2,2,4-Trimethylpentane	ND	410	ug/kg dry	50	10/05/18	B8J0516	8260	
78-93-3	2-Butanone (MEK)	ND	410	ug/kg dry	50	10/05/18	B8J0516	8260	
91-57-6	2-Methylnaphthalene	ND	410	ug/kg dry	50	10/05/18	B8J0516	8260	X
67-64-1	2-Propanone (acetone)	ND	1700	ug/kg dry	50	10/05/18	B8J0516	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	410	ug/kg dry	50	10/05/18	B8J0516	8260	
107-13-1	Acrylonitrile	ND	410	ug/kg dry	50	10/05/18	B8J0516	8260	
71-43-2	Benzene	ND	83	ug/kg dry	50	10/05/18	B8J0516	8260	
74-97-5	Bromochloromethane	ND	83	ug/kg dry	50	10/05/18	B8J0516	8260	
75-27-4	Bromodichloromethane	ND	83	ug/kg dry	50	10/05/18	B8J0516	8260	
75-25-2	Bromoform	ND	83	ug/kg dry	50	10/05/18	B8J0516	8260	
74-83-9	Bromomethane	ND	330	ug/kg dry	50	10/05/18	B8J0516	8260	A10
75-15-0	Carbon disulfide	ND	83	ug/kg dry	50	10/05/18	B8J0516	8260	
56-23-5	Carbon tetrachloride	ND	83	ug/kg dry	50	10/05/18	B8J0516	8260	
108-90-7	Chlorobenzene	ND	83	ug/kg dry	50	10/05/18	B8J0516	8260	
75-00-3	Chloroethane	ND	410	ug/kg dry	50	10/05/18	B8J0516	8260	
67-66-3	Chloroform	ND	83	ug/kg dry	50	10/05/18	B8J0516	8260	
74-87-3	Chloromethane	ND	410	ug/kg dry	50	10/05/18	B8J0516	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	83	ug/kg dry	50	10/05/18	B8J0516	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	83	ug/kg dry	50	10/05/18	B8J0516	8260	
110-82-7	Cyclohexane	ND	410	ug/kg dry	50	10/05/18	B8J0516	8260	
124-48-1	Dibromochloromethane	ND	83	ug/kg dry	50	10/05/18	B8J0516	8260	
74-95-3	Dibromomethane	ND	83	ug/kg dry	50	10/05/18	B8J0516	8260	

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Client ID: QMCP-SS51-0-3"

Lab ID: 1810006-05

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	410	ug/kg dry	50	10/05/18	B8J0516	8260	A05
60-29-7	Diethyl ether	ND	330	ug/kg dry	50	10/05/18	B8J0516	8260	
108-20-3	Diisopropyl Ether	ND	410	ug/kg dry	50	10/05/18	B8J0516	8260	
100-41-4	Ethylbenzene	ND	83	ug/kg dry	50	10/05/18	B8J0516	8260	
637-92-3	Ethyltertiarybutylether	ND	410	ug/kg dry	50	10/05/18	B8J0516	8260	
67-72-1	Hexachloroethane	ND	410	ug/kg dry	50	10/05/18	B8J0516	8260	
110-54-3	Hexane	ND	83	ug/kg dry	50	10/05/18	B8J0516	8260	
98-82-8	Isopropylbenzene	ND	83	ug/kg dry	50	10/05/18	B8J0516	8260	
1330-20-7	m & p - Xylene	ND	170	ug/kg dry	50	10/05/18	B8J0516	8260	
75-09-2	Methylene chloride	ND	170	ug/kg dry	50	10/05/18	B8J0516	8260	
1634-04-4	Methyltertiarybutylether	ND	83	ug/kg dry	50	10/05/18	B8J0516	8260	
91-20-3	**Naphthalene**	**500**	410	ug/kg dry	50	10/05/18	B8J0516	8260	X
104-51-8	n-Butylbenzene	ND	83	ug/kg dry	50	10/05/18	B8J0516	8260	
103-65-1	n-Propylbenzene	ND	83	ug/kg dry	50	10/05/18	B8J0516	8260	
95-47-6	**o-Xylene**	**84**	83	ug/kg dry	50	10/05/18	B8J0516	8260	
135-98-8	sec-Butylbenzene	ND	83	ug/kg dry	50	10/05/18	B8J0516	8260	
100-42-5	Styrene	ND	83	ug/kg dry	50	10/05/18	B8J0516	8260	
98-06-6	tert-Butylbenzene	ND	83	ug/kg dry	50	10/05/18	B8J0516	8260	
75-65-0	tertiary Butyl Alcohol	ND	4100	ug/kg dry	50	10/05/18	B8J0516	8260	
994-05-8	tertiaryAmylmethylether	ND	410	ug/kg dry	50	10/05/18	B8J0516	8260	
127-18-4	**Tetrachloroethylene**	**2000**	83	ug/kg dry	50	10/05/18	B8J0516	8260	
109-99-9	Tetrahydrofuran	ND	410	ug/kg dry	50	10/05/18	B8J0516	8260	
108-88-3	**Toluene**	**120**	83	ug/kg dry	50	10/05/18	B8J0516	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	83	ug/kg dry	50	10/05/18	B8J0516	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	83	ug/kg dry	50	10/05/18	B8J0516	8260	
79-01-6	Trichloroethylene	ND	83	ug/kg dry	50	10/05/18	B8J0516	8260	
75-69-4	Trichlorofluoromethane	ND	83	ug/kg dry	50	10/05/18	B8J0516	8260	
75-01-4	Vinyl chloride	ND	83	ug/kg dry	50	10/05/18	B8J0516	8260	
Surrogate: Bromofluorobenzene			*140 %*	*40.3-194*		*10/05/18*	B8J0516	*8260*	
Surrogate: Dibromofluoromethane			*141 %*	*52.1-217*		*10/05/18*	B8J0516	*8260*	
Surrogate: Toluene-d8			*137 %*	*55.4-196*		*10/05/18*	B8J0516	*8260*	

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Client ID: QMCP-SS51-0-3"

Lab ID: 1810006-05

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y17, Y20**
91-57-6	**2-Methylnaphthalene**	**660**	590	ug/kg dry	1	10/16/18	B8J0818	8270	
83-32-9	Acenaphthene	ND	240	ug/kg dry	1	10/16/18	B8J0818	8270	
208-96-8	**Acenaphthylene**	**1500**	240	ug/kg dry	1	10/16/18	B8J0818	8270	
120-12-7	**Anthracene**	**1600**	240	ug/kg dry	1	10/16/18	B8J0818	8270	
56-55-3	**Benz[a]anthracene**	**13000**	240	ug/kg dry	1	10/16/18	B8J0818	8270	
50-32-8	**Benzo[a]pyrene**	**12000**	470	ug/kg dry	1	10/16/18	B8J0818	8270	
205-99-2	**Benzo[b]fluoranthene**	**26000**	4700	ug/kg dry	10	10/17/18	B8J0818	8270	
191-24-2	**Benzo[g,h,i]perylene**	**3500**	470	ug/kg dry	1	10/16/18	B8J0818	8270	
207-08-9	**Benzo[k]fluoranthene**	**8800**	470	ug/kg dry	1	10/16/18	B8J0818	8270	
218-01-9	**Chrysene**	**14000**	240	ug/kg dry	1	10/16/18	B8J0818	8270	
53-70-3	**Dibenz[a,h]anthracene**	**2800**	470	ug/kg dry	1	10/16/18	B8J0818	8270	
206-44-0	**Fluoranthene**	**30000**	2400	ug/kg dry	10	10/17/18	B8J0818	8270	
86-73-7	**Fluorene**	**310**	240	ug/kg dry	1	10/16/18	B8J0818	8270	
193-39-5	**Indeno(1,2,3-c,d)pyrene**	**4400**	470	ug/kg dry	1	10/16/18	B8J0818	8270	
91-20-3	**Naphthalene**	**1500**	240	ug/kg dry	1	10/16/18	B8J0818	8270	
85-01-8	**Phenanthrene**	**8000**	240	ug/kg dry	1	10/16/18	B8J0818	8270	
129-00-0	**Pyrene**	**23000**	2400	ug/kg dry	10	10/17/18	B8J0818	8270	
Surrogate: 2-Fluorobiphenyl			*94.5 %*	*32.9-115*		*10/16/18*	B8J0818	*8270*	
Surrogate: Nitrobenzene-d5			*73.6 %*	*31.8-115*		*10/16/18*	B8J0818	*8270*	
Surrogate: p-Terphenyl-d14			*80.6 %*	*38.5-115*		*10/16/18*	B8J0818	*8270*	
Inorganics-General Chemistry									
TS	**% Total Solids**	**84.8**	0.1	%	1	10/11/18	B8J0901	2540 B	

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Client ID: QMCP-SS52-0-3"
Lab ID: 1810006-06

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y17, Y21**
91-57-6	2-Methylnaphthalene	ND	2800	ug/kg dry	1	10/16/18	B8J0818	8270	
83-32-9	Acenaphthene	ND	1100	ug/kg dry	1	10/16/18	B8J0818	8270	
208-96-8	Acenaphthylene	ND	1100	ug/kg dry	1	10/16/18	B8J0818	8270	
120-12-7	Anthracene	ND	1100	ug/kg dry	1	10/16/18	B8J0818	8270	
56-55-3	Benz[a]anthracene	ND	1100	ug/kg dry	1	10/16/18	B8J0818	8270	
50-32-8	Benzo[a]pyrene	ND	23000	ug/kg dry	10	10/17/18	B8J0818	8270	
205-99-2	Benzo[b]fluoranthene	ND	23000	ug/kg dry	10	10/17/18	B8J0818	8270	
191-24-2	Benzo[g,h,i]perylene	ND	23000	ug/kg dry	10	10/17/18	B8J0818	8270	
207-08-9	Benzo[k]fluoranthene	ND	23000	ug/kg dry	10	10/17/18	B8J0818	8270	
218-01-9	Chrysene	ND	1100	ug/kg dry	1	10/16/18	B8J0818	8270	
53-70-3	Dibenz[a,h]anthracene	ND	23000	ug/kg dry	10	10/17/18	B8J0818	8270	
206-44-0	Fluoranthene	ND	1100	ug/kg dry	1	10/16/18	B8J0818	8270	
86-73-7	Fluorene	ND	1100	ug/kg dry	1	10/16/18	B8J0818	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	23000	ug/kg dry	10	10/17/18	B8J0818	8270	
91-20-3	Naphthalene	ND	1100	ug/kg dry	1	10/16/18	B8J0818	8270	
85-01-8	Phenanthrene	ND	1100	ug/kg dry	1	10/16/18	B8J0818	8270	
129-00-0	Pyrene	ND	1100	ug/kg dry	1	10/16/18	B8J0818	8270	
Surrogate: 2-Fluorobiphenyl			*86.7 %*	*32.9-115*		*10/16/18*	B8J0818	*8270*	
Surrogate: Nitrobenzene-d5			*70.8 %*	*31.8-115*		*10/16/18*	B8J0818	*8270*	
Surrogate: p-Terphenyl-d14			*128 %*	*38.5-115*		*10/16/18*	B8J0818	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	110	ug/kg dry	1	10/31/18	B8J1614	8081/8082	
11104-28-2	Aroclor 1221	ND	110	ug/kg dry	1	10/31/18	B8J1614	8081/8082	
11141-16-5	Aroclor 1232	ND	110	ug/kg dry	1	10/31/18	B8J1614	8081/8082	
53469-21-9	Aroclor 1242	ND	110	ug/kg dry	1	10/31/18	B8J1614	8081/8082	
12672-29-6	Aroclor 1248	ND	110	ug/kg dry	1	10/31/18	B8J1614	8081/8082	
11097-69-1	Aroclor 1254	ND	110	ug/kg dry	1	10/31/18	B8J1614	8081/8082	
11096-82-5	Aroclor 1260	ND	110	ug/kg dry	1	10/31/18	B8J1614	8081/8082	
37324-23-5	Aroclor 1262	ND	110	ug/kg dry	1	10/31/18	B8J1614	8081/8082	
11100-14-4	Aroclor 1268	ND	110	ug/kg dry	1	10/31/18	B8J1614	8081/8082	
Surrogate: Decachlorobiphenyl			*70.5 %*	*30-150*		*10/31/18*	B8J1614	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*82.6 %*	*30-150*		*10/31/18*	B8J1614	*8081/8082*	

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Client ID: QMCP-SS52-0-3"

Lab ID: 1810006-06

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**88.1**	0.1	%	1	10/11/18	B8J0901	2540 B	

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Client ID: QMCP-SS53-0-3"

Lab ID: 1810006-07

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y17, Y21**
91-57-6	2-Methylnaphthalene	ND	4100	ug/kg dry	1	10/16/18	B8J0818	8270	
83-32-9	Acenaphthene	ND	1700	ug/kg dry	1	10/16/18	B8J0818	8270	
208-96-8	Acenaphthylene	ND	1700	ug/kg dry	1	10/16/18	B8J0818	8270	
120-12-7	Anthracene	ND	1700	ug/kg dry	1	10/16/18	B8J0818	8270	
56-55-3	Benz[a]anthracene	ND	1700	ug/kg dry	1	10/16/18	B8J0818	8270	
50-32-8	Benzo[a]pyrene	ND	3300	ug/kg dry	1	10/16/18	B8J0818	8270	
205-99-2	Benzo[b]fluoranthene	ND	3300	ug/kg dry	1	10/16/18	B8J0818	8270	
191-24-2	Benzo[g,h,i]perylene	ND	3300	ug/kg dry	1	10/16/18	B8J0818	8270	
207-08-9	Benzo[k]fluoranthene	ND	3300	ug/kg dry	1	10/16/18	B8J0818	8270	
218-01-9	Chrysene	ND	1700	ug/kg dry	1	10/16/18	B8J0818	8270	
53-70-3	Dibenz[a,h]anthracene	ND	3300	ug/kg dry	1	10/16/18	B8J0818	8270	
206-44-0	Fluoranthene	ND	1700	ug/kg dry	1	10/16/18	B8J0818	8270	
86-73-7	Fluorene	ND	1700	ug/kg dry	1	10/16/18	B8J0818	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	3300	ug/kg dry	1	10/16/18	B8J0818	8270	
91-20-3	Naphthalene	ND	1700	ug/kg dry	1	10/16/18	B8J0818	8270	
85-01-8	Phenanthrene	ND	1700	ug/kg dry	1	10/16/18	B8J0818	8270	
129-00-0	Pyrene	ND	1700	ug/kg dry	1	10/16/18	B8J0818	8270	
Surrogate: 2-Fluorobiphenyl			*79.9 %*	*32.9-115*		*10/16/18*	B8J0818	*8270*	
Surrogate: Nitrobenzene-d5			*57.5 %*	*31.8-115*		*10/16/18*	B8J0818	*8270*	
Surrogate: p-Terphenyl-d14			*77.7 %*	*38.5-115*		*10/16/18*	B8J0818	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	3500	ug/kg dry	5	11/06/18	B8J1614	8081/8082	Y21
11104-28-2	Aroclor 1221	ND	3500	ug/kg dry	5	11/06/18	B8J1614	8081/8082	Y21
11141-16-5	Aroclor 1232	ND	3500	ug/kg dry	5	11/06/18	B8J1614	8081/8082	Y21
53469-21-9	Aroclor 1242	ND	3500	ug/kg dry	5	11/06/18	B8J1614	8081/8082	Y21
12672-29-6	**Aroclor 1248**	**3400**	830	ug/kg dry	5	11/06/18	B8J1614	8081/8082	
11097-69-1	Aroclor 1254	ND	1300	ug/kg dry	5	11/06/18	B8J1614	8081/8082	Y21
11096-82-5	Aroclor 1260	ND	830	ug/kg dry	5	11/06/18	B8J1614	8081/8082	Y21
37324-23-5	Aroclor 1262	ND	830	ug/kg dry	5	11/06/18	B8J1614	8081/8082	Y21
11100-14-4	Aroclor 1268	ND	830	ug/kg dry	5	11/06/18	B8J1614	8081/8082	Y21
Surrogate: Decachlorobiphenyl			*103 %*	*30-150*		*11/06/18*	B8J1614	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*93.8 %*	*30-150*		*11/06/18*	B8J1614	*8081/8082*	

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Client ID: QMCP-SS53-0-3"

Lab ID: 1810006-07

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**60.3**	0.1	%	1	10/11/18	B8J0901	2540 B	

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TEL: (517) 335-9800
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Client ID: QMCP-SS54-0-3"

Lab ID: 1810006-08

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y17, Y20**
91-57-6	**2-Methylnaphthalene**	**670**	570	ug/kg dry	1	10/17/18	B8J1115	8270	
83-32-9	Acenaphthene	ND	230	ug/kg dry	1	10/17/18	B8J1115	8270	
208-96-8	**Acenaphthylene**	**230**	230	ug/kg dry	1	10/17/18	B8J1115	8270	
120-12-7	Anthracene	ND	230	ug/kg dry	1	10/17/18	B8J1115	8270	
56-55-3	**Benz[a]anthracene**	**540**	230	ug/kg dry	1	10/17/18	B8J1115	8270	
50-32-8	**Benzo[a]pyrene**	**560**	460	ug/kg dry	1	10/17/18	B8J1115	8270	
205-99-2	**Benzo[b]fluoranthene**	**1100**	460	ug/kg dry	1	10/17/18	B8J1115	8270	
191-24-2	Benzo[g,h,i]perylene	ND	460	ug/kg dry	1	10/17/18	B8J1115	8270	
207-08-9	Benzo[k]fluoranthene	ND	460	ug/kg dry	1	10/17/18	B8J1115	8270	
218-01-9	**Chrysene**	**580**	230	ug/kg dry	1	10/17/18	B8J1115	8270	
53-70-3	Dibenz[a,h]anthracene	ND	460	ug/kg dry	1	10/17/18	B8J1115	8270	
206-44-0	**Fluoranthene**	**990**	230	ug/kg dry	1	10/17/18	B8J1115	8270	
86-73-7	Fluorene	ND	230	ug/kg dry	1	10/17/18	B8J1115	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	460	ug/kg dry	1	10/17/18	B8J1115	8270	
91-20-3	**Naphthalene**	**810**	230	ug/kg dry	1	10/17/18	B8J1115	8270	
85-01-8	**Phenanthrene**	**770**	230	ug/kg dry	1	10/17/18	B8J1115	8270	
129-00-0	**Pyrene**	**870**	230	ug/kg dry	1	10/17/18	B8J1115	8270	
Surrogate: 2-Fluorobiphenyl			*82.1 %*	*32.9-115*		*10/17/18*	B8J1115	*8270*	
Surrogate: Nitrobenzene-d5			*70.0 %*	*31.8-115*		*10/17/18*	B8J1115	*8270*	
Surrogate: p-Terphenyl-d14			*86.5 %*	*38.5-115*		*10/17/18*	B8J1115	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	570	ug/kg dry	5	11/06/18	B8J1614	8081/8082	Y21
11104-28-2	Aroclor 1221	ND	570	ug/kg dry	5	11/06/18	B8J1614	8081/8082	Y21
11141-16-5	Aroclor 1232	ND	570	ug/kg dry	5	11/06/18	B8J1614	8081/8082	Y21
53469-21-9	Aroclor 1242	ND	570	ug/kg dry	5	11/06/18	B8J1614	8081/8082	Y21
12672-29-6	Aroclor 1248	ND	570	ug/kg dry	5	11/06/18	B8J1614	8081/8082	Y21
11097-69-1	Aroclor 1254	ND	570	ug/kg dry	5	11/06/18	B8J1614	8081/8082	Y21
11096-82-5	Aroclor 1260	ND	570	ug/kg dry	5	11/06/18	B8J1614	8081/8082	Y21
37324-23-5	Aroclor 1262	ND	570	ug/kg dry	5	11/06/18	B8J1614	8081/8082	Y21
11100-14-4	Aroclor 1268	ND	570	ug/kg dry	5	11/06/18	B8J1614	8081/8082	Y21
Surrogate: Decachlorobiphenyl			*87.9 %*	*30-150*		*11/06/18*	B8J1614	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*83.7 %*	*30-150*		*11/06/18*	B8J1614	*8081/8082*	

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Client ID: QMCP-SS54-0-3"

Lab ID: 1810006-08

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**87.1**	0.1	%	1	10/16/18	B8J1212	2540 B	

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Client ID: QMCP-SS55-0-3"

Lab ID: 1810006-09

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y17, Y20**
91-57-6	2-Methylnaphthalene	ND	510	ug/kg dry	1	10/17/18	B8J1115	8270	
83-32-9	Acenaphthene	ND	200	ug/kg dry	1	10/17/18	B8J1115	8270	
208-96-8	Acenaphthylene	ND	200	ug/kg dry	1	10/17/18	B8J1115	8270	
120-12-7	Anthracene	ND	200	ug/kg dry	1	10/17/18	B8J1115	8270	
56-55-3	Benz[a]anthracene	ND	2000	ug/kg dry	10	10/22/18	B8J1115	8270	Y21
50-32-8	Benzo[a]pyrene	ND	4100	ug/kg dry	10	10/22/18	B8J1115	8270	Y21
205-99-2	Benzo[b]fluoranthene	ND	4100	ug/kg dry	10	10/22/18	B8J1115	8270	Y21
191-24-2	Benzo[g,h,i]perylene	ND	4100	ug/kg dry	10	10/22/18	B8J1115	8270	Y21
207-08-9	Benzo[k]fluoranthene	ND	4100	ug/kg dry	10	10/22/18	B8J1115	8270	Y21
218-01-9	Chrysene	ND	2000	ug/kg dry	10	10/22/18	B8J1115	8270	Y21
53-70-3	Dibenz[a,h]anthracene	ND	4100	ug/kg dry	10	10/22/18	B8J1115	8270	Y21
206-44-0	**Fluoranthene**	**430**	200	ug/kg dry	1	10/17/18	B8J1115	8270	
86-73-7	Fluorene	ND	200	ug/kg dry	1	10/17/18	B8J1115	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	4100	ug/kg dry	10	10/22/18	B8J1115	8270	Y21
91-20-3	Naphthalene	ND	200	ug/kg dry	1	10/17/18	B8J1115	8270	
85-01-8	**Phenanthrene**	**240**	200	ug/kg dry	1	10/17/18	B8J1115	8270	
129-00-0	Pyrene	ND	2000	ug/kg dry	10	10/22/18	B8J1115	8270	Y21
Surrogate: 2-Fluorobiphenyl			*87.4 %*	*32.9-115*		*10/17/18*	B8J1115	*8270*	
Surrogate: Nitrobenzene-d5			*76.7 %*	*31.8-115*		*10/17/18*	B8J1115	*8270*	
Surrogate: p-Terphenyl-d14			*108 %*	*38.5-115*		*10/22/18*	B8J1115	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	100	ug/kg dry	1	11/03/18	B8J1614	8081/8082	
11104-28-2	Aroclor 1221	ND	100	ug/kg dry	1	11/03/18	B8J1614	8081/8082	
11141-16-5	Aroclor 1232	ND	100	ug/kg dry	1	11/03/18	B8J1614	8081/8082	
53469-21-9	Aroclor 1242	ND	100	ug/kg dry	1	11/03/18	B8J1614	8081/8082	
12672-29-6	Aroclor 1248	ND	100	ug/kg dry	1	11/03/18	B8J1614	8081/8082	
11097-69-1	Aroclor 1254	ND	100	ug/kg dry	1	11/03/18	B8J1614	8081/8082	
11096-82-5	Aroclor 1260	ND	100	ug/kg dry	1	11/03/18	B8J1614	8081/8082	
37324-23-5	Aroclor 1262	ND	100	ug/kg dry	1	11/03/18	B8J1614	8081/8082	
11100-14-4	Aroclor 1268	ND	100	ug/kg dry	1	11/03/18	B8J1614	8081/8082	
Surrogate: Decachlorobiphenyl			*83.0 %*	*30-150*		*11/03/18*	B8J1614	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*99.4 %*	*30-150*		*11/03/18*	B8J1614	*8081/8082*	

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Client ID: QMCP-SS55-0-3"

Lab ID: 1810006-09

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**98.2**	0.1	%	1	10/16/18	B8J1212	2540 B	

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Client ID: QMCP-SS56-0-3"
Lab ID: 1810006-10

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y17, Y20**
91-57-6	2-Methylnaphthalene	ND	79000	ug/kg dry	100	10/23/18	B8J1115	8270	Y21
83-32-9	Acenaphthene	ND	32000	ug/kg dry	100	10/23/18	B8J1115	8270	Y21
208-96-8	Acenaphthylene	ND	32000	ug/kg dry	100	10/23/18	B8J1115	8270	Y21
120-12-7	Anthracene	ND	32000	ug/kg dry	100	10/23/18	B8J1115	8270	Y21
56-55-3	Benz[a]anthracene	ND	32000	ug/kg dry	100	10/23/18	B8J1115	8270	Y21
50-32-8	Benzo[a]pyrene	ND	63000	ug/kg dry	100	10/23/18	B8J1115	8270	Y21
205-99-2	Benzo[b]fluoranthene	ND	63000	ug/kg dry	100	10/23/18	B8J1115	8270	Y21
191-24-2	Benzo[g,h,i]perylene	ND	63000	ug/kg dry	100	10/23/18	B8J1115	8270	Y21
207-08-9	Benzo[k]fluoranthene	ND	63000	ug/kg dry	100	10/23/18	B8J1115	8270	Y21
218-01-9	Chrysene	ND	32000	ug/kg dry	100	10/23/18	B8J1115	8270	Y21
53-70-3	Dibenz[a,h]anthracene	ND	63000	ug/kg dry	100	10/23/18	B8J1115	8270	Y21
206-44-0	Fluoranthene	ND	32000	ug/kg dry	100	10/23/18	B8J1115	8270	Y21
86-73-7	Fluorene	ND	32000	ug/kg dry	100	10/23/18	B8J1115	8270	Y21
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	63000	ug/kg dry	100	10/23/18	B8J1115	8270	Y21
91-20-3	Naphthalene	ND	32000	ug/kg dry	100	10/23/18	B8J1115	8270	Y21
85-01-8	Phenanthrene	ND	32000	ug/kg dry	100	10/23/18	B8J1115	8270	Y21
129-00-0	**Pyrene**	**64000**	32000	ug/kg dry	100	10/23/18	B8J1115	8270	
Surrogate: 2-Fluorobiphenyl		*Not Applicable*		*32.9-115*		*10/23/18*	B8J1115	*8270*	*V*
Surrogate: Nitrobenzene-d5		*Not Applicable*		*31.8-115*		*10/23/18*	B8J1115	*8270*	*V*
Surrogate: p-Terphenyl-d14		*Not Applicable*		*38.5-115*		*10/23/18*	B8J1115	*8270*	*V*
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	160	ug/kg dry	1	11/03/18	B8J1614	8081/8082	A01
11104-28-2	Aroclor 1221	ND	160	ug/kg dry	1	11/03/18	B8J1614	8081/8082	A01
11141-16-5	Aroclor 1232	ND	160	ug/kg dry	1	11/03/18	B8J1614	8081/8082	A01
53469-21-9	Aroclor 1242	ND	160	ug/kg dry	1	11/03/18	B8J1614	8081/8082	A01
12672-29-6	Aroclor 1248	ND	160	ug/kg dry	1	11/03/18	B8J1614	8081/8082	A01
11097-69-1	Aroclor 1254	ND	160	ug/kg dry	1	11/03/18	B8J1614	8081/8082	A01
11096-82-5	Aroclor 1260	ND	160	ug/kg dry	1	11/03/18	B8J1614	8081/8082	A01
37324-23-5	Aroclor 1262	ND	160	ug/kg dry	1	11/03/18	B8J1614	8081/8082	A01
11100-14-4	Aroclor 1268	ND	160	ug/kg dry	1	11/03/18	B8J1614	8081/8082	A01
Surrogate: Decachlorobiphenyl		*52.8 %*		*30-150*		*11/03/18*	B8J1614	*8081/8082*	*A01*
Surrogate: Tetrachloro-m-xylene		*Not Applicable*		*30-150*		*11/03/18*	B8J1614	*8081/8082*	*A01*

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Client ID: QMCP-SS56-0-3"

Lab ID: 1810006-10

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**63.2**	0.1	%	1	10/16/18	B8J1212	2540 B	

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FAX: (517) 335-9600

Client ID: QMCP-SS57-0-3"

Lab ID: 1810006-11

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y17, Y20, Y21**
91-57-6	**2-Methylnaphthalene**	**3400**	3300	ug/kg dry	1	10/17/18	B8J1115	8270	A02
83-32-9	**Acenaphthene**	**2000**	1300	ug/kg dry	1	10/17/18	B8J1115	8270	A02
208-96-8	**Acenaphthylene**	**7500**	1300	ug/kg dry	1	10/17/18	B8J1115	8270	A02
120-12-7	**Anthracene**	**24000**	1300	ug/kg dry	1	10/17/18	B8J1115	8270	A02
56-55-3	**Benz[a]anthracene**	**100000**	13000	ug/kg dry	10	10/22/18	B8J1115	8270	A02
50-32-8	**Benzo[a]pyrene**	**75000**	26000	ug/kg dry	10	10/22/18	B8J1115	8270	A02
205-99-2	**Benzo[b]fluoranthene**	**180000**	26000	ug/kg dry	10	10/22/18	B8J1115	8270	A02
191-24-2	**Benzo[g,h,i]perylene**	**30000**	26000	ug/kg dry	10	10/22/18	B8J1115	8270	A02
207-08-9	**Benzo[k]fluoranthene**	**39000**	26000	ug/kg dry	10	10/22/18	B8J1115	8270	A02
218-01-9	**Chrysene**	**150000**	13000	ug/kg dry	10	10/22/18	B8J1115	8270	A02
53-70-3	Dibenz[a,h]anthracene	ND	26000	ug/kg dry	10	10/22/18	B8J1115	8270	
206-44-0	**Fluoranthene**	**300000**	13000	ug/kg dry	10	10/22/18	B8J1115	8270	A02
86-73-7	**Fluorene**	**10000**	1300	ug/kg dry	1	10/17/18	B8J1115	8270	A02
193-39-5	**Indeno(1,2,3-c,d)pyrene**	**49000**	26000	ug/kg dry	10	10/22/18	B8J1115	8270	A02
91-20-3	**Naphthalene**	**12000**	1300	ug/kg dry	1	10/17/18	B8J1115	8270	A02
85-01-8	**Phenanthrene**	**230000**	13000	ug/kg dry	10	10/22/18	B8J1115	8270	A02
129-00-0	**Pyrene**	**230000**	13000	ug/kg dry	10	10/22/18	B8J1115	8270	A02
Surrogate: 2-Fluorobiphenyl			*84.4 %*	*32.9-115*		*10/17/18*	B8J1115	*8270*	
Surrogate: Nitrobenzene-d5			*74.4 %*	*31.8-115*		*10/17/18*	B8J1115	*8270*	
Surrogate: p-Terphenyl-d14			*175 %*	*38.5-115*		*10/17/18*	B8J1115	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	13000	ug/kg dry	100	11/06/18	B8J1614	8081/8082	Y21
11104-28-2	Aroclor 1221	ND	13000	ug/kg dry	100	11/06/18	B8J1614	8081/8082	Y21
11141-16-5	Aroclor 1232	ND	29000	ug/kg dry	100	11/06/18	B8J1614	8081/8082	Y21
53469-21-9	Aroclor 1242	ND	14000	ug/kg dry	100	11/06/18	B8J1614	8081/8082	Y21
12672-29-6	Aroclor 1248	ND	13000	ug/kg dry	100	11/06/18	B8J1614	8081/8082	Y21
11097-69-1	Aroclor 1254	ND	20000	ug/kg dry	100	11/06/18	B8J1614	8081/8082	Y21
11096-82-5	Aroclor 1260	ND	20000	ug/kg dry	100	11/06/18	B8J1614	8081/8082	Y21
37324-23-5	Aroclor 1262	ND	20000	ug/kg dry	100	11/06/18	B8J1614	8081/8082	Y21
11100-14-4	Aroclor 1268	ND	16000	ug/kg dry	100	11/06/18	B8J1614	8081/8082	Y21
Surrogate: Decachlorobiphenyl			*Not Applicable*	*30-150*		*11/06/18*	B8J1614	*8081/8082*	*V*
Surrogate: Tetrachloro-m-xylene			*Not Applicable*	*30-150*		*11/06/18*	B8J1614	*8081/8082*	*V*

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ENVIRONMENTAL LABORATORY

P.O. Box 30270
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TEL: (517) 335-9800
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Client ID: QMCP-SS57-0-3"

Lab ID: 1810006-11

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**76.8**	0.1	%	1	10/11/18	B8J0901	2540 B	
57-12-5	**Available Cyanide**	**2.0**	0.65	mg/kg dry	5	10/15/18	B8J1201	OIA-1677	I
Inorganics-Metals									
7440-38-2	**Arsenic**	**190**	0.5	mg/kg dry	10	10/22/18	B8J1801	200.8	
7440-39-3	**Barium**	**180**	1.0	mg/kg dry	10	10/22/18	B8J1801	200.8	
7440-43-9	**Cadmium**	**61**	0.2	mg/kg dry	10	10/22/18	B8J1801	200.8	
7440-47-3	Chromium	ND	200	mg/kg dry	1000	10/22/18	B8J1801	200.8	
7440-50-8	**Copper**	**520**	1.0	mg/kg dry	10	10/22/18	B8J1801	200.8	
7439-92-1	**Lead**	**3000**	100	mg/kg dry	1000	10/22/18	B8J1801	200.8	
7439-96-5	**Manganese**	**790**	100	mg/kg dry	1000	10/22/18	B8J1801	200.8	
7439-97-6	**Mercury**	**0.4**	0.07	mg/kg dry	1	10/17/18	B8J1505	245.5	
7782-49-2	**Selenium**	**2.8**	0.2	mg/kg dry	10	10/22/18	B8J1801	200.8	
7440-22-4	**Silver**	**2.9**	0.1	mg/kg dry	10	10/22/18	B8J1801	200.8	
7440-66-6	**Zinc**	**920**	1.0	mg/kg dry	10	10/22/18	B8J1801	200.8	

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Client ID: QMCP-SS58-0-3"

Lab ID: 1810006-12

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y17, Y20**
91-57-6	2-Methylnaphthalene	ND	750	ug/kg dry	1	10/17/18	B8J1115	8270	
83-32-9	Acenaphthene	ND	300	ug/kg dry	1	10/17/18	B8J1115	8270	
208-96-8	Acenaphthylene	ND	300	ug/kg dry	1	10/17/18	B8J1115	8270	
120-12-7	Anthracene	ND	300	ug/kg dry	1	10/17/18	B8J1115	8270	
56-55-3	Benz[a]anthracene	ND	300	ug/kg dry	1	10/17/18	B8J1115	8270	
50-32-8	Benzo[a]pyrene	ND	600	ug/kg dry	1	10/22/18	B8J1115	8270	
205-99-2	Benzo[b]fluoranthene	ND	600	ug/kg dry	1	10/22/18	B8J1115	8270	
191-24-2	Benzo[g,h,i]perylene	ND	600	ug/kg dry	1	10/22/18	B8J1115	8270	
207-08-9	Benzo[k]fluoranthene	ND	600	ug/kg dry	1	10/22/18	B8J1115	8270	
218-01-9	Chrysene	ND	300	ug/kg dry	1	10/17/18	B8J1115	8270	
53-70-3	Dibenz[a,h]anthracene	ND	600	ug/kg dry	1	10/22/18	B8J1115	8270	
206-44-0	**Fluoranthene**	**550**	300	ug/kg dry	1	10/17/18	B8J1115	8270	
86-73-7	Fluorene	ND	300	ug/kg dry	1	10/17/18	B8J1115	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	600	ug/kg dry	1	10/22/18	B8J1115	8270	
91-20-3	**Naphthalene**	**570**	300	ug/kg dry	1	10/17/18	B8J1115	8270	
85-01-8	**Phenanthrene**	**690**	300	ug/kg dry	1	10/17/18	B8J1115	8270	
129-00-0	**Pyrene**	**520**	300	ug/kg dry	1	10/17/18	B8J1115	8270	
Surrogate: 2-Fluorobiphenyl			*92.2 %*	*32.9-115*		*10/17/18*	B8J1115	*8270*	
Surrogate: Nitrobenzene-d5			*77.8 %*	*31.8-115*		*10/17/18*	B8J1115	*8270*	
Surrogate: p-Terphenyl-d14			*106 %*	*38.5-115*		*10/17/18*	B8J1115	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	150	ug/kg dry	1	10/31/18	B8J1614	8081/8082	
11104-28-2	Aroclor 1221	ND	150	ug/kg dry	1	10/31/18	B8J1614	8081/8082	
11141-16-5	Aroclor 1232	ND	150	ug/kg dry	1	10/31/18	B8J1614	8081/8082	
53469-21-9	Aroclor 1242	ND	150	ug/kg dry	1	10/31/18	B8J1614	8081/8082	
12672-29-6	Aroclor 1248	ND	150	ug/kg dry	1	10/31/18	B8J1614	8081/8082	
11097-69-1	Aroclor 1254	ND	150	ug/kg dry	1	10/31/18	B8J1614	8081/8082	
11096-82-5	Aroclor 1260	ND	150	ug/kg dry	1	10/31/18	B8J1614	8081/8082	
37324-23-5	Aroclor 1262	ND	150	ug/kg dry	1	10/31/18	B8J1614	8081/8082	
11100-14-4	Aroclor 1268	ND	150	ug/kg dry	1	10/31/18	B8J1614	8081/8082	
Surrogate: Decachlorobiphenyl			*120 %*	*30-150*		*10/31/18*	B8J1614	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*105 %*	*30-150*		*10/31/18*	B8J1614	*8081/8082*	

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Client ID: QMCP-SS58-0-3"

Lab ID: 1810006-12

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**66.7**	0.1	%	1	10/11/18	B8J0901	2540 B	
57-12-5	Available Cyanide	ND	0.75	mg/kg dry	5	10/15/18	B8J1201	OIA-1677	I
Inorganics-Metals									
7440-38-2	**Arsenic**	**21**	0.5	mg/kg dry	10	10/22/18	B8J1801	200.8	
7440-39-3	**Barium**	**440**	1.0	mg/kg dry	10	10/22/18	B8J1801	200.8	
7440-43-9	**Cadmium**	**6.7**	0.2	mg/kg dry	10	10/22/18	B8J1801	200.8	
7440-47-3	**Chromium**	**38**	2.0	mg/kg dry	10	10/22/18	B8J1801	200.8	
7440-50-8	**Copper**	**650**	1.0	mg/kg dry	10	10/22/18	B8J1801	200.8	
7439-92-1	**Lead**	**270**	1.0	mg/kg dry	10	10/22/18	B8J1801	200.8	
7439-96-5	**Manganese**	**570**	1.0	mg/kg dry	10	10/22/18	B8J1801	200.8	
7439-97-6	Mercury	ND	0.07	mg/kg dry	1	10/17/18	B8J1506	245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	10/22/18	B8J1801	200.8	
7440-22-4	**Silver**	**0.6**	0.1	mg/kg dry	10	10/22/18	B8J1801	200.8	
7440-66-6	**Zinc**	**730**	1.0	mg/kg dry	10	10/22/18	B8J1801	200.8	

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Client ID: QMCP-SS59-0-3"
Lab ID: 1810006-13

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y17, Y20**
91-57-6	2-Methylnaphthalene	ND	840	ug/kg dry	1	10/17/18	B8J1115	8270	
83-32-9	Acenaphthene	ND	340	ug/kg dry	1	10/17/18	B8J1115	8270	
208-96-8	Acenaphthylene	ND	340	ug/kg dry	1	10/17/18	B8J1115	8270	
120-12-7	Anthracene	ND	340	ug/kg dry	1	10/17/18	B8J1115	8270	
56-55-3	**Benz[a]anthracene**	**490**	340	ug/kg dry	1	10/17/18	B8J1115	8270	
50-32-8	Benzo[a]pyrene	ND	6700	ug/kg dry	10	10/22/18	B8J1115	8270	Y21
205-99-2	Benzo[b]fluoranthene	ND	6700	ug/kg dry	10	10/22/18	B8J1115	8270	Y21
191-24-2	Benzo[g,h,i]perylene	ND	6700	ug/kg dry	10	10/22/18	B8J1115	8270	Y21
207-08-9	Benzo[k]fluoranthene	ND	6700	ug/kg dry	10	10/22/18	B8J1115	8270	Y21
218-01-9	**Chrysene**	**670**	340	ug/kg dry	1	10/17/18	B8J1115	8270	
53-70-3	Dibenz[a,h]anthracene	ND	6700	ug/kg dry	10	10/22/18	B8J1115	8270	Y21
206-44-0	**Fluoranthene**	**880**	340	ug/kg dry	1	10/17/18	B8J1115	8270	
86-73-7	Fluorene	ND	340	ug/kg dry	1	10/17/18	B8J1115	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	6700	ug/kg dry	10	10/22/18	B8J1115	8270	Y21
91-20-3	**Naphthalene**	**490**	340	ug/kg dry	1	10/17/18	B8J1115	8270	
85-01-8	**Phenanthrene**	**550**	340	ug/kg dry	1	10/17/18	B8J1115	8270	
129-00-0	**Pyrene**	**930**	340	ug/kg dry	1	10/17/18	B8J1115	8270	
Surrogate: 2-Fluorobiphenyl			*84.1 %*	*32.9-115*		*10/17/18*	B8J1115	*8270*	
Surrogate: Nitrobenzene-d5			*72.6 %*	*31.8-115*		*10/17/18*	B8J1115	*8270*	
Surrogate: p-Terphenyl-d14			*103 %*	*38.5-115*		*10/17/18*	B8J1115	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	170	ug/kg dry	1	10/31/18	B8J1614	8081/8082	A02
11104-28-2	Aroclor 1221	ND	170	ug/kg dry	1	10/31/18	B8J1614	8081/8082	
11141-16-5	Aroclor 1232	ND	170	ug/kg dry	1	10/31/18	B8J1614	8081/8082	
53469-21-9	Aroclor 1242	ND	170	ug/kg dry	1	10/31/18	B8J1614	8081/8082	
12672-29-6	Aroclor 1248	ND	170	ug/kg dry	1	10/31/18	B8J1614	8081/8082	
11097-69-1	Aroclor 1254	ND	170	ug/kg dry	1	10/31/18	B8J1614	8081/8082	
11096-82-5	Aroclor 1260	ND	170	ug/kg dry	1	10/31/18	B8J1614	8081/8082	
37324-23-5	Aroclor 1262	ND	170	ug/kg dry	1	10/31/18	B8J1614	8081/8082	
11100-14-4	Aroclor 1268	ND	170	ug/kg dry	1	10/31/18	B8J1614	8081/8082	
Surrogate: Decachlorobiphenyl			*101 %*	*30-150*		*10/31/18*	B8J1614	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*96.9 %*	*30-150*		*10/31/18*	B8J1614	*8081/8082*	

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Client ID: QMCP-SS59-0-3"

Lab ID: 1810006-13

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**59.5**	0.1	%	1	10/16/18	B8J1212	2540 B	
57-12-5	Available Cyanide	ND	0.84	mg/kg dry	5	10/15/18	B8J1201	OIA-1677	I
Inorganics-Metals									
7440-38-2	**Arsenic**	**22**	0.5	mg/kg dry	10	10/22/18	B8J1801	200.8	
7440-39-3	**Barium**	**350**	1.0	mg/kg dry	10	10/22/18	B8J1801	200.8	
7440-43-9	**Cadmium**	**2.2**	0.2	mg/kg dry	10	10/22/18	B8J1801	200.8	
7440-47-3	**Chromium**	**43**	2.0	mg/kg dry	10	10/22/18	B8J1801	200.8	
7440-50-8	**Copper**	**1200**	1.0	mg/kg dry	10	10/22/18	B8J1801	200.8	
7439-92-1	**Lead**	**470**	1.0	mg/kg dry	10	10/22/18	B8J1801	200.8	
7439-96-5	**Manganese**	**420**	1.0	mg/kg dry	10	10/22/18	B8J1801	200.8	
7439-97-6	**Mercury**	**0.1**	0.08	mg/kg dry	1	10/17/18	B8J1506	245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	10/22/18	B8J1801	200.8	
7440-22-4	**Silver**	**0.5**	0.1	mg/kg dry	10	10/22/18	B8J1801	200.8	
7440-66-6	**Zinc**	**790**	1.0	mg/kg dry	10	10/22/18	B8J1801	200.8	

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Client ID: QMCP-SS60-0-3"

Lab ID: 1810006-14

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y17, Y20**
91-57-6	2-Methylnaphthalene	ND	790	ug/kg dry	1	10/17/18	B8J1115	8270	
83-32-9	Acenaphthene	ND	320	ug/kg dry	1	10/17/18	B8J1115	8270	
208-96-8	Acenaphthylene	ND	320	ug/kg dry	1	10/17/18	B8J1115	8270	
120-12-7	Anthracene	ND	320	ug/kg dry	1	10/17/18	B8J1115	8270	
56-55-3	**Benz[a]anthracene**	**470**	320	ug/kg dry	1	10/17/18	B8J1115	8270	
50-32-8	Benzo[a]pyrene	ND	6300	ug/kg dry	10	10/22/18	B8J1115	8270	Y21
205-99-2	Benzo[b]fluoranthene	ND	6300	ug/kg dry	10	10/22/18	B8J1115	8270	Y21
191-24-2	Benzo[g,h,i]perylene	ND	6300	ug/kg dry	10	10/22/18	B8J1115	8270	Y21
207-08-9	Benzo[k]fluoranthene	ND	6300	ug/kg dry	10	10/22/18	B8J1115	8270	Y21
218-01-9	**Chrysene**	**610**	320	ug/kg dry	1	10/17/18	B8J1115	8270	
53-70-3	Dibenz[a,h]anthracene	ND	6300	ug/kg dry	10	10/22/18	B8J1115	8270	Y21
206-44-0	**Fluoranthene**	**970**	320	ug/kg dry	1	10/17/18	B8J1115	8270	
86-73-7	Fluorene	ND	320	ug/kg dry	1	10/17/18	B8J1115	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	6300	ug/kg dry	10	10/22/18	B8J1115	8270	Y21
91-20-3	**Naphthalene**	**300**	320	ug/kg dry	1	10/17/18	B8J1115	8270	T
85-01-8	**Phenanthrene**	**610**	320	ug/kg dry	1	10/17/18	B8J1115	8270	
129-00-0	**Pyrene**	**990**	320	ug/kg dry	1	10/17/18	B8J1115	8270	
Surrogate: 2-Fluorobiphenyl			*90.3 %*	*32.9-115*		*10/17/18*	B8J1115	*8270*	
Surrogate: Nitrobenzene-d5			*77.3 %*	*31.8-115*		*10/17/18*	B8J1115	*8270*	
Surrogate: p-Terphenyl-d14			*108 %*	*38.5-115*		*10/17/18*	B8J1115	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	160	ug/kg dry	1	11/03/18	B8J1614	8081/8082	
11104-28-2	Aroclor 1221	ND	160	ug/kg dry	1	11/03/18	B8J1614	8081/8082	
11141-16-5	Aroclor 1232	ND	160	ug/kg dry	1	11/03/18	B8J1614	8081/8082	
53469-21-9	Aroclor 1242	ND	160	ug/kg dry	1	11/03/18	B8J1614	8081/8082	
12672-29-6	Aroclor 1248	ND	160	ug/kg dry	1	11/03/18	B8J1614	8081/8082	
11097-69-1	Aroclor 1254	ND	160	ug/kg dry	1	11/03/18	B8J1614	8081/8082	
11096-82-5	Aroclor 1260	ND	160	ug/kg dry	1	11/03/18	B8J1614	8081/8082	
37324-23-5	Aroclor 1262	ND	160	ug/kg dry	1	11/03/18	B8J1614	8081/8082	
11100-14-4	Aroclor 1268	ND	160	ug/kg dry	1	11/03/18	B8J1614	8081/8082	
Surrogate: Decachlorobiphenyl			*95.4 %*	*30-150*		*11/03/18*	B8J1614	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*83.0 %*	*30-150*		*11/03/18*	B8J1614	*8081/8082*	

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Lab ID: 1810006-14

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**63.3**	0.1	%	1	10/16/18	B8J1212	2540 B	
57-12-5	Available Cyanide	ND	0.79	mg/kg dry	5	10/15/18	B8J1201	OIA-1677	I
Inorganics-Metals									
7440-38-2	**Arsenic**	**19**	0.5	mg/kg dry	10	10/22/18	B8J1801	200.8	
7440-39-3	**Barium**	**600**	1.0	mg/kg dry	10	10/22/18	B8J1801	200.8	
7440-43-9	**Cadmium**	**2.1**	0.2	mg/kg dry	10	10/22/18	B8J1801	200.8	
7440-47-3	**Chromium**	**44**	2.0	mg/kg dry	10	10/22/18	B8J1801	200.8	
7440-50-8	**Copper**	**810**	1.0	mg/kg dry	10	10/22/18	B8J1801	200.8	
7439-92-1	**Lead**	**2300**	1.0	mg/kg dry	10	10/22/18	B8J1801	200.8	
7439-96-5	**Manganese**	**710**	1.0	mg/kg dry	10	10/22/18	B8J1801	200.8	
7439-97-6	**Mercury**	**0.1**	0.08	mg/kg dry	1	10/17/18	B8J1506	245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	10/22/18	B8J1801	200.8	
7440-22-4	**Silver**	**0.5**	0.1	mg/kg dry	10	10/22/18	B8J1801	200.8	
7440-66-6	**Zinc**	**1000**	1.0	mg/kg dry	10	10/22/18	B8J1801	200.8	

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Client ID: QMCP-SS61-0-3"

Lab ID: 1810006-15

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	140	ug/kg dry	50	10/05/18	B8J0516	8260	
71-55-6	1,1,1-Trichloroethane	ND	140	ug/kg dry	50	10/05/18	B8J0516	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	140	ug/kg dry	50	10/05/18	B8J0516	8260	
79-00-5	1,1,2-Trichloroethane	ND	140	ug/kg dry	50	10/05/18	B8J0516	8260	
75-34-3	1,1-Dichloroethane	ND	140	ug/kg dry	50	10/05/18	B8J0516	8260	
75-35-4	1,1-Dichloroethylene	ND	140	ug/kg dry	50	10/05/18	B8J0516	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	720	ug/kg dry	50	10/05/18	B8J0516	8260	
96-18-4	1,2,3-Trichloropropane	ND	140	ug/kg dry	50	10/05/18	B8J0516	8260	A05
526-73-8	1,2,3-Trimethylbenzene	ND	140	ug/kg dry	50	10/05/18	B8J0516	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	720	ug/kg dry	50	10/05/18	B8J0516	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	140	ug/kg dry	50	10/05/18	B8J0516	8260	
106-93-4	1,2-Dibromoethane	ND	140	ug/kg dry	50	10/05/18	B8J0516	8260	
95-50-1	1,2-Dichlorobenzene	ND	140	ug/kg dry	50	10/05/18	B8J0516	8260	
107-06-2	1,2-Dichloroethane	ND	140	ug/kg dry	50	10/05/18	B8J0516	8260	
78-87-5	1,2-Dichloropropane	ND	140	ug/kg dry	50	10/05/18	B8J0516	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	140	ug/kg dry	50	10/05/18	B8J0516	8260	
541-73-1	1,3-Dichlorobenzene	ND	140	ug/kg dry	50	10/05/18	B8J0516	8260	
106-46-7	1,4-Dichlorobenzene	ND	140	ug/kg dry	50	10/05/18	B8J0516	8260	
540-84-1	2,2,4-Trimethylpentane	ND	720	ug/kg dry	50	10/05/18	B8J0516	8260	
78-93-3	2-Butanone (MEK)	ND	720	ug/kg dry	50	10/05/18	B8J0516	8260	
91-57-6	2-Methylnaphthalene	ND	720	ug/kg dry	50	10/05/18	B8J0516	8260	X
67-64-1	2-Propanone (acetone)	ND	2900	ug/kg dry	50	10/05/18	B8J0516	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	720	ug/kg dry	50	10/05/18	B8J0516	8260	
107-13-1	Acrylonitrile	ND	720	ug/kg dry	50	10/05/18	B8J0516	8260	
71-43-2	Benzene	ND	140	ug/kg dry	50	10/05/18	B8J0516	8260	
74-97-5	Bromochloromethane	ND	140	ug/kg dry	50	10/05/18	B8J0516	8260	
75-27-4	Bromodichloromethane	ND	140	ug/kg dry	50	10/05/18	B8J0516	8260	
75-25-2	Bromoform	ND	140	ug/kg dry	50	10/05/18	B8J0516	8260	
74-83-9	Bromomethane	ND	580	ug/kg dry	50	10/05/18	B8J0516	8260	A10
75-15-0	Carbon disulfide	ND	140	ug/kg dry	50	10/05/18	B8J0516	8260	
56-23-5	Carbon tetrachloride	ND	140	ug/kg dry	50	10/05/18	B8J0516	8260	
108-90-7	Chlorobenzene	ND	140	ug/kg dry	50	10/05/18	B8J0516	8260	
75-00-3	Chloroethane	ND	720	ug/kg dry	50	10/05/18	B8J0516	8260	
67-66-3	Chloroform	ND	140	ug/kg dry	50	10/05/18	B8J0516	8260	
74-87-3	Chloromethane	ND	720	ug/kg dry	50	10/05/18	B8J0516	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	140	ug/kg dry	50	10/05/18	B8J0516	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	140	ug/kg dry	50	10/05/18	B8J0516	8260	
110-82-7	Cyclohexane	ND	720	ug/kg dry	50	10/05/18	B8J0516	8260	
124-48-1	Dibromochloromethane	ND	140	ug/kg dry	50	10/05/18	B8J0516	8260	
74-95-3	Dibromomethane	ND	140	ug/kg dry	50	10/05/18	B8J0516	8260	

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CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	720	ug/kg dry	50	10/05/18	B8J0516	8260	A05
60-29-7	Diethyl ether	ND	580	ug/kg dry	50	10/05/18	B8J0516	8260	
108-20-3	Diisopropyl Ether	ND	720	ug/kg dry	50	10/05/18	B8J0516	8260	
100-41-4	Ethylbenzene	ND	140	ug/kg dry	50	10/05/18	B8J0516	8260	
637-92-3	Ethyltertiarybutylether	ND	720	ug/kg dry	50	10/05/18	B8J0516	8260	
67-72-1	Hexachloroethane	ND	720	ug/kg dry	50	10/05/18	B8J0516	8260	
110-54-3	Hexane	ND	140	ug/kg dry	50	10/05/18	B8J0516	8260	
98-82-8	Isopropylbenzene	ND	140	ug/kg dry	50	10/05/18	B8J0516	8260	
1330-20-7	m & p - Xylene	ND	290	ug/kg dry	50	10/05/18	B8J0516	8260	
75-09-2	Methylene chloride	ND	290	ug/kg dry	50	10/05/18	B8J0516	8260	
1634-04-4	Methyltertiarybutylether	ND	140	ug/kg dry	50	10/05/18	B8J0516	8260	
91-20-3	Naphthalene	ND	720	ug/kg dry	50	10/05/18	B8J0516	8260	X
104-51-8	n-Butylbenzene	ND	140	ug/kg dry	50	10/05/18	B8J0516	8260	
103-65-1	n-Propylbenzene	ND	140	ug/kg dry	50	10/05/18	B8J0516	8260	
95-47-6	o-Xylene	ND	140	ug/kg dry	50	10/05/18	B8J0516	8260	
135-98-8	sec-Butylbenzene	ND	140	ug/kg dry	50	10/05/18	B8J0516	8260	
100-42-5	Styrene	ND	140	ug/kg dry	50	10/05/18	B8J0516	8260	
98-06-6	tert-Butylbenzene	ND	140	ug/kg dry	50	10/05/18	B8J0516	8260	
75-65-0	tertiary Butyl Alcohol	ND	7200	ug/kg dry	50	10/05/18	B8J0516	8260	
994-05-8	tertiaryAmylmethylether	ND	720	ug/kg dry	50	10/05/18	B8J0516	8260	
127-18-4	Tetrachloroethylene	ND	140	ug/kg dry	50	10/05/18	B8J0516	8260	
109-99-9	Tetrahydrofuran	ND	720	ug/kg dry	50	10/05/18	B8J0516	8260	
108-88-3	Toluene	ND	140	ug/kg dry	50	10/05/18	B8J0516	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	140	ug/kg dry	50	10/05/18	B8J0516	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	140	ug/kg dry	50	10/05/18	B8J0516	8260	
79-01-6	Trichloroethylene	ND	140	ug/kg dry	50	10/05/18	B8J0516	8260	
75-69-4	Trichlorofluoromethane	ND	140	ug/kg dry	50	10/05/18	B8J0516	8260	
75-01-4	Vinyl chloride	ND	140	ug/kg dry	50	10/05/18	B8J0516	8260	
Surrogate: Bromofluorobenzene			*156 %*	*40.3-194*		*10/05/18*	B8J0516	*8260*	
Surrogate: Dibromofluoromethane			*157 %*	*52.1-217*		*10/05/18*	B8J0516	*8260*	
Surrogate: Toluene-d8			*148 %*	*55.4-196*		*10/05/18*	B8J0516	*8260*	

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CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y17, Y20**
91-57-6	2-Methylnaphthalene	ND	860	ug/kg dry	1	10/17/18	B8J1115	8270	
83-32-9	Acenaphthene	ND	350	ug/kg dry	1	10/17/18	B8J1115	8270	
208-96-8	Acenaphthylene	ND	350	ug/kg dry	1	10/17/18	B8J1115	8270	
120-12-7	Anthracene	ND	350	ug/kg dry	1	10/17/18	B8J1115	8270	
56-55-3	**Benz[a]anthracene**	**700**	350	ug/kg dry	1	10/17/18	B8J1115	8270	
50-32-8	**Benzo[a]pyrene**	**700**	690	ug/kg dry	1	10/17/18	B8J1115	8270	
205-99-2	**Benzo[b]fluoranthene**	**1400**	690	ug/kg dry	1	10/17/18	B8J1115	8270	
191-24-2	Benzo[g,h,i]perylene	ND	690	ug/kg dry	1	10/17/18	B8J1115	8270	
207-08-9	Benzo[k]fluoranthene	ND	690	ug/kg dry	1	10/17/18	B8J1115	8270	
218-01-9	**Chrysene**	**680**	350	ug/kg dry	1	10/17/18	B8J1115	8270	
53-70-3	Dibenz[a,h]anthracene	ND	690	ug/kg dry	1	10/17/18	B8J1115	8270	
206-44-0	**Fluoranthene**	**1500**	350	ug/kg dry	1	10/17/18	B8J1115	8270	
86-73-7	Fluorene	ND	350	ug/kg dry	1	10/17/18	B8J1115	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	690	ug/kg dry	1	10/17/18	B8J1115	8270	
91-20-3	Naphthalene	ND	350	ug/kg dry	1	10/17/18	B8J1115	8270	
85-01-8	**Phenanthrene**	**760**	350	ug/kg dry	1	10/17/18	B8J1115	8270	
129-00-0	**Pyrene**	**1400**	350	ug/kg dry	1	10/17/18	B8J1115	8270	
Surrogate: 2-Fluorobiphenyl			*91.3 %*	*32.9-115*		*10/17/18*	B8J1115	*8270*	
Surrogate: Nitrobenzene-d5			*78.3 %*	*31.8-115*		*10/17/18*	B8J1115	*8270*	
Surrogate: p-Terphenyl-d14			*109 %*	*38.5-115*		*10/17/18*	B8J1115	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	170	ug/kg dry	1	10/31/18	B8J1614	8081/8082	
11104-28-2	Aroclor 1221	ND	170	ug/kg dry	1	10/31/18	B8J1614	8081/8082	
11141-16-5	Aroclor 1232	ND	170	ug/kg dry	1	10/31/18	B8J1614	8081/8082	
53469-21-9	Aroclor 1242	ND	170	ug/kg dry	1	10/31/18	B8J1614	8081/8082	
12672-29-6	Aroclor 1248	ND	170	ug/kg dry	1	10/31/18	B8J1614	8081/8082	
11097-69-1	Aroclor 1254	ND	170	ug/kg dry	1	10/31/18	B8J1614	8081/8082	
11096-82-5	Aroclor 1260	ND	170	ug/kg dry	1	10/31/18	B8J1614	8081/8082	
37324-23-5	Aroclor 1262	ND	170	ug/kg dry	1	10/31/18	B8J1614	8081/8082	
11100-14-4	Aroclor 1268	ND	170	ug/kg dry	1	10/31/18	B8J1614	8081/8082	
Surrogate: Decachlorobiphenyl			*113 %*	*30-150*		*10/31/18*	B8J1614	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*102 %*	*30-150*		*10/31/18*	B8J1614	*8081/8082*	

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CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**57.9**	0.1	%	1	10/16/18	B8J1212	2540 B	

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Lab ID: 1810006-16

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	200	ug/kg dry	50	10/05/18	B8J0516	8260	
71-55-6	1,1,1-Trichloroethane	ND	200	ug/kg dry	50	10/05/18	B8J0516	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	200	ug/kg dry	50	10/05/18	B8J0516	8260	
79-00-5	1,1,2-Trichloroethane	ND	200	ug/kg dry	50	10/05/18	B8J0516	8260	
75-34-3	1,1-Dichloroethane	ND	200	ug/kg dry	50	10/05/18	B8J0516	8260	
75-35-4	1,1-Dichloroethylene	ND	200	ug/kg dry	50	10/05/18	B8J0516	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	1000	ug/kg dry	50	10/05/18	B8J0516	8260	
96-18-4	1,2,3-Trichloropropane	ND	200	ug/kg dry	50	10/05/18	B8J0516	8260	A05
526-73-8	1,2,3-Trimethylbenzene	ND	200	ug/kg dry	50	10/05/18	B8J0516	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	1000	ug/kg dry	50	10/05/18	B8J0516	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	200	ug/kg dry	50	10/05/18	B8J0516	8260	
106-93-4	1,2-Dibromoethane	ND	200	ug/kg dry	50	10/05/18	B8J0516	8260	
95-50-1	1,2-Dichlorobenzene	ND	200	ug/kg dry	50	10/05/18	B8J0516	8260	
107-06-2	1,2-Dichloroethane	ND	200	ug/kg dry	50	10/05/18	B8J0516	8260	
78-87-5	1,2-Dichloropropane	ND	200	ug/kg dry	50	10/05/18	B8J0516	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	200	ug/kg dry	50	10/05/18	B8J0516	8260	
541-73-1	1,3-Dichlorobenzene	ND	200	ug/kg dry	50	10/05/18	B8J0516	8260	
106-46-7	1,4-Dichlorobenzene	ND	200	ug/kg dry	50	10/05/18	B8J0516	8260	
540-84-1	2,2,4-Trimethylpentane	ND	1000	ug/kg dry	50	10/05/18	B8J0516	8260	
78-93-3	2-Butanone (MEK)	ND	1000	ug/kg dry	50	10/05/18	B8J0516	8260	
91-57-6	2-Methylnaphthalene	ND	1000	ug/kg dry	50	10/05/18	B8J0516	8260	X
67-64-1	2-Propanone (acetone)	ND	4000	ug/kg dry	50	10/05/18	B8J0516	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	1000	ug/kg dry	50	10/05/18	B8J0516	8260	
107-13-1	Acrylonitrile	ND	1000	ug/kg dry	50	10/05/18	B8J0516	8260	
71-43-2	Benzene	ND	200	ug/kg dry	50	10/05/18	B8J0516	8260	
74-97-5	Bromochloromethane	ND	200	ug/kg dry	50	10/05/18	B8J0516	8260	
75-27-4	Bromodichloromethane	ND	200	ug/kg dry	50	10/05/18	B8J0516	8260	
75-25-2	Bromoform	ND	200	ug/kg dry	50	10/05/18	B8J0516	8260	
74-83-9	Bromomethane	ND	800	ug/kg dry	50	10/05/18	B8J0516	8260	A10
75-15-0	Carbon disulfide	ND	200	ug/kg dry	50	10/05/18	B8J0516	8260	
56-23-5	Carbon tetrachloride	ND	200	ug/kg dry	50	10/05/18	B8J0516	8260	
108-90-7	Chlorobenzene	ND	200	ug/kg dry	50	10/05/18	B8J0516	8260	
75-00-3	Chloroethane	ND	1000	ug/kg dry	50	10/05/18	B8J0516	8260	
67-66-3	Chloroform	ND	200	ug/kg dry	50	10/05/18	B8J0516	8260	
74-87-3	Chloromethane	ND	1000	ug/kg dry	50	10/05/18	B8J0516	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	200	ug/kg dry	50	10/05/18	B8J0516	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	200	ug/kg dry	50	10/05/18	B8J0516	8260	
110-82-7	Cyclohexane	ND	1000	ug/kg dry	50	10/05/18	B8J0516	8260	
124-48-1	Dibromochloromethane	ND	200	ug/kg dry	50	10/05/18	B8J0516	8260	
74-95-3	Dibromomethane	ND	200	ug/kg dry	50	10/05/18	B8J0516	8260	

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CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	1000	ug/kg dry	50	10/05/18	B8J0516	8260	A05
60-29-7	Diethyl ether	ND	800	ug/kg dry	50	10/05/18	B8J0516	8260	
108-20-3	Diisopropyl Ether	ND	1000	ug/kg dry	50	10/05/18	B8J0516	8260	
100-41-4	Ethylbenzene	ND	200	ug/kg dry	50	10/05/18	B8J0516	8260	
637-92-3	Ethyltertiarybutylether	ND	1000	ug/kg dry	50	10/05/18	B8J0516	8260	
67-72-1	Hexachloroethane	ND	1000	ug/kg dry	50	10/05/18	B8J0516	8260	
110-54-3	Hexane	ND	200	ug/kg dry	50	10/05/18	B8J0516	8260	
98-82-8	Isopropylbenzene	ND	200	ug/kg dry	50	10/05/18	B8J0516	8260	
1330-20-7	m & p - Xylene	ND	400	ug/kg dry	50	10/05/18	B8J0516	8260	
75-09-2	Methylene chloride	ND	400	ug/kg dry	50	10/05/18	B8J0516	8260	
1634-04-4	Methyltertiarybutylether	ND	200	ug/kg dry	50	10/05/18	B8J0516	8260	
91-20-3	Naphthalene	ND	1000	ug/kg dry	50	10/05/18	B8J0516	8260	X
104-51-8	n-Butylbenzene	ND	200	ug/kg dry	50	10/05/18	B8J0516	8260	
103-65-1	n-Propylbenzene	ND	200	ug/kg dry	50	10/05/18	B8J0516	8260	
95-47-6	o-Xylene	ND	200	ug/kg dry	50	10/05/18	B8J0516	8260	
135-98-8	sec-Butylbenzene	ND	200	ug/kg dry	50	10/05/18	B8J0516	8260	
100-42-5	Styrene	ND	200	ug/kg dry	50	10/05/18	B8J0516	8260	
98-06-6	tert-Butylbenzene	ND	200	ug/kg dry	50	10/05/18	B8J0516	8260	
75-65-0	tertiary Butyl Alcohol	ND	10000	ug/kg dry	50	10/05/18	B8J0516	8260	
994-05-8	tertiaryAmylmethylether	ND	1000	ug/kg dry	50	10/05/18	B8J0516	8260	
127-18-4	Tetrachloroethylene	ND	200	ug/kg dry	50	10/05/18	B8J0516	8260	
109-99-9	Tetrahydrofuran	ND	1000	ug/kg dry	50	10/05/18	B8J0516	8260	
108-88-3	**Toluene**	**280**	200	ug/kg dry	50	10/05/18	B8J0516	8260	A02
156-60-5	trans-1,2-Dichloroethylene	ND	200	ug/kg dry	50	10/05/18	B8J0516	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	200	ug/kg dry	50	10/05/18	B8J0516	8260	
79-01-6	Trichloroethylene	ND	200	ug/kg dry	50	10/05/18	B8J0516	8260	
75-69-4	Trichlorofluoromethane	ND	200	ug/kg dry	50	10/05/18	B8J0516	8260	
75-01-4	Vinyl chloride	ND	200	ug/kg dry	50	10/05/18	B8J0516	8260	
Surrogate: Bromofluorobenzene			*203 %*	*40.3-194*		*10/05/18*	B8J0516	*8260*	
Surrogate: Dibromofluoromethane			*203 %*	*52.1-217*		*10/05/18*	B8J0516	*8260*	
Surrogate: Toluene-d8			*193 %*	*55.4-196*		*10/05/18*	B8J0516	*8260*	

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

Client ID: QMCP-SS62-0-3"

Lab ID: 1810006-16

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y17, Y20**
91-57-6	2-Methylnaphthalene	ND	910	ug/kg dry	1	10/17/18	B8J1115	8270	
83-32-9	Acenaphthene	ND	360	ug/kg dry	1	10/17/18	B8J1115	8270	
208-96-8	**Acenaphthylene**	**570**	360	ug/kg dry	1	10/17/18	B8J1115	8270	
120-12-7	**Anthracene**	**750**	360	ug/kg dry	1	10/17/18	B8J1115	8270	
56-55-3	**Benz[a]anthracene**	**3900**	360	ug/kg dry	1	10/17/18	B8J1115	8270	
50-32-8	Benzo[a]pyrene	ND	7300	ug/kg dry	10	10/22/18	B8J1115	8270	Y21
205-99-2	Benzo[b]fluoranthene	ND	7300	ug/kg dry	10	10/22/18	B8J1115	8270	Y21
191-24-2	Benzo[g,h,i]perylene	ND	7300	ug/kg dry	10	10/22/18	B8J1115	8270	Y21
207-08-9	Benzo[k]fluoranthene	ND	7300	ug/kg dry	10	10/22/18	B8J1115	8270	Y21
218-01-9	**Chrysene**	**3600**	360	ug/kg dry	1	10/17/18	B8J1115	8270	
53-70-3	Dibenz[a,h]anthracene	ND	7300	ug/kg dry	10	10/22/18	B8J1115	8270	Y21
206-44-0	**Fluoranthene**	**8100**	360	ug/kg dry	1	10/17/18	B8J1115	8270	
86-73-7	Fluorene	ND	360	ug/kg dry	1	10/17/18	B8J1115	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	7300	ug/kg dry	10	10/22/18	B8J1115	8270	Y21
91-20-3	**Naphthalene**	**560**	360	ug/kg dry	1	10/17/18	B8J1115	8270	
85-01-8	**Phenanthrene**	**2900**	360	ug/kg dry	1	10/17/18	B8J1115	8270	
129-00-0	**Pyrene**	**8000**	360	ug/kg dry	1	10/17/18	B8J1115	8270	
Surrogate: 2-Fluorobiphenyl			*83.1 %*	*32.9-115*		*10/17/18*	B8J1115	*8270*	
Surrogate: Nitrobenzene-d5			*71.3 %*	*31.8-115*		*10/17/18*	B8J1115	*8270*	
Surrogate: p-Terphenyl-d14			*101 %*	*38.5-115*		*10/17/18*	B8J1115	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	4500	ug/kg dry	5	11/07/18	B8J2311	8081/8082	Y21
11104-28-2	Aroclor 1221	ND	4500	ug/kg dry	5	11/07/18	B8J2311	8081/8082	Y21
11141-16-5	Aroclor 1232	ND	4500	ug/kg dry	5	11/07/18	B8J2311	8081/8082	Y21
53469-21-9	Aroclor 1242	ND	4500	ug/kg dry	5	11/07/18	B8J2311	8081/8082	Y21
12672-29-6	Aroclor 1248	ND	4500	ug/kg dry	5	11/07/18	B8J2311	8081/8082	Y21
11097-69-1	Aroclor 1254	ND	4500	ug/kg dry	5	11/07/18	B8J2311	8081/8082	Y21
11096-82-5	Aroclor 1260	ND	4500	ug/kg dry	5	11/07/18	B8J2311	8081/8082	Y21
37324-23-5	Aroclor 1262	ND	4500	ug/kg dry	5	11/07/18	B8J2311	8081/8082	Y21
11100-14-4	Aroclor 1268	ND	4500	ug/kg dry	5	11/07/18	B8J2311	8081/8082	Y21
Surrogate: Decachlorobiphenyl			*109 %*	*30-150*		*11/07/18*	B8J2311	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*99.4 %*	*30-150*		*11/07/18*	B8J2311	*8081/8082*	

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

Client ID: QMCP-SS62-0-3"

Lab ID: 1810006-16

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**55.0**	0.1	%	1	10/16/18	B8J1212	2540 B	

Michigan Department of Environmental Quality
Laboratory Services Section

Analysis Request Sheet

Lab Work Order Number	Project Name	Matrix
1810006	Abandoned Mining Wastes- QMCP	RPM/ surface SOIL

Site Code/Project Number	AY	CC Email 1	Project TAT Days	Sample Collector
31000098	17	jbinkley@manniksmithgroup.com		AEM / JBC
Dept-Division-District	**Index**	**CC Email 2**	**Project Due Date**	**Sample Collector Phone**
DEQ RRD UP District- Calumet	7000			906-487-7452
State Project Manager	**PCA**	**CC Email 3**		**Contract Firm**
Amy Keranen	42050/1533			Mannik & Smith Group
State Project Manager Email	**location**	**Overflow Lab Choice 1**	**Accept Analysis hold time codes**	**Contract Firm Primary Contact**
keranena@michigan.gov	6996	Test America- asbestos	No	Jeff Binkley
State Project Manager Phone	**sub location**	**Overflow Lab Choice 2**		**Primary Contact Phone**
906-337-0389	6010	ALS for waste characterization		906-281-3404

	Lab Use Only	Field Sample Identification	Collection Date	Collection Time	Container Count	Comments
1	09	QMCP-SS55-0-3"	9/28/18	1545	1	
2	10	QMCP-SS56-0-3"	↓	1645	1	
3	11	QMCP-SS57-0-3"	10/1/18	0940	1	
4	12	QMCP-SS58-0-3"		1000	1	
5	13	QMCP-SS59-0-3"		1010	1	
6	14	QMCP-SS60-0-3"		1015	1	
7	15	QMCP-SS61-0-3"		1130	3	INCLUDES PLUNGER FOR DRY WT
8	16	QMCP-SS 62-0-3"	↓	1140	3	" " " " "
9		QMCP-SS				
10		QMCP-SS				

ORGANIC CHEMISTRY

VOA - Volatile Organic Acidic

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

OS - Pesticides, PCBs

Pesticides & PCBs	1 2 3 4 5 6 7 8 9 10
Pesticides only	1 2 3 4 5 6 7 8 9 10
PCBs only	1 2 3 4 5 6 7 8 9 10
Toxaphene	1 2 3 4 5 6 7 8 9 10

BNA - Base Neutral Acids

BNAs	1 2 3 4 5 6 7 8 9 10
PNAs only	1 2 3 4 5 6 7 8 9 10
BNs only	1 2 3 4 5 6 7 8 9 10

Organic Specialty Requests

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

METALS CHEMISTRY PACKAGES

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

MS - TOTAL METALS

Silver - Ag	1 2 3 4 5 6 7 8 9 10
Aluminum - Al	1 2 3 4 5 6 7 8 9 10
Arsenic - As	1 2 3 4 5 6 7 8 9 10
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

GENERAL CHEMISTRY

GS - General Chemistry

Total Cyanide - CN	1 2 3 4 5 6 7 8 9 10
Available Cyanide - CN	1 2 3 4 5 6 7 8 9 10
Chem Oxyg Dem - COD	1 2 3 4 5 6 7 8 9 10
Total Org Carbon - TOC	1 2 3 4 5 6 7 8 9 10
Kjeldahl Nitrogen - KN	1 2 3 4 5 6 7 8 9 10
Total Phosphorus - TP	1 2 3 4 5 6 7 8 9 10

per A.M. 10-2-18

Chain of Custody

	Relinquished by	Received By	Date / Time
Print Name & Org.	Aaron Miller MSG	UPS	10/1/18 1700
Signature:			
Print Name & Org.	UPS	Melissa Smith	10/2/18 1212
Signature:			
Print Name & Org.			
Signature:			

Michigan Department of Environmental Quality
Laboratory Services Section

Analysis Request Sheet

Lab Work Order Number	Project Name	Matrix
1810006	Abandoned Mining Wastes- QMCP	RPM/ surface SOIL

Site Code/Project Number	AY	CC Email 1	Project TAT Days	Sample Collector
31000098	17	jbinkley@manniksmithgroup.com		AEM/JBC
Dept-Division-District	**Index**	**CC Email 2**	**Project Due Date**	**Sample Collector Phone**
DEQ RRD UP District- Calumet	7000			906-487-7452
State Project Manager	**PCA**	**CC Email 3**		**Contract Firm**
Amy Keranen	42050/1533			Mannik & Smith Group
State Project Manager Email	**location**	**Overflow Lab Choice 1**	**Accept Analysis hold time codes**	**Contract Firm Primary Contact**
keranena@michigan.gov	6996	Test America- asbestos	No	Jeff Binkley
State Project Manager Phone	**sub location**	**Overflow Lab Choice 2**		**Primary Contact Phone**
906-337-0389	6010	ALS for waste characterization		906-281-3404

	Lab Use Only	Field Sample Identification	Collection Date	Collection Time	Container Count	Comments
1	01	QMCP-SS47-0-3"	9/28/18	1128	1	
2	02	QMCP-SS48-0-3"		1132	1	
3	—	QMCP-RPM04		1150	1	OILY PAPER FROM ELECTRICAL EQUIP.
4	03	QMCP-SS49-0-3"		1215	1	
5	04	QMCP-SS50-0-3"		1225	1	
6	05	QMCP-SS51-0-3"		1245	3	INCLUDES PLUNGER FOR DRY WT.
7	06	QMCP-SS52-0-3"		1310	1	
8	—	QMCP-RPM05		1435	1	BLACK TAR-LIKE MATERIAL
9	07	QMCP-SS53-0-3"		1442	1	
10	08	QMCP-SS54-0-3"		1450	1	

ORGANIC CHEMISTRY

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

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

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

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

METALS CHEMISTRY PACKAGES

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

Sample 3 & 8 on Workorder # 1810007

MS - TOTAL METALS

- Silver - Ag 1 2 3 4 5 6 7 8 9 10
- Aluminum - Al 1 2 3 4 5 6 7 8 9 10
- Arsenic - As 1 2 3 4 5 6 7 8 9 10
- 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 - Ti 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

GENERAL CHEMISTRY

GS - General Chemistry
- Total Cyanide - CN 1 2 3 4 5 6 7 8 9 10
- Available Cyanide - CN 1 2 3 4 5 6 7 8 9 10
- Chem Oxyg Dem - COD 1 2 3 4 5 6 7 8 9 10
- Total Org Carbon - TOC 1 2 3 4 5 6 7 8 9 10
- Kjeldahl Nitrogen - KN 1 2 3 4 5 6 7 8 9 10
- 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. Ashlyne E. Miller MSG Signature:	UPS	10/1/18 1700
Print Name & Org. UPS Signature: 12863 AVA NW 9165 5514	Melissa Smith	10/2/18 1212
Print Name & Org. Signature:		

Michigan Department of Environmental Quality
Laboratory Services Section

Analysis Request Sheet

Lab Work Order Number	Project Name	Matrix
1810006	Abandoned Mining Wastes- QMCP	RPM/ surface SOIL

Site Code/Project Number	AY	CC Email 1	Project TAT Days	Sample Collector
31000098	17	jbinkley@manniksmithgroup.com		AEM / JBC
Dept-Division-District	**Index**	**CC Email 2**	**Project Due Date**	**Sample Collector Phone**
DEQ RRD UP District- Calumet	7000			906-487-7452
State Project Manager	**PCA**	**CC Email 3**		**Contract Firm**
Amy Keranen	42050/1533			Mannik & Smith Group
State Project Manager Email	**location**	**Overflow Lab Choice 1**	**Accept Analysis hold time codes**	**Contract Firm Primary Contact**
keranena@michigan.gov	6996	Test America- asbestos	No	Jeff Binkley
State Project Manager Phone	**sub location**	**Overflow Lab Choice 2**		**Primary Contact Phone**
906-337-0389	6010	ALS for waste characterization		906-281-3404

	Lab Use Only	Field Sample Identification	Collection Date	Collection Time	Container Count	Comments
1	09	QMCP-SS55-0-3"	9/28/18	1545	1	
2	10	QMCP-SS56-0-3"	↓	1645	1	
3	11	QMCP-SS57-0-3"	10/1/18	0940	1	
4	12	QMCP-SS58-0-3"		1000	1	
5	13	QMCP-SS59-0-3"		1010	1	
6	14	QMCP-SS60-0-3"		1015	1	
7	15	QMCP-SS61-0-3"		1130	3	INCLUDES DUPLICATE FOR DRY WT
8	16	QMCP-SS 62-0-3"	↓	1140	3	" " " " "
9		QMCP-SS				
10		QMCP-SS				

ORGANIC CHEMISTRY

VOA - Volatile Organic Acidic

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

OS - Pesticides, PCBs

Pesticides & PCBs	1 2 3 4 5 6 7 8 9 10
Pesticides only	1 2 3 4 5 6 7 8 9 10
PCBs only	1 2 3 4 5 6 7 8 9 10
Toxaphene	1 2 3 4 5 6 7 8 9 10

BNA - Base Neutral Acids

BNAs	1 2 3 4 5 6 7 8 9 10
PNAs only	1 2 3 4 5 6 7 8 9 10
BNs only	1 2 3 4 5 6 7 8 9 10

Organic Specialty Requests

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

METALS CHEMISTRY PACKAGES

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

MS - TOTAL METALS

Silver - Ag	1 2 3 4 5 6 7 8 9 10
Aluminum - Al	1 2 3 4 5 6 7 8 9 10
Arsenic - As	1 2 3 4 5 6 7 8 9 10
Barium - Ba	1 2 3 4 5 6 7 8 9 10
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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

GENERAL CHEMISTRY

GS - General Chemistry

Total Cyanide - CN	1 2 3 4 5 6 7 8 9 10
Available Cyanide - CN	1 2 3 4 5 6 7 8 9 10
Chem Oxyg Dem - COD	1 2 3 4 5 6 7 8 9 10
Total Org Carbon - TOC	1 2 3 4 5 6 7 8 9 10
Kjeldahl Nitrogen - KN	1 2 3 4 5 6 7 8 9 10
Total Phosphorus - TP	1 2 3 4 5 6 7 8 9 10

per A.M. 10-2-18

Chain of Custody

	Relinquished by	Received By	Date / Time
Print Name & Org.	Rosalyn C. Miller MSG	UPS	10/1/18 1700
Signature:			
Print Name & Org.	UPS	Melissa Smith DEQ	10/2/18 1212
Signature:			
Print Name & Org.			
Signature:			

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

14 November 2018

Work Order: 1809076

Price: $5,065.00

Amy Keranen
MDEQ-RRD-UP
1504 W. Washington St.
Marquette, MI 49855

RE: ABANDONED MINING WASTES-QMCP

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

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DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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MDEQ-RRD-UP	Project: ABANDONED MINING WASTES-QMCP	
1504 W. Washington St.	Site Code: 31000098	**Reported:**
Marquette MI, 49855	Project Manager: Amy Keranen	11/14/2018

Analytical Report for Samples

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Qualifier
QMCP-SS-06-0-6"	1809076-01	Soil/Sediment	09/05/2018	09/10/2018	
QMCP-SS-08-0-6"	1809076-02	Soil/Sediment	09/05/2018	09/10/2018	
QMCP-SS-08-0-6" DUP1	1809076-03	Soil/Sediment	09/05/2018	09/10/2018	
QMCP-SS-09-0-6"	1809076-04	Soil/Sediment	09/05/2018	09/10/2018	
QMCP-SS-10-0-6"	1809076-05	Soil/Sediment	09/05/2018	09/10/2018	
QMCP-SS-11-0-6"	1809076-06	Soil/Sediment	09/05/2018	09/10/2018	
QMCP-SS-12-0-6"	1809076-07	Soil/Sediment	09/05/2018	09/10/2018	
QMCP-SS-13-0-6"	1809076-08	Soil/Sediment	09/05/2018	09/10/2018	
QMCP-SS-14-0-6"	1809076-09	Soil/Sediment	09/05/2018	09/10/2018	
QMCP-SS-15-0-6"	1809076-10	Soil/Sediment	09/05/2018	09/10/2018	

Notes and Definitions

Y30	ORO results may also include non-oil organic compounds.
Y29	DRO results may also include non-diesel organic compounds.
Y21	Reporting Limits (RL) raised due to matrix interference.
Y20	Reporting Limits (RL) raised due to matrix.
Y17	Probable petroleum product(s) present.
X3	Spike recovery is not applicable due to large target analyte concentration in the source sample.
N	Result is estimated due to Non-homogeneous sample.
LRB	Laboratory reagent blank was greater than 2.2 times the MDL, or greater than 10% of the analyte level in the sample.
A12	Result is estimated due to inter-replicate sample analysis RSD > 10%.
A09	Result is estimated due to high recovery of batch quality control.
A07	Result(s) and reporting limit(s) are estimated due to poor precision.
A04	Result is estimated due to high matrix spike recovery.
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
dry	Sample results reported on a dry weight basis

Case Narrative

Unable to analyze for GRO. No methanol vials provided.

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Client ID: QMCP-SS-06-0-6"

Lab ID: 1809076-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y17, Y20**
91-57-6	**2-Methylnaphthalene**	**710**	540	ug/kg dry	1	09/18/18	B8I1217	8270	
83-32-9	Acenaphthene	ND	220	ug/kg dry	1	09/18/18	B8I1217	8270	
208-96-8	Acenaphthylene	ND	220	ug/kg dry	1	09/18/18	B8I1217	8270	
120-12-7	Anthracene	ND	220	ug/kg dry	1	09/18/18	B8I1217	8270	
56-55-3	Benz[a]anthracene	ND	220	ug/kg dry	1	09/18/18	B8I1217	8270	
50-32-8	Benzo[a]pyrene	ND	430	ug/kg dry	1	09/18/18	B8I1217	8270	
205-99-2	Benzo[b]fluoranthene	ND	430	ug/kg dry	1	09/18/18	B8I1217	8270	
191-24-2	Benzo[g,h,i]perylene	ND	430	ug/kg dry	1	09/18/18	B8I1217	8270	
207-08-9	Benzo[k]fluoranthene	ND	430	ug/kg dry	1	09/18/18	B8I1217	8270	
218-01-9	Chrysene	ND	220	ug/kg dry	1	09/18/18	B8I1217	8270	
53-70-3	Dibenz[a,h]anthracene	ND	430	ug/kg dry	1	09/18/18	B8I1217	8270	
206-44-0	Fluoranthene	ND	220	ug/kg dry	1	09/18/18	B8I1217	8270	
86-73-7	Fluorene	ND	220	ug/kg dry	1	09/18/18	B8I1217	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	430	ug/kg dry	1	09/18/18	B8I1217	8270	
91-20-3	**Naphthalene**	**480**	220	ug/kg dry	1	09/18/18	B8I1217	8270	
85-01-8	**Phenanthrene**	**430**	220	ug/kg dry	1	09/18/18	B8I1217	8270	
129-00-0	Pyrene	ND	220	ug/kg dry	1	09/18/18	B8I1217	8270	
Surrogate: 2-Fluorobiphenyl			*78.6 %*	*32.9-115*		*09/18/18*	B8I1217	*8270*	
Surrogate: Nitrobenzene-d5			*72.0 %*	*31.8-115*		*09/18/18*	B8I1217	*8270*	
Surrogate: p-Terphenyl-d14			*82.5 %*	*38.5-115*		*09/18/18*	B8I1217	*8270*	
Inorganics-General Chemistry									
TS	**% Total Solids**	**92.7**	0.1	%	1	09/12/18	B8I1123	2540 B	
57-12-5	Available Cyanide	ND	0.11	mg/kg dry	1	09/18/18	B8I1320	OIA-1677	

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Client ID: QMCP-SS-06-0-6"

Lab ID: 1809076-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-Metals									
7440-38-2	**Arsenic**	**2.0**	0.5	mg/kg dry	10	09/20/18	B8I1804	200.8	LRB
7440-39-3	**Barium**	**6.1**	1.0	mg/kg dry	10	09/20/18	B8I1804	200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	09/20/18	B8I1804	200.8	
7440-47-3	**Chromium**	**8.1**	2.0	mg/kg dry	10	09/20/18	B8I1804	200.8	
7440-50-8	**Copper**	**3500**	100	mg/kg dry	1000	09/21/18	B8I1804	200.8	
7439-92-1	**Lead**	**15**	1.0	mg/kg dry	10	09/20/18	B8I1804	200.8	
7439-96-5	**Manganese**	**330**	1.0	mg/kg dry	10	09/20/18	B8I1804	200.8	
7439-97-6	**Mercury**	**0.4**	0.05	mg/kg dry	1	09/17/18	B8I1318	245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	09/20/18	B8I1804	200.8	
7440-22-4	**Silver**	**2.9**	0.1	mg/kg dry	10	09/20/18	B8I1804	200.8	
7440-66-6	**Zinc**	**43**	1.0	mg/kg dry	10	09/20/18	B8I1804	200.8	

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Client ID: QMCP-SS-08-0-6"
Lab ID: 1809076-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y17, Y20**
91-57-6	**2-Methylnaphthalene**	**1100**	630	ug/kg dry	1	09/24/18	B8I1217	8270	
83-32-9	Acenaphthene	ND	250	ug/kg dry	1	09/24/18	B8I1217	8270	
208-96-8	Acenaphthylene	ND	250	ug/kg dry	1	09/24/18	B8I1217	8270	
120-12-7	Anthracene	ND	250	ug/kg dry	1	09/24/18	B8I1217	8270	
56-55-3	**Benz[a]anthracene**	**290**	250	ug/kg dry	1	09/24/18	B8I1217	8270	
50-32-8	Benzo[a]pyrene	ND	510	ug/kg dry	1	09/24/18	B8I1217	8270	
205-99-2	Benzo[b]fluoranthene	ND	510	ug/kg dry	1	09/24/18	B8I1217	8270	
191-24-2	Benzo[g,h,i]perylene	ND	510	ug/kg dry	1	09/24/18	B8I1217	8270	
207-08-9	Benzo[k]fluoranthene	ND	510	ug/kg dry	1	09/24/18	B8I1217	8270	
218-01-9	**Chrysene**	**370**	250	ug/kg dry	1	09/24/18	B8I1217	8270	
53-70-3	Dibenz[a,h]anthracene	ND	510	ug/kg dry	1	09/24/18	B8I1217	8270	
206-44-0	**Fluoranthene**	**510**	250	ug/kg dry	1	09/24/18	B8I1217	8270	
86-73-7	Fluorene	ND	250	ug/kg dry	1	09/24/18	B8I1217	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	510	ug/kg dry	1	09/24/18	B8I1217	8270	
91-20-3	**Naphthalene**	**770**	250	ug/kg dry	1	09/24/18	B8I1217	8270	
85-01-8	**Phenanthrene**	**860**	250	ug/kg dry	1	09/24/18	B8I1217	8270	
129-00-0	**Pyrene**	**470**	250	ug/kg dry	1	09/24/18	B8I1217	8270	
Surrogate: 2-Fluorobiphenyl			*69.8 %*	*32.9-115*		*09/24/18*	B8I1217	*8270*	
Surrogate: Nitrobenzene-d5			*68.9 %*	*31.8-115*		*09/24/18*	B8I1217	*8270*	
Surrogate: p-Terphenyl-d14			*79.5 %*	*38.5-115*		*09/24/18*	B8I1217	*8270*	
Inorganics-General Chemistry									
TS	**% Total Solids**	**79.1**	0.1	%	1	09/12/18	B8I1123	2540 B	
57-12-5	Available Cyanide	ND	0.13	mg/kg dry	1	09/18/18	B8I1320	OIA-1677	

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Lab ID: 1809076-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-Metals									
7440-38-2	**Arsenic**	**4.6**	0.5	mg/kg dry	10	09/20/18	B8I1804	200.8	
7440-39-3	**Barium**	**51**	1.0	mg/kg dry	10	09/20/18	B8I1804	200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	09/20/18	B8I1804	200.8	
7440-47-3	**Chromium**	**3.2**	2.0	mg/kg dry	10	09/20/18	B8I1804	200.8	
7440-50-8	**Copper**	**460**	1.0	mg/kg dry	10	09/20/18	B8I1804	200.8	
7439-92-1	**Lead**	**100**	1.0	mg/kg dry	10	09/20/18	B8I1804	200.8	
7439-96-5	**Manganese**	**170**	1.0	mg/kg dry	10	09/20/18	B8I1804	200.8	
7439-97-6	Mercury	ND	0.06	mg/kg dry	1	09/17/18	B8I1318	245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	09/20/18	B8I1804	200.8	
7440-22-4	**Silver**	**0.7**	0.1	mg/kg dry	10	09/20/18	B8I1804	200.8	
7440-66-6	**Zinc**	**31**	1.0	mg/kg dry	10	09/20/18	B8I1804	200.8	

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Client ID: QMCP-SS-08-0-6" DUP1

Lab ID: 1809076-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y17, Y20**
91-57-6	**2-Methylnaphthalene**	**1300**	630	ug/kg dry	1	09/24/18	B8I1217	8270	
83-32-9	Acenaphthene	ND	250	ug/kg dry	1	09/24/18	B8I1217	8270	
208-96-8	Acenaphthylene	ND	250	ug/kg dry	1	09/24/18	B8I1217	8270	
120-12-7	Anthracene	ND	250	ug/kg dry	1	09/24/18	B8I1217	8270	
56-55-3	**Benz[a]anthracene**	**360**	250	ug/kg dry	1	09/24/18	B8I1217	8270	
50-32-8	Benzo[a]pyrene	ND	510	ug/kg dry	1	09/24/18	B8I1217	8270	
205-99-2	**Benzo[b]fluoranthene**	**570**	510	ug/kg dry	1	09/24/18	B8I1217	8270	
191-24-2	Benzo[g,h,i]perylene	ND	510	ug/kg dry	1	09/24/18	B8I1217	8270	
207-08-9	Benzo[k]fluoranthene	ND	510	ug/kg dry	1	09/24/18	B8I1217	8270	
218-01-9	**Chrysene**	**490**	250	ug/kg dry	1	09/24/18	B8I1217	8270	
53-70-3	Dibenz[a,h]anthracene	ND	510	ug/kg dry	1	09/24/18	B8I1217	8270	
206-44-0	**Fluoranthene**	**710**	250	ug/kg dry	1	09/24/18	B8I1217	8270	
86-73-7	Fluorene	ND	250	ug/kg dry	1	09/24/18	B8I1217	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	510	ug/kg dry	1	09/24/18	B8I1217	8270	
91-20-3	**Naphthalene**	**890**	250	ug/kg dry	1	09/24/18	B8I1217	8270	
85-01-8	**Phenanthrene**	**990**	250	ug/kg dry	1	09/24/18	B8I1217	8270	
129-00-0	**Pyrene**	**610**	250	ug/kg dry	1	09/24/18	B8I1217	8270	
Surrogate: 2-Fluorobiphenyl			*72.9 %*	*32.9-115*		*09/24/18*	B8I1217	*8270*	
Surrogate: Nitrobenzene-d5			*69.4 %*	*31.8-115*		*09/24/18*	B8I1217	*8270*	
Surrogate: p-Terphenyl-d14			*80.6 %*	*38.5-115*		*09/24/18*	B8I1217	*8270*	
Inorganics-General Chemistry									
TS	**% Total Solids**	**78.9**	0.1	%	1	09/12/18	B8I1123	2540 B	
57-12-5	Available Cyanide	ND	0.13	mg/kg dry	1	09/18/18	B8I1320	OIA-1677	

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Client ID: QMCP-SS-08-0-6" DUP1

Lab ID: 1809076-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-Metals									
7440-38-2	**Arsenic**	**3.1**	0.5	mg/kg dry	10	09/20/18	B8I1804	200.8	
7440-39-3	**Barium**	**48**	1.0	mg/kg dry	10	09/20/18	B8I1804	200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	09/20/18	B8I1804	200.8	
7440-47-3	**Chromium**	**4.4**	2.0	mg/kg dry	10	09/21/18	B8I1804	200.8	
7440-50-8	**Copper**	**290**	1.0	mg/kg dry	10	09/20/18	B8I1804	200.8	
7439-92-1	**Lead**	**73**	1.0	mg/kg dry	10	09/20/18	B8I1804	200.8	
7439-96-5	**Manganese**	**97**	1.0	mg/kg dry	10	09/21/18	B8I1804	200.8	
7439-97-6	**Mercury**	**0.07**	0.06	mg/kg dry	1	09/17/18	B8I1318	245.5	
7782-49-2	**Selenium**	**0.2**	0.2	mg/kg dry	10	09/20/18	B8I1804	200.8	LRB
7440-22-4	**Silver**	**0.6**	0.1	mg/kg dry	10	09/20/18	B8I1804	200.8	
7440-66-6	**Zinc**	**21**	1.0	mg/kg dry	10	09/20/18	B8I1804	200.8	

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Client ID: QMCP-SS-09-0-6"

Lab ID: 1809076-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	2-Methylnaphthalene	ND	590	ug/kg dry	1	09/24/18	B8I1217	8270	
83-32-9	Acenaphthene	ND	230	ug/kg dry	1	09/24/18	B8I1217	8270	
208-96-8	Acenaphthylene	ND	230	ug/kg dry	1	09/24/18	B8I1217	8270	
120-12-7	Anthracene	ND	230	ug/kg dry	1	09/24/18	B8I1217	8270	
56-55-3	**Benz[a]anthracene**	**350**	230	ug/kg dry	1	09/24/18	B8I1217	8270	
50-32-8	Benzo[a]pyrene	ND	470	ug/kg dry	1	09/24/18	B8I1217	8270	
205-99-2	**Benzo[b]fluoranthene**	**590**	470	ug/kg dry	1	09/24/18	B8I1217	8270	
191-24-2	Benzo[g,h,i]perylene	ND	470	ug/kg dry	1	09/24/18	B8I1217	8270	
207-08-9	Benzo[k]fluoranthene	ND	470	ug/kg dry	1	09/24/18	B8I1217	8270	
218-01-9	**Chrysene**	**420**	230	ug/kg dry	1	09/24/18	B8I1217	8270	
53-70-3	Dibenz[a,h]anthracene	ND	470	ug/kg dry	1	09/24/18	B8I1217	8270	
206-44-0	**Fluoranthene**	**580**	230	ug/kg dry	1	09/24/18	B8I1217	8270	
86-73-7	Fluorene	ND	230	ug/kg dry	1	09/24/18	B8I1217	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	470	ug/kg dry	1	09/24/18	B8I1217	8270	
91-20-3	Naphthalene	ND	230	ug/kg dry	1	09/24/18	B8I1217	8270	
85-01-8	**Phenanthrene**	**330**	230	ug/kg dry	1	09/24/18	B8I1217	8270	
129-00-0	**Pyrene**	**550**	230	ug/kg dry	1	09/24/18	B8I1217	8270	
Surrogate: 2-Fluorobiphenyl			*69.1 %*	*32.9-115*		*09/24/18*	B8I1217	*8270*	
Surrogate: Nitrobenzene-d5			*69.0 %*	*31.8-115*		*09/24/18*	B8I1217	*8270*	
Surrogate: p-Terphenyl-d14			*83.5 %*	*38.5-115*		*09/24/18*	B8I1217	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	120	ug/kg dry	1	10/02/18	B8I2706	8081/8082	
11104-28-2	Aroclor 1221	ND	120	ug/kg dry	1	10/02/18	B8I2706	8081/8082	
11141-16-5	Aroclor 1232	ND	120	ug/kg dry	1	10/02/18	B8I2706	8081/8082	
53469-21-9	Aroclor 1242	ND	120	ug/kg dry	1	10/02/18	B8I2706	8081/8082	
12672-29-6	Aroclor 1248	ND	120	ug/kg dry	1	10/02/18	B8I2706	8081/8082	
11097-69-1	Aroclor 1254	ND	120	ug/kg dry	1	10/02/18	B8I2706	8081/8082	
11096-82-5	Aroclor 1260	ND	120	ug/kg dry	1	10/02/18	B8I2706	8081/8082	
37324-23-5	Aroclor 1262	ND	120	ug/kg dry	1	10/02/18	B8I2706	8081/8082	
11100-14-4	Aroclor 1268	ND	120	ug/kg dry	1	10/02/18	B8I2706	8081/8082	
Surrogate: Decachlorobiphenyl			*92.8 %*	*30-150*		*10/02/18*	B8I2706	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*82.0 %*	*30-150*		*10/02/18*	B8I2706	*8081/8082*	

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Client ID: QMCP-SS-09-0-6"
Lab ID: 1809076-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**85.1**	0.1	%	1	09/12/18	B8I1123	2540 B	
57-12-5	Available Cyanide	ND	0.12	mg/kg dry	1	09/18/18	B8I1320	OIA-1677	
Inorganics-Metals									
7440-38-2	**Arsenic**	**3.0**	0.5	mg/kg dry	10	09/20/18	B8I1804	200.8	
7440-39-3	**Barium**	**110**	1.0	mg/kg dry	10	09/20/18	B8I1804	200.8	
7440-43-9	**Cadmium**	**2.5**	0.2	mg/kg dry	10	09/20/18	B8I1804	200.8	
7440-47-3	**Chromium**	**21**	2.0	mg/kg dry	10	09/21/18	B8I1804	200.8	
7440-50-8	**Copper**	**4500**	100	mg/kg dry	1000	09/21/18	B8I1804	200.8	
7439-92-1	**Lead**	**180**	1.0	mg/kg dry	10	09/20/18	B8I1804	200.8	
7439-96-5	**Manganese**	**870**	100	mg/kg dry	1000	09/21/18	B8I1804	200.8	
7439-97-6	**Mercury**	**0.2**	0.06	mg/kg dry	1	09/17/18	B8I1318	245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	09/20/18	B8I1804	200.8	
7440-22-4	**Silver**	**4.3**	0.1	mg/kg dry	10	09/20/18	B8I1804	200.8	
7440-66-6	**Zinc**	**190**	1.0	mg/kg dry	10	09/20/18	B8I1804	200.8	

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Client ID: QMCP-SS-10-0-6"
Lab ID: 1809076-05

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-DRO/ORO									
DRO	**Diesel Range Org(C10-C20)**	**110000**	28000	ug/kg dry	1	09/20/18	B8I1111	8015	Y29
ORO	**Oil Range Organics (C20-C34)**	**520000**	110000	ug/kg dry	1	09/20/18	B8I1111	8015	Y30
Organics-Semivolatiles									**See note Y17, Y20**
91-57-6	**2-Methylnaphthalene**	**890**	550	ug/kg dry	1	09/24/18	B8I1217	8270	
83-32-9	Acenaphthene	ND	220	ug/kg dry	1	09/24/18	B8I1217	8270	
208-96-8	Acenaphthylene	ND	220	ug/kg dry	1	09/24/18	B8I1217	8270	
120-12-7	Anthracene	ND	220	ug/kg dry	1	09/24/18	B8I1217	8270	
56-55-3	**Benz[a]anthracene**	**230**	220	ug/kg dry	1	09/24/18	B8I1217	8270	
50-32-8	Benzo[a]pyrene	ND	440	ug/kg dry	1	09/24/18	B8I1217	8270	
205-99-2	**Benzo[b]fluoranthene**	**460**	440	ug/kg dry	1	09/24/18	B8I1217	8270	
191-24-2	Benzo[g,h,i]perylene	ND	440	ug/kg dry	1	09/24/18	B8I1217	8270	
207-08-9	Benzo[k]fluoranthene	ND	440	ug/kg dry	1	09/24/18	B8I1217	8270	
218-01-9	**Chrysene**	**340**	220	ug/kg dry	1	09/24/18	B8I1217	8270	
53-70-3	Dibenz[a,h]anthracene	ND	440	ug/kg dry	1	09/24/18	B8I1217	8270	
206-44-0	**Fluoranthene**	**400**	220	ug/kg dry	1	09/24/18	B8I1217	8270	
86-73-7	Fluorene	ND	220	ug/kg dry	1	09/24/18	B8I1217	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	440	ug/kg dry	1	09/24/18	B8I1217	8270	
91-20-3	**Naphthalene**	**590**	220	ug/kg dry	1	09/24/18	B8I1217	8270	
85-01-8	**Phenanthrene**	**700**	220	ug/kg dry	1	09/24/18	B8I1217	8270	
129-00-0	**Pyrene**	**340**	220	ug/kg dry	1	09/24/18	B8I1217	8270	
Surrogate: 2-Fluorobiphenyl			*75.1 %*	*32.9-115*		*09/24/18*	B8I1217	*8270*	
Surrogate: Nitrobenzene-d5			*71.0 %*	*31.8-115*		*09/24/18*	B8I1217	*8270*	
Surrogate: p-Terphenyl-d14			*78.2 %*	*38.5-115*		*09/24/18*	B8I1217	*8270*	

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Client ID: QMCP-SS-10-0-6"

Lab ID: 1809076-05

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	110	ug/kg dry	1	10/02/18	B8I2706	8081/8082	
11104-28-2	Aroclor 1221	ND	110	ug/kg dry	1	10/02/18	B8I2706	8081/8082	
11141-16-5	Aroclor 1232	ND	110	ug/kg dry	1	10/02/18	B8I2706	8081/8082	
53469-21-9	Aroclor 1242	ND	110	ug/kg dry	1	10/02/18	B8I2706	8081/8082	
12672-29-6	Aroclor 1248	ND	110	ug/kg dry	1	10/02/18	B8I2706	8081/8082	
11097-69-1	Aroclor 1254	ND	170	ug/kg dry	1	10/02/18	B8I2706	8081/8082	Y21
11096-82-5	Aroclor 1260	ND	270	ug/kg dry	1	10/02/18	B8I2706	8081/8082	Y21
37324-23-5	Aroclor 1262	ND	270	ug/kg dry	1	10/02/18	B8I2706	8081/8082	Y21
11100-14-4	Aroclor 1268	ND	110	ug/kg dry	1	10/02/18	B8I2706	8081/8082	
Surrogate: Decachlorobiphenyl			*103 %*	*30-150*		*10/02/18*	B8I2706	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*85.5 %*	*30-150*		*10/02/18*	B8I2706	*8081/8082*	
Inorganics-General Chemistry									
TS	**% Total Solids**	**90.3**	0.1	%	1	09/12/18	B8I1123	2540 B	
57-12-5	Available Cyanide	ND	0.11	mg/kg dry	1	09/18/18	B8I1320	OIA-1677	
Inorganics-Metals									
7440-38-2	**Arsenic**	**2.9**	0.5	mg/kg dry	10	09/20/18	B8I1804	200.8	
7440-39-3	**Barium**	**39**	1.0	mg/kg dry	10	09/20/18	B8I1804	200.8	
7440-43-9	**Cadmium**	**0.4**	0.2	mg/kg dry	10	09/20/18	B8I1804	200.8	
7440-47-3	**Chromium**	**13**	2.0	mg/kg dry	10	09/21/18	B8I1804	200.8	
7440-50-8	**Copper**	**1400**	1.0	mg/kg dry	10	09/20/18	B8I1804	200.8	
7439-92-1	**Lead**	**96**	1.0	mg/kg dry	10	09/20/18	B8I1804	200.8	
7439-96-5	**Manganese**	**370**	1.0	mg/kg dry	10	09/21/18	B8I1804	200.8	
7439-97-6	**Mercury**	**0.1**	0.06	mg/kg dry	1	09/17/18	B8I1318	245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	09/20/18	B8I1804	200.8	
7440-22-4	**Silver**	**40**	0.1	mg/kg dry	10	09/20/18	B8I1804	200.8	
7440-66-6	**Zinc**	**140**	1.0	mg/kg dry	10	09/20/18	B8I1804	200.8	

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Client ID: QMCP-SS-11-0-6"

Lab ID: 1809076-06

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y17, Y21**
91-57-6	**2-Methylnaphthalene**	**4600**	3500	ug/kg dry	1	09/24/18	B8I1217	8270	
83-32-9	Acenaphthene	ND	1400	ug/kg dry	1	09/24/18	B8I1217	8270	
208-96-8	Acenaphthylene	ND	1400	ug/kg dry	1	09/24/18	B8I1217	8270	
120-12-7	Anthracene	ND	1400	ug/kg dry	1	09/24/18	B8I1217	8270	
56-55-3	Benz[a]anthracene	ND	1400	ug/kg dry	1	09/24/18	B8I1217	8270	
50-32-8	Benzo[a]pyrene	ND	2800	ug/kg dry	1	09/24/18	B8I1217	8270	
205-99-2	Benzo[b]fluoranthene	ND	2800	ug/kg dry	1	09/24/18	B8I1217	8270	
191-24-2	Benzo[g,h,i]perylene	ND	2800	ug/kg dry	1	09/24/18	B8I1217	8270	
207-08-9	Benzo[k]fluoranthene	ND	2800	ug/kg dry	1	09/24/18	B8I1217	8270	
218-01-9	**Chrysene**	**1600**	1400	ug/kg dry	1	09/24/18	B8I1217	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2800	ug/kg dry	1	09/24/18	B8I1217	8270	
206-44-0	Fluoranthene	ND	1400	ug/kg dry	1	09/24/18	B8I1217	8270	
86-73-7	Fluorene	ND	1400	ug/kg dry	1	09/24/18	B8I1217	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2800	ug/kg dry	1	09/24/18	B8I1217	8270	
91-20-3	**Naphthalene**	**2600**	1400	ug/kg dry	1	09/24/18	B8I1217	8270	
85-01-8	**Phenanthrene**	**2800**	1400	ug/kg dry	1	09/24/18	B8I1217	8270	
129-00-0	**Pyrene**	**1400**	1400	ug/kg dry	1	09/24/18	B8I1217	8270	
Surrogate: 2-Fluorobiphenyl			*62.7 %*	*32.9-115*		*09/24/18*	B8I1217	*8270*	
Surrogate: Nitrobenzene-d5			*56.5 %*	*31.8-115*		*09/24/18*	B8I1217	*8270*	
Surrogate: p-Terphenyl-d14			*74.2 %*	*38.5-115*		*09/24/18*	B8I1217	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	140	ug/kg dry	1	11/01/18	B8I2706	8081/8082	
11104-28-2	Aroclor 1221	ND	140	ug/kg dry	1	11/01/18	B8I2706	8081/8082	
11141-16-5	Aroclor 1232	ND	140	ug/kg dry	1	11/01/18	B8I2706	8081/8082	
53469-21-9	Aroclor 1242	ND	140	ug/kg dry	1	11/01/18	B8I2706	8081/8082	
12672-29-6	Aroclor 1248	ND	140	ug/kg dry	1	11/01/18	B8I2706	8081/8082	
11097-69-1	Aroclor 1254	ND	140	ug/kg dry	1	11/01/18	B8I2706	8081/8082	
11096-82-5	Aroclor 1260	ND	140	ug/kg dry	1	11/01/18	B8I2706	8081/8082	
37324-23-5	Aroclor 1262	ND	140	ug/kg dry	1	11/01/18	B8I2706	8081/8082	
11100-14-4	Aroclor 1268	ND	140	ug/kg dry	1	11/01/18	B8I2706	8081/8082	
Surrogate: Decachlorobiphenyl			*66.0 %*	*30-150*		*11/01/18*	B8I2706	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*61.1 %*	*30-150*		*11/01/18*	B8I2706	*8081/8082*	

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Client ID: QMCP-SS-11-0-6"

Lab ID: 1809076-06

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**72.0**	0.1	%	1	09/12/18	B8I1123	2540 B	
57-12-5	Available Cyanide	ND	0.14	mg/kg dry	1	09/18/18	B8I1320	OIA-1677	
Inorganics-Metals									
7440-38-2	**Arsenic**	**12**	0.5	mg/kg dry	10	09/20/18	B8I1804	200.8	
7440-39-3	**Barium**	**480**	1.0	mg/kg dry	10	09/20/18	B8I1804	200.8	
7440-43-9	**Cadmium**	**4.9**	0.2	mg/kg dry	10	09/20/18	B8I1804	200.8	
7440-47-3	**Chromium**	**35**	2.0	mg/kg dry	10	09/21/18	B8I1804	200.8	
7440-50-8	**Copper**	**1800**	1.0	mg/kg dry	10	09/20/18	B8I1804	200.8	
7439-92-1	**Lead**	**1700**	1.0	mg/kg dry	10	09/20/18	B8I1804	200.8	
7439-96-5	**Manganese**	**560**	1.0	mg/kg dry	10	09/21/18	B8I1804	200.8	
7439-97-6	**Mercury**	**18**	3.5	mg/kg dry	50	09/17/18	B8I1319	245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	09/20/18	B8I1804	200.8	
7440-22-4	**Silver**	**2.9**	0.1	mg/kg dry	10	09/20/18	B8I1804	200.8	
7440-66-6	**Zinc**	**2100**	1.0	mg/kg dry	10	09/20/18	B8I1804	200.8	

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Client ID: QMCP-SS-12-0-6"
Lab ID: 1809076-07

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-DRO/ORO									
DRO	**Diesel Range Org(C10-C20)**	**310000**	27000	ug/kg dry	1	10/05/18	B8I1111	8015	Y29
ORO	**Oil Range Organics (C20-C34)**	**7000000**	1100000	ug/kg dry	10	10/19/18	B8I1111	8015	Y30
Organics-Semivolatiles									**See note Y17, Y20**
91-57-6	2-Methylnaphthalene	ND	540	ug/kg dry	1	09/24/18	B8I1217	8270	
83-32-9	Acenaphthene	ND	220	ug/kg dry	1	09/24/18	B8I1217	8270	
208-96-8	Acenaphthylene	ND	220	ug/kg dry	1	09/24/18	B8I1217	8270	
120-12-7	Anthracene	ND	220	ug/kg dry	1	09/24/18	B8I1217	8270	
56-55-3	Benz[a]anthracene	ND	220	ug/kg dry	1	09/24/18	B8I1217	8270	
50-32-8	Benzo[a]pyrene	ND	4300	ug/kg dry	10	09/26/18	B8I1217	8270	Y21
205-99-2	Benzo[b]fluoranthene	ND	4300	ug/kg dry	10	09/26/18	B8I1217	8270	Y21
191-24-2	Benzo[g,h,i]perylene	ND	4300	ug/kg dry	10	09/26/18	B8I1217	8270	Y21
207-08-9	Benzo[k]fluoranthene	ND	4300	ug/kg dry	10	09/26/18	B8I1217	8270	Y21
218-01-9	Chrysene	ND	220	ug/kg dry	1	09/24/18	B8I1217	8270	
53-70-3	Dibenz[a,h]anthracene	ND	4300	ug/kg dry	10	09/26/18	B8I1217	8270	Y21
206-44-0	Fluoranthene	ND	220	ug/kg dry	1	09/24/18	B8I1217	8270	
86-73-7	Fluorene	ND	220	ug/kg dry	1	09/24/18	B8I1217	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	4300	ug/kg dry	10	09/26/18	B8I1217	8270	Y21
91-20-3	Naphthalene	ND	220	ug/kg dry	1	09/24/18	B8I1217	8270	
85-01-8	Phenanthrene	ND	220	ug/kg dry	1	09/24/18	B8I1217	8270	
129-00-0	Pyrene	ND	220	ug/kg dry	1	09/24/18	B8I1217	8270	
Surrogate: 2-Fluorobiphenyl			*75.9 %*	*32.9-115*		*09/24/18*	B8I1217	*8270*	
Surrogate: Nitrobenzene-d5			*70.4 %*	*31.8-115*		*09/24/18*	B8I1217	*8270*	
Surrogate: p-Terphenyl-d14			*85.6 %*	*38.5-115*		*09/24/18*	B8I1217	*8270*	

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Client ID: QMCP-SS-12-0-6"

Lab ID: 1809076-07

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**92.9**	0.1	%	1	09/13/18	B8I1124	2540 B	
57-12-5	Available Cyanide	ND	0.11	mg/kg dry	1	09/18/18	B8I1320	OIA-1677	
Inorganics-Metals									
7440-38-2	**Arsenic**	**0.9**	0.5	mg/kg dry	10	09/20/18	B8I1804	200.8	LRB
7440-39-3	**Barium**	**13**	1.0	mg/kg dry	10	09/20/18	B8I1804	200.8	
7440-43-9	**Cadmium**	**0.3**	0.2	mg/kg dry	10	09/20/18	B8I1804	200.8	
7440-47-3	**Chromium**	**17**	2.0	mg/kg dry	10	09/21/18	B8I1804	200.8	
7440-50-8	**Copper**	**2000**	1.0	mg/kg dry	10	09/20/18	B8I1804	200.8	
7439-92-1	**Lead**	**11**	1.0	mg/kg dry	10	09/20/18	B8I1804	200.8	
7439-96-5	**Manganese**	**590**	1.0	mg/kg dry	10	09/21/18	B8I1804	200.8	
7439-97-6	**Mercury**	**0.1**	0.05	mg/kg dry	1	09/17/18	B8I1319	245.5	A07
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	09/20/18	B8I1804	200.8	
7440-22-4	**Silver**	**2.1**	0.1	mg/kg dry	10	09/20/18	B8I1804	200.8	
7440-66-6	**Zinc**	**150**	1.0	mg/kg dry	10	09/20/18	B8I1804	200.8	

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Client ID: QMCP-SS-13-0-6"
Lab ID: 1809076-08

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	2-Methylnaphthalene	ND	540	ug/kg dry	1	09/24/18	B8I1217	8270	
83-32-9	Acenaphthene	ND	210	ug/kg dry	1	09/24/18	B8I1217	8270	
208-96-8	Acenaphthylene	ND	210	ug/kg dry	1	09/24/18	B8I1217	8270	
120-12-7	Anthracene	ND	210	ug/kg dry	1	09/24/18	B8I1217	8270	
56-55-3	Benz[a]anthracene	ND	210	ug/kg dry	1	09/24/18	B8I1217	8270	
50-32-8	Benzo[a]pyrene	ND	430	ug/kg dry	1	09/24/18	B8I1217	8270	
205-99-2	Benzo[b]fluoranthene	ND	430	ug/kg dry	1	09/24/18	B8I1217	8270	
191-24-2	Benzo[g,h,i]perylene	ND	430	ug/kg dry	1	09/24/18	B8I1217	8270	
207-08-9	Benzo[k]fluoranthene	ND	430	ug/kg dry	1	09/24/18	B8I1217	8270	
218-01-9	Chrysene	ND	210	ug/kg dry	1	09/24/18	B8I1217	8270	
53-70-3	Dibenz[a,h]anthracene	ND	430	ug/kg dry	1	09/24/18	B8I1217	8270	
206-44-0	Fluoranthene	ND	210	ug/kg dry	1	09/24/18	B8I1217	8270	
86-73-7	Fluorene	ND	210	ug/kg dry	1	09/24/18	B8I1217	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	430	ug/kg dry	1	09/24/18	B8I1217	8270	
91-20-3	Naphthalene	ND	210	ug/kg dry	1	09/24/18	B8I1217	8270	
85-01-8	Phenanthrene	ND	210	ug/kg dry	1	09/24/18	B8I1217	8270	
129-00-0	Pyrene	ND	210	ug/kg dry	1	09/24/18	B8I1217	8270	
Surrogate: 2-Fluorobiphenyl			*75.3 %*	*32.9-115*		*09/24/18*	B8I1217	*8270*	
Surrogate: Nitrobenzene-d5			*74.1 %*	*31.8-115*		*09/24/18*	B8I1217	*8270*	
Surrogate: p-Terphenyl-d14			*86.3 %*	*38.5-115*		*09/24/18*	B8I1217	*8270*	
Inorganics-General Chemistry									
TS	**% Total Solids**	**93.3**	0.1	%	1	09/13/18	B8I1124	2540 B	
57-12-5	Available Cyanide	ND	0.11	mg/kg dry	1	09/18/18	B8I1320	OIA-1677	

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

Client ID: QMCP-SS-13-0-6"

Lab ID: 1809076-08

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-Metals									
7440-38-2	**Arsenic**	**0.8**	0.5	mg/kg dry	10	09/21/18	B8I1804	200.8	A12, LRB
7440-39-3	**Barium**	**8.7**	1.0	mg/kg dry	10	09/20/18	B8I1804	200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	09/20/18	B8I1804	200.8	
7440-47-3	**Chromium**	**12**	2.0	mg/kg dry	10	09/21/18	B8I1804	200.8	
7440-50-8	**Copper**	**3800**	100	mg/kg dry	1000	09/21/18	B8I1804	200.8	
7439-92-1	**Lead**	**6.2**	1.0	mg/kg dry	10	09/20/18	B8I1804	200.8	
7439-96-5	**Manganese**	**510**	1.0	mg/kg dry	10	09/21/18	B8I1804	200.8	
7439-97-6	**Mercury**	**0.2**	0.05	mg/kg dry	1	09/17/18	B8I1319	245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	09/20/18	B8I1804	200.8	
7440-22-4	**Silver**	**2.6**	0.1	mg/kg dry	10	09/20/18	B8I1804	200.8	
7440-66-6	**Zinc**	**64**	1.0	mg/kg dry	10	09/20/18	B8I1804	200.8	

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Client ID: QMCP-SS-14-0-6"
Lab ID: 1809076-09

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-DRO/ORO									
DRO	**Diesel Range Org(C10-C20)**	**520000**	270000	ug/kg dry	10	10/05/18	B8I1111	8015	Y29
ORO	**Oil Range Organics (C20-C34)**	**2.1E7**	2200000	ug/kg dry	20	10/19/18	B8I1111	8015	Y30
Organics-Semivolatiles									**See note Y17, Y20**
91-57-6	2-Methylnaphthalene	ND	540	ug/kg dry	1	09/24/18	B8I1217	8270	
83-32-9	Acenaphthene	ND	220	ug/kg dry	1	09/24/18	B8I1217	8270	
208-96-8	Acenaphthylene	ND	220	ug/kg dry	1	09/24/18	B8I1217	8270	
120-12-7	Anthracene	ND	220	ug/kg dry	1	09/24/18	B8I1217	8270	
56-55-3	Benz[a]anthracene	ND	220	ug/kg dry	1	09/24/18	B8I1217	8270	
50-32-8	Benzo[a]pyrene	ND	4400	ug/kg dry	10	09/26/18	B8I1217	8270	Y21
205-99-2	Benzo[b]fluoranthene	ND	4400	ug/kg dry	10	09/26/18	B8I1217	8270	Y21
191-24-2	Benzo[g,h,i]perylene	ND	4400	ug/kg dry	10	09/26/18	B8I1217	8270	Y21
207-08-9	Benzo[k]fluoranthene	ND	4400	ug/kg dry	10	09/26/18	B8I1217	8270	Y21
218-01-9	Chrysene	ND	220	ug/kg dry	1	09/24/18	B8I1217	8270	
53-70-3	Dibenz[a,h]anthracene	ND	4400	ug/kg dry	10	09/26/18	B8I1217	8270	Y21
206-44-0	Fluoranthene	ND	220	ug/kg dry	1	09/24/18	B8I1217	8270	
86-73-7	Fluorene	ND	220	ug/kg dry	1	09/24/18	B8I1217	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	4400	ug/kg dry	10	09/26/18	B8I1217	8270	Y21
91-20-3	Naphthalene	ND	220	ug/kg dry	1	09/24/18	B8I1217	8270	
85-01-8	Phenanthrene	ND	220	ug/kg dry	1	09/24/18	B8I1217	8270	
129-00-0	Pyrene	ND	220	ug/kg dry	1	09/24/18	B8I1217	8270	
Surrogate: 2-Fluorobiphenyl			*81.0 %*	*32.9-115*		*09/24/18*	B8I1217	*8270*	
Surrogate: Nitrobenzene-d5			*76.8 %*	*31.8-115*		*09/24/18*	B8I1217	*8270*	
Surrogate: p-Terphenyl-d14			*73.7 %*	*38.5-115*		*09/24/18*	B8I1217	*8270*	

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Client ID: QMCP-SS-14-0-6"

Lab ID: 1809076-09

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**91.9**	0.1	%	1	09/13/18	B8I1124	2540 B	N
57-12-5	Available Cyanide	ND	0.11	mg/kg dry	1	09/18/18	B8I1320	OIA-1677	
Inorganics-Metals									
7440-38-2	**Arsenic**	**4.5**	0.5	mg/kg dry	10	09/21/18	B8I1804	200.8	
7440-39-3	**Barium**	**12**	1.0	mg/kg dry	10	09/20/18	B8I1804	200.8	
7440-43-9	**Cadmium**	**0.2**	0.2	mg/kg dry	10	09/20/18	B8I1804	200.8	
7440-47-3	**Chromium**	**41**	2.0	mg/kg dry	10	09/21/18	B8I1804	200.8	
7440-50-8	**Copper**	**640**	1.0	mg/kg dry	10	09/20/18	B8I1804	200.8	
7439-92-1	**Lead**	**6.2**	1.0	mg/kg dry	10	09/20/18	B8I1804	200.8	
7439-96-5	**Manganese**	**460**	1.0	mg/kg dry	10	09/21/18	B8I1804	200.8	
7439-97-6	Mercury	ND	0.05	mg/kg dry	1	09/17/18	B8I1319	245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	09/20/18	B8I1804	200.8	
7440-22-4	**Silver**	**0.7**	0.1	mg/kg dry	10	09/20/18	B8I1804	200.8	
7440-66-6	**Zinc**	**90**	1.0	mg/kg dry	10	09/20/18	B8I1804	200.8	

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TEL: (517) 335-9800
FAX: (517) 335-9600

Client ID: QMCP-SS-15-0-6"

Lab ID: 1809076-10

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-DRO/ORO									
DRO	Diesel Range Org(C10-C20)	ND	290000	ug/kg dry	10	10/05/18	B8I1111	8015	Y20
ORO	**Oil Range Organics (C20-C34)**	**4100000**	1200000	ug/kg dry	10	10/05/18	B8I1111	8015	Y30
Organics-Semivolatiles									**See note Y17, Y20**
91-57-6	2-Methylnaphthalene	ND	590	ug/kg dry	1	09/24/18	B8I1217	8270	
83-32-9	Acenaphthene	ND	230	ug/kg dry	1	09/24/18	B8I1217	8270	
208-96-8	Acenaphthylene	ND	230	ug/kg dry	1	09/24/18	B8I1217	8270	
120-12-7	Anthracene	ND	230	ug/kg dry	1	09/24/18	B8I1217	8270	
56-55-3	Benz[a]anthracene	ND	230	ug/kg dry	1	09/24/18	B8I1217	8270	
50-32-8	Benzo[a]pyrene	ND	4700	ug/kg dry	10	09/26/18	B8I1217	8270	Y21
205-99-2	Benzo[b]fluoranthene	ND	4700	ug/kg dry	10	09/26/18	B8I1217	8270	Y21
191-24-2	Benzo[g,h,i]perylene	ND	4700	ug/kg dry	10	09/26/18	B8I1217	8270	Y21
207-08-9	Benzo[k]fluoranthene	ND	4700	ug/kg dry	10	09/26/18	B8I1217	8270	Y21
218-01-9	Chrysene	ND	230	ug/kg dry	1	09/24/18	B8I1217	8270	
53-70-3	Dibenz[a,h]anthracene	ND	4700	ug/kg dry	10	09/26/18	B8I1217	8270	Y21
206-44-0	Fluoranthene	ND	230	ug/kg dry	1	09/24/18	B8I1217	8270	
86-73-7	Fluorene	ND	230	ug/kg dry	1	09/24/18	B8I1217	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	4700	ug/kg dry	10	09/26/18	B8I1217	8270	Y21
91-20-3	Naphthalene	ND	230	ug/kg dry	1	09/24/18	B8I1217	8270	
85-01-8	Phenanthrene	ND	230	ug/kg dry	1	09/24/18	B8I1217	8270	
129-00-0	Pyrene	ND	230	ug/kg dry	1	09/24/18	B8I1217	8270	
Surrogate: 2-Fluorobiphenyl			*79.7 %*	*32.9-115*		*09/24/18*	B8I1217	*8270*	
Surrogate: Nitrobenzene-d5			*77.0 %*	*31.8-115*		*09/24/18*	B8I1217	*8270*	
Surrogate: p-Terphenyl-d14			*81.2 %*	*38.5-115*		*09/24/18*	B8I1217	*8270*	

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Client ID: QMCP-SS-15-0-6"

Lab ID: 1809076-10

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**85.2**	0.1	%	1	09/13/18	B8I1124	2540 B	
57-12-5	Available Cyanide	ND	0.12	mg/kg dry	1	09/18/18	B8I1320	OIA-1677	
Inorganics-Metals									
7440-38-2	**Arsenic**	**1.0**	0.5	mg/kg dry	10	09/21/18	B8I1804	200.8	A12, LRB
7440-39-3	**Barium**	**17**	1.0	mg/kg dry	10	09/20/18	B8I1804	200.8	
7440-43-9	**Cadmium**	**5.8**	0.2	mg/kg dry	10	09/20/18	B8I1804	200.8	
7440-47-3	**Chromium**	**9.7**	2.0	mg/kg dry	10	09/21/18	B8I1804	200.8	
7440-50-8	**Copper**	**1200**	1.0	mg/kg dry	10	09/20/18	B8I1804	200.8	
7439-92-1	**Lead**	**20**	1.0	mg/kg dry	10	09/20/18	B8I1804	200.8	
7439-96-5	**Manganese**	**260**	1.0	mg/kg dry	10	09/21/18	B8I1804	200.8	
7439-97-6	**Mercury**	**0.06**	0.06	mg/kg dry	1	09/17/18	B8I1319	245.5	
7782-49-2	Selenium	ND	0.2	mg/kg dry	10	09/20/18	B8I1804	200.8	
7440-22-4	**Silver**	**1.4**	0.1	mg/kg dry	10	09/20/18	B8I1804	200.8	
7440-66-6	**Zinc**	**84**	1.0	mg/kg dry	10	09/20/18	B8I1804	200.8	

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY

ENVIRONMENTAL LABORATORY - ANALYSIS REQUEST SHEET

Lab Work Order Number	1809076
Project Name	Abandoned mining wastes - QMCP
Matrix	SOIL/SEDIMENT
Site Code/Project Number	31000098
AY	M
CC Email 1	jbinkley@munksmith.com group
Project TAT Days	
Sample Collector	M. McKeever
Dept-Division-District	DEQ-RRD UP-District
Index	7000
CC Email 2	
Project Due Date	
Sample Collector Phone	810-955-4138
State Project Manager	Amy Keranen
PCA	41200/1550
CC Email 3	
Contract Firm	Munk & Smith Group
State Project Manager Email	keranena@michigan.gov
Project	6996
Overflow Lab Choice 1	
Accept Analysis hold time codes	
Contract Firm Primary Contact	Jeff Binkley
State Project Manager Phone	906-337-0389
Phase	6010
Overflow Lab Choice 2	
Primary Contact Phone	906-281-3404

	Lab Use Only	Field Sample Identification	Collection Date	Collection Time	Container Count	Comments
1	01	QMCP-SS-06 0-6"	9-5-18	11:30	1	
2	02	QMCP-SS-08-0-06"	9-5-18	11:40	1	
3	03	QMCP-SS-08-0-06" Dup1	9-5-18	11:40	1	
4	04	QMCP-SS-09-0-06"	9-5-18	11:30		
5	05	QMCP-SS-10-0-06"	9-5-18	12:10		
6	06	QMCP-SS-11-0-06"	9-5-18	12:15		
7	07	QMCP-SS-12-0-06"	9-5-18	12:20		
8	08	QMCP-SS-13-0-06"	9-5-18	12:25		
9	09	QMCP-SS-14-0-06"	9-5-18	12:40		
10	10	QMCP-SS-15-0-06"	9-5-18	12:45		

ORGANIC CHEMISTRY

VOA - Volatile Organic Acidic

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

OS - Pesticides, PCBs

Pesticides & PCBs	1 2 3 4 5 6 7 8 9 10
Pesticides only	1 2 3 4 5 6 7 8 9 10
PCBs only	1 2 3 4 5 6 7 8 9 10
Toxaphene	1 2 3 4 5 6 7 8 9 10

BNA - Base Neutral Acids

BNAs	1 2 3 4 5 6 7 8 9 10
PNAs only	1 2 3 4 5 6 7 8 9 10
BNs only	1 2 3 4 5 6 7 8 9 10

Organic Specialty Requests

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

METALS CHEMISTRY PACKAGES

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

MS - TOTAL METALS

Silver - Ag	1 2 3 4 5 6 7 8 9 10
Aluminum - Al	1 2 3 4 5 6 7 8 9 10
Arsenic - As	1 2 3 4 5 6 7 8 9 10
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
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

GENERAL CHEMISTRY

GS - General Chemistry

Total Cyanide - CN	1 2 3 4 5 6 7 8 9 10
Available Cyanide - CN	1 2 3 4 5 6 7 8 9 10
Chem Oxyg Dem - COD	1 2 3 4 5 6 7 8 9 10
Total Org Carbon - TOC	1 2 3 4 5 6 7 8 9 10
Kjeldahl Nitrogen - KN	1 2 3 4 5 6 7 8 9 10
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.	ART McKeever MDEQ-RRD-GSU	Nicole Hardigan	9/10/18
Signature:		[signature]	1251
Print Name & Org.			
Signature:			
Print Name & Org.			
Signature:			

STATE OF MICHIGAN
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24 October 2018

Work Order: 1809102

Price: $8,548.00

Amy Keranen
MDEQ-RRD-UP
1504 W. Washington St.
Marquette, MI 49855

RE: ABANDONED MINING WASTES-QMCP

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

Sincerely,

Kirby Shane
Laboratory Director

STATE OF MICHIGAN
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MDEQ-RRD-UP	Project: ABANDONED MINING WASTES-QMCP	
1504 W. Washington St.	Site Code: 31000098	**Reported:**
Marquette MI, 49855	Project Manager: Amy Keranen	10/24/2018

Analytical Report for Samples

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Qualifier
QMCP-GW32 5-9	1809102-01	Water	09/09/2018	09/12/2018	
QMCP-GW33 5-9	1809102-02	Water	09/09/2018	09/12/2018	
QMCP-GW36 5-9	1809102-03	Water	09/09/2018	09/12/2018	
QMCP-GW35 6-10	1809102-04	Water	09/09/2018	09/12/2018	
QMCP-GW35 6-10 DUP	1809102-05	Water	09/09/2018	09/12/2018	
QMCP-GW34 5-9	1809102-06	Water	09/09/2018	09/12/2018	
QMCP-GW60 7-11	1809102-07	Water	09/09/2018	09/12/2018	
QMCP-GW59 5-9	1809102-08	Water	09/09/2018	09/12/2018	
QMCP-GW43 6-10	1809102-09	Water	09/10/2018	09/12/2018	
QMCP-GW49 5-9	1809102-10	Water	09/10/2018	09/12/2018	
QMCP-GW47 5-9	1809102-11	Water	09/10/2018	09/12/2018	
QMCP-GW50 2-6	1809102-12	Water	09/10/2018	09/12/2018	
QMCP-GW46 4-8'	1809102-13	Water	09/10/2018	09/12/2018	
QMCP-GW45 5-9	1809102-14	Water	09/10/2018	09/12/2018	
QMCP-GW44 4-8'	1809102-15	Water	09/10/2018	09/12/2018	
QMCP-GW42 12-16	1809102-16	Water	09/10/2018	09/12/2018	
QMCP-GW41 9-13	1809102-17	Water	09/10/2018	09/12/2018	
QMCP-GW40 12-16	1809102-18	Water	09/10/2018	09/12/2018	

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Notes and Definitions

A11	Result is estimated due to high initial verification standard criteria failure.
A03	Result(s) and reporting limit(s) are estimated due to low matrix spike recovery.
A04	Result is estimated due to high matrix spike recovery.
A05	Result and reporting limit are estimated due to low continuing calibration standard criteria failure.
A06	Result is estimated due to high continuing calibration standard criteria failure.
A07	Result(s) and reporting limit(s) are estimated due to poor precision.
A08	Result(s) and reporting limits(s) are estimated due to low recovery of batch QC.
A01	Result(s) and reporting limit(s) are estimated due to low surrogate recovery.
A10	Result and reporting limit are estimated due to low initial verification standard criteria failure.
Y21	Reporting Limits (RL) raised due to matrix interference.
KR	Reporting limit(s) raised due to low sample volume submitted.
LRB	Laboratory reagent blank was greater than 2.2 times the MDL, or greater than 10% of the analyte level in the sample.
T	Reported value is less than the reporting limit (RL). Result is estimated.
X	Methods 8260 & 624 are used to analyze volatile organics that have boiling points below 200 ºC. 2-Methylnaphthalene & naphthalene have boiling points above 200 ºC and are better suited to analysis by methods 8270 & 625 as semivolatile organics.
X3	Spike recovery is not applicable due to large target analyte concentration in the source sample.
Y11	Unidentified peaks present in sample.
Y17	Probable petroleum product(s) present.
A09	Result is estimated due to high recovery of batch quality control.
ND	Indicates compound analyzed for but not detected
RL	Reporting Limit
NA	Not Applicable

STATE OF MICHIGAN
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ENVIRONMENTAL LABORATORY

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

Client ID: QMCP-GW32 5-9

Lab ID: 1809102-01

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	09/14/18	B8I1404	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	A10
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
540-84-1	2,2,4-Trimethylpentane	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	09/14/18	B8I1404	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	A05
67-66-3	Chloroform	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	

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Lab ID: 1809102-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	09/14/18	B8I1404	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	09/14/18	B8I1404	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
Surrogate: Bromofluorobenzene			*102 %*	*85-115*		*09/14/18*	B8I1404	*8260*	
Surrogate: Dibromofluoromethane			*106 %*	*82.7-115*		*09/14/18*	B8I1404	*8260*	
Surrogate: Toluene-d8			*104 %*	*85-115*		*09/14/18*	B8I1404	*8260*	

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Lab ID: 1809102-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	09/19/18	B8I1305	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	09/19/18	B8I1305	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	09/19/18	B8I1305	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
Surrogate: 2-Fluorobiphenyl			*44.1 %*	*24.1-115*		*09/19/18*	B8I1305	*8270*	
Surrogate: Nitrobenzene-d5			*34.7 %*	*17.8-115*		*09/19/18*	B8I1305	*8270*	
Surrogate: p-Terphenyl-d14			*58.2 %*	*41.8-115*		*09/19/18*	B8I1305	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	0.10	ug/L	1	09/24/18	B8I1722	8081/8082	
11104-28-2	Aroclor 1221	ND	0.10	ug/L	1	09/24/18	B8I1722	8081/8082	
11141-16-5	Aroclor 1232	ND	0.10	ug/L	1	09/24/18	B8I1722	8081/8082	
53469-21-9	Aroclor 1242	ND	0.10	ug/L	1	09/24/18	B8I1722	8081/8082	
12672-29-6	Aroclor 1248	ND	0.10	ug/L	1	09/24/18	B8I1722	8081/8082	
11097-69-1	Aroclor 1254	ND	0.10	ug/L	1	09/24/18	B8I1722	8081/8082	
11096-82-5	Aroclor 1260	ND	0.10	ug/L	1	09/24/18	B8I1722	8081/8082	
37324-23-5	Aroclor 1262	ND	0.10	ug/L	1	09/24/18	B8I1722	8081/8082	
11100-14-4	Aroclor 1268	ND	0.10	ug/L	1	09/24/18	B8I1722	8081/8082	
Surrogate: Decachlorobiphenyl			*79.8 %*	*30-150*		*09/24/18*	B8I1722	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*47.9 %*	*30-150*		*09/24/18*	B8I1722	*8081/8082*	

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Client ID: QMCP-GW32 5-9

Lab ID: 1809102-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-Metals									
7440-38-2	Arsenic	ND	1.0	ug/L	1	09/21/18	B8I1221	200.8	
7440-43-9	**Cadmium**	**0.3**	0.2	ug/L	1	09/21/18	B8I1221	200.8	
7440-47-3	**Chromium**	**31**	1.0	ug/L	1	09/21/18	B8I1221	200.8	
7440-50-8	**Copper**	**4300**	1.0	ug/L	1	09/21/18	B8I1221	200.8	
7439-92-1	**Lead**	**3.8**	1.0	ug/L	1	09/21/18	B8I1221	200.8	
7439-96-5	**Manganese**	**960**	5.0	ug/L	1	09/21/18	B8I1221	200.8	
7439-97-6	**Mercury**	**1.1**	0.2	ug/L	1	09/18/18	B8I1705	245.1	
7440-22-4	**Silver**	**7.9**	0.2	ug/L	1	09/21/18	B8I1221	200.8	
7440-66-6	**Zinc**	**77**	5.0	ug/L	1	09/21/18	B8I1221	200.8	

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Client ID: QMCP-GW33 5-9

Lab ID: 1809102-02

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	09/14/18	B8I1404	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	A10
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
540-84-1	2,2,4-Trimethylpentane	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	09/14/18	B8I1404	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	A05
67-66-3	Chloroform	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	

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Lab ID: 1809102-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	09/14/18	B8I1404	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	09/14/18	B8I1404	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
Surrogate: Bromofluorobenzene			*104 %*	*85-115*		*09/14/18*	B8I1404	*8260*	
Surrogate: Dibromofluoromethane			*105 %*	*82.7-115*		*09/14/18*	B8I1404	*8260*	
Surrogate: Toluene-d8			*103 %*	*85-115*		*09/14/18*	B8I1404	*8260*	

STATE OF MICHIGAN
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ENVIRONMENTAL LABORATORY

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

Client ID: QMCP-GW33 5-9

Lab ID: 1809102-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	09/19/18	B8I1305	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	09/19/18	B8I1305	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	09/19/18	B8I1305	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
Surrogate: 2-Fluorobiphenyl			*61.3 %*	*24.1-115*		*09/19/18*	B8I1305	*8270*	
Surrogate: Nitrobenzene-d5			*48.0 %*	*17.8-115*		*09/19/18*	B8I1305	*8270*	
Surrogate: p-Terphenyl-d14			*78.8 %*	*41.8-115*		*09/19/18*	B8I1305	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	0.10	ug/L	1	09/24/18	B8I1722	8081/8082	
11104-28-2	Aroclor 1221	ND	0.10	ug/L	1	09/24/18	B8I1722	8081/8082	
11141-16-5	Aroclor 1232	ND	0.10	ug/L	1	09/24/18	B8I1722	8081/8082	
53469-21-9	Aroclor 1242	ND	0.10	ug/L	1	09/24/18	B8I1722	8081/8082	
12672-29-6	Aroclor 1248	ND	0.10	ug/L	1	09/24/18	B8I1722	8081/8082	
11097-69-1	Aroclor 1254	ND	0.10	ug/L	1	09/24/18	B8I1722	8081/8082	
11096-82-5	Aroclor 1260	ND	0.10	ug/L	1	09/24/18	B8I1722	8081/8082	
37324-23-5	Aroclor 1262	ND	0.10	ug/L	1	09/24/18	B8I1722	8081/8082	
11100-14-4	Aroclor 1268	ND	0.10	ug/L	1	09/24/18	B8I1722	8081/8082	
Surrogate: Decachlorobiphenyl			*66.3 %*	*30-150*		*09/24/18*	B8I1722	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*52.7 %*	*30-150*		*09/24/18*	B8I1722	*8081/8082*	

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Client ID: QMCP-GW33 5-9

Lab ID: 1809102-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-Metals									
7440-38-2	Arsenic	ND	1.0	ug/L	1	09/21/18	B8I1221	200.8	
7440-43-9	Cadmium	ND	0.2	ug/L	1	09/21/18	B8I1221	200.8	
7440-47-3	**Chromium**	**1.4**	1.0	ug/L	1	09/21/18	B8I1221	200.8	
7440-50-8	**Copper**	**290**	1.0	ug/L	1	09/21/18	B8I1221	200.8	
7439-92-1	Lead	ND	1.0	ug/L	1	09/21/18	B8I1221	200.8	
7439-96-5	**Manganese**	**400**	5.0	ug/L	1	09/21/18	B8I1221	200.8	
7439-97-6	Mercury	ND	0.2	ug/L	1	09/18/18	B8I1705	245.1	
7440-22-4	**Silver**	**0.6**	0.2	ug/L	1	09/21/18	B8I1221	200.8	
7440-66-6	Zinc	ND	5.0	ug/L	1	09/21/18	B8I1221	200.8	

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Client ID: QMCP-GW36 5-9

Lab ID: 1809102-03

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	09/14/18	B8I1404	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	A10
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
540-84-1	2,2,4-Trimethylpentane	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	09/14/18	B8I1404	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	A05
67-66-3	Chloroform	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	

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Client ID: QMCP-GW36 5-9

Lab ID: 1809102-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	09/14/18	B8I1404	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	09/14/18	B8I1404	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
Surrogate: Bromofluorobenzene			*104 %*	*85-115*		*09/14/18*	B8I1404	*8260*	
Surrogate: Dibromofluoromethane			*108 %*	*82.7-115*		*09/14/18*	B8I1404	*8260*	
Surrogate: Toluene-d8			*104 %*	*85-115*		*09/14/18*	B8I1404	*8260*	

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Client ID: QMCP-GW36 5-9

Lab ID: 1809102-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	09/19/18	B8I1305	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	09/19/18	B8I1305	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	09/19/18	B8I1305	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
Surrogate: 2-Fluorobiphenyl			*55.6 %*	*24.1-115*		*09/19/18*	B8I1305	*8270*	
Surrogate: Nitrobenzene-d5			*48.0 %*	*17.8-115*		*09/19/18*	B8I1305	*8270*	
Surrogate: p-Terphenyl-d14			*65.7 %*	*41.8-115*		*09/19/18*	B8I1305	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	0.10	ug/L	1	09/24/18	B8I1722	8081/8082	
11104-28-2	Aroclor 1221	ND	0.10	ug/L	1	09/24/18	B8I1722	8081/8082	
11141-16-5	Aroclor 1232	ND	0.10	ug/L	1	09/24/18	B8I1722	8081/8082	
53469-21-9	Aroclor 1242	ND	0.10	ug/L	1	09/24/18	B8I1722	8081/8082	
12672-29-6	Aroclor 1248	ND	0.10	ug/L	1	09/24/18	B8I1722	8081/8082	
11097-69-1	Aroclor 1254	ND	0.10	ug/L	1	09/24/18	B8I1722	8081/8082	
11096-82-5	Aroclor 1260	ND	0.10	ug/L	1	09/24/18	B8I1722	8081/8082	
37324-23-5	Aroclor 1262	ND	0.10	ug/L	1	09/24/18	B8I1722	8081/8082	
11100-14-4	Aroclor 1268	ND	0.10	ug/L	1	09/24/18	B8I1722	8081/8082	
Surrogate: Decachlorobiphenyl			*59.2 %*	*30-150*		*09/24/18*	B8I1722	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*50.2 %*	*30-150*		*09/24/18*	B8I1722	*8081/8082*	

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Lab ID: 1809102-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-Metals									
7440-38-2	Arsenic	ND	1.0	ug/L	1	09/21/18	B8I1221	200.8	
7440-43-9	Cadmium	ND	0.2	ug/L	1	09/21/18	B8I1221	200.8	
7440-47-3	**Chromium**	**3.9**	1.0	ug/L	1	09/21/18	B8I1221	200.8	
7440-50-8	**Copper**	**1200**	1.0	ug/L	1	09/21/18	B8I1221	200.8	
7439-92-1	**Lead**	**9.7**	1.0	ug/L	1	09/21/18	B8I1221	200.8	
7439-96-5	**Manganese**	**1100**	5.0	ug/L	1	09/21/18	B8I1221	200.8	
7439-97-6	**Mercury**	**0.7**	0.2	ug/L	1	09/18/18	B8I1705	245.1	
7440-22-4	**Silver**	**2.3**	0.2	ug/L	1	09/21/18	B8I1221	200.8	
7440-66-6	**Zinc**	**25**	5.0	ug/L	1	09/21/18	B8I1221	200.8	

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ENVIRONMENTAL LABORATORY

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TEL: (517) 335-9800
FAX: (517) 335-9600

Client ID: QMCP-GW35 6-10

Lab ID: 1809102-04

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	09/14/18	B8I1404	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	A10
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
540-84-1	2,2,4-Trimethylpentane	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	09/14/18	B8I1404	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	A05
67-66-3	Chloroform	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	

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Client ID: QMCP-GW35 6-10

Lab ID: 1809102-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	09/14/18	B8I1404	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	09/14/18	B8I1404	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
Surrogate: Bromofluorobenzene			*104 %*	*85-115*		*09/14/18*	B8I1404	*8260*	
Surrogate: Dibromofluoromethane			*106 %*	*82.7-115*		*09/14/18*	B8I1404	*8260*	
Surrogate: Toluene-d8			*103 %*	*85-115*		*09/14/18*	B8I1404	*8260*	

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Lab ID: 1809102-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	09/19/18	B8I1305	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	09/19/18	B8I1305	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	09/19/18	B8I1305	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
Surrogate: 2-Fluorobiphenyl			*61.3 %*	*24.1-115*		*09/19/18*	B8I1305	*8270*	
Surrogate: Nitrobenzene-d5			*48.1 %*	*17.8-115*		*09/19/18*	B8I1305	*8270*	
Surrogate: p-Terphenyl-d14			*74.4 %*	*41.8-115*		*09/19/18*	B8I1305	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	0.10	ug/L	1	10/15/18	B8I1722	8081/8082	
11104-28-2	Aroclor 1221	ND	0.10	ug/L	1	10/15/18	B8I1722	8081/8082	
11141-16-5	Aroclor 1232	ND	0.10	ug/L	1	10/15/18	B8I1722	8081/8082	
53469-21-9	Aroclor 1242	ND	0.10	ug/L	1	10/15/18	B8I1722	8081/8082	
12672-29-6	Aroclor 1248	ND	0.10	ug/L	1	10/15/18	B8I1722	8081/8082	
11097-69-1	Aroclor 1254	ND	0.10	ug/L	1	10/15/18	B8I1722	8081/8082	
11096-82-5	Aroclor 1260	ND	0.10	ug/L	1	10/15/18	B8I1722	8081/8082	
37324-23-5	Aroclor 1262	ND	0.10	ug/L	1	10/15/18	B8I1722	8081/8082	
11100-14-4	Aroclor 1268	ND	0.10	ug/L	1	10/15/18	B8I1722	8081/8082	
Surrogate: Decachlorobiphenyl			*56.7 %*	*30-150*		*10/15/18*	B8I1722	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*44.6 %*	*30-150*		*10/15/18*	B8I1722	*8081/8082*	

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Lab ID: 1809102-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-Metals									
7440-38-2	**Arsenic**	**1.8**	1.0	ug/L	1	09/21/18	B8I1221	200.8	
7440-43-9	**Cadmium**	**0.3**	0.2	ug/L	1	09/21/18	B8I1221	200.8	
7440-47-3	**Chromium**	**31**	1.0	ug/L	1	09/21/18	B8I1221	200.8	
7440-50-8	**Copper**	**15000**	100	ug/L	100	09/21/18	B8I1221	200.8	
7439-92-1	**Lead**	**12**	1.0	ug/L	1	09/21/18	B8I1221	200.8	
7439-96-5	**Manganese**	**1600**	5.0	ug/L	1	09/21/18	B8I1221	200.8	
7439-97-6	**Mercury**	**3.2**	0.2	ug/L	1	09/18/18	B8I1705	245.1	
7440-22-4	**Silver**	**20**	0.2	ug/L	1	09/21/18	B8I1221	200.8	
7440-66-6	**Zinc**	**90**	5.0	ug/L	1	09/21/18	B8I1221	200.8	

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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	09/14/18	B8I1404	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	A10
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
540-84-1	2,2,4-Trimethylpentane	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	09/14/18	B8I1404	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	A05
67-66-3	Chloroform	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	

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Lab ID: 1809102-05

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	09/14/18	B8I1404	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	09/14/18	B8I1404	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
Surrogate: Bromofluorobenzene			*105 %*	*85-115*		*09/14/18*	B8I1404	*8260*	
Surrogate: Dibromofluoromethane			*108 %*	*82.7-115*		*09/14/18*	B8I1404	*8260*	
Surrogate: Toluene-d8			*107 %*	*85-115*		*09/14/18*	B8I1404	*8260*	

STATE OF MICHIGAN
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MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

P.O. Box 30270
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TEL: (517) 335-9800
FAX: (517) 335-9600

Client ID: QMCP-GW35 6-10 DUP

Lab ID: 1809102-05

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	09/19/18	B8I1305	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	09/19/18	B8I1305	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	09/19/18	B8I1305	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
Surrogate: 2-Fluorobiphenyl			*51.1 %*	*24.1-115*		*09/19/18*	B8I1305	*8270*	
Surrogate: Nitrobenzene-d5			*47.2 %*	*17.8-115*		*09/19/18*	B8I1305	*8270*	
Surrogate: p-Terphenyl-d14			*78.4 %*	*41.8-115*		*09/19/18*	B8I1305	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	0.10	ug/L	1	10/15/18	B8I1722	8081/8082	
11104-28-2	Aroclor 1221	ND	0.10	ug/L	1	10/15/18	B8I1722	8081/8082	
11141-16-5	Aroclor 1232	ND	0.10	ug/L	1	10/15/18	B8I1722	8081/8082	
53469-21-9	Aroclor 1242	ND	0.10	ug/L	1	10/15/18	B8I1722	8081/8082	
12672-29-6	Aroclor 1248	ND	0.10	ug/L	1	10/15/18	B8I1722	8081/8082	
11097-69-1	Aroclor 1254	ND	0.10	ug/L	1	10/15/18	B8I1722	8081/8082	
11096-82-5	Aroclor 1260	ND	0.10	ug/L	1	10/15/18	B8I1722	8081/8082	
37324-23-5	Aroclor 1262	ND	0.10	ug/L	1	10/15/18	B8I1722	8081/8082	
11100-14-4	Aroclor 1268	ND	0.10	ug/L	1	10/15/18	B8I1722	8081/8082	
Surrogate: Decachlorobiphenyl			*64.6 %*	*30-150*		*10/15/18*	B8I1722	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*48.4 %*	*30-150*		*10/15/18*	B8I1722	*8081/8082*	

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TEL: (517) 335-9800
FAX: (517) 335-9600

Client ID: QMCP-GW35 6-10 DUP

Lab ID: 1809102-05

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-Metals									
7440-38-2	**Arsenic**	**1.2**	1.0	ug/L	1	09/21/18	B8I1221	200.8	
7440-43-9	**Cadmium**	**0.2**	0.2	ug/L	1	09/21/18	B8I1221	200.8	
7440-47-3	**Chromium**	**20**	1.0	ug/L	1	09/21/18	B8I1221	200.8	
7440-50-8	**Copper**	**9500**	100	ug/L	100	09/21/18	B8I1221	200.8	
7439-92-1	**Lead**	**7.3**	1.0	ug/L	1	09/21/18	B8I1221	200.8	
7439-96-5	**Manganese**	**1300**	5.0	ug/L	1	09/21/18	B8I1221	200.8	
7439-97-6	**Mercury**	**2.2**	0.2	ug/L	1	09/18/18	B8I1705	245.1	
7440-22-4	**Silver**	**16**	0.2	ug/L	1	09/21/18	B8I1221	200.8	
7440-66-6	**Zinc**	**59**	5.0	ug/L	1	09/21/18	B8I1221	200.8	

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TEL: (517) 335-9800
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Client ID: QMCP-GW34 5-9

Lab ID: 1809102-06

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	09/14/18	B8I1404	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	A10
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
540-84-1	2,2,4-Trimethylpentane	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	09/14/18	B8I1404	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	A05
67-66-3	Chloroform	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
110-82-7	**Cyclohexane**	**6.2**	5.0	ug/L	1	09/14/18	B8I1404	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	

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TEL: (517) 335-9800
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Client ID: QMCP-GW34 5-9

Lab ID: 1809102-06

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
100-41-4	**Ethylbenzene**	**2.7**	1.0	ug/L	1	09/14/18	B8I1404	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
110-54-3	**Hexane**	**2.3**	1.0	ug/L	1	09/14/18	B8I1404	8260	
98-82-8	**Isopropylbenzene**	**1.9**	1.0	ug/L	1	09/14/18	B8I1404	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	09/14/18	B8I1404	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
103-65-1	**n-Propylbenzene**	**4.5**	1.0	ug/L	1	09/14/18	B8I1404	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	09/14/18	B8I1404	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	09/14/18	B8I1404	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	09/14/18	B8I1404	8260	
Surrogate: Bromofluorobenzene			*106 %*	*85-115*		*09/14/18*	B8I1404	*8260*	
Surrogate: Dibromofluoromethane			*106 %*	*82.7-115*		*09/14/18*	B8I1404	*8260*	
Surrogate: Toluene-d8			*106 %*	*85-115*		*09/14/18*	B8I1404	*8260*	

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ENVIRONMENTAL LABORATORY

P.O. Box 30270
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TEL: (517) 335-9800
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Client ID: QMCP-GW34 5-9

Lab ID: 1809102-06

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	09/19/18	B8I1305	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	09/19/18	B8I1305	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	09/19/18	B8I1305	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
Surrogate: 2-Fluorobiphenyl			*40.9 %*	*24.1-115*		*09/19/18*	B8I1305	*8270*	
Surrogate: Nitrobenzene-d5			*34.2 %*	*17.8-115*		*09/19/18*	B8I1305	*8270*	
Surrogate: p-Terphenyl-d14			*85.3 %*	*41.8-115*		*09/19/18*	B8I1305	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	0.10	ug/L	1	09/25/18	B8I1722	8081/8082	
11104-28-2	Aroclor 1221	ND	0.10	ug/L	1	09/25/18	B8I1722	8081/8082	
11141-16-5	Aroclor 1232	ND	0.10	ug/L	1	09/25/18	B8I1722	8081/8082	
53469-21-9	Aroclor 1242	ND	0.10	ug/L	1	09/25/18	B8I1722	8081/8082	
12672-29-6	Aroclor 1248	ND	0.10	ug/L	1	09/25/18	B8I1722	8081/8082	
11097-69-1	Aroclor 1254	ND	0.10	ug/L	1	09/25/18	B8I1722	8081/8082	
11096-82-5	Aroclor 1260	ND	0.10	ug/L	1	09/25/18	B8I1722	8081/8082	
37324-23-5	Aroclor 1262	ND	0.10	ug/L	1	09/25/18	B8I1722	8081/8082	
11100-14-4	Aroclor 1268	ND	0.10	ug/L	1	09/25/18	B8I1722	8081/8082	
Surrogate: Decachlorobiphenyl			*86.9 %*	*30-150*		*09/25/18*	B8I1722	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*49.7 %*	*30-150*		*09/25/18*	B8I1722	*8081/8082*	

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Client ID: QMCP-GW34 5-9

Lab ID: 1809102-06

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-Metals									
7440-38-2	**Arsenic**	**1.3**	1.0	ug/L	1	09/21/18	B8I1221	200.8	
7440-43-9	Cadmium	ND	0.2	ug/L	1	09/21/18	B8I1221	200.8	
7440-47-3	**Chromium**	**26**	1.0	ug/L	1	09/21/18	B8I1221	200.8	
7440-50-8	**Copper**	**200**	1.0	ug/L	1	09/21/18	B8I1221	200.8	
7439-92-1	**Lead**	**1.2**	1.0	ug/L	1	09/21/18	B8I1221	200.8	
7439-96-5	**Manganese**	**820**	5.0	ug/L	1	09/21/18	B8I1221	200.8	
7439-97-6	Mercury	ND	0.2	ug/L	1	09/18/18	B8I1705	245.1	
7440-22-4	Silver	ND	0.2	ug/L	1	09/21/18	B8I1221	200.8	
7440-66-6	**Zinc**	**52**	5.0	ug/L	1	09/21/18	B8I1221	200.8	

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Client ID: QMCP-GW60 7-11

Lab ID: 1809102-07

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									**See note Y11**
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	09/15/18	B8I1505	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	09/15/18	B8I1505	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	09/15/18	B8I1505	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	09/15/18	B8I1505	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	09/15/18	B8I1505	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	09/15/18	B8I1505	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	09/15/18	B8I1505	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	09/15/18	B8I1505	8260	A05, A10
526-73-8	**1,2,3-Trimethylbenzene**	**34**	1.0	ug/L	1	09/15/18	B8I1505	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	09/15/18	B8I1505	8260	
95-63-6	**1,2,4-Trimethylbenzene**	**49**	1.0	ug/L	1	09/15/18	B8I1505	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	09/15/18	B8I1505	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	09/15/18	B8I1505	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	09/15/18	B8I1505	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	09/15/18	B8I1505	8260	
108-67-8	**1,3,5-Trimethylbenzene**	**45**	1.0	ug/L	1	09/15/18	B8I1505	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	09/15/18	B8I1505	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	09/15/18	B8I1505	8260	
540-84-1	2,2,4-Trimethylpentane	ND	5.0	ug/L	1	09/15/18	B8I1505	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	09/15/18	B8I1505	8260	
91-57-6	**2-Methylnaphthalene**	**46**	5.0	ug/L	1	09/15/18	B8I1505	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	09/15/18	B8I1505	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	09/15/18	B8I1505	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	09/15/18	B8I1505	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	09/15/18	B8I1505	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	09/15/18	B8I1505	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	09/15/18	B8I1505	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	09/15/18	B8I1505	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	09/15/18	B8I1505	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	09/15/18	B8I1505	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	09/15/18	B8I1505	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	09/15/18	B8I1505	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	09/15/18	B8I1505	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	09/15/18	B8I1505	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	09/15/18	B8I1505	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/15/18	B8I1505	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/15/18	B8I1505	8260	
110-82-7	**Cyclohexane**	**33**	5.0	ug/L	1	09/15/18	B8I1505	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	09/15/18	B8I1505	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	09/15/18	B8I1505	8260	

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Client ID: QMCP-GW60 7-11

Lab ID: 1809102-07

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									**See note Y11**
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	09/15/18	B8I1505	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	09/15/18	B8I1505	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	09/15/18	B8I1505	8260	
100-41-4	**Ethylbenzene**	**14**	1.0	ug/L	1	09/15/18	B8I1505	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	09/15/18	B8I1505	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	09/15/18	B8I1505	8260	
110-54-3	**Hexane**	**10**	1.0	ug/L	1	09/15/18	B8I1505	8260	
98-82-8	**Isopropylbenzene**	**2.1**	1.0	ug/L	1	09/15/18	B8I1505	8260	
1330-20-7	**m & p - Xylene**	**46**	2.0	ug/L	1	09/15/18	B8I1505	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	09/15/18	B8I1505	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	09/15/18	B8I1505	8260	
91-20-3	**Naphthalene**	**40**	5.0	ug/L	1	09/15/18	B8I1505	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	09/15/18	B8I1505	8260	
103-65-1	**n-Propylbenzene**	**1.9**	1.0	ug/L	1	09/15/18	B8I1505	8260	
95-47-6	**o-Xylene**	**47**	1.0	ug/L	1	09/15/18	B8I1505	8260	
135-98-8	**sec-Butylbenzene**	**1.5**	1.0	ug/L	1	09/15/18	B8I1505	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	09/15/18	B8I1505	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	09/15/18	B8I1505	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	09/15/18	B8I1505	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	09/15/18	B8I1505	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	09/15/18	B8I1505	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	09/15/18	B8I1505	8260	
108-88-3	**Toluene**	**3.0**	1.0	ug/L	1	09/15/18	B8I1505	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/15/18	B8I1505	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/15/18	B8I1505	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	09/15/18	B8I1505	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	09/15/18	B8I1505	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	09/15/18	B8I1505	8260	
Surrogate: Bromofluorobenzene			*97.0 %*	*85-115*		*09/15/18*	B8I1505	*8260*	
Surrogate: Dibromofluoromethane			*106 %*	*82.7-115*		*09/15/18*	B8I1505	*8260*	
Surrogate: Toluene-d8			*102 %*	*85-115*		*09/15/18*	B8I1505	*8260*	

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ENVIRONMENTAL LABORATORY

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Client ID: QMCP-GW60 7-11

Lab ID: 1809102-07

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y17**
91-57-6	**2-Methylnaphthalene**	**9.3**	5.0	ug/L	1	09/19/18	B8I1305	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	09/19/18	B8I1305	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
86-73-7	**Fluorene**	**1.4**	1.0	ug/L	1	09/19/18	B8I1305	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	09/19/18	B8I1305	8270	
91-20-3	**Naphthalene**	**14**	1.0	ug/L	1	09/19/18	B8I1305	8270	
85-01-8	**Phenanthrene**	**1.1**	1.0	ug/L	1	09/19/18	B8I1305	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
Surrogate: 2-Fluorobiphenyl			*48.2 %*	*24.1-115*		*09/19/18*	B8I1305	*8270*	
Surrogate: Nitrobenzene-d5			*47.5 %*	*17.8-115*		*09/19/18*	B8I1305	*8270*	
Surrogate: p-Terphenyl-d14			*73.2 %*	*41.8-115*		*09/19/18*	B8I1305	*8270*	
Inorganics-Metals									
7439-92-1	**Lead**	**11**	1.0	ug/L	1	09/21/18	B8I1222	200.8	

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Client ID: QMCP-GW59 5-9

Lab ID: 1809102-08

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	09/14/18	B8I1403	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
540-84-1	2,2,4-Trimethylpentane	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	09/14/18	B8I1403	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	

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Client ID: QMCP-GW59 5-9

Lab ID: 1809102-08

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	09/14/18	B8I1403	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	09/14/18	B8I1403	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
Surrogate: Bromofluorobenzene			*105 %*	*85-115*		*09/14/18*	B8I1403	*8260*	
Surrogate: Dibromofluoromethane			*94.2 %*	*82.7-115*		*09/14/18*	B8I1403	*8260*	
Surrogate: Toluene-d8			*99.7 %*	*85-115*		*09/14/18*	B8I1403	*8260*	

STATE OF MICHIGAN
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MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

P.O. Box 30270
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TEL: (517) 335-9800
FAX: (517) 335-9600

Client ID: QMCP-GW59 5-9

Lab ID: 1809102-08

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	09/19/18	B8I1305	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	09/19/18	B8I1305	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	09/19/18	B8I1305	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
Surrogate: 2-Fluorobiphenyl			*58.2 %*	*24.1-115*		*09/19/18*	B8I1305	*8270*	
Surrogate: Nitrobenzene-d5			*48.9 %*	*17.8-115*		*09/19/18*	B8I1305	*8270*	
Surrogate: p-Terphenyl-d14			*89.5 %*	*41.8-115*		*09/19/18*	B8I1305	*8270*	
Inorganics-Metals									
7439-92-1	Lead	ND	1.0	ug/L	1	09/21/18	B8I1222	200.8	

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TEL: (517) 335-9800
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Client ID: QMCP-GW43 6-10

Lab ID: 1809102-09

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	09/14/18	B8I1403	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
540-84-1	2,2,4-Trimethylpentane	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	09/14/18	B8I1403	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	

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Client ID: QMCP-GW43 6-10

Lab ID: 1809102-09

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	09/14/18	B8I1403	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	09/14/18	B8I1403	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
108-88-3	**Toluene**	**9.4**	1.0	ug/L	1	09/14/18	B8I1403	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
Surrogate: Bromofluorobenzene			*100 %*	*85-115*		*09/14/18*	B8I1403	*8260*	
Surrogate: Dibromofluoromethane			*98.3 %*	*82.7-115*		*09/14/18*	B8I1403	*8260*	
Surrogate: Toluene-d8			*99.3 %*	*85-115*		*09/14/18*	B8I1403	*8260*	

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ENVIRONMENTAL LABORATORY

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TEL: (517) 335-9800
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Client ID: QMCP-GW43 6-10

Lab ID: 1809102-09

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	ug/L	1	09/17/18	B8I1306	8270	
95-95-4	2,4,5-Trichlorophenol	ND	5.0	ug/L	1	09/17/18	B8I1306	8270	
88-06-2	2,4,6-Trichlorophenol	ND	4.0	ug/L	1	09/17/18	B8I1306	8270	
120-83-2	2,4-Dichlorophenol	ND	10	ug/L	1	09/17/18	B8I1306	8270	
105-67-9	2,4-Dimethylphenol	ND	5.0	ug/L	1	09/17/18	B8I1306	8270	
51-28-5	2,4-Dinitrophenol	ND	25	ug/L	1	09/17/18	B8I1306	8270	
121-14-2	2,4-Dinitrotoluene	ND	5.0	ug/L	1	09/17/18	B8I1306	8270	
606-20-2	2,6-Dinitrotoluene	ND	5.0	ug/L	1	09/17/18	B8I1306	8270	
95-51-2	2-Chloroaniline	ND	5.0	ug/L	1	09/17/18	B8I1306	8270	
91-58-7	2-Chloronaphthalene	ND	2.0	ug/L	1	09/17/18	B8I1306	8270	
95-57-8	2-Chlorophenol	ND	10	ug/L	1	09/17/18	B8I1306	8270	
534-52-1	2-Methyl-4,6-dinitrophenol	ND	20	ug/L	1	09/17/18	B8I1306	8270	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	09/17/18	B8I1306	8270	
95-48-7	2-Methylphenol (o-Cresol)	ND	10	ug/L	1	09/17/18	B8I1306	8270	
88-74-4	2-Nitroaniline	ND	20	ug/L	1	09/17/18	B8I1306	8270	
88-75-5	2-Nitrophenol	ND	5.0	ug/L	1	09/17/18	B8I1306	8270	
108394,106445	3 & 4-Methylphenol	ND	20	ug/L	1	09/17/18	B8I1306	8270	
99-09-2	3-Nitroaniline	ND	20	ug/L	1	09/17/18	B8I1306	8270	
101-55-3	4-Bromophenyl phenyl ether	ND	2.0	ug/L	1	09/17/18	B8I1306	8270	
59-50-7	4-Chloro-3-methyl-phenol	ND	5.0	ug/L	1	09/17/18	B8I1306	8270	
106-47-8	4-Chloroaniline	ND	10	ug/L	1	09/17/18	B8I1306	8270	
7005-72-3	4-Chlorodiphenylether	ND	1.0	ug/L	1	09/17/18	B8I1306	8270	
100-01-6	4-Nitroaniline	ND	20	ug/L	1	09/17/18	B8I1306	8270	
100-02-7	4-Nitrophenol	ND	25	ug/L	1	09/17/18	B8I1306	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	09/17/18	B8I1306	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	09/17/18	B8I1306	8270	
62-53-3	Aniline	ND	4.0	ug/L	1	09/17/18	B8I1306	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	09/17/18	B8I1306	8270	
103-33-3	Azobenzene	ND	2.0	ug/L	1	09/17/18	B8I1306	8270	
56-55-3	**Benz[a]anthracene**	**1.4**	1.0	ug/L	1	09/17/18	B8I1306	8270	
50-32-8	**Benzo[a]pyrene**	**1.2**	1.0	ug/L	1	09/17/18	B8I1306	8270	
205-99-2	**Benzo[b]fluoranthene**	**1.4**	1.0	ug/L	1	09/17/18	B8I1306	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	09/17/18	B8I1306	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	09/17/18	B8I1306	8270	
100-51-6	Benzyl Alcohol	ND	50	ug/L	1	09/17/18	B8I1306	8270	
111-91-1	Bis(2-chloroethoxy)methane	ND	2.0	ug/L	1	09/17/18	B8I1306	8270	
111-44-4	Bis(2-chloroethyl)ether	ND	1.0	ug/L	1	09/17/18	B8I1306	8270	
108-60-1	Bis(2-chloroisopropyl)ether	ND	1.0	ug/L	1	09/17/18	B8I1306	8270	
117-81-7	Bis(2-ethylhexyl)phthalate	ND	5.0	ug/L	1	09/17/18	B8I1306	8270	
85-68-7	Butyl benzyl phthalate	ND	5.0	ug/L	1	09/17/18	B8I1306	8270	

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Client ID: QMCP-GW43 6-10

Lab ID: 1809102-09

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									
86-74-8	Carbazole	ND	5.0	ug/L	1	09/17/18	B8I1306	8270	
218-01-9	**Chrysene**	**1.1**	1.0	ug/L	1	09/17/18	B8I1306	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	09/17/18	B8I1306	8270	
132-64-9	Dibenzofuran	ND	4.0	ug/L	1	09/17/18	B8I1306	8270	
84-66-2	Diethylphthalate	ND	5.0	ug/L	1	09/17/18	B8I1306	8270	
131-11-3	Dimethyl phthalate	ND	5.0	ug/L	1	09/17/18	B8I1306	8270	
84-74-2	Di-n-butyl phthalate	ND	5.0	ug/L	1	09/17/18	B8I1306	8270	
117-84-0	Di-n-octyl phthalate	ND	5.0	ug/L	1	09/17/18	B8I1306	8270	
206-44-0	**Fluoranthene**	**2.6**	1.0	ug/L	1	09/17/18	B8I1306	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	09/17/18	B8I1306	8270	
118-74-1	Hexachlorobenzene	ND	1.0	ug/L	1	09/17/18	B8I1306	8270	
87-68-3	Hexachlorobutadiene	ND	1.0	ug/L	1	09/17/18	B8I1306	8270	
77-47-4	Hexachlorocyclopentadiene	ND	10	ug/L	1	09/17/18	B8I1306	8270	
67-72-1	Hexachloroethane	ND	1.0	ug/L	1	09/17/18	B8I1306	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	09/17/18	B8I1306	8270	
78-59-1	Isophorone	ND	1.0	ug/L	1	09/17/18	B8I1306	8270	
121-69-7	N,N-dimethylaniline	ND	5.0	ug/L	1	09/17/18	B8I1306	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	09/17/18	B8I1306	8270	
98-95-3	Nitrobenzene	ND	2.0	ug/L	1	09/17/18	B8I1306	8270	
100-61-8	N-methylaniline	ND	1.0	ug/L	1	09/17/18	B8I1306	8270	
67-75-9	N-Nitrosodimethylamine	ND	5.0	ug/L	1	09/17/18	B8I1306	8270	
621-64-7	N-Nitrosodi-n-propylamine	ND	2.0	ug/L	1	09/17/18	B8I1306	8270	
86-30-6	N-Nitrosodiphenylamine	ND	2.0	ug/L	1	09/17/18	B8I1306	8270	
87-86-5	Pentachlorophenol	ND	20	ug/L	1	09/17/18	B8I1306	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	09/17/18	B8I1306	8270	
108-95-2	Phenol	ND	5.0	ug/L	1	09/17/18	B8I1306	8270	
129-00-0	**Pyrene**	**2.1**	1.0	ug/L	1	09/17/18	B8I1306	8270	
110-86-1	Pyridine	ND	20	ug/L	1	09/17/18	B8I1306	8270	
632-22-4	Tetramethylurea	ND	1.0	ug/L	1	09/17/18	B8I1306	8270	
Surrogate: 2,4,6-Tribromophenol			*71.6 %*	*33.8-115*		*09/17/18*	B8I1306	*8270*	
Surrogate: 2-Fluorobiphenyl			*60.1 %*	*24.1-115*		*09/17/18*	B8I1306	*8270*	
Surrogate: 2-Fluorophenol			*23.9 %*	*10-115*		*09/17/18*	B8I1306	*8270*	
Surrogate: Nitrobenzene-d5			*63.1 %*	*17.8-115*		*09/17/18*	B8I1306	*8270*	
Surrogate: Phenol-d6			*14.6 %*	*10-115*		*09/17/18*	B8I1306	*8270*	
Surrogate: p-Terphenyl-d14			*85.0 %*	*41.8-115*		*09/17/18*	B8I1306	*8270*	

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ENVIRONMENTAL LABORATORY

P.O. Box 30270
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TEL: (517) 335-9800
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Client ID: QMCP-GW43 6-10

Lab ID: 1809102-09

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	0.10	ug/L	1	10/16/18	B8I1722	8081/8082	A01
11104-28-2	Aroclor 1221	ND	0.10	ug/L	1	10/16/18	B8I1722	8081/8082	A01
11141-16-5	Aroclor 1232	ND	0.10	ug/L	1	10/16/18	B8I1722	8081/8082	A01
53469-21-9	Aroclor 1242	ND	0.10	ug/L	1	10/16/18	B8I1722	8081/8082	A01
12672-29-6	Aroclor 1248	ND	0.10	ug/L	1	10/16/18	B8I1722	8081/8082	A01
11097-69-1	Aroclor 1254	ND	0.10	ug/L	1	10/16/18	B8I1722	8081/8082	A01
11096-82-5	Aroclor 1260	ND	0.10	ug/L	1	10/16/18	B8I1722	8081/8082	A01
37324-23-5	Aroclor 1262	ND	0.10	ug/L	1	10/16/18	B8I1722	8081/8082	A01
11100-14-4	Aroclor 1268	ND	0.10	ug/L	1	10/16/18	B8I1722	8081/8082	A01
Surrogate: Decachlorobiphenyl			*17.3 %*	*30-150*		*10/16/18*	B8I1722	*8081/8082*	*A01*
Surrogate: Tetrachloro-m-xylene			*15.9 %*	*30-150*		*10/16/18*	B8I1722	*8081/8082*	*A01*
Inorganics-Metals									
7440-38-2	**Arsenic**	**7.6**	1.0	ug/L	1	09/21/18	B8I1222	200.8	
7440-43-9	Cadmium	ND	0.2	ug/L	1	09/21/18	B8I1222	200.8	
7440-47-3	**Chromium**	**1.9**	1.0	ug/L	1	09/21/18	B8I1222	200.8	
7440-50-8	**Copper**	**75**	1.0	ug/L	1	09/21/18	B8I1222	200.8	
7439-92-1	**Lead**	**1.8**	1.0	ug/L	1	09/21/18	B8I1222	200.8	
7439-96-5	**Manganese**	**560**	5.0	ug/L	1	09/21/18	B8I1222	200.8	
7439-97-6	Mercury	ND	0.2	ug/L	1	09/18/18	B8I1705	245.1	
7440-22-4	Silver	ND	0.2	ug/L	1	09/21/18	B8I1222	200.8	
7440-66-6	**Zinc**	**11**	5.0	ug/L	1	09/21/18	B8I1222	200.8	

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TEL: (517) 335-9800
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Client ID: QMCP-GW49 5-9

Lab ID: 1809102-10

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	09/14/18	B8I1403	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
540-84-1	2,2,4-Trimethylpentane	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	09/14/18	B8I1403	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	

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Client ID: QMCP-GW49 5-9

Lab ID: 1809102-10

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	09/14/18	B8I1403	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	09/14/18	B8I1403	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
Surrogate: Bromofluorobenzene			*104 %*	*85-115*		*09/14/18*	B8I1403	*8260*	
Surrogate: Dibromofluoromethane			*96.9 %*	*82.7-115*		*09/14/18*	B8I1403	*8260*	
Surrogate: Toluene-d8			*100 %*	*85-115*		*09/14/18*	B8I1403	*8260*	

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ENVIRONMENTAL LABORATORY

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Client ID: QMCP-GW49 5-9

Lab ID: 1809102-10

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	09/19/18	B8I1305	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	09/19/18	B8I1305	8270	
206-44-0	**Fluoranthene**	**1.0**	1.0	ug/L	1	09/19/18	B8I1305	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	09/19/18	B8I1305	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
Surrogate: 2-Fluorobiphenyl			*56.5 %*	*24.1-115*		*09/19/18*	B8I1305	*8270*	
Surrogate: Nitrobenzene-d5			*38.4 %*	*17.8-115*		*09/19/18*	B8I1305	*8270*	
Surrogate: p-Terphenyl-d14			*79.8 %*	*41.8-115*		*09/19/18*	B8I1305	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	0.10	ug/L	1	09/25/18	B8I1722	8081/8082	A01
11104-28-2	Aroclor 1221	ND	0.10	ug/L	1	09/25/18	B8I1722	8081/8082	A01
11141-16-5	Aroclor 1232	ND	0.10	ug/L	1	09/25/18	B8I1722	8081/8082	A01
53469-21-9	Aroclor 1242	ND	0.10	ug/L	1	09/25/18	B8I1722	8081/8082	A01
12672-29-6	Aroclor 1248	ND	0.10	ug/L	1	09/25/18	B8I1722	8081/8082	A01
11097-69-1	Aroclor 1254	ND	0.10	ug/L	1	09/25/18	B8I1722	8081/8082	A01
11096-82-5	Aroclor 1260	ND	0.10	ug/L	1	09/25/18	B8I1722	8081/8082	A01
37324-23-5	Aroclor 1262	ND	0.10	ug/L	1	09/25/18	B8I1722	8081/8082	A01
11100-14-4	Aroclor 1268	ND	0.10	ug/L	1	09/25/18	B8I1722	8081/8082	A01
Surrogate: Decachlorobiphenyl			*24.3 %*	*30-150*		*09/25/18*	B8I1722	*8081/8082*	*A01*
Surrogate: Tetrachloro-m-xylene			*25.3 %*	*30-150*		*09/25/18*	B8I1722	*8081/8082*	*A01*

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Client ID: QMCP-GW49 5-9

Lab ID: 1809102-10

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-Metals									
7440-38-2	**Arsenic**	**9.3**	1.0	ug/L	1	09/21/18	B8I1222	200.8	
7440-43-9	**Cadmium**	**0.3**	0.2	ug/L	1	09/21/18	B8I1222	200.8	
7440-47-3	**Chromium**	**120**	1.0	ug/L	1	09/21/18	B8I1222	200.8	
7440-50-8	**Copper**	**3800**	1.0	ug/L	1	09/21/18	B8I1222	200.8	
7439-92-1	**Lead**	**73**	1.0	ug/L	1	09/21/18	B8I1222	200.8	
7439-96-5	**Manganese**	**2000**	5.0	ug/L	1	09/21/18	B8I1222	200.8	
7439-97-6	**Mercury**	**0.2**	0.2	ug/L	1	09/18/18	B8I1705	245.1	
7440-22-4	**Silver**	**3.1**	0.2	ug/L	1	09/21/18	B8I1222	200.8	
7440-66-6	**Zinc**	**160**	5.0	ug/L	1	09/21/18	B8I1222	200.8	

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ENVIRONMENTAL LABORATORY

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Client ID: QMCP-GW47 5-9

Lab ID: 1809102-11

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	09/14/18	B8I1403	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
540-84-1	2,2,4-Trimethylpentane	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	09/14/18	B8I1403	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	

STATE OF MICHIGAN
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ENVIRONMENTAL LABORATORY

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TEL: (517) 335-9800
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Client ID: QMCP-GW47 5-9

Lab ID: 1809102-11

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	09/14/18	B8I1403	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	09/14/18	B8I1403	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
Surrogate: Bromofluorobenzene			*107 %*	*85-115*		*09/14/18*	B8I1403	*8260*	
Surrogate: Dibromofluoromethane			*96.1 %*	*82.7-115*		*09/14/18*	B8I1403	*8260*	
Surrogate: Toluene-d8			*101 %*	*85-115*		*09/14/18*	B8I1403	*8260*	

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Client ID: QMCP-GW47 5-9

Lab ID: 1809102-11

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y17**
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	09/19/18	B8I1305	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	09/19/18	B8I1305	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	09/19/18	B8I1305	8270	
91-20-3	**Naphthalene**	**1.1**	1.0	ug/L	1	09/19/18	B8I1305	8270	
85-01-8	**Phenanthrene**	**0.96**	1.0	ug/L	1	09/19/18	B8I1305	8270	T
129-00-0	Pyrene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
Surrogate: 2-Fluorobiphenyl			*72.8 %*	*24.1-115*		*09/19/18*	B8I1305	*8270*	
Surrogate: Nitrobenzene-d5			*63.2 %*	*17.8-115*		*09/19/18*	B8I1305	*8270*	
Surrogate: p-Terphenyl-d14			*80.3 %*	*41.8-115*		*09/19/18*	B8I1305	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	0.10	ug/L	1	10/16/18	B8I1722	8081/8082	
11104-28-2	Aroclor 1221	ND	0.10	ug/L	1	10/16/18	B8I1722	8081/8082	
11141-16-5	Aroclor 1232	ND	0.10	ug/L	1	10/16/18	B8I1722	8081/8082	
53469-21-9	Aroclor 1242	ND	0.10	ug/L	1	10/16/18	B8I1722	8081/8082	
12672-29-6	Aroclor 1248	ND	0.10	ug/L	1	10/16/18	B8I1722	8081/8082	
11097-69-1	Aroclor 1254	ND	0.10	ug/L	1	10/16/18	B8I1722	8081/8082	
11096-82-5	Aroclor 1260	ND	0.10	ug/L	1	10/16/18	B8I1722	8081/8082	
37324-23-5	Aroclor 1262	ND	0.10	ug/L	1	10/16/18	B8I1722	8081/8082	
11100-14-4	Aroclor 1268	ND	0.10	ug/L	1	10/16/18	B8I1722	8081/8082	
Surrogate: Decachlorobiphenyl			*41.6 %*	*30-150*		*10/16/18*	B8I1722	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*48.1 %*	*30-150*		*10/16/18*	B8I1722	*8081/8082*	

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Client ID: QMCP-GW47 5-9

Lab ID: 1809102-11

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-Metals									
7440-38-2	**Arsenic**	**4.2**	1.0	ug/L	1	09/21/18	B8I1222	200.8	
7440-43-9	Cadmium	ND	0.2	ug/L	1	09/21/18	B8I1222	200.8	
7440-47-3	**Chromium**	**6.4**	1.0	ug/L	1	09/21/18	B8I1222	200.8	
7440-50-8	**Copper**	**2800**	1.0	ug/L	1	09/21/18	B8I1222	200.8	
7439-92-1	**Lead**	**15**	1.0	ug/L	1	09/21/18	B8I1222	200.8	
7439-96-5	**Manganese**	**540**	5.0	ug/L	1	09/21/18	B8I1222	200.8	
7439-97-6	**Mercury**	**0.2**	0.2	ug/L	1	09/18/18	B8I1705	245.1	
7440-22-4	**Silver**	**2.9**	0.2	ug/L	1	09/21/18	B8I1222	200.8	
7440-66-6	**Zinc**	**16**	5.0	ug/L	1	09/21/18	B8I1222	200.8	

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Client ID: QMCP-GW50 2-6

Lab ID: 1809102-12

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	09/14/18	B8I1403	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
540-84-1	2,2,4-Trimethylpentane	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	09/14/18	B8I1403	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	

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Client ID: QMCP-GW50 2-6

Lab ID: 1809102-12

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	09/14/18	B8I1403	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	09/14/18	B8I1403	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
Surrogate: Bromofluorobenzene			*106 %*	*85-115*		*09/14/18*	B8I1403	*8260*	
Surrogate: Dibromofluoromethane			*95.0 %*	*82.7-115*		*09/14/18*	B8I1403	*8260*	
Surrogate: Toluene-d8			*101 %*	*85-115*		*09/14/18*	B8I1403	*8260*	

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Lab ID: 1809102-12

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	09/24/18	B8I1305	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	09/24/18	B8I1305	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	09/24/18	B8I1305	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	09/24/18	B8I1305	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	09/24/18	B8I1305	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	09/24/18	B8I1305	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	09/24/18	B8I1305	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	09/24/18	B8I1305	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	09/24/18	B8I1305	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	09/24/18	B8I1305	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	09/24/18	B8I1305	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	09/24/18	B8I1305	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	09/24/18	B8I1305	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	09/24/18	B8I1305	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	09/24/18	B8I1305	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	09/24/18	B8I1305	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	09/24/18	B8I1305	8270	
Surrogate: 2-Fluorobiphenyl			*57.5 %*	*24.1-115*		*09/24/18*	B8I1305	*8270*	
Surrogate: Nitrobenzene-d5			*46.3 %*	*17.8-115*		*09/24/18*	B8I1305	*8270*	
Surrogate: p-Terphenyl-d14			*84.5 %*	*41.8-115*		*09/24/18*	B8I1305	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	0.10	ug/L	1	09/25/18	B8I1722	8081/8082	
11104-28-2	Aroclor 1221	ND	0.10	ug/L	1	09/25/18	B8I1722	8081/8082	
11141-16-5	Aroclor 1232	ND	0.10	ug/L	1	09/25/18	B8I1722	8081/8082	
53469-21-9	Aroclor 1242	ND	0.10	ug/L	1	09/25/18	B8I1722	8081/8082	
12672-29-6	Aroclor 1248	ND	0.10	ug/L	1	09/25/18	B8I1722	8081/8082	
11097-69-1	Aroclor 1254	ND	0.10	ug/L	1	09/25/18	B8I1722	8081/8082	
11096-82-5	Aroclor 1260	ND	0.10	ug/L	1	09/25/18	B8I1722	8081/8082	
37324-23-5	Aroclor 1262	ND	0.10	ug/L	1	09/25/18	B8I1722	8081/8082	
11100-14-4	Aroclor 1268	ND	0.10	ug/L	1	09/25/18	B8I1722	8081/8082	
Surrogate: Decachlorobiphenyl			*57.6 %*	*30-150*		*09/25/18*	B8I1722	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*51.9 %*	*30-150*		*09/25/18*	B8I1722	*8081/8082*	

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P.O. Box 30270
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TEL: (517) 335-9800
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Client ID: QMCP-GW50 2-6

Lab ID: 1809102-12

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-Metals									
7440-38-2	**Arsenic**	**9.5**	1.0	ug/L	1	09/21/18	B8I1222	200.8	
7440-43-9	Cadmium	ND	0.2	ug/L	1	09/21/18	B8I1222	200.8	
7440-47-3	**Chromium**	**3.4**	1.0	ug/L	1	09/21/18	B8I1222	200.8	
7440-50-8	**Copper**	**1300**	1.0	ug/L	1	09/21/18	B8I1222	200.8	
7439-92-1	**Lead**	**67**	1.0	ug/L	1	09/21/18	B8I1222	200.8	
7439-96-5	**Manganese**	**1500**	5.0	ug/L	1	09/21/18	B8I1222	200.8	
7439-97-6	Mercury	ND	0.2	ug/L	1	09/18/18	B8I1705	245.1	
7440-22-4	**Silver**	**0.7**	0.2	ug/L	1	09/21/18	B8I1222	200.8	
7440-66-6	**Zinc**	**43**	5.0	ug/L	1	09/21/18	B8I1222	200.8	

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P.O. Box 30270
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TEL: (517) 335-9800
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Client ID: QMCP-GW46 4-8'

Lab ID: 1809102-13

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									**See note Y17**
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
540-84-1	2,2,4-Trimethylpentane	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	09/14/18	B8I1403	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	

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Client ID: QMCP-GW46 4-8'

Lab ID: 1809102-13

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									**See note Y17**
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	09/14/18	B8I1403	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	X
104-51-8	**n-Butylbenzene**	**1.0**	1.0	ug/L	1	09/14/18	B8I1403	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	09/14/18	B8I1403	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
108-88-3	**Toluene**	**1.7**	1.0	ug/L	1	09/14/18	B8I1403	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
Surrogate: Bromofluorobenzene			*103 %*	*85-115*		*09/14/18*	B8I1403	*8260*	
Surrogate: Dibromofluoromethane			*99.9 %*	*82.7-115*		*09/14/18*	B8I1403	*8260*	
Surrogate: Toluene-d8			*98.3 %*	*85-115*		*09/14/18*	B8I1403	*8260*	

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Client ID: QMCP-GW46 4-8'

Lab ID: 1809102-13

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y17, Y21**
91-57-6	2-Methylnaphthalene	ND	50	ug/L	10	09/24/18	B8I1305	8270	
83-32-9	Acenaphthene	ND	10	ug/L	10	09/24/18	B8I1305	8270	
208-96-8	Acenaphthylene	ND	10	ug/L	10	09/24/18	B8I1305	8270	
120-12-7	Anthracene	ND	10	ug/L	10	09/24/18	B8I1305	8270	
56-55-3	Benz[a]anthracene	ND	10	ug/L	10	09/24/18	B8I1305	8270	
50-32-8	Benzo[a]pyrene	ND	10	ug/L	10	09/24/18	B8I1305	8270	
205-99-2	Benzo[b]fluoranthene	ND	10	ug/L	10	09/24/18	B8I1305	8270	
191-24-2	Benzo[g,h,i]perylene	ND	10	ug/L	10	09/24/18	B8I1305	8270	
207-08-9	Benzo[k]fluoranthene	ND	10	ug/L	10	09/24/18	B8I1305	8270	
218-01-9	Chrysene	ND	10	ug/L	10	09/24/18	B8I1305	8270	
53-70-3	Dibenz[a,h]anthracene	ND	20	ug/L	10	09/24/18	B8I1305	8270	
206-44-0	Fluoranthene	ND	10	ug/L	10	09/24/18	B8I1305	8270	
86-73-7	**Fluorene**	**11**	10	ug/L	10	09/24/18	B8I1305	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	20	ug/L	10	09/24/18	B8I1305	8270	
91-20-3	Naphthalene	ND	10	ug/L	10	09/24/18	B8I1305	8270	
85-01-8	**Phenanthrene**	**25**	10	ug/L	10	09/24/18	B8I1305	8270	
129-00-0	**Pyrene**	**17**	10	ug/L	10	09/24/18	B8I1305	8270	
Surrogate: 2-Fluorobiphenyl			*66.1 %*	*24.1-115*		*09/24/18*	B8I1305	*8270*	
Surrogate: Nitrobenzene-d5			*54.2 %*	*17.8-115*		*09/24/18*	B8I1305	*8270*	
Surrogate: p-Terphenyl-d14			*62.7 %*	*41.8-115*		*09/24/18*	B8I1305	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	0.10	ug/L	1	10/15/18	B8I2021	8081/8082	A01, A07
11104-28-2	Aroclor 1221	ND	0.10	ug/L	1	10/15/18	B8I2021	8081/8082	A01
11141-16-5	Aroclor 1232	ND	0.10	ug/L	1	10/15/18	B8I2021	8081/8082	A01
53469-21-9	Aroclor 1242	ND	0.10	ug/L	1	10/15/18	B8I2021	8081/8082	A01
12672-29-6	Aroclor 1248	ND	0.10	ug/L	1	10/15/18	B8I2021	8081/8082	A01
11097-69-1	Aroclor 1254	ND	0.23	ug/L	1	10/15/18	B8I2021	8081/8082	A01, Y21
11096-82-5	Aroclor 1260	ND	0.40	ug/L	1	10/15/18	B8I2021	8081/8082	A01, A07, Y21
37324-23-5	Aroclor 1262	ND	0.40	ug/L	1	10/15/18	B8I2021	8081/8082	A01, Y21
11100-14-4	Aroclor 1268	ND	0.10	ug/L	1	10/15/18	B8I2021	8081/8082	A01
Surrogate: Decachlorobiphenyl			*23.5 %*	*30-150*		*10/15/18*	B8I2021	*8081/8082*	*A01*
Surrogate: Tetrachloro-m-xylene			*30.5 %*	*30-150*		*10/15/18*	B8I2021	*8081/8082*	*A01*

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ENVIRONMENTAL LABORATORY

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Client ID: QMCP-GW46 4-8'

Lab ID: 1809102-13

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-Metals									
7440-38-2	**Arsenic**	**32**	1.0	ug/L	1	09/21/18	B8I1222	200.8	
7440-43-9	**Cadmium**	**0.9**	0.2	ug/L	1	09/21/18	B8I1222	200.8	
7440-47-3	**Chromium**	**32**	1.0	ug/L	1	09/21/18	B8I1222	200.8	
7440-50-8	**Copper**	**2800**	1.0	ug/L	1	09/21/18	B8I1222	200.8	
7439-92-1	**Lead**	**16**	1.0	ug/L	1	09/21/18	B8I1222	200.8	
7439-96-5	**Manganese**	**420**	5.0	ug/L	1	09/21/18	B8I1222	200.8	
7439-97-6	**Mercury**	**0.3**	0.2	ug/L	1	09/18/18	B8I1705	245.1	
7440-22-4	**Silver**	**2.4**	0.2	ug/L	1	09/21/18	B8I1222	200.8	
7440-66-6	**Zinc**	**27**	5.0	ug/L	1	09/21/18	B8I1222	200.8	

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FAX: (517) 335-9600

Client ID: QMCP-GW45 5-9

Lab ID: 1809102-14

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									**See note Y17**
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
540-84-1	2,2,4-Trimethylpentane	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	09/14/18	B8I1403	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	

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TEL: (517) 335-9800
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Client ID: QMCP-GW45 5-9

Lab ID: 1809102-14

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									**See note Y17**
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	09/14/18	B8I1403	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	09/14/18	B8I1403	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
Surrogate: Bromofluorobenzene			*102 %*	*85-115*		*09/14/18*	B8I1403	*8260*	
Surrogate: Dibromofluoromethane			*97.7 %*	*82.7-115*		*09/14/18*	B8I1403	*8260*	
Surrogate: Toluene-d8			*98.5 %*	*85-115*		*09/14/18*	B8I1403	*8260*	

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TEL: (517) 335-9800
FAX: (517) 335-9600

Client ID: QMCP-GW45 5-9

Lab ID: 1809102-14

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y17**
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	09/24/18	B8I1305	8270	
83-32-9	**Acenaphthene**	**1.4**	1.0	ug/L	1	09/24/18	B8I1305	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	09/24/18	B8I1305	8270	
120-12-7	**Anthracene**	**1.4**	1.0	ug/L	1	09/24/18	B8I1305	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	09/24/18	B8I1305	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	09/24/18	B8I1305	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	09/24/18	B8I1305	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	09/24/18	B8I1305	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	09/24/18	B8I1305	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	09/24/18	B8I1305	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	09/24/18	B8I1305	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	09/24/18	B8I1305	8270	
86-73-7	**Fluorene**	**2.0**	1.0	ug/L	1	09/24/18	B8I1305	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	09/24/18	B8I1305	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	09/24/18	B8I1305	8270	
85-01-8	**Phenanthrene**	**5.2**	1.0	ug/L	1	09/24/18	B8I1305	8270	
129-00-0	**Pyrene**	**4.4**	1.0	ug/L	1	09/24/18	B8I1305	8270	
Surrogate: 2-Fluorobiphenyl			*60.4 %*	*24.1-115*		*09/24/18*	B8I1305	*8270*	
Surrogate: Nitrobenzene-d5			*35.4 %*	*17.8-115*		*09/24/18*	B8I1305	*8270*	
Surrogate: p-Terphenyl-d14			*70.4 %*	*41.8-115*		*09/24/18*	B8I1305	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	0.10	ug/L	1	10/16/18	B8I2021	8081/8082	
11104-28-2	Aroclor 1221	ND	0.10	ug/L	1	10/16/18	B8I2021	8081/8082	
11141-16-5	Aroclor 1232	ND	0.10	ug/L	1	10/16/18	B8I2021	8081/8082	
53469-21-9	Aroclor 1242	ND	0.10	ug/L	1	10/16/18	B8I2021	8081/8082	
12672-29-6	Aroclor 1248	ND	0.10	ug/L	1	10/16/18	B8I2021	8081/8082	
11097-69-1	Aroclor 1254	ND	0.10	ug/L	1	10/16/18	B8I2021	8081/8082	
11096-82-5	Aroclor 1260	ND	0.10	ug/L	1	10/16/18	B8I2021	8081/8082	
37324-23-5	Aroclor 1262	ND	0.10	ug/L	1	10/16/18	B8I2021	8081/8082	
11100-14-4	Aroclor 1268	ND	0.10	ug/L	1	10/16/18	B8I2021	8081/8082	
Surrogate: Decachlorobiphenyl			*93.3 %*	*30-150*		*10/16/18*	B8I2021	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*81.6 %*	*30-150*		*10/16/18*	B8I2021	*8081/8082*	

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Client ID: QMCP-GW45 5-9

Lab ID: 1809102-14

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-Metals									
7440-38-2	**Arsenic**	**9.9**	1.0	ug/L	1	09/21/18	B8I1222	200.8	
7440-43-9	**Cadmium**	**0.5**	0.2	ug/L	1	09/21/18	B8I1222	200.8	
7440-47-3	**Chromium**	**22**	1.0	ug/L	1	09/21/18	B8I1222	200.8	
7440-50-8	**Copper**	**2400**	1.0	ug/L	1	09/21/18	B8I1222	200.8	
7439-92-1	**Lead**	**7.0**	1.0	ug/L	1	09/21/18	B8I1222	200.8	
7439-96-5	**Manganese**	**490**	5.0	ug/L	1	09/21/18	B8I1222	200.8	
7439-97-6	**Mercury**	**0.4**	0.2	ug/L	1	09/18/18	B8I1705	245.1	
7440-22-4	**Silver**	**1.7**	0.2	ug/L	1	09/21/18	B8I1222	200.8	
7440-66-6	**Zinc**	**18**	5.0	ug/L	1	09/21/18	B8I1222	200.8	

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Client ID: QMCP-GW44 4-8'

Lab ID: 1809102-15

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	09/14/18	B8I1403	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
540-84-1	2,2,4-Trimethylpentane	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	09/14/18	B8I1403	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	

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Client ID: QMCP-GW44 4-8'

Lab ID: 1809102-15

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	09/14/18	B8I1403	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	09/14/18	B8I1403	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
Surrogate: Bromofluorobenzene			*103 %*	*85-115*		*09/14/18*	B8I1403	*8260*	
Surrogate: Dibromofluoromethane			*96.8 %*	*82.7-115*		*09/14/18*	B8I1403	*8260*	
Surrogate: Toluene-d8			*97.8 %*	*85-115*		*09/14/18*	B8I1403	*8260*	

STATE OF MICHIGAN
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ENVIRONMENTAL LABORATORY

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

Client ID: QMCP-GW44 4-8'
Lab ID: 1809102-15

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y17**
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	09/24/18	B8I1305	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	09/24/18	B8I1305	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	09/24/18	B8I1305	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	09/24/18	B8I1305	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	09/24/18	B8I1305	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	09/24/18	B8I1305	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	09/24/18	B8I1305	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	09/24/18	B8I1305	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	09/24/18	B8I1305	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	09/24/18	B8I1305	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	09/24/18	B8I1305	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	09/24/18	B8I1305	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	09/24/18	B8I1305	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	09/24/18	B8I1305	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	09/24/18	B8I1305	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	09/24/18	B8I1305	8270	
129-00-0	**Pyrene**	**1.2**	1.0	ug/L	1	09/24/18	B8I1305	8270	
Surrogate: 2-Fluorobiphenyl			*56.5 %*	*24.1-115*		*09/24/18*	B8I1305	*8270*	
Surrogate: Nitrobenzene-d5			*53.3 %*	*17.8-115*		*09/24/18*	B8I1305	*8270*	
Surrogate: p-Terphenyl-d14			*85.1 %*	*41.8-115*		*09/24/18*	B8I1305	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	0.10	ug/L	1	10/16/18	B8I2021	8081/8082	A01
11104-28-2	Aroclor 1221	ND	0.10	ug/L	1	10/16/18	B8I2021	8081/8082	A01
11141-16-5	Aroclor 1232	ND	0.10	ug/L	1	10/16/18	B8I2021	8081/8082	A01
53469-21-9	Aroclor 1242	ND	0.10	ug/L	1	10/16/18	B8I2021	8081/8082	A01
12672-29-6	Aroclor 1248	ND	0.10	ug/L	1	10/16/18	B8I2021	8081/8082	A01
11097-69-1	Aroclor 1254	ND	0.10	ug/L	1	10/16/18	B8I2021	8081/8082	A01
11096-82-5	Aroclor 1260	ND	0.10	ug/L	1	10/16/18	B8I2021	8081/8082	A01
37324-23-5	Aroclor 1262	ND	0.10	ug/L	1	10/16/18	B8I2021	8081/8082	A01
11100-14-4	Aroclor 1268	ND	0.10	ug/L	1	10/16/18	B8I2021	8081/8082	A01
Surrogate: Decachlorobiphenyl			*27.4 %*	*30-150*		*10/16/18*	B8I2021	*8081/8082*	*A01*
Surrogate: Tetrachloro-m-xylene			*13.3 %*	*30-150*		*10/16/18*	B8I2021	*8081/8082*	*A01*

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Client ID: QMCP-GW44 4-8'

Lab ID: 1809102-15

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-Metals									
7440-38-2	**Arsenic**	**4.4**	1.0	ug/L	1	09/21/18	B8I1222	200.8	
7440-43-9	**Cadmium**	**0.3**	0.2	ug/L	1	09/21/18	B8I1222	200.8	
7440-47-3	**Chromium**	**9.3**	1.0	ug/L	1	09/21/18	B8I1222	200.8	
7440-50-8	**Copper**	**250**	1.0	ug/L	1	09/21/18	B8I1222	200.8	
7439-92-1	**Lead**	**3.0**	1.0	ug/L	1	09/21/18	B8I1222	200.8	
7439-96-5	**Manganese**	**650**	5.0	ug/L	1	09/21/18	B8I1222	200.8	
7439-97-6	Mercury	ND	0.2	ug/L	1	09/18/18	B8I1705	245.1	
7440-22-4	**Silver**	**0.3**	0.2	ug/L	1	09/21/18	B8I1222	200.8	
7440-66-6	**Zinc**	**7.6**	5.0	ug/L	1	09/21/18	B8I1222	200.8	

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TEL: (517) 335-9800
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Client ID: QMCP-GW42 12-16

Lab ID: 1809102-16

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	09/14/18	B8I1403	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
540-84-1	2,2,4-Trimethylpentane	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	09/14/18	B8I1403	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	

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Client ID: QMCP-GW42 12-16

Lab ID: 1809102-16

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	09/14/18	B8I1403	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	09/14/18	B8I1403	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	09/14/18	B8I1403	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	09/14/18	B8I1403	8260	
Surrogate: Bromofluorobenzene			*105 %*	*85-115*		*09/14/18*	B8I1403	*8260*	
Surrogate: Dibromofluoromethane			*91.0 %*	*82.7-115*		*09/14/18*	B8I1403	*8260*	
Surrogate: Toluene-d8			*97.6 %*	*85-115*		*09/14/18*	B8I1403	*8260*	

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Client ID: QMCP-GW42 12-16

Lab ID: 1809102-16

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note A01**
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	ug/L	1	09/17/18	B8I1306	8270	
95-95-4	2,4,5-Trichlorophenol	ND	5.0	ug/L	1	09/17/18	B8I1306	8270	
88-06-2	2,4,6-Trichlorophenol	ND	4.0	ug/L	1	09/17/18	B8I1306	8270	
120-83-2	2,4-Dichlorophenol	ND	10	ug/L	1	09/17/18	B8I1306	8270	
105-67-9	2,4-Dimethylphenol	ND	5.0	ug/L	1	09/17/18	B8I1306	8270	
51-28-5	2,4-Dinitrophenol	ND	25	ug/L	1	09/17/18	B8I1306	8270	
121-14-2	2,4-Dinitrotoluene	ND	5.0	ug/L	1	09/17/18	B8I1306	8270	
606-20-2	2,6-Dinitrotoluene	ND	5.0	ug/L	1	09/17/18	B8I1306	8270	
95-51-2	2-Chloroaniline	ND	5.0	ug/L	1	09/17/18	B8I1306	8270	
91-58-7	2-Chloronaphthalene	ND	2.0	ug/L	1	09/17/18	B8I1306	8270	
95-57-8	2-Chlorophenol	ND	10	ug/L	1	09/17/18	B8I1306	8270	
534-52-1	2-Methyl-4,6-dinitrophenol	ND	20	ug/L	1	09/17/18	B8I1306	8270	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	09/17/18	B8I1306	8270	
95-48-7	2-Methylphenol (o-Cresol)	ND	10	ug/L	1	09/17/18	B8I1306	8270	
88-74-4	2-Nitroaniline	ND	20	ug/L	1	09/17/18	B8I1306	8270	
88-75-5	2-Nitrophenol	ND	5.0	ug/L	1	09/17/18	B8I1306	8270	
108394,106445	3 & 4-Methylphenol	ND	20	ug/L	1	09/17/18	B8I1306	8270	
99-09-2	3-Nitroaniline	ND	20	ug/L	1	09/17/18	B8I1306	8270	
101-55-3	4-Bromophenyl phenyl ether	ND	2.0	ug/L	1	09/17/18	B8I1306	8270	
59-50-7	4-Chloro-3-methyl-phenol	ND	5.0	ug/L	1	09/17/18	B8I1306	8270	
106-47-8	4-Chloroaniline	ND	10	ug/L	1	09/17/18	B8I1306	8270	
7005-72-3	4-Chlorodiphenylether	ND	1.0	ug/L	1	09/17/18	B8I1306	8270	
100-01-6	4-Nitroaniline	ND	20	ug/L	1	09/17/18	B8I1306	8270	
100-02-7	4-Nitrophenol	ND	25	ug/L	1	09/17/18	B8I1306	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	09/17/18	B8I1306	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	09/17/18	B8I1306	8270	
62-53-3	Aniline	ND	4.0	ug/L	1	09/17/18	B8I1306	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	09/17/18	B8I1306	8270	
103-33-3	Azobenzene	ND	2.0	ug/L	1	09/17/18	B8I1306	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	09/17/18	B8I1306	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	09/17/18	B8I1306	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	09/17/18	B8I1306	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	09/17/18	B8I1306	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	09/17/18	B8I1306	8270	
100-51-6	Benzyl Alcohol	ND	50	ug/L	1	09/17/18	B8I1306	8270	
111-91-1	Bis(2-chloroethoxy)methane	ND	2.0	ug/L	1	09/17/18	B8I1306	8270	
111-44-4	Bis(2-chloroethyl)ether	ND	1.0	ug/L	1	09/17/18	B8I1306	8270	
108-60-1	Bis(2-chloroisopropyl)ether	ND	1.0	ug/L	1	09/17/18	B8I1306	8270	
117-81-7	Bis(2-ethylhexyl)phthalate	ND	5.0	ug/L	1	09/17/18	B8I1306	8270	
85-68-7	Butyl benzyl phthalate	ND	5.0	ug/L	1	09/17/18	B8I1306	8270	

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Client ID: QMCP-GW42 12-16

Lab ID: 1809102-16

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note A01**
86-74-8	Carbazole	ND	5.0	ug/L	1	09/17/18	B8I1306	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	09/17/18	B8I1306	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	09/17/18	B8I1306	8270	
132-64-9	Dibenzofuran	ND	4.0	ug/L	1	09/17/18	B8I1306	8270	
84-66-2	Diethylphthalate	ND	5.0	ug/L	1	09/17/18	B8I1306	8270	
131-11-3	Dimethyl phthalate	ND	5.0	ug/L	1	09/17/18	B8I1306	8270	
84-74-2	Di-n-butyl phthalate	ND	5.0	ug/L	1	09/17/18	B8I1306	8270	
117-84-0	Di-n-octyl phthalate	ND	5.0	ug/L	1	09/17/18	B8I1306	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	09/17/18	B8I1306	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	09/17/18	B8I1306	8270	
118-74-1	Hexachlorobenzene	ND	1.0	ug/L	1	09/17/18	B8I1306	8270	
87-68-3	Hexachlorobutadiene	ND	1.0	ug/L	1	09/17/18	B8I1306	8270	
77-47-4	Hexachlorocyclopentadiene	ND	10	ug/L	1	09/17/18	B8I1306	8270	
67-72-1	Hexachloroethane	ND	1.0	ug/L	1	09/17/18	B8I1306	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	09/17/18	B8I1306	8270	
78-59-1	Isophorone	ND	1.0	ug/L	1	09/17/18	B8I1306	8270	
121-69-7	N,N-dimethylaniline	ND	5.0	ug/L	1	09/17/18	B8I1306	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	09/17/18	B8I1306	8270	
98-95-3	Nitrobenzene	ND	2.0	ug/L	1	09/17/18	B8I1306	8270	
100-61-8	N-methylaniline	ND	1.0	ug/L	1	09/17/18	B8I1306	8270	
67-75-9	N-Nitrosodimethylamine	ND	5.0	ug/L	1	09/17/18	B8I1306	8270	
621-64-7	N-Nitrosodi-n-propylamine	ND	2.0	ug/L	1	09/17/18	B8I1306	8270	
86-30-6	N-Nitrosodiphenylamine	ND	2.0	ug/L	1	09/17/18	B8I1306	8270	
87-86-5	Pentachlorophenol	ND	20	ug/L	1	09/17/18	B8I1306	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	09/17/18	B8I1306	8270	
108-95-2	Phenol	ND	5.0	ug/L	1	09/17/18	B8I1306	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	09/17/18	B8I1306	8270	
110-86-1	Pyridine	ND	20	ug/L	1	09/17/18	B8I1306	8270	
632-22-4	Tetramethylurea	ND	1.0	ug/L	1	09/17/18	B8I1306	8270	
Surrogate: 2,4,6-Tribromophenol			*24.3 %*	*33.8-115*		*09/17/18*	B8I1306	*8270*	
Surrogate: 2-Fluorobiphenyl			*58.5 %*	*24.1-115*		*09/17/18*	B8I1306	*8270*	
Surrogate: 2-Fluorophenol			*13.7 %*	*10-115*		*09/17/18*	B8I1306	*8270*	
Surrogate: Nitrobenzene-d5			*54.3 %*	*17.8-115*		*09/17/18*	B8I1306	*8270*	
Surrogate: Phenol-d6			*9.56 %*	*10-115*		*09/17/18*	B8I1306	*8270*	
Surrogate: p-Terphenyl-d14			*68.5 %*	*41.8-115*		*09/17/18*	B8I1306	*8270*	

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ENVIRONMENTAL LABORATORY

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Client ID: QMCP-GW42 12-16

Lab ID: 1809102-16

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	0.10	ug/L	1	09/26/18	B8I2021	8081/8082	
11104-28-2	Aroclor 1221	ND	0.10	ug/L	1	09/26/18	B8I2021	8081/8082	
11141-16-5	Aroclor 1232	ND	0.10	ug/L	1	09/26/18	B8I2021	8081/8082	
53469-21-9	Aroclor 1242	ND	0.10	ug/L	1	09/26/18	B8I2021	8081/8082	
12672-29-6	Aroclor 1248	ND	0.10	ug/L	1	09/26/18	B8I2021	8081/8082	
11097-69-1	Aroclor 1254	ND	0.10	ug/L	1	09/26/18	B8I2021	8081/8082	
11096-82-5	Aroclor 1260	ND	0.10	ug/L	1	09/26/18	B8I2021	8081/8082	
37324-23-5	Aroclor 1262	ND	0.10	ug/L	1	09/26/18	B8I2021	8081/8082	
11100-14-4	Aroclor 1268	ND	0.10	ug/L	1	09/26/18	B8I2021	8081/8082	
Surrogate: Decachlorobiphenyl			*59.0 %*	*30-150*		*09/26/18*	B8I2021	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*49.7 %*	*30-150*		*09/26/18*	B8I2021	*8081/8082*	
Inorganics-Metals									
7440-38-2	**Arsenic**	**2.7**	1.0	ug/L	1	09/21/18	B8I1222	200.8	
7440-43-9	Cadmium	ND	0.2	ug/L	1	09/21/18	B8I1222	200.8	
7440-47-3	**Chromium**	**4.1**	1.0	ug/L	1	09/21/18	B8I1222	200.8	
7440-50-8	**Copper**	**39**	1.0	ug/L	1	09/21/18	B8I1222	200.8	
7439-92-1	Lead	ND	1.0	ug/L	1	09/21/18	B8I1222	200.8	
7439-96-5	**Manganese**	**200**	5.0	ug/L	1	09/21/18	B8I1222	200.8	
7439-97-6	Mercury	ND	0.2	ug/L	1	09/18/18	B8I1705	245.1	
7440-22-4	Silver	ND	0.2	ug/L	1	09/21/18	B8I1222	200.8	
7440-66-6	Zinc	ND	5.0	ug/L	1	09/21/18	B8I1222	200.8	

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Client ID: QMCP-GW41 9-13

Lab ID: 1809102-17

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	09/15/18	B8I1403	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	09/15/18	B8I1403	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	09/15/18	B8I1403	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	09/15/18	B8I1403	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	09/15/18	B8I1403	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	09/15/18	B8I1403	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	09/15/18	B8I1403	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	09/15/18	B8I1403	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	09/15/18	B8I1403	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	09/15/18	B8I1403	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	09/15/18	B8I1403	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	09/15/18	B8I1403	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	09/15/18	B8I1403	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	09/15/18	B8I1403	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	09/15/18	B8I1403	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	09/15/18	B8I1403	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	09/15/18	B8I1403	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	09/15/18	B8I1403	8260	
540-84-1	2,2,4-Trimethylpentane	ND	5.0	ug/L	1	09/15/18	B8I1403	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	09/15/18	B8I1403	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	09/15/18	B8I1403	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	09/15/18	B8I1403	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	09/15/18	B8I1403	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	09/15/18	B8I1403	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	09/15/18	B8I1403	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	09/15/18	B8I1403	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	09/15/18	B8I1403	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	09/15/18	B8I1403	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	09/15/18	B8I1403	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	09/15/18	B8I1403	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	09/15/18	B8I1403	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	09/15/18	B8I1403	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	09/15/18	B8I1403	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	09/15/18	B8I1403	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	09/15/18	B8I1403	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/15/18	B8I1403	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/15/18	B8I1403	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	09/15/18	B8I1403	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	09/15/18	B8I1403	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	09/15/18	B8I1403	8260	

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Client ID: QMCP-GW41 9-13

Lab ID: 1809102-17

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	09/15/18	B8I1403	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	09/15/18	B8I1403	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	09/15/18	B8I1403	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	09/15/18	B8I1403	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	09/15/18	B8I1403	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	09/15/18	B8I1403	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	09/15/18	B8I1403	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	09/15/18	B8I1403	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	09/15/18	B8I1403	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	09/15/18	B8I1403	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	09/15/18	B8I1403	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	09/15/18	B8I1403	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	09/15/18	B8I1403	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	09/15/18	B8I1403	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	09/15/18	B8I1403	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	09/15/18	B8I1403	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	09/15/18	B8I1403	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	09/15/18	B8I1403	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	09/15/18	B8I1403	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	09/15/18	B8I1403	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	09/15/18	B8I1403	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	09/15/18	B8I1403	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	09/15/18	B8I1403	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/15/18	B8I1403	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/15/18	B8I1403	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	09/15/18	B8I1403	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	09/15/18	B8I1403	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	09/15/18	B8I1403	8260	
Surrogate: Bromofluorobenzene			*103 %*	*85-115*		*09/15/18*	B8I1403	*8260*	
Surrogate: Dibromofluoromethane			*93.1 %*	*82.7-115*		*09/15/18*	B8I1403	*8260*	
Surrogate: Toluene-d8			*99.9 %*	*85-115*		*09/15/18*	B8I1403	*8260*	

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Client ID: QMCP-GW41 9-13

Lab ID: 1809102-17

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	09/24/18	B8I1305	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	09/24/18	B8I1305	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	09/24/18	B8I1305	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	09/24/18	B8I1305	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	09/24/18	B8I1305	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	09/24/18	B8I1305	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	09/24/18	B8I1305	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	09/24/18	B8I1305	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	09/24/18	B8I1305	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	09/24/18	B8I1305	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	09/24/18	B8I1305	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	09/24/18	B8I1305	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	09/24/18	B8I1305	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	09/24/18	B8I1305	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	09/24/18	B8I1305	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	09/24/18	B8I1305	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	09/24/18	B8I1305	8270	
Surrogate: 2-Fluorobiphenyl			*56.2 %*	*24.1-115*		*09/24/18*	B8I1305	*8270*	
Surrogate: Nitrobenzene-d5			*46.8 %*	*17.8-115*		*09/24/18*	B8I1305	*8270*	
Surrogate: p-Terphenyl-d14			*84.6 %*	*41.8-115*		*09/24/18*	B8I1305	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	0.10	ug/L	1	09/26/18	B8I2021	8081/8082	
11104-28-2	Aroclor 1221	ND	0.10	ug/L	1	09/26/18	B8I2021	8081/8082	
11141-16-5	Aroclor 1232	ND	0.10	ug/L	1	09/26/18	B8I2021	8081/8082	
53469-21-9	Aroclor 1242	ND	0.10	ug/L	1	09/26/18	B8I2021	8081/8082	
12672-29-6	Aroclor 1248	ND	0.10	ug/L	1	09/26/18	B8I2021	8081/8082	
11097-69-1	Aroclor 1254	ND	0.10	ug/L	1	09/26/18	B8I2021	8081/8082	
11096-82-5	Aroclor 1260	ND	0.10	ug/L	1	09/26/18	B8I2021	8081/8082	
37324-23-5	Aroclor 1262	ND	0.10	ug/L	1	09/26/18	B8I2021	8081/8082	
11100-14-4	Aroclor 1268	ND	0.10	ug/L	1	09/26/18	B8I2021	8081/8082	
Surrogate: Decachlorobiphenyl			*68.7 %*	*30-150*		*09/26/18*	B8I2021	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*52.8 %*	*30-150*		*09/26/18*	B8I2021	*8081/8082*	

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Client ID: QMCP-GW41 9-13

Lab ID: 1809102-17

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-Metals									
7440-38-2	**Arsenic**	**8.8**	1.0	ug/L	1	09/21/18	B8I1222	200.8	
7440-43-9	Cadmium	ND	0.2	ug/L	1	09/21/18	B8I1222	200.8	
7440-47-3	**Chromium**	**7.3**	1.0	ug/L	1	09/21/18	B8I1222	200.8	
7440-50-8	**Copper**	**46**	1.0	ug/L	1	09/21/18	B8I1222	200.8	
7439-92-1	**Lead**	**1.4**	1.0	ug/L	1	09/21/18	B8I1222	200.8	
7439-96-5	**Manganese**	**400**	5.0	ug/L	1	09/21/18	B8I1222	200.8	
7439-97-6	Mercury	ND	0.2	ug/L	1	09/18/18	B8I1705	245.1	
7440-22-4	**Silver**	**0.4**	0.2	ug/L	1	09/21/18	B8I1222	200.8	
7440-66-6	**Zinc**	**8.4**	5.0	ug/L	1	09/21/18	B8I1222	200.8	

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Client ID: QMCP-GW40 12-16

Lab ID: 1809102-18

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	09/15/18	B8I1403	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	09/15/18	B8I1403	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	09/15/18	B8I1403	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	09/15/18	B8I1403	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	09/15/18	B8I1403	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	09/15/18	B8I1403	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	09/15/18	B8I1403	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	09/15/18	B8I1403	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	09/15/18	B8I1403	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	09/15/18	B8I1403	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	09/15/18	B8I1403	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	09/15/18	B8I1403	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	09/15/18	B8I1403	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	09/15/18	B8I1403	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	09/15/18	B8I1403	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	09/15/18	B8I1403	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	09/15/18	B8I1403	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	09/15/18	B8I1403	8260	
540-84-1	2,2,4-Trimethylpentane	ND	5.0	ug/L	1	09/15/18	B8I1403	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	09/15/18	B8I1403	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	09/15/18	B8I1403	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	09/15/18	B8I1403	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	09/15/18	B8I1403	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	09/15/18	B8I1403	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	09/15/18	B8I1403	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	09/15/18	B8I1403	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	09/15/18	B8I1403	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	09/15/18	B8I1403	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	09/15/18	B8I1403	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	09/15/18	B8I1403	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	09/15/18	B8I1403	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	09/15/18	B8I1403	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	09/15/18	B8I1403	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	09/15/18	B8I1403	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	09/15/18	B8I1403	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/15/18	B8I1403	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/15/18	B8I1403	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	09/15/18	B8I1403	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	09/15/18	B8I1403	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	09/15/18	B8I1403	8260	

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

Client ID: QMCP-GW40 12-16

Lab ID: 1809102-18

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	09/15/18	B8I1403	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	09/15/18	B8I1403	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	09/15/18	B8I1403	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	09/15/18	B8I1403	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	09/15/18	B8I1403	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	09/15/18	B8I1403	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	09/15/18	B8I1403	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	09/15/18	B8I1403	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	09/15/18	B8I1403	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	09/15/18	B8I1403	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	09/15/18	B8I1403	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	09/15/18	B8I1403	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	09/15/18	B8I1403	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	09/15/18	B8I1403	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	09/15/18	B8I1403	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	09/15/18	B8I1403	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	09/15/18	B8I1403	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	09/15/18	B8I1403	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	09/15/18	B8I1403	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	09/15/18	B8I1403	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	09/15/18	B8I1403	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	09/15/18	B8I1403	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	09/15/18	B8I1403	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/15/18	B8I1403	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/15/18	B8I1403	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	09/15/18	B8I1403	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	09/15/18	B8I1403	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	09/15/18	B8I1403	8260	
Surrogate: Bromofluorobenzene			*104 %*	*85-115*		*09/15/18*	B8I1403	*8260*	
Surrogate: Dibromofluoromethane			*92.3 %*	*82.7-115*		*09/15/18*	B8I1403	*8260*	
Surrogate: Toluene-d8			*105 %*	*85-115*		*09/15/18*	B8I1403	*8260*	

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Client ID: QMCP-GW40 12-16

Lab ID: 1809102-18

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	09/24/18	B8I1305	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	09/24/18	B8I1305	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	09/24/18	B8I1305	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	09/24/18	B8I1305	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	09/24/18	B8I1305	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	09/24/18	B8I1305	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	09/24/18	B8I1305	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	09/24/18	B8I1305	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	09/24/18	B8I1305	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	09/24/18	B8I1305	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	09/24/18	B8I1305	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	09/24/18	B8I1305	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	09/24/18	B8I1305	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	09/24/18	B8I1305	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	09/24/18	B8I1305	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	09/24/18	B8I1305	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	09/24/18	B8I1305	8270	
Surrogate: 2-Fluorobiphenyl			*47.1 %*	*24.1-115*		*09/24/18*	B8I1305	*8270*	
Surrogate: Nitrobenzene-d5			*36.4 %*	*17.8-115*		*09/24/18*	B8I1305	*8270*	
Surrogate: p-Terphenyl-d14			*82.7 %*	*41.8-115*		*09/24/18*	B8I1305	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	0.10	ug/L	1	09/26/18	B8I2021	8081/8082	
11104-28-2	Aroclor 1221	ND	0.10	ug/L	1	09/26/18	B8I2021	8081/8082	
11141-16-5	Aroclor 1232	ND	0.10	ug/L	1	09/26/18	B8I2021	8081/8082	
53469-21-9	Aroclor 1242	ND	0.10	ug/L	1	09/26/18	B8I2021	8081/8082	
12672-29-6	Aroclor 1248	ND	0.10	ug/L	1	09/26/18	B8I2021	8081/8082	
11097-69-1	Aroclor 1254	ND	0.10	ug/L	1	09/26/18	B8I2021	8081/8082	
11096-82-5	Aroclor 1260	ND	0.10	ug/L	1	09/26/18	B8I2021	8081/8082	
37324-23-5	Aroclor 1262	ND	0.10	ug/L	1	09/26/18	B8I2021	8081/8082	
11100-14-4	Aroclor 1268	ND	0.10	ug/L	1	09/26/18	B8I2021	8081/8082	
Surrogate: Decachlorobiphenyl			*46.7 %*	*30-150*		*09/26/18*	B8I2021	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*48.1 %*	*30-150*		*09/26/18*	B8I2021	*8081/8082*	

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TEL: (517) 335-9800
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Client ID: QMCP-GW40 12-16

Lab ID: 1809102-18

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-Metals									
7440-38-2	**Arsenic**	**14**	1.0	ug/L	1	09/21/18	B8I1222	200.8	
7440-43-9	**Cadmium**	**0.4**	0.2	ug/L	1	09/21/18	B8I1222	200.8	
7440-47-3	**Chromium**	**120**	1.0	ug/L	1	09/21/18	B8I1222	200.8	
7440-50-8	**Copper**	**4200**	1.0	ug/L	1	09/21/18	B8I1222	200.8	
7439-92-1	**Lead**	**9.0**	1.0	ug/L	1	09/21/18	B8I1222	200.8	
7439-96-5	**Manganese**	**970**	5.0	ug/L	1	09/21/18	B8I1222	200.8	
7439-97-6	Mercury	ND	0.2	ug/L	1	09/18/18	B8I1706	245.1	
7440-22-4	**Silver**	**0.7**	0.2	ug/L	1	09/21/18	B8I1222	200.8	
7440-66-6	**Zinc**	**160**	5.0	ug/L	1	09/21/18	B8I1222	200.8	

Michigan Department of Environmental Quality
Laboratory Services Section

Analysis Request Sheet

65

Lab Work Order Number	Project Name	Matrix
1809162	Abandoned Mining Wastes- QMCP	ground WATER

Site Code/Project Number: 31000098	AY: 17	CC Email 1: jbinkley@manniksmithgroup.com	Project TAT Days:	Sample Collector:
Dept·Division·District: DEQ RRD UP District- Calumet	Index: 7000	CC Email 2:	Project Due Date:	Sample Collector Phone:
State Project Manager: Amy Keranen	PCA: 42050/1533	CC Email 3:		Contract Firm: Mannik & Smith Group
State Project Manager Email: keranena@michigan.gov	location: 6996	Overflow Lab Choice 1:	Accept Analysis hold time codes: No	Contract Firm Primary Contact: Jeff Binkley
State Project Manager Phone: 906-3370-0389	sub location: 6010	Overflow Lab Choice 2:		Primary Contact Phone: 906-281-3404

	Lab Use Only	Field Sample Identification	Collection Date	Collection Time	Container Count	Comments
1	01	QMCP-GW 32 5-9	9-9-18	8:00		COOLER 9
2	02	QMCP-GW 33 5-9		840		
3	03	QMCP-GW 36 5-9		905		
4	04	QMCP-GW 35 6-10		950		COOLER 9
5	05	QMCP-GW 35 6-10 DUP		950		COOLER 10
6	06	QMCP-GW 34 5-9		1020		
7	07	QMCP-GW 60 7-11		1320		
8	08	QMCP-GW 59 5-9	9-9-18	1345		COOLER 10
9	09	QMCP-GW 43 6-10	9-10-18	9:45		COOLER 11
10	10	QMCP-GW 49 5-9	9-10-18	1030		COOLER 11

ORGANIC CHEMISTRY

VOA - Volatile Organic Acidic	
Volatiles - Full List	1 2 3 4 5 6 7 8 9 10
BTEX/MTBE/TMB only	1 2 3 4 5 6 7 8 9 10
Chlorinated only	1 2 3 4 5 6 7 8 9 10
GRO	1 2 3 4 5 6 7 8 9 10
1,4 Dioxane	1 2 3 4 5 6 7 8 9 10
METH - Methane, Ethane, Ethene	
Methane, Ethane, Ethene	1 2 3 4 5 6 7 8 9 10
ON - Pesticides, PCBs	
Pesticides & PCBs	1 2 3 4 5 6 7 8 9 10
Pesticides only	1 2 3 4 5 6 7 8 9 10
PCBs only	1 2 3 4 5 6 7 8 9 10
Toxaphene	1 2 3 4 5 6 7 8 9 10
Chlordane	1 2 3 4 5 6 7 8 9 10
BNA - Base Neutral Acids	
BNAs	1 2 3 4 5 6 7 8 9 10
Benzidines	1 2 3 4 5 6 7 8 9 10
PNAs only	1 2 3 4 5 6 7 8 9 10
BNs only	1 2 3 4 5 6 7 8 9 10
Acids only	1 2 3 4 5 6 7 8 9 10
Organic Specialty Requests	
Library search - Volatiles	1 2 3 4 5 6 7 8 9 10
Library search - SemiVols	1 2 3 4 5 6 7 8 9 10
Finger Print	1 2 3 4 5 6 7 8 9 10
DRO / ORO	1 2 3 4 5 6 7 8 9 10

METALS CHEMISTRY PACKAGES

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

MAD - DISSOLVED METALS

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

MA - TOTAL METALS

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

GENERAL CHEMISTRY

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

Chain of Custody

	Relinquished by	Received By	Date / Time
Print Name & Org.	JEFF PINLUMAE MAEG	Melissa Smith	9/12/18 9:16
Signature:			
Print Name & Org.			
Signature:			
Print Name & Org.			
Signature:			

Michigan Department of Environmental Quality
Laboratory Services Section

Analysis Request Sheet

G 6

Lab Work Order Number	Project Name	Matrix
1809102	Abandoned Mining Wastes- QMCP	ground WATER

Site Code/Project Number: 31000098	AY: 17	CC Email 1: jbinkley@manniksmithgroup.com	Project TAT Days:	Sample Collector:
Dept-Division-District: DEQ RRD UP District- Calumet	Index: 7000	CC Email 2:	Project Due Date:	Sample Collector Phone:
State Project Manager: Amy Keranen	PCA: 42050/1533	CC Email 3:		Contract Firm: Mannik & Smith Group
State Project Manager Email: keranena@michigan.gov	location: 6996	Overflow Lab Choice 1:	Accept Analysis hold time codes: No	Contract Firm Primary Contact: Jeff Binkley
State Project Manager Phone: 906-3370-0389	sub location: 6010	Overflow Lab Choice 2:		Primary Contact Phone: 906-281-3404

	Lab Use Only	Field Sample Identification	Collection Date	Collection Time	Container Count	Comments
1	11	QMCP-GW 47 5-9	9-11-18	1055		COOLER 11
2	12	QMCP-GW ~~48~~ 52-6		1125		COOLER 12
3	13	QMCP-GW 46 4-8'		1200		
4	14	QMCP-GW 45 5-9		1335		
5	15	QMCP-GW 44 4-8'		1502		COOLER 12
6	16	QMCP-GW 42 12-16		1620		COOLER 13
7	17	QMCP-GW 41 9-13		1700		
8	18	QMCP-GW 40 12-16	9-11-18	1745		COOLER 13
9		QMCP-GW				COOLER 14
10		QMCP-GW				

ORGANIC CHEMISTRY

VOA - Volatile Organic Acidic	
Volatiles - Full List	1 2 3 4 5 6 7 8 9 10
BTEX/MTBE/TMB only	1 2 3 4 5 6 7 8 9 10
Chlorinated only	1 2 3 4 5 6 7 8 9 10
GRO	1 2 3 4 5 6 7 8 9 10
1,4 Dioxane	1 2 3 4 5 6 7 8 9 10
METH - Methane, Ethane, Ethene	
Methane, Ethane, Ethene	1 2 3 4 5 6 7 8 9 10
ON - Pesticides, PCBs	
Pesticides & PCBs	1 2 3 4 5 6 7 8 9 10
Pesticides only	1 2 3 4 5 6 7 8 9 10
PCBs only	1 2 3 4 5 6 7 8 9 10
Toxaphene	1 2 3 4 5 6 7 8 9 10
Chlordane	1 2 3 4 5 6 7 8 9 10
BNA - Base Neutral Acids	
BNAs	1 2 3 4 5 6 7 8 9 10
Benzidines	1 2 3 4 5 6 7 8 9 10
PNAs only	1 2 3 4 5 6 7 8 9 10
BNs only	1 2 3 4 5 6 7 8 9 10
Acids only	1 2 3 4 5 6 7 8 9 10
Organic Specialty Requests	
Library search - Volatiles	1 2 3 4 5 6 7 8 9 10
Library search - SemiVols	1 2 3 4 5 6 7 8 9 10
Finger Print	1 2 3 4 5 6 7 8 9 10
DRO / ORO	1 2 3 4 5 6 7 8 9 10

METALS CHEMISTRY PACKAGES

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

MAD - DISSOLVED METALS

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

MA - TOTAL METALS

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

No BAR-1-1

GENERAL CHEMISTRY

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

Chain of Custody

	Relinquished by	Received By	Date / Time
	Print Name & Org.: JEFF PINCUMBE MAEG Signature: Jeff Pincumbe	Melissa Smith	9/12/18 916
	Print Name & Org.: Signature:		
	Print Name & Org.: Signature:		

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

16 October 2018

Work Order: 1809086

Price: $4,462.00

Amy Keranen
MDEQ-RRD-UP
1504 W. Washington St.
Marquette, MI 49855

RE: ABANDONED MINING WASTES-QMCP

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

Sincerely,

Kirby Shane
Laboratory Director

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

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MDEQ-RRD-UP	Project: ABANDONED MINING WASTES-QMCP	
1504 W. Washington St.	Site Code: 31000098	**Reported:**
Marquette MI, 49855	Project Manager: Amy Keranen	10/16/2018

Analytical Report for Samples

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Qualifier
QMCP-GW 10 6-10'	1809086-01	Water	09/07/2018	09/10/2018	
QMCP-GW 20 5-9'	1809086-02	Water	09/07/2018	09/10/2018	
QMCP-GW 61 5-9'	1809086-03	Water	09/07/2018	09/10/2018	
QMCP-GW 61 5-9' DUP	1809086-04	Water	09/07/2018	09/10/2018	
QMCP-GW 64 5-9'	1809086-05	Water	09/07/2018	09/10/2018	
QMCP-GW 17 5-9'	1809086-06	Water	09/07/2018	09/10/2018	
QMCP-GW 18 5-9'	1809086-07	Water	09/07/2018	09/10/2018	
QMCP-GW 21 4-8'	1809086-08	Water	09/07/2018	09/10/2018	
QMCP-GW 62 4-8'	1809086-09	Water	09/07/2018	09/10/2018	
QMCP-GW 63 4-8'	1809086-10	Water	09/07/2018	09/10/2018	

Notes and Definitions

Y17	Probable petroleum product(s) present.
Y11	Unidentified peaks present in sample.
X3	Spike recovery is not applicable due to large target analyte concentration in the source sample.
X	Methods 8260 & 624 are used to analyze volatile organics that have boiling points below 200 ºC. 2-Methylnaphthalene & naphthalene have boiling points above 200 ºC and are better suited to analysis by methods 8270 & 625 as semivolatile organics.
LRB	Laboratory reagent blank was greater than 2.2 times the MDL, or greater than 10% of the analyte level in the sample.
A11	Result is estimated due to high initial verification standard criteria failure.
A10	Result and reporting limit are estimated due to low initial verification standard criteria failure.
A09	Result is estimated due to high recovery of batch quality control.
A07	Result(s) and reporting limit(s) are estimated due to poor precision.
A06	Result is estimated due to high continuing calibration standard criteria failure.
A05	Result and reporting limit are estimated due to low continuing calibration standard criteria failure.
A04	Result is estimated due to high matrix spike recovery.
A03	Result(s) and reporting limit(s) are estimated due to low matrix spike recovery.
A01	Result(s) and reporting limit(s) are estimated due to low surrogate recovery.
ND	Indicates compound analyzed for but not detected
RL	Reporting Limit
NA	Not Applicable

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Lansing, MI 48909
TEL: (517) 335-9800
FAX: (517) 335-9600

Client ID: QMCP-GW 10 6-10'

Lab ID: 1809086-01

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	09/14/18	B8I1402	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
540-84-1	2,2,4-Trimethylpentane	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	09/14/18	B8I1402	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	

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TEL: (517) 335-9800
FAX: (517) 335-9600

Client ID: QMCP-GW 10 6-10'

Lab ID: 1809086-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	09/14/18	B8I1402	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	09/14/18	B8I1402	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
Surrogate: Bromofluorobenzene			*101 %*	*85-115*		*09/14/18*	B8I1402	*8260*	
Surrogate: Dibromofluoromethane			*94.3 %*	*82.7-115*		*09/14/18*	B8I1402	*8260*	
Surrogate: Toluene-d8			*101 %*	*85-115*		*09/14/18*	B8I1402	*8260*	

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TEL: (517) 335-9800
FAX: (517) 335-9600

Client ID: QMCP-GW 10 6-10'
Lab ID: 1809086-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	5.1	ug/L	1	09/18/18	B8I1126	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	09/18/18	B8I1126	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	09/18/18	B8I1126	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
Surrogate: 2-Fluorobiphenyl			*59.8 %*	*24.1-115*		*09/18/18*	B8I1126	*8270*	
Surrogate: Nitrobenzene-d5			*46.6 %*	*17.8-115*		*09/18/18*	B8I1126	*8270*	
Surrogate: p-Terphenyl-d14			*87.9 %*	*41.8-115*		*09/18/18*	B8I1126	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	0.10	ug/L	1	09/19/18	B8I1503	8081/8082	
11104-28-2	Aroclor 1221	ND	0.10	ug/L	1	09/19/18	B8I1503	8081/8082	
11141-16-5	Aroclor 1232	ND	0.10	ug/L	1	09/19/18	B8I1503	8081/8082	
53469-21-9	Aroclor 1242	ND	0.10	ug/L	1	09/19/18	B8I1503	8081/8082	
12672-29-6	Aroclor 1248	ND	0.10	ug/L	1	09/19/18	B8I1503	8081/8082	
11097-69-1	Aroclor 1254	ND	0.10	ug/L	1	09/19/18	B8I1503	8081/8082	
11096-82-5	Aroclor 1260	ND	0.10	ug/L	1	09/19/18	B8I1503	8081/8082	
37324-23-5	Aroclor 1262	ND	0.10	ug/L	1	09/19/18	B8I1503	8081/8082	
11100-14-4	Aroclor 1268	ND	0.10	ug/L	1	09/19/18	B8I1503	8081/8082	
Surrogate: Decachlorobiphenyl			*62.9 %*	*30-150*		*09/19/18*	B8I1503	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*72.5 %*	*30-150*		*09/19/18*	B8I1503	*8081/8082*	

STATE OF MICHIGAN
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ENVIRONMENTAL LABORATORY

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

Client ID: QMCP-GW 10 6-10'

Lab ID: 1809086-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-Metals									
7440-38-2	**Arsenic**	**5.1**	1.0	ug/L	1	09/21/18	B8I1109	200.8	
7440-43-9	Cadmium	ND	0.2	ug/L	1	09/20/18	B8I1109	200.8	
7440-47-3	**Chromium**	**68**	1.0	ug/L	1	09/20/18	B8I1109	200.8	
7440-50-8	**Copper**	**200**	1.0	ug/L	1	09/20/18	B8I1109	200.8	
7439-92-1	**Lead**	**5.3**	1.0	ug/L	1	09/20/18	B8I1109	200.8	
7439-96-5	**Manganese**	**770**	5.0	ug/L	1	09/20/18	B8I1109	200.8	
7439-97-6	Mercury	ND	0.2	ug/L	1	09/14/18	B8I1225	245.1	
7440-22-4	**Silver**	**0.3**	0.2	ug/L	1	09/20/18	B8I1109	200.8	
7440-66-6	**Zinc**	**43**	5.0	ug/L	1	09/20/18	B8I1109	200.8	

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TEL: (517) 335-9800
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Client ID: QMCP-GW 20 5-9'

Lab ID: 1809086-02

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	09/14/18	B8I1402	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
540-84-1	2,2,4-Trimethylpentane	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	09/14/18	B8I1402	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	

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TEL: (517) 335-9800
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Client ID: QMCP-GW 20 5-9'

Lab ID: 1809086-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	09/14/18	B8I1402	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	09/14/18	B8I1402	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
Surrogate: Bromofluorobenzene			*103 %*	*85-115*		*09/14/18*	B8I1402	*8260*	
Surrogate: Dibromofluoromethane			*97.2 %*	*82.7-115*		*09/14/18*	B8I1402	*8260*	
Surrogate: Toluene-d8			*97.3 %*	*85-115*		*09/14/18*	B8I1402	*8260*	

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ENVIRONMENTAL LABORATORY

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TEL: (517) 335-9800
FAX: (517) 335-9600

Client ID: QMCP-GW 20 5-9'

Lab ID: 1809086-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	09/17/18	B8I1126	8270	A07
83-32-9	Acenaphthene	ND	1.0	ug/L	1	09/17/18	B8I1126	8270	A07
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	09/17/18	B8I1126	8270	A07
120-12-7	Anthracene	ND	1.0	ug/L	1	09/17/18	B8I1126	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	09/17/18	B8I1126	8270	A07
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	09/17/18	B8I1126	8270	A07
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	09/17/18	B8I1126	8270	A07
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	09/17/18	B8I1126	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	09/17/18	B8I1126	8270	A07
218-01-9	Chrysene	ND	1.0	ug/L	1	09/17/18	B8I1126	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	09/17/18	B8I1126	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	09/17/18	B8I1126	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	09/17/18	B8I1126	8270	A07
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	09/17/18	B8I1126	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	09/17/18	B8I1126	8270	A03, A07
85-01-8	Phenanthrene	ND	1.0	ug/L	1	09/17/18	B8I1126	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	09/17/18	B8I1126	8270	
Surrogate: 2-Fluorobiphenyl			*62.8 %*	*24.1-115*		*09/17/18*	B8I1126	*8270*	
Surrogate: Nitrobenzene-d5			*51.1 %*	*17.8-115*		*09/17/18*	B8I1126	*8270*	
Surrogate: p-Terphenyl-d14			*84.0 %*	*41.8-115*		*09/17/18*	B8I1126	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	0.10	ug/L	1	09/19/18	B8I1503	8081/8082	
11104-28-2	Aroclor 1221	ND	0.10	ug/L	1	09/19/18	B8I1503	8081/8082	
11141-16-5	Aroclor 1232	ND	0.10	ug/L	1	09/19/18	B8I1503	8081/8082	
53469-21-9	Aroclor 1242	ND	0.10	ug/L	1	09/19/18	B8I1503	8081/8082	
12672-29-6	Aroclor 1248	ND	0.10	ug/L	1	09/19/18	B8I1503	8081/8082	
11097-69-1	Aroclor 1254	ND	0.10	ug/L	1	09/19/18	B8I1503	8081/8082	
11096-82-5	Aroclor 1260	ND	0.10	ug/L	1	09/19/18	B8I1503	8081/8082	
37324-23-5	Aroclor 1262	ND	0.10	ug/L	1	09/19/18	B8I1503	8081/8082	
11100-14-4	Aroclor 1268	ND	0.10	ug/L	1	09/19/18	B8I1503	8081/8082	
Surrogate: Decachlorobiphenyl			*49.8 %*	*30-150*		*09/19/18*	B8I1503	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*49.3 %*	*30-150*		*09/19/18*	B8I1503	*8081/8082*	

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Client ID: QMCP-GW 20 5-9'

Lab ID: 1809086-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-Metals									
7440-38-2	**Arsenic**	**2.0**	1.0	ug/L	1	09/21/18	B8I1109	200.8	
7440-43-9	**Cadmium**	**0.3**	0.2	ug/L	1	09/20/18	B8I1109	200.8	
7440-47-3	**Chromium**	**26**	1.0	ug/L	1	09/20/18	B8I1109	200.8	
7440-50-8	**Copper**	**17000**	1000	ug/L	1000	09/21/18	B8I1109	200.8	
7439-92-1	**Lead**	**9.3**	1.0	ug/L	1	09/20/18	B8I1109	200.8	
7439-96-5	**Manganese**	**1600**	5.0	ug/L	1	09/21/18	B8I1109	200.8	
7439-97-6	**Mercury**	**1.7**	0.2	ug/L	1	09/14/18	B8I1225	245.1	
7440-22-4	**Silver**	**19**	0.2	ug/L	1	09/20/18	B8I1109	200.8	
7440-66-6	**Zinc**	**94**	5.0	ug/L	1	09/20/18	B8I1109	200.8	

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Lansing, MI 48909
TEL: (517) 335-9800
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Client ID: QMCP-GW 61 5-9'

Lab ID: 1809086-03

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	09/14/18	B8I1402	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
540-84-1	2,2,4-Trimethylpentane	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	09/14/18	B8I1402	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	

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Client ID: QMCP-GW 61 5-9'

Lab ID: 1809086-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	09/14/18	B8I1402	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	09/14/18	B8I1402	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
Surrogate: Bromofluorobenzene			*103 %*	*85-115*		*09/14/18*	B8I1402	*8260*	
Surrogate: Dibromofluoromethane			*94.5 %*	*82.7-115*		*09/14/18*	B8I1402	*8260*	
Surrogate: Toluene-d8			*100 %*	*85-115*		*09/14/18*	B8I1402	*8260*	

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Client ID: QMCP-GW 61 5-9'

Lab ID: 1809086-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	09/18/18	B8I1126	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	09/18/18	B8I1126	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	09/18/18	B8I1126	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
Surrogate: 2-Fluorobiphenyl			*59.7 %*	*24.1-115*		*09/18/18*	B8I1126	*8270*	
Surrogate: Nitrobenzene-d5			*46.7 %*	*17.8-115*		*09/18/18*	B8I1126	*8270*	
Surrogate: p-Terphenyl-d14			*96.0 %*	*41.8-115*		*09/18/18*	B8I1126	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	0.10	ug/L	1	09/19/18	B8I1503	8081/8082	
11104-28-2	Aroclor 1221	ND	0.10	ug/L	1	09/19/18	B8I1503	8081/8082	
11141-16-5	Aroclor 1232	ND	0.10	ug/L	1	09/19/18	B8I1503	8081/8082	
53469-21-9	Aroclor 1242	ND	0.10	ug/L	1	09/19/18	B8I1503	8081/8082	
12672-29-6	Aroclor 1248	ND	0.10	ug/L	1	09/19/18	B8I1503	8081/8082	
11097-69-1	Aroclor 1254	ND	0.10	ug/L	1	09/19/18	B8I1503	8081/8082	
11096-82-5	Aroclor 1260	ND	0.10	ug/L	1	09/19/18	B8I1503	8081/8082	
37324-23-5	Aroclor 1262	ND	0.10	ug/L	1	09/19/18	B8I1503	8081/8082	
11100-14-4	Aroclor 1268	ND	0.10	ug/L	1	09/19/18	B8I1503	8081/8082	
Surrogate: Decachlorobiphenyl			*57.5 %*	*30-150*		*09/19/18*	B8I1503	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*48.5 %*	*30-150*		*09/19/18*	B8I1503	*8081/8082*	

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Lab ID: 1809086-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-Metals									
7440-38-2	Arsenic	ND	1.0	ug/L	1	09/20/18	B8I1109	200.8	
7440-43-9	Cadmium	ND	0.2	ug/L	1	09/20/18	B8I1109	200.8	
7440-47-3	**Chromium**	**1.3**	1.0	ug/L	1	09/20/18	B8I1109	200.8	
7440-50-8	**Copper**	**4200**	1.0	ug/L	1	09/20/18	B8I1109	200.8	
7439-92-1	Lead	ND	1.0	ug/L	1	09/20/18	B8I1109	200.8	
7439-96-5	**Manganese**	**450**	5.0	ug/L	1	09/20/18	B8I1109	200.8	
7439-97-6	**Mercury**	**0.4**	0.2	ug/L	1	09/14/18	B8I1225	245.1	
7440-22-4	**Silver**	**9.0**	0.2	ug/L	1	09/20/18	B8I1109	200.8	
7440-66-6	**Zinc**	**95**	5.0	ug/L	1	09/20/18	B8I1109	200.8	

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Client ID: QMCP-GW 61 5-9' DUP

Lab ID: 1809086-04

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	09/14/18	B8I1402	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
540-84-1	2,2,4-Trimethylpentane	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	09/14/18	B8I1402	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	

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Lab ID: 1809086-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	09/14/18	B8I1402	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	09/14/18	B8I1402	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
Surrogate: Bromofluorobenzene			*103 %*	*85-115*		*09/14/18*	B8I1402	*8260*	
Surrogate: Dibromofluoromethane			*90.6 %*	*82.7-115*		*09/14/18*	B8I1402	*8260*	
Surrogate: Toluene-d8			*98.3 %*	*85-115*		*09/14/18*	B8I1402	*8260*	

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Client ID: QMCP-GW 61 5-9' DUP

Lab ID: 1809086-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	5.1	ug/L	1	09/18/18	B8I1126	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	09/18/18	B8I1126	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	09/18/18	B8I1126	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
Surrogate: 2-Fluorobiphenyl			*67.0 %*	*24.1-115*		*09/18/18*	B8I1126	*8270*	
Surrogate: Nitrobenzene-d5			*46.4 %*	*17.8-115*		*09/18/18*	B8I1126	*8270*	
Surrogate: p-Terphenyl-d14			*94.6 %*	*41.8-115*		*09/18/18*	B8I1126	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	0.10	ug/L	1	09/19/18	B8I1503	8081/8082	
11104-28-2	Aroclor 1221	ND	0.10	ug/L	1	09/19/18	B8I1503	8081/8082	
11141-16-5	Aroclor 1232	ND	0.10	ug/L	1	09/19/18	B8I1503	8081/8082	
53469-21-9	Aroclor 1242	ND	0.10	ug/L	1	09/19/18	B8I1503	8081/8082	
12672-29-6	Aroclor 1248	ND	0.10	ug/L	1	09/19/18	B8I1503	8081/8082	
11097-69-1	Aroclor 1254	ND	0.10	ug/L	1	09/19/18	B8I1503	8081/8082	
11096-82-5	Aroclor 1260	ND	0.10	ug/L	1	09/19/18	B8I1503	8081/8082	
37324-23-5	Aroclor 1262	ND	0.10	ug/L	1	09/19/18	B8I1503	8081/8082	
11100-14-4	Aroclor 1268	ND	0.10	ug/L	1	09/19/18	B8I1503	8081/8082	
Surrogate: Decachlorobiphenyl			*67.2 %*	*30-150*		*09/19/18*	B8I1503	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*56.5 %*	*30-150*		*09/19/18*	B8I1503	*8081/8082*	

STATE OF MICHIGAN
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ENVIRONMENTAL LABORATORY

P.O. Box 30270
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TEL: (517) 335-9800
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Client ID: QMCP-GW 61 5-9' DUP

Lab ID: 1809086-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-Metals									
7440-38-2	Arsenic	ND	1.0	ug/L	1	09/20/18	B8I1109	200.8	
7440-43-9	Cadmium	ND	0.2	ug/L	1	09/20/18	B8I1109	200.8	
7440-47-3	**Chromium**	**1.8**	1.0	ug/L	1	09/20/18	B8I1109	200.8	
7440-50-8	**Copper**	**4200**	1.0	ug/L	1	09/20/18	B8I1109	200.8	
7439-92-1	Lead	ND	1.0	ug/L	1	09/20/18	B8I1109	200.8	
7439-96-5	**Manganese**	**460**	5.0	ug/L	1	09/20/18	B8I1109	200.8	
7439-97-6	**Mercury**	**0.3**	0.2	ug/L	1	09/14/18	B8I1225	245.1	
7440-22-4	**Silver**	**8.9**	0.2	ug/L	1	09/20/18	B8I1109	200.8	
7440-66-6	**Zinc**	**99**	5.0	ug/L	1	09/20/18	B8I1109	200.8	

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Client ID: QMCP-GW 64 5-9'

Lab ID: 1809086-05

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	09/14/18	B8I1402	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
540-84-1	2,2,4-Trimethylpentane	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	09/14/18	B8I1402	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	

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Client ID: QMCP-GW 64 5-9'

Lab ID: 1809086-05

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	09/14/18	B8I1402	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	09/14/18	B8I1402	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
Surrogate: Bromofluorobenzene			*107 %*	*85-115*		*09/14/18*	B8I1402	*8260*	
Surrogate: Dibromofluoromethane			*90.4 %*	*82.7-115*		*09/14/18*	B8I1402	*8260*	
Surrogate: Toluene-d8			*103 %*	*85-115*		*09/14/18*	B8I1402	*8260*	

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Client ID: QMCP-GW 64 5-9'

Lab ID: 1809086-05

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y17**
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	09/18/18	B8I1126	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	09/18/18	B8I1126	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	09/18/18	B8I1126	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
Surrogate: 2-Fluorobiphenyl			*87.7 %*	*24.1-115*		*09/18/18*	B8I1126	*8270*	
Surrogate: Nitrobenzene-d5			*59.8 %*	*17.8-115*		*09/18/18*	B8I1126	*8270*	
Surrogate: p-Terphenyl-d14			*93.6 %*	*41.8-115*		*09/18/18*	B8I1126	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	0.10	ug/L	1	09/19/18	B8I1503	8081/8082	
11104-28-2	Aroclor 1221	ND	0.10	ug/L	1	09/19/18	B8I1503	8081/8082	
11141-16-5	Aroclor 1232	ND	0.10	ug/L	1	09/19/18	B8I1503	8081/8082	
53469-21-9	Aroclor 1242	ND	0.10	ug/L	1	09/19/18	B8I1503	8081/8082	
12672-29-6	Aroclor 1248	ND	0.10	ug/L	1	09/19/18	B8I1503	8081/8082	
11097-69-1	Aroclor 1254	ND	0.10	ug/L	1	09/19/18	B8I1503	8081/8082	
11096-82-5	Aroclor 1260	ND	0.10	ug/L	1	09/19/18	B8I1503	8081/8082	
37324-23-5	Aroclor 1262	ND	0.10	ug/L	1	09/19/18	B8I1503	8081/8082	
11100-14-4	Aroclor 1268	ND	0.10	ug/L	1	09/19/18	B8I1503	8081/8082	
Surrogate: Decachlorobiphenyl			*70.5 %*	*30-150*		*09/19/18*	B8I1503	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*63.4 %*	*30-150*		*09/19/18*	B8I1503	*8081/8082*	

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Client ID: QMCP-GW 64 5-9'

Lab ID: 1809086-05

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-Metals									
7440-38-2	**Arsenic**	**1.8**	1.0	ug/L	1	09/21/18	B8I1109	200.8	
7440-43-9	Cadmium	ND	0.2	ug/L	1	09/20/18	B8I1109	200.8	
7440-47-3	**Chromium**	**13**	1.0	ug/L	1	09/20/18	B8I1109	200.8	
7440-50-8	**Copper**	**4900**	1.0	ug/L	1	09/20/18	B8I1109	200.8	
7439-92-1	**Lead**	**8.9**	1.0	ug/L	1	09/20/18	B8I1109	200.8	
7439-96-5	**Manganese**	**1400**	5.0	ug/L	1	09/21/18	B8I1109	200.8	
7439-97-6	**Mercury**	**1.0**	0.2	ug/L	1	09/14/18	B8I1225	245.1	
7440-22-4	**Silver**	**12**	0.2	ug/L	1	09/20/18	B8I1109	200.8	
7440-66-6	**Zinc**	**58**	5.0	ug/L	1	09/20/18	B8I1109	200.8	

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Client ID: QMCP-GW 17 5-9'

Lab ID: 1809086-06

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	09/14/18	B8I1402	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
540-84-1	2,2,4-Trimethylpentane	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	09/14/18	B8I1402	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	

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TEL: (517) 335-9800
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Client ID: QMCP-GW 17 5-9'

Lab ID: 1809086-06

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	09/14/18	B8I1402	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	09/14/18	B8I1402	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
Surrogate: Bromofluorobenzene			*104 %*	*85-115*		*09/14/18*	B8I1402	*8260*	
Surrogate: Dibromofluoromethane			*93.9 %*	*82.7-115*		*09/14/18*	B8I1402	*8260*	
Surrogate: Toluene-d8			*99.5 %*	*85-115*		*09/14/18*	B8I1402	*8260*	

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Client ID: QMCP-GW 17 5-9'

Lab ID: 1809086-06

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	5.1	ug/L	1	09/18/18	B8I1126	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	09/18/18	B8I1126	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	09/18/18	B8I1126	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
Surrogate: 2-Fluorobiphenyl			*61.7 %*	*24.1-115*		*09/18/18*	B8I1126	*8270*	
Surrogate: Nitrobenzene-d5			*42.8 %*	*17.8-115*		*09/18/18*	B8I1126	*8270*	
Surrogate: p-Terphenyl-d14			*76.6 %*	*41.8-115*		*09/18/18*	B8I1126	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	0.10	ug/L	1	09/19/18	B8I1503	8081/8082	
11104-28-2	Aroclor 1221	ND	0.10	ug/L	1	09/19/18	B8I1503	8081/8082	
11141-16-5	Aroclor 1232	ND	0.10	ug/L	1	09/19/18	B8I1503	8081/8082	
53469-21-9	Aroclor 1242	ND	0.10	ug/L	1	09/19/18	B8I1503	8081/8082	
12672-29-6	Aroclor 1248	ND	0.10	ug/L	1	09/19/18	B8I1503	8081/8082	
11097-69-1	Aroclor 1254	ND	0.10	ug/L	1	09/19/18	B8I1503	8081/8082	
11096-82-5	Aroclor 1260	ND	0.10	ug/L	1	09/19/18	B8I1503	8081/8082	
37324-23-5	Aroclor 1262	ND	0.10	ug/L	1	09/19/18	B8I1503	8081/8082	
11100-14-4	Aroclor 1268	ND	0.10	ug/L	1	09/19/18	B8I1503	8081/8082	
Surrogate: Decachlorobiphenyl			*72.2 %*	*30-150*		*09/19/18*	B8I1503	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*53.5 %*	*30-150*		*09/19/18*	B8I1503	*8081/8082*	

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Client ID: QMCP-GW 17 5-9'

Lab ID: 1809086-06

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-Metals									
7440-38-2	**Arsenic**	**1.7**	1.0	ug/L	1	09/20/18	B8I1109	200.8	
7440-43-9	Cadmium	ND	0.2	ug/L	1	09/20/18	B8I1109	200.8	
7440-47-3	**Chromium**	**5.8**	1.0	ug/L	1	09/20/18	B8I1109	200.8	
7440-50-8	**Copper**	**200**	1.0	ug/L	1	09/20/18	B8I1109	200.8	
7439-92-1	**Lead**	**49**	1.0	ug/L	1	09/20/18	B8I1109	200.8	
7439-96-5	**Manganese**	**520**	5.0	ug/L	1	09/20/18	B8I1109	200.8	
7439-97-6	Mercury	ND	0.2	ug/L	1	09/14/18	B8I1225	245.1	
7440-22-4	Silver	ND	0.2	ug/L	1	09/20/18	B8I1109	200.8	
7440-66-6	**Zinc**	**81**	5.0	ug/L	1	09/20/18	B8I1109	200.8	

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Client ID: QMCP-GW 18 5-9'

Lab ID: 1809086-07

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	09/14/18	B8I1402	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
540-84-1	2,2,4-Trimethylpentane	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	09/14/18	B8I1402	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	

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CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	09/14/18	B8I1402	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	09/14/18	B8I1402	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
Surrogate: Bromofluorobenzene			*103 %*	*85-115*		*09/14/18*	B8I1402	*8260*	
Surrogate: Dibromofluoromethane			*92.9 %*	*82.7-115*		*09/14/18*	B8I1402	*8260*	
Surrogate: Toluene-d8			*100 %*	*85-115*		*09/14/18*	B8I1402	*8260*	

STATE OF MICHIGAN
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ENVIRONMENTAL LABORATORY

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

Client ID: QMCP-GW 18 5-9'

Lab ID: 1809086-07

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	09/18/18	B8I1126	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	09/18/18	B8I1126	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	09/18/18	B8I1126	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
Surrogate: 2-Fluorobiphenyl			*65.7 %*	*24.1-115*		*09/18/18*	B8I1126	*8270*	
Surrogate: Nitrobenzene-d5			*48.3 %*	*17.8-115*		*09/18/18*	B8I1126	*8270*	
Surrogate: p-Terphenyl-d14			*63.7 %*	*41.8-115*		*09/18/18*	B8I1126	*8270*	
Inorganics-Metals									
7440-38-2	Arsenic	ND	1.0	ug/L	1	09/21/18	B8I1109	200.8	
7440-43-9	Cadmium	ND	0.2	ug/L	1	09/20/18	B8I1109	200.8	
7440-47-3	**Chromium**	**17**	1.0	ug/L	1	09/20/18	B8I1109	200.8	
7440-50-8	**Copper**	**3800**	1.0	ug/L	1	09/20/18	B8I1109	200.8	
7439-92-1	**Lead**	**3.5**	1.0	ug/L	1	09/20/18	B8I1109	200.8	
7439-96-5	**Manganese**	**1200**	5.0	ug/L	1	09/21/18	B8I1109	200.8	
7439-97-6	**Mercury**	**1.2**	0.2	ug/L	1	09/14/18	B8I1225	245.1	
7440-22-4	**Silver**	**19**	0.2	ug/L	1	09/20/18	B8I1109	200.8	
7440-66-6	**Zinc**	**51**	5.0	ug/L	1	09/20/18	B8I1109	200.8	

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TEL: (517) 335-9800
FAX: (517) 335-9600

Client ID: QMCP-GW 21 4-8'

Lab ID: 1809086-08

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	09/14/18	B8I1402	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
540-84-1	2,2,4-Trimethylpentane	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	09/14/18	B8I1402	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	

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Client ID: QMCP-GW 21 4-8'

Lab ID: 1809086-08

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	09/14/18	B8I1402	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	09/14/18	B8I1402	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	09/14/18	B8I1402	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	09/14/18	B8I1402	8260	
Surrogate: Bromofluorobenzene			*103 %*	*85-115*		*09/14/18*	B8I1402	*8260*	
Surrogate: Dibromofluoromethane			*99.3 %*	*82.7-115*		*09/14/18*	B8I1402	*8260*	
Surrogate: Toluene-d8			*102 %*	*85-115*		*09/14/18*	B8I1402	*8260*	

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Client ID: QMCP-GW 21 4-8'

Lab ID: 1809086-08

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	09/18/18	B8I1126	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	09/18/18	B8I1126	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	09/18/18	B8I1126	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
Surrogate: 2-Fluorobiphenyl			*71.5 %*	*24.1-115*		*09/18/18*	B8I1126	*8270*	
Surrogate: Nitrobenzene-d5			*52.6 %*	*17.8-115*		*09/18/18*	B8I1126	*8270*	
Surrogate: p-Terphenyl-d14			*94.2 %*	*41.8-115*		*09/18/18*	B8I1126	*8270*	
Inorganics-Metals									
7440-38-2	Arsenic	ND	1.0	ug/L	1	09/20/18	B8I1109	200.8	
7440-43-9	Cadmium	ND	0.2	ug/L	1	09/20/18	B8I1109	200.8	
7440-47-3	Chromium	ND	1.0	ug/L	1	09/20/18	B8I1109	200.8	
7440-50-8	**Copper**	**1900**	1.0	ug/L	1	09/20/18	B8I1109	200.8	
7439-92-1	Lead	ND	1.0	ug/L	1	09/20/18	B8I1109	200.8	
7439-96-5	**Manganese**	**360**	5.0	ug/L	1	09/20/18	B8I1109	200.8	
7439-97-6	**Mercury**	**0.2**	0.2	ug/L	1	09/14/18	B8I1225	245.1	
7440-22-4	**Silver**	**4.0**	0.2	ug/L	1	09/20/18	B8I1109	200.8	
7440-66-6	**Zinc**	**5.9**	5.0	ug/L	1	09/20/18	B8I1109	200.8	

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Client ID: QMCP-GW 62 4-8'

Lab ID: 1809086-09

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									**See note Y11**
630-20-6	1,1,1,2-Tetrachloroethane	ND	10	ug/L	10	09/14/18	B8I1404	8260	
71-55-6	1,1,1-Trichloroethane	ND	10	ug/L	10	09/14/18	B8I1404	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	10	ug/L	10	09/14/18	B8I1404	8260	
79-00-5	1,1,2-Trichloroethane	ND	10	ug/L	10	09/14/18	B8I1404	8260	
75-34-3	1,1-Dichloroethane	ND	10	ug/L	10	09/14/18	B8I1404	8260	
75-35-4	1,1-Dichloroethylene	ND	10	ug/L	10	09/14/18	B8I1404	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	50	ug/L	10	09/14/18	B8I1404	8260	
96-18-4	1,2,3-Trichloropropane	ND	10	ug/L	10	09/14/18	B8I1404	8260	A10
526-73-8	**1,2,3-Trimethylbenzene**	**290**	10	ug/L	10	09/14/18	B8I1404	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	50	ug/L	10	09/14/18	B8I1404	8260	
95-63-6	**1,2,4-Trimethylbenzene**	**590**	10	ug/L	10	09/14/18	B8I1404	8260	
106-93-4	1,2-Dibromoethane	ND	10	ug/L	10	09/14/18	B8I1404	8260	
95-50-1	1,2-Dichlorobenzene	ND	10	ug/L	10	09/14/18	B8I1404	8260	
107-06-2	1,2-Dichloroethane	ND	10	ug/L	10	09/14/18	B8I1404	8260	
78-87-5	1,2-Dichloropropane	ND	10	ug/L	10	09/14/18	B8I1404	8260	
108-67-8	**1,3,5-Trimethylbenzene**	**150**	10	ug/L	10	09/14/18	B8I1404	8260	
541-73-1	1,3-Dichlorobenzene	ND	10	ug/L	10	09/14/18	B8I1404	8260	
106-46-7	1,4-Dichlorobenzene	ND	10	ug/L	10	09/14/18	B8I1404	8260	
540-84-1	2,2,4-Trimethylpentane	ND	50	ug/L	10	09/14/18	B8I1404	8260	
78-93-3	2-Butanone (MEK)	ND	50	ug/L	10	09/14/18	B8I1404	8260	
91-57-6	**2-Methylnaphthalene**	**100**	50	ug/L	10	09/14/18	B8I1404	8260	X
67-64-1	2-Propanone (acetone)	ND	200	ug/L	10	09/14/18	B8I1404	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	50	ug/L	10	09/14/18	B8I1404	8260	
107-13-1	Acrylonitrile	ND	50	ug/L	10	09/14/18	B8I1404	8260	
71-43-2	**Benzene**	**120**	10	ug/L	10	09/14/18	B8I1404	8260	
74-97-5	Bromochloromethane	ND	10	ug/L	10	09/14/18	B8I1404	8260	
75-27-4	Bromodichloromethane	ND	10	ug/L	10	09/14/18	B8I1404	8260	
75-25-2	Bromoform	ND	10	ug/L	10	09/14/18	B8I1404	8260	
74-83-9	Bromomethane	ND	50	ug/L	10	09/14/18	B8I1404	8260	
75-15-0	Carbon disulfide	ND	10	ug/L	10	09/14/18	B8I1404	8260	
56-23-5	Carbon tetrachloride	ND	10	ug/L	10	09/14/18	B8I1404	8260	
108-90-7	Chlorobenzene	ND	10	ug/L	10	09/14/18	B8I1404	8260	
75-00-3	Chloroethane	ND	50	ug/L	10	09/14/18	B8I1404	8260	A05
67-66-3	Chloroform	ND	10	ug/L	10	09/14/18	B8I1404	8260	
74-87-3	Chloromethane	ND	50	ug/L	10	09/14/18	B8I1404	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	10	ug/L	10	09/14/18	B8I1404	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	10	ug/L	10	09/14/18	B8I1404	8260	
110-82-7	**Cyclohexane**	**86**	50	ug/L	10	09/14/18	B8I1404	8260	
124-48-1	Dibromochloromethane	ND	10	ug/L	10	09/14/18	B8I1404	8260	
74-95-3	Dibromomethane	ND	10	ug/L	10	09/14/18	B8I1404	8260	

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TEL: (517) 335-9800
FAX: (517) 335-9600

Client ID: QMCP-GW 62 4-8'

Lab ID: 1809086-09

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									**See note Y11**
75-71-8	Dichlorodifluoromethane	ND	50	ug/L	10	09/14/18	B8I1404	8260	
60-29-7	Diethyl ether	ND	50	ug/L	10	09/14/18	B8I1404	8260	
108-20-3	Diisopropyl Ether	ND	50	ug/L	10	09/14/18	B8I1404	8260	
100-41-4	**Ethylbenzene**	**270**	10	ug/L	10	09/14/18	B8I1404	8260	
637-92-3	Ethyltertiarybutylether	ND	50	ug/L	10	09/14/18	B8I1404	8260	
67-72-1	Hexachloroethane	ND	50	ug/L	10	09/14/18	B8I1404	8260	
110-54-3	**Hexane**	**29**	10	ug/L	10	09/14/18	B8I1404	8260	
98-82-8	**Isopropylbenzene**	**22**	10	ug/L	10	09/14/18	B8I1404	8260	
1330-20-7	**m & p - Xylene**	**620**	20	ug/L	10	09/14/18	B8I1404	8260	
75-09-2	Methylene chloride	ND	50	ug/L	10	09/14/18	B8I1404	8260	
1634-04-4	Methyltertiarybutylether	ND	10	ug/L	10	09/14/18	B8I1404	8260	
91-20-3	**Naphthalene**	**240**	50	ug/L	10	09/14/18	B8I1404	8260	X
104-51-8	n-Butylbenzene	ND	10	ug/L	10	09/14/18	B8I1404	8260	
103-65-1	**n-Propylbenzene**	**56**	10	ug/L	10	09/14/18	B8I1404	8260	
95-47-6	**o-Xylene**	**36**	10	ug/L	10	09/14/18	B8I1404	8260	
135-98-8	sec-Butylbenzene	ND	10	ug/L	10	09/14/18	B8I1404	8260	
100-42-5	Styrene	ND	10	ug/L	10	09/14/18	B8I1404	8260	
98-06-6	tert-Butylbenzene	ND	10	ug/L	10	09/14/18	B8I1404	8260	
75-65-0	tertiary Butyl Alcohol	ND	500	ug/L	10	09/14/18	B8I1404	8260	
994-05-8	tertiaryAmylmethylether	ND	50	ug/L	10	09/14/18	B8I1404	8260	
127-18-4	Tetrachloroethylene	ND	10	ug/L	10	09/14/18	B8I1404	8260	
109-99-9	Tetrahydrofuran	ND	50	ug/L	10	09/14/18	B8I1404	8260	
108-88-3	Toluene	ND	10	ug/L	10	09/14/18	B8I1404	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	10	ug/L	10	09/14/18	B8I1404	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	10	ug/L	10	09/14/18	B8I1404	8260	
79-01-6	Trichloroethylene	ND	10	ug/L	10	09/14/18	B8I1404	8260	
75-69-4	Trichlorofluoromethane	ND	10	ug/L	10	09/14/18	B8I1404	8260	
75-01-4	Vinyl chloride	ND	10	ug/L	10	09/14/18	B8I1404	8260	
Surrogate: Bromofluorobenzene			*97.7 %*	*85-115*		*09/14/18*	B8I1404	*8260*	
Surrogate: Dibromofluoromethane			*105 %*	*82.7-115*		*09/14/18*	B8I1404	*8260*	
Surrogate: Toluene-d8			*104 %*	*85-115*		*09/14/18*	B8I1404	*8260*	

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Client ID: QMCP-GW 62 4-8'

Lab ID: 1809086-09

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y17**
91-57-6	**2-Methylnaphthalene**	**73**	50	ug/L	10	09/24/18	B8I1126	8270	
83-32-9	**Acenaphthene**	**4.5**	1.0	ug/L	1	09/18/18	B8I1126	8270	
208-96-8	**Acenaphthylene**	**1.2**	1.0	ug/L	1	09/18/18	B8I1126	8270	
120-12-7	**Anthracene**	**1.2**	1.0	ug/L	1	09/18/18	B8I1126	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	09/18/18	B8I1126	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
86-73-7	**Fluorene**	**6.8**	1.0	ug/L	1	09/18/18	B8I1126	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	09/18/18	B8I1126	8270	
91-20-3	**Naphthalene**	**160**	10	ug/L	10	09/24/18	B8I1126	8270	
85-01-8	**Phenanthrene**	**17**	1.0	ug/L	1	09/18/18	B8I1126	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
Surrogate: 2-Fluorobiphenyl			*71.0 %*	*24.1-115*		*09/18/18*	B8I1126	*8270*	
Surrogate: Nitrobenzene-d5			*49.8 %*	*17.8-115*		*09/18/18*	B8I1126	*8270*	
Surrogate: p-Terphenyl-d14			*73.6 %*	*41.8-115*		*09/18/18*	B8I1126	*8270*	
Inorganics-Metals									
7440-38-2	**Arsenic**	**2.1**	1.0	ug/L	1	09/21/18	B8I1109	200.8	
7440-43-9	Cadmium	ND	0.2	ug/L	1	09/20/18	B8I1109	200.8	
7440-47-3	**Chromium**	**6.2**	1.0	ug/L	1	09/20/18	B8I1109	200.8	
7440-50-8	**Copper**	**4600**	1.0	ug/L	1	09/20/18	B8I1109	200.8	
7439-92-1	**Lead**	**4.0**	1.0	ug/L	1	09/20/18	B8I1109	200.8	
7439-96-5	**Manganese**	**4300**	5.0	ug/L	1	09/21/18	B8I1109	200.8	
7439-97-6	**Mercury**	**1.8**	0.2	ug/L	1	09/14/18	B8I1225	245.1	
7440-22-4	**Silver**	**20**	0.2	ug/L	1	09/20/18	B8I1109	200.8	
7440-66-6	**Zinc**	**15**	5.0	ug/L	1	09/20/18	B8I1109	200.8	

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Client ID: QMCP-GW 63 4-8'

Lab ID: 1809086-10

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	10	ug/L	10	09/14/18	B8I1404	8260	
71-55-6	1,1,1-Trichloroethane	ND	10	ug/L	10	09/14/18	B8I1404	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	10	ug/L	10	09/14/18	B8I1404	8260	
79-00-5	1,1,2-Trichloroethane	ND	10	ug/L	10	09/14/18	B8I1404	8260	
75-34-3	1,1-Dichloroethane	ND	10	ug/L	10	09/14/18	B8I1404	8260	
75-35-4	1,1-Dichloroethylene	ND	10	ug/L	10	09/14/18	B8I1404	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	50	ug/L	10	09/14/18	B8I1404	8260	
96-18-4	1,2,3-Trichloropropane	ND	10	ug/L	10	09/14/18	B8I1404	8260	A10
526-73-8	**1,2,3-Trimethylbenzene**	**100**	10	ug/L	10	09/14/18	B8I1404	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	50	ug/L	10	09/14/18	B8I1404	8260	
95-63-6	**1,2,4-Trimethylbenzene**	**290**	10	ug/L	10	09/14/18	B8I1404	8260	
106-93-4	1,2-Dibromoethane	ND	10	ug/L	10	09/14/18	B8I1404	8260	
95-50-1	1,2-Dichlorobenzene	ND	10	ug/L	10	09/14/18	B8I1404	8260	
107-06-2	1,2-Dichloroethane	ND	10	ug/L	10	09/14/18	B8I1404	8260	
78-87-5	1,2-Dichloropropane	ND	10	ug/L	10	09/14/18	B8I1404	8260	
108-67-8	**1,3,5-Trimethylbenzene**	**69**	10	ug/L	10	09/14/18	B8I1404	8260	
541-73-1	1,3-Dichlorobenzene	ND	10	ug/L	10	09/14/18	B8I1404	8260	
106-46-7	1,4-Dichlorobenzene	ND	10	ug/L	10	09/14/18	B8I1404	8260	
540-84-1	2,2,4-Trimethylpentane	ND	50	ug/L	10	09/14/18	B8I1404	8260	
78-93-3	2-Butanone (MEK)	ND	50	ug/L	10	09/14/18	B8I1404	8260	
91-57-6	**2-Methylnaphthalene**	**100**	50	ug/L	10	09/14/18	B8I1404	8260	X
67-64-1	2-Propanone (acetone)	ND	200	ug/L	10	09/14/18	B8I1404	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	50	ug/L	10	09/14/18	B8I1404	8260	
107-13-1	Acrylonitrile	ND	50	ug/L	10	09/14/18	B8I1404	8260	
71-43-2	**Benzene**	**15**	10	ug/L	10	09/14/18	B8I1404	8260	
74-97-5	Bromochloromethane	ND	10	ug/L	10	09/14/18	B8I1404	8260	
75-27-4	Bromodichloromethane	ND	10	ug/L	10	09/14/18	B8I1404	8260	
75-25-2	Bromoform	ND	10	ug/L	10	09/14/18	B8I1404	8260	
74-83-9	Bromomethane	ND	50	ug/L	10	09/14/18	B8I1404	8260	
75-15-0	Carbon disulfide	ND	10	ug/L	10	09/14/18	B8I1404	8260	
56-23-5	Carbon tetrachloride	ND	10	ug/L	10	09/14/18	B8I1404	8260	
108-90-7	Chlorobenzene	ND	10	ug/L	10	09/14/18	B8I1404	8260	
75-00-3	Chloroethane	ND	50	ug/L	10	09/14/18	B8I1404	8260	A05
67-66-3	Chloroform	ND	10	ug/L	10	09/14/18	B8I1404	8260	
74-87-3	Chloromethane	ND	50	ug/L	10	09/14/18	B8I1404	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	10	ug/L	10	09/14/18	B8I1404	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	10	ug/L	10	09/14/18	B8I1404	8260	
110-82-7	**Cyclohexane**	**67**	50	ug/L	10	09/14/18	B8I1404	8260	
124-48-1	Dibromochloromethane	ND	10	ug/L	10	09/14/18	B8I1404	8260	
74-95-3	Dibromomethane	ND	10	ug/L	10	09/14/18	B8I1404	8260	

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Lab ID: 1809086-10

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	50	ug/L	10	09/14/18	B8I1404	8260	
60-29-7	Diethyl ether	ND	50	ug/L	10	09/14/18	B8I1404	8260	
108-20-3	Diisopropyl Ether	ND	50	ug/L	10	09/14/18	B8I1404	8260	
100-41-4	**Ethylbenzene**	**87**	10	ug/L	10	09/14/18	B8I1404	8260	
637-92-3	Ethyltertiarybutylether	ND	50	ug/L	10	09/14/18	B8I1404	8260	
67-72-1	Hexachloroethane	ND	50	ug/L	10	09/14/18	B8I1404	8260	
110-54-3	**Hexane**	**12**	10	ug/L	10	09/14/18	B8I1404	8260	
98-82-8	**Isopropylbenzene**	**17**	10	ug/L	10	09/14/18	B8I1404	8260	
1330-20-7	**m & p - Xylene**	**190**	20	ug/L	10	09/14/18	B8I1404	8260	
75-09-2	Methylene chloride	ND	50	ug/L	10	09/14/18	B8I1404	8260	
1634-04-4	Methyltertiarybutylether	ND	10	ug/L	10	09/14/18	B8I1404	8260	
91-20-3	**Naphthalene**	**190**	50	ug/L	10	09/14/18	B8I1404	8260	X
104-51-8	n-Butylbenzene	ND	10	ug/L	10	09/14/18	B8I1404	8260	
103-65-1	**n-Propylbenzene**	**49**	10	ug/L	10	09/14/18	B8I1404	8260	
95-47-6	**o-Xylene**	**29**	10	ug/L	10	09/14/18	B8I1404	8260	
135-98-8	sec-Butylbenzene	ND	10	ug/L	10	09/14/18	B8I1404	8260	
100-42-5	Styrene	ND	10	ug/L	10	09/14/18	B8I1404	8260	
98-06-6	tert-Butylbenzene	ND	10	ug/L	10	09/14/18	B8I1404	8260	
75-65-0	tertiary Butyl Alcohol	ND	500	ug/L	10	09/14/18	B8I1404	8260	
994-05-8	tertiaryAmylmethylether	ND	50	ug/L	10	09/14/18	B8I1404	8260	
127-18-4	Tetrachloroethylene	ND	10	ug/L	10	09/14/18	B8I1404	8260	
109-99-9	Tetrahydrofuran	ND	50	ug/L	10	09/14/18	B8I1404	8260	
108-88-3	Toluene	ND	10	ug/L	10	09/14/18	B8I1404	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	10	ug/L	10	09/14/18	B8I1404	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	10	ug/L	10	09/14/18	B8I1404	8260	
79-01-6	Trichloroethylene	ND	10	ug/L	10	09/14/18	B8I1404	8260	
75-69-4	Trichlorofluoromethane	ND	10	ug/L	10	09/14/18	B8I1404	8260	
75-01-4	Vinyl chloride	ND	10	ug/L	10	09/14/18	B8I1404	8260	
Surrogate: Bromofluorobenzene			*99.9 %*	*85-115*		*09/14/18*	B8I1404	*8260*	
Surrogate: Dibromofluoromethane			*104 %*	*82.7-115*		*09/14/18*	B8I1404	*8260*	
Surrogate: Toluene-d8			*103 %*	*85-115*		*09/14/18*	B8I1404	*8260*	

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CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y17**
91-57-6	**2-Methylnaphthalene**	**90**	50	ug/L	10	09/24/18	B8I1126	8270	
83-32-9	**Acenaphthene**	**3.6**	1.0	ug/L	1	09/18/18	B8I1126	8270	
208-96-8	**Acenaphthylene**	**1.1**	1.0	ug/L	1	09/18/18	B8I1126	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	09/18/18	B8I1126	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	09/18/18	B8I1126	8270	
206-44-0	**Fluoranthene**	**1.2**	1.0	ug/L	1	09/18/18	B8I1126	8270	
86-73-7	**Fluorene**	**5.5**	1.0	ug/L	1	09/18/18	B8I1126	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	09/18/18	B8I1126	8270	
91-20-3	**Naphthalene**	**140**	10	ug/L	10	09/24/18	B8I1126	8270	
85-01-8	**Phenanthrene**	**15**	1.0	ug/L	1	09/18/18	B8I1126	8270	
129-00-0	**Pyrene**	**1.5**	1.0	ug/L	1	09/18/18	B8I1126	8270	
Surrogate: 2-Fluorobiphenyl			*64.0 %*	*24.1-115*		*09/18/18*	B8I1126	*8270*	
Surrogate: Nitrobenzene-d5			*46.2 %*	*17.8-115*		*09/18/18*	B8I1126	*8270*	
Surrogate: p-Terphenyl-d14			*86.3 %*	*41.8-115*		*09/18/18*	B8I1126	*8270*	
Inorganics-Metals									
7440-38-2	**Arsenic**	**1.3**	1.0	ug/L	1	09/21/18	B8I1221	200.8	
7440-43-9	**Cadmium**	**0.3**	0.2	ug/L	1	09/21/18	B8I1221	200.8	
7440-47-3	**Chromium**	**5.1**	1.0	ug/L	1	09/21/18	B8I1221	200.8	
7440-50-8	**Copper**	**4500**	1.0	ug/L	1	09/21/18	B8I1221	200.8	
7439-92-1	**Lead**	**2.2**	1.0	ug/L	1	09/21/18	B8I1221	200.8	
7439-96-5	**Manganese**	**1700**	5.0	ug/L	1	09/21/18	B8I1221	200.8	
7439-97-6	**Mercury**	**1.0**	0.2	ug/L	1	09/14/18	B8I1225	245.1	
7440-22-4	**Silver**	**12**	0.2	ug/L	1	09/21/18	B8I1221	200.8	
7440-66-6	**Zinc**	**22**	5.0	ug/L	1	09/21/18	B8I1221	200.8	

Michigan Department of Environmental Quality
Laboratory Services Section

Analysis Request Sheet

G2

Lab Work Order Number	Project Name	Matrix
1809086	Abandoned Mining Wastes- QMCP	ground WATER

Site Code/Project Number: 31000098	AY: 17	CC Email 1: jbinkley@manniksmithgroup.com	Project TAT Days:	Sample Collector: PINCUMBE
Dept-Division-District: DEQ RRD UP District- Calumet	Index: 7000	CC Email 2:	Project Due Date:	Sample Collector Phone: 517 243 3171
State Project Manager: Amy Keranen	PCA: 42050/1533	CC Email 3:		Contract Firm: Mannik & Smith Group
State Project Manager Email: keranena@michigan.gov	location: 6996	Overflow Lab Choice 1:	Accept Analysis hold time codes: No	Contract Firm Primary Contact: Jeff Binkley
State Project Manager Phone: 906-3370-0389	sub location: 6010	Overflow Lab Choice 2:		Primary Contact Phone: 906-281-3404

	Lab Use Only	Field Sample Identification	Collection Date	Collection Time	Container Count	Comments
1	01	QMCP-GW 10 6-10' GW-10	9-7-18	8:40		
2	02	QMCP-GW 20 5-9'	9-7-18	9:35		
3	03	QMCP-GW 61 5-9		1030		
4	04	QMCP-GW 61 5-9 DUP		1030		
5	05	QMCP-GW 64 5-9		1110		2 ambers
6	06	QMCP-GW 17 5-9		1330		
7	07	QMCP-GW 18 5-9		1355		
8	08	QMCP-GW 21 4-8		1430		COOLER 3-4
9	09	QMCP-GW 62 4-8		1510		COOLER 5 one amber
10	10	QMCP-GW 63 4-8		1535		

ORGANIC CHEMISTRY

VOA - Volatile Organic Acidic	
Volatiles - Full List	1 2 3 4 5 6 7 8 9 10
BTEX/MTBE/TMB only	1 2 3 4 5 6 7 8 9 10
Chlorinated only	1 2 3 4 5 6 7 8 9 10
GRO	1 2 3 4 5 6 7 8 9 10
1,4 Dioxane	1 2 3 4 5 6 7 8 9 10
METH - Methane, Ethane, Ethene	
Methane, Ethane, Ethene	1 2 3 4 5 6 7 8 9 10
ON - Pesticides, PCBs	
Pesticides & PCBs	1 2 3 4 5 6 7 8 9 10
Pesticides only	1 2 3 4 5 6 7 8 9 10
PCBs only	1 2 3 4 5 6 7 8 9 10
Toxaphene	1 2 3 4 5 6 7 8 9 10
Chlordane	1 2 3 4 5 6 7 8 9 10
BNA - Base Neutral Acids	
BNAs	1 2 3 4 5 6 7 8 9 10
Benzidines	1 2 3 4 5 6 7 8 9 10
PNAs only	1 2 3 4 5 6 7 8 9 10
BNs only	1 2 3 4 5 6 7 8 9 10
Acids only	1 2 3 4 5 6 7 8 9 10
Organic Specialty Requests	
Library search - Volatiles	1 2 3 4 5 6 7 8 9 10
Library search - SemiVols	1 2 3 4 5 6 7 8 9 10
Finger Print	1 2 3 4 5 6 7 8 9 10
DRO / ORO	1 2 3 4 5 6 7 8 9 10

METALS CHEMISTRY PACKAGES

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

MAD - DISSOLVED METALS

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

MA - TOTAL METALS

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

GENERAL CHEMISTRY

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

Chain of Custody

Relinquished by	Received By	Date / Time
Print Name & Org.: JEFF PINCUMBE MDEQ Signature:	[illegible]	9-8-18 7:00
Print Name & Org.: Ari McKean MDEQ RRD - GSU Signature:	Nicole Hardigan Nicole Hardigan	9/10/18 1329
Print Name & Org.: Signature:		

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

16 November 2018

Work Order: 1809119

Price: $2,723.00

Amy Keranen
MDEQ-RRD-UP
1504 W. Washington St.
Marquette, MI 49855

RE: ABANDONED MINING WASTES-QMCP

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

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MDEQ-RRD-UP	Project: ABANDONED MINING WASTES-QMCP	
1504 W. Washington St.	Site Code: 31000098	**Reported:**
Marquette MI, 49855	Project Manager: Amy Keranen	11/16/2018

Analytical Report for Samples

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Qualifier
QMCP-GW39 8-12'	1809119-01	Water	09/11/2018	09/13/2018	
QMCP-GW38 5-9	1809119-02	Water	09/11/2018	09/13/2018	
QMCP-GW37 5-9	1809119-03	Water	09/11/2018	09/13/2018	
QMCP-GW7 3-7	1809119-04	Water	09/11/2018	09/13/2018	
QMCP-GW68 3-7	1809119-05	Water	09/11/2018	09/13/2018	
QMCP-GW67 3-7	1809119-06	Water	09/11/2018	09/13/2018	
QMCP-GW73 22-24	1809119-07	Water	09/11/2018	09/13/2018	

Notes and Definitions

Y24	Sample decanted due to sediment layer. Data is estimated.
Y18	Sample was extracted/analyzed past USEPA maximum allowable holding time due to laboratory error. Data is estimated.
Y17	Probable petroleum product(s) present.
X3	Spike recovery is not applicable due to large target analyte concentration in the source sample.
X	Methods 8260 & 624 are used to analyze volatile organics that have boiling points below 200 ºC. 2-Methylnaphthalene & naphthalene have boiling points above 200 ºC and are better suited to analysis by methods 8270 & 625 as semivolatile organics.
A07	Result(s) and reporting limit(s) are estimated due to poor precision.
A05	Result and reporting limit are estimated due to low continuing calibration standard criteria failure.
A04	Result is estimated due to high matrix spike recovery.
A03	Result(s) and reporting limit(s) are estimated due to low matrix spike recovery.
A01	Result(s) and reporting limit(s) are estimated due to low surrogate recovery.
ND	Indicates compound analyzed for but not detected
RL	Reporting Limit
NA	Not Applicable

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TEL: (517) 335-9800
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Client ID: QMCP-GW39 8-12'

Lab ID: 1809119-01

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	09/17/18	B8I1701	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
540-84-1	2,2,4-Trimethylpentane	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	09/17/18	B8I1701	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	

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Client ID: QMCP-GW39 8-12'

Lab ID: 1809119-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	09/17/18	B8I1701	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	09/17/18	B8I1701	8260	A05
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
Surrogate: Bromofluorobenzene			*103 %*	*85-115*		*09/17/18*	B8I1701	*8260*	
Surrogate: Dibromofluoromethane			*91.4 %*	*82.7-115*		*09/17/18*	B8I1701	*8260*	
Surrogate: Toluene-d8			*101 %*	*85-115*		*09/17/18*	B8I1701	*8260*	

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Client ID: QMCP-GW39 8-12'

Lab ID: 1809119-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	09/25/18	B8I1328	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	09/25/18	B8I1328	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	09/25/18	B8I1328	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	09/25/18	B8I1328	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	09/25/18	B8I1328	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	09/25/18	B8I1328	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	09/25/18	B8I1328	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	09/25/18	B8I1328	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	09/25/18	B8I1328	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	09/25/18	B8I1328	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	09/25/18	B8I1328	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	09/25/18	B8I1328	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	09/25/18	B8I1328	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	09/25/18	B8I1328	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	09/25/18	B8I1328	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	09/25/18	B8I1328	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	09/25/18	B8I1328	8270	
Surrogate: 2-Fluorobiphenyl			*49.9 %*	*24.1-115*		*09/25/18*	B8I1328	*8270*	
Surrogate: Nitrobenzene-d5			*44.0 %*	*17.8-115*		*09/25/18*	B8I1328	*8270*	
Surrogate: p-Terphenyl-d14			*77.6 %*	*41.8-115*		*09/25/18*	B8I1328	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	0.10	ug/L	1	09/26/18	B8I2021	8081/8082	
11104-28-2	Aroclor 1221	ND	0.10	ug/L	1	09/26/18	B8I2021	8081/8082	
11141-16-5	Aroclor 1232	ND	0.10	ug/L	1	09/26/18	B8I2021	8081/8082	
53469-21-9	Aroclor 1242	ND	0.10	ug/L	1	09/26/18	B8I2021	8081/8082	
12672-29-6	Aroclor 1248	ND	0.10	ug/L	1	09/26/18	B8I2021	8081/8082	
11097-69-1	Aroclor 1254	ND	0.10	ug/L	1	09/26/18	B8I2021	8081/8082	
11096-82-5	Aroclor 1260	ND	0.10	ug/L	1	09/26/18	B8I2021	8081/8082	
37324-23-5	Aroclor 1262	ND	0.10	ug/L	1	09/26/18	B8I2021	8081/8082	
11100-14-4	Aroclor 1268	ND	0.10	ug/L	1	09/26/18	B8I2021	8081/8082	
Surrogate: Decachlorobiphenyl			*39.8 %*	*30-150*		*09/26/18*	B8I2021	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*43.3 %*	*30-150*		*09/26/18*	B8I2021	*8081/8082*	

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ENVIRONMENTAL LABORATORY

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

Client ID: QMCP-GW39 8-12'

Lab ID: 1809119-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-Metals									
7440-38-2	**Arsenic**	**16**	1.0	ug/L	1	09/24/18	B8I1313	200.8	
7440-43-9	Cadmium	ND	0.2	ug/L	1	09/24/18	B8I1313	200.8	
7440-47-3	**Chromium**	**16**	1.0	ug/L	1	09/24/18	B8I1313	200.8	
7440-50-8	**Copper**	**210**	10	ug/L	10	09/24/18	B8I1313	200.8	
7439-92-1	**Lead**	**2.0**	1.0	ug/L	1	09/24/18	B8I1313	200.8	
7439-96-5	**Manganese**	**220**	50	ug/L	10	09/24/18	B8I1313	200.8	
7440-22-4	Silver	ND	0.2	ug/L	1	09/24/18	B8I1313	200.8	
7440-66-6	**Zinc**	**22**	5.0	ug/L	1	09/24/18	B8I1313	200.8	

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Client ID: QMCP-GW38 5-9

Lab ID: 1809119-02

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	09/17/18	B8I1701	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
540-84-1	2,2,4-Trimethylpentane	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	09/17/18	B8I1701	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	

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TEL: (517) 335-9800
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Client ID: QMCP-GW38 5-9

Lab ID: 1809119-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	09/17/18	B8I1701	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	09/17/18	B8I1701	8260	A05
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
Surrogate: Bromofluorobenzene			*106 %*	*85-115*		*09/17/18*	B8I1701	*8260*	
Surrogate: Dibromofluoromethane			*92.4 %*	*82.7-115*		*09/17/18*	B8I1701	*8260*	
Surrogate: Toluene-d8			*99.4 %*	*85-115*		*09/17/18*	B8I1701	*8260*	

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FAX: (517) 335-9600

Client ID: QMCP-GW38 5-9

Lab ID: 1809119-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	5.1	ug/L	1	09/25/18	B8I1328	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	09/25/18	B8I1328	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	09/25/18	B8I1328	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	09/25/18	B8I1328	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	09/25/18	B8I1328	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	09/25/18	B8I1328	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	09/25/18	B8I1328	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	09/25/18	B8I1328	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	09/25/18	B8I1328	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	09/25/18	B8I1328	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	09/25/18	B8I1328	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	09/25/18	B8I1328	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	09/25/18	B8I1328	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	09/25/18	B8I1328	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	09/25/18	B8I1328	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	09/25/18	B8I1328	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	09/25/18	B8I1328	8270	
Surrogate: 2-Fluorobiphenyl			*94.3 %*	*24.1-115*		*09/25/18*	B8I1328	*8270*	
Surrogate: Nitrobenzene-d5			*80.8 %*	*17.8-115*		*09/25/18*	B8I1328	*8270*	
Surrogate: p-Terphenyl-d14			*92.9 %*	*41.8-115*		*09/25/18*	B8I1328	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	0.10	ug/L	1	09/26/18	B8I2021	8081/8082	
11104-28-2	Aroclor 1221	ND	0.10	ug/L	1	09/26/18	B8I2021	8081/8082	
11141-16-5	Aroclor 1232	ND	0.10	ug/L	1	09/26/18	B8I2021	8081/8082	
53469-21-9	Aroclor 1242	ND	0.10	ug/L	1	09/26/18	B8I2021	8081/8082	
12672-29-6	Aroclor 1248	ND	0.10	ug/L	1	09/26/18	B8I2021	8081/8082	
11097-69-1	Aroclor 1254	ND	0.10	ug/L	1	09/26/18	B8I2021	8081/8082	
11096-82-5	Aroclor 1260	ND	0.10	ug/L	1	09/26/18	B8I2021	8081/8082	
37324-23-5	Aroclor 1262	ND	0.10	ug/L	1	09/26/18	B8I2021	8081/8082	
11100-14-4	Aroclor 1268	ND	0.10	ug/L	1	09/26/18	B8I2021	8081/8082	
Surrogate: Decachlorobiphenyl			*42.6 %*	*30-150*		*09/26/18*	B8I2021	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*37.1 %*	*30-150*		*09/26/18*	B8I2021	*8081/8082*	

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Client ID: QMCP-GW38 5-9

Lab ID: 1809119-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-Metals									
7440-38-2	**Arsenic**	**1.1**	1.0	ug/L	1	09/25/18	B8I1709	200.8	
7440-43-9	Cadmium	ND	0.2	ug/L	1	09/25/18	B8I1709	200.8	
7440-47-3	**Chromium**	**3.2**	1.0	ug/L	1	09/25/18	B8I1709	200.8	
7440-50-8	**Copper**	**42**	1.0	ug/L	1	09/25/18	B8I1709	200.8	
7439-92-1	**Lead**	**1.0**	1.0	ug/L	1	09/25/18	B8I1709	200.8	
7439-96-5	**Manganese**	**280**	5.0	ug/L	1	09/25/18	B8I1709	200.8	
7440-22-4	Silver	ND	0.2	ug/L	1	09/25/18	B8I1709	200.8	
7440-66-6	Zinc	ND	5.0	ug/L	1	09/25/18	B8I1709	200.8	

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Client ID: QMCP-GW37 5-9

Lab ID: 1809119-03

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	09/17/18	B8I1701	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
540-84-1	2,2,4-Trimethylpentane	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	09/17/18	B8I1701	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	

STATE OF MICHIGAN
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ENVIRONMENTAL LABORATORY

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

Client ID: QMCP-GW37 5-9

Lab ID: 1809119-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	09/17/18	B8I1701	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	09/17/18	B8I1701	8260	A05
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
Surrogate: Bromofluorobenzene			*108 %*	*85-115*		*09/17/18*	B8I1701	*8260*	
Surrogate: Dibromofluoromethane			*92.6 %*	*82.7-115*		*09/17/18*	B8I1701	*8260*	
Surrogate: Toluene-d8			*98.9 %*	*85-115*		*09/17/18*	B8I1701	*8260*	

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TEL: (517) 335-9800
FAX: (517) 335-9600

Client ID: QMCP-GW37 5-9

Lab ID: 1809119-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	5.1	ug/L	1	09/25/18	B8I1328	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	09/25/18	B8I1328	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	09/25/18	B8I1328	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	09/25/18	B8I1328	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	09/25/18	B8I1328	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	09/25/18	B8I1328	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	09/25/18	B8I1328	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	09/25/18	B8I1328	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	09/25/18	B8I1328	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	09/25/18	B8I1328	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	09/25/18	B8I1328	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	09/25/18	B8I1328	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	09/25/18	B8I1328	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	09/25/18	B8I1328	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	09/25/18	B8I1328	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	09/25/18	B8I1328	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	09/25/18	B8I1328	8270	
Surrogate: 2-Fluorobiphenyl			*79.6 %*	*24.1-115*		*09/25/18*	B8I1328	*8270*	
Surrogate: Nitrobenzene-d5			*68.2 %*	*17.8-115*		*09/25/18*	B8I1328	*8270*	
Surrogate: p-Terphenyl-d14			*63.6 %*	*41.8-115*		*09/25/18*	B8I1328	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	0.10	ug/L	1	09/26/18	B8I2021	8081/8082	
11104-28-2	Aroclor 1221	ND	0.10	ug/L	1	09/26/18	B8I2021	8081/8082	
11141-16-5	Aroclor 1232	ND	0.10	ug/L	1	09/26/18	B8I2021	8081/8082	
53469-21-9	Aroclor 1242	ND	0.10	ug/L	1	09/26/18	B8I2021	8081/8082	
12672-29-6	Aroclor 1248	ND	0.10	ug/L	1	09/26/18	B8I2021	8081/8082	
11097-69-1	Aroclor 1254	ND	0.10	ug/L	1	09/26/18	B8I2021	8081/8082	
11096-82-5	Aroclor 1260	ND	0.10	ug/L	1	09/26/18	B8I2021	8081/8082	
37324-23-5	Aroclor 1262	ND	0.10	ug/L	1	09/26/18	B8I2021	8081/8082	
11100-14-4	Aroclor 1268	ND	0.10	ug/L	1	09/26/18	B8I2021	8081/8082	
Surrogate: Decachlorobiphenyl			*66.1 %*	*30-150*		*09/26/18*	B8I2021	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*36.5 %*	*30-150*		*09/26/18*	B8I2021	*8081/8082*	

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Client ID: QMCP-GW37 5-9

Lab ID: 1809119-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-Metals									
7440-38-2	**Arsenic**	**19**	1.0	ug/L	1	09/25/18	B8I1709	200.8	
7440-43-9	Cadmium	ND	0.2	ug/L	1	09/25/18	B8I1709	200.8	
7440-47-3	**Chromium**	**5.2**	1.0	ug/L	1	09/25/18	B8I1709	200.8	
7440-50-8	**Copper**	**1400**	1.0	ug/L	1	09/25/18	B8I1709	200.8	
7439-92-1	**Lead**	**8.4**	1.0	ug/L	1	09/25/18	B8I1709	200.8	
7439-96-5	**Manganese**	**67**	5.0	ug/L	1	09/25/18	B8I1709	200.8	
7440-22-4	**Silver**	**0.3**	0.2	ug/L	1	09/25/18	B8I1709	200.8	
7440-66-6	**Zinc**	**12**	5.0	ug/L	1	09/25/18	B8I1709	200.8	

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TEL: (517) 335-9800
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Client ID: QMCP-GW7 3-7

Lab ID: 1809119-04

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	09/17/18	B8I1701	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
540-84-1	2,2,4-Trimethylpentane	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	09/17/18	B8I1701	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	

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TEL: (517) 335-9800
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Client ID: QMCP-GW7 3-7

Lab ID: 1809119-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	09/17/18	B8I1701	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	09/17/18	B8I1701	8260	A05
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
Surrogate: Bromofluorobenzene			*102 %*	*85-115*		*09/17/18*	B8I1701	*8260*	
Surrogate: Dibromofluoromethane			*95.7 %*	*82.7-115*		*09/17/18*	B8I1701	*8260*	
Surrogate: Toluene-d8			*96.2 %*	*85-115*		*09/17/18*	B8I1701	*8260*	

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Client ID: QMCP-GW7 3-7

Lab ID: 1809119-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	09/25/18	B8I1328	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	09/25/18	B8I1328	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	09/25/18	B8I1328	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	09/25/18	B8I1328	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	09/25/18	B8I1328	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	09/25/18	B8I1328	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	09/25/18	B8I1328	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	09/25/18	B8I1328	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	09/25/18	B8I1328	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	09/25/18	B8I1328	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	09/25/18	B8I1328	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	09/25/18	B8I1328	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	09/25/18	B8I1328	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	09/25/18	B8I1328	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	09/25/18	B8I1328	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	09/25/18	B8I1328	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	09/25/18	B8I1328	8270	
Surrogate: 2-Fluorobiphenyl			*60.4 %*	*24.1-115*		*09/25/18*	B8I1328	*8270*	
Surrogate: Nitrobenzene-d5			*48.3 %*	*17.8-115*		*09/25/18*	B8I1328	*8270*	
Surrogate: p-Terphenyl-d14			*92.8 %*	*41.8-115*		*09/25/18*	B8I1328	*8270*	
Inorganics-Metals									
7440-43-9	Cadmium	ND	0.2	ug/L	1	09/25/18	B8I1709	200.8	
7440-47-3	**Chromium**	**7.4**	1.0	ug/L	1	09/25/18	B8I1709	200.8	
7439-92-1	**Lead**	**12**	1.0	ug/L	1	09/25/18	B8I1709	200.8	

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ENVIRONMENTAL LABORATORY

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Lansing, MI 48909
TEL: (517) 335-9800
FAX: (517) 335-9600

Client ID: QMCP-GW68 3-7

Lab ID: 1809119-05

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	09/17/18	B8I1701	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
540-84-1	2,2,4-Trimethylpentane	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	09/17/18	B8I1701	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	

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Client ID: QMCP-GW68 3-7

Lab ID: 1809119-05

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	09/17/18	B8I1701	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	09/17/18	B8I1701	8260	A05
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
Surrogate: Bromofluorobenzene			*105 %*	*85-115*		*09/17/18*	B8I1701	*8260*	
Surrogate: Dibromofluoromethane			*96.1 %*	*82.7-115*		*09/17/18*	B8I1701	*8260*	
Surrogate: Toluene-d8			*101 %*	*85-115*		*09/17/18*	B8I1701	*8260*	

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Client ID: QMCP-GW68 3-7

Lab ID: 1809119-05

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	5.1	ug/L	1	09/25/18	B8I1328	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	09/25/18	B8I1328	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	09/25/18	B8I1328	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	09/25/18	B8I1328	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	09/25/18	B8I1328	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	09/25/18	B8I1328	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	09/25/18	B8I1328	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	09/25/18	B8I1328	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	09/25/18	B8I1328	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	09/25/18	B8I1328	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	09/25/18	B8I1328	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	09/25/18	B8I1328	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	09/25/18	B8I1328	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	09/25/18	B8I1328	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	09/25/18	B8I1328	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	09/25/18	B8I1328	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	09/25/18	B8I1328	8270	
Surrogate: 2-Fluorobiphenyl			*97.5 %*	*24.1-115*		*09/25/18*	B8I1328	*8270*	
Surrogate: Nitrobenzene-d5			*78.9 %*	*17.8-115*		*09/25/18*	B8I1328	*8270*	
Surrogate: p-Terphenyl-d14			*78.9 %*	*41.8-115*		*09/25/18*	B8I1328	*8270*	
Inorganics-Metals									
7440-43-9	Cadmium	ND	0.2	ug/L	1	09/25/18	B8I1709	200.8	
7440-47-3	**Chromium**	**5.3**	1.0	ug/L	1	09/25/18	B8I1709	200.8	
7439-92-1	**Lead**	**14**	1.0	ug/L	1	09/25/18	B8I1709	200.8	

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Client ID: QMCP-GW67 3-7

Lab ID: 1809119-06

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	09/17/18	B8I1701	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
540-84-1	2,2,4-Trimethylpentane	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	09/17/18	B8I1701	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	

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Client ID: QMCP-GW67 3-7

Lab ID: 1809119-06

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	09/17/18	B8I1701	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	09/17/18	B8I1701	8260	A05
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	09/17/18	B8I1701	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	09/17/18	B8I1701	8260	
Surrogate: Bromofluorobenzene			*102 %*	*85-115*		*09/17/18*	B8I1701	*8260*	
Surrogate: Dibromofluoromethane			*96.0 %*	*82.7-115*		*09/17/18*	B8I1701	*8260*	
Surrogate: Toluene-d8			*101 %*	*85-115*		*09/17/18*	B8I1701	*8260*	

STATE OF MICHIGAN
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ENVIRONMENTAL LABORATORY

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

Client ID: QMCP-GW67 3-7

Lab ID: 1809119-06

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note A01, Y17, Y24**
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	09/25/18	B8I1328	8270	
83-32-9	**Acenaphthene**	**2.8**	1.0	ug/L	1	09/25/18	B8I1328	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	09/25/18	B8I1328	8270	
120-12-7	**Anthracene**	**11**	1.0	ug/L	1	09/25/18	B8I1328	8270	
56-55-3	**Benz[a]anthracene**	**23**	1.0	ug/L	1	09/25/18	B8I1328	8270	
50-32-8	**Benzo[a]pyrene**	**19**	1.0	ug/L	1	09/25/18	B8I1328	8270	
205-99-2	**Benzo[b]fluoranthene**	**30**	1.0	ug/L	1	09/25/18	B8I1328	8270	
191-24-2	**Benzo[g,h,i]perylene**	**4.2**	1.0	ug/L	1	09/25/18	B8I1328	8270	
207-08-9	**Benzo[k]fluoranthene**	**12**	1.0	ug/L	1	09/25/18	B8I1328	8270	
218-01-9	**Chrysene**	**21**	1.0	ug/L	1	09/25/18	B8I1328	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	09/25/18	B8I1328	8270	
206-44-0	**Fluoranthene**	**46**	1.0	ug/L	1	09/25/18	B8I1328	8270	
86-73-7	**Fluorene**	**3.8**	1.0	ug/L	1	09/25/18	B8I1328	8270	
193-39-5	**Indeno(1,2,3-c,d)pyrene**	**4.5**	2.0	ug/L	1	09/25/18	B8I1328	8270	
91-20-3	**Naphthalene**	**2.3**	1.0	ug/L	1	09/25/18	B8I1328	8270	
85-01-8	**Phenanthrene**	**39**	1.0	ug/L	1	09/25/18	B8I1328	8270	
129-00-0	**Pyrene**	**36**	1.0	ug/L	1	09/25/18	B8I1328	8270	
Surrogate: 2-Fluorobiphenyl			*46.7 %*	*24.1-115*		*09/25/18*	B8I1328	*8270*	
Surrogate: Nitrobenzene-d5			*57.3 %*	*17.8-115*		*09/25/18*	B8I1328	*8270*	
Surrogate: p-Terphenyl-d14			*33.8 %*	*41.8-115*		*09/25/18*	B8I1328	*8270*	
Inorganics-Metals									
7440-43-9	**Cadmium**	**0.4**	0.2	ug/L	1	09/25/18	B8I1709	200.8	
7440-47-3	**Chromium**	**42**	1.0	ug/L	1	09/25/18	B8I1709	200.8	
7439-92-1	**Lead**	**180**	10	ug/L	10	09/25/18	B8I1709	200.8	

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TEL: (517) 335-9800
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Client ID: QMCP-GW73 22-24

Lab ID: 1809119-07

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									**See note Y18**
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	10/03/18	B8J0304	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	10/03/18	B8J0304	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	10/03/18	B8J0304	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	10/03/18	B8J0304	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	10/03/18	B8J0304	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	10/03/18	B8J0304	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	10/03/18	B8J0304	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	10/03/18	B8J0304	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	10/03/18	B8J0304	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	10/03/18	B8J0304	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	10/03/18	B8J0304	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	10/03/18	B8J0304	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	10/03/18	B8J0304	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	10/03/18	B8J0304	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	10/03/18	B8J0304	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	10/03/18	B8J0304	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	10/03/18	B8J0304	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	10/03/18	B8J0304	8260	
540-84-1	2,2,4-Trimethylpentane	ND	5.0	ug/L	1	10/03/18	B8J0304	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	10/03/18	B8J0304	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	10/03/18	B8J0304	8260	A05, X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	10/03/18	B8J0304	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	10/03/18	B8J0304	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	10/03/18	B8J0304	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	10/03/18	B8J0304	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	10/03/18	B8J0304	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	10/03/18	B8J0304	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	10/03/18	B8J0304	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	10/03/18	B8J0304	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	10/03/18	B8J0304	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	10/03/18	B8J0304	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	10/03/18	B8J0304	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	10/03/18	B8J0304	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	10/03/18	B8J0304	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	10/03/18	B8J0304	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	10/03/18	B8J0304	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	10/03/18	B8J0304	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	10/03/18	B8J0304	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	10/03/18	B8J0304	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	10/03/18	B8J0304	8260	

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TEL: (517) 335-9800
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Client ID: QMCP-GW73 22-24

Lab ID: 1809119-07

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									**See note Y18**
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	10/03/18	B8J0304	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	10/03/18	B8J0304	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	10/03/18	B8J0304	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	10/03/18	B8J0304	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	10/03/18	B8J0304	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	10/03/18	B8J0304	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	10/03/18	B8J0304	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	10/03/18	B8J0304	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	10/03/18	B8J0304	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	10/03/18	B8J0304	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	10/03/18	B8J0304	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	10/03/18	B8J0304	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	10/03/18	B8J0304	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	10/03/18	B8J0304	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	10/03/18	B8J0304	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	10/03/18	B8J0304	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	10/03/18	B8J0304	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	10/03/18	B8J0304	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	10/03/18	B8J0304	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	10/03/18	B8J0304	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	10/03/18	B8J0304	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	10/03/18	B8J0304	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	10/03/18	B8J0304	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	10/03/18	B8J0304	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	10/03/18	B8J0304	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	10/03/18	B8J0304	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	10/03/18	B8J0304	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	10/03/18	B8J0304	8260	
Surrogate: Bromofluorobenzene			*103 %*	*85-115*		*10/03/18*	B8J0304	*8260*	
Surrogate: Dibromofluoromethane			*107 %*	*82.7-115*		*10/03/18*	B8J0304	*8260*	
Surrogate: Toluene-d8			*99.1 %*	*85-115*		*10/03/18*	B8J0304	*8260*	

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Client ID: QMCP-GW73 22-24

Lab ID: 1809119-07

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	5.1	ug/L	1	09/25/18	B8I1328	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	09/25/18	B8I1328	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	09/25/18	B8I1328	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	09/25/18	B8I1328	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	09/25/18	B8I1328	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	09/25/18	B8I1328	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	09/25/18	B8I1328	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	09/25/18	B8I1328	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	09/25/18	B8I1328	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	09/25/18	B8I1328	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	09/25/18	B8I1328	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	09/25/18	B8I1328	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	09/25/18	B8I1328	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	09/25/18	B8I1328	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	09/25/18	B8I1328	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	09/25/18	B8I1328	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	09/25/18	B8I1328	8270	
Surrogate: 2-Fluorobiphenyl			*64.1 %*	*24.1-115*		*09/25/18*	B8I1328	*8270*	
Surrogate: Nitrobenzene-d5			*57.9 %*	*17.8-115*		*09/25/18*	B8I1328	*8270*	
Surrogate: p-Terphenyl-d14			*82.7 %*	*41.8-115*		*09/25/18*	B8I1328	*8270*	
Organics-PCBs as Aroclors									**See note A01**
12674-11-2	Aroclor 1016	ND	0.10	ug/L	1	09/26/18	B8I2021	8081/8082	
11104-28-2	Aroclor 1221	ND	0.10	ug/L	1	09/26/18	B8I2021	8081/8082	
11141-16-5	Aroclor 1232	ND	0.10	ug/L	1	09/26/18	B8I2021	8081/8082	
53469-21-9	Aroclor 1242	ND	0.10	ug/L	1	09/26/18	B8I2021	8081/8082	
12672-29-6	Aroclor 1248	ND	0.10	ug/L	1	09/26/18	B8I2021	8081/8082	
11097-69-1	Aroclor 1254	ND	0.10	ug/L	1	09/26/18	B8I2021	8081/8082	
11096-82-5	Aroclor 1260	ND	0.10	ug/L	1	09/26/18	B8I2021	8081/8082	
37324-23-5	Aroclor 1262	ND	0.10	ug/L	1	09/26/18	B8I2021	8081/8082	
11100-14-4	Aroclor 1268	ND	0.10	ug/L	1	09/26/18	B8I2021	8081/8082	
Surrogate: Decachlorobiphenyl			*40.5 %*	*30-150*		*09/26/18*	B8I2021	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*26.9 %*	*30-150*		*09/26/18*	B8I2021	*8081/8082*	

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Client ID: QMCP-GW73 22-24

Lab ID: 1809119-07

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-Metals									
7440-38-2	**Arsenic**	**5.9**	1.0	ug/L	1	09/25/18	B8I1709	200.8	
7440-43-9	Cadmium	ND	0.2	ug/L	1	09/25/18	B8I1709	200.8	
7440-47-3	**Chromium**	**27**	1.0	ug/L	1	09/25/18	B8I1709	200.8	
7440-50-8	**Copper**	**240**	10	ug/L	10	09/25/18	B8I1709	200.8	
7439-92-1	**Lead**	**4.9**	1.0	ug/L	1	09/25/18	B8I1709	200.8	
7440-22-4	**Silver**	**0.6**	0.2	ug/L	1	09/25/18	B8I1709	200.8	
7440-66-6	**Zinc**	**24**	5.0	ug/L	1	09/25/18	B8I1709	200.8	

Michigan Department of Environmental Quality
Laboratory Services Section

Analysis Request Sheet

6 7

Lab Work Order Number	Project Name	Matrix
1809119	Abandoned Mining Wastes- QMCP	ground WATER

Site Code/Project Number	AY	CC Email 1	Project TAT Days	Sample Collector
31000098	17	jbinkley@manniksmithgroup.com		
Dept-Division-District	**Index**	**CC Email 2**	**Project Due Date**	**Sample Collector Phone**
DEQ RRD UP District- Calumet	7000			
State Project Manager	**PCA**	**CC Email 3**		**Contract Firm**
Amy Keranen	42050/1533			Mannik & Smith Group
State Project Manager Email	**location**	**Overflow Lab Choice 1**	**Accept Analysis hold time codes**	**Contract Firm Primary Contact**
keranena@michigan.gov	6996		No	Jeff Binkley
State Project Manager Phone	**sub location**	**Overflow Lab Choice 2**		**Primary Contact Phone**
906-3370-0389	6010			906-281-3404

	Lab Use Only	Field Sample Identification	Collection Date	Collection Time	Container Count	Comments
1	01	QMCP-GW 39 8-12	9-11-18	815		COOLER 14
2	02	QMCP-GW 38 5-9		855		
3	03	QMCP-GW 37 5-9		920		COOLER 14
4	04	QMCP-GW 7 3-7		1325		COOLER 15
5	05	QMCP-GW 68 3-7		1345		
6	06	QMCP-GW 67 3-7		1410		COOLER 15
7	07	QMCP-GW 73 22-24		1120		COOLER 14
8		QMCP-GW				
9		QMCP-GW				
10		QMCP-GW				

ORGANIC CHEMISTRY

VOA - Volatile Organic Acidic	
Volatiles - Full List	1 2 3 4 5 6 7 8 9 10
BTEX/MTBE/TMB only	1 2 3 4 5 6 7 8 9 10
Chlorinated only	1 2 3 4 5 6 7 8 9 10
GRO	1 2 3 4 5 6 7 8 9 10
1,4 Dioxane	1 2 3 4 5 6 7 8 9 10
METH - Methane, Ethane, Ethene	
Methane, Ethane, Ethene	1 2 3 4 5 6 7 8 9 10
ON - Pesticides, PCBs	
Pesticides & PCBs	1 2 3 4 5 6 7 8 9 10
Pesticides only	1 2 3 4 5 6 7 8 9 10
PCBs only	1 2 3 4 5 6 7 8 9 10
Toxaphene	1 2 3 4 5 6 7 8 9 10
Chlordane	1 2 3 4 5 6 7 8 9 10
BNA - Base Neutral Acids	
BNAs	1 2 3 4 5 6 7 8 9 10
Benzidines	1 2 3 4 5 6 7 8 9 10
PNAs only	1 2 3 4 5 6 7 8 9 10
BNs only	1 2 3 4 5 6 7 8 9 10
Acids only	1 2 3 4 5 6 7 8 9 10
Organic Specialty Requests	
Library search - Volatiles	1 2 3 4 5 6 7 8 9 10
Library search - SemiVols	1 2 3 4 5 6 7 8 9 10
Finger Print	1 2 3 4 5 6 7 8 9 10
DRO / ORO	1 2 3 4 5 6 7 8 9 10

METALS CHEMISTRY PACKAGES

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

MAD - DISSOLVED METALS

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

MA - TOTAL METALS

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

No Barium

GENERAL CHEMISTRY

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

Chain of Custody

	Relinquished by	Received By	Date / Time
Print Name & Org.	JEFF PINCUMBE MDEQ	Melissa Smith	9/13/18 9:47
Signature:			
Print Name & Org.			
Signature:			
Print Name & Org.			
Signature:			

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

15 October 2018

Work Order: 1809070

Price: $2,556.00

Amy Keranen
MDEQ-RRD-UP
1504 W. Washington St.
Marquette, MI 49855

RE: ABANDONED MINE WASTE

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

Sincerely,

Kirby Shane
Laboratory Director

STATE OF MICHIGAN
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MDEQ-RRD-UP	Project: ABANDONED MINE WASTE	
1504 W. Washington St.	Site Code: LB041952	**Reported:**
Marquette MI, 49855	Project Manager: Amy Keranen	10/15/2018

Analytical Report for Samples

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Qualifier
QMCP MW-301	1809070-01	Water	09/06/2018	09/10/2018	
QMCP MW-302	1809070-02	Water	09/06/2018	09/10/2018	
QMCP MW-505	1809070-03	Water	09/06/2018	09/10/2018	
QMCP MW-501	1809070-04	Water	09/07/2018	09/10/2018	
QMCP MW-501-DUP1	1809070-05	Water	09/07/2018	09/10/2018	
QMCP MW-503	1809070-06	Water	09/07/2018	09/10/2018	

Notes and Definitions

X3	Spike recovery is not applicable due to large target analyte concentration in the source sample.
X	Methods 8260 & 624 are used to analyze volatile organics that have boiling points below 200 ºC. 2-Methylnaphthalene & naphthalene have boiling points above 200 ºC and are better suited to analysis by methods 8270 & 625 as semivolatile organics.
LRB	Laboratory reagent blank was greater than 2.2 times the MDL, or greater than 10% of the analyte level in the sample.
A03	Result(s) and reporting limit(s) are estimated due to low matrix spike recovery.
A01	Result(s) and reporting limit(s) are estimated due to low surrogate recovery.
ND	Indicates compound analyzed for but not detected
RL	Reporting Limit
NA	Not Applicable

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Client ID: QMCP MW-301

Lab ID: 1809070-01

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	09/12/18	B8I1203	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	09/12/18	B8I1203	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	09/12/18	B8I1203	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
540-84-1	2,2,4-Trimethylpentane	ND	5.0	ug/L	1	09/12/18	B8I1203	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	09/12/18	B8I1203	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	09/12/18	B8I1203	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	09/12/18	B8I1203	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	09/12/18	B8I1203	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	09/12/18	B8I1203	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	09/12/18	B8I1203	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	09/12/18	B8I1203	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	09/12/18	B8I1203	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	09/12/18	B8I1203	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	

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TEL: (517) 335-9800
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Client ID: QMCP MW-301
Lab ID: 1809070-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	09/12/18	B8I1203	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	09/12/18	B8I1203	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	09/12/18	B8I1203	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	09/12/18	B8I1203	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	09/12/18	B8I1203	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	09/12/18	B8I1203	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	09/12/18	B8I1203	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	09/12/18	B8I1203	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	09/12/18	B8I1203	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	09/12/18	B8I1203	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	09/12/18	B8I1203	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
Surrogate: Bromofluorobenzene			*103 %*	*85-115*		*09/12/18*	B8I1203	*8260*	
Surrogate: Dibromofluoromethane			*96.7 %*	*82.7-115*		*09/12/18*	B8I1203	*8260*	
Surrogate: Toluene-d8			*102 %*	*85-115*		*09/12/18*	B8I1203	*8260*	

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ENVIRONMENTAL LABORATORY

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Lansing, MI 48909
TEL: (517) 335-9800
FAX: (517) 335-9600

Client ID: QMCP MW-301

Lab ID: 1809070-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	09/12/18	B8I1008	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	09/12/18	B8I1008	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	09/12/18	B8I1008	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	09/12/18	B8I1008	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	09/12/18	B8I1008	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	09/12/18	B8I1008	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	09/12/18	B8I1008	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	09/12/18	B8I1008	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	09/12/18	B8I1008	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	09/12/18	B8I1008	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	09/12/18	B8I1008	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	09/12/18	B8I1008	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	09/12/18	B8I1008	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	09/12/18	B8I1008	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	09/12/18	B8I1008	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	09/12/18	B8I1008	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	09/12/18	B8I1008	8270	
Surrogate: 2-Fluorobiphenyl			*61.4 %*	*24.1-115*		*09/12/18*	B8I1008	*8270*	
Surrogate: Nitrobenzene-d5			*47.5 %*	*17.8-115*		*09/12/18*	B8I1008	*8270*	
Surrogate: p-Terphenyl-d14			*87.1 %*	*41.8-115*		*09/12/18*	B8I1008	*8270*	
Inorganics-Metals									
7440-38-2	Arsenic	ND	1.0	ug/L	1	09/18/18	B8I1010	200.8	
7440-39-3	**Barium**	**99**	5.0	ug/L	1	09/18/18	B8I1010	200.8	
7440-43-9	Cadmium	ND	0.2	ug/L	1	09/18/18	B8I1010	200.8	
7440-70-2	**Calcium**	**66**	1.0	mg/L	1	09/12/18	B8I1010	200.7	
7440-47-3	**Chromium**	**2.4**	1.0	ug/L	1	09/18/18	B8I1010	200.8	
7440-50-8	**Copper**	**5.6**	1.0	ug/L	1	09/18/18	B8I1010	200.8	
7439-92-1	Lead	ND	1.0	ug/L	1	09/18/18	B8I1010	200.8	
7439-95-4	**Magnesium**	**18**	0.5	mg/L	1	09/12/18	B8I1010	200.7	
7439-97-6	Mercury	ND	0.2	ug/L	1	09/14/18	B8I1224	245.1	
7440-09-7	**Potassium**	**1.7**	0.2	mg/L	1	09/12/18	B8I1010	200.7	
7782-49-2	Selenium	ND	1.0	ug/L	1	09/18/18	B8I1010	200.8	
7440-22-4	Silver	ND	0.2	ug/L	1	09/18/18	B8I1010	200.8	
7440-23-5	**Sodium**	**18**	1.0	mg/L	1	09/12/18	B8I1010	200.7	
7440-66-6	Zinc	ND	5.0	ug/L	1	09/18/18	B8I1010	200.8	

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

Client ID: QMCP MW-302

Lab ID: 1809070-02

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	09/12/18	B8I1203	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	09/12/18	B8I1203	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	09/12/18	B8I1203	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
540-84-1	2,2,4-Trimethylpentane	ND	5.0	ug/L	1	09/12/18	B8I1203	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	09/12/18	B8I1203	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	09/12/18	B8I1203	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	09/12/18	B8I1203	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	09/12/18	B8I1203	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	09/12/18	B8I1203	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	09/12/18	B8I1203	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	09/12/18	B8I1203	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	09/12/18	B8I1203	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	09/12/18	B8I1203	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

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ENVIRONMENTAL LABORATORY

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

Client ID: QMCP MW-302
Lab ID: 1809070-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	09/12/18	B8I1203	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	09/12/18	B8I1203	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	09/12/18	B8I1203	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	09/12/18	B8I1203	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	09/12/18	B8I1203	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	09/12/18	B8I1203	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	09/12/18	B8I1203	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	09/12/18	B8I1203	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	09/12/18	B8I1203	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	09/12/18	B8I1203	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	09/12/18	B8I1203	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
Surrogate: Bromofluorobenzene			*104 %*	*85-115*		*09/12/18*	B8I1203	*8260*	
Surrogate: Dibromofluoromethane			*96.6 %*	*82.7-115*		*09/12/18*	B8I1203	*8260*	
Surrogate: Toluene-d8			*99.1 %*	*85-115*		*09/12/18*	B8I1203	*8260*	

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ENVIRONMENTAL LABORATORY

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TEL: (517) 335-9800
FAX: (517) 335-9600

Client ID: QMCP MW-302

Lab ID: 1809070-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note A01**
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	09/14/18	B8I1008	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	09/14/18	B8I1008	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	09/14/18	B8I1008	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
Surrogate: 2-Fluorobiphenyl			*63.9 %*	*24.1-115*		*09/14/18*	B8I1008	*8270*	
Surrogate: Nitrobenzene-d5			*52.1 %*	*17.8-115*		*09/14/18*	B8I1008	*8270*	
Surrogate: p-Terphenyl-d14			*28.6 %*	*41.8-115*		*09/14/18*	B8I1008	*8270*	
Inorganics-Metals									
7440-38-2	**Arsenic**	**1.1**	1.0	ug/L	1	09/18/18	B8I1010	200.8	
7440-39-3	**Barium**	**17**	5.0	ug/L	1	09/18/18	B8I1010	200.8	
7440-43-9	Cadmium	ND	0.2	ug/L	1	09/18/18	B8I1010	200.8	
7440-70-2	**Calcium**	**17**	1.0	mg/L	1	09/12/18	B8I1010	200.7	
7440-47-3	Chromium	ND	1.0	ug/L	1	09/18/18	B8I1010	200.8	
7440-50-8	**Copper**	**110**	1.0	ug/L	1	09/18/18	B8I1010	200.8	
7439-92-1	**Lead**	**1.8**	1.0	ug/L	1	09/18/18	B8I1010	200.8	
7439-95-4	**Magnesium**	**1.9**	0.5	mg/L	1	09/12/18	B8I1010	200.7	
7439-97-6	Mercury	ND	0.2	ug/L	1	09/14/18	B8I1224	245.1	
7440-09-7	**Potassium**	**2.7**	0.2	mg/L	1	09/12/18	B8I1010	200.7	
7782-49-2	Selenium	ND	1.0	ug/L	1	09/18/18	B8I1010	200.8	
7440-22-4	Silver	ND	0.2	ug/L	1	09/18/18	B8I1010	200.8	
7440-23-5	**Sodium**	**350**	1.0	mg/L	1	09/12/18	B8I1010	200.7	
7440-66-6	Zinc	ND	5.0	ug/L	1	09/18/18	B8I1010	200.8	

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ENVIRONMENTAL LABORATORY

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TEL: (517) 335-9800
FAX: (517) 335-9600

Client ID: QMCP MW-505

Lab ID: 1809070-03

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	09/12/18	B8I1203	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	09/12/18	B8I1203	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	09/12/18	B8I1203	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
540-84-1	2,2,4-Trimethylpentane	ND	5.0	ug/L	1	09/12/18	B8I1203	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	09/12/18	B8I1203	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	09/12/18	B8I1203	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	09/12/18	B8I1203	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	09/12/18	B8I1203	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	09/12/18	B8I1203	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	09/12/18	B8I1203	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	09/12/18	B8I1203	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	09/12/18	B8I1203	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	09/12/18	B8I1203	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	

STATE OF MICHIGAN
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TEL: (517) 335-9800
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Client ID: QMCP MW-505
Lab ID: 1809070-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	09/12/18	B8I1203	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	09/12/18	B8I1203	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	09/12/18	B8I1203	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	09/12/18	B8I1203	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	09/12/18	B8I1203	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	09/12/18	B8I1203	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	09/12/18	B8I1203	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	09/12/18	B8I1203	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	09/12/18	B8I1203	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	09/12/18	B8I1203	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	09/12/18	B8I1203	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
Surrogate: Bromofluorobenzene			*106 %*	*85-115*		*09/12/18*	B8I1203	*8260*	
Surrogate: Dibromofluoromethane			*95.6 %*	*82.7-115*		*09/12/18*	B8I1203	*8260*	
Surrogate: Toluene-d8			*99.5 %*	*85-115*		*09/12/18*	B8I1203	*8260*	

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Client ID: QMCP MW-505
Lab ID: 1809070-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note A01**
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	09/14/18	B8I1008	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	09/14/18	B8I1008	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	09/14/18	B8I1008	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
Surrogate: 2-Fluorobiphenyl			*57.7 %*	*24.1-115*		*09/14/18*	B8I1008	*8270*	
Surrogate: Nitrobenzene-d5			*54.0 %*	*17.8-115*		*09/14/18*	B8I1008	*8270*	
Surrogate: p-Terphenyl-d14			*34.1 %*	*41.8-115*		*09/14/18*	B8I1008	*8270*	
Inorganics-Metals									
7440-38-2	**Arsenic**	**2.4**	1.0	ug/L	1	09/18/18	B8I1010	200.8	
7440-39-3	**Barium**	**54**	5.0	ug/L	1	09/18/18	B8I1010	200.8	
7440-43-9	Cadmium	ND	0.2	ug/L	1	09/18/18	B8I1010	200.8	
7440-70-2	**Calcium**	**34**	1.0	mg/L	1	09/12/18	B8I1010	200.7	
7440-47-3	Chromium	ND	1.0	ug/L	1	09/18/18	B8I1010	200.8	
7440-50-8	**Copper**	**98**	1.0	ug/L	1	09/18/18	B8I1010	200.8	
7439-92-1	**Lead**	**1.1**	1.0	ug/L	1	09/18/18	B8I1010	200.8	
7439-95-4	**Magnesium**	**5.3**	0.5	mg/L	1	09/12/18	B8I1010	200.7	
7439-97-6	Mercury	ND	0.2	ug/L	1	09/14/18	B8I1224	245.1	
7440-09-7	**Potassium**	**3.1**	0.2	mg/L	1	09/12/18	B8I1010	200.7	
7782-49-2	Selenium	ND	1.0	ug/L	1	09/18/18	B8I1010	200.8	
7440-22-4	Silver	ND	0.2	ug/L	1	09/18/18	B8I1010	200.8	
7440-23-5	**Sodium**	**35**	1.0	mg/L	1	09/12/18	B8I1010	200.7	
7440-66-6	Zinc	ND	5.0	ug/L	1	09/18/18	B8I1010	200.8	

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ENVIRONMENTAL LABORATORY

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

Client ID: QMCP MW-501

Lab ID: 1809070-04

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	09/12/18	B8I1203	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	09/12/18	B8I1203	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	09/12/18	B8I1203	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
540-84-1	2,2,4-Trimethylpentane	ND	5.0	ug/L	1	09/12/18	B8I1203	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	09/12/18	B8I1203	8260	A03
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	09/12/18	B8I1203	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	09/12/18	B8I1203	8260	A03
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	09/12/18	B8I1203	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	09/12/18	B8I1203	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	09/12/18	B8I1203	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	09/12/18	B8I1203	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	09/12/18	B8I1203	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	09/12/18	B8I1203	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	

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Client ID: QMCP MW-501

Lab ID: 1809070-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	09/12/18	B8I1203	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	09/12/18	B8I1203	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	09/12/18	B8I1203	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	09/12/18	B8I1203	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	09/12/18	B8I1203	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	09/12/18	B8I1203	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	09/12/18	B8I1203	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	09/12/18	B8I1203	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	09/12/18	B8I1203	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	09/12/18	B8I1203	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	09/12/18	B8I1203	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	09/12/18	B8I1203	8260	
Surrogate: Bromofluorobenzene			*104 %*	*85-115*		*09/12/18*	B8I1203	*8260*	
Surrogate: Dibromofluoromethane			*95.0 %*	*82.7-115*		*09/12/18*	B8I1203	*8260*	
Surrogate: Toluene-d8			*101 %*	*85-115*		*09/12/18*	B8I1203	*8260*	

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ENVIRONMENTAL LABORATORY

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Lansing, MI 48909
TEL: (517) 335-9800
FAX: (517) 335-9600

Client ID: QMCP MW-501
Lab ID: 1809070-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	5.1	ug/L	1	09/14/18	B8I1008	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	09/14/18	B8I1008	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	09/14/18	B8I1008	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
Surrogate: 2-Fluorobiphenyl			*60.6 %*	*24.1-115*		*09/14/18*	B8I1008	*8270*	
Surrogate: Nitrobenzene-d5			*51.8 %*	*17.8-115*		*09/14/18*	B8I1008	*8270*	
Surrogate: p-Terphenyl-d14			*96.7 %*	*41.8-115*		*09/14/18*	B8I1008	*8270*	
Inorganics-Metals									
7440-38-2	**Arsenic**	**1.3**	1.0	ug/L	1	09/19/18	B8I1011	200.8	
7440-39-3	**Barium**	**40**	5.0	ug/L	1	09/19/18	B8I1011	200.8	
7440-43-9	Cadmium	ND	0.2	ug/L	1	09/19/18	B8I1011	200.8	
7440-70-2	**Calcium**	**26**	1.0	mg/L	1	09/12/18	B8I1011	200.7	
7440-47-3	Chromium	ND	1.0	ug/L	1	09/19/18	B8I1011	200.8	
7440-50-8	**Copper**	**9.7**	1.0	ug/L	1	09/19/18	B8I1011	200.8	
7439-92-1	**Lead**	**1.3**	1.0	ug/L	1	09/19/18	B8I1011	200.8	
7439-95-4	**Magnesium**	**4.8**	0.5	mg/L	1	09/12/18	B8I1011	200.7	
7439-97-6	Mercury	ND	0.2	ug/L	1	09/14/18	B8I1224	245.1	
7440-09-7	**Potassium**	**1.3**	0.2	mg/L	1	09/12/18	B8I1011	200.7	
7782-49-2	Selenium	ND	1.0	ug/L	1	09/19/18	B8I1011	200.8	
7440-22-4	Silver	ND	0.2	ug/L	1	09/19/18	B8I1011	200.8	
7440-23-5	**Sodium**	**7.0**	1.0	mg/L	1	09/12/18	B8I1011	200.7	
7440-66-6	Zinc	ND	5.0	ug/L	1	09/19/18	B8I1011	200.8	

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TEL: (517) 335-9800
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Client ID: QMCP MW-501-DUP1

Lab ID: 1809070-05

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	09/13/18	B8I1302	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	09/13/18	B8I1302	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	09/13/18	B8I1302	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	09/13/18	B8I1302	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	09/13/18	B8I1302	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	09/13/18	B8I1302	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	09/13/18	B8I1302	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	09/13/18	B8I1302	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	09/13/18	B8I1302	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	09/13/18	B8I1302	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	09/13/18	B8I1302	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	09/13/18	B8I1302	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	09/13/18	B8I1302	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	09/13/18	B8I1302	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	09/13/18	B8I1302	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	09/13/18	B8I1302	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	09/13/18	B8I1302	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	09/13/18	B8I1302	8260	
540-84-1	2,2,4-Trimethylpentane	ND	5.0	ug/L	1	09/13/18	B8I1302	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	09/13/18	B8I1302	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	09/13/18	B8I1302	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	09/13/18	B8I1302	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	09/13/18	B8I1302	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	09/13/18	B8I1302	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	09/13/18	B8I1302	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	09/13/18	B8I1302	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	09/13/18	B8I1302	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	09/13/18	B8I1302	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	09/13/18	B8I1302	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	09/13/18	B8I1302	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	09/13/18	B8I1302	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	09/13/18	B8I1302	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	09/13/18	B8I1302	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	09/13/18	B8I1302	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	09/13/18	B8I1302	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/13/18	B8I1302	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/13/18	B8I1302	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	09/13/18	B8I1302	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	09/13/18	B8I1302	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	09/13/18	B8I1302	8260	

STATE OF MICHIGAN
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MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

Client ID: QMCP MW-501-DUP1

Lab ID: 1809070-05

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	09/13/18	B8I1302	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	09/13/18	B8I1302	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	09/13/18	B8I1302	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	09/13/18	B8I1302	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	09/13/18	B8I1302	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	09/13/18	B8I1302	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	09/13/18	B8I1302	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	09/13/18	B8I1302	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	09/13/18	B8I1302	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	09/13/18	B8I1302	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	09/13/18	B8I1302	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	09/13/18	B8I1302	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	09/13/18	B8I1302	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	09/13/18	B8I1302	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	09/13/18	B8I1302	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	09/13/18	B8I1302	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	09/13/18	B8I1302	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	09/13/18	B8I1302	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	09/13/18	B8I1302	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	09/13/18	B8I1302	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	09/13/18	B8I1302	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	09/13/18	B8I1302	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	09/13/18	B8I1302	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/13/18	B8I1302	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/13/18	B8I1302	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	09/13/18	B8I1302	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	09/13/18	B8I1302	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	09/13/18	B8I1302	8260	
Surrogate: Bromofluorobenzene			*102 %*	*85-115*		*09/13/18*	B8I1302	*8260*	
Surrogate: Dibromofluoromethane			*92.8 %*	*82.7-115*		*09/13/18*	B8I1302	*8260*	
Surrogate: Toluene-d8			*101 %*	*85-115*		*09/13/18*	B8I1302	*8260*	

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ENVIRONMENTAL LABORATORY

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TEL: (517) 335-9800
FAX: (517) 335-9600

Client ID: QMCP MW-501-DUP1

Lab ID: 1809070-05

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	09/14/18	B8I1008	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	09/14/18	B8I1008	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	09/14/18	B8I1008	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
Surrogate: 2-Fluorobiphenyl			*58.9 %*	*24.1-115*		*09/14/18*	B8I1008	*8270*	
Surrogate: Nitrobenzene-d5			*50.6 %*	*17.8-115*		*09/14/18*	B8I1008	*8270*	
Surrogate: p-Terphenyl-d14			*89.8 %*	*41.8-115*		*09/14/18*	B8I1008	*8270*	
Inorganics-Metals									
7440-38-2	**Arsenic**	**1.3**	1.0	ug/L	1	09/19/18	B8I1011	200.8	
7440-39-3	**Barium**	**43**	5.0	ug/L	1	09/19/18	B8I1011	200.8	
7440-43-9	Cadmium	ND	0.2	ug/L	1	09/19/18	B8I1011	200.8	
7440-70-2	**Calcium**	**28**	1.0	mg/L	1	09/12/18	B8I1011	200.7	
7440-47-3	Chromium	ND	1.0	ug/L	1	09/19/18	B8I1011	200.8	
7440-50-8	**Copper**	**13**	1.0	ug/L	1	09/19/18	B8I1011	200.8	
7439-92-1	**Lead**	**1.8**	1.0	ug/L	1	09/19/18	B8I1011	200.8	
7439-95-4	**Magnesium**	**5.3**	0.5	mg/L	1	09/12/18	B8I1011	200.7	
7439-97-6	Mercury	ND	0.2	ug/L	1	09/14/18	B8I1224	245.1	
7440-09-7	**Potassium**	**1.4**	0.2	mg/L	1	09/12/18	B8I1011	200.7	
7782-49-2	Selenium	ND	1.0	ug/L	1	09/19/18	B8I1011	200.8	
7440-22-4	Silver	ND	0.2	ug/L	1	09/19/18	B8I1011	200.8	
7440-23-5	**Sodium**	**7.4**	1.0	mg/L	1	09/12/18	B8I1011	200.7	
7440-66-6	**Zinc**	**7.0**	5.0	ug/L	1	09/19/18	B8I1011	200.8	LRB

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ENVIRONMENTAL LABORATORY

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Lansing, MI 48909
TEL: (517) 335-9800
FAX: (517) 335-9600

Client ID: QMCP MW-503

Lab ID: 1809070-06

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	09/13/18	B8I1302	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	09/13/18	B8I1302	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	09/13/18	B8I1302	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	09/13/18	B8I1302	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	09/13/18	B8I1302	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	09/13/18	B8I1302	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	09/13/18	B8I1302	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	09/13/18	B8I1302	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	09/13/18	B8I1302	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	09/13/18	B8I1302	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	09/13/18	B8I1302	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	09/13/18	B8I1302	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	09/13/18	B8I1302	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	09/13/18	B8I1302	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	09/13/18	B8I1302	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	09/13/18	B8I1302	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	09/13/18	B8I1302	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	09/13/18	B8I1302	8260	
540-84-1	2,2,4-Trimethylpentane	ND	5.0	ug/L	1	09/13/18	B8I1302	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	09/13/18	B8I1302	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	09/13/18	B8I1302	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	09/13/18	B8I1302	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	09/13/18	B8I1302	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	09/13/18	B8I1302	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	09/13/18	B8I1302	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	09/13/18	B8I1302	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	09/13/18	B8I1302	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	09/13/18	B8I1302	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	09/13/18	B8I1302	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	09/13/18	B8I1302	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	09/13/18	B8I1302	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	09/13/18	B8I1302	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	09/13/18	B8I1302	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	09/13/18	B8I1302	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	09/13/18	B8I1302	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/13/18	B8I1302	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/13/18	B8I1302	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	09/13/18	B8I1302	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	09/13/18	B8I1302	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	09/13/18	B8I1302	8260	

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Client ID: QMCP MW-503

Lab ID: 1809070-06

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	09/13/18	B8I1302	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	09/13/18	B8I1302	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	09/13/18	B8I1302	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	09/13/18	B8I1302	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	09/13/18	B8I1302	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	09/13/18	B8I1302	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	09/13/18	B8I1302	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	09/13/18	B8I1302	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	09/13/18	B8I1302	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	09/13/18	B8I1302	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	09/13/18	B8I1302	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	09/13/18	B8I1302	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	09/13/18	B8I1302	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	09/13/18	B8I1302	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	09/13/18	B8I1302	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	09/13/18	B8I1302	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	09/13/18	B8I1302	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	09/13/18	B8I1302	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	09/13/18	B8I1302	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	09/13/18	B8I1302	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	09/13/18	B8I1302	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	09/13/18	B8I1302	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	09/13/18	B8I1302	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/13/18	B8I1302	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/13/18	B8I1302	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	09/13/18	B8I1302	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	09/13/18	B8I1302	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	09/13/18	B8I1302	8260	
Surrogate: Bromofluorobenzene			*102 %*	*85-115*		*09/13/18*	B8I1302	*8260*	
Surrogate: Dibromofluoromethane			*90.9 %*	*82.7-115*		*09/13/18*	B8I1302	*8260*	
Surrogate: Toluene-d8			*99.6 %*	*85-115*		*09/13/18*	B8I1302	*8260*	

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Client ID: QMCP MW-503
Lab ID: 1809070-06

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	09/14/18	B8I1008	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	09/14/18	B8I1008	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	09/14/18	B8I1008	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
Surrogate: 2-Fluorobiphenyl			*60.0 %*	*24.1-115*		*09/14/18*	B8I1008	*8270*	
Surrogate: Nitrobenzene-d5			*52.6 %*	*17.8-115*		*09/14/18*	B8I1008	*8270*	
Surrogate: p-Terphenyl-d14			*87.7 %*	*41.8-115*		*09/14/18*	B8I1008	*8270*	
Inorganics-Metals									
7440-38-2	**Arsenic**	**1.9**	1.0	ug/L	1	09/19/18	B8I1011	200.8	
7440-39-3	**Barium**	**49**	5.0	ug/L	1	09/19/18	B8I1011	200.8	
7440-43-9	Cadmium	ND	0.2	ug/L	1	09/19/18	B8I1011	200.8	
7440-70-2	**Calcium**	**35**	1.0	mg/L	1	09/12/18	B8I1011	200.7	
7440-47-3	Chromium	ND	1.0	ug/L	1	09/19/18	B8I1011	200.8	
7440-50-8	**Copper**	**25**	1.0	ug/L	1	09/19/18	B8I1011	200.8	
7439-92-1	Lead	ND	1.0	ug/L	1	09/19/18	B8I1011	200.8	
7439-95-4	**Magnesium**	**5.5**	0.5	mg/L	1	09/12/18	B8I1011	200.7	
7439-97-6	Mercury	ND	0.2	ug/L	1	09/14/18	B8I1224	245.1	
7440-09-7	**Potassium**	**1.9**	0.2	mg/L	1	09/12/18	B8I1011	200.7	
7782-49-2	Selenium	ND	1.0	ug/L	1	09/19/18	B8I1011	200.8	
7440-22-4	Silver	ND	0.2	ug/L	1	09/19/18	B8I1011	200.8	
7440-23-5	**Sodium**	**16**	1.0	mg/L	1	09/12/18	B8I1011	200.7	
7440-66-6	**Zinc**	**12**	5.0	ug/L	1	09/19/18	B8I1011	200.8	LRB

Michigan Department of Environmental Quality
Laboratory Services Section

Analysis Request Sheet

Lab Work Order Number	Project Name	Matrix
1809070	Abandon Mine Waste	WATER

Site Code/Project Number	AY	CC Email 1	Project TAT Days	Sample Collector
LB041952		pincumbej		Jeff Pincumbe
Dept-Division-District	**Index**	**CC Email 2**	**Project Due Date**	**Sample Collector Phone**
		shireyb		517-243-3171
State Project Manager	**PCA**	**CC Email 3**		**Contract Firm**
Amy Keranen				
State Project Manager Email	**Project**	**Overflow Lab Choice 1**	**Accept Analysis hold time codes**	**Contract Firm Primary Contact**
keranena				
State Project Manager Phone	**Phase**	**Overflow Lab Choice 2**		**Primary Contact Phone**
906-337-0389				

	Lab Use Only	Field Sample Identification	Collection Date	Collection Time	Container Count	Comments
1	01	QMCP-~~GW~~ mw-301	9-6-18	15:20	6	
2	02	QMCP-~~GW~~ mw-302	9-6-18	16:00	6	
3	03	QMCP-~~GW~~ mw-505	9-6-18	16:50	6	
4	04	QMCP-~~GW~~ mw-501	9-7-18	9:00	6	
5	05	QMCP-~~GW~~ mw-501-Dup2	9-7-18	9:00	6	
6	06	QMCP-~~GW~~ mw-503a	9-7-18	9:40	6	
7		QMCP-~~GW~~				
8		QMCP-~~GW~~				
9		QMCP-~~GW~~				
10		QMCP-~~GW~~				

ORGANIC CHEMISTRY

VOA - Volatile Organic Acidic	
Volatiles - Full List	(1) (2) (3) (4) (5) (6) 7 8 9 10
BTEX/MTBE/TMB only	1 2 3 4 5 6 7 8 9 10
Chlorinated only	1 2 3 4 5 6 7 8 9 10
GRO	1 2 3 4 5 6 7 8 9 10
1,4 Dioxane	1 2 3 4 5 6 7 8 9 10
METH - Methane, Ethane, Ethene	
Methane, Ethane, Ethene	1 2 3 4 5 6 7 8 9 10
ON - Pesticides, PCBs	
Pesticides & PCBs	1 2 3 4 5 6 7 8 9 10
Pesticides only	1 2 3 4 5 6 7 8 9 10
PCBs only	1 2 3 4 5 6 7 8 9 10
Toxaphene	1 2 3 4 5 6 7 8 9 10
Chlordane	1 2 3 4 5 6 7 8 9 10
BNA - Base Neutral Acids	
BNAs	1 2 3 4 5 6 7 8 9 10
Benzidines	1 2 3 4 5 6 7 8 9 10
PNAs only	(1) (2) (3) (4) (5) (6) 7 8 9 10
BNs only	1 2 3 4 5 6 7 8 9 10
Acids only	1 2 3 4 5 6 7 8 9 10
Organic Specialty Requests	
Library search - Volatiles	1 2 3 4 5 6 7 8 9 10
Library search - SemiVols	1 2 3 4 5 6 7 8 9 10
Finger Print	1 2 3 4 5 6 7 8 9 10
DRO / ORO	1 2 3 4 5 6 7 8 9 10

METALS CHEMISTRY PACKAGES

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

MAD - DISSOLVED METALS

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

MA - TOTAL METALS

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

GENERAL CHEMISTRY

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

Chain of Custody

	Relinquished by	Received By	Date / Time
Print Name & Org.	Jeff Pincumbe - MDEQ	[illegible]	9/18/18 / 7:00
Signature:	[illegible]		
Print Name & Org.		Nicole Hardigan	9/10/18
Signature:		[illegible]	1143
Print Name & Org.			
Signature:			

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Tel: (330)497-9396

TestAmerica Job ID: 240-102329-1
Client Project/Site: Abandoned Mining Waste-1744251
308434564

For:
Michigan Dept. of Environmental Quality
Constitution Hall 5rd floor 5S
525 W. Allegan Street
Lansing, Michigan 48909

Attn: Amy Keranen

Authorized for release by:
10/25/2018 4:42:12 PM

Kris Brooks, Project Manager II
(330)966-9790
kris.brooks@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at:
www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Michigan Dept. of Environmental Quality
Project/Site: Abandoned Mining Waste-1744251 308434564

TestAmerica Job ID: 240-102329-1

Job ID: 240-102329-1

Laboratory: TestAmerica Canton

Narrative

Job Narrative
240-102329-1

Comments
The Asbestos analysis was performed at the EMLab P&K Denver laboratory.
Receipt
The samples were received on 10/4/2018 10:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 25.7º C.

Method Summary

Client: Michigan Dept. of Environmental Quality
Project/Site: Abandoned Mining Waste-1744251 308434564

TestAmerica Job ID: 240-102329-1

Method	Method Description	Protocol	Laboratory
Subcontract	PLM Asbestos	None	

Protocol References:

None = None

Laboratory References:

= EMLab P&K - Denver, 4955 Yarrow Street, Arvada, CO 80002

Sample Summary

Client: Michigan Dept. of Environmental Quality
Project/Site: Abandoned Mining Waste-1744251 308434564

TestAmerica Job ID: 240-102329-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-102329-1	QMCP-ASBBLK13A-092818	Solid	09/28/18 10:25	10/04/18 10:30
240-102329-2	QMCP-ASBBLK13B-092818	Solid	09/28/18 10:25	10/04/18 10:30
240-102329-3	QMCP-ASBBLK14A-092818	Solid	09/28/18 10:30	10/04/18 10:30
240-102329-4	QMCP-ASBBLK14B-092818	Solid	09/28/18 10:30	10/04/18 10:30
240-102329-5	QMCP-ASBBLK15A-092818	Solid	09/28/18 10:35	10/04/18 10:30
240-102329-6	QMCP-ASBBLK15B-092818	Solid	09/28/18 10:35	10/04/18 10:30
240-102329-7	QMCP-ASBBLK16A-092818	Solid	09/28/18 10:45	10/04/18 10:30
240-102329-8	QMCP-ASBBLK16B-092818	Solid	09/28/18 10:45	10/04/18 10:30
240-102329-9	QMCP-ASBBLK17A-092818	Solid	09/28/18 11:00	10/04/18 10:30
240-102329-10	QMCP-ASBBLK18A-092818	Solid	09/28/18 12:00	10/04/18 10:30
240-102329-11	QMCP-ASBBLK18B-092818	Solid	09/28/18 12:00	10/04/18 10:30
240-102329-12	QMCP-ASBBLK19A-092818	Solid	09/28/18 13:20	10/04/18 10:30
240-102329-13	QMCP-ASBBLK19B-092818	Solid	09/28/18 13:20	10/04/18 10:30
240-102329-14	QMCP-ASBBLK20A-092818	Solid	09/28/18 13:25	10/04/18 10:30
240-102329-15	QMCP-ASBBLK20B-092818	Solid	09/28/18 13:25	10/04/18 10:30
240-102329-16	QMCP-ASBBLK21A-092818	Solid	09/28/18 13:29	10/04/18 10:30
240-102329-17	QMCP-ASBBLK21B-092818	Solid	09/28/18 13:29	10/04/18 10:30
240-102329-18	QMCP-ASBBLK22A-092818	Solid	09/28/18 13:32	10/04/18 10:30
240-102329-19	QMCP-ASBBLK22B-092818	Solid	09/28/18 13:32	10/04/18 10:30
240-102329-20	QMCP-ASBBLK23A-092818	Solid	09/28/18 13:35	10/04/18 10:30
240-102329-21	QMCP-ASBBLK23B-092818	Solid	09/28/18 13:35	10/04/18 10:30
240-102329-22	QMCP-ASBBLK24A-092818	Solid	09/28/18 13:37	10/04/18 10:30
240-102329-23	QMCP-ASBBLK24B-092818	Solid	09/28/18 13:37	10/04/18 10:30
240-102329-24	QMCP-ASBBLK25A-092818	Solid	09/28/18 13:39	10/04/18 10:30
240-102329-25	QMCP-ASBBLK25B-092818	Solid	09/28/18 13:39	10/04/18 10:30
240-102329-26	QMCP-ASBBLK26A-092818	Solid	09/28/18 13:50	10/04/18 10:30
240-102329-27	QMCP-ASBBLK26B-092818	Solid	09/28/18 13:50	10/04/18 10:30
240-102329-28	QMCP-ASBBLK27A-092818	Solid	09/28/18 13:55	10/04/18 10:30
240-102329-29	QMCP-ASBBLK27B-092818	Solid	09/28/18 13:55	10/04/18 10:30
240-102329-30	QMCP-ASBBLK28A-092818	Solid	09/28/18 14:05	10/04/18 10:30
240-102329-31	QMCP-ASBBLK28B-092818	Solid	09/28/18 14:05	10/04/18 10:30
240-102329-32	QMCP-ASBBLK29A-092818	Solid	09/28/18 14:55	10/04/18 10:30
240-102329-33	QMCP-ASBBLK29B-092818	Solid	09/28/18 14:55	10/04/18 10:30
240-102329-34	QMCP-ASBBLK30A-092818	Solid	09/28/18 15:00	10/04/18 10:30
240-102329-35	QMCP-ASBBLK30B-092818	Solid	09/28/18 15:00	10/04/18 10:30
240-102329-36	QMCP-ASBBLK31A-092818	Solid	09/28/18 15:03	10/04/18 10:30
240-102329-37	QMCP-ASBBLK31B-092818	Solid	09/28/18 15:03	10/04/18 10:30
240-102329-38	QMCP-ASBBLK32A-092818	Solid	09/28/18 15:05	10/04/18 10:30
240-102329-39	QMCP-ASBBLK32B-092818	Solid	09/28/18 15:05	10/04/18 10:30
240-102329-40	QMCP-ASBBLK33A-092818	Solid	09/28/18 15:07	10/04/18 10:30
240-102329-41	QMCP-ASBBLK33B-092818	Solid	09/28/18 15:07	10/04/18 10:30
240-102329-42	QMCP-ASBBLK34A-092818	Solid	09/28/18 15:09	10/04/18 10:30
240-102329-43	QMCP-ASBBLK34B-092818	Solid	09/28/18 15:09	10/04/18 10:30
240-102329-44	QMCP-ASBBLK35A-092818	Solid	09/28/18 15:15	10/04/18 10:30
240-102329-45	QMCP-ASBBLK35B-092818	Solid	09/28/18 15:15	10/04/18 10:30
240-102329-46	QMCP-ASBBLK36A-092818	Solid	09/28/18 15:25	10/04/18 10:30
240-102329-47	QMCP-ASBBLK36B-092818	Solid	09/28/18 15:25	10/04/18 10:30
240-102329-48	QMCP-ASBBLK37A-092818	Solid	09/28/18 15:30	10/04/18 10:30
240-102329-49	QMCP-ASBBLK37B-092818	Solid	09/28/18 15:30	10/04/18 10:30
240-102329-50	QMCP-ASBBLK38A-092818	Solid	09/28/18 15:35	10/04/18 10:30
240-102329-51	QMCP-ASBBLK38B-092818	Solid	09/28/18 15:35	10/04/18 10:30
240-102329-52	QMCP-ASBBLK39A-092818	Solid	09/28/18 15:40	10/04/18 10:30
240-102329-53	QMCP-ASBBLK39B-092818	Solid	09/28/18 15:40	10/04/18 10:30

Sample Summary

Client: Michigan Dept. of Environmental Quality
Project/Site: Abandoned Mining Waste-1744251 308434564

TestAmerica Job ID: 240-102329-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-102329-54	QMCP-ASBBLK40A-092818	Solid	09/28/18 16:35	10/04/18 10:30
240-102329-55	QMCP-ASBBLK40B-092818	Solid	09/28/18 16:35	10/04/18 10:30
240-102329-56	QMCP-ASBBLK41A-092818	Solid	09/28/18 16:50	10/04/18 10:30
240-102329-57	QMCP-ASBBLK41B-092818	Solid	09/28/18 16:50	10/04/18 10:30
240-102329-58	QMCP-ASBBLK42A-100118	Solid	10/01/18 09:10	10/04/18 10:30
240-102329-59	QMCP-ASBBLK42B-100118	Solid	10/01/18 09:10	10/04/18 10:30
240-102329-60	QMCP-ASBBLK43A-100118	Solid	10/01/18 09:15	10/04/18 10:30
240-102329-61	QMCP-ASBBLK43B-100118	Solid	10/01/18 09:15	10/04/18 10:30
240-102329-62	QMCP-ASBBLK44A-100118	Solid	10/01/18 09:18	10/04/18 10:30
240-102329-63	QMCP-ASBBLK44B-100118	Solid	10/01/18 09:18	10/04/18 10:30
240-102329-64	QMCP-ASBBLK45A-100118	Solid	10/01/18 09:20	10/04/18 10:30
240-102329-65	QMCP-ASBBLK45B-100118	Solid	10/01/18 09:20	10/04/18 10:30
240-102329-66	QMCP-ASBBLK46A-100118	Solid	10/01/18 09:24	10/04/18 10:30
240-102329-67	QMCP-ASBBLK46B-100118	Solid	10/01/18 09:24	10/04/18 10:30
240-102329-68	QMCP-ASBBLK47A-100118	Solid	10/01/18 09:25	10/04/18 10:30
240-102329-69	QMCP-ASBBLK47B-100118	Solid	10/01/18 09:25	10/04/18 10:30
240-102329-70	QMCP-ASBBLK48A-100118	Solid	10/01/18 09:28	10/04/18 10:30
240-102329-71	QMCP-ASBBLK48B-100118	Solid	10/01/18 09:28	10/04/18 10:30
240-102329-72	QMCP-ASBBLK49A-100118	Solid	10/01/18 09:31	10/04/18 10:30
240-102329-73	QMCP-ASBBLK49B-100118	Solid	10/01/18 09:31	10/04/18 10:30
240-102329-74	QMCP-ASBBLK50A-100118	Solid	10/01/18 09:44	10/04/18 10:30
240-102329-75	QMCP-ASBBLK50B-100118	Solid	10/01/18 09:44	10/04/18 10:30
240-102329-76	QMCP-ASBBLK51A-100118	Solid	10/01/18 09:45	10/04/18 10:30
240-102329-77	QMCP-ASBBLK51B-100118	Solid	10/01/18 09:45	10/04/18 10:30
240-102329-78	QMCP-ASBBLK52A-100118	Solid	10/01/18 10:06	10/04/18 10:30
240-102329-79	QMCP-ASBBLK52B-100118	Solid	10/01/18 10:06	10/04/18 10:30
240-102329-80	QMCP-ASBBLK53A-100118	Solid	10/01/18 10:30	10/04/18 10:30
240-102329-81	QMCP-ASBBLK53B-100118	Solid	10/01/18 10:30	10/04/18 10:30
240-102329-82	QMCP-ASBBLK54A-100118	Solid	10/01/18 10:32	10/04/18 10:30
240-102329-83	QMCP-ASBBLK54B-100118	Solid	10/01/18 10:32	10/04/18 10:30
240-102329-84	QMCP-ASBBLK55A-100118	Solid	10/01/18 10:34	10/04/18 10:30
240-102329-85	QMCP-ASBBLK55B-100118	Solid	10/01/18 10:34	10/04/18 10:30
240-102329-86	QMCP-ASBBLK56A-100118	Solid	10/01/18 10:35	10/04/18 10:30
240-102329-87	QMCP-ASBBLK56B-100118	Solid	10/01/18 10:35	10/04/18 10:30
240-102329-88	QMCP-ASBBLK57A-100118	Solid	10/01/18 10:40	10/04/18 10:30
240-102329-89	QMCP-ASBBLK57B-100118	Solid	10/01/18 10:40	10/04/18 10:30
240-102329-90	QMCP-ASBBLK58A-100118	Solid	10/01/18 11:00	10/04/18 10:30
240-102329-91	QMCP-ASBBLK58B-100118	Solid	10/01/18 11:00	10/04/18 10:30
240-102329-92	QMCP-ASBBLK59A-100118	Solid	10/01/18 12:30	10/04/18 10:30
240-102329-93	QMCP-ASBBLK59B-100118	Solid	10/01/18 12:30	10/04/18 10:30

Accreditation/Certification Summary

Client: Michigan Dept. of Environmental Quality
Project/Site: Abandoned Mining Waste-1744251 308434564

TestAmerica Job ID: 240-102329-1

Laboratory: TestAmerica Canton

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
California	State Program	9	2927	02-23-19
Connecticut	State Program	1	PH-0590	12-31-19
Florida	NELAP	4	E87225	06-30-19
Illinois	NELAP	5	200004	07-31-19
Kansas	NELAP	7	E-10336	01-31-19
Kentucky (UST)	State Program	4	58	02-23-19
Kentucky (WW)	State Program	4	98016	12-31-18 *
Minnesota	NELAP	5	039-999-348	12-31-18 *
Minnesota (Petrofund)	State Program	1	3506	07-31-19
Nevada	State Program	9	OH00048	07-31-19
New Jersey	NELAP	2	OH001	06-30-19
New York	NELAP	2	10975	03-31-19
Ohio VAP	State Program	5	CL0024	09-06-19
Oregon	NELAP	10	4062	02-23-19
Pennsylvania	NELAP	3	68-00340	08-31-19 *
Texas	NELAP	6	T104704517-17-9	08-31-19
USDA	Federal		P330-16-00404	12-28-19
Virginia	NELAP	3	460175	09-14-19
Washington	State Program	10	C971	01-12-19
West Virginia DEP	State Program	3	210	12-31-18 *

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

EMLab P&K
A TestAmerica Company

Report for:

Ms. Kris Brooks
TestAmerica-Canton
4101 Shuffel St. NW
North Canton, OH 44720

Regarding: Project: 240-102329-1; Abandoned Mining Waste- 1744251 308434564
EML ID: 2018083

Approved by:

Approved Signatory
Noah Lazarte

Dates of Analysis:
Asbestos PLM: 10-09-2018 and 10-18-2018

Service SOPs: Asbestos PLM (EPA 40CFR App E to Sub E of Part 763 & EPA METHOD 600/R-93-116, SOP EM-AS-S-1267)

All samples were received in acceptable condition unless noted in the Report Comments portion in the body of the report. The results relate only to the items tested. The results include an inherent uncertainty of measurement associated with estimating percentages by polarized light microscopy. Measurement uncertainty data for sample results with >1% asbestos concentration can be provided when requested.

EMLab P&K ("the Company") shall have no liability to the client or the client's customer with respect to decisions or recommendations made, actions taken or courses of conduct implemented by either the client or the client's customer as a result of or based upon the Test Results. In no event shall the Company be liable to the client with respect to the Test Results except for the Company's own willful misconduct or gross negligence nor shall the Company be liable for incidental or consequential damages or lost profits or revenues to the fullest extent such liability may be disclaimed by law, even if the Company has been advised of the possibility of such damages, lost profits or lost revenues. In no event shall the Company's liability with respect to the Test Results exceed the amount paid to the Company by the client therefor.

EMLab P&K
4955 Yarrow Street , Arvada, CO 80002
(800) 651-4802 Fax (623) 780-7695 www.emlab.com

Client: TestAmerica-Canton
C/O: Ms. Kris Brooks
Re: 240-102329-1; Abandoned Mining Waste-1744251 308434564

Date of Sampling: 08-28-2018
Date of Receipt: 10-08-2018
Date of Report: 10-18-2018

ASBESTOS PLM REPORT

Total Samples Submitted:	93
Total Samples Analyzed:	78
Total Samples with Layer Asbestos Content > 1%:	16

Location: 240-102329-1, QMCP-ASBBLK13A-092818

Lab ID-Version‡: 9519189-1

Sample Layers	Asbestos Content
Brown Fibrous Material	ND
Composite Non-Asbestos Content:	90% Glass Fibers
Sample Composite Homogeneity:	Good

Location: 240-102329-2, QMCP-ASBBLK13B-092818

Lab ID-Version‡: 9519190-1

Sample Layers	Asbestos Content
Brown Fibrous Material	ND
Composite Non-Asbestos Content:	90% Glass Fibers
Sample Composite Homogeneity:	Good

Location: 240-102329-3, QMCP-ASBBLK14A-092818

Lab ID-Version‡: 9519191-1

Sample Layers	Asbestos Content
Brown Fibrous Material	65% Chrysotile
Sample Composite Homogeneity:	Good

Comments: Sample 240-102329-4 was not analyzed due to prior positive series.

Location: 240-102329-5, QMCP-ASBBLK15A-092818

Lab ID-Version‡: 9519193-1

Sample Layers	Asbestos Content
Tan Non-Fibrous Material	ND
Sample Composite Homogeneity:	Good

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ASBESTOS PLM REPORT

Location: 240-102329-6, QMCP-ASBBLK15B-092818 Lab ID-Version‡: 9519194-1

Sample Layers	Asbestos Content
Tan Non-Fibrous Material	ND
Sample Composite Homogeneity:	Good

Location: 240-102329-7, QMCP-ASBBLK16A-092818 Lab ID-Version‡: 9519195-1

Sample Layers	Asbestos Content
Brown Felt	ND
Black Tar	ND
Composite Non-Asbestos Content:	60% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 240-102329-8, QMCP-ASBBLK16B-092818 Lab ID-Version‡: 9519196-1

Sample Layers	Asbestos Content
Brown Felt	ND
Black Tar	ND
Composite Non-Asbestos Content:	20% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 240-102329-9, QMCP-ASBBLK17A-092818 Lab ID-Version‡: 9519197-1

Sample Layers	Asbestos Content
Gray Transite	15% Chrysotile
Sample Composite Homogeneity:	Good

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ASBESTOS PLM REPORT

Location: 240-102329-10, QMCP-ASBBLK18A-092818

Lab ID-Version‡: 9519198-1

Sample Layers	Asbestos Content
Gray/White Fibrous Material	ND
Composite Non-Asbestos Content:	90% Glass Fibers
Sample Composite Homogeneity:	Good

Location: 240-102329-11, QMCP-ASBBLK18B-092818

Lab ID-Version‡: 9519199-1

Sample Layers	Asbestos Content
Gray/White Fibrous Material	ND
Composite Non-Asbestos Content:	90% Glass Fibers
Sample Composite Homogeneity:	Good

Location: 240-102329-12, QMCP-ASBBLK19A-092818

Lab ID-Version‡: 9519200-1

Sample Layers	Asbestos Content
Tan Non-Fibrous Material	ND
Sample Composite Homogeneity:	Good

Location: 240-102329-13, QMCP-ASBBLK19B-092818

Lab ID-Version‡: 9519201-1

Sample Layers	Asbestos Content
Tan Non-Fibrous Material	ND
Sample Composite Homogeneity:	Good

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ASBESTOS PLM REPORT

Location: 240-102329-14, QMCP-ASBBLK20A-092818

Lab ID-Version‡: 9519202-1

Sample Layers	Asbestos Content
Gray Fibrous Material	65% Chrysotile
Sample Composite Homogeneity:	Good

Comments: Sample 240-102329-15 was not analyzed due to prior positive series.

Location: 240-102329-16, QMCP-ASBBLK21A-092818

Lab ID-Version‡: 9519204-1

Sample Layers	Asbestos Content
Black Roofing Shingle with Green Pebbles	ND
Composite Non-Asbestos Content:	30% Cellulose
Sample Composite Homogeneity:	Good

Location: 240-102329-17, QMCP-ASBBLK21B-092818

Lab ID-Version‡: 9519205-1

Sample Layers	Asbestos Content
Black Roofing Shingle with Green Pebbles	ND
Composite Non-Asbestos Content:	30% Cellulose
Sample Composite Homogeneity:	Good

Location: 240-102329-18, QMCP-ASBBLK22A-092818

Lab ID-Version‡: 9519206-1

Sample Layers	Asbestos Content
Black Felt	ND
Composite Non-Asbestos Content:	40% Cellulose
Sample Composite Homogeneity:	Good

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ASBESTOS PLM REPORT

Location: 240-102329-19, QMCP-ASBBLK22B-092818 Lab ID-Version‡: 9519207-1

Sample Layers	Asbestos Content
Black Felt	ND
Composite Non-Asbestos Content:	40% Cellulose
Sample Composite Homogeneity:	Good

Location: 240-102329-20, QMCP-ASBBLK23A-092818 Lab ID-Version‡: 9519208-1

Sample Layers	Asbestos Content
Black Semi-Fibrous Material	ND
Composite Non-Asbestos Content:	30% Glass Fibers
Sample Composite Homogeneity:	Good

Location: 240-102329-21, QMCP-ASBBLK23B-092818 Lab ID-Version‡: 9519209-1

Sample Layers	Asbestos Content
Black Semi-Fibrous Material	ND
Composite Non-Asbestos Content:	30% Glass Fibers
Sample Composite Homogeneity:	Good

Location: 240-102329-22, QMCP-ASBBLK24A-092818 Lab ID-Version‡: 9519210-1

Sample Layers	Asbestos Content
Gray Semi-Fibrous Material	30% Chrysotile 3% Amosite
Sample Composite Homogeneity:	Good

Comments: Sample 240-102329-23 was not analyzed due to prior positive series.

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ASBESTOS PLM REPORT

Location: 240-102329-24, QMCP-ASBBLK25A-092818

Lab ID-Version‡: 9519212-1

Sample Layers	Asbestos Content
Black Tar with Silver Coating	2% Chrysotile
White Fibrous Material	ND
Composite Non-Asbestos Content:	50% Glass Fibers
Sample Composite Homogeneity:	Good

Comments: Sample 240-102329-25 was not analyzed due to prior positive series.

Location: 240-102329-26, QMCP-ASBBLK26A-092818

Lab ID-Version‡: 9519214-1

Sample Layers	Asbestos Content
Gray Felt	30% Chrysotile
Black Tar	ND
Composite Non-Asbestos Content:	10% Cellulose
Sample Composite Homogeneity:	Moderate

Comments: Sample 240-102329-27 was not analyzed due to prior positive series.

Location: 240-102329-28, QMCP-ASBBLK27A-092818

Lab ID-Version‡: 9519216-1

Sample Layers	Asbestos Content
Blue Semi-Fibrous Material	60% Chrysotile
Sample Composite Homogeneity:	Good

Comments: Sample 240-102329-29 was not analyzed due to prior positive series.

Location: 240-102329-30, QMCP-ASBBLK28A-092818

Lab ID-Version‡: 9519218-1

Sample Layers	Asbestos Content
Brown/Gray Fibrous Material	70% Chrysotile
Sample Composite Homogeneity:	Good

Comments: Sample 240-102329-31 was not analyzed due to prior positive series.

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ASBESTOS PLM REPORT

Location: 240-102329-32, QMCP-ASBBLK29A-092818

Lab ID-Version‡: 9519220-1

Sample Layers	Asbestos Content
Gray Semi-Fibrous Material	50% Chrysotile
Sample Composite Homogeneity:	Good

Comments: Sample 240-102329-33 was not analyzed due to prior positive series.

Location: 240-102329-34, QMCP-ASBBLK30A-092818

Lab ID-Version‡: 9519222-1

Sample Layers	Asbestos Content
Black Roofing Shingle with Red Pebbles	ND
Composite Non-Asbestos Content:	40% Cellulose
Sample Composite Homogeneity:	Good

Location: 240-102329-35, QMCP-ASBBLK30B-092818

Lab ID-Version‡: 9519223-1

Sample Layers	Asbestos Content
Black Roofing Shingle with Red Pebbles	ND
Composite Non-Asbestos Content:	40% Cellulose
Sample Composite Homogeneity:	Good

Location: 240-102329-36, QMCP-ASBBLK31A-092818

Lab ID-Version‡: 9519224-1

Sample Layers	Asbestos Content
Black Roofing Shingle with White Pebbles	ND
Composite Non-Asbestos Content:	40% Cellulose
Sample Composite Homogeneity:	Good

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ASBESTOS PLM REPORT

Location: 240-102329-37, QMCP-ASBBLK31B-092818

Lab ID-Version‡: 9519225-1

Sample Layers	Asbestos Content
Black Roofing Shingle with White Pebbles	ND
Composite Non-Asbestos Content:	40% Cellulose
Sample Composite Homogeneity:	Good

Location: 240-102329-38, QMCP-ASBBLK32A-092818

Lab ID-Version‡: 9519226-1

Sample Layers	Asbestos Content
Black Felt	ND
Black Roofing Shingle with Green Pebbles	ND
Composite Non-Asbestos Content:	30% Cellulose 10% Synthetic Fibers
Sample Composite Homogeneity:	Moderate

Location: 240-102329-39, QMCP-ASBBLK32B-092818

Lab ID-Version‡: 9519227-1

Sample Layers	Asbestos Content
Black Felt	ND
Black Roofing Shingle with Green Pebbles	ND
Composite Non-Asbestos Content:	30% Cellulose 10% Synthetic Fibers
Sample Composite Homogeneity:	Moderate

Location: 240-102329-40, QMCP-ASBBLK33A-092818

Lab ID-Version‡: 9519228-1

Sample Layers	Asbestos Content
Black Felt	ND
Composite Non-Asbestos Content:	70% Cellulose
Sample Composite Homogeneity:	Good

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ASBESTOS PLM REPORT

Location: 240-102329-41, QMCP-ASBBLK33B-092818 Lab ID-Version‡: 9519229-1

Sample Layers	Asbestos Content
Black Felt	ND
Composite Non-Asbestos Content:	70% Cellulose
Sample Composite Homogeneity:	Good

Location: 240-102329-42, QMCP-ASBBLK34A-092818 Lab ID-Version‡: 9519230-1

Sample Layers	Asbestos Content
Brown/Black Fiberboard	ND
Composite Non-Asbestos Content:	90% Cellulose
Sample Composite Homogeneity:	Good

Location: 240-102329-43, QMCP-ASBBLK34B-092818 Lab ID-Version‡: 9519231-1

Sample Layers	Asbestos Content
Brown/Black Fiberboard	ND
Composite Non-Asbestos Content:	90% Cellulose
Sample Composite Homogeneity:	Good

Location: 240-102329-44, QMCP-ASBBLK35A-092818 Lab ID-Version‡: 9519232-1

Sample Layers	Asbestos Content
Gray Semi-Fibrous Material	40% Chrysotile
Sample Composite Homogeneity:	Good

Comments: Sample 240-102329-45 was not analyzed due to prior positive series.

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ASBESTOS PLM REPORT

Location: 240-102329-46, QMCP-ASBBLK36A-092818 Lab ID-Version‡: 9519234-1

Sample Layers	Asbestos Content
Gray/Black Semi-Fibrous Material	ND
Composite Non-Asbestos Content:	60% Synthetic Fibers
Sample Composite Homogeneity:	Good

Location: 240-102329-47, QMCP-ASBBLK36B-092818 Lab ID-Version‡: 9519235-1

Sample Layers	Asbestos Content
Gray/Black Semi-Fibrous Material	ND
Composite Non-Asbestos Content:	60% Synthetic Fibers
Sample Composite Homogeneity:	Good

Location: 240-102329-48, QMCP-ASBBLK37A-092818 Lab ID-Version‡: 9519236-1

Sample Layers	Asbestos Content
White Fibrous Material	ND
Composite Non-Asbestos Content:	95% Glass Fibers
Sample Composite Homogeneity:	Good

Location: 240-102329-49, QMCP-ASBBLK37B-092818 Lab ID-Version‡: 9519237-1

Sample Layers	Asbestos Content
White Fibrous Material	ND
Composite Non-Asbestos Content:	95% Glass Fibers
Sample Composite Homogeneity:	Good

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ASBESTOS PLM REPORT

Location: 240-102329-50, QMCP-ASBBLK38A-092818

Lab ID-Version‡: 9519238-1

Sample Layers	Asbestos Content
Black/White Semi-Fibrous Material	ND
Composite Non-Asbestos Content:	50% Glass Fibers
Sample Composite Homogeneity:	Good

Location: 240-102329-51, QMCP-ASBBLK38B-092818

Lab ID-Version‡: 9519239-1

Sample Layers	Asbestos Content
Black/White Semi-Fibrous Material	ND
Composite Non-Asbestos Content:	50% Glass Fibers
Sample Composite Homogeneity:	Good

Location: 240-102329-52, QMCP-ASBBLK39A-092818

Lab ID-Version‡: 9519240-1

Sample Layers	Asbestos Content
Black Mastic	5% Chrysotile
Off-White Tile	2% Chrysotile
Sample Composite Homogeneity:	Moderate

Comments: Sample 240-102329-53 was not analyzed due to prior positive series.

Location: 240-102329-54, QMCP-ASBBLK40A-092818

Lab ID-Version‡: 9519242-1

Sample Layers	Asbestos Content
Brown/Black Tar and Felt	ND
Composite Non-Asbestos Content:	70% Cellulose
Sample Composite Homogeneity:	Good

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EMLab P&K
4955 Yarrow Street , Arvada, CO 80002
(800) 651-4802 Fax (623) 780-7695 www.emlab.com

Client: TestAmerica-Canton
C/O: Ms. Kris Brooks
Re: 240-102329-1; Abandoned Mining Waste-1744251 308434564

Date of Sampling: 08-28-2018
Date of Receipt: 10-08-2018
Date of Report: 10-18-2018

ASBESTOS PLM REPORT

Location: 240-102329-55, QMCP-ASBBLK40B-092818 Lab ID-Version‡: 9519243-1

Sample Layers	Asbestos Content
Brown/Black Tar and Felt	ND
Composite Non-Asbestos Content:	70% Cellulose
Sample Composite Homogeneity:	Good

Location: 240-102329-56, QMCP-ASBBLK41A-092818 Lab ID-Version‡: 9519244-1

Sample Layers	Asbestos Content
Black/White Semi-Fibrous Material	ND
Composite Non-Asbestos Content:	50% Glass Fibers
Sample Composite Homogeneity:	Good

Location: 240-102329-57, QMCP-ASBBLK41B-092818 Lab ID-Version‡: 9519245-1

Sample Layers	Asbestos Content
Black/White Semi-Fibrous Material	ND
Composite Non-Asbestos Content:	50% Glass Fibers
Sample Composite Homogeneity:	Good

Location: 240-102329-58, QMCP-ASBBLK42A-100118 Lab ID-Version‡: 9519246-1

Sample Layers	Asbestos Content
Gray Semi-Fibrous Material	40% Chrysotile
Sample Composite Homogeneity:	Good

Comments: Sample 240-102329-59 was not analyzed due to prior positive series.

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Client: TestAmerica-Canton
C/O: Ms. Kris Brooks
Re: 240-102329-1; Abandoned Mining Waste-1744251 308434564

Date of Sampling: 08-28-2018
Date of Receipt: 10-08-2018
Date of Report: 10-18-2018

ASBESTOS PLM REPORT

Location: 240-102329-60, QMCP-ASBBLK43A-100118 Lab ID-Version‡: 9519248-1

Sample Layers	Asbestos Content
Black Roofing Shingle with Red Pebbles	ND
Composite Non-Asbestos Content:	40% Cellulose
Sample Composite Homogeneity:	Good

Location: 240-102329-61, QMCP-ASBBLK43B-100118 Lab ID-Version‡: 9519249-1

Sample Layers	Asbestos Content
Black Roofing Shingle with Red Pebbles	ND
Composite Non-Asbestos Content:	40% Cellulose
Sample Composite Homogeneity:	Good

Location: 240-102329-62, QMCP-ASBBLK44A-100118 Lab ID-Version‡: 9519250-1

Sample Layers	Asbestos Content
Black Roofing Shingle with Multicolored Pebbles	ND
Composite Non-Asbestos Content:	40% Cellulose
Sample Composite Homogeneity:	Good

Location: 240-102329-63, QMCP-ASBBLK44B-100118 Lab ID-Version‡: 9519251-1

Sample Layers	Asbestos Content
Black Roofing Shingle with Multicolored Pebbles	ND
Composite Non-Asbestos Content:	40% Cellulose
Sample Composite Homogeneity:	Good

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Client: TestAmerica-Canton
C/O: Ms. Kris Brooks
Re: 240-102329-1; Abandoned Mining Waste-1744251 308434564

Date of Sampling: 08-28-2018
Date of Receipt: 10-08-2018
Date of Report: 10-18-2018

ASBESTOS PLM REPORT

Location: 240-102329-64, QMCP-ASBBLK45A-100118 Lab ID-Version‡: 9519252-1

Sample Layers	Asbestos Content
Black Felt	ND
Composite Non-Asbestos Content:	70% Cellulose
Sample Composite Homogeneity:	Good

Location: 240-102329-65, QMCP-ASBBLK45B-100118 Lab ID-Version‡: 9519253-1

Sample Layers	Asbestos Content
Black Felt	ND
Composite Non-Asbestos Content:	70% Cellulose
Sample Composite Homogeneity:	Good

Location: 240-102329-66, QMCP-ASBBLK46A-100118 Lab ID-Version‡: 9519254-1

Sample Layers	Asbestos Content
Black Roofing Shingle with Beige Pebbles	ND
Composite Non-Asbestos Content:	40% Cellulose
Sample Composite Homogeneity:	Good

Location: 240-102329-67, QMCP-ASBBLK46B-100118 Lab ID-Version‡: 9519255-1

Sample Layers	Asbestos Content
Black Roofing Shingle with Beige Pebbles	ND
Composite Non-Asbestos Content:	40% Cellulose
Sample Composite Homogeneity:	Good

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Client: TestAmerica-Canton
C/O: Ms. Kris Brooks
Re: 240-102329-1; Abandoned Mining Waste-1744251 308434564

Date of Sampling: 08-28-2018
Date of Receipt: 10-08-2018
Date of Report: 10-18-2018

ASBESTOS PLM REPORT

Location: 240-102329-68, QMCP-ASBBLK47A-100118

Lab ID-Version‡: 9519256-1

Sample Layers	Asbestos Content
Gray/Black Felt	ND
Composite Non-Asbestos Content:	70% Cellulose
Sample Composite Homogeneity:	Good

Location: 240-102329-69, QMCP-ASBBLK47B-100118

Lab ID-Version‡: 9519257-1

Sample Layers	Asbestos Content
Gray/Black Felt	ND
Composite Non-Asbestos Content:	70% Cellulose
Sample Composite Homogeneity:	Good

Location: 240-102329-70, QMCP-ASBBLK48A-100118

Lab ID-Version‡: 9519258-1

Sample Layers	Asbestos Content
Gray/Black Mastic	15% Chrysotile
Sample Composite Homogeneity:	Good

Comments: Sample 240-102329-71 was not analyzed due to prior positive series.

Location: 240-102329-72, QMCP-ASBBLK49A-100118

Lab ID-Version‡: 9519260-1

Sample Layers	Asbestos Content
Silver Coating	3% Chrysotile
Black Felt	ND
Composite Non-Asbestos Content:	50% Cellulose
Sample Composite Homogeneity:	Moderate

Comments: Sample 240-102329-73 was not analyzed due to prior positive series.

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Client: TestAmerica-Canton
C/O: Ms. Kris Brooks
Re: 240-102329-1; Abandoned Mining Waste-1744251 308434564

Date of Sampling: 08-28-2018
Date of Receipt: 10-08-2018
Date of Report: 10-18-2018

ASBESTOS PLM REPORT

Location: 240-102329-74, QMCP-ASBBLK50A-100118 Lab ID-Version‡: 9519262-1

Sample Layers	Asbestos Content
Gray/Black Tar and Felt	ND
Composite Non-Asbestos Content:	50% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 240-102329-75, QMCP-ASBBLK50B-100118 Lab ID-Version‡: 9519263-1

Sample Layers	Asbestos Content
Gray/Black Tar and Felt	ND
Composite Non-Asbestos Content:	50% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 240-102329-76, QMCP-ASBBLK51A-100118 Lab ID-Version‡: 9519264-1

Sample Layers	Asbestos Content
Gray/Black Felt	ND
Composite Non-Asbestos Content:	70% Cellulose
Sample Composite Homogeneity:	Good

Location: 240-102329-77, QMCP-ASBBLK51B-100118 Lab ID-Version‡: 9519265-1

Sample Layers	Asbestos Content
Gray/Black Felt	ND
Composite Non-Asbestos Content:	70% Cellulose
Sample Composite Homogeneity:	Good

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Client: TestAmerica-Canton
C/O: Ms. Kris Brooks
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Date of Sampling: 08-28-2018
Date of Receipt: 10-08-2018
Date of Report: 10-18-2018

ASBESTOS PLM REPORT

Location: 240-102329-78, QMCP-ASBBLK52A-100118

Lab ID-Version‡: 9519266-1

Sample Layers	Asbestos Content
Gray/White Semi-Fibrous Material	ND
Composite Non-Asbestos Content:	75% Glass Fibers
Sample Composite Homogeneity:	Good

Location: 240-102329-79, QMCP-ASBBLK52B-100118

Lab ID-Version‡: 9519267-1

Sample Layers	Asbestos Content
Gray/White Semi-Fibrous Material	ND
Composite Non-Asbestos Content:	75% Glass Fibers
Sample Composite Homogeneity:	Good

Location: 240-102329-80, QMCP-ASBBLK53A-100118

Lab ID-Version‡: 9519268-1

Sample Layers	Asbestos Content
Silver Coating	3% Chrysotile
Black Felt	ND
Composite Non-Asbestos Content:	50% Cellulose
Sample Composite Homogeneity:	Moderate

Comments: Sample 240-102329-81 was not analyzed due to prior positive series.

Location: 240-102329-82, QMCP-ASBBLK54A-100118

Lab ID-Version‡: 9519270-1

Sample Layers	Asbestos Content
Black Roofing Shingle with Red Pebbles	ND
Composite Non-Asbestos Content:	40% Cellulose
Sample Composite Homogeneity:	Good

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Client: TestAmerica-Canton
C/O: Ms. Kris Brooks
Re: 240-102329-1; Abandoned Mining Waste-1744251 308434564

Date of Sampling: 08-28-2018
Date of Receipt: 10-08-2018
Date of Report: 10-18-2018

ASBESTOS PLM REPORT

Location: 240-102329-83, QMCP-ASBBLK54B-100118 Lab ID-Version‡: 9519271-1

Sample Layers	Asbestos Content
Black Roofing Shingle with Red Pebbles	ND
Composite Non-Asbestos Content:	40% Cellulose
Sample Composite Homogeneity:	Good

Location: 240-102329-84, QMCP-ASBBLK55A-100118 Lab ID-Version‡: 9519272-1

Sample Layers	Asbestos Content
Black Roofing Shingle with Green Pebbles	ND
Composite Non-Asbestos Content:	40% Cellulose
Sample Composite Homogeneity:	Good

Location: 240-102329-85, QMCP-ASBBLK55B-100118 Lab ID-Version‡: 9519273-1

Sample Layers	Asbestos Content
Black Roofing Shingle with Green Pebbles	ND
Composite Non-Asbestos Content:	40% Cellulose
Sample Composite Homogeneity:	Good

Location: 240-102329-86, QMCP-ASBBLK56A-100118 Lab ID-Version‡: 9519274-1

Sample Layers	Asbestos Content
Tan Cementitious Material	ND
Sample Composite Homogeneity:	Good

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Client: TestAmerica-Canton
C/O: Ms. Kris Brooks
Re: 240-102329-1; Abandoned Mining Waste-1744251 308434564

Date of Sampling: 08-28-2018
Date of Receipt: 10-08-2018
Date of Report: 10-18-2018

ASBESTOS PLM REPORT

Location: 240-102329-87, QMCP-ASBBLK56B-100118 Lab ID-Version‡: 9519275-1

Sample Layers	Asbestos Content
Tan Cementitious Material	ND
Sample Composite Homogeneity:	Good

Location: 240-102329-88, QMCP-ASBBLK57A-100118 Lab ID-Version‡: 9519276-1

Sample Layers	Asbestos Content
Gray Semi-Fibrous Material	60% Chrysotile
Composite Non-Asbestos Content:	10% Glass Fibers
Sample Composite Homogeneity:	Good

Comments: Sample 240-102329-89 was not analyzed due to prior positive series.

Location: 240-102329-90, QMCP-ASBBLK58A-100118 Lab ID-Version‡: 9519278-1

Sample Layers	Asbestos Content
Black Roofing Shingle with Multicolored Pebbles	ND
Composite Non-Asbestos Content:	40% Cellulose
Sample Composite Homogeneity:	Good

Location: 240-102329-91, QMCP-ASBBLK58B-100118 Lab ID-Version‡: 9519279-1

Sample Layers	Asbestos Content
Black Roofing Shingle with Multicolored Pebbles	ND
Composite Non-Asbestos Content:	40% Cellulose
Sample Composite Homogeneity:	Good

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Client: TestAmerica-Canton
C/O: Ms. Kris Brooks
Re: 240-102329-1; Abandoned Mining Waste-1744251 308434564

Date of Sampling: 08-28-2018
Date of Receipt: 10-08-2018
Date of Report: 10-18-2018

ASBESTOS PLM REPORT

Location: 240-102329-92, QMCP-ASBBLK59A-100118 Lab ID-Version‡: 9519280-1

Sample Layers	Asbestos Content
Multicolored Debris	ND
Composite Non-Asbestos Content:	< 1% Glass Fibers
Sample Composite Homogeneity:	Good

Location: 240-102329-93, QMCP-ASBBLK59B-100118 Lab ID-Version‡: 9519281-1

Sample Layers	Asbestos Content
Multicolored Debris	ND
Composite Non-Asbestos Content:	< 1% Glass Fibers
Sample Composite Homogeneity:	Good

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TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Phone (330) 497-9396 Fax (330) 497-0772

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Brooks, Kris M	Carrier Tracking No(s):	COC No: 240-93709.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: kris.brooks@testamericainc.com	State of Origin: Michigan	Page: Page 1 of 11
Company: EMLab P&K		Accreditations Required (See note):		Job #: 240-102329-1
Address: 4955 Yarrow Street,	Due Date Requested: 10/17/2018			
City: Arvada	TAT Requested (days):			
State, Zip: CO, 80002				
Phone:	PO #:			
Email:	WO #:			
Project Name: Abandoned Mining Waste-1744251 308434564	Project #: 24012499			
Site:	SSOW#:			

Analysis Requested

002018083

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (Water, Soil, Oil, Tissue, Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUB (PLM Asbestos) PLM Asbestos	Total Number of Containers	Special Instructions/Note:
			Preservation Code:						
QMCP-ASBBLK13A-092818 (240-102329-1)	9/28/18	10:25 Eastern		Solid			X		
QMCP-ASBBLK13B-092818 (240-102329-2)	9/28/18	10:25 Eastern		Solid			X		
QMCP-ASBBLK14A-092818 (240-102329-3)	9/28/18	10:30 Eastern		Solid			X		
QMCP-ASBBLK14B-092818 (240-102329-4)	9/28/18	10:30 Eastern		Solid			X		
QMCP-ASBBLK15A-092818 (240-102329-5)	9/28/18	10:35 Eastern		Solid			X		
QMCP-ASBBLK15B-092818 (240-102329-6)	9/28/18	10:35 Eastern		Solid			X		
QMCP-ASBBLK16A-092818 (240-102329-7)	9/28/18	10:45 Eastern		Solid			X		
QMCP-ASBBLK16B-092818 (240-102329-8)	9/28/18	10:45 Eastern		Solid			X		
QMCP-ASBBLK17A-092818 (240-102329-9)	9/28/18	11:00 Eastern		Solid			X		

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.

Possible Hazard Identification *Unconfirmed*		*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)* ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*	
Deliverable Requested: I, II, III, IV, Other (specify)	Primary Deliverable Rank: 2	Special Instructions/QC Requirements:	
Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:
Relinquished by: Rick C	Date/Time: 10/5/18	Company: TAI 240	Received by: [illegible] Date/Time: 10/8/18 9:15 Company: Emlab
Relinquished by:	Date/Time:	Company	Received by: Date/Time: Company
Relinquished by:	Date/Time:	Company	Received by: Date/Time: Company
Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:

Ver: 10/20/2014

TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Phone (330) 497-9396 Fax (330) 497-0772

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Brooks, Kris M	Carrier Tracking No(s):	COC No: 240-93709.2
Client Contact: Shipping/Receiving	Phone:	E-Mail: kris.brooks@testamericainc.com	State of Origin: Michigan	Page: Page 2 of 11
Company: EMLab P&K		Accreditations Required (See note):		Job #: 240-102329-1
Address: 4955 Yarrow Street, ,	Due Date Requested: 10/17/2018			
City: Arvada	TAT Requested (days):			
State, Zip: CO, 80002				
Phone:	PO #:			
Email:	WO #:			
Project Name: Abandoned Mining Waste-1744251 308434564	Project #: 24012489			
Site:	SSOW#:			

Analysis Requested

002018083

Total Number of Containers

Sub Part Asbestos (Yes or No)

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (Wastewater, Soil, Drinking Water, Air, Tissue, Other)	Sub Part Asbestos (Yes or No)	Total Number of Containers	Special Instructions/Note:
			Preservation Code				
QMCP-ASBBLK18A-092818 (240-102329-10)	9/28/18	12:00 Eastern		Solid	X		
QMCP-ASBBLK18B-092818 (240-102329-11)	9/28/18	12:00 Eastern		Solid	X		
QMCP-ASBBLK19A-092818 (240-102329-12)	9/28/18	13:20 Eastern		Solid	X		
QMCP-ASBBLK19B-092818 (240-102329-13)	9/28/18	13:20 Eastern		Solid	X		
QMCP-ASBBLK20A-092818 (240-102329-14)	9/28/18	13:25 Eastern		Solid	X		
QMCP-ASBBLK20B-092818 (240-102329-15)	9/28/18	13:25 Eastern		Solid	X		
QMCP-ASBBLK21A-092818 (240-102329-16)	9/28/18	13:29 Eastern		Solid	X		
QMCP-ASBBLK21B-092818 (240-102329-17)	9/28/18	13:29 Eastern		Solid	X		
QMCP-ASBBLK22A-092818 (240-102329-18)	9/28/18	13:32 Eastern		Solid	X		

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by: Rick K	Date/Time: 10/5/18	Company: TA, 240	Received by: Oh	Date/Time: 10/8/18 9:15	Company: EMLab
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:		

Ver: 09/20/2016

TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Phone (330) 497-9396 Fax (330) 497-0772

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Brooks, Kris M	Carrier Tracking No(s):	COC No: 240-93709.3
Client Contact: Shipping/Receiving	Phone:	E-Mail: kris.brooks@testamericainc.com	State of Origin: Michigan	Page: Page 3 of 11
Company: EMLab P&K		Accreditations Required (See note):		Job #: 240-102329-1
Address: 4955 Yarrow Street,	Due Date Requested: 10/17/2018			
City: Arvada	TAT Requested (days):			
State, Zip: CO, 80002				
Phone:	PO #:			
Email:	WO #:			
Project Name: Abandoned Mining Waste-1744251 308434564	Project #: 24012499			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUB (PLM Asbestos)		Total Number of containers	Special Instructions/Note:
			Preservation Code:							
QMCP-ASBBLK22B-092818 (240-102329-19)	9/28/18	13:32 Eastern		Solid			X		1	
QMCP-ASBBLK23A-092818 (240-102329-20)	9/28/18	13:35 Eastern		Solid			X		1	
QMCP-ASBBLK23B-092818 (240-102329-21)	9/28/18	13:35 Eastern		Solid			X		1	
QMCP-ASBBLK24A-092818 (240-102329-22)	9/28/18	13:37 Eastern		Solid			X		1	
QMCP-ASBBLK24B-092818 (240-102329-23)	9/28/18	13:37 Eastern		Solid			X		1	
QMCP-ASBBLK25A-092818 (240-102329-24)	9/28/18	13:39 Eastern		Solid			X		1	
QMCP-ASBBLK25B-092818 (240-102329-25)	9/28/18	13:39 Eastern		Solid			X		1	
QMCP-ASBBLK26A-092818 (240-102329-26)	9/28/18	13:50 Eastern		Solid			X		1	
QMCP-ASBBLK26B-092818 (240-102329-27)	9/28/18	13:50 Eastern		Solid			X		1	

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody.

Possible Hazard Identification Unconfirmed	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)* ☐ Return To Client ☐ Disposal By Lab ☐ Archive For Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:		Date:	Time:		Method of Shipment:	
Relinquished by: Rick R.	Date/Time: 10/5/18	Company: TA, 240	Received by:		Date/Time: 10/8/18 9:15	Company: EMLab
Relinquished by:	Date/Time:	Company	Received by:		Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:		Date/Time:	Company
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:			

Ver: 09/20/2016

TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Phone (330) 497-9396 Fax (330) 497-0772

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Brooks, Kris M	Carrier Tracking No(s):	COC No: 240-93709.4
Client Contact: Shipping/Receiving	Phone:	E-Mail: kris.brooks@testamericainc.com	State of Origin: Michigan	Page: Page 4 of 11
Company: EMLab P&K		Accreditations Required (See note):		Job #: 240-102329-1
Address: 4955 Yarrow Street,	Due Date Requested: 10/17/2018			
City: Arvada	TAT Requested (days):			
State, Zip: CO, 80002				
Phone:	PO #:			
Email:	WO #:			
Project Name: Abandoned Mining Waste-1744251 308434564	Project #: 24012499			
Site:	SSOW#:			

Analysis Requested

Field Filtered Sample (Yes or No)
Perform MS/MSD (Yes or No)
SUB (PLM Asbestos) PLM Asbestos
002018083
Total Number of containers

Preservation Codes:

A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - AmcNor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - pH 4-5
Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (Water, Soil, Oil, Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUB (PLM Asbestos) PLM Asbestos	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
QMCP-ASBBLK27A-092818 (240-102329-28)	9/28/18	13:55 Eastern		Solid			X		
QMCP-ASBBLK27B-092818 (240-102329-29)	9/28/18	13:55 Eastern		Solid			X		
QMCP-ASBBLK28A-092818 (240-102329-30)	9/28/18	14:05 Eastern		Solid			X		
QMCP-ASBBLK28B-092818 (240-102329-31)	9/28/18	14:05 Eastern		Solid			X		
QMCP-ASBBLK29A-092818 (240-102329-32)	9/28/18	14:55 Eastern		Solid			X		
QMCP-ASBBLK29B-092818 (240-102329-33)	9/28/18	14:55 Eastern		Solid			X		
QMCP-ASBBLK30A-092818 (240-102329-34)	9/28/18	15:00 Eastern		Solid			X		
QMCP-ASBBLK30B-092818 (240-102329-35)	9/28/18	15:00 Eastern		Solid			X		
QMCP-ASBBLK31A-092818 (240-102329-36)	9/28/18	15:03 Eastern		Solid			X		

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody.

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by: Rick R.	Date/Time: 10/5/18	Company: TA 240	Received by:	Date/Time: 10/8/18 9:15	Company: EMLab
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 09/20/2016

TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Phone (330) 497-9396 Fax (330) 497-0772

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Brooks, Kris M	Carrier Tracking No(s):	COC No: 240-93708.5
Client Contact: Shipping/Receiving	Phone:	E-Mail: kris.brooks@testamericainc.com	State of Origin: Michigan	Page: Page 5 of 11
Company: EMLab P&K		Accreditations Required (See note):		Job #: 240-102329-1
Address: 4955 Yarrow Street	Due Date Requested: 10/17/2018			
City: Arvada	TAT Requested (days):			
State, Zip: CO, 80002				
Phone:	PO #:			
Email:	WO #:			
Project Name: Abandoned Mining Waste-1744251 308434564	Project #: 21012490			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

002018083

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (Water, Soil, Oil, Biota, Other Liquid, Other Solid, Air)	Total Number of containers	SUB (PLM Asbestos)	Special Instructions/Note:
			Preservation Code:				
QMCP-ASBBLK31B-092818 (240-102329-37)	9/28/18	15:03 Eastern		Solid		X	
QMCP-ASBBLK32A-092818 (240-102329-38)	9/28/18	15:05 Eastern		Solid		X	
QMCP-ASBBLK32B-092818 (240-102329-39)	9/28/18	15:05 Eastern		Solid		X	
QMCP-ASBBLK33A-092818 (240-102329-40)	9/28/18	15:07 Eastern		Solid		X	
QMCP-ASBBLK33B-092818 (240-102329-41)	9/28/18	15:07 Eastern		Solid		X	
QMCP-ASBBLK34A-092818 (240-102329-42)	9/28/18	15:09 Eastern		Solid		X	
QMCP-ASBBLK34B-092818 (240-102329-43)	9/28/18	15:09 Eastern		Solid		X	
QMCP-ASBBLK35A-092818 (240-102329-44)	9/28/18	15:15 Eastern		Solid		X	
QMCP-ASBBLK35B-092818 (240-102329-45)	9/28/18	15:15 Eastern		Solid		X	

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by: Rex R.	Date/Time: 10/5/18	Company: 240	Received by: [illegible]	Date/Time: 10/8/18 9:15	Company: EMLab
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:		

Ver: 09/20/2016

TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
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Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Brooks, Kris M	Carrier Tracking No(s):	COC No: 240-93709.6
Client Contact: Shipping/Receiving	Phone:	E-Mail: kris.brooks@testamericainc.com	State of Origin: Michigan	Page: Page 6 of 11
Company: EMLab P&K		Accreditations Required (See note):		Job #: 240-102329-1
Address: 4955 Yarrow Street,	Due Date Requested: 10/17/2018			
City: Arvada	TAT Requested (days):			
State, Zip: CO, 80002				
Phone:	PO #:			
Email:	WO #:			
Project Name: Abandoned Mining Waste-1744251 308434584	Project #: 24012499			
Site:	SSOW#:			

Analysis Requested

002018083

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - AmcNa, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA
M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (Water, Solid, Oil, Air, Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUB (PLM Asbestos) PLM Asbestos	Total Number of Containers	Special Instructions/Note:
			Preservation Code:						
QMCP-ASBBLK36A-092818 (240-102329-46)	9/28/18	15:25 Eastern		Solid			X		
QMCP-ASBBLK36B-092818 (240-102329-47)	9/28/18	15:25 Eastern		Solid			X		
QMCP-ASBBLK37A-092818 (240-102329-48)	9/28/18	15:30 Eastern		Solid			X		
QMCP-ASBBLK37B-092818 (240-102329-49)	9/28/18	15:30 Eastern		Solid			X		
QMCP-ASBBLK38A-092818 (240-102329-50)	9/28/18	15:35 Eastern		Solid			X		
QMCP-ASBBLK38B-092818 (240-102329-51)	9/28/18	15:35 Eastern		Solid			X		
QMCP-ASBBLK39A-092818 (240-102329-52)	9/28/18	15:40 Eastern		Solid			X		
QMCP-ASBBLK39B-092818 (240-102329-53)	9/28/18	15:40 Eastern		Solid			X		
QMCP-ASBBLK40A-092818 (240-102329-54)	9/28/18	16:35 Eastern		Solid			X		

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody.

Possible Hazard Identification *Unconfirmed*		***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* ____ *Months*	
Deliverable Requested: I, II, III, IV, Other (specify)	Primary Deliverable Rank: 2	Special Instructions/QC Requirements:	
Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:
Relinquished by: Rick R.	Date/Time: 10/5/18	Company: 240	Received by: Date/Time: 10/8/18 9:15 Company: EMLab
Relinquished by:	Date/Time:	Company	Received by: Date/Time: Company
Relinquished by:	Date/Time:	Company	Received by: Date/Time: Company
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:

Ver: 09/20/2016

TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Phone (330) 497-9396 Fax (330) 497-0772

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Brooks, Kris M	Carrier Tracking No(s):	COC No: 240-93709.7
Client Contact: Shipping/Receiving	Phone:	E-Mail: kris.brooks@testamericainc.com	State of Origin: Michigan	Page: Page 7 of 11
Company: EMLab P&K		Accreditations Required (See note):		Job #: 240-102329-1
Address: 4955 Yarrow Street,	Due Date Requested: 10/17/2018			
City: Arvada	TAT Requested (days):			
State, Zip: CO, 80002				
Phone:	PO #:			
Email:	WO #:			
Project Name: Abandoned Mining Waste-1744251 308434564	Project #: 24012499			
Site:	SSOW#:			

Analysis Requested

002018083

Total Number of containers

Preservation Codes:

A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - pH 4-5
Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (Water, Soil, Sediment, Tissue, Air)	Total # of containers	SUB (PLM Asbestos)	Special Instructions/Note:
			Preservation Code				
QMCP-ASBBLK40B-092818 (240-102329-55)	9/28/18	16:35 Eastern		Solid		X	
QMCP-ASBBLK41A-092818 (240-102329-56)	9/28/18	16:50 Eastern		Solid		X	
QMCP-ASBBLK41B-092818 (240-102329-57)	9/28/18	16:50 Eastern		Solid		X	
QMCP-ASBBLK42A-092818 (240-102329-58)	10/1/18	09:10 Eastern		Solid		X	
QMCP-ASBBLK42B-092818 (240-102329-59)	10/1/18	09:10 Eastern		Solid		X	
QMCP-ASBBLK43A-092818 (240-102329-60)	10/1/18	09:15 Eastern		Solid		X	
QMCP-ASBBLK43B-092818 (240-102329-61)	10/1/18	09:15 Eastern		Solid		X	
QMCP-ASBBLK44A-092818 (240-102329-62)	10/1/18	09:18 Eastern		Solid		X	
QMCP-ASBBLK44B-092818 (240-102329-63)	10/1/18	09:18 Eastern		Solid		X	

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody.

Possible Hazard Identification Unconfirmed	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)* ☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:		Method of Shipment:	
Relinquished by: RKK	Date/Time: 10/5/18	Company: ZAO	Received by: Dh	Date/Time: 10/8/18 9:15	Company: EMLab
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:		

Ver: 09/20/2016

TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Phone (330) 497-9396 Fax (330) 497-0772

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Brooks, Kris M	Carrier Tracking No(s):	COC No: 240-93709.8
Client Contact: Shipping/Receiving	Phone:	E-Mail: kris.brooks@testamericainc.com	State of Origin: Michigan	Page: Page 8 of 11
Company: EMLab P&K		Accreditations Required (See note):		Job #: 240-102329-1
Address: 4955 Yarrow Street, ,	Due Date Requested: 10/17/2018			
City: Arvada	TAT Requested (days):			
State, Zip: CO, 80002				
Phone:	PO #:			
Email:	WO #:			
Project Name: Abandoned Mining Waste-1744251 308434564	Project #: 24012499			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUB (PLM Asbestos)/ PLM Asbestos	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
QMCP-ASBBLK45A-092818 (240-102329-64)	10/1/18	09:20 Eastern		Solid			X		
QMCP-ASBBLK45B-092818 (240-102329-65)	10/1/18	09:20 Eastern		Solid			X		
QMCP-ASBBLK46A-092818 (240-102329-66)	10/1/18	09:24 Eastern		Solid			X		
QMCP-ASBBLK46B-092818 (240-102329-67)	10/1/18	09:24 Eastern		Solid			X		
QMCP-ASBBLK47A-092818 (240-102329-68)	10/1/18	09:25 Eastern		Solid			X		
QMCP-ASBBLK47B-092818 (240-102329-69)	10/1/18	09:25 Eastern		Solid			X		
QMCP-ASBBLK48A-092818 (240-102329-70)	10/1/18	09:28 Eastern		Solid			X		
QMCP-ASBBLK48B-092818 (240-102329-71)	10/1/18	09:28 Eastern		Solid			X		
QMCP-ASBBLK49A-092818 (240-102329-72)	10/1/18	09:31 Eastern		Solid			X		

002018083

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody.

Possible Hazard Identification Unconfirmed	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)* ☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:		Method of Shipment:	
Relinquished by: RSK R.	Date/Time: 10/5/18	Company: TA 240	Received by:	Date/Time: 10/8/18 9:15	Company: EMLab
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:		

Ver: 09/27/2016

TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Phone (330) 497-9396 Fax (330) 497-0772

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Brooks, Kris M	Carrier Tracking No(s):	COC No: 240-93709.9
Client Contact: Shipping/Receiving	Phone:	E-Mail: kris.brooks@testamericainc.com	State of Origin: Michigan	Page: Page 9 of 11
Company: EMLab P&K		Accreditations Required (See note):		Job #: 240-102329-1
Address: 4955 Yarrow Street,	Due Date Requested: 10/17/2018			
City: Arvada	TAT Requested (days):			
State, Zip: CO, 80002				
Phone:	PO #:			
Email:	WO #:			
Project Name: Abandoned Mining Waste-1744251 308434564	Project #: 24012499			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - AmchlOr, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

002018083

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (Water, Solid, Oil/Tissue, Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUB (PLM Asbestos)												Total Number of containers	Special Instructions/Note:
			Preservation Code:																	
QMCP-ASBBLK49B-092818 (240-102329-73)	10/1/18	09:31 Eastern		Solid			X													
QMCP-ASBBLK50A-092818 (240-102329-74)	10/1/18	09:44 Eastern		Solid			X													
QMCP-ASBBLK50B-092818 (240-102329-75)	10/1/18	09:44 Eastern		Solid			X													
QMCP-ASBBLK51A-092818 (240-102329-76)	10/1/18	09:45 Eastern		Solid			X													
QMCP-ASBBLK51B-092818 (240-102329-77)	10/1/18	09:45 Eastern		Solid			X													
QMCP-ASBBLK52A-092818 (240-102329-78)	10/1/18	10:06 Eastern		Solid			X													
QMCP-ASBBLK52B-092818 (240-102329-79)	10/1/18	10:06 Eastern		Solid			X													
QMCP-ASBBLK53A-092818 (240-102329-80)	10/1/18	10:30 Eastern		Solid			X													
QMCP-ASBBLK53B-092818 (240-102329-81)	10/1/18	10:30 Eastern		Solid			X													

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* ____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:		Date:	Time:		Method of Shipment:	
Relinquished by:	Date/Time: 10/5/18	Company: 240	Received by:		Date/Time: 10/8/18 9:15	Company: EMLab
Relinquished by:	Date/Time:	Company	Received by:		Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:		Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 09/20/2016

TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Phone (330) 497-9396 Fax (330) 497-0772

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Brooks, Kris M	Carrier Tracking No(s):	COC No: 240-93709.10
Client Contact: Shipping/Receiving	Phone:	E-Mail: kris.brooks@testamericainc.com	State of Origin: Michigan	Page: Page 10 of 11
Company: EMLab P&K		Accreditations Required (See note):		Job #: 240-102329-1
Address: 4955 Yarrow Street,	Due Date Requested: 10/17/2018			
City: Arvada	TAT Requested (days):			
State, Zip: CO, 80002				
Phone:	PO #:			
Email:	WO #:			
Project Name: Abandoned Mining Waste-1744251 308434564	Project #: 24012439			
Site:	SSOW#:			

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Analysis Requested

002018083

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (Water, Soil, Sediment, Tissue, Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUB (PLM Asbestos)	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
QMCP-ASBBLK54A-092818 (240-102329-82)	10/1/18	10:32 Eastern		Solid			X	1	
QMCP-ASBBLK54B-092818 (240-102329-83)	10/1/18	10:32 Eastern		Solid			X	1	
QMCP-ASBBLK55A-092818 (240-102329-84)	10/1/18	10:34 Eastern		Solid			X	1	
QMCP-ASBBLK55B-092818 (240-102329-85)	10/1/18	10:34 Eastern		Solid			X	1	
QMCP-ASBBLK56A-092818 (240-102329-86)	10/1/18	10:35 Eastern		Solid			X	1	
QMCP-ASBBLK56B-092818 (240-102329-87)	10/1/18	10:35 Eastern		Solid			X	1	
QMCP-ASBBLK57A-092818 (240-102329-88)	10/1/18	10:40 Eastern		Solid			X	1	
QMCP-ASBBLK57B-092818 (240-102329-89)	10/1/18	10:40 Eastern		Solid			X	1	
QMCP-ASBBLK58A-092818 (240-102329-90)	10/1/18	11:00 Eastern		Solid			X	1	

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody.

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:		Method of Shipment:	
Relinquished by: PKK	Date/Time: 10/5/18	Company: 240	Received by:	Date/Time: 10/8/18 9:15	Company: EMLab
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

Ver: 09/20/2016

TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Phone (330) 497-9396 Fax (330) 497-0772

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Brooks, Kris M	Carrier Tracking No(s):	COC No: 240-93709.11
Client Contact: Shipping/Receiving	Phone:	E-Mail: kris.brooks@testamericainc.com	State of Origin: Michigan	Page: Page 11 of 11
Company: EMLab P&K		Accreditations Required (See note):		Job #: 240-102329-1
Address: 4955 Yarrow Street,	Due Date Requested: 10/17/2018			
City: Arvada	TAT Requested (days):			
State, Zip: CO, 80002				
Phone:	PO #:			
Email:	WO #:			
Project Name: Abandoned Mining Waste-1744251 308434564	Project #: 24012490			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

1002018083

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (Water, Soil, Oil, Tissue, Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUB (PLM Asbestos)	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
QMCP-ASBBLK58B-092818 (240-102329-91)	10/1/18	11:00 Eastern		Solid			X		
QMCP-ASBBLK59A-092818 (240-102329-92)	10/1/18	12:30 Eastern		Solid			X		
QMCP-ASBBLK59B-092818 (240-102329-93)	10/1/18	12:30 Eastern		Solid			X		

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody.

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* ____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by: Rick R.	Date/Time: 10/5/18	Company: TA. CAN	Received by: [illegible]	Date/Time: 10/8/18 9:15	Company: EMLab
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No
Custody Seal No.:
Cooler Temperature(s) °C and Other Remarks:

Ver: 09/20/2016

24.8/25.7

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SSF, CA: 6000 Shoreline Court, Suite 205, South San Francisco, CA 94080 * **(866) 888-6653**

CONTACT INFORMATION

	Mannik&Smith Group (for MDEQ)		
Company:	200 Michigan St, Suite 705, Hancock, MI 49930	Address:	DEQ billing: MDEQ RRD, Tracey Curtis, Constitution Hall 5th Fl S Lansing, MI 48909 517-284-5176
Contact:	Jeff Binkley (Amy Keranen, DEQ contact)	Special Instructions:	Test until first positive in series. Analysis in accordance with MDEQ quote 24020847
Phone:	(906)281-3404		On invoice, reference DEQ acct code 17 7000 42050/1533 6996/6010

Page 1 of 9

PROJECT INFORMATION

Project ID:	Abandoned Mining Wastes		
Project Description:	QMCP		
Project Zip Code:		Sampling Date & Time:	9/28 & 10/1/2018
PO Number:		Sampled By:	A. Miller

TURN AROUND TIME CODES (TAT)

STD – Standard (DEFAULT)
ND – Next Business Day
SD – Same Business Day Rush*
*Please call Client Services for locations with Rush services

Rushes received after 2pm or on weekends, will be considered received the next business day. Please alert us in advance of weekend analysis needs.

ASBESTOS ANALYSIS

REQUESTED SERVICES (Check boxes below)

Sample ID	Description	Sample Type (Below)	TAT (Above)	Total Volume (Air Samples only)	Notes	PCM Air: Fiber Count (NIOSH 7400)	PCM Air: OSHA with TWA	PLM Bulk: EPA Method 600/R-93/116	PLM Bulk: EPA Poi nt Count)	PLM Bulk: EPA Poi nt Count)	PLM Bulk: EPA Poi int Count)	PLM Bulk: Gravimet	PLM Rock & Soil: CARB 43 ished Sample)	PLM Rock & Soil: CARB 43 r Sample)	Other Requests: Lead Anal	Other Requests	Other Requests
white/fibrous material	QMCP-ASBBLK13A-092818	B	STD		9/28/2018 - 1025	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
white/fibrous material	QMCP-ASBBLK13B-092818	B	STD		9/28/2018 - 1025	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
gray pegboard	QMCP-ASBBLK14A-092818	B	STD		9/28/2018 - 1030	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
gray pegboard	QMCP-ASBBLK14B-092818	B	STD		9/28/2018 - 1030	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
safe lining	QMCP-ASBBLK15A-092818	B	STD		9/28/2018 - 1035	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
safe lining	QMCP-ASBBLK15B-092818	B	STD		9/28/2018 - 1035	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
cardboard w/black tar	QMCP-ASBBLK16A-092818	B	STD		9/28/2018 - 1045	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
cardboard w/black tar	QMCP-ASBBLK16B-092818	B	STD		9/28/2018 - 1045	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
Transite	QMCP-ASBBLK17A-092818	B	STD		9/28/2018 - 1100	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
fabric w/ insulation	QMCP-ASBBLK18A-092818	B	STD		9/28/2018 - 1200	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
fabric w/ insulation	QMCP-ASBBLK18B-092818	B	STD		9/28/2018 - 1200	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐

240-102329 Chain of Custody

SAMPLE TYPE CODES		RELINQUISHED BY	DATE & TIME	RECEIVED BY	DATE & TIME
A – Air	W – Wipe	A Miller MSG	10/2/18 1200	UPS	10/2/18 1200
B – Bulk	T – Tape				
D – Dust	R – Rock			POP	10-4-18 1030
SO – Soil	O – Other:				

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SSF, CA: 6000 Shoreline Court, Suite 205, South San Francisco, CA 94080 * **(866) 888-6653**

CONTACT INFORMATION

Company:	Mannik&Smith Group (for MDEQ) 200 Michigan St, Suite 705, Hancock, MI 49930	Address:	DEQ billing: MDEQ RRD, Tracey Curtis, Constitution Hall 5th Fl S Lansing, MI 48909 517-284-5176
Contact:	Jeff Binkley (Amy Keranen, DEQ contact)	Special Instructions:	Test until first positive in series. Analysis in accordance with MDEQ quote 24020847
Phone:	(906)281-3404		On invoice, reference DEQ acct code 17 7000 42050/1533 6996/6010

PROJECT INFORMATION

Project ID:	Abandoned Mining Wastes		
Project Description:	QMCP		
Project Zip Code:		Sampling Date & Time:	9/28 & 10/1/2018
PO Number:		Sampled By:	A. Miller

TURN AROUND TIME CODES (TAT)

STD – Standard (DEFAULT)
ND – Next Business Day
SD – Same Business Day Rush*
*Please call Client Services for locations with Rush services

Rushes received after 2pm or on weekends, will be considered received the next business day. Please alert us in advance of weekend analysis needs.

ASBESTOS ANALYSIS

REQUESTED SERVICES (Check boxes below)

Sample ID	Description	Sample Type (Below)	TAT (Above)	Total Volume (Air Samples only)	Notes	PCM Air: Fiber Count (NIOSH 7400)	PCM Air: OSHA with TWA	PLM Bulk: EPA Method 600/R-93/116	PLM Bulk: EPA Point Count (200 Point Count)	PLM Bulk: EPA Point Count (400 Point Count)	PLM Bulk: EPA Point Count (1000 Point Count)	PLM Bulk: Gravimetric Point Count	PLM Rock & Soil: CARB 435 Method (Pre-crushed Sample)	PLM Rock & Soil: CARB 435 Method (Regular Sample)	Other Requests: Lead Analysis	Other Requests	Other Requests
concrete piping	QMCP-ASBBLK19A-092818	B	STD		9/28/2018 - 1320	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
concrete piping	QMCP-ASBBLK19B-092818	B	STD		9/28/2018 - 1320	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
whiteboard	QMCP-ASBBLK20A-092818	B	STD		9/28/2018 - 1325	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
whiteboard	QMCP-ASBBLK20B-092818	B	STD		9/28/2018 - 1325	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
green roofing	QMCP-ASBBLK21A-092818	B	STD		9/28/2018 - 1329	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
green roofing	QMCP-ASBBLK21B-092818	B	STD		9/28/2018 - 1329	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
metallic tarpaper	QMCP-ASBBLK22A-092818	B	STD		9/28/2018 - 1332	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
metallic tarpaper	QMCP-ASBBLK22B-092818	B	STD		9/28/2018 - 1332	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
tarpaper w/ white fibers	QMCP-ASBBLK23A-092818	B	STD		9/28/2018 - 1335	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
tarpaper w/ white fibers	QMCP-ASBBLK23B-092818	B	STD		9/28/2018 - 1335	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
white TSI	QMCP-ASBBLK24A-092818	B	STD		9/28/2018 - 1337	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐

SAMPLE TYPE CODES		RELINQUISHED BY	DATE & TIME	RECEIVED BY	DATE & TIME
A – Air	W – Wipe	A Miller NSG	10/2/18 1200	UPS	10/2/18 1200
B – Bulk	T – Tape				
D – Dust	R – Rock			GOP	10/4/18 1030
SO – Soil	O – Other:				

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SSF, CA: 6000 Shoreline Court, Suite 205, South San Francisco, CA 94080 * **(866) 888-6653**

CONTACT INFORMATION

Mannik&Smith Group (for MDEQ)

Company:	200 Michigan St, Suite 705, Hancock, MI 49930	Address:	DEQ billing: MDEQ RRD, Tracey Curtis, Constitution Hall 5th Fl S Lansing, MI 48909 517-284-5176
Contact:	Jeff Binkley (Amy Keranen, DEQ contact)	Special Instructions:	Test until first positive in series. Analysis in accordance with MDEQ quote 24020847 On invoice, reference DEQ acct code 17 7000 42050/1533 6996/6010
Phone:	(906)281-3404		

PROJECT INFORMATION

Project ID:	Abandoned Mining Wastes		
Project Description:	QMCP		
Project Zip Code:		Sampling Date & Time:	9/28 & 10/1/2018
PO Number:		Sampled By:	A. Miller

TURN AROUND TIME CODES (TAT)

STD – Standard (DEFAULT)
ND – Next Business Day
SD – Same Business Day Rush*
*Please call Client Services for locations with Rush services

Rushes received after 2pm or on weekends, will be considered received the next business day. Please alert us in advance of weekend analysis needs.

ASBESTOS ANALYSIS

REQUESTED SERVICES (Check boxes below)

Sample ID	Description	Sample Type (Below)	TAT (Above)	Total Volume (Air Samples only)	Notes	PCM Air: Fiber Count (NIOSH 7400)	PCM Air: OSHA with TWA	PLM Bulk: EPA Method 600/R-93/116	PLM Bulk: EPA Point Count (200 Point Count)	PLM Bulk: EPA Point Count (400 Point Count)	PLM Bulk: EPA Point Count (1000 Point Count)	PLM Bulk: Gravimetric Point Count	PLM Rock & Soil: CARB 435 Method (Pre-crushed Sample)	PLM Rock & Soil: CARB 435 Method (Regular Sample)	Other Requests: Lead Analysis	Other Requests	Other Requests
White TSI	QMCP-ASBBLK24B-092818	B	STD		9/28/2018 - 1337	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
silver/blk roof coating	QMCP-ASBBLK25A-092818	B	STD		9/28/2018 - 1339	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
silver/blk roof coating	QMCP-ASBBLK25B-092818	B	STD		9/28/2018 - 1339	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
Blk/White pipewrap	QMCP-ASBBLK26A-092818	B	STD		9/28/2018 - 1350	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
Blk/White pipewrap	QMCP-ASBBLK26B-092818	B	STD		9/28/2018 -1350	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
Gasket Material	QMCP-ASBBLK27A-092818	B	STD		9/28/2018 - 1355	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
Gasket Material	QMCP-ASBBLK27B-092818	B	STD		9/28/2018 - 1355	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
Beige TSI	QMCP-ASBBLK28A-092818	B	STD		9/28/2018 - 1405	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
Beige TSI	QMCP-ASBBLK28B-092818	B	STD		9/28/2018 - 1405	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
Gasket	QMCP-ASBBLK29A-092818	B	STD		9/28/2018 - 1455	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
Gasket	QMCP-ASBBLK29B-092818	B	STD		9/28/2018 - 1455	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐

SAMPLE TYPE CODES		RELINQUISHED BY	DATE & TIME	RECEIVED BY	DATE & TIME
A – Air	W – Wipe	A Miller MSG	10/2/18 1200	UPS	10/2/18 1200
B – Bulk	T – Tape				
D – Dust	R – Rock			POP	10-4-18 1030
SO – Soil	O – Other:				

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SSF, CA: 6000 Shoreline Court, Suite 205, South San Francisco, CA 94080 * **(866) 888-6653**

CONTACT INFORMATION

Company:	Mannik&Smith Group (for MDEQ) 200 Michigan St, Suite 705, Hancock, MI 49930	Address:	DEQ billing: MDEQ RRD, Tracey Curtis, Constitution Hall 5th Fl S Lansing, MI 48909 517-284-5176
Contact:	Jeff Binkley (Amy Keranen, DEQ contact)	Special Instructions:	Test until first positive in series. Analysis in accordance with MDEQ quote 24020847
Phone:	(906)281-3404		On invoice, reference DEQ acct code 17 7000 42050/1533 6996/6010

PROJECT INFORMATION

Project ID:	Abandoned Mining Wastes		
Project Description:	QMCP		
Project Zip Code:		Sampling Date & Time:	9/28 & 10/1/2018
PO Number:		Sampled By:	A. Miller

TURN AROUND TIME CODES (TAT)

STD – Standard (DEFAULT)
ND – Next Business Day
SD – Same Business Day Rush*
*Please call Client Services for locations with Rush services

Rushes received after 2pm or on weekends, will be considered received the next business day. Please alert us in advance of weekend analysis needs.

ASBESTOS ANALYSIS

REQUESTED SERVICES (Check boxes below)

Sample ID	Description	Sample Type (Below)	TAT (Above)	Total Volume (Air Samples only)	Notes	PCM Air: Fiber Count (NIOSH 7400)	PCM Air: OSHA with TWA	PLM Bulk: EPA Method 600/R-93/116	PLM Bulk: EPA Point Count (200 Point Count)	PLM Bulk: EPA Point Count (400 Point Count)	PLM Bulk: EPA Point Count (1000 Point Count)	PLM Bulk: Gravimetric Point Count	PLM Rock & Soil: CARB 435 Method (Pre-crushed Sample)	PLM Rock & Soil: CARB 435 Method (Regular Sample)	Other Requests: Lead Analysis	Other Requests	Other Requests
red roofing	QMCP-ASBBLK30A-092818	B	STD		9/28/2018 - 1500	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
red roofing	QMCP-ASBBLK30B-092818	B	STD		9/28/2018 - 1500	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
white roofing	QMCP-ASBBLK31A-092818	B	STD		9/28/2018 - 1503	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
white roofing	QMCP-ASBBLK31B-092818	B	STD		9/28/2018 - 1503	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
green roofing	QMCP-ASBBLK32A-092818	B	STD		9/28/2018 - 1505	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
green roofing	QMCP-ASBBLK32B-092818	B	STD		9/28/2018 - 1505	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
black roofing	QMCP-ASBBLK33A-092818	B	STD		9/28/2018 - 1507	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
black roofing	QMCP-ASBBLK33B-092818	B	STD		9/28/2018 - 1507	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
insulation in doors	QMCP-ASBBLK34A-092818	B	STD		9/28/2018 - 1509	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
insulation in doors	QMCP-ASBBLK34B-092818	B	STD		9/28/2018 - 1509	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
black corrugated material	QMCP-ASBBLK35A-092818	B	STD		9/28/2018 - 1515	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐

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SAMPLE TYPE CODES		RELINQUISHED BY	DATE & TIME	RECEIVED BY	DATE & TIME
A – Air	W – Wipe	A Miller	10/2/18 1200	UPS	10/2/18 1200
B – Bulk	T – Tape				
D – Dust	R – Rock			POP	10-4-18 1030
SO – Soil	O – Other:				

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CONTACT INFORMATION

	Mannik&Smith Group (for MDEQ)		
Company:	200 Michigan St, Suite 705, Hancock, MI 49930	Address:	DEQ billing: MDEQ RRD, Tracey Curtis, Constitution Hall 5th Fl S Lansing, MI 48909 517-284-5176
Contact:	Jeff Binkley (Amy Keranen, DEQ contact)	Special Instructions:	Test until first positive in series. Analysis in accordance with MDEQ quote 24020847
Phone:	(906)281-3404		On invoice, reference DEQ acct code 17 7000 42050/1533 6996/6010

PROJECT INFORMATION

Project ID:	Abandoned Mining Wastes		
Project Description:	QMCP		
Project Zip Code:		Sampling Date & Time:	9/28 & 10/1/2018
PO Number:		Sampled By:	A. Miller

TURN AROUND TIME CODES (TAT)

STD – Standard (DEFAULT)
ND – Next Business Day
SD – Same Business Day Rush*
*Please call Client Services for locations with Rush services

Rushes received after 2pm or on weekends, will be considered received the next business day. Please alert us in advance of weekend analysis needs.

ASBESTOS ANALYSIS

REQUESTED SERVICES (Check boxes below)

Sample ID	Description	Sample Type (Below)	TAT (Above)	Total Volume (Air Samples only)	Notes	PCM Air: Fiber Count (NIOSH 7400)	PCM Air: OSHA with TWA	PLM Bulk: EPA Method 600/R-93/116	PLM Bulk: EPA Point Count (200 Point Count)	PLM Bulk: EPA Point Count (400 Point Count)	PLM Bulk: EPA Point Count (1000 Point Count)	PLM Bulk: Gravimetric Point Count	PLM Rock & Soil: CARB 435 Method (Pre-crushed Sample)	PLM Rock & Soil: CARB 435 Method (Regular Sample)	Other Requests: Lead Analysis	Other Requests	Other Requests
black corrugated material	QMCP-ASBBLK35B-092818	B	STD		9/28/2018 - 1515	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
fabric coated duct	QMCP-ASBBLK36A-092818	B	STD		9/28/2018 - 1525	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
fabric coated duct	QMCP-ASBBLK36B-092818	B	STD		9/28/2018 - 1525	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
heater insulation	QMCP-ASBBLK37A-092818	B	STD		9/28/2018 - 1530	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
heater insulation	QMCP-ASBBLK37B-092818	B	STD		9/28/2018 - 1530	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
insulation on tank	QMCP-ASBBLK38A-092818	B	STD		9/28/2018 - 1535	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
insulation on tank	QMCP-ASBBLK38B-092818	B	STD		9/28/2018 - 1535	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
Transite tile	QMCP-ASBBLK39A-092818	B	STD		9/28/2018 - 1540	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
Transite tile	QMCP-ASBBLK39B-092818	B	STD		9/28/2018 - 1540	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
tarpaper w/ fibers	QMCP-ASBBLK40A-092818	B	STD		9/28/2018 - 1635	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
tarpaper w/ fibers	QMCP-ASBBLK40B-092818	B	STD		9/28/2018 - 1635	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐

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SAMPLE TYPE CODES		RELINQUISHED BY	DATE & TIME	RECEIVED BY	DATE & TIME
A – Air	W – Wipe	AMiller	10/2/18 1200	UPS	10/2/18 1200
B – Bulk	T – Tape				
D – Dust	R – Rock			POP	10-4-18 1030
SO – Soil	O – Other:				

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Contact:	Jeff Binkley (Amy Keranen, DEQ contact)	Special Instructions:	Test until first positive in series. Analysis in accordance with MDEQ quote 24020847
Phone:	(906)281-3404		On invoice, reference DEQ acct code 17 7000 42050/1533 6996/6010

PROJECT INFORMATION

Project ID:	Abandoned Mining Wastes		
Project Description:	QMCP		
Project Zip Code:		Sampling Date & Time:	9/28 & 10/1/2018
PO Number:		Sampled By:	A. Miller

TURN AROUND TIME CODES (TAT)

STD – Standard (DEFAULT)

ND – Next Business Day

SD – Same Business Day Rush*

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ASBESTOS ANALYSIS

REQUESTED SERVICES (Check boxes below)

Sample ID	Description	Sample Type (Below)	TAT (Above)	Total Volume (Air Samples only)	Notes	PCM Air: Fiber Count (NIOSH 7400)	PCM Air: OSHA with TWA	PLM Bulk: EPA Method 600/R-93/116	PLM Bulk: EPA Point Count (200 Point Count)	PLM Bulk: EPA Point Count (400 Point Count)	PLM Bulk: EPA Point Count (1000 Point Count)	PLM Bulk: Gravimetric Point Count	PLM Rock & Soil: CARB 435 Method (Pre-crushed Sample)	PLM Rock & Soil: CARB 435 Method (Regular Sample)	Other Requests: Lead Analysis	Other Requests	Other Requests
tank insulation	QMCP-ASBBLK41A-092818	B	STD		9/28/2018 - 1650	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
tank insulation	QMCP-ASBBLK41B-092818	B	STD		9/28/2018 - 1650	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
white TSI on pipe	QMCP-ASBBLK42A-100118	B	STD		10/01/2018 - 0910	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
white TSI on pipe	QMCP-ASBBLK42B-100118	B	STD		10/01/2018 - 0910	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
red roofing	QMCP-ASBBLK43A-100118	B	STD		10/01/2018 - 0915	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
red roofing	QMCP-ASBBLK43B-100118	B	STD		10/01/2018 - 0915	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
tan/red brick siding	QMCP-ASBBLK44A-100118	B	STD		10/01/2018- 0918	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
tan/red brick siding	QMCP-ASBBLK44B-100118	B	STD		10/01/2018- 0918	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
black tarpaper w/ multi	QMCP-ASBBLK45A-100118	B	STD		10/01/2018 - 0920	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
black tarpaper w/ multi	QMCP-ASBBLK45B-100118	B	STD		10/01/2018- 0920	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
tan brick siding	QMCP-ASBBLK46A-100118	B	STD		10/01/2018 - 0924	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐

SAMPLE TYPE CODES		RELINQUISHED BY	DATE & TIME	RECEIVED BY	DATE & TIME
A – Air	W – Wipe	Amitta [signature]	10/2/18 1200	UPS	10/2/18 1200
B – Bulk	T – Tape				
D – Dust	R – Rock			GOP	10-4-18 1030
SO – Soil	O – Other:				

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CONTACT INFORMATION

Mannik&Smith Group (for MDEQ)

Company:	200 Michigan St, Suite 705, Hancock, MI 49930	Address:	DEQ billing: MDEQ RRD, Tracey Curtis, Constitution Hall 5th Fl S Lansing, MI 48909 517-284-5176
Contact:	Jeff Binkley (Amy Keranen, DEQ contact)	Special Instructions:	Test until first positive in series. Analysis in accordance with MDEQ quote 24020847 On invoice, reference DEQ acct code 17 7000 42050/1533 6996/6010
Phone:	(906)281-3404		

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PROJECT INFORMATION

Project ID:	Abandoned Mining Wastes		
Project Description:	QMCP		
Project Zip Code:		Sampling Date & Time:	9/28 & 10/1/2018
PO Number:		Sampled By:	A. Miller

TURN AROUND TIME CODES (TAT)

STD – Standard (DEFAULT)
ND – Next Business Day
SD – Same Business Day
Rush*
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ASBESTOS ANALYSIS

REQUESTED SERVICES (Check boxes below)

Sample ID	Description	Sample Type (Below)	TAT (Above)	Total Volume (Air Samples only)	Notes	PCM Air: Fiber Count (NIOSH 7400)	PCM Air: OSHA with TWA	PLM Bulk: EPA Method 600/R-93/116	PLM Bulk: EPA Point Count (200 Point Count)	PLM Bulk: EPA Point Count (400 Point Count)	PLM Bulk: EPA Point Count (1000 Point Count)	PLM Bulk: Gravimetric Point Count	PLM Rock & Soil: CARB 435 Method (Pre-crushed Sample)	PLM Rock & Soil: CARB 435 Method (Regular Sample)	Other Requests: Lead Analysis		
tan brick siding	QMCP-ASBBLK46B-100118	B	STD		10/01/2018 - 0924	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
black tarpaper	QMCP-ASBBLK47A-100118	B	STD		10/01/2018 - 0925	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
black tarpaper	QMCP-ASBBLK47B-100118	B	STD		10/01/2018 - 0925	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
silver painted mastic	QMCP-ASBBLK48A-100118	B	STD		10/01/2018 - 0928	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
silver painted mastic	QMCP-ASBBLK48B-100118	B	STD		10/01/2018 - 0928	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
silver painted roofing	QMCP-ASBBLK49A-100118	B	STD		10/01/2018 - 0931	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
silver painted roofing	QMCP-ASBBLK49B-100118	B	STD		10/01/2018 - 0931	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
black shingle	QMCP-ASBBLK50A-100118	B	STD		10/01/2018 - 0944	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
black shingle	QMCP-ASBBLK50B-100118	B	STD		10/01/2018 - 0944	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
black tar paper	QMCP-ASBBLK51A-100118	B	STD		10/01/2018 - 0945	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
black tar paper	QMCP-ASBBLK51B-100118	B	STD		10/01/2018 - 0945	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐

SAMPLE TYPE CODES		RELINQUISHED BY	DATE & TIME	RECEIVED BY	DATE & TIME
A – Air	W – Wipe	AMiller MSG	10/2/18 1200	UPS	10/2/18 1200
B – Bulk	T – Tape				
D – Dust	R – Rock			POP	10-4-18 1030
SO – Soil	O – Other:				

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Contact:	Jeff Binkley (Amy Keranen, DEQ contact)	Special Instructions:	Test until first positive in series. Analysis in accordance with MDEQ quote 24020847 On invoice, reference DEQ acct code 17 7000 42050/1533 6996/6010
Phone:	(906)281-3404		

PROJECT INFORMATION

Project ID:	Abandoned Mining Wastes		
Project Description:	QMCP		
Project Zip Code:		Sampling Date & Time:	9/28 & 10/1/2018
PO Number:		Sampled By:	A. Miller

TURN AROUND TIME CODES (TAT)

STD – Standard (DEFAULT)
ND – Next Business Day
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ASBESTOS ANALYSIS

REQUESTED SERVICES (Check boxes below)

Sample ID	Description	Sample Type (Below)	TAT (Above)	Total Volume (Air Samples only)	Notes	PCM Air: Fiber Count (NIOSH 7400)	PCM Air: OSHA with TWA	PLM Bulk: EPA Method 600/R-93/116	PLM Bulk: EPA Point Count (200 Point Count)	PLM Bulk: EPA Point Count (400 Point Count)	PLM Bulk: EPA Point Count (1000 Point Count)	PLM Bulk: Gravimetric Point Count	PLM Rock & Soil: CARB 435 Method (Pre-crushed Sample)	PLM Rock & Soil: CARB 435 Method (Regular Sample)	Other Requests: Lead Analysis	Other Requests	Other Requests
white fibers in pile	QMCP-ASBBLK52A-100118	B	STD		10/01/2018 - 1006	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
white fibers in pile	QMCP-ASBBLK52B-100118	B	STD		10/01/2018 - 1006	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
silver coated roofing	QMCP-ASBBLK53A-100118	B	STD		10/01/2018 - 1030	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
silver coated roofing	QMCP-ASBBLK53B-100118	B	STD		10/01/2018 - 1030	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
red roof	QMCP-ASBBLK54A-100118	B	STD		10/01/2018 - 1032	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
red roof	QMCP-ASBBLK54B-100118	B	STD		10/01/2018 - 1032	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
green roof	QMCP-ASBBLK55A-100118	B	STD		10/01/2018 - 1034	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
green roof	QMCP-ASBBLK55B-100118	B	STD		10/01/2018 - 1034	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
building concrete	QMCP-ASBBLK56A-100118	B	STD		10/01/2018 - 1035	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
building concrete	QMCP-ASBBLK56B-100118	B	STD		10/01/2018 - 1035	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
brown insulation	QMCP-ASBBLK57A-100118	B	STD		10/01/2018 - 1040	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐

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SAMPLE TYPE CODES		RELINQUISHED BY	DATE & TIME	RECEIVED BY	DATE & TIME
A – Air	W – Wipe	A Miller	10/2/18 1200	VPS	10/2/18 1200
B – Bulk	T – Tape	MSG			
D – Dust	R – Rock				10-4-18 1030
SO – Soil	O – Other:			POP	

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Phoenix, AZ: 1501 West Knudsen Drive, Phoenix, AZ 85027 * **(800) 651-4802**
SSF, CA: 6000 Shoreline Court, Suite 205, South San Francisco, CA 94080 * **(866) 888-6653**

CONTACT INFORMATION

Mannik&Smith Group (for MDEQ)

Company:	200 Michigan St, Suite 705, Hancock, MI 49930	Address:	DEQ billing: MDEQ RRD, Tracey Curtis, Constitution Hall 5th Fl S Lansing, MI 48909 517-284-5176
Contact:	Jeff Binkley (Amy Keranen, DEQ contact)	Special Instructions:	Test until first positive in series. Analysis in accordance with MDEQ quote 24020847 On invoice, reference DEQ acct code 17 7000 42050/1533 6996/6010
Phone:	(906)281-3404		

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PROJECT INFORMATION

Project ID:	Abandoned Mining Wastes		
Project Description:	QMCP		
Project Zip Code:		Sampling Date & Time:	9/28 & 10/1/2018
PO Number:		Sampled By:	A. Miller

TURN AROUND TIME CODES (TAT)

STD – Standard (DEFAULT)
ND – Next Business Day
SD – Same Business Day Rush*
*Please call Client Services for locations with Rush services

Rushes received after 2pm or on weekends, will be considered received the next business day. Please alert us in advance of weekend analysis needs.

Sample ID	Description	Sample Type (Below)	TAT (Above)	Total Volume (Air Samples only)	Notes
brown insulation	QMCP-ASBBLK57B-100118	B	STD		10/01/2018 - 1040
green roofing	QMCP-ASBBLK58A-100118	B	STD		10/01/2018 - 1100
green roofing	QMCP-ASBBLK58B-100118	B	STD		10/01/2018 - 1100
white fibers	QMCP-ASBBLK59A-100118	B	STD		10/01/2018 - 1230
93 white fibers	QMCP-ASBBLK59B-100118	B	STD		10/01/2018 - 1230

ASBESTOS ANALYSIS

REQUESTED SERVICES (Check boxes below)

PCM Air		PLM Bulk					PLM Rock & Soil		Other Requests		
Fiber Count (NIOSH 7400)	OSHA with TWA	EPA Method 600/R-93/116	EPA Point Count (200 Point Count)	EPA Point Count (400 Point Count)	EPA Point Count (1000 Point Count)	Gravimetric Point Count	CARB 435 Method (Pre-crushed Sample)	CARB 435 Method (Regular Sample)	Lead Analysis		
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SAMPLE TYPE CODES		RELINQUISHED BY	DATE & TIME	RECEIVED BY	DATE & TIME
A – Air	W – Wipe	A Miller	10/2/18 1200	UPS	10/2/18 1200
B – Bulk	T – Tape				
D – Dust	R – Rock			GOP	10.4.18 1030
SO – Soil	O – Other:				

By submitting this Chain of Custody, you agree to be bound by the terms and conditions set forth at http://www.emlab.com/s/main/serviceterms.html

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Asbestos COC, Doc. # 04071, Rev 12, Revised 12/18/15, Page 1 of 1, QA

TestAmerica Canton Sample Receipt Form/Narrative
Canton Facility

Login # : 102329

Client Mannik + Smith Site Name —

Cooler Received on 10-4-18 Opened on 10-4-18

Cooler unpacked by: BOP

FedEx: 1st Grd Exp UPS FAS Clipper Client Drop Off TestAmerica Courier Other

Receipt After-hours: Drop-off Date/Time Storage Location

TestAmerica Cooler # Foam Box Client Cooler Box Other

Packing material used: Bubble Wrap Foam Plastic Bag None Other

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☐ See Multiple Cooler Form
   IR GUN# IR-8 (CF +0.9 °C) Observed Cooler Temp 24.8 °C Corrected Cooler Temp. 25.7 °C
   IR GUN #36 (CF +0.6°C) Observed Cooler Temp. ____ °C Corrected Cooler Temp. ____ °C
2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1 — Yes No
   - Were the seals on the outside of the cooler(s) signed & dated? — Yes No NA
   - Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? — Yes No
   - Were tamper/custody seals intact and uncompromised? — Yes No NA
3. Shippers' packing slip attached to the cooler(s)? — Yes No
4. Did custody papers accompany the sample(s)? — Yes No
5. Were the custody papers relinquished & signed in the appropriate place? — Yes No
6. Was/were the person(s) who collected the samples clearly identified on the COC? — Yes No
7. Did all bottles arrive in good condition (Unbroken)? — Yes No
8. Could all bottle labels be reconciled with the COC? — Yes No
9. Were correct bottle(s) used for the test(s) indicated? — Yes No
10. Sufficient quantity received to perform indicated analyses? — Yes No
11. Are these work share samples? — Yes No
    If yes, Questions 12-16 have been checked at the originating laboratory.
12. Were all preserved sample(s) at the correct pH upon receipt? — Yes No NA pH Strip Lot# **HC849161**
13. Were VOAs on the COC? — Yes No
14. Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this. — Yes No NA
15. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # ____ — Yes No
16. Was a LL Hg or Me Hg trip blank present? ____ — Yes No

Tests that are not checked for pH by Receiving:

VOAs
Oil and Grease
TOC

Contacted PM ____ Date ____ by ____ via Verbal Voice Mail Other

Concerning ____

17. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Samples processed by: PLP

18. SAMPLE CONDITION

Sample(s) ____ were received after the recommended holding time had expired.
Sample(s) ____ were received in a broken container.
Sample(s) ____ were received with bubble >6 mm in diameter. (Notify PM)

19. SAMPLE PRESERVATION

Sample(s) ____ were further preserved in the laboratory.
Time preserved: ____ Preservative(s) added/Lot number(s): ____

WI-NC-099

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Tel: (330)497-9396

TestAmerica Job ID: 240-100981-1
Client Project/Site: Abandoned Mining Waste-1744251
308434564

For:
Michigan Dept of Environmental Quality
Water Resources Division
Constitution Hall, 3rd Fl SW
525 W. Allegan Street
Lansing, Michigan 48909

Attn: Amy Keranen

Authorized for release by:
9/20/2018 8:55:34 PM

Kris Brooks, Project Manager II
(330)966-9790
kris.brooks@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Michigan Dept of Environmental Quality
Project/Site: Abandoned Mining Waste-1744251 308434564

TestAmerica Job ID: 240-100981-1

Job ID: 240-100981-1

Laboratory: TestAmerica Canton

Narrative

Job Narrative
240-100981-1

Comments
The Asbestos-Carb 435 analysis was performed at EMLab P&K.

Receipt
The samples were received on 9/10/2018 10:50 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 19.1º C.

Method Summary

Client: Michigan Dept of Environmental Quality
Project/Site: Abandoned Mining Waste-1744251 308434564

TestAmerica Job ID: 240-100981-1

Method	Method Description	Protocol	Laboratory
Subcontract	Asbsestos - Carb 435	None	

Protocol References:

None = None

Laboratory References:

= EMLab P&K - Denver, 4955 Yarrow Street, Arvada, CO 80002

Sample Summary

Client: Michigan Dept of Environmental Quality
Project/Site: Abandoned Mining Waste-1744251 308434564

TestAmerica Job ID: 240-100981-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-100981-1	QMCP-SS 33-0-6"	Solid	09/05/18 09:40	09/10/18 10:50
240-100981-2	QMCP-SS 03-0-6"	Solid	09/05/18 10:10	09/10/18 10:50
240-100981-3	QMCP-SS 41-0-6"	Solid	09/05/18 10:45	09/10/18 10:50
240-100981-4	QMCP-SS 13-0-6"	Solid	09/05/18 12:25	09/10/18 10:50
240-100981-5	QMCP-SS 15-0-6"	Solid	09/05/18 12:45	09/10/18 10:50
240-100981-6	QMCP-SS 20-0-6"	Solid	09/05/18 16:00	09/10/18 10:50
240-100981-7	QMCP-SS 25-0-6"	Solid	09/06/18 09:30	09/10/18 10:50
240-100981-8	QMCP-SS 26-0-6"	Solid	09/06/18 09:45	09/10/18 10:50
240-100981-9	QMCP-SS 29-0-6"	Solid	09/06/18 10:35	09/10/18 10:50
240-100981-10	QMCP-SS 30-0-6"	Solid	09/06/18 11:00	09/10/18 10:50

EMLab P&K
A TestAmerica Company

Report for:

Ms. Kris Brooks
TestAmerica-Canton
4101 Shuffel St. NW
North Canton, OH 44720

Regarding: Project: 240-100981-1; Abandoned Mining Waste- 1744251 308434564
EML ID: 1998665

Approved by:

Technical Manager
Noah Lazarte

Dates of Analysis:
Asbestos-CARB 435: 09-20-2018

Service SOPs: Asbestos-CARB 435 (EM-AS-S-1265)

All samples were received in acceptable condition unless noted in the Report Comments portion in the body of the report. Due to the nature of the analyses performed, field blank correction of results is not applied. The results relate only to the items tested.

EMLab P&K ("the Company") shall have no liability to the client or the client's customer with respect to decisions or recommendations made, actions taken or courses of conduct implemented by either the client or the client's customer as a result of or based upon the Test Results. In no event shall the Company be liable to the client with respect to the Test Results except for the Company's own willful misconduct or gross negligence nor shall the Company be liable for incidental or consequential damages or lost profits or revenues to the fullest extent such liability may be disclaimed by law, even if the Company has been advised of the possibility of such damages, lost profits or lost revenues. In no event shall the Company's liability with respect to the Test Results exceed the amount paid to the Company by the client therefor.

EMLab P&K
4955 Yarrow Street , Arvada, CO 80002
(800) 651-4802 Fax (623) 780-7695 www.emlab.com

Client: TestAmerica-Canton
C/O: Ms. Kris Brooks
Re: 240-100981-1; Abandoned Mining Waste-1744251 308434564

Date of Sampling: 09-05-2018
Date of Receipt: 09-11-2018
Date of Report: 09-20-2018

ASBESTOS POINT COUNT REPORT: CARB METHOD 435

Location:	240-100981-1 QMCP- SS 33-0-6"		
Points Counted:	400		
Lab ID-Version‡:	9422372-1		
Sample Layers	**Asbestos Type**	**Asbestos Points Counted**	**Asbestos Concentration (%)**
Dark Gray Soil	Chrysotile	0	< 0.25
Layer Totals:		0	NA

Comments: Asbestos was detected, but no points counted.

Location:	240-100981-2 QMCP- SS 03-0-6"		
Total Points Counted:	400		
Lab ID-Version‡:	9422373-1		
Sample Layers	**Asbestos Type**	**Asbestos Points Counted**	**Asbestos Concentration (%)**
Dark Gray Soil	-	-	ND
Layer Totals:		-	-

Comments: Point counting as stated under "Total Points Counted" was not performed as no asbestos fibers were detected.

Location:	240-100981-3 QMCP- SS 41-0-6"		
Total Points Counted:	400		
Lab ID-Version‡:	9422374-1		
Sample Layers	**Asbestos Type**	**Asbestos Points Counted**	**Asbestos Concentration (%)**
ay Soil	-	-	ND
Layer Totals:		-	-

Comments: Point counting as stated under "Total Points Counted" was not performed as no asbestos fibers were detected.

The analytical sensitivity is 1 asbestos point. The limit of detection is 1 asbestos point divided by the total number of points counted and multiplied by 100.

The results relate only to the items tested. Interpretation is left to the company and/or persons who conducted the field work. The test report shall not be reproduced except in full, without written approval of the laboratory. The report must not be used by the client to claim product certification, approval, or endorsement by any agency of the federal government.

All samples were received in acceptable condition unless otherwise noted. EMLab P&K reserves the right to dispose of all samples after a period of thirty (30) days, according to all state and federal guidelines, unless otherwise specified.
‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

EMLab P&K
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(800) 651-4802 Fax (623) 780-7695 www.emlab.com

Client: TestAmerica-Canton
C/O: Ms. Kris Brooks
Re: 240-100981-1; Abandoned Mining Waste-1744251 308434564

Date of Sampling: 09-05-2018
Date of Receipt: 09-11-2018
Date of Report: 09-20-2018

ASBESTOS POINT COUNT REPORT: CARB METHOD 435

Location:	240-100981-4 QMCP- SS 13-0-6"		
Points Counted:	400		
Lab ID-Version‡:	9422375-1		
Sample Layers	**Asbestos Type**	**Asbestos Points Counted**	**Asbestos Concentration (%)**
Dark Gray Soil	Amosite	0	< 0.25
	Chrysotile	1	0.25
Layer Totals:		1	0.25

Comments: Asbestos was detected, but no points counted for Amosite.

Location:	240-100981-5 QMCP- SS 15-0-6"		
Total Points Counted:	400		
Lab ID-Version‡:	9422376-1		
Sample Layers	**Asbestos Type**	**Asbestos Points Counted**	**Asbestos Concentration (%)**
ay Soil	-	-	ND
Layer Totals:		-	-

Comments: Point counting as stated under "Total Points Counted" was not performed as no asbestos fibers were detected.

Location:	240-100981-6 QMCP- SS 20-0-6"		
Total Points Counted:	400		
Lab ID-Version‡:	9422377-1		
Sample Layers	**Asbestos Type**	**Asbestos Points Counted**	**Asbestos Concentration (%)**
Dark Gray Soil	Chrysotile	0	< 0.25
Layer Totals:		0	NA

Comments: Asbestos was detected, but no points counted.

The analytical sensitivity is 1 asbestos point. The limit of detection is 1 asbestos point divided by the total number of points counted and multiplied by 100.

The results relate only to the items tested. Interpretation is left to the company and/or persons who conducted the field work. The test report shall not be reproduced except in full, without written approval of the laboratory. The report must not be used by the client to claim product certification, approval, or endorsement by any agency of the federal government.

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EMLab P&K
4955 Yarrow Street , Arvada, CO 80002
(800) 651-4802 Fax (623) 780-7695 www.emlab.com

Client: TestAmerica-Canton
C/O: Ms. Kris Brooks
Re: 240-100981-1; Abandoned Mining Waste-1744251 308434564

Date of Sampling: 09-05-2018
Date of Receipt: 09-11-2018
Date of Report: 09-20-2018

ASBESTOS POINT COUNT REPORT: CARB METHOD 435

Location:	240-100981-7 QMCP- SS 25-0-6"		
Points Counted:	400		
Lab ID-Version‡:	9422378-1		
Sample Layers	**Asbestos Type**	**Asbestos Points Counted**	**Asbestos Concentration (%)**
Dark Gray Soil	-	-	ND
Layer Totals:		-	-

Comments: Point counting as stated under "Total Points Counted" was not performed as no asbestos fibers were detected.

Location:	240-100981-8 QMCP- SS 26-0-6"		
Total Points Counted:	400		
Lab ID-Version‡:	9422379-1		
Sample Layers	**Asbestos Type**	**Asbestos Points Counted**	**Asbestos Concentration (%)**
Dark Gray Soil	-	-	ND
Layer Totals:		-	-

Comments: Point counting as stated under "Total Points Counted" was not performed as no asbestos fibers were detected.

Location:	240-100981-9 QMCP- SS 29-0-6"		
Total Points Counted:	400		
Lab ID-Version‡:	9422380-1		
Sample Layers	**Asbestos Type**	**Asbestos Points Counted**	**Asbestos Concentration (%)**
ay Soil	-	-	ND
Layer Totals:		-	-

Comments: Point counting as stated under "Total Points Counted" was not performed as no asbestos fibers were detected.

The analytical sensitivity is 1 asbestos point. The limit of detection is 1 asbestos point divided by the total number of points counted and multiplied by 100.

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All samples were received in acceptable condition unless otherwise noted. EMLab P&K reserves the right to dispose of all samples after a period of thirty (30) days, according to all state and federal guidelines, unless otherwise specified.
‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

EMLab P&K
4955 Yarrow Street , Arvada, CO 80002
(800) 651-4802 Fax (623) 780-7695 www.emlab.com

Client: TestAmerica-Canton
C/O: Ms. Kris Brooks
Re: 240-100981-1; Abandoned Mining Waste-1744251 308434564

Date of Sampling: 09-05-2018
Date of Receipt: 09-11-2018
Date of Report: 09-20-2018

ASBESTOS POINT COUNT REPORT: CARB METHOD 435

Location:	240-100981-10 QMCP- SS 30-0-6"		
Points Counted:	400		
Lab ID-Version‡:	9422381-1		
Sample Layers	**Asbestos Type**	**Asbestos Points Counted**	**Asbestos Concentration (%)**
Dark Gray Soil	-	-	ND
Layer Totals:		-	-

Comments: Point counting as stated under "Total Points Counted" was not performed as no asbestos fibers were detected.

The analytical sensitivity is 1 asbestos point. The limit of detection is 1 asbestos point divided by the total number of points counted and multiplied by 100.

The results relate only to the items tested. Interpretation is left to the company and/or persons who conducted the field work. The test report shall not be reproduced except in full, without written approval of the laboratory. The report must not be used by the client to claim product certification, approval, or endorsement by any agency of the federal government.

All samples were received in acceptable condition unless otherwise noted. EMLab P&K reserves the right to dispose of all samples after a period of thirty (30) days, according to all state and federal guidelines, unless otherwise specified.
‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Phone (330) 497-9396 Fax (330) 497-0772

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Brooks, Kris M	Carrier Tracking No(s):	COC No: 240-92315.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: kris.brooks@testamericainc.com	State of Origin: Michigan	Page: Page 1 of 2
Company: EMLab P&K		Accreditations Required (See note):		Job #: 240-100981-1
Address: 4955 Yarrow Street,	Due Date Requested: 9/21/2018			
City: Arvada	TAT Requested (days):			
State, Zip: CO, 80002				
Phone:	PO #:			
Email:	WO #:			
Project Name: Abandoned Mining Waste-1744251 308434564	Project #: 24012499			
Site:	SSOW#:			

Analysis Requested

Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | SUB (Asbestos - Carb 435) Asbestos - Carb 435 | Total Number of Containers

001998665

Preservation Codes:
A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - pH 4-5
Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (Water, Solid, Oil/Waste, AIR, Tissue, Air)	Asbestos	Total Number of Containers	Special Instructions/Note:
			Preservation Code:				
QMCP-SS 33-0-6" (240-100981-1)	9/5/18	09:40 Eastern		Solid	X	1	
QMCP-SS 03-0-6" (240-100981-2)	9/5/18	10:10 Eastern		Solid	X	1	
QMCP-SS 41-0-6" (240-100981-3)	9/5/18	10:45 Eastern		Solid	X	1	
QMCP-SS 13-0-6" (240-100981-4)	9/5/18	12:25 Eastern		Solid	X	1	
QMCP-SS 15-0-6" (240-100981-5)	9/5/18	12:45 Eastern		Solid	X	1	
QMCP-SS 20-0-6" (240-100981-6)	9/5/18	16:00 Eastern		Solid	X	1	
QMCP-SS 25-0-6" (240-100981-7)	9/6/18	09:30 Eastern		Solid	X	1	
QMCP-SS 26-0-6" (240-100981-8)	9/6/18	09:45 Eastern		Solid	X	1	
QMCP-SS 29-0-6" (240-100981-9)	9/6/18	10:35 Eastern		Solid	X	1	

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.

Possible Hazard Identification Unconfirmed		*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)* ☐ Return To Client ☐ Disposal By Lab ☐ Archive For ___ Months	
Deliverable Requested: I, II, III, IV, Other (specify)	Primary Deliverable Rank: 2	Special Instructions/QC Requirements:	
Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	9/10/18 -1507	TA-CAN	[signature]	9/11/18 9:30	EMLab
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 09/20/2016

TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Phone (330) 497-9396 Fax (330) 497-0772

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Brooks, Kris M	Carrier Tracking No(s):	COC No: 240-92315.2
Client Contact: Shipping/Receiving	Phone:	E-Mail: kris.brooks@testamericainc.com	State of Origin: Michigan	Page: Page 2 of 2
Company: EMLab P&K		Accreditations Required (See note):		Job #: 240-100981-1
Address: 4955 Yarrow Street,	Due Date Requested: 9/21/2018			
City: Arvada	TAT Requested (days):			
State, Zip: CO, 80002				
Phone:	PO #:			
Email:	WO #:			
Project Name: Abandoned Mining Waste-1744251 306434564	Project #: 24012499			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA
M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

001998665

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (Water, Soil, Oil, Sediment, BT=Tissue, Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUB (Asbestos - Carb 435)	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
QMCP-SS 30-0-6" (240-100981-10)	9/6/18	11:00 Eastern		Solid			X	1	

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) — Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by: R Sabin	Date/Time: 9/10/18 - 1507	Company: TA-240	Received by: Arvada Ethan	Date/Time: 9/11/18 9:30	Company: EMLab
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:		

Ver: 09/20/2016

~~18.2/18.2~~ QSD 9/10
18.2/19.1

CHAIN OF CUSTODY
www.EMLabPK.com

EMLab P&K
A TestAmerica Company

New Jersey: 3000 Lincoln Drive East, Suite A, Marlton, NJ 08053 * (866) 871-1984
Phoenix, AZ: 1501 West Knudsen Drive, Phoenix, AZ 85027 * (800) 651-4802
SSF, CA: 6000 Shoreline Court, Suite 205, South San Francisco, CA 94080 * (866) 888-6653

CONTACT INFORMATION

Company:	Mannik&Smith Group (for MDEQ) 200 Michigan St, Suite 705, Hancock, MI 49930	Address:	DEQ billing: MDEQ RRD, Tracey Curtis, Constitution Hall 5th Fl S Lansing, MI 48909 517-284-5176
Contact:	Jeff Binkley (*Amy Keranen, DEQ contact*)	Special Instructions:	Analysis in accordance with MDEQ quote 24020847
Phone:	(906)281-3404		On invoice, reference DEQ acct code 17 7000 42050/1533 6996/6010

PROJECT INFORMATION

Project ID:	Abandoned Mining Wastes		
Project Description:	QMCP		
Project Zip Code:		Sampling Date & Time:	9/5/18-9/6/18
PO Number:		Sampled By:	

TURN AROUND TIME CODES (TAT)

STD – Standard (DEFAULT)
ND – Next Business Day
SD – Same Business Day Rush*
*Please call Client Services for locations with Rush services

Rushes received after 2pm or on weekends, will be considered received the next business day. Please alert us in advance of weekend analysis needs.

Sample ID	Description	Sample Type (Below)	TAT (Above)	Total Volume (Air Samples only)	Notes
	QMCP-SS33-0-6"	SO	STD		0940 9/5/18
	QMCP-SS03-0-6"	SO	STD		1010
	QMCP-SS41-0-6"	SO	STD		1045
	QMCP-SS13-0-6"	SO	STD		1225
	QMCP-SS15-0-6"	SO	STD		1245
	QMCP-SS20-0-6"	SO	STD		1600
	QMCP-SS25-0-6"	SO	STD		0930 9/6/18
	QMCP-SS26-0-6"	SO	STD		0945
	QMCP-SS29-0-6"	SO	STD		1035
	QMCP-SS30-0-6"	SO	STD		1100
	QMCP-SS	SO	STD		

ASBESTOS ANALYSIS

REQUESTED SERVICES (Check boxes below)

PCM Air		PLM Bulk					PLM Rock & Soil		Other Requests		
Fiber Count (NIOSH 7400)	OSHA with TWA	EPA Method 600/R-93/116	EPA Point Count (200 Point Count)	EPA Point Count (400 Point Count)	EPA Point Count (1000 Point Count)	Gravimetric Point Count	CARB 435 Method (Pre-crushed Sample)	CARB 435 Method (Regular Sample)	Lead Analysis	TEM Carb 435 100 Point Count	
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SAMPLE TYPE CODES		RELINQUISHED BY	DATE & TIME	RECEIVED BY	DATE & TIME
A – Air	W – Wipe	[signature]	9/6/18 1600	[signature]	9/6/18 1600
B – Bulk	T – Tape				9/10/18 1050
D – Dust	R – Rock				
SO – Soil	O – Other:				

By submitting this Chain of Custody, you agree to be bound by the terms and conditions ... rviceterms.html
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Asbestos COC, Doc # 04071, Rev 12, Revised 12/18/15, Page 1 of 1, QA

240-100981 Chain of Custody

TestAmerica Canton Sample Receipt Form/Narrative **Login # :** 100981
Canton Facility

Client Munnik & Smith Site Name _____ Cooler unpacked by: DSD

Cooler Received on 9/10/18 Opened on 9/10/18

FedEx: 1st Grd Exp UPS FAS Clipper Client Drop Off TestAmerica Courier Other _____

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

TestAmerica Cooler # 7A Foam Box Client Cooler Box Other _____

Packing material used: Bubble Wrap Foam Plastic Bag None Other _____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☐ See Multiple Cooler Form
   IR GUN# IR-8 (CF +0.9 °C) Observed Cooler Temp. 18.2 °C Corrected Cooler Temp. 19.1 °C
   IR GUN #36 (CF +0.6°C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C
2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1 Yes No
   -Were the seals on the outside of the cooler(s) signed & dated? Yes No NA
   -Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No
   -Were tamper/custody seals intact and uncompromised? Yes No NA
3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
7. Did all bottles arrive in good condition (Unbroken)? Yes No
8. Could all bottle labels be reconciled with the COC? Yes No
9. Were correct bottle(s) used for the test(s) indicated? Yes No
10. Sufficient quantity received to perform indicated analyses? Yes No
11. Are these work share samples? Yes No
    If yes, Questions 12-16 have been checked at the originating laboratory.
12. Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# **HC849161**
13. Were VOAs on the COC? Yes No
14. Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this. Yes No NA
15. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____ Yes No
16. Was a LL Hg or Me Hg trip blank present? _____ Yes No

Tests that are not checked for pH by Receiving:

VOAs
Oil and Grease
TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

17. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Samples processed by: DSD

18. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

19. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

15 October 2018

Work Order: 1809077

Price: $1,612.00

Amy Keranen
MDEQ-RRD-UP
1504 W. Washington St.
Marquette, MI 49855

RE: ABANDONED MINING WASTES-QMCP

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

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MDEQ-RRD-UP	Project: ABANDONED MINING WASTES-QMCP	
1504 W. Washington St.	Site Code: 31000098	**Reported:**
Marquette MI, 49855	Project Manager: Amy Keranen	10/15/2018

Analytical Report for Samples

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Qualifier
QMCP PS02	1809077-01	Water	09/06/2018	09/10/2018	
QMCP PS06	1809077-02	Water	09/06/2018	09/10/2018	
QMCP PS05	1809077-03	Water	09/06/2018	09/10/2018	
QMCP PS07	1809077-04	Water	09/06/2018	09/10/2018	

Notes and Definitions

X3	Spike recovery is not applicable due to large target analyte concentration in the source sample.
LRB	Laboratory reagent blank was greater than 2.2 times the MDL, or greater than 10% of the analyte level in the sample.
A03	Result(s) and reporting limit(s) are estimated due to low matrix spike recovery.
A01	Result(s) and reporting limit(s) are estimated due to low surrogate recovery.
ND	Indicates compound analyzed for but not detected
RL	Reporting Limit
NA	Not Applicable

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Lansing, MI 48909
TEL: (517) 335-9800
FAX: (517) 335-9600

Client ID: QMCP PS02

Lab ID: 1809077-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	09/14/18	B8I1008	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	09/14/18	B8I1008	8270	
206-44-0	**Fluoranthene**	**1.1**	1.0	ug/L	1	09/14/18	B8I1008	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	09/14/18	B8I1008	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
85-01-8	**Phenanthrene**	**1.4**	1.0	ug/L	1	09/14/18	B8I1008	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
Surrogate: 2-Fluorobiphenyl			*48.7 %*	*24.1-115*		*09/14/18*	B8I1008	*8270*	
Surrogate: Nitrobenzene-d5			*44.0 %*	*17.8-115*		*09/14/18*	B8I1008	*8270*	
Surrogate: p-Terphenyl-d14			*93.1 %*	*41.8-115*		*09/14/18*	B8I1008	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	0.10	ug/L	1	09/18/18	B8I1503	8081/8082	
11104-28-2	Aroclor 1221	ND	0.10	ug/L	1	09/18/18	B8I1503	8081/8082	
11141-16-5	Aroclor 1232	ND	0.10	ug/L	1	09/18/18	B8I1503	8081/8082	
53469-21-9	Aroclor 1242	ND	0.10	ug/L	1	09/18/18	B8I1503	8081/8082	
12672-29-6	Aroclor 1248	ND	0.10	ug/L	1	09/18/18	B8I1503	8081/8082	
11097-69-1	Aroclor 1254	ND	0.10	ug/L	1	09/18/18	B8I1503	8081/8082	
11096-82-5	Aroclor 1260	ND	0.10	ug/L	1	09/18/18	B8I1503	8081/8082	
37324-23-5	Aroclor 1262	ND	0.10	ug/L	1	09/18/18	B8I1503	8081/8082	
11100-14-4	Aroclor 1268	ND	0.10	ug/L	1	09/18/18	B8I1503	8081/8082	
Surrogate: Decachlorobiphenyl			*87.6 %*	*30-150*		*09/18/18*	B8I1503	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*62.1 %*	*30-150*		*09/18/18*	B8I1503	*8081/8082*	

STATE OF MICHIGAN
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ENVIRONMENTAL LABORATORY

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

Client ID: QMCP PS02

Lab ID: 1809077-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-Metals									
7440-38-2	**Arsenic**	**3.2**	1.0	ug/L	1	09/20/18	B8I1109	200.8	
7440-39-3	**Barium**	**8.9**	5.0	ug/L	1	09/20/18	B8I1109	200.8	
7440-43-9	Cadmium	ND	0.2	ug/L	1	09/21/18	B8I1109	200.8	
7440-47-3	**Chromium**	**5.1**	1.0	ug/L	1	09/20/18	B8I1109	200.8	
7440-50-8	**Copper**	**820**	1.0	ug/L	1	09/20/18	B8I1109	200.8	
7439-92-1	**Lead**	**110**	1.0	ug/L	1	09/20/18	B8I1109	200.8	
7439-96-5	**Manganese**	**150**	5.0	ug/L	1	09/20/18	B8I1109	200.8	
7439-97-6	Mercury	ND	0.2	ug/L	1	09/14/18	B8I1225	245.1	
7782-49-2	Selenium	ND	1.0	ug/L	1	09/20/18	B8I1109	200.8	
7440-22-4	**Silver**	**0.5**	0.2	ug/L	1	09/21/18	B8I1109	200.8	
7440-66-6	**Zinc**	**50**	5.0	ug/L	1	09/20/18	B8I1109	200.8	

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TEL: (517) 335-9800
FAX: (517) 335-9600

Client ID: QMCP PS06

Lab ID: 1809077-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	5.1	ug/L	1	09/14/18	B8I1008	8270	
83-32-9	**Acenaphthene**	**2.8**	1.0	ug/L	1	09/14/18	B8I1008	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
120-12-7	**Anthracene**	**2.3**	1.0	ug/L	1	09/14/18	B8I1008	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	09/14/18	B8I1008	8270	
206-44-0	**Fluoranthene**	**5.1**	1.0	ug/L	1	09/14/18	B8I1008	8270	
86-73-7	**Fluorene**	**4.0**	1.0	ug/L	1	09/14/18	B8I1008	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	09/14/18	B8I1008	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
85-01-8	**Phenanthrene**	**12**	1.0	ug/L	1	09/14/18	B8I1008	8270	
129-00-0	**Pyrene**	**3.9**	1.0	ug/L	1	09/14/18	B8I1008	8270	
Surrogate: 2-Fluorobiphenyl			*59.7 %*	*24.1-115*		*09/14/18*	B8I1008	*8270*	
Surrogate: Nitrobenzene-d5			*51.5 %*	*17.8-115*		*09/14/18*	B8I1008	*8270*	
Surrogate: p-Terphenyl-d14			*97.9 %*	*41.8-115*		*09/14/18*	B8I1008	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	0.10	ug/L	1	09/19/18	B8I1503	8081/8082	
11104-28-2	Aroclor 1221	ND	0.10	ug/L	1	09/19/18	B8I1503	8081/8082	
11141-16-5	Aroclor 1232	ND	0.10	ug/L	1	09/19/18	B8I1503	8081/8082	
53469-21-9	Aroclor 1242	ND	0.10	ug/L	1	09/19/18	B8I1503	8081/8082	
12672-29-6	Aroclor 1248	ND	0.10	ug/L	1	09/19/18	B8I1503	8081/8082	
11097-69-1	Aroclor 1254	ND	0.10	ug/L	1	09/19/18	B8I1503	8081/8082	
11096-82-5	Aroclor 1260	ND	0.10	ug/L	1	09/19/18	B8I1503	8081/8082	
37324-23-5	Aroclor 1262	ND	0.10	ug/L	1	09/19/18	B8I1503	8081/8082	
11100-14-4	Aroclor 1268	ND	0.10	ug/L	1	09/19/18	B8I1503	8081/8082	
Surrogate: Decachlorobiphenyl			*60.4 %*	*30-150*		*09/19/18*	B8I1503	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*59.2 %*	*30-150*		*09/19/18*	B8I1503	*8081/8082*	

STATE OF MICHIGAN
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ENVIRONMENTAL LABORATORY

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

Client ID: QMCP PS06

Lab ID: 1809077-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-Metals									
7440-38-2	**Arsenic**	**2.4**	1.0	ug/L	1	09/21/18	B8I1109	200.8	
7440-39-3	**Barium**	**56**	5.0	ug/L	1	09/20/18	B8I1109	200.8	
7440-43-9	Cadmium	ND	0.2	ug/L	1	09/20/18	B8I1109	200.8	
7440-47-3	**Chromium**	**7.0**	1.0	ug/L	1	09/20/18	B8I1109	200.8	
7440-50-8	**Copper**	**3500**	1.0	ug/L	1	09/20/18	B8I1109	200.8	
7439-92-1	**Lead**	**26**	1.0	ug/L	1	09/20/18	B8I1109	200.8	
7439-96-5	**Manganese**	**760**	5.0	ug/L	1	09/20/18	B8I1109	200.8	
7439-97-6	Mercury	ND	0.2	ug/L	1	09/14/18	B8I1225	245.1	
7782-49-2	Selenium	ND	1.0	ug/L	1	09/21/18	B8I1109	200.8	
7440-22-4	**Silver**	**5.3**	0.2	ug/L	1	09/20/18	B8I1109	200.8	
7440-66-6	**Zinc**	**32**	5.0	ug/L	1	09/20/18	B8I1109	200.8	

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

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ENVIRONMENTAL LABORATORY

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

Client ID: QMCP PS05
Lab ID: 1809077-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	09/14/18	B8I1008	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	09/14/18	B8I1008	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	09/14/18	B8I1008	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
Surrogate: 2-Fluorobiphenyl			*57.1 %*	*24.1-115*		*09/14/18*	B8I1008	*8270*	
Surrogate: Nitrobenzene-d5			*50.2 %*	*17.8-115*		*09/14/18*	B8I1008	*8270*	
Surrogate: p-Terphenyl-d14			*96.7 %*	*41.8-115*		*09/14/18*	B8I1008	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	0.10	ug/L	1	09/14/18	B8I1014	8081/8082	
11104-28-2	Aroclor 1221	ND	0.10	ug/L	1	09/14/18	B8I1014	8081/8082	
11141-16-5	Aroclor 1232	ND	0.10	ug/L	1	09/14/18	B8I1014	8081/8082	
53469-21-9	Aroclor 1242	ND	0.10	ug/L	1	09/14/18	B8I1014	8081/8082	
12672-29-6	Aroclor 1248	ND	0.10	ug/L	1	09/14/18	B8I1014	8081/8082	
11097-69-1	Aroclor 1254	ND	0.10	ug/L	1	09/14/18	B8I1014	8081/8082	
11096-82-5	Aroclor 1260	ND	0.10	ug/L	1	09/14/18	B8I1014	8081/8082	
37324-23-5	Aroclor 1262	ND	0.10	ug/L	1	09/14/18	B8I1014	8081/8082	
11100-14-4	Aroclor 1268	ND	0.10	ug/L	1	09/14/18	B8I1014	8081/8082	
Surrogate: Decachlorobiphenyl			*92.5 %*	*30-150*		*09/14/18*	B8I1014	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*57.2 %*	*30-150*		*09/14/18*	B8I1014	*8081/8082*	

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

Client ID: QMCP PS05

Lab ID: 1809077-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-Metals									
7440-38-2	Arsenic	ND	1.0	ug/L	1	09/20/18	B8I1109	200.8	
7440-39-3	**Barium**	**85**	5.0	ug/L	1	09/20/18	B8I1109	200.8	
7440-43-9	Cadmium	ND	0.2	ug/L	1	09/20/18	B8I1109	200.8	
7440-47-3	**Chromium**	**4.2**	1.0	ug/L	1	09/20/18	B8I1109	200.8	
7440-50-8	**Copper**	**210**	1.0	ug/L	1	09/20/18	B8I1109	200.8	
7439-92-1	**Lead**	**13**	1.0	ug/L	1	09/20/18	B8I1109	200.8	
7439-96-5	**Manganese**	**1300**	5.0	ug/L	1	09/21/18	B8I1109	200.8	
7439-97-6	Mercury	ND	0.2	ug/L	1	09/14/18	B8I1225	245.1	
7782-49-2	Selenium	ND	1.0	ug/L	1	09/20/18	B8I1109	200.8	
7440-22-4	Silver	ND	0.2	ug/L	1	09/20/18	B8I1109	200.8	
7440-66-6	**Zinc**	**19**	5.0	ug/L	1	09/20/18	B8I1109	200.8	

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ENVIRONMENTAL LABORATORY

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

Client ID: QMCP PS07
Lab ID: 1809077-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	5.1	ug/L	1	09/14/18	B8I1008	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	09/14/18	B8I1008	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	09/14/18	B8I1008	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	09/14/18	B8I1008	8270	
Surrogate: 2-Fluorobiphenyl			*52.3 %*	*24.1-115*		*09/14/18*	B8I1008	*8270*	
Surrogate: Nitrobenzene-d5			*46.7 %*	*17.8-115*		*09/14/18*	B8I1008	*8270*	
Surrogate: p-Terphenyl-d14			*98.9 %*	*41.8-115*		*09/14/18*	B8I1008	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	0.10	ug/L	1	09/19/18	B8I1014	8081/8082	
11104-28-2	Aroclor 1221	ND	0.10	ug/L	1	09/19/18	B8I1014	8081/8082	
11141-16-5	Aroclor 1232	ND	0.10	ug/L	1	09/19/18	B8I1014	8081/8082	
53469-21-9	Aroclor 1242	ND	0.10	ug/L	1	09/19/18	B8I1014	8081/8082	
12672-29-6	Aroclor 1248	ND	0.10	ug/L	1	09/19/18	B8I1014	8081/8082	
11097-69-1	Aroclor 1254	ND	0.10	ug/L	1	09/19/18	B8I1014	8081/8082	
11096-82-5	Aroclor 1260	ND	0.10	ug/L	1	09/19/18	B8I1014	8081/8082	
37324-23-5	Aroclor 1262	ND	0.10	ug/L	1	09/19/18	B8I1014	8081/8082	
11100-14-4	Aroclor 1268	ND	0.10	ug/L	1	09/19/18	B8I1014	8081/8082	
Surrogate: Decachlorobiphenyl			*88.8 %*	*30-150*		*09/19/18*	B8I1014	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*51.8 %*	*30-150*		*09/19/18*	B8I1014	*8081/8082*	

STATE OF MICHIGAN
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ENVIRONMENTAL LABORATORY

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

Client ID: QMCP PS07

Lab ID: 1809077-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-Metals									
7440-38-2	**Arsenic**	**1.3**	1.0	ug/L	1	09/20/18	B8I1109	200.8	
7440-39-3	**Barium**	**51**	5.0	ug/L	1	09/20/18	B8I1109	200.8	
7440-43-9	Cadmium	ND	0.2	ug/L	1	09/20/18	B8I1109	200.8	
7440-47-3	**Chromium**	**2.1**	1.0	ug/L	1	09/20/18	B8I1109	200.8	
7440-50-8	**Copper**	**210**	1.0	ug/L	1	09/20/18	B8I1109	200.8	
7439-92-1	**Lead**	**5.6**	1.0	ug/L	1	09/20/18	B8I1109	200.8	
7439-96-5	**Manganese**	**81**	5.0	ug/L	1	09/20/18	B8I1109	200.8	
7439-97-6	Mercury	ND	0.2	ug/L	1	09/14/18	B8I1225	245.1	
7782-49-2	Selenium	ND	1.0	ug/L	1	09/20/18	B8I1109	200.8	
7440-22-4	Silver	ND	0.2	ug/L	1	09/20/18	B8I1109	200.8	
7440-66-6	**Zinc**	**7.4**	5.0	ug/L	1	09/20/18	B8I1109	200.8	

Michigan Department of Environmental Quality
Laboratory Services Section

Analysis Request Sheet

Lab Work Order Number	Project Name	Matrix
1809077	Abandoned Mining Wastes- QMCP	~~surface~~ Pore WATER

Site Code/Project Number	AY	CC Email 1	Project TAT Days	Sample Collector
31000098	17	jbinkley@manniksmithgroup.com		
Dept-Division-District	**Index**	**CC Email 2**	**Project Due Date**	**Sample Collector Phone**
DEQ RRD UP District- Calumet	7000			
State Project Manager	**PCA**	**CC Email 3**		**Contract Firm**
Amy Keranen	42050/1533			Mannik & Smith Group
State Project Manager Email	**location**	**Overflow Lab Choice 1**	**Accept Analysis hold time codes**	**Contract Firm Primary Contact**
keranena@michigan.gov	6996		No	Jeff Binkley
State Project Manager Phone	**sub location**	**Overflow Lab Choice 2**		**Primary Contact Phone**
906-3370-0389	6010			906-281-3404

	Lab Use Only	Field Sample Identification	Collection Date	Collection Time	Container Count	Comments
1	01	QMCP-~~SW~~ PS02	9/6/18	0815	4	
2	02	QMCP-~~SW~~ PS06	9/6/18	0905	4	
3	03	QMCP-~~SW~~ PS05	9/6/18	0950	4	
4	04	QMCP-~~SW~~ PS07	9/6/18	1052	4	
5		QMCP-SW				
6		QMCP-SW				
7		QMCP-SW				
8		QMCP-SW				
9		QMCP-SW				
10		QMCP-SW				

ORGANIC CHEMISTRY

VOA - Volatile Organic Acidic	
Volatiles - Full List	1 2 3 4 5 6 7 8 9 10
BTEX/MTBE/TMB only	1 2 3 4 5 6 7 8 9 10
Chlorinated only	1 2 3 4 5 6 7 8 9 10
GRO	1 2 3 4 5 6 7 8 9 10
1,4 Dioxane	1 2 3 4 5 6 7 8 9 10
METH - Methane, Ethane, Ethene	
Methane, Ethane, Ethene	1 2 3 4 5 6 7 8 9 10
ON - Pestlcides, PCBs	
Pesticides & PCBs	1 2 3 4 5 6 7 8 9 10
Pesticides only	1 2 3 4 5 6 7 8 9 10
PCBs only	1 2 3 4 5 6 7 8 9 10
Toxaphene	1 2 3 4 5 6 7 8 9 10
Chlordane	1 2 3 4 5 6 7 8 9 10
BNA - Base Neutral Acids	
BNAs	1 2 3 4 5 6 7 8 9 10
Benzidines	1 2 3 4 5 6 7 8 9 10
PNAs only	1 2 3 4 5 6 7 8 9 10
BNs only	1 2 3 4 5 6 7 8 9 10
Acids only	1 2 3 4 5 6 7 8 9 10
Organic Specialty Requests	
Library search - Volatiles	1 2 3 4 5 6 7 8 9 10
Library search - SemiVols	1 2 3 4 5 6 7 8 9 10
Finger Print	1 2 3 4 5 6 7 8 9 10
DRO / ORO	1 2 3 4 5 6 7 8 9 10

METALS CHEMISTRY PACKAGES

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

MAD - DISSOLVED METALS

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

MA - TOTAL METALS

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

GENERAL CHEMISTRY

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

Chain of Custody

	Relinquished by	Received By	Date / Time
Print Name & Org.	Brian Eustice	Ai McNeeve	
Signature		Ai McNeeve	
Print Name & Org.	Ai McNeeve MDEQ RRD - GSU	Nicole Hardigan	9/10/18 1252
Signature	Ai McNeeve		
Print Name & Org.			
Signature			

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

23 October 2018

Work Order: 1809097

Price: $896.00

Amy Keranen
MDEQ-RRD-UP
1504 W. Washington St.
Marquette, MI 49855

RE: ABANDONED MINING WASTES-QMCP

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

Page 1 of 8

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

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ENVIRONMENTAL LABORATORY

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Lansing, MI 48909
TEL: (517) 335-9800
FAX: (517) 335-9600

MDEQ-RRD-UP	Project: ABANDONED MINING WASTES-QMCP	
1504 W. Washington St.	Site Code: 31000098	**Reported:**
Marquette MI, 49855	Project Manager: Amy Keranen	10/23/2018

Analytical Report for Samples

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Qualifier
QMCP-PS10	1809097-01	Water	09/10/2018	09/12/2018	
QMCP-PS04	1809097-02	Water	09/10/2018	09/12/2018	
QMCP-PS45	1809097-03	Water	09/10/2018	09/12/2018	

Notes and Definitions

X3	Spike recovery is not applicable due to large target analyte concentration in the source sample.
LRB	Laboratory reagent blank was greater than 2.2 times the MDL, or greater than 10% of the analyte level in the sample.
KR	Reporting limit(s) raised due to low sample volume submitted.
A07	Result(s) and reporting limit(s) are estimated due to poor precision.
ND	Indicates compound analyzed for but not detected
RL	Reporting Limit
NA	Not Applicable

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ENVIRONMENTAL LABORATORY

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

Client ID: QMCP-PS10

Lab ID: 1809097-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	5.1	ug/L	1	09/19/18	B8I1305	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	09/19/18	B8I1305	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	09/19/18	B8I1305	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
Surrogate: 2-Fluorobiphenyl			*62.2 %*	*24.1-115*		*09/19/18*	B8I1305	*8270*	
Surrogate: Nitrobenzene-d5			*50.4 %*	*17.8-115*		*09/19/18*	B8I1305	*8270*	
Surrogate: p-Terphenyl-d14			*92.0 %*	*41.8-115*		*09/19/18*	B8I1305	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	0.10	ug/L	1	09/24/18	B8I1722	8081/8082	
11104-28-2	Aroclor 1221	ND	0.10	ug/L	1	09/24/18	B8I1722	8081/8082	
11141-16-5	Aroclor 1232	ND	0.10	ug/L	1	09/24/18	B8I1722	8081/8082	
53469-21-9	Aroclor 1242	ND	0.10	ug/L	1	09/24/18	B8I1722	8081/8082	
12672-29-6	Aroclor 1248	ND	0.10	ug/L	1	09/24/18	B8I1722	8081/8082	
11097-69-1	Aroclor 1254	ND	0.10	ug/L	1	09/24/18	B8I1722	8081/8082	
11096-82-5	Aroclor 1260	ND	0.10	ug/L	1	09/24/18	B8I1722	8081/8082	
37324-23-5	Aroclor 1262	ND	0.10	ug/L	1	09/24/18	B8I1722	8081/8082	
11100-14-4	Aroclor 1268	ND	0.10	ug/L	1	09/24/18	B8I1722	8081/8082	
Surrogate: Decachlorobiphenyl			*67.7 %*	*30-150*		*09/24/18*	B8I1722	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*51.4 %*	*30-150*		*09/24/18*	B8I1722	*8081/8082*	

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

Client ID: QMCP-PS10

Lab ID: 1809097-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-Metals									
7440-38-2	**Arsenic**	**1.8**	1.0	ug/L	1	09/21/18	B8I1221	200.8	
7440-43-9	Cadmium	ND	0.2	ug/L	1	09/21/18	B8I1221	200.8	
7440-47-3	**Chromium**	**5.3**	1.0	ug/L	1	09/21/18	B8I1221	200.8	
7440-50-8	**Copper**	**250**	1.0	ug/L	1	09/21/18	B8I1221	200.8	
7439-92-1	**Lead**	**2.0**	1.0	ug/L	1	09/21/18	B8I1221	200.8	
7439-96-5	**Manganese**	**390**	5.0	ug/L	1	09/21/18	B8I1221	200.8	
7439-97-6	Mercury	ND	0.2	ug/L	1	09/18/18	B8I1705	245.1	
7440-22-4	**Silver**	**0.3**	0.2	ug/L	1	09/21/18	B8I1221	200.8	
7440-66-6	Zinc	ND	5.0	ug/L	1	09/21/18	B8I1221	200.8	

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ENVIRONMENTAL LABORATORY

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

Client ID: QMCP-PS04
Lab ID: 1809097-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	5.1	ug/L	1	09/19/18	B8I1305	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	09/19/18	B8I1305	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	09/19/18	B8I1305	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
Surrogate: 2-Fluorobiphenyl			*66.9 %*	*24.1-115*		*09/19/18*	B8I1305	*8270*	
Surrogate: Nitrobenzene-d5			*66.1 %*	*17.8-115*		*09/19/18*	B8I1305	*8270*	
Surrogate: p-Terphenyl-d14			*86.0 %*	*41.8-115*		*09/19/18*	B8I1305	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	0.10	ug/L	1	10/15/18	B8I1722	8081/8082	
11104-28-2	Aroclor 1221	ND	0.10	ug/L	1	10/15/18	B8I1722	8081/8082	
11141-16-5	Aroclor 1232	ND	0.10	ug/L	1	10/15/18	B8I1722	8081/8082	
53469-21-9	Aroclor 1242	ND	0.10	ug/L	1	10/15/18	B8I1722	8081/8082	
12672-29-6	Aroclor 1248	ND	0.10	ug/L	1	10/15/18	B8I1722	8081/8082	
11097-69-1	Aroclor 1254	ND	0.10	ug/L	1	10/15/18	B8I1722	8081/8082	
11096-82-5	Aroclor 1260	ND	0.10	ug/L	1	10/15/18	B8I1722	8081/8082	
37324-23-5	Aroclor 1262	ND	0.10	ug/L	1	10/15/18	B8I1722	8081/8082	
11100-14-4	Aroclor 1268	ND	0.10	ug/L	1	10/15/18	B8I1722	8081/8082	
Surrogate: Decachlorobiphenyl			*70.7 %*	*30-150*		*10/15/18*	B8I1722	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*49.9 %*	*30-150*		*10/15/18*	B8I1722	*8081/8082*	

STATE OF MICHIGAN
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ENVIRONMENTAL LABORATORY

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Lansing, MI 48909
TEL: (517) 335-9800
FAX: (517) 335-9600

Client ID: QMCP-PS04

Lab ID: 1809097-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-Metals									
7440-38-2	Arsenic	ND	1.0	ug/L	1	09/21/18	B8I1221	200.8	
7440-43-9	Cadmium	ND	0.2	ug/L	1	09/21/18	B8I1221	200.8	
7440-47-3	**Chromium**	**2.2**	1.0	ug/L	1	09/21/18	B8I1221	200.8	
7440-50-8	**Copper**	**420**	1.0	ug/L	1	09/21/18	B8I1221	200.8	
7439-92-1	**Lead**	**4.4**	1.0	ug/L	1	09/21/18	B8I1221	200.8	
7439-96-5	**Manganese**	**410**	5.0	ug/L	1	09/21/18	B8I1221	200.8	
7439-97-6	Mercury	ND	0.2	ug/L	1	09/18/18	B8I1705	245.1	
7440-22-4	**Silver**	**0.4**	0.2	ug/L	1	09/21/18	B8I1221	200.8	
7440-66-6	**Zinc**	**11**	5.0	ug/L	1	09/21/18	B8I1221	200.8	

STATE OF MICHIGAN
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ENVIRONMENTAL LABORATORY

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

Client ID: QMCP-PS45

Lab ID: 1809097-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	09/19/18	B8I1305	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	09/19/18	B8I1305	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	09/19/18	B8I1305	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	09/19/18	B8I1305	8270	
Surrogate: 2-Fluorobiphenyl			*61.7 %*	*24.1-115*		*09/19/18*	B8I1305	*8270*	
Surrogate: Nitrobenzene-d5			*58.6 %*	*17.8-115*		*09/19/18*	B8I1305	*8270*	
Surrogate: p-Terphenyl-d14			*82.0 %*	*41.8-115*		*09/19/18*	B8I1305	*8270*	

Michigan Department of Environmental Quality
Laboratory Services Section

Analysis Request Sheet

Lab Work Order Number	Project Name	Matrix
1809097	Abandoned Mining Wastes- QMCP	~~surface~~ PORE WATER

Site Code/Project Number	AY	CC Email 1	Project TAT Days	Sample Collector
31000098	17	jbinkley@manniksmithgroup.com		B. Eurtico
Dept-Division-District	**Index**	**CC Email 2**	**Project Due Date**	**Sample Collector Phone**
DEQ RRD UP District- Calumet	7000	eurticob@michigan.gov		517-242-1170
State Project Manager	**PCA**	**CC Email 3**		**Contract Firm**
Amy Keranen	42050/1533			Mannik & Smith Group
State Project Manager Email	**location**	**Overflow Lab Choice 1**	**Accept Analysis hold time codes**	**Contract Firm Primary Contact**
keranena@michigan.gov	6996		No	Jeff Binkley
State Project Manager Phone	**sub location**	**Overflow Lab Choice 2**		**Primary Contact Phone**
906-3370-0389	6010			906-281-3404

	Lab Use Only	Field Sample Identification	Collection Date	Collection Time	Container Count	Comments
1	01	QMCP-~~SW~~ PS10	9/10/18	0955	4	
2	02	QMCP-~~SW~~ PS04	9/10/18	1348	4	
3	03	QMCP-~~SW~~ PS45	9/10/18	1627	3	
4		QMCP-SW				
5		QMCP-SW				
6		QMCP-SW				
7		QMCP-SW				
8		QMCP-SW				
9		QMCP-SW				
10		QMCP-SW				

ORGANIC CHEMISTRY

VOA - Volatile Organic Acidic	
Volatiles - Full List	1 2 3 4 5 6 7 8 9 10
BTEX/MTBE/TMB only	1 2 3 4 5 6 7 8 9 10
Chlorinated only	1 2 3 4 5 6 7 8 9 10
GRO	1 2 3 4 5 6 7 8 9 10
1,4 Dioxane	1 2 3 4 5 6 7 8 9 10
METH - Methane, Ethane, Ethene	
Methane, Ethane, Ethene	1 2 3 4 5 6 7 8 9 10
ON - Pesticides, PCBs	
Pesticides & PCBs	1 2 3 4 5 6 7 8 9 10
Pesticides only	1 2 3 4 5 6 7 8 9 10
PCBs only	1 2 3 4 5 6 7 8 9 10
Toxaphene	1 2 3 4 5 6 7 8 9 10
Chlordane	1 2 3 4 5 6 7 8 9 10
BNA - Base Neutral Acids	
BNAs	1 2 3 4 5 6 7 8 9 10
Benzidines	1 2 3 4 5 6 7 8 9 10
PNAs only	1 2 3 4 5 6 7 8 9 10
BNs only	1 2 3 4 5 6 7 8 9 10
Acids only	1 2 3 4 5 6 7 8 9 10
Organic Specialty Requests	
Library search - Volatiles	1 2 3 4 5 6 7 8 9 10
Library search - SemiVols	1 2 3 4 5 6 7 8 9 10
Finger Print	1 2 3 4 5 6 7 8 9 10
DRO / ORO	1 2 3 4 5 6 7 8 9 10

METALS CHEMISTRY PACKAGES

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

MAD - DISSOLVED METALS

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

MA - TOTAL METALS

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

GENERAL CHEMISTRY

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

Chain of Custody

Relinquished by	Received By	Date / Time
Print Name & Org.: Brian Eurtico DEQ Signature:	Melissa Smith MDEQ	9/12/18 830
Print Name & Org.: Signature:		
Print Name & Org.: Signature:		

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

14 November 2018

Work Order: 1809079

Price: $4,540.00

Amy Keranen
MDEQ-RRD-UP
1504 W. Washington St.
Marquette, MI 49855

RE: ABANDONED MINING WASTES-QMCP

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

Page 1 of 23

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

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ENVIRONMENTAL LABORATORY

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TEL: (517) 335-9800
FAX: (517) 335-9600

MDEQ-RRD-UP	Project: ABANDONED MINING WASTES-QMCP	
1504 W. Washington St.	Site Code: 31000098	**Reported:**
Marquette MI, 49855	Project Manager: Amy Keranen	11/14/2018

Analytical Report for Samples

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Qualifier
QMCP-SD08-8-20"	1809079-01	Soil/Sediment	09/05/2018	09/10/2018	
QMCP-SD01-0-6"	1809079-02	Soil/Sediment	09/05/2018	09/10/2018	
QMCP-SD01-6-26"	1809079-03	Soil/Sediment	09/05/2018	09/10/2018	
QMCP-SD02-0-12"	1809079-04	Soil/Sediment	09/05/2018	09/10/2018	
QMCP-SD02-0-12" FD	1809079-05	Soil/Sediment	09/05/2018	09/10/2018	
QMCP-SD02-12-21.5"	1809079-06	Soil/Sediment	09/05/2018	09/10/2018	
QMCP-SD09-0-6"	1809079-07	Soil/Sediment	09/06/2018	09/10/2018	
QMCP-SD10-0-4"	1809079-08	Soil/Sediment	09/06/2018	09/10/2018	
QMCP-SD10-4-11"	1809079-09	Soil/Sediment	09/06/2018	09/10/2018	
QMCP-SD11-0-6"	1809079-10	Soil/Sediment	09/06/2018	09/10/2018	

Notes and Definitions

Y21	Reporting Limits (RL) raised due to matrix interference.
Y20	Reporting Limits (RL) raised due to matrix.
Y17	Probable petroleum product(s) present.
X3	Spike recovery is not applicable due to large target analyte concentration in the source sample.
T	Reported value is less than the reporting limit (RL). Result is estimated.
N	Result is estimated due to Non-homogeneous sample.
LRB	Laboratory reagent blank was greater than 2.2 times the MDL, or greater than 10% of the analyte level in the sample.
A09	Result is estimated due to high recovery of batch quality control.
A07	Result(s) and reporting limit(s) are estimated due to poor precision.
A04	Result is estimated due to high matrix spike recovery.
ND	Indicates compound analyzed for but not detected
RL	Reporting Limit
NA	Not Applicable
dry	Sample results reported on a dry weight basis

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P.O. Box 30270
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TEL: (517) 335-9800
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Client ID: QMCP-SD08-8-20"

Lab ID: 1809079-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	2-Methylnaphthalene	ND	690	ug/kg dry	1	09/19/18	B8I1218	8270	
83-32-9	Acenaphthene	ND	280	ug/kg dry	1	09/19/18	B8I1218	8270	
208-96-8	Acenaphthylene	ND	280	ug/kg dry	1	09/19/18	B8I1218	8270	
120-12-7	Anthracene	ND	280	ug/kg dry	1	09/19/18	B8I1218	8270	
56-55-3	Benz[a]anthracene	ND	280	ug/kg dry	1	09/19/18	B8I1218	8270	
50-32-8	Benzo[a]pyrene	ND	550	ug/kg dry	1	09/19/18	B8I1218	8270	
205-99-2	Benzo[b]fluoranthene	ND	550	ug/kg dry	1	09/19/18	B8I1218	8270	
191-24-2	Benzo[g,h,i]perylene	ND	550	ug/kg dry	1	09/19/18	B8I1218	8270	
207-08-9	Benzo[k]fluoranthene	ND	550	ug/kg dry	1	09/19/18	B8I1218	8270	
218-01-9	Chrysene	ND	280	ug/kg dry	1	09/19/18	B8I1218	8270	
53-70-3	Dibenz[a,h]anthracene	ND	550	ug/kg dry	1	09/19/18	B8I1218	8270	
206-44-0	Fluoranthene	ND	280	ug/kg dry	1	09/19/18	B8I1218	8270	
86-73-7	Fluorene	ND	280	ug/kg dry	1	09/19/18	B8I1218	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	550	ug/kg dry	1	09/19/18	B8I1218	8270	
91-20-3	Naphthalene	ND	280	ug/kg dry	1	09/19/18	B8I1218	8270	
85-01-8	Phenanthrene	ND	280	ug/kg dry	1	09/19/18	B8I1218	8270	
129-00-0	Pyrene	ND	280	ug/kg dry	1	09/19/18	B8I1218	8270	
Surrogate: 2-Fluorobiphenyl			*84.9 %*	*32.9-115*		*09/19/18*	B8I1218	*8270*	
Surrogate: Nitrobenzene-d5			*79.5 %*	*31.8-115*		*09/19/18*	B8I1218	*8270*	
Surrogate: p-Terphenyl-d14			*94.6 %*	*38.5-115*		*09/19/18*	B8I1218	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	140	ug/kg dry	1	10/02/18	B8I2706	8081/8082	
11104-28-2	Aroclor 1221	ND	140	ug/kg dry	1	10/02/18	B8I2706	8081/8082	
11141-16-5	Aroclor 1232	ND	140	ug/kg dry	1	10/02/18	B8I2706	8081/8082	
53469-21-9	Aroclor 1242	ND	140	ug/kg dry	1	10/02/18	B8I2706	8081/8082	
12672-29-6	Aroclor 1248	ND	140	ug/kg dry	1	10/02/18	B8I2706	8081/8082	
11097-69-1	Aroclor 1254	ND	140	ug/kg dry	1	10/02/18	B8I2706	8081/8082	
11096-82-5	Aroclor 1260	ND	140	ug/kg dry	1	10/02/18	B8I2706	8081/8082	
37324-23-5	Aroclor 1262	ND	140	ug/kg dry	1	10/02/18	B8I2706	8081/8082	
11100-14-4	Aroclor 1268	ND	140	ug/kg dry	1	10/02/18	B8I2706	8081/8082	
Surrogate: Decachlorobiphenyl			*101 %*	*30-150*		*10/02/18*	B8I2706	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*89.6 %*	*30-150*		*10/02/18*	B8I2706	*8081/8082*	

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Client ID: QMCP-SD08-8-20"

Lab ID: 1809079-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**72.1**	0.1	%	1	09/13/18	B8I1124	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**1.0**	0.5	mg/kg dry	10	09/25/18	B8I1805	200.8	
7440-43-9	**Cadmium**	**0.3**	0.2	mg/kg dry	10	09/24/18	B8I1805	200.8	
7440-47-3	**Chromium**	**23**	2.0	mg/kg dry	10	09/25/18	B8I1805	200.8	
7440-50-8	**Copper**	**2200**	1.0	mg/kg dry	10	09/24/18	B8I1805	200.8	
7439-92-1	**Lead**	**6.5**	1.0	mg/kg dry	10	09/24/18	B8I1805	200.8	
7439-96-5	**Manganese**	**590**	1.0	mg/kg dry	10	09/24/18	B8I1805	200.8	
7439-97-6	**Mercury**	**0.3**	0.07	mg/kg dry	1	09/17/18	B8I1319	245.5	
7440-22-4	**Silver**	**4.3**	0.1	mg/kg dry	10	09/24/18	B8I1805	200.8	
7440-66-6	**Zinc**	**73**	1.0	mg/kg dry	10	09/24/18	B8I1805	200.8	

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TEL: (517) 335-9800
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Client ID: QMCP-SD01-0-6"
Lab ID: 1809079-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y21**
91-57-6	2-Methylnaphthalene	ND	1800	ug/kg dry	1	09/19/18	B8I1218	8270	
83-32-9	Acenaphthene	ND	710	ug/kg dry	1	09/19/18	B8I1218	8270	
208-96-8	Acenaphthylene	ND	710	ug/kg dry	1	09/19/18	B8I1218	8270	
120-12-7	Anthracene	ND	710	ug/kg dry	1	09/19/18	B8I1218	8270	
56-55-3	Benz[a]anthracene	ND	710	ug/kg dry	1	09/19/18	B8I1218	8270	
50-32-8	Benzo[a]pyrene	ND	1400	ug/kg dry	1	09/19/18	B8I1218	8270	
205-99-2	Benzo[b]fluoranthene	ND	1400	ug/kg dry	1	09/19/18	B8I1218	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1400	ug/kg dry	1	09/19/18	B8I1218	8270	
207-08-9	Benzo[k]fluoranthene	ND	1400	ug/kg dry	1	09/19/18	B8I1218	8270	
218-01-9	Chrysene	ND	710	ug/kg dry	1	09/19/18	B8I1218	8270	
53-70-3	Dibenz[a,h]anthracene	ND	1400	ug/kg dry	1	09/19/18	B8I1218	8270	
206-44-0	Fluoranthene	ND	710	ug/kg dry	1	09/19/18	B8I1218	8270	
86-73-7	Fluorene	ND	710	ug/kg dry	1	09/19/18	B8I1218	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	1400	ug/kg dry	1	09/19/18	B8I1218	8270	
91-20-3	Naphthalene	ND	710	ug/kg dry	1	09/19/18	B8I1218	8270	
85-01-8	Phenanthrene	ND	710	ug/kg dry	1	09/19/18	B8I1218	8270	
129-00-0	Pyrene	ND	710	ug/kg dry	1	09/19/18	B8I1218	8270	
Surrogate: 2-Fluorobiphenyl			*78.8 %*	*32.9-115*		*09/19/18*	B8I1218	*8270*	
Surrogate: Nitrobenzene-d5			*73.3 %*	*31.8-115*		*09/19/18*	B8I1218	*8270*	
Surrogate: p-Terphenyl-d14			*90.1 %*	*38.5-115*		*09/19/18*	B8I1218	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	140	ug/kg dry	1	10/02/18	B8I2706	8081/8082	
11104-28-2	Aroclor 1221	ND	140	ug/kg dry	1	10/02/18	B8I2706	8081/8082	
11141-16-5	Aroclor 1232	ND	140	ug/kg dry	1	10/02/18	B8I2706	8081/8082	
53469-21-9	Aroclor 1242	ND	140	ug/kg dry	1	10/02/18	B8I2706	8081/8082	
12672-29-6	Aroclor 1248	ND	140	ug/kg dry	1	10/02/18	B8I2706	8081/8082	
11097-69-1	Aroclor 1254	ND	140	ug/kg dry	1	10/02/18	B8I2706	8081/8082	
11096-82-5	Aroclor 1260	ND	140	ug/kg dry	1	10/02/18	B8I2706	8081/8082	
37324-23-5	Aroclor 1262	ND	140	ug/kg dry	1	10/02/18	B8I2706	8081/8082	
11100-14-4	Aroclor 1268	ND	140	ug/kg dry	1	10/02/18	B8I2706	8081/8082	
Surrogate: Decachlorobiphenyl			*94.1 %*	*30-150*		*10/02/18*	B8I2706	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*85.8 %*	*30-150*		*10/02/18*	B8I2706	*8081/8082*	

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Client ID: QMCP-SD01-0-6"

Lab ID: 1809079-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**70.5**	0.1	%	1	09/13/18	B8I1124	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**3.0**	0.5	mg/kg dry	10	09/24/18	B8I1805	200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	09/24/18	B8I1805	200.8	
7440-47-3	**Chromium**	**20**	2.0	mg/kg dry	10	09/25/18	B8I1805	200.8	
7440-50-8	**Copper**	**220**	1.0	mg/kg dry	10	09/24/18	B8I1805	200.8	
7439-92-1	**Lead**	**11**	1.0	mg/kg dry	10	09/24/18	B8I1805	200.8	
7439-96-5	**Manganese**	**210**	1.0	mg/kg dry	10	09/24/18	B8I1805	200.8	
7439-97-6	**Mercury**	**0.09**	0.07	mg/kg dry	1	09/17/18	B8I1319	245.5	
7440-22-4	**Silver**	**0.4**	0.1	mg/kg dry	10	09/24/18	B8I1805	200.8	
7440-66-6	**Zinc**	**34**	1.0	mg/kg dry	10	09/24/18	B8I1805	200.8	

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Client ID: QMCP-SD01-6-26"
Lab ID: 1809079-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	2-Methylnaphthalene	ND	610	ug/kg dry	1	09/19/18	B8I1218	8270	
83-32-9	Acenaphthene	ND	240	ug/kg dry	1	09/19/18	B8I1218	8270	
208-96-8	Acenaphthylene	ND	240	ug/kg dry	1	09/19/18	B8I1218	8270	
120-12-7	Anthracene	ND	240	ug/kg dry	1	09/19/18	B8I1218	8270	
56-55-3	Benz[a]anthracene	ND	240	ug/kg dry	1	09/19/18	B8I1218	8270	
50-32-8	Benzo[a]pyrene	ND	490	ug/kg dry	1	09/19/18	B8I1218	8270	
205-99-2	Benzo[b]fluoranthene	ND	490	ug/kg dry	1	09/19/18	B8I1218	8270	
191-24-2	Benzo[g,h,i]perylene	ND	490	ug/kg dry	1	09/19/18	B8I1218	8270	
207-08-9	Benzo[k]fluoranthene	ND	490	ug/kg dry	1	09/19/18	B8I1218	8270	
218-01-9	Chrysene	ND	240	ug/kg dry	1	09/19/18	B8I1218	8270	
53-70-3	Dibenz[a,h]anthracene	ND	490	ug/kg dry	1	09/19/18	B8I1218	8270	
206-44-0	Fluoranthene	ND	240	ug/kg dry	1	09/19/18	B8I1218	8270	
86-73-7	Fluorene	ND	240	ug/kg dry	1	09/19/18	B8I1218	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	490	ug/kg dry	1	09/19/18	B8I1218	8270	
91-20-3	Naphthalene	ND	240	ug/kg dry	1	09/19/18	B8I1218	8270	
85-01-8	Phenanthrene	ND	240	ug/kg dry	1	09/19/18	B8I1218	8270	
129-00-0	Pyrene	ND	240	ug/kg dry	1	09/19/18	B8I1218	8270	
Surrogate: 2-Fluorobiphenyl			*80.2 %*	*32.9-115*		*09/19/18*	B8I1218	*8270*	
Surrogate: Nitrobenzene-d5			*74.5 %*	*31.8-115*		*09/19/18*	B8I1218	*8270*	
Surrogate: p-Terphenyl-d14			*93.5 %*	*38.5-115*		*09/19/18*	B8I1218	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	120	ug/kg dry	1	10/02/18	B8I2706	8081/8082	
11104-28-2	Aroclor 1221	ND	120	ug/kg dry	1	10/02/18	B8I2706	8081/8082	
11141-16-5	Aroclor 1232	ND	120	ug/kg dry	1	10/02/18	B8I2706	8081/8082	
53469-21-9	Aroclor 1242	ND	120	ug/kg dry	1	10/02/18	B8I2706	8081/8082	
12672-29-6	Aroclor 1248	ND	120	ug/kg dry	1	10/02/18	B8I2706	8081/8082	
11097-69-1	Aroclor 1254	ND	120	ug/kg dry	1	10/02/18	B8I2706	8081/8082	
11096-82-5	Aroclor 1260	ND	120	ug/kg dry	1	10/02/18	B8I2706	8081/8082	
37324-23-5	Aroclor 1262	ND	120	ug/kg dry	1	10/02/18	B8I2706	8081/8082	
11100-14-4	Aroclor 1268	ND	120	ug/kg dry	1	10/02/18	B8I2706	8081/8082	
Surrogate: Decachlorobiphenyl			*101 %*	*30-150*		*10/02/18*	B8I2706	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*86.2 %*	*30-150*		*10/02/18*	B8I2706	*8081/8082*	

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Client ID: QMCP-SD01-6-26"

Lab ID: 1809079-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**82.4**	0.1	%	1	09/13/18	B8I1124	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**0.6**	0.5	mg/kg dry	10	09/25/18	B8I1805	200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	09/24/18	B8I1805	200.8	
7440-47-3	**Chromium**	**2.3**	2.0	mg/kg dry	10	09/25/18	B8I1805	200.8	LRB
7440-50-8	**Copper**	**4.4**	1.0	mg/kg dry	10	09/24/18	B8I1805	200.8	
7439-92-1	Lead	ND	1.0	mg/kg dry	10	09/24/18	B8I1805	200.8	
7439-96-5	**Manganese**	**35**	1.0	mg/kg dry	10	09/24/18	B8I1805	200.8	
7439-97-6	Mercury	ND	0.06	mg/kg dry	1	09/17/18	B8I1319	245.5	
7440-22-4	Silver	ND	0.1	mg/kg dry	10	09/24/18	B8I1805	200.8	
7440-66-6	**Zinc**	**3.6**	1.0	mg/kg dry	10	09/24/18	B8I1805	200.8	

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Client ID: QMCP-SD02-0-12"

Lab ID: 1809079-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y17, Y20**
91-57-6	2-Methylnaphthalene	ND	720	ug/kg dry	1	09/19/18	B8I1218	8270	
83-32-9	**Acenaphthene**	**330**	290	ug/kg dry	1	09/19/18	B8I1218	8270	
208-96-8	Acenaphthylene	ND	290	ug/kg dry	1	09/19/18	B8I1218	8270	
120-12-7	**Anthracene**	**650**	290	ug/kg dry	1	09/19/18	B8I1218	8270	
56-55-3	**Benz[a]anthracene**	**1900**	290	ug/kg dry	1	09/19/18	B8I1218	8270	
50-32-8	**Benzo[a]pyrene**	**1800**	580	ug/kg dry	1	09/19/18	B8I1218	8270	
205-99-2	**Benzo[b]fluoranthene**	**2900**	580	ug/kg dry	1	09/19/18	B8I1218	8270	
191-24-2	Benzo[g,h,i]perylene	ND	580	ug/kg dry	1	09/19/18	B8I1218	8270	
207-08-9	**Benzo[k]fluoranthene**	**850**	580	ug/kg dry	1	09/19/18	B8I1218	8270	
218-01-9	**Chrysene**	**1600**	290	ug/kg dry	1	09/19/18	B8I1218	8270	
53-70-3	Dibenz[a,h]anthracene	ND	580	ug/kg dry	1	09/19/18	B8I1218	8270	
206-44-0	**Fluoranthene**	**4400**	290	ug/kg dry	1	09/19/18	B8I1218	8270	
86-73-7	**Fluorene**	**550**	290	ug/kg dry	1	09/19/18	B8I1218	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	580	ug/kg dry	1	09/19/18	B8I1218	8270	
91-20-3	**Naphthalene**	**360**	290	ug/kg dry	1	09/19/18	B8I1218	8270	
85-01-8	**Phenanthrene**	**2900**	290	ug/kg dry	1	09/19/18	B8I1218	8270	
129-00-0	**Pyrene**	**3600**	290	ug/kg dry	1	09/19/18	B8I1218	8270	
Surrogate: 2-Fluorobiphenyl			*80.8 %*	*32.9-115*		*09/19/18*	B8I1218	*8270*	
Surrogate: Nitrobenzene-d5			*69.4 %*	*31.8-115*		*09/19/18*	B8I1218	*8270*	
Surrogate: p-Terphenyl-d14			*91.6 %*	*38.5-115*		*09/19/18*	B8I1218	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	140	ug/kg dry	1	10/12/18	B8J0819	8081/8082	
11104-28-2	Aroclor 1221	ND	140	ug/kg dry	1	10/12/18	B8J0819	8081/8082	
11141-16-5	Aroclor 1232	ND	140	ug/kg dry	1	10/12/18	B8J0819	8081/8082	
53469-21-9	Aroclor 1242	ND	140	ug/kg dry	1	10/12/18	B8J0819	8081/8082	
12672-29-6	Aroclor 1248	ND	140	ug/kg dry	1	10/12/18	B8J0819	8081/8082	
11097-69-1	Aroclor 1254	ND	140	ug/kg dry	1	10/12/18	B8J0819	8081/8082	
11096-82-5	Aroclor 1260	ND	140	ug/kg dry	1	10/12/18	B8J0819	8081/8082	
37324-23-5	Aroclor 1262	ND	140	ug/kg dry	1	10/12/18	B8J0819	8081/8082	
11100-14-4	Aroclor 1268	ND	140	ug/kg dry	1	10/12/18	B8J0819	8081/8082	
Surrogate: Decachlorobiphenyl			*94.6 %*	*30-150*		*10/12/18*	B8J0819	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*83.5 %*	*30-150*		*10/12/18*	B8J0819	*8081/8082*	

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Client ID: QMCP-SD02-0-12"

Lab ID: 1809079-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**69.3**	0.1	%	1	09/13/18	B8I1124	2540 B	N
Inorganics-Metals									
7440-38-2	**Arsenic**	**6.8**	0.5	mg/kg dry	10	09/24/18	B8I1805	200.8	
7440-43-9	**Cadmium**	**0.2**	0.2	mg/kg dry	10	09/24/18	B8I1805	200.8	
7440-47-3	**Chromium**	**20**	2.0	mg/kg dry	10	09/25/18	B8I1805	200.8	
7440-50-8	**Copper**	**690**	1.0	mg/kg dry	10	09/24/18	B8I1805	200.8	
7439-92-1	**Lead**	**78**	1.0	mg/kg dry	10	09/24/18	B8I1805	200.8	
7439-96-5	**Manganese**	**890**	1.0	mg/kg dry	10	09/24/18	B8I1805	200.8	
7439-97-6	**Mercury**	**0.3**	0.07	mg/kg dry	1	09/17/18	B8I1319	245.5	
7440-22-4	**Silver**	**1.2**	0.1	mg/kg dry	10	09/24/18	B8I1805	200.8	
7440-66-6	**Zinc**	**110**	1.0	mg/kg dry	10	09/24/18	B8I1805	200.8	

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Client ID: QMCP-SD02-0-12" FD

Lab ID: 1809079-05

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y17, Y20**
91-57-6	2-Methylnaphthalene	ND	710	ug/kg dry	1	09/19/18	B8I1218	8270	
83-32-9	**Acenaphthene**	**600**	290	ug/kg dry	1	09/19/18	B8I1218	8270	
208-96-8	**Acenaphthylene**	**290**	290	ug/kg dry	1	09/19/18	B8I1218	8270	
120-12-7	**Anthracene**	**3300**	290	ug/kg dry	1	09/19/18	B8I1218	8270	
56-55-3	**Benz[a]anthracene**	**5300**	290	ug/kg dry	1	09/19/18	B8I1218	8270	
50-32-8	**Benzo[a]pyrene**	**4900**	570	ug/kg dry	1	09/19/18	B8I1218	8270	
205-99-2	**Benzo[b]fluoranthene**	**7800**	570	ug/kg dry	1	09/19/18	B8I1218	8270	
191-24-2	Benzo[g,h,i]perylene	ND	570	ug/kg dry	1	09/19/18	B8I1218	8270	
207-08-9	**Benzo[k]fluoranthene**	**2300**	570	ug/kg dry	1	09/19/18	B8I1218	8270	
218-01-9	**Chrysene**	**4600**	290	ug/kg dry	1	09/19/18	B8I1218	8270	
53-70-3	Dibenz[a,h]anthracene	ND	570	ug/kg dry	1	09/19/18	B8I1218	8270	
206-44-0	**Fluoranthene**	**12000**	290	ug/kg dry	1	09/19/18	B8I1218	8270	
86-73-7	**Fluorene**	**1100**	290	ug/kg dry	1	09/19/18	B8I1218	8270	
193-39-5	**Indeno(1,2,3-c,d)pyrene**	**1100**	570	ug/kg dry	1	09/19/18	B8I1218	8270	
91-20-3	**Naphthalene**	**920**	290	ug/kg dry	1	09/19/18	B8I1218	8270	
85-01-8	**Phenanthrene**	**7600**	290	ug/kg dry	1	09/19/18	B8I1218	8270	
129-00-0	**Pyrene**	**11000**	290	ug/kg dry	1	09/19/18	B8I1218	8270	
Surrogate: 2-Fluorobiphenyl			*85.0 %*	*32.9-115*		*09/19/18*	B8I1218	*8270*	
Surrogate: Nitrobenzene-d5			*73.6 %*	*31.8-115*		*09/19/18*	B8I1218	*8270*	
Surrogate: p-Terphenyl-d14			*98.3 %*	*38.5-115*		*09/19/18*	B8I1218	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	140	ug/kg dry	1	10/12/18	B8J0819	8081/8082	
11104-28-2	Aroclor 1221	ND	140	ug/kg dry	1	10/12/18	B8J0819	8081/8082	
11141-16-5	Aroclor 1232	ND	210	ug/kg dry	1	10/12/18	B8J0819	8081/8082	Y21
53469-21-9	Aroclor 1242	ND	210	ug/kg dry	1	10/12/18	B8J0819	8081/8082	Y21
12672-29-6	Aroclor 1248	ND	210	ug/kg dry	1	10/12/18	B8J0819	8081/8082	Y21
11097-69-1	Aroclor 1254	ND	140	ug/kg dry	1	10/12/18	B8J0819	8081/8082	
11096-82-5	Aroclor 1260	ND	240	ug/kg dry	1	10/12/18	B8J0819	8081/8082	Y21
37324-23-5	Aroclor 1262	ND	240	ug/kg dry	1	10/12/18	B8J0819	8081/8082	Y21
11100-14-4	Aroclor 1268	ND	210	ug/kg dry	1	10/12/18	B8J0819	8081/8082	Y21
Surrogate: Decachlorobiphenyl			*105 %*	*30-150*		*10/12/18*	B8J0819	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*91.5 %*	*30-150*		*10/12/18*	B8J0819	*8081/8082*	

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Client ID: QMCP-SD02-0-12" FD

Lab ID: 1809079-05

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**70.1**	0.1	%	1	09/13/18	B8I1124	2540 B	N
Inorganics-Metals									
7440-38-2	**Arsenic**	**8.0**	0.5	mg/kg dry	10	09/24/18	B8I1805	200.8	
7440-43-9	**Cadmium**	**0.3**	0.2	mg/kg dry	10	09/24/18	B8I1805	200.8	
7440-47-3	**Chromium**	**20**	2.0	mg/kg dry	10	09/25/18	B8I1805	200.8	
7440-50-8	**Copper**	**680**	1.0	mg/kg dry	10	09/24/18	B8I1805	200.8	
7439-92-1	**Lead**	**82**	1.0	mg/kg dry	10	09/24/18	B8I1805	200.8	
7439-96-5	**Manganese**	**750**	1.0	mg/kg dry	10	09/24/18	B8I1805	200.8	
7439-97-6	**Mercury**	**0.1**	0.07	mg/kg dry	1	09/17/18	B8I1319	245.5	
7440-22-4	**Silver**	**1.3**	0.1	mg/kg dry	10	09/24/18	B8I1805	200.8	
7440-66-6	**Zinc**	**99**	1.0	mg/kg dry	10	09/24/18	B8I1805	200.8	

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Client ID: QMCP-SD02-12-21.5"

Lab ID: 1809079-06

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y17, Y21**
91-57-6	2-Methylnaphthalene	ND	2100	ug/kg dry	1	09/19/18	B8I1218	8270	
83-32-9	Acenaphthene	ND	850	ug/kg dry	1	09/19/18	B8I1218	8270	
208-96-8	Acenaphthylene	ND	850	ug/kg dry	1	09/19/18	B8I1218	8270	
120-12-7	Anthracene	ND	850	ug/kg dry	1	09/19/18	B8I1218	8270	
56-55-3	**Benz[a]anthracene**	**1800**	850	ug/kg dry	1	09/19/18	B8I1218	8270	
50-32-8	**Benzo[a]pyrene**	**1700**	1700	ug/kg dry	1	09/19/18	B8I1218	8270	
205-99-2	**Benzo[b]fluoranthene**	**2800**	1700	ug/kg dry	1	09/19/18	B8I1218	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1700	ug/kg dry	1	09/19/18	B8I1218	8270	
207-08-9	Benzo[k]fluoranthene	ND	1700	ug/kg dry	1	09/19/18	B8I1218	8270	
218-01-9	**Chrysene**	**1800**	850	ug/kg dry	1	09/19/18	B8I1218	8270	
53-70-3	Dibenz[a,h]anthracene	ND	1700	ug/kg dry	1	09/19/18	B8I1218	8270	
206-44-0	**Fluoranthene**	**4100**	850	ug/kg dry	1	09/19/18	B8I1218	8270	
86-73-7	Fluorene	ND	850	ug/kg dry	1	09/19/18	B8I1218	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	1700	ug/kg dry	1	09/19/18	B8I1218	8270	
91-20-3	Naphthalene	ND	850	ug/kg dry	1	09/19/18	B8I1218	8270	
85-01-8	**Phenanthrene**	**3100**	850	ug/kg dry	1	09/19/18	B8I1218	8270	
129-00-0	**Pyrene**	**3600**	850	ug/kg dry	1	09/19/18	B8I1218	8270	
Surrogate: 2-Fluorobiphenyl			*82.9 %*	*32.9-115*		*09/19/18*	B8I1218	*8270*	
Surrogate: Nitrobenzene-d5			*73.4 %*	*31.8-115*		*09/19/18*	B8I1218	*8270*	
Surrogate: p-Terphenyl-d14			*94.8 %*	*38.5-115*		*09/19/18*	B8I1218	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	320	ug/kg dry	1	10/12/18	B8J0819	8081/8082	Y21
11104-28-2	Aroclor 1221	ND	320	ug/kg dry	1	10/12/18	B8J0819	8081/8082	Y21
11141-16-5	Aroclor 1232	ND	320	ug/kg dry	1	10/12/18	B8J0819	8081/8082	Y21
53469-21-9	Aroclor 1242	ND	320	ug/kg dry	1	10/12/18	B8J0819	8081/8082	Y21
12672-29-6	Aroclor 1248	ND	320	ug/kg dry	1	10/12/18	B8J0819	8081/8082	Y21
11097-69-1	Aroclor 1254	ND	170	ug/kg dry	1	10/12/18	B8J0819	8081/8082	
11096-82-5	Aroclor 1260	ND	290	ug/kg dry	1	10/12/18	B8J0819	8081/8082	Y21
37324-23-5	Aroclor 1262	ND	290	ug/kg dry	1	10/12/18	B8J0819	8081/8082	Y21
11100-14-4	Aroclor 1268	ND	170	ug/kg dry	1	10/12/18	B8J0819	8081/8082	
Surrogate: Decachlorobiphenyl			*96.4 %*	*30-150*		*10/12/18*	B8J0819	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*81.0 %*	*30-150*		*10/12/18*	B8J0819	*8081/8082*	

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Client ID: QMCP-SD02-12-21.5"

Lab ID: 1809079-06

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**59.1**	0.1	%	1	09/13/18	B8I1212	2540 B	N
Inorganics-Metals									
7440-38-2	**Arsenic**	**20**	0.5	mg/kg dry	10	09/24/18	B8I1805	200.8	
7440-43-9	**Cadmium**	**0.9**	0.2	mg/kg dry	10	09/24/18	B8I1805	200.8	
7440-47-3	**Chromium**	**41**	2.0	mg/kg dry	10	09/25/18	B8I1805	200.8	
7440-50-8	**Copper**	**2100**	1.0	mg/kg dry	10	09/24/18	B8I1805	200.8	
7439-92-1	**Lead**	**180**	1.0	mg/kg dry	10	09/24/18	B8I1805	200.8	
7439-96-5	**Manganese**	**660**	1.0	mg/kg dry	10	09/24/18	B8I1805	200.8	
7439-97-6	**Mercury**	**0.4**	0.08	mg/kg dry	1	09/17/18	B8I1319	245.5	
7440-22-4	**Silver**	**8.5**	0.1	mg/kg dry	10	09/24/18	B8I1805	200.8	
7440-66-6	**Zinc**	**250**	1.0	mg/kg dry	10	09/24/18	B8I1805	200.8	

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Client ID: QMCP-SD09-0-6"

Lab ID: 1809079-07

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y17, Y20**
91-57-6	2-Methylnaphthalene	ND	770	ug/kg dry	1	09/24/18	B8I1312	8270	
83-32-9	Acenaphthene	ND	310	ug/kg dry	1	09/24/18	B8I1312	8270	
208-96-8	Acenaphthylene	ND	310	ug/kg dry	1	09/24/18	B8I1312	8270	
120-12-7	Anthracene	ND	310	ug/kg dry	1	09/24/18	B8I1312	8270	
56-55-3	**Benz[a]anthracene**	**970**	310	ug/kg dry	1	09/24/18	B8I1312	8270	
50-32-8	**Benzo[a]pyrene**	**1000**	620	ug/kg dry	1	09/24/18	B8I1312	8270	
205-99-2	**Benzo[b]fluoranthene**	**1900**	620	ug/kg dry	1	09/24/18	B8I1312	8270	
191-24-2	Benzo[g,h,i]perylene	ND	620	ug/kg dry	1	09/24/18	B8I1312	8270	
207-08-9	**Benzo[k]fluoranthene**	**600**	620	ug/kg dry	1	09/24/18	B8I1312	8270	T
218-01-9	**Chrysene**	**1300**	310	ug/kg dry	1	09/24/18	B8I1312	8270	
53-70-3	Dibenz[a,h]anthracene	ND	620	ug/kg dry	1	09/24/18	B8I1312	8270	
206-44-0	**Fluoranthene**	**3000**	310	ug/kg dry	1	09/24/18	B8I1312	8270	
86-73-7	Fluorene	ND	310	ug/kg dry	1	09/24/18	B8I1312	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	620	ug/kg dry	1	09/24/18	B8I1312	8270	
91-20-3	**Naphthalene**	**330**	310	ug/kg dry	1	09/24/18	B8I1312	8270	
85-01-8	**Phenanthrene**	**2300**	310	ug/kg dry	1	09/24/18	B8I1312	8270	
129-00-0	**Pyrene**	**2400**	310	ug/kg dry	1	09/24/18	B8I1312	8270	
Surrogate: 2-Fluorobiphenyl			*80.6 %*	*32.9-115*		*09/24/18*	B8I1312	*8270*	
Surrogate: Nitrobenzene-d5			*72.3 %*	*31.8-115*		*09/24/18*	B8I1312	*8270*	
Surrogate: p-Terphenyl-d14			*87.8 %*	*38.5-115*		*09/24/18*	B8I1312	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	150	ug/kg dry	1	10/12/18	B8J0819	8081/8082	
11104-28-2	Aroclor 1221	ND	150	ug/kg dry	1	10/12/18	B8J0819	8081/8082	
11141-16-5	Aroclor 1232	ND	150	ug/kg dry	1	10/12/18	B8J0819	8081/8082	
53469-21-9	Aroclor 1242	ND	150	ug/kg dry	1	10/12/18	B8J0819	8081/8082	
12672-29-6	Aroclor 1248	ND	150	ug/kg dry	1	10/12/18	B8J0819	8081/8082	
11097-69-1	Aroclor 1254	ND	150	ug/kg dry	1	10/12/18	B8J0819	8081/8082	
11096-82-5	Aroclor 1260	ND	150	ug/kg dry	1	10/12/18	B8J0819	8081/8082	
37324-23-5	Aroclor 1262	ND	150	ug/kg dry	1	10/12/18	B8J0819	8081/8082	
11100-14-4	Aroclor 1268	ND	150	ug/kg dry	1	10/12/18	B8J0819	8081/8082	
Surrogate: Decachlorobiphenyl			*111 %*	*30-150*		*10/12/18*	B8J0819	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*97.1 %*	*30-150*		*10/12/18*	B8J0819	*8081/8082*	

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Client ID: QMCP-SD09-0-6"

Lab ID: 1809079-07

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**64.8**	0.1	%	1	09/13/18	B8I1212	2540 B	N
Inorganics-Metals									
7440-38-2	**Arsenic**	**22**	0.5	mg/kg dry	10	09/24/18	B8I1805	200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	09/24/18	B8I1805	200.8	
7440-47-3	**Chromium**	**27**	2.0	mg/kg dry	10	09/25/18	B8I1805	200.8	
7440-50-8	**Copper**	**5300**	1000	mg/kg dry	10000	09/25/18	B8I1805	200.8	
7439-92-1	**Lead**	**33**	1.0	mg/kg dry	10	09/24/18	B8I1805	200.8	
7439-96-5	**Manganese**	**200**	1.0	mg/kg dry	10	09/24/18	B8I1805	200.8	
7439-97-6	**Mercury**	**0.1**	0.08	mg/kg dry	1	09/17/18	B8I1319	245.5	
7440-22-4	**Silver**	**3.0**	0.1	mg/kg dry	10	09/24/18	B8I1805	200.8	
7440-66-6	**Zinc**	**72**	1.0	mg/kg dry	10	09/24/18	B8I1805	200.8	

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FAX: (517) 335-9600

Client ID: QMCP-SD10-0-4"

Lab ID: 1809079-08

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y17, Y20**
91-57-6	2-Methylnaphthalene	ND	890	ug/kg dry	1	09/24/18	B8I1312	8270	
83-32-9	Acenaphthene	ND	360	ug/kg dry	1	09/24/18	B8I1312	8270	
208-96-8	Acenaphthylene	ND	360	ug/kg dry	1	09/24/18	B8I1312	8270	
120-12-7	Anthracene	ND	360	ug/kg dry	1	09/24/18	B8I1312	8270	
56-55-3	Benz[a]anthracene	ND	360	ug/kg dry	1	09/24/18	B8I1312	8270	
50-32-8	Benzo[a]pyrene	ND	710	ug/kg dry	1	09/24/18	B8I1312	8270	
205-99-2	Benzo[b]fluoranthene	ND	710	ug/kg dry	1	09/24/18	B8I1312	8270	
191-24-2	Benzo[g,h,i]perylene	ND	710	ug/kg dry	1	09/24/18	B8I1312	8270	
207-08-9	Benzo[k]fluoranthene	ND	710	ug/kg dry	1	09/24/18	B8I1312	8270	
218-01-9	Chrysene	ND	360	ug/kg dry	1	09/24/18	B8I1312	8270	
53-70-3	Dibenz[a,h]anthracene	ND	710	ug/kg dry	1	09/24/18	B8I1312	8270	
206-44-0	**Fluoranthene**	**460**	360	ug/kg dry	1	09/24/18	B8I1312	8270	
86-73-7	Fluorene	ND	360	ug/kg dry	1	09/24/18	B8I1312	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	710	ug/kg dry	1	09/24/18	B8I1312	8270	
91-20-3	Naphthalene	ND	360	ug/kg dry	1	09/24/18	B8I1312	8270	
85-01-8	Phenanthrene	ND	360	ug/kg dry	1	09/24/18	B8I1312	8270	
129-00-0	**Pyrene**	**440**	360	ug/kg dry	1	09/24/18	B8I1312	8270	
Surrogate: 2-Fluorobiphenyl			*75.7 %*	*32.9-115*		*09/24/18*	B8I1312	*8270*	
Surrogate: Nitrobenzene-d5			*66.9 %*	*31.8-115*		*09/24/18*	B8I1312	*8270*	
Surrogate: p-Terphenyl-d14			*84.9 %*	*38.5-115*		*09/24/18*	B8I1312	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	180	ug/kg dry	1	10/12/18	B8J0819	8081/8082	
11104-28-2	Aroclor 1221	ND	180	ug/kg dry	1	10/12/18	B8J0819	8081/8082	
11141-16-5	Aroclor 1232	ND	180	ug/kg dry	1	10/12/18	B8J0819	8081/8082	
53469-21-9	Aroclor 1242	ND	180	ug/kg dry	1	10/12/18	B8J0819	8081/8082	
12672-29-6	Aroclor 1248	ND	180	ug/kg dry	1	10/12/18	B8J0819	8081/8082	
11097-69-1	Aroclor 1254	ND	180	ug/kg dry	1	10/12/18	B8J0819	8081/8082	
11096-82-5	Aroclor 1260	ND	180	ug/kg dry	1	10/12/18	B8J0819	8081/8082	
37324-23-5	Aroclor 1262	ND	180	ug/kg dry	1	10/12/18	B8J0819	8081/8082	
11100-14-4	Aroclor 1268	ND	180	ug/kg dry	1	10/12/18	B8J0819	8081/8082	
Surrogate: Decachlorobiphenyl			*99.9 %*	*30-150*		*10/12/18*	B8J0819	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*88.7 %*	*30-150*		*10/12/18*	B8J0819	*8081/8082*	

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

Client ID: QMCP-SD10-0-4"

Lab ID: 1809079-08

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**56.0**	0.1	%	1	09/13/18	B8I1212	2540 B	N
Inorganics-Metals									
7440-38-2	**Arsenic**	**4.1**	0.5	mg/kg dry	10	09/24/18	B8I1805	200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	09/24/18	B8I1805	200.8	
7440-47-3	**Chromium**	**11**	2.0	mg/kg dry	10	09/25/18	B8I1805	200.8	
7440-50-8	**Copper**	**4100**	100	mg/kg dry	1000	09/25/18	B8I1805	200.8	
7439-92-1	**Lead**	**7.6**	1.0	mg/kg dry	10	09/24/18	B8I1805	200.8	
7439-96-5	**Manganese**	**100**	1.0	mg/kg dry	10	09/24/18	B8I1805	200.8	
7439-97-6	Mercury	ND	0.09	mg/kg dry	1	09/17/18	B8I1319	245.5	
7440-22-4	**Silver**	**0.4**	0.1	mg/kg dry	10	09/24/18	B8I1805	200.8	
7440-66-6	**Zinc**	**20**	1.0	mg/kg dry	10	09/24/18	B8I1805	200.8	

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TEL: (517) 335-9800
FAX: (517) 335-9600

Client ID: QMCP-SD10-4-11"

Lab ID: 1809079-09

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	2-Methylnaphthalene	ND	700	ug/kg dry	1	09/18/18	B8I1312	8270	
83-32-9	Acenaphthene	ND	280	ug/kg dry	1	09/18/18	B8I1312	8270	
208-96-8	Acenaphthylene	ND	280	ug/kg dry	1	09/18/18	B8I1312	8270	
120-12-7	Anthracene	ND	280	ug/kg dry	1	09/18/18	B8I1312	8270	
56-55-3	Benz[a]anthracene	ND	280	ug/kg dry	1	09/18/18	B8I1312	8270	
50-32-8	Benzo[a]pyrene	ND	560	ug/kg dry	1	09/18/18	B8I1312	8270	
205-99-2	Benzo[b]fluoranthene	ND	560	ug/kg dry	1	09/18/18	B8I1312	8270	
191-24-2	Benzo[g,h,i]perylene	ND	560	ug/kg dry	1	09/18/18	B8I1312	8270	
207-08-9	Benzo[k]fluoranthene	ND	560	ug/kg dry	1	09/18/18	B8I1312	8270	
218-01-9	Chrysene	ND	280	ug/kg dry	1	09/18/18	B8I1312	8270	
53-70-3	Dibenz[a,h]anthracene	ND	560	ug/kg dry	1	09/18/18	B8I1312	8270	
206-44-0	Fluoranthene	ND	280	ug/kg dry	1	09/18/18	B8I1312	8270	
86-73-7	Fluorene	ND	280	ug/kg dry	1	09/18/18	B8I1312	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	560	ug/kg dry	1	09/18/18	B8I1312	8270	
91-20-3	Naphthalene	ND	280	ug/kg dry	1	09/18/18	B8I1312	8270	
85-01-8	Phenanthrene	ND	280	ug/kg dry	1	09/18/18	B8I1312	8270	
129-00-0	Pyrene	ND	280	ug/kg dry	1	09/18/18	B8I1312	8270	
Surrogate: 2-Fluorobiphenyl			*91.6 %*	*32.9-115*		*09/18/18*	B8I1312	*8270*	
Surrogate: Nitrobenzene-d5			*61.4 %*	*31.8-115*		*09/18/18*	B8I1312	*8270*	
Surrogate: p-Terphenyl-d14			*88.4 %*	*38.5-115*		*09/18/18*	B8I1312	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	140	ug/kg dry	1	11/03/18	B8J0819	8081/8082	
11104-28-2	Aroclor 1221	ND	140	ug/kg dry	1	11/03/18	B8J0819	8081/8082	
11141-16-5	Aroclor 1232	ND	140	ug/kg dry	1	11/03/18	B8J0819	8081/8082	
53469-21-9	Aroclor 1242	ND	140	ug/kg dry	1	11/03/18	B8J0819	8081/8082	
12672-29-6	Aroclor 1248	ND	140	ug/kg dry	1	11/03/18	B8J0819	8081/8082	
11097-69-1	Aroclor 1254	ND	140	ug/kg dry	1	11/03/18	B8J0819	8081/8082	
11096-82-5	Aroclor 1260	ND	140	ug/kg dry	1	11/03/18	B8J0819	8081/8082	
37324-23-5	Aroclor 1262	ND	140	ug/kg dry	1	11/03/18	B8J0819	8081/8082	
11100-14-4	Aroclor 1268	ND	140	ug/kg dry	1	11/03/18	B8J0819	8081/8082	
Surrogate: Decachlorobiphenyl			*97.2 %*	*30-150*		*11/03/18*	B8J0819	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*95.2 %*	*30-150*		*11/03/18*	B8J0819	*8081/8082*	

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Client ID: QMCP-SD10-4-11"

Lab ID: 1809079-09

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**71.5**	0.1	%	1	09/13/18	B8I1212	2540 B	N
Inorganics-Metals									
7440-38-2	**Arsenic**	**2.5**	0.5	mg/kg dry	10	09/24/18	B8I1805	200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	09/24/18	B8I1805	200.8	
7440-47-3	**Chromium**	**13**	2.0	mg/kg dry	10	09/25/18	B8I1805	200.8	
7440-50-8	**Copper**	**1500**	1.0	mg/kg dry	10	09/24/18	B8I1805	200.8	
7439-92-1	**Lead**	**3.6**	1.0	mg/kg dry	10	09/24/18	B8I1805	200.8	
7439-96-5	**Manganese**	**78**	1.0	mg/kg dry	10	09/24/18	B8I1805	200.8	
7439-97-6	Mercury	ND	0.07	mg/kg dry	1	09/17/18	B8I1319	245.5	
7440-22-4	**Silver**	**0.2**	0.1	mg/kg dry	10	09/24/18	B8I1805	200.8	
7440-66-6	**Zinc**	**12**	1.0	mg/kg dry	10	09/24/18	B8I1805	200.8	

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TEL: (517) 335-9800
FAX: (517) 335-9600

Client ID: QMCP-SD11-0-6"

Lab ID: 1809079-10

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	2-Methylnaphthalene	ND	640	ug/kg dry	1	09/24/18	B8I1312	8270	
83-32-9	Acenaphthene	ND	260	ug/kg dry	1	09/24/18	B8I1312	8270	
208-96-8	Acenaphthylene	ND	260	ug/kg dry	1	09/24/18	B8I1312	8270	
120-12-7	Anthracene	ND	260	ug/kg dry	1	09/24/18	B8I1312	8270	
56-55-3	Benz[a]anthracene	ND	260	ug/kg dry	1	09/24/18	B8I1312	8270	
50-32-8	Benzo[a]pyrene	ND	510	ug/kg dry	1	09/24/18	B8I1312	8270	
205-99-2	Benzo[b]fluoranthene	ND	510	ug/kg dry	1	09/24/18	B8I1312	8270	
191-24-2	Benzo[g,h,i]perylene	ND	510	ug/kg dry	1	09/24/18	B8I1312	8270	
207-08-9	Benzo[k]fluoranthene	ND	510	ug/kg dry	1	09/24/18	B8I1312	8270	
218-01-9	Chrysene	ND	260	ug/kg dry	1	09/24/18	B8I1312	8270	
53-70-3	Dibenz[a,h]anthracene	ND	510	ug/kg dry	1	09/24/18	B8I1312	8270	
206-44-0	Fluoranthene	ND	260	ug/kg dry	1	09/24/18	B8I1312	8270	
86-73-7	Fluorene	ND	260	ug/kg dry	1	09/24/18	B8I1312	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	510	ug/kg dry	1	09/24/18	B8I1312	8270	
91-20-3	Naphthalene	ND	260	ug/kg dry	1	09/24/18	B8I1312	8270	
85-01-8	Phenanthrene	ND	260	ug/kg dry	1	09/24/18	B8I1312	8270	
129-00-0	Pyrene	ND	260	ug/kg dry	1	09/24/18	B8I1312	8270	
Surrogate: 2-Fluorobiphenyl			*74.5 %*	*32.9-115*		*09/24/18*	B8I1312	*8270*	
Surrogate: Nitrobenzene-d5			*68.1 %*	*31.8-115*		*09/24/18*	B8I1312	*8270*	
Surrogate: p-Terphenyl-d14			*86.3 %*	*38.5-115*		*09/24/18*	B8I1312	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	130	ug/kg dry	1	10/12/18	B8J0819	8081/8082	
11104-28-2	Aroclor 1221	ND	130	ug/kg dry	1	10/12/18	B8J0819	8081/8082	
11141-16-5	Aroclor 1232	ND	130	ug/kg dry	1	10/12/18	B8J0819	8081/8082	
53469-21-9	Aroclor 1242	ND	130	ug/kg dry	1	10/12/18	B8J0819	8081/8082	
12672-29-6	Aroclor 1248	ND	130	ug/kg dry	1	10/12/18	B8J0819	8081/8082	
11097-69-1	Aroclor 1254	ND	130	ug/kg dry	1	10/12/18	B8J0819	8081/8082	
11096-82-5	Aroclor 1260	ND	130	ug/kg dry	1	10/12/18	B8J0819	8081/8082	
37324-23-5	Aroclor 1262	ND	130	ug/kg dry	1	10/12/18	B8J0819	8081/8082	
11100-14-4	Aroclor 1268	ND	130	ug/kg dry	1	10/12/18	B8J0819	8081/8082	
Surrogate: Decachlorobiphenyl			*101 %*	*30-150*		*10/12/18*	B8J0819	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*89.9 %*	*30-150*		*10/12/18*	B8J0819	*8081/8082*	

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Client ID: QMCP-SD11-0-6"

Lab ID: 1809079-10

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**78.4**	0.1	%	1	09/13/18	B8I1212	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**1.6**	0.5	mg/kg dry	10	09/24/18	B8I1805	200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	09/24/18	B8I1805	200.8	
7440-47-3	**Chromium**	**5.6**	2.0	mg/kg dry	10	09/25/18	B8I1805	200.8	
7440-50-8	**Copper**	**20**	1.0	mg/kg dry	10	09/24/18	B8I1805	200.8	
7439-92-1	**Lead**	**3.3**	1.0	mg/kg dry	10	09/24/18	B8I1805	200.8	
7439-96-5	**Manganese**	**97**	1.0	mg/kg dry	10	09/24/18	B8I1805	200.8	
7439-97-6	Mercury	ND	0.06	mg/kg dry	1	09/17/18	B8I1319	245.5	
7440-22-4	Silver	ND	0.1	mg/kg dry	10	09/24/18	B8I1805	200.8	
7440-66-6	**Zinc**	**11**	1.0	mg/kg dry	10	09/24/18	B8I1805	200.8	

Michigan Department of Environmental Quality
Laboratory Services Section

Analysis Request Sheet

Lab Work Order Number	Project Name	Matrix
1809079	Abandoned Mining Wastes- QMCP	SEDIMENT

Site Code/Project Number: 31000098	AY: 17	CC Email 1: jbinkley@manniksmithgroup.com	Project TAT Days:	Sample Collector:
Dept-Division-District: DEQ RRD UP District- Calumet	Index: 7000	CC Email 2:	Project Due Date:	Sample Collector Phone:
State Project Manager: Amy Keranen	PCA: 42050/1533	CC Email 3:		Contract Firm: Mannik & Smith Group
State Project Manager Email: keranena@michigan.gov	location: 6996	Overflow Lab Choice 1: Test America- asbestos	Accept Analysis hold time codes: No	Contract Firm Primary Contact: Jeff Binkley
State Project Manager Phone: 906-337-0389	sub location: 6010	Overflow Lab Choice 2: ALS for waste characterization		Primary Contact Phone: 906-281-3404

	Lab Use Only	Field Sample Identification	Collection Date	Collection Time	Container Count	Comments
1	01	QMCP-SD 08 - 8-20"	9/5/18	1517	1	
2	02	QMCP-SD 01 - 0-6"	9/5/18	1615	1	
3	03	QMCP-SD 01 - 6-26"	9/5/18	1617	1	
4	04	QMCP-SD 02-0-12"	9/5/18	1705	1	
5	05	QMCP-SD 02-0-12" FD	9/5/18	1707	1	
6	06	QMCP-SD 02-12-21.5"	9/5/18	1716	1	
7	07	QMCP-SD 09 - 0-6"	9/6/18	1210	1	
8	08	QMCP-SD 10 - 0-4"	9/6/18	1440	1	
9	09	QMCP-SD 10 - 4-11"	9/6/18	1442	1	
10	10	QMCP-SD 11 - 0-6"	9/6/18	1530	1	

ORGANIC CHEMISTRY

VOA - Volatile Organic Acidic

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

OS - Pesticides, PCBs

Pesticides & PCBs	1 2 3 4 5 6 7 8 9 10
Pesticides only	1 2 3 4 5 6 7 8 9 10
PCBs only	1 2 3 4 5 6 7 8 9 10
Toxaphene	1 2 3 4 5 6 7 8 9 10

BNA - Base Neutral Acids

BNAs	1 2 3 4 5 6 7 8 9 10
PNAs only	1 2 3 4 5 6 7 8 9 10
BNs only	1 2 3 4 5 6 7 8 9 10

Organic Specialty Requests

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

METALS CHEMISTRY PACKAGES

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

MS - TOTAL METALS

Silver - Ag	1 2 3 4 5 6 7 8 9 10
Aluminum - Al	1 2 3 4 5 6 7 8 9 10
Arsenic - As	1 2 3 4 5 6 7 8 9 10
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

GENERAL CHEMISTRY

GS - General Chemistry

Total Cyanide - CN	1 2 3 4 5 6 7 8 9 10
Available Cyanide - CN	1 2 3 4 5 6 7 8 9 10
Chem Oxyg Dem - COD	1 2 3 4 5 6 7 8 9 10
Total Org Carbon - TOC	1 2 3 4 5 6 7 8 9 10
Kjeldahl Nitrogen - KN	1 2 3 4 5 6 7 8 9 10
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.	Brian Eustice DEQ	Nicole Ar. Mheen	
Signature:			
Print Name & Org.	Ar. Mheen MDEQ - GSU	Nicole Hardigan	9/10/18 1305
Signature:	Ar. Mheen		
Print Name & Org.			
Signature:			

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

05 November 2018

Work Order: 1809082

Price: $3,616.00

Amy Keranen
MDEQ-RRD-UP
1504 W. Washington St.
Marquette, MI 49855

RE: ABANDONED MINING WASTES-QMCP

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

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MDEQ-RRD-UP	Project: ABANDONED MINING WASTES-QMCP	
1504 W. Washington St.	Site Code: 31000098	**Reported:**
Marquette MI, 49855	Project Manager: Amy Keranen	11/05/2018

Analytical Report for Samples

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Qualifier
QMCP-SD 11-6-12"	1809082-01	Soil/Sediment	09/06/2018	09/10/2018	
QMCP-SD 11-6-12" FD	1809082-02	Soil/Sediment	09/06/2018	09/10/2018	
QMCP-SD 12-0-12"	1809082-03	Soil/Sediment	09/06/2018	09/10/2018	
QMCP-SD 12-12-23"	1809082-04	Soil/Sediment	09/06/2018	09/10/2018	
QMCP-SD 14-0-12"	1809082-05	Soil/Sediment	09/07/2018	09/10/2018	
QMCP-SD 14-12-36"	1809082-06	Soil/Sediment	09/07/2018	09/10/2018	
QMCP-SD 13-0-7"	1809082-07	Soil/Sediment	09/07/2018	09/10/2018	
QMCP-SD 13-7-38"	1809082-08	Soil/Sediment	09/07/2018	09/10/2018	

Notes and Definitions

Y20	Reporting Limits (RL) raised due to matrix.
Y17	Probable petroleum product(s) present.
N	Result is estimated due to Non-homogeneous sample.
LRB	Laboratory reagent blank was greater than 2.2 times the MDL, or greater than 10% of the analyte level in the sample.
A09	Result is estimated due to high recovery of batch quality control.
A07	Result(s) and reporting limit(s) are estimated due to poor precision.
ND	Indicates compound analyzed for but not detected
RL	Reporting Limit
NA	Not Applicable
dry	Sample results reported on a dry weight basis

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TEL: (517) 335-9800
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Client ID: QMCP-SD 11-6-12''

Lab ID: 1809082-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	2-Methylnaphthalene	ND	600	ug/kg dry	1	09/26/18	B8I1321	8270	
83-32-9	Acenaphthene	ND	240	ug/kg dry	1	09/26/18	B8I1321	8270	
208-96-8	Acenaphthylene	ND	240	ug/kg dry	1	09/26/18	B8I1321	8270	
120-12-7	Anthracene	ND	240	ug/kg dry	1	09/26/18	B8I1321	8270	
56-55-3	Benz[a]anthracene	ND	240	ug/kg dry	1	09/26/18	B8I1321	8270	
50-32-8	Benzo[a]pyrene	ND	480	ug/kg dry	1	09/26/18	B8I1321	8270	
205-99-2	Benzo[b]fluoranthene	ND	480	ug/kg dry	1	09/26/18	B8I1321	8270	
191-24-2	Benzo[g,h,i]perylene	ND	480	ug/kg dry	1	09/26/18	B8I1321	8270	
207-08-9	Benzo[k]fluoranthene	ND	480	ug/kg dry	1	09/26/18	B8I1321	8270	
218-01-9	Chrysene	ND	240	ug/kg dry	1	09/26/18	B8I1321	8270	
53-70-3	Dibenz[a,h]anthracene	ND	480	ug/kg dry	1	09/26/18	B8I1321	8270	
206-44-0	Fluoranthene	ND	240	ug/kg dry	1	09/26/18	B8I1321	8270	
86-73-7	Fluorene	ND	240	ug/kg dry	1	09/26/18	B8I1321	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	480	ug/kg dry	1	09/26/18	B8I1321	8270	
91-20-3	Naphthalene	ND	240	ug/kg dry	1	09/26/18	B8I1321	8270	
85-01-8	Phenanthrene	ND	240	ug/kg dry	1	09/26/18	B8I1321	8270	
129-00-0	Pyrene	ND	240	ug/kg dry	1	09/26/18	B8I1321	8270	
Surrogate: 2-Fluorobiphenyl			*78.9 %*	*32.9-115*		*09/26/18*	B8I1321	*8270*	
Surrogate: Nitrobenzene-d5			*70.7 %*	*31.8-115*		*09/26/18*	B8I1321	*8270*	
Surrogate: p-Terphenyl-d14			*89.5 %*	*38.5-115*		*09/26/18*	B8I1321	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	120	ug/kg dry	1	10/13/18	B8J0819	8081/8082	
11104-28-2	Aroclor 1221	ND	120	ug/kg dry	1	10/13/18	B8J0819	8081/8082	
11141-16-5	Aroclor 1232	ND	120	ug/kg dry	1	10/13/18	B8J0819	8081/8082	
53469-21-9	Aroclor 1242	ND	120	ug/kg dry	1	10/13/18	B8J0819	8081/8082	
12672-29-6	Aroclor 1248	ND	120	ug/kg dry	1	10/13/18	B8J0819	8081/8082	
11097-69-1	Aroclor 1254	ND	120	ug/kg dry	1	10/13/18	B8J0819	8081/8082	
11096-82-5	Aroclor 1260	ND	120	ug/kg dry	1	10/13/18	B8J0819	8081/8082	
37324-23-5	Aroclor 1262	ND	120	ug/kg dry	1	10/13/18	B8J0819	8081/8082	
11100-14-4	Aroclor 1268	ND	120	ug/kg dry	1	10/13/18	B8J0819	8081/8082	
Surrogate: Decachlorobiphenyl			*120 %*	*30-150*		*10/13/18*	B8J0819	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*95.6 %*	*30-150*		*10/13/18*	B8J0819	*8081/8082*	

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Client ID: QMCP-SD 11-6-12"

Lab ID: 1809082-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**83.3**	0.1	%	1	09/13/18	B8I1212	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**1.5**	0.5	mg/kg dry	10	09/21/18	B8I1806	200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	09/21/18	B8I1806	200.8	
7440-47-3	**Chromium**	**5.0**	2.0	mg/kg dry	10	09/24/18	B8I1806	200.8	LRB
7440-50-8	**Copper**	**5.2**	1.0	mg/kg dry	10	09/21/18	B8I1806	200.8	
7439-92-1	**Lead**	**1.1**	1.0	mg/kg dry	10	09/21/18	B8I1806	200.8	
7439-96-5	**Manganese**	**29**	1.0	mg/kg dry	10	09/21/18	B8I1806	200.8	A07
7439-97-6	Mercury	ND	0.06	mg/kg dry	1	09/21/18	B8I1824	245.5	
7440-22-4	Silver	ND	0.1	mg/kg dry	10	09/21/18	B8I1806	200.8	
7440-66-6	**Zinc**	**7.2**	1.0	mg/kg dry	10	09/21/18	B8I1806	200.8	

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TEL: (517) 335-9800
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Client ID: QMCP-SD 11-6-12" FD

Lab ID: 1809082-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	2-Methylnaphthalene	ND	600	ug/kg dry	1	09/26/18	B8I1321	8270	
83-32-9	Acenaphthene	ND	240	ug/kg dry	1	09/26/18	B8I1321	8270	
208-96-8	Acenaphthylene	ND	240	ug/kg dry	1	09/26/18	B8I1321	8270	
120-12-7	Anthracene	ND	240	ug/kg dry	1	09/26/18	B8I1321	8270	
56-55-3	Benz[a]anthracene	ND	240	ug/kg dry	1	09/26/18	B8I1321	8270	
50-32-8	Benzo[a]pyrene	ND	480	ug/kg dry	1	09/26/18	B8I1321	8270	
205-99-2	Benzo[b]fluoranthene	ND	480	ug/kg dry	1	09/26/18	B8I1321	8270	
191-24-2	Benzo[g,h,i]perylene	ND	480	ug/kg dry	1	09/26/18	B8I1321	8270	
207-08-9	Benzo[k]fluoranthene	ND	480	ug/kg dry	1	09/26/18	B8I1321	8270	
218-01-9	Chrysene	ND	240	ug/kg dry	1	09/26/18	B8I1321	8270	
53-70-3	Dibenz[a,h]anthracene	ND	480	ug/kg dry	1	09/26/18	B8I1321	8270	
206-44-0	Fluoranthene	ND	240	ug/kg dry	1	09/26/18	B8I1321	8270	
86-73-7	Fluorene	ND	240	ug/kg dry	1	09/26/18	B8I1321	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	480	ug/kg dry	1	09/26/18	B8I1321	8270	
91-20-3	Naphthalene	ND	240	ug/kg dry	1	09/26/18	B8I1321	8270	
85-01-8	Phenanthrene	ND	240	ug/kg dry	1	09/26/18	B8I1321	8270	
129-00-0	Pyrene	ND	240	ug/kg dry	1	09/26/18	B8I1321	8270	
Surrogate: 2-Fluorobiphenyl			*78.0 %*	*32.9-115*		*09/26/18*	B8I1321	*8270*	
Surrogate: Nitrobenzene-d5			*70.7 %*	*31.8-115*		*09/26/18*	B8I1321	*8270*	
Surrogate: p-Terphenyl-d14			*90.6 %*	*38.5-115*		*09/26/18*	B8I1321	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	120	ug/kg dry	1	10/13/18	B8J0819	8081/8082	
11104-28-2	Aroclor 1221	ND	120	ug/kg dry	1	10/13/18	B8J0819	8081/8082	
11141-16-5	Aroclor 1232	ND	120	ug/kg dry	1	10/13/18	B8J0819	8081/8082	
53469-21-9	Aroclor 1242	ND	120	ug/kg dry	1	10/13/18	B8J0819	8081/8082	
12672-29-6	Aroclor 1248	ND	120	ug/kg dry	1	10/13/18	B8J0819	8081/8082	
11097-69-1	Aroclor 1254	ND	120	ug/kg dry	1	10/13/18	B8J0819	8081/8082	
11096-82-5	Aroclor 1260	ND	120	ug/kg dry	1	10/13/18	B8J0819	8081/8082	
37324-23-5	Aroclor 1262	ND	120	ug/kg dry	1	10/13/18	B8J0819	8081/8082	
11100-14-4	Aroclor 1268	ND	120	ug/kg dry	1	10/13/18	B8J0819	8081/8082	
Surrogate: Decachlorobiphenyl			*113 %*	*30-150*		*10/13/18*	B8J0819	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*104 %*	*30-150*		*10/13/18*	B8J0819	*8081/8082*	

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Client ID: QMCP-SD 11-6-12'' FD

Lab ID: 1809082-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**83.3**	0.1	%	1	09/18/18	B8I1416	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**1.1**	0.5	mg/kg dry	10	09/24/18	B8I1806	200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	09/21/18	B8I1806	200.8	
7440-47-3	**Chromium**	**4.6**	2.0	mg/kg dry	10	09/24/18	B8I1806	200.8	LRB
7440-50-8	**Copper**	**5.1**	1.0	mg/kg dry	10	09/21/18	B8I1806	200.8	
7439-92-1	**Lead**	**1.2**	1.0	mg/kg dry	10	09/21/18	B8I1806	200.8	
7439-96-5	**Manganese**	**32**	1.0	mg/kg dry	10	09/21/18	B8I1806	200.8	
7439-97-6	Mercury	ND	0.06	mg/kg dry	1	09/21/18	B8I1824	245.5	
7440-22-4	Silver	ND	0.1	mg/kg dry	10	09/21/18	B8I1806	200.8	
7440-66-6	**Zinc**	**7.7**	1.0	mg/kg dry	10	09/21/18	B8I1806	200.8	

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Client ID: QMCP-SD 12-0-12''
Lab ID: 1809082-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	2-Methylnaphthalene	ND	7000	ug/kg dry	1	09/26/18	B8I1321	8270	
83-32-9	Acenaphthene	ND	2800	ug/kg dry	1	09/26/18	B8I1321	8270	
208-96-8	Acenaphthylene	ND	2800	ug/kg dry	1	09/26/18	B8I1321	8270	
120-12-7	Anthracene	ND	2800	ug/kg dry	1	09/26/18	B8I1321	8270	
56-55-3	Benz[a]anthracene	ND	2800	ug/kg dry	1	09/26/18	B8I1321	8270	
50-32-8	Benzo[a]pyrene	ND	5600	ug/kg dry	1	09/26/18	B8I1321	8270	
205-99-2	Benzo[b]fluoranthene	ND	5600	ug/kg dry	1	09/26/18	B8I1321	8270	
191-24-2	Benzo[g,h,i]perylene	ND	5600	ug/kg dry	1	09/26/18	B8I1321	8270	
207-08-9	Benzo[k]fluoranthene	ND	5600	ug/kg dry	1	09/26/18	B8I1321	8270	
218-01-9	Chrysene	ND	2800	ug/kg dry	1	09/26/18	B8I1321	8270	
53-70-3	Dibenz[a,h]anthracene	ND	5600	ug/kg dry	1	09/26/18	B8I1321	8270	
206-44-0	Fluoranthene	ND	2800	ug/kg dry	1	09/26/18	B8I1321	8270	
86-73-7	Fluorene	ND	2800	ug/kg dry	1	09/26/18	B8I1321	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	5600	ug/kg dry	1	09/26/18	B8I1321	8270	
91-20-3	Naphthalene	ND	2800	ug/kg dry	1	09/26/18	B8I1321	8270	
85-01-8	Phenanthrene	ND	2800	ug/kg dry	1	09/26/18	B8I1321	8270	
129-00-0	Pyrene	ND	2800	ug/kg dry	1	09/26/18	B8I1321	8270	
Surrogate: 2-Fluorobiphenyl			*78.6 %*	*32.9-115*		*09/26/18*	B8I1321	*8270*	
Surrogate: Nitrobenzene-d5			*72.4 %*	*31.8-115*		*09/26/18*	B8I1321	*8270*	
Surrogate: p-Terphenyl-d14			*88.4 %*	*38.5-115*		*09/26/18*	B8I1321	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	560	ug/kg dry	1	10/13/18	B8J0819	8081/8082	
11104-28-2	Aroclor 1221	ND	560	ug/kg dry	1	10/13/18	B8J0819	8081/8082	
11141-16-5	Aroclor 1232	ND	560	ug/kg dry	1	10/13/18	B8J0819	8081/8082	
53469-21-9	Aroclor 1242	ND	560	ug/kg dry	1	10/13/18	B8J0819	8081/8082	
12672-29-6	Aroclor 1248	ND	560	ug/kg dry	1	10/13/18	B8J0819	8081/8082	
11097-69-1	Aroclor 1254	ND	560	ug/kg dry	1	10/13/18	B8J0819	8081/8082	
11096-82-5	Aroclor 1260	ND	560	ug/kg dry	1	10/13/18	B8J0819	8081/8082	
37324-23-5	Aroclor 1262	ND	560	ug/kg dry	1	10/13/18	B8J0819	8081/8082	
11100-14-4	Aroclor 1268	ND	560	ug/kg dry	1	10/13/18	B8J0819	8081/8082	
Surrogate: Decachlorobiphenyl			*116 %*	*30-150*		*10/13/18*	B8J0819	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*99.7 %*	*30-150*		*10/13/18*	B8J0819	*8081/8082*	

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Client ID: QMCP-SD 12-0-12"

Lab ID: 1809082-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**17.8**	0.1	%	1	09/18/18	B8I1416	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**3.9**	0.5	mg/kg dry	10	09/21/18	B8I1806	200.8	
7440-43-9	**Cadmium**	**0.2**	0.2	mg/kg dry	10	09/21/18	B8I1806	200.8	
7440-47-3	**Chromium**	**14**	2.0	mg/kg dry	10	09/24/18	B8I1806	200.8	
7440-50-8	**Copper**	**100**	1.0	mg/kg dry	10	09/21/18	B8I1806	200.8	
7439-92-1	**Lead**	**2.2**	1.0	mg/kg dry	10	09/21/18	B8I1806	200.8	
7439-96-5	**Manganese**	**120**	1.0	mg/kg dry	10	09/21/18	B8I1806	200.8	
7439-97-6	Mercury	ND	0.3	mg/kg dry	1	09/21/18	B8I1825	245.5	
7440-22-4	**Silver**	**0.1**	0.1	mg/kg dry	10	09/21/18	B8I1806	200.8	
7440-66-6	**Zinc**	**24**	1.0	mg/kg dry	10	09/21/18	B8I1806	200.8	

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Client ID: QMCP-SD 12-12-23''
Lab ID: 1809082-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	2-Methylnaphthalene	ND	8100	ug/kg dry	1	09/26/18	B8I1321	8270	
83-32-9	Acenaphthene	ND	3200	ug/kg dry	1	09/26/18	B8I1321	8270	
208-96-8	Acenaphthylene	ND	3200	ug/kg dry	1	09/26/18	B8I1321	8270	
120-12-7	Anthracene	ND	3200	ug/kg dry	1	09/26/18	B8I1321	8270	
56-55-3	Benz[a]anthracene	ND	3200	ug/kg dry	1	09/26/18	B8I1321	8270	
50-32-8	Benzo[a]pyrene	ND	6500	ug/kg dry	1	09/26/18	B8I1321	8270	
205-99-2	Benzo[b]fluoranthene	ND	6500	ug/kg dry	1	09/26/18	B8I1321	8270	
191-24-2	Benzo[g,h,i]perylene	ND	6500	ug/kg dry	1	09/26/18	B8I1321	8270	
207-08-9	Benzo[k]fluoranthene	ND	6500	ug/kg dry	1	09/26/18	B8I1321	8270	
218-01-9	Chrysene	ND	3200	ug/kg dry	1	09/26/18	B8I1321	8270	
53-70-3	Dibenz[a,h]anthracene	ND	6500	ug/kg dry	1	09/26/18	B8I1321	8270	
206-44-0	Fluoranthene	ND	3200	ug/kg dry	1	09/26/18	B8I1321	8270	
86-73-7	Fluorene	ND	3200	ug/kg dry	1	09/26/18	B8I1321	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	6500	ug/kg dry	1	09/26/18	B8I1321	8270	
91-20-3	Naphthalene	ND	3200	ug/kg dry	1	09/26/18	B8I1321	8270	
85-01-8	Phenanthrene	ND	3200	ug/kg dry	1	09/26/18	B8I1321	8270	
129-00-0	Pyrene	ND	3200	ug/kg dry	1	09/26/18	B8I1321	8270	
Surrogate: 2-Fluorobiphenyl			*78.9 %*	*32.9-115*		*09/26/18*	B8I1321	*8270*	
Surrogate: Nitrobenzene-d5			*72.1 %*	*31.8-115*		*09/26/18*	B8I1321	*8270*	
Surrogate: p-Terphenyl-d14			*86.0 %*	*38.5-115*		*09/26/18*	B8I1321	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	650	ug/kg dry	1	10/13/18	B8J0819	8081/8082	
11104-28-2	Aroclor 1221	ND	650	ug/kg dry	1	10/13/18	B8J0819	8081/8082	
11141-16-5	Aroclor 1232	ND	650	ug/kg dry	1	10/13/18	B8J0819	8081/8082	
53469-21-9	Aroclor 1242	ND	650	ug/kg dry	1	10/13/18	B8J0819	8081/8082	
12672-29-6	Aroclor 1248	ND	650	ug/kg dry	1	10/13/18	B8J0819	8081/8082	
11097-69-1	Aroclor 1254	ND	650	ug/kg dry	1	10/13/18	B8J0819	8081/8082	
11096-82-5	Aroclor 1260	ND	650	ug/kg dry	1	10/13/18	B8J0819	8081/8082	
37324-23-5	Aroclor 1262	ND	650	ug/kg dry	1	10/13/18	B8J0819	8081/8082	
11100-14-4	Aroclor 1268	ND	650	ug/kg dry	1	10/13/18	B8J0819	8081/8082	
Surrogate: Decachlorobiphenyl			*91.5 %*	*30-150*		*10/13/18*	B8J0819	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*79.5 %*	*30-150*		*10/13/18*	B8J0819	*8081/8082*	

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FAX: (517) 335-9600

Client ID: QMCP-SD 12-12-23''

Lab ID: 1809082-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**15.4**	0.1	%	1	09/18/18	B8I1416	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**4.3**	0.5	mg/kg dry	10	09/21/18	B8I1806	200.8	
7440-43-9	**Cadmium**	**0.3**	0.2	mg/kg dry	10	09/21/18	B8I1806	200.8	
7440-47-3	**Chromium**	**17**	2.0	mg/kg dry	10	09/24/18	B8I1806	200.8	
7440-50-8	**Copper**	**74**	1.0	mg/kg dry	10	09/21/18	B8I1806	200.8	
7439-92-1	**Lead**	**1.9**	1.0	mg/kg dry	10	09/21/18	B8I1806	200.8	
7439-96-5	**Manganese**	**120**	1.0	mg/kg dry	10	09/21/18	B8I1806	200.8	
7439-97-6	Mercury	ND	0.3	mg/kg dry	1	09/21/18	B8I1825	245.5	
7440-22-4	**Silver**	**0.2**	0.1	mg/kg dry	10	09/21/18	B8I1806	200.8	
7440-66-6	**Zinc**	**34**	1.0	mg/kg dry	10	09/21/18	B8I1806	200.8	

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TEL: (517) 335-9800
FAX: (517) 335-9600

Client ID: QMCP-SD 14-0-12''
Lab ID: 1809082-05

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	2-Methylnaphthalene	ND	590	ug/kg dry	1	09/25/18	B8I1321	8270	
83-32-9	Acenaphthene	ND	240	ug/kg dry	1	09/25/18	B8I1321	8270	
208-96-8	Acenaphthylene	ND	240	ug/kg dry	1	09/25/18	B8I1321	8270	
120-12-7	Anthracene	ND	240	ug/kg dry	1	09/25/18	B8I1321	8270	
56-55-3	Benz[a]anthracene	ND	240	ug/kg dry	1	09/25/18	B8I1321	8270	
50-32-8	Benzo[a]pyrene	ND	470	ug/kg dry	1	09/25/18	B8I1321	8270	
205-99-2	Benzo[b]fluoranthene	ND	470	ug/kg dry	1	09/25/18	B8I1321	8270	
191-24-2	Benzo[g,h,i]perylene	ND	470	ug/kg dry	1	09/25/18	B8I1321	8270	
207-08-9	Benzo[k]fluoranthene	ND	470	ug/kg dry	1	09/25/18	B8I1321	8270	
218-01-9	Chrysene	ND	240	ug/kg dry	1	09/25/18	B8I1321	8270	
53-70-3	Dibenz[a,h]anthracene	ND	470	ug/kg dry	1	09/25/18	B8I1321	8270	
206-44-0	Fluoranthene	ND	240	ug/kg dry	1	09/25/18	B8I1321	8270	
86-73-7	Fluorene	ND	240	ug/kg dry	1	09/25/18	B8I1321	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	470	ug/kg dry	1	09/25/18	B8I1321	8270	
91-20-3	Naphthalene	ND	240	ug/kg dry	1	09/25/18	B8I1321	8270	
85-01-8	Phenanthrene	ND	240	ug/kg dry	1	09/25/18	B8I1321	8270	
129-00-0	Pyrene	ND	240	ug/kg dry	1	09/25/18	B8I1321	8270	
Surrogate: 2-Fluorobiphenyl			*80.0 %*	*32.9-115*		*09/25/18*	B8I1321	*8270*	
Surrogate: Nitrobenzene-d5			*75.0 %*	*31.8-115*		*09/25/18*	B8I1321	*8270*	
Surrogate: p-Terphenyl-d14			*92.7 %*	*38.5-115*		*09/25/18*	B8I1321	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	120	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11104-28-2	Aroclor 1221	ND	120	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11141-16-5	Aroclor 1232	ND	120	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
53469-21-9	Aroclor 1242	ND	120	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
12672-29-6	Aroclor 1248	ND	120	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11097-69-1	Aroclor 1254	ND	120	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11096-82-5	Aroclor 1260	ND	120	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
37324-23-5	Aroclor 1262	ND	120	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11100-14-4	Aroclor 1268	ND	120	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
Surrogate: Decachlorobiphenyl			*104 %*	*30-150*		*10/13/18*	B8J0906	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*89.2 %*	*30-150*		*10/13/18*	B8J0906	*8081/8082*	

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Client ID: QMCP-SD 14-0-12''

Lab ID: 1809082-05

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**84.9**	0.1	%	1	09/18/18	B8I1416	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**1.4**	0.5	mg/kg dry	10	09/21/18	B8I1806	200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	09/21/18	B8I1806	200.8	
7440-47-3	**Chromium**	**5.0**	2.0	mg/kg dry	10	09/24/18	B8I1806	200.8	LRB
7440-50-8	**Copper**	**14**	1.0	mg/kg dry	10	09/21/18	B8I1806	200.8	
7439-92-1	**Lead**	**1.4**	1.0	mg/kg dry	10	09/21/18	B8I1806	200.8	
7439-96-5	**Manganese**	**32**	1.0	mg/kg dry	10	09/21/18	B8I1806	200.8	
7439-97-6	Mercury	ND	0.06	mg/kg dry	1	09/21/18	B8I1825	245.5	
7440-22-4	Silver	ND	0.1	mg/kg dry	10	09/21/18	B8I1806	200.8	
7440-66-6	**Zinc**	**6.3**	1.0	mg/kg dry	10	09/21/18	B8I1806	200.8	

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TEL: (517) 335-9800
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Client ID: QMCP-SD 14-12-36''
Lab ID: 1809082-06

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	2-Methylnaphthalene	ND	600	ug/kg dry	1	09/26/18	B8I1415	8270	
83-32-9	Acenaphthene	ND	240	ug/kg dry	1	09/26/18	B8I1415	8270	
208-96-8	Acenaphthylene	ND	240	ug/kg dry	1	09/26/18	B8I1415	8270	
120-12-7	Anthracene	ND	240	ug/kg dry	1	09/26/18	B8I1415	8270	
56-55-3	Benz[a]anthracene	ND	240	ug/kg dry	1	09/26/18	B8I1415	8270	
50-32-8	Benzo[a]pyrene	ND	480	ug/kg dry	1	09/26/18	B8I1415	8270	
205-99-2	Benzo[b]fluoranthene	ND	480	ug/kg dry	1	09/26/18	B8I1415	8270	
191-24-2	Benzo[g,h,i]perylene	ND	480	ug/kg dry	1	09/26/18	B8I1415	8270	
207-08-9	Benzo[k]fluoranthene	ND	480	ug/kg dry	1	09/26/18	B8I1415	8270	
218-01-9	Chrysene	ND	240	ug/kg dry	1	09/26/18	B8I1415	8270	
53-70-3	Dibenz[a,h]anthracene	ND	480	ug/kg dry	1	09/26/18	B8I1415	8270	
206-44-0	Fluoranthene	ND	240	ug/kg dry	1	09/26/18	B8I1415	8270	
86-73-7	Fluorene	ND	240	ug/kg dry	1	09/26/18	B8I1415	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	480	ug/kg dry	1	09/26/18	B8I1415	8270	
91-20-3	Naphthalene	ND	240	ug/kg dry	1	09/26/18	B8I1415	8270	
85-01-8	Phenanthrene	ND	240	ug/kg dry	1	09/26/18	B8I1415	8270	
129-00-0	Pyrene	ND	240	ug/kg dry	1	09/26/18	B8I1415	8270	
Surrogate: 2-Fluorobiphenyl			*105 %*	*32.9-115*		*09/26/18*	B8I1415	*8270*	
Surrogate: Nitrobenzene-d5			*87.7 %*	*31.8-115*		*09/26/18*	B8I1415	*8270*	
Surrogate: p-Terphenyl-d14			*98.4 %*	*38.5-115*		*09/26/18*	B8I1415	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	120	ug/kg dry	1	10/13/18	B8J1012	8081/8082	
11104-28-2	Aroclor 1221	ND	120	ug/kg dry	1	10/13/18	B8J1012	8081/8082	
11141-16-5	Aroclor 1232	ND	120	ug/kg dry	1	10/13/18	B8J1012	8081/8082	
53469-21-9	Aroclor 1242	ND	120	ug/kg dry	1	10/13/18	B8J1012	8081/8082	
12672-29-6	Aroclor 1248	ND	120	ug/kg dry	1	10/13/18	B8J1012	8081/8082	
11097-69-1	Aroclor 1254	ND	120	ug/kg dry	1	10/13/18	B8J1012	8081/8082	
11096-82-5	Aroclor 1260	ND	120	ug/kg dry	1	10/13/18	B8J1012	8081/8082	
37324-23-5	Aroclor 1262	ND	120	ug/kg dry	1	10/13/18	B8J1012	8081/8082	
11100-14-4	Aroclor 1268	ND	120	ug/kg dry	1	10/13/18	B8J1012	8081/8082	
Surrogate: Decachlorobiphenyl			*99.5 %*	*30-150*		*10/13/18*	B8J1012	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*83.4 %*	*30-150*		*10/13/18*	B8J1012	*8081/8082*	

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Client ID: QMCP-SD 14-12-36''

Lab ID: 1809082-06

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**82.9**	0.1	%	1	09/18/18	B8I1416	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**0.6**	0.5	mg/kg dry	10	09/24/18	B8I1806	200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	09/21/18	B8I1806	200.8	
7440-47-3	**Chromium**	**4.8**	2.0	mg/kg dry	10	09/24/18	B8I1806	200.8	LRB
7440-50-8	**Copper**	**6.9**	1.0	mg/kg dry	10	09/21/18	B8I1806	200.8	
7439-92-1	Lead	ND	1.0	mg/kg dry	10	09/21/18	B8I1806	200.8	
7439-96-5	**Manganese**	**31**	1.0	mg/kg dry	10	09/21/18	B8I1806	200.8	
7439-97-6	Mercury	ND	0.06	mg/kg dry	1	09/21/18	B8I1825	245.5	
7440-22-4	Silver	ND	0.1	mg/kg dry	10	09/21/18	B8I1806	200.8	
7440-66-6	**Zinc**	**5.0**	1.0	mg/kg dry	10	09/21/18	B8I1806	200.8	

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Client ID: QMCP-SD 13-0-7"
Lab ID: 1809082-07

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	2-Methylnaphthalene	ND	1000	ug/kg dry	1	09/26/18	B8I1415	8270	
83-32-9	Acenaphthene	ND	420	ug/kg dry	1	09/26/18	B8I1415	8270	
208-96-8	Acenaphthylene	ND	420	ug/kg dry	1	09/26/18	B8I1415	8270	
120-12-7	Anthracene	ND	420	ug/kg dry	1	09/26/18	B8I1415	8270	
56-55-3	Benz[a]anthracene	ND	420	ug/kg dry	1	09/26/18	B8I1415	8270	
50-32-8	Benzo[a]pyrene	ND	840	ug/kg dry	1	09/26/18	B8I1415	8270	
205-99-2	Benzo[b]fluoranthene	ND	840	ug/kg dry	1	09/26/18	B8I1415	8270	
191-24-2	Benzo[g,h,i]perylene	ND	840	ug/kg dry	1	09/26/18	B8I1415	8270	
207-08-9	Benzo[k]fluoranthene	ND	840	ug/kg dry	1	09/26/18	B8I1415	8270	
218-01-9	Chrysene	ND	420	ug/kg dry	1	09/26/18	B8I1415	8270	
53-70-3	Dibenz[a,h]anthracene	ND	840	ug/kg dry	1	09/26/18	B8I1415	8270	
206-44-0	Fluoranthene	ND	420	ug/kg dry	1	09/26/18	B8I1415	8270	
86-73-7	Fluorene	ND	420	ug/kg dry	1	09/26/18	B8I1415	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	840	ug/kg dry	1	09/26/18	B8I1415	8270	
91-20-3	Naphthalene	ND	420	ug/kg dry	1	09/26/18	B8I1415	8270	
85-01-8	Phenanthrene	ND	420	ug/kg dry	1	09/26/18	B8I1415	8270	
129-00-0	Pyrene	ND	420	ug/kg dry	1	09/26/18	B8I1415	8270	
Surrogate: 2-Fluorobiphenyl			*82.4 %*	*32.9-115*		*09/26/18*	B8I1415	*8270*	
Surrogate: Nitrobenzene-d5			*73.5 %*	*31.8-115*		*09/26/18*	B8I1415	*8270*	
Surrogate: p-Terphenyl-d14			*88.9 %*	*38.5-115*		*09/26/18*	B8I1415	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	210	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11104-28-2	Aroclor 1221	ND	210	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11141-16-5	Aroclor 1232	ND	210	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
53469-21-9	Aroclor 1242	ND	210	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
12672-29-6	Aroclor 1248	ND	210	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11097-69-1	Aroclor 1254	ND	210	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11096-82-5	Aroclor 1260	ND	210	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
37324-23-5	Aroclor 1262	ND	210	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11100-14-4	Aroclor 1268	ND	210	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
Surrogate: Decachlorobiphenyl			*97.6 %*	*30-150*		*10/13/18*	B8J0906	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*85.0 %*	*30-150*		*10/13/18*	B8J0906	*8081/8082*	

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Client ID: QMCP-SD 13-0-7"

Lab ID: 1809082-07

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**47.7**	0.1	%	1	09/18/18	B8I1416	2540 B	N
Inorganics-Metals									
7440-38-2	**Arsenic**	**16**	0.5	mg/kg dry	10	09/21/18	B8I1806	200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	09/21/18	B8I1806	200.8	
7440-47-3	**Chromium**	**110**	2.0	mg/kg dry	10	09/24/18	B8I1806	200.8	
7440-50-8	**Copper**	**1400**	1.0	mg/kg dry	10	09/21/18	B8I1806	200.8	
7439-92-1	**Lead**	**17**	1.0	mg/kg dry	10	09/21/18	B8I1806	200.8	
7439-96-5	**Manganese**	**230**	1.0	mg/kg dry	10	09/21/18	B8I1806	200.8	
7439-97-6	Mercury	ND	0.1	mg/kg dry	1	09/21/18	B8I1825	245.5	
7440-22-4	**Silver**	**0.4**	0.1	mg/kg dry	10	09/21/18	B8I1806	200.8	
7440-66-6	**Zinc**	**180**	1.0	mg/kg dry	10	09/21/18	B8I1806	200.8	

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Client ID: QMCP-SD 13-7-38''

Lab ID: 1809082-08

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y17, Y20**
91-57-6	2-Methylnaphthalene	ND	3100	ug/kg dry	1	09/27/18	B8I1415	8270	
83-32-9	Acenaphthene	ND	1300	ug/kg dry	1	09/27/18	B8I1415	8270	
208-96-8	Acenaphthylene	ND	1300	ug/kg dry	1	09/27/18	B8I1415	8270	
120-12-7	Anthracene	ND	1300	ug/kg dry	1	09/27/18	B8I1415	8270	
56-55-3	Benz[a]anthracene	ND	1300	ug/kg dry	1	09/27/18	B8I1415	8270	
50-32-8	Benzo[a]pyrene	ND	2500	ug/kg dry	1	09/27/18	B8I1415	8270	
205-99-2	Benzo[b]fluoranthene	ND	2500	ug/kg dry	1	09/27/18	B8I1415	8270	
191-24-2	Benzo[g,h,i]perylene	ND	2500	ug/kg dry	1	09/27/18	B8I1415	8270	
207-08-9	Benzo[k]fluoranthene	ND	2500	ug/kg dry	1	09/27/18	B8I1415	8270	
218-01-9	Chrysene	ND	1300	ug/kg dry	1	09/27/18	B8I1415	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2500	ug/kg dry	1	09/27/18	B8I1415	8270	
206-44-0	Fluoranthene	ND	1300	ug/kg dry	1	09/27/18	B8I1415	8270	
86-73-7	Fluorene	ND	1300	ug/kg dry	1	09/27/18	B8I1415	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2500	ug/kg dry	1	09/27/18	B8I1415	8270	
91-20-3	Naphthalene	ND	1300	ug/kg dry	1	09/27/18	B8I1415	8270	
85-01-8	Phenanthrene	ND	1300	ug/kg dry	1	09/27/18	B8I1415	8270	
129-00-0	Pyrene	ND	1300	ug/kg dry	1	09/27/18	B8I1415	8270	
Surrogate: 2-Fluorobiphenyl			*66.9 %*	*32.9-115*		*09/27/18*	B8I1415	*8270*	
Surrogate: Nitrobenzene-d5			*48.8 %*	*31.8-115*		*09/27/18*	B8I1415	*8270*	
Surrogate: p-Terphenyl-d14			*83.6 %*	*38.5-115*		*09/27/18*	B8I1415	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	630	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11104-28-2	Aroclor 1221	ND	630	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11141-16-5	Aroclor 1232	ND	630	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
53469-21-9	Aroclor 1242	ND	630	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
12672-29-6	Aroclor 1248	ND	630	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11097-69-1	Aroclor 1254	ND	630	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11096-82-5	Aroclor 1260	ND	630	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
37324-23-5	Aroclor 1262	ND	630	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11100-14-4	Aroclor 1268	ND	630	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
Surrogate: Decachlorobiphenyl			*105 %*	*30-150*		*10/13/18*	B8J0906	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*90.2 %*	*30-150*		*10/13/18*	B8J0906	*8081/8082*	

STATE OF MICHIGAN
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MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

Client ID: QMCP-SD 13-7-38''

Lab ID: 1809082-08

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**16.0**	0.1	%	1	09/18/18	B8I1416	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**2.9**	0.5	mg/kg dry	10	09/25/18	B8I1912	200.8	
7440-43-9	**Cadmium**	**0.4**	0.2	mg/kg dry	10	09/25/18	B8I1912	200.8	
7440-47-3	**Chromium**	**10**	2.0	mg/kg dry	10	09/25/18	B8I1912	200.8	
7440-50-8	**Copper**	**67**	1.0	mg/kg dry	10	09/25/18	B8I1912	200.8	
7439-92-1	**Lead**	**1.2**	1.0	mg/kg dry	10	09/25/18	B8I1912	200.8	
7439-96-5	**Manganese**	**130**	1.0	mg/kg dry	10	09/25/18	B8I1912	200.8	
7439-97-6	Mercury	ND	0.3	mg/kg dry	1	09/21/18	B8I1825	245.5	
7440-22-4	**Silver**	**0.1**	0.1	mg/kg dry	10	09/25/18	B8I1912	200.8	
7440-66-6	**Zinc**	**21**	1.0	mg/kg dry	10	09/25/18	B8I1912	200.8	

Michigan Department of Environmental Quality
Laboratory Services Section

Analysis Request Sheet

Lab Work Order Number	Project Name	Matrix
1809082	Abandoned Mining Wastes- QMCP	SEDIMENT

Site Code/Project Number	AY	CC Email 1	Project TAT Days	Sample Collector
31000098	17	jbinkley@manniksmithgroup.com		
Dept-Division-District	**Index**	**CC Email 2**	**Project Due Date**	**Sample Collector Phone**
DEQ RRD UP District- Calumet	7000			
State Project Manager	**PCA**	**CC Email 3**		**Contract Firm**
Amy Keranen	42050/1533			Mannik & Smith Group
State Project Manager Email	**location**	**Overflow Lab Choice 1**	**Accept Analysis hold time codes**	**Contract Firm Primary Contact**
keranena@michigan.gov	6996	Test America- asbestos	No	Jeff Binkley
State Project Manager Phone	**sub location**	**Overflow Lab Choice 2**		**Primary Contact Phone**
906-337-0389	6010	ALS for waste characterization		906-281-3404

	Lab Use Only	Field Sample Identification	Collection Date	Collection Time	Container Count	Comments
1	01	QMCP-SD 11-6-12"	9/6/18	1572	1	
2	02	QMCP-SD 11-6-12" FD	9/6/18	1594	1	
3	03	QMCP-SD 12-0-12"	9/6/18	1615	1	
4	04	QMCP-SD 12-12-23"	9/6/18	1617	1	
5	05	QMCP-SD 14-0-12"	9/7/18	0956	1	
6	06	QMCP-SD 14-12-36"	9/7/18	0952	1	
7	07	QMCP-SD 13-0-7"	9/7/18	1008	1	
8	08	QMCP-SD 13-7-38"	9/7/18	1010	1	
9		QMCP-SD				
10		QMCP-SD				

ORGANIC CHEMISTRY

VOA - Volatile Organic Acidic

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

OS - Pesticides, PCBs

Pesticides & PCBs	1 2 3 4 5 6 7 8 9 10
Pesticides only	1 2 3 4 5 6 7 8 9 10
PCBs only	1 2 3 4 5 6 7 8 9 10
Toxaphene	1 2 3 4 5 6 7 8 9 10

BNA - Base Neutral Acids

BNAs	1 2 3 4 5 6 7 8 9 10
PNAs only	1 2 3 4 5 6 7 8 9 10
BNs only	1 2 3 4 5 6 7 8 9 10

Organic Specialty Requests

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

METALS CHEMISTRY PACKAGES

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

MS - TOTAL METALS

Silver - Ag	1 2 3 4 5 6 7 8 9 10
Aluminum - Al	1 2 3 4 5 6 7 8 9 10
Arsenic - As	1 2 3 4 5 6 7 8 9 10
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

GENERAL CHEMISTRY

GS - General Chemistry

Total Cyanide - CN	1 2 3 4 5 6 7 8 9 10
Available Cyanide - CN	1 2 3 4 5 6 7 8 9 10
Chem Oxyg Dem - COD	1 2 3 4 5 6 7 8 9 10
Total Org Carbon - TOC	1 2 3 4 5 6 7 8 9 10
Kjeldahl Nitrogen - KN	1 2 3 4 5 6 7 8 9 10
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.	Brian Eyster DEQ	Ari McKeever	
Signature:			
Print Name & Org.	Ari McKeever CCSI	Nicole Hardigan	9/10/18
Signature:	Ari McKeever		1315
Print Name & Org.			
Signature:			

STATE OF MICHIGAN
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ENVIRONMENTAL LABORATORY

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

05 November 2018

Work Order: 1809083

Price: $4,520.00

Amy Keranen
MDEQ-RRD-UP
1504 W. Washington St.
Marquette, MI 49855

RE: ABANDONED MINING WASTES-QMCP

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

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MDEQ-RRD-UP	Project: ABANDONED MINING WASTES-QMCP	
1504 W. Washington St.	Site Code: 31000098	**Reported:**
Marquette MI, 49855	Project Manager: Amy Keranen	11/05/2018

Analytical Report for Samples

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Qualifier
QMCP-SD 03-0-6"	1809083-01	Soil/Sediment	09/05/2018	09/10/2018	
QMCP-SD 04-0-4.5"	1809083-02	Soil/Sediment	09/05/2018	09/10/2018	
QMCP-SD 04-4.5-9"	1809083-03	Soil/Sediment	09/05/2018	09/10/2018	
QMCP-SD 05-0-6"	1809083-04	Soil/Sediment	09/05/2018	09/10/2018	
QMCP-SD 05-6-18"	1809083-05	Soil/Sediment	09/05/2018	09/10/2018	
QMCP-SD 06-0-15"	1809083-06	Soil/Sediment	09/05/2018	09/10/2018	
QMCP-SD 06-0-15" FD	1809083-07	Soil/Sediment	09/05/2018	09/10/2018	
QMCP-SD 06-15-35"	1809083-08	Soil/Sediment	09/05/2018	09/10/2018	
QMCP-SD 07-0-11"	1809083-09	Soil/Sediment	09/05/2018	09/10/2018	
QMCP-SD 08-0-8"	1809083-10	Soil/Sediment	09/05/2018	09/10/2018	

Notes and Definitions

Y21	Reporting Limits (RL) raised due to matrix interference.
Y20	Reporting Limits (RL) raised due to matrix.
Y17	Probable petroleum product(s) present.
Y11	Unidentified peaks present in sample.
T	Reported value is less than the reporting limit (RL). Result is estimated.
N	Result is estimated due to Non-homogeneous sample.
LRB	Laboratory reagent blank was greater than 2.2 times the MDL, or greater than 10% of the analyte level in the sample.
A09	Result is estimated due to high recovery of batch quality control.
A07	Result(s) and reporting limit(s) are estimated due to poor precision.
ND	Indicates compound analyzed for but not detected
RL	Reporting Limit
NA	Not Applicable
dry	Sample results reported on a dry weight basis

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TEL: (517) 335-9800
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Client ID: QMCP-SD 03-0-6"

Lab ID: 1809083-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	2-Methylnaphthalene	ND	630	ug/kg dry	1	09/19/18	B8I1218	8270	
83-32-9	Acenaphthene	ND	250	ug/kg dry	1	09/19/18	B8I1218	8270	
208-96-8	Acenaphthylene	ND	250	ug/kg dry	1	09/19/18	B8I1218	8270	
120-12-7	Anthracene	ND	250	ug/kg dry	1	09/19/18	B8I1218	8270	
56-55-3	**Benz[a]anthracene**	**390**	250	ug/kg dry	1	09/19/18	B8I1218	8270	
50-32-8	**Benzo[a]pyrene**	**680**	510	ug/kg dry	1	09/19/18	B8I1218	8270	
205-99-2	**Benzo[b]fluoranthene**	**990**	510	ug/kg dry	1	09/19/18	B8I1218	8270	
191-24-2	Benzo[g,h,i]perylene	ND	510	ug/kg dry	1	09/19/18	B8I1218	8270	
207-08-9	Benzo[k]fluoranthene	ND	510	ug/kg dry	1	09/19/18	B8I1218	8270	
218-01-9	**Chrysene**	**440**	250	ug/kg dry	1	09/19/18	B8I1218	8270	
53-70-3	Dibenz[a,h]anthracene	ND	510	ug/kg dry	1	09/19/18	B8I1218	8270	
206-44-0	**Fluoranthene**	**780**	250	ug/kg dry	1	09/19/18	B8I1218	8270	
86-73-7	Fluorene	ND	250	ug/kg dry	1	09/19/18	B8I1218	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	510	ug/kg dry	1	09/19/18	B8I1218	8270	
91-20-3	Naphthalene	ND	250	ug/kg dry	1	09/19/18	B8I1218	8270	
85-01-8	**Phenanthrene**	**1000**	250	ug/kg dry	1	09/19/18	B8I1218	8270	
129-00-0	**Pyrene**	**730**	250	ug/kg dry	1	09/19/18	B8I1218	8270	
Surrogate: 2-Fluorobiphenyl			*87.9 %*	*32.9-115*		*09/19/18*	B8I1218	*8270*	
Surrogate: Nitrobenzene-d5			*79.2 %*	*31.8-115*		*09/19/18*	B8I1218	*8270*	
Surrogate: p-Terphenyl-d14			*99.2 %*	*38.5-115*		*09/19/18*	B8I1218	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	130	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11104-28-2	Aroclor 1221	ND	130	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11141-16-5	Aroclor 1232	ND	130	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
53469-21-9	Aroclor 1242	ND	130	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
12672-29-6	Aroclor 1248	ND	130	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11097-69-1	Aroclor 1254	ND	130	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11096-82-5	Aroclor 1260	ND	130	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
37324-23-5	Aroclor 1262	ND	130	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11100-14-4	Aroclor 1268	ND	130	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
Surrogate: Decachlorobiphenyl			*96.2 %*	*30-150*		*10/13/18*	B8J0906	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*85.0 %*	*30-150*		*10/13/18*	B8J0906	*8081/8082*	

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TEL: (517) 335-9800
FAX: (517) 335-9600

Client ID: QMCP-SD 03-0-6"

Lab ID: 1809083-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**79.2**	0.1	%	1	09/18/18	B8I1416	2540 B	N
Inorganics-Metals									
7440-38-2	**Arsenic**	**2.7**	0.5	mg/kg dry	10	09/25/18	B8I1912	200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	09/25/18	B8I1912	200.8	
7440-47-3	**Chromium**	**98**	2.0	mg/kg dry	10	09/25/18	B8I1912	200.8	
7440-50-8	**Copper**	**1200**	1.0	mg/kg dry	10	09/25/18	B8I1912	200.8	
7439-92-1	**Lead**	**17**	1.0	mg/kg dry	10	09/25/18	B8I1912	200.8	
7439-96-5	**Manganese**	**690**	1.0	mg/kg dry	10	09/25/18	B8I1912	200.8	
7439-97-6	**Mercury**	**0.1**	0.06	mg/kg dry	1	09/21/18	B8I1825	245.5	
7440-22-4	**Silver**	**3.5**	0.1	mg/kg dry	10	09/25/18	B8I1912	200.8	
7440-66-6	**Zinc**	**94**	1.0	mg/kg dry	10	09/25/18	B8I1912	200.8	

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Lansing, MI 48909
TEL: (517) 335-9800
FAX: (517) 335-9600

Client ID: QMCP-SD 04-0-4.5''

Lab ID: 1809083-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	2-Methylnaphthalene	ND	2200	ug/kg dry	1	09/27/18	B8I1415	8270	
83-32-9	Acenaphthene	ND	870	ug/kg dry	1	09/27/18	B8I1415	8270	
208-96-8	Acenaphthylene	ND	870	ug/kg dry	1	09/27/18	B8I1415	8270	
120-12-7	Anthracene	ND	870	ug/kg dry	1	09/27/18	B8I1415	8270	
56-55-3	**Benz[a]anthracene**	**1000**	870	ug/kg dry	1	09/27/18	B8I1415	8270	
50-32-8	Benzo[a]pyrene	ND	1700	ug/kg dry	1	09/27/18	B8I1415	8270	
205-99-2	**Benzo[b]fluoranthene**	**1700**	1700	ug/kg dry	1	09/27/18	B8I1415	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1700	ug/kg dry	1	09/27/18	B8I1415	8270	
207-08-9	Benzo[k]fluoranthene	ND	1700	ug/kg dry	1	09/27/18	B8I1415	8270	
218-01-9	**Chrysene**	**1100**	870	ug/kg dry	1	09/27/18	B8I1415	8270	
53-70-3	Dibenz[a,h]anthracene	ND	1700	ug/kg dry	1	09/27/18	B8I1415	8270	
206-44-0	**Fluoranthene**	**2100**	870	ug/kg dry	1	09/27/18	B8I1415	8270	
86-73-7	Fluorene	ND	870	ug/kg dry	1	09/27/18	B8I1415	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	1700	ug/kg dry	1	09/27/18	B8I1415	8270	
91-20-3	Naphthalene	ND	870	ug/kg dry	1	09/27/18	B8I1415	8270	
85-01-8	**Phenanthrene**	**990**	870	ug/kg dry	1	09/27/18	B8I1415	8270	
129-00-0	**Pyrene**	**1700**	870	ug/kg dry	1	09/27/18	B8I1415	8270	
Surrogate: 2-Fluorobiphenyl			*79.3 %*	*32.9-115*		*09/27/18*	B8I1415	*8270*	
Surrogate: Nitrobenzene-d5			*66.8 %*	*31.8-115*		*09/27/18*	B8I1415	*8270*	
Surrogate: p-Terphenyl-d14			*95.0 %*	*38.5-115*		*09/27/18*	B8I1415	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	170	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11104-28-2	Aroclor 1221	ND	170	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11141-16-5	Aroclor 1232	ND	170	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
53469-21-9	Aroclor 1242	ND	170	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
12672-29-6	Aroclor 1248	ND	170	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11097-69-1	Aroclor 1254	ND	170	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11096-82-5	Aroclor 1260	ND	230	ug/kg dry	1	10/13/18	B8J0906	8081/8082	Y21
37324-23-5	Aroclor 1262	ND	230	ug/kg dry	1	10/13/18	B8J0906	8081/8082	Y21
11100-14-4	Aroclor 1268	ND	170	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
Surrogate: Decachlorobiphenyl			*108 %*	*30-150*		*10/13/18*	B8J0906	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*90.4 %*	*30-150*		*10/13/18*	B8J0906	*8081/8082*	

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Client ID: QMCP-SD 04-0-4.5''

Lab ID: 1809083-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**57.4**	0.1	%	1	09/18/18	B8I1416	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**8.2**	0.5	mg/kg dry	10	09/25/18	B8I1912	200.8	
7440-43-9	**Cadmium**	**0.4**	0.2	mg/kg dry	10	09/25/18	B8I1912	200.8	
7440-47-3	**Chromium**	**48**	2.0	mg/kg dry	10	09/25/18	B8I1912	200.8	
7440-50-8	**Copper**	**1100**	1.0	mg/kg dry	10	09/25/18	B8I1912	200.8	
7439-92-1	**Lead**	**52**	1.0	mg/kg dry	10	09/25/18	B8I1912	200.8	
7439-96-5	**Manganese**	**490**	1.0	mg/kg dry	10	09/25/18	B8I1912	200.8	
7439-97-6	**Mercury**	**0.5**	0.09	mg/kg dry	1	09/21/18	B8I1825	245.5	
7440-22-4	**Silver**	**2.5**	0.1	mg/kg dry	10	09/25/18	B8I1912	200.8	
7440-66-6	**Zinc**	**99**	1.0	mg/kg dry	10	09/25/18	B8I1912	200.8	

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Client ID: QMCP-SD 04-4.5-9''

Lab ID: 1809083-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y21**
91-57-6	2-Methylnaphthalene	ND	2300	ug/kg dry	1	09/19/18	B8I1218	8270	
83-32-9	Acenaphthene	ND	940	ug/kg dry	1	09/19/18	B8I1218	8270	
208-96-8	Acenaphthylene	ND	940	ug/kg dry	1	09/19/18	B8I1218	8270	
120-12-7	Anthracene	ND	940	ug/kg dry	1	09/19/18	B8I1218	8270	
56-55-3	**Benz[a]anthracene**	**2200**	940	ug/kg dry	1	09/19/18	B8I1218	8270	
50-32-8	**Benzo[a]pyrene**	**2100**	1900	ug/kg dry	1	09/19/18	B8I1218	8270	
205-99-2	**Benzo[b]fluoranthene**	**3300**	1900	ug/kg dry	1	09/19/18	B8I1218	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1900	ug/kg dry	1	09/19/18	B8I1218	8270	
207-08-9	Benzo[k]fluoranthene	ND	1900	ug/kg dry	1	09/19/18	B8I1218	8270	
218-01-9	**Chrysene**	**2100**	940	ug/kg dry	1	09/19/18	B8I1218	8270	
53-70-3	Dibenz[a,h]anthracene	ND	1900	ug/kg dry	1	09/19/18	B8I1218	8270	
206-44-0	**Fluoranthene**	**4100**	940	ug/kg dry	1	09/19/18	B8I1218	8270	
86-73-7	Fluorene	ND	940	ug/kg dry	1	09/19/18	B8I1218	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	1900	ug/kg dry	1	09/19/18	B8I1218	8270	
91-20-3	**Naphthalene**	**1100**	940	ug/kg dry	1	09/19/18	B8I1218	8270	
85-01-8	**Phenanthrene**	**2200**	940	ug/kg dry	1	09/19/18	B8I1218	8270	
129-00-0	**Pyrene**	**3600**	940	ug/kg dry	1	09/19/18	B8I1218	8270	
Surrogate: 2-Fluorobiphenyl			*82.9 %*	*32.9-115*		*09/19/18*	B8I1218	*8270*	
Surrogate: Nitrobenzene-d5			*75.4 %*	*31.8-115*		*09/19/18*	B8I1218	*8270*	
Surrogate: p-Terphenyl-d14			*97.1 %*	*38.5-115*		*09/19/18*	B8I1218	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	190	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11104-28-2	Aroclor 1221	ND	190	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11141-16-5	Aroclor 1232	ND	190	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
53469-21-9	Aroclor 1242	ND	190	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
12672-29-6	Aroclor 1248	ND	190	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11097-69-1	Aroclor 1254	ND	190	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11096-82-5	Aroclor 1260	ND	190	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
37324-23-5	Aroclor 1262	ND	190	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11100-14-4	Aroclor 1268	ND	190	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
Surrogate: Decachlorobiphenyl			*103 %*	*30-150*		*10/13/18*	B8J0906	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*89.1 %*	*30-150*		*10/13/18*	B8J0906	*8081/8082*	

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Client ID: QMCP-SD 04-4.5-9''

Lab ID: 1809083-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**53.5**	0.1	%	1	09/18/18	B8I1416	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**11**	0.5	mg/kg dry	10	09/25/18	B8I1912	200.8	
7440-43-9	**Cadmium**	**0.4**	0.2	mg/kg dry	10	09/25/18	B8I1912	200.8	
7440-47-3	**Chromium**	**56**	2.0	mg/kg dry	10	09/25/18	B8I1912	200.8	
7440-50-8	**Copper**	**1100**	1.0	mg/kg dry	10	09/25/18	B8I1912	200.8	
7439-92-1	**Lead**	**67**	1.0	mg/kg dry	10	09/25/18	B8I1912	200.8	
7439-96-5	**Manganese**	**560**	1.0	mg/kg dry	10	09/25/18	B8I1912	200.8	
7439-97-6	**Mercury**	**0.6**	0.09	mg/kg dry	1	09/21/18	B8I1825	245.5	
7440-22-4	**Silver**	**2.2**	0.1	mg/kg dry	10	09/25/18	B8I1912	200.8	
7440-66-6	**Zinc**	**130**	1.0	mg/kg dry	10	09/25/18	B8I1912	200.8	

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Client ID: QMCP-SD 05-0-6"

Lab ID: 1809083-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y11, Y21**
91-57-6	2-Methylnaphthalene	ND	4500	ug/kg dry	1	09/19/18	B8I1218	8270	
83-32-9	Acenaphthene	ND	1800	ug/kg dry	1	09/19/18	B8I1218	8270	
208-96-8	Acenaphthylene	ND	1800	ug/kg dry	1	09/19/18	B8I1218	8270	
120-12-7	Anthracene	ND	1800	ug/kg dry	1	09/19/18	B8I1218	8270	
56-55-3	Benz[a]anthracene	ND	1800	ug/kg dry	1	09/19/18	B8I1218	8270	
50-32-8	Benzo[a]pyrene	ND	3600	ug/kg dry	1	09/19/18	B8I1218	8270	
205-99-2	Benzo[b]fluoranthene	ND	3600	ug/kg dry	1	09/19/18	B8I1218	8270	
191-24-2	Benzo[g,h,i]perylene	ND	3600	ug/kg dry	1	09/19/18	B8I1218	8270	
207-08-9	Benzo[k]fluoranthene	ND	3600	ug/kg dry	1	09/19/18	B8I1218	8270	
218-01-9	Chrysene	ND	1800	ug/kg dry	1	09/19/18	B8I1218	8270	
53-70-3	Dibenz[a,h]anthracene	ND	3600	ug/kg dry	1	09/19/18	B8I1218	8270	
206-44-0	**Fluoranthene**	**2000**	1800	ug/kg dry	1	09/19/18	B8I1218	8270	
86-73-7	Fluorene	ND	1800	ug/kg dry	1	09/19/18	B8I1218	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	3600	ug/kg dry	1	09/19/18	B8I1218	8270	
91-20-3	Naphthalene	ND	1800	ug/kg dry	1	09/19/18	B8I1218	8270	
85-01-8	Phenanthrene	ND	1800	ug/kg dry	1	09/19/18	B8I1218	8270	
129-00-0	**Pyrene**	**1900**	1800	ug/kg dry	1	09/19/18	B8I1218	8270	
Surrogate: 2-Fluorobiphenyl			*85.3 %*	*32.9-115*		*09/19/18*	B8I1218	*8270*	
Surrogate: Nitrobenzene-d5			*75.9 %*	*31.8-115*		*09/19/18*	B8I1218	*8270*	
Surrogate: p-Terphenyl-d14			*96.3 %*	*38.5-115*		*09/19/18*	B8I1218	*8270*	
Organics-PCBs as Aroclors									**See note Y20**
12674-11-2	Aroclor 1016	ND	720	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11104-28-2	Aroclor 1221	ND	1200	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11141-16-5	Aroclor 1232	ND	720	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
53469-21-9	Aroclor 1242	ND	720	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
12672-29-6	Aroclor 1248	ND	720	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11097-69-1	Aroclor 1254	ND	720	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11096-82-5	Aroclor 1260	ND	720	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
37324-23-5	Aroclor 1262	ND	720	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11100-14-4	Aroclor 1268	ND	720	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
Surrogate: Decachlorobiphenyl			*104 %*	*30-150*		*10/13/18*	B8J0906	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*92.0 %*	*30-150*		*10/13/18*	B8J0906	*8081/8082*	

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Client ID: QMCP-SD 05-0-6"

Lab ID: 1809083-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**27.7**	0.1	%	1	09/18/18	B8I1416	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**22**	0.5	mg/kg dry	10	09/25/18	B8I1912	200.8	
7440-43-9	**Cadmium**	**0.7**	0.2	mg/kg dry	10	09/25/18	B8I1912	200.8	
7440-47-3	**Chromium**	**58**	2.0	mg/kg dry	10	09/25/18	B8I1912	200.8	
7440-50-8	**Copper**	**1300**	1.0	mg/kg dry	10	09/25/18	B8I1912	200.8	
7439-92-1	**Lead**	**84**	1.0	mg/kg dry	10	09/25/18	B8I1912	200.8	
7439-96-5	**Manganese**	**640**	100	mg/kg dry	1000	09/25/18	B8I1912	200.8	
7439-97-6	**Mercury**	**0.7**	0.2	mg/kg dry	1	09/21/18	B8I1825	245.5	
7440-22-4	**Silver**	**2.6**	0.1	mg/kg dry	10	09/25/18	B8I1912	200.8	
7440-66-6	**Zinc**	**140**	1.0	mg/kg dry	10	09/25/18	B8I1912	200.8	

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Client ID: QMCP-SD 05-6-18''

Lab ID: 1809083-05

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	2-Methylnaphthalene	ND	750	ug/kg dry	1	09/24/18	B8I1218	8270	
83-32-9	Acenaphthene	ND	300	ug/kg dry	1	09/24/18	B8I1218	8270	
208-96-8	Acenaphthylene	ND	300	ug/kg dry	1	09/24/18	B8I1218	8270	
120-12-7	Anthracene	ND	300	ug/kg dry	1	09/24/18	B8I1218	8270	
56-55-3	Benz[a]anthracene	ND	300	ug/kg dry	1	09/24/18	B8I1218	8270	
50-32-8	Benzo[a]pyrene	ND	600	ug/kg dry	1	09/24/18	B8I1218	8270	
205-99-2	Benzo[b]fluoranthene	ND	600	ug/kg dry	1	09/24/18	B8I1218	8270	
191-24-2	Benzo[g,h,i]perylene	ND	600	ug/kg dry	1	09/24/18	B8I1218	8270	
207-08-9	Benzo[k]fluoranthene	ND	600	ug/kg dry	1	09/24/18	B8I1218	8270	
218-01-9	Chrysene	ND	300	ug/kg dry	1	09/24/18	B8I1218	8270	
53-70-3	Dibenz[a,h]anthracene	ND	600	ug/kg dry	1	09/24/18	B8I1218	8270	
206-44-0	**Fluoranthene**	**350**	300	ug/kg dry	1	09/24/18	B8I1218	8270	
86-73-7	Fluorene	ND	300	ug/kg dry	1	09/24/18	B8I1218	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	600	ug/kg dry	1	09/24/18	B8I1218	8270	
91-20-3	Naphthalene	ND	300	ug/kg dry	1	09/24/18	B8I1218	8270	
85-01-8	**Phenanthrene**	**290**	300	ug/kg dry	1	09/24/18	B8I1218	8270	T
129-00-0	**Pyrene**	**290**	300	ug/kg dry	1	09/24/18	B8I1218	8270	T
Surrogate: 2-Fluorobiphenyl			*78.3 %*	*32.9-115*		*09/24/18*	B8I1218	*8270*	
Surrogate: Nitrobenzene-d5			*72.6 %*	*31.8-115*		*09/24/18*	B8I1218	*8270*	
Surrogate: p-Terphenyl-d14			*87.6 %*	*38.5-115*		*09/24/18*	B8I1218	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	150	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11104-28-2	Aroclor 1221	ND	150	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11141-16-5	Aroclor 1232	ND	150	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
53469-21-9	Aroclor 1242	ND	150	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
12672-29-6	Aroclor 1248	ND	150	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11097-69-1	Aroclor 1254	ND	150	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11096-82-5	Aroclor 1260	ND	150	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
37324-23-5	Aroclor 1262	ND	150	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11100-14-4	Aroclor 1268	ND	150	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
Surrogate: Decachlorobiphenyl			*97.7 %*	*30-150*		*10/13/18*	B8J0906	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*86.1 %*	*30-150*		*10/13/18*	B8J0906	*8081/8082*	

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Client ID: QMCP-SD 05-6-18''

Lab ID: 1809083-05

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**66.6**	0.1	%	1	09/18/18	B8I1416	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**2.8**	0.5	mg/kg dry	10	09/25/18	B8I1912	200.8	
7440-43-9	**Cadmium**	**0.2**	0.2	mg/kg dry	10	09/25/18	B8I1912	200.8	
7440-47-3	**Chromium**	**27**	2.0	mg/kg dry	10	09/25/18	B8I1912	200.8	
7440-50-8	**Copper**	**1500**	1.0	mg/kg dry	10	09/25/18	B8I1912	200.8	
7439-92-1	**Lead**	**11**	1.0	mg/kg dry	10	09/25/18	B8I1912	200.8	
7439-96-5	**Manganese**	**460**	1.0	mg/kg dry	10	09/25/18	B8I1912	200.8	
7439-97-6	**Mercury**	**0.2**	0.08	mg/kg dry	1	09/21/18	B8I1825	245.5	
7440-22-4	**Silver**	**3.1**	0.1	mg/kg dry	10	09/25/18	B8I1912	200.8	
7440-66-6	**Zinc**	**66**	1.0	mg/kg dry	10	09/25/18	B8I1912	200.8	

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Client ID: QMCP-SD 06-0-15''

Lab ID: 1809083-06

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	2-Methylnaphthalene	ND	630	ug/kg dry	1	09/24/18	B8I1218	8270	
83-32-9	Acenaphthene	ND	250	ug/kg dry	1	09/24/18	B8I1218	8270	
208-96-8	Acenaphthylene	ND	250	ug/kg dry	1	09/24/18	B8I1218	8270	
120-12-7	Anthracene	ND	250	ug/kg dry	1	09/24/18	B8I1218	8270	
56-55-3	Benz[a]anthracene	ND	250	ug/kg dry	1	09/24/18	B8I1218	8270	
50-32-8	Benzo[a]pyrene	ND	510	ug/kg dry	1	09/24/18	B8I1218	8270	
205-99-2	Benzo[b]fluoranthene	ND	510	ug/kg dry	1	09/24/18	B8I1218	8270	
191-24-2	Benzo[g,h,i]perylene	ND	510	ug/kg dry	1	09/24/18	B8I1218	8270	
207-08-9	Benzo[k]fluoranthene	ND	510	ug/kg dry	1	09/24/18	B8I1218	8270	
218-01-9	Chrysene	ND	250	ug/kg dry	1	09/24/18	B8I1218	8270	
53-70-3	Dibenz[a,h]anthracene	ND	510	ug/kg dry	1	09/24/18	B8I1218	8270	
206-44-0	**Fluoranthene**	**510**	250	ug/kg dry	1	09/24/18	B8I1218	8270	
86-73-7	Fluorene	ND	250	ug/kg dry	1	09/24/18	B8I1218	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	510	ug/kg dry	1	09/24/18	B8I1218	8270	
91-20-3	Naphthalene	ND	250	ug/kg dry	1	09/24/18	B8I1218	8270	
85-01-8	**Phenanthrene**	**350**	250	ug/kg dry	1	09/24/18	B8I1218	8270	
129-00-0	**Pyrene**	**380**	250	ug/kg dry	1	09/24/18	B8I1218	8270	
Surrogate: 2-Fluorobiphenyl			*76.2 %*	*32.9-115*		*09/24/18*	B8I1218	*8270*	
Surrogate: Nitrobenzene-d5			*71.6 %*	*31.8-115*		*09/24/18*	B8I1218	*8270*	
Surrogate: p-Terphenyl-d14			*91.9 %*	*38.5-115*		*09/24/18*	B8I1218	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	130	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11104-28-2	Aroclor 1221	ND	130	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11141-16-5	Aroclor 1232	ND	130	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
53469-21-9	Aroclor 1242	ND	130	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
12672-29-6	Aroclor 1248	ND	130	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11097-69-1	Aroclor 1254	ND	130	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11096-82-5	Aroclor 1260	ND	130	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
37324-23-5	Aroclor 1262	ND	130	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11100-14-4	Aroclor 1268	ND	130	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
Surrogate: Decachlorobiphenyl			*94.6 %*	*30-150*		*10/13/18*	B8J0906	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*82.5 %*	*30-150*		*10/13/18*	B8J0906	*8081/8082*	

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MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

P.O. Box 30270
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TEL: (517) 335-9800
FAX: (517) 335-9600

Client ID: QMCP-SD 06-0-15''

Lab ID: 1809083-06

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**79.0**	0.1	%	1	09/18/18	B8I1416	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**1.2**	0.5	mg/kg dry	10	09/25/18	B8I1912	200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	09/25/18	B8I1912	200.8	
7440-47-3	**Chromium**	**9.5**	2.0	mg/kg dry	10	09/25/18	B8I1912	200.8	
7440-50-8	**Copper**	**340**	1.0	mg/kg dry	10	09/25/18	B8I1912	200.8	
7439-92-1	**Lead**	**10**	1.0	mg/kg dry	10	09/25/18	B8I1912	200.8	
7439-96-5	**Manganese**	**160**	1.0	mg/kg dry	10	09/25/18	B8I1912	200.8	
7439-97-6	Mercury	ND	0.06	mg/kg dry	1	09/21/18	B8I1825	245.5	
7440-22-4	**Silver**	**0.4**	0.1	mg/kg dry	10	09/25/18	B8I1912	200.8	
7440-66-6	**Zinc**	**26**	1.0	mg/kg dry	10	09/25/18	B8I1912	200.8	

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Client ID: QMCP-SD 06-0-15'' FD

Lab ID: 1809083-07

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	2-Methylnaphthalene	ND	630	ug/kg dry	1	09/24/18	B8I1218	8270	
83-32-9	Acenaphthene	ND	250	ug/kg dry	1	09/24/18	B8I1218	8270	
208-96-8	Acenaphthylene	ND	250	ug/kg dry	1	09/24/18	B8I1218	8270	
120-12-7	Anthracene	ND	250	ug/kg dry	1	09/24/18	B8I1218	8270	
56-55-3	Benz[a]anthracene	ND	250	ug/kg dry	1	09/24/18	B8I1218	8270	
50-32-8	Benzo[a]pyrene	ND	500	ug/kg dry	1	09/24/18	B8I1218	8270	
205-99-2	Benzo[b]fluoranthene	ND	500	ug/kg dry	1	09/24/18	B8I1218	8270	
191-24-2	Benzo[g,h,i]perylene	ND	500	ug/kg dry	1	09/24/18	B8I1218	8270	
207-08-9	Benzo[k]fluoranthene	ND	500	ug/kg dry	1	09/24/18	B8I1218	8270	
218-01-9	Chrysene	ND	250	ug/kg dry	1	09/24/18	B8I1218	8270	
53-70-3	Dibenz[a,h]anthracene	ND	500	ug/kg dry	1	09/24/18	B8I1218	8270	
206-44-0	Fluoranthene	ND	250	ug/kg dry	1	09/24/18	B8I1218	8270	
86-73-7	Fluorene	ND	250	ug/kg dry	1	09/24/18	B8I1218	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	500	ug/kg dry	1	09/24/18	B8I1218	8270	
91-20-3	Naphthalene	ND	250	ug/kg dry	1	09/24/18	B8I1218	8270	
85-01-8	Phenanthrene	ND	250	ug/kg dry	1	09/24/18	B8I1218	8270	
129-00-0	Pyrene	ND	250	ug/kg dry	1	09/24/18	B8I1218	8270	
Surrogate: 2-Fluorobiphenyl			*81.8 %*	*32.9-115*		*09/24/18*	B8I1218	*8270*	
Surrogate: Nitrobenzene-d5			*77.9 %*	*31.8-115*		*09/24/18*	B8I1218	*8270*	
Surrogate: p-Terphenyl-d14			*91.0 %*	*38.5-115*		*09/24/18*	B8I1218	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	130	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11104-28-2	Aroclor 1221	ND	130	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11141-16-5	Aroclor 1232	ND	130	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
53469-21-9	Aroclor 1242	ND	130	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
12672-29-6	Aroclor 1248	ND	130	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11097-69-1	Aroclor 1254	ND	130	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11096-82-5	Aroclor 1260	ND	130	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
37324-23-5	Aroclor 1262	ND	130	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11100-14-4	Aroclor 1268	ND	130	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
Surrogate: Decachlorobiphenyl			*109 %*	*30-150*		*10/13/18*	B8J0906	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*92.0 %*	*30-150*		*10/13/18*	B8J0906	*8081/8082*	

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Client ID: QMCP-SD 06-0-15'' FD

Lab ID: 1809083-07

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**79.3**	0.1	%	1	09/18/18	B8I1416	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**1.4**	0.5	mg/kg dry	10	09/25/18	B8I1912	200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	09/25/18	B8I1912	200.8	
7440-47-3	**Chromium**	**12**	2.0	mg/kg dry	10	09/25/18	B8I1912	200.8	
7440-50-8	**Copper**	**420**	1.0	mg/kg dry	10	09/25/18	B8I1912	200.8	
7439-92-1	**Lead**	**15**	1.0	mg/kg dry	10	09/25/18	B8I1912	200.8	
7439-96-5	**Manganese**	**240**	1.0	mg/kg dry	10	09/25/18	B8I1912	200.8	
7439-97-6	Mercury	ND	0.06	mg/kg dry	1	09/21/18	B8I1825	245.5	
7440-22-4	**Silver**	**0.8**	0.1	mg/kg dry	10	09/25/18	B8I1912	200.8	
7440-66-6	**Zinc**	**40**	1.0	mg/kg dry	10	09/25/18	B8I1912	200.8	

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Client ID: QMCP-SD 06-15-35''

Lab ID: 1809083-08

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y20**
91-57-6	2-Methylnaphthalene	ND	620	ug/kg dry	1	09/24/18	B8I1218	8270	
83-32-9	**Acenaphthene**	**330**	250	ug/kg dry	1	09/24/18	B8I1218	8270	
208-96-8	Acenaphthylene	ND	250	ug/kg dry	1	09/24/18	B8I1218	8270	
120-12-7	**Anthracene**	**310**	250	ug/kg dry	1	09/24/18	B8I1218	8270	
56-55-3	**Benz[a]anthracene**	**520**	250	ug/kg dry	1	09/24/18	B8I1218	8270	
50-32-8	Benzo[a]pyrene	ND	500	ug/kg dry	1	09/24/18	B8I1218	8270	
205-99-2	**Benzo[b]fluoranthene**	**600**	500	ug/kg dry	1	09/24/18	B8I1218	8270	
191-24-2	Benzo[g,h,i]perylene	ND	500	ug/kg dry	1	09/24/18	B8I1218	8270	
207-08-9	Benzo[k]fluoranthene	ND	500	ug/kg dry	1	09/24/18	B8I1218	8270	
218-01-9	**Chrysene**	**460**	250	ug/kg dry	1	09/24/18	B8I1218	8270	
53-70-3	Dibenz[a,h]anthracene	ND	500	ug/kg dry	1	09/24/18	B8I1218	8270	
206-44-0	**Fluoranthene**	**1300**	250	ug/kg dry	1	09/24/18	B8I1218	8270	
86-73-7	**Fluorene**	**350**	250	ug/kg dry	1	09/24/18	B8I1218	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	500	ug/kg dry	1	09/24/18	B8I1218	8270	
91-20-3	**Naphthalene**	**360**	250	ug/kg dry	1	09/24/18	B8I1218	8270	
85-01-8	**Phenanthrene**	**1400**	250	ug/kg dry	1	09/24/18	B8I1218	8270	
129-00-0	**Pyrene**	**1000**	250	ug/kg dry	1	09/24/18	B8I1218	8270	
Surrogate: 2-Fluorobiphenyl			*82.2 %*	*32.9-115*		*09/24/18*	B8I1218	*8270*	
Surrogate: Nitrobenzene-d5			*78.6 %*	*31.8-115*		*09/24/18*	B8I1218	*8270*	
Surrogate: p-Terphenyl-d14			*92.8 %*	*38.5-115*		*09/24/18*	B8I1218	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	120	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11104-28-2	Aroclor 1221	ND	120	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11141-16-5	Aroclor 1232	ND	120	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
53469-21-9	Aroclor 1242	ND	120	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
12672-29-6	Aroclor 1248	ND	120	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11097-69-1	Aroclor 1254	ND	120	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11096-82-5	Aroclor 1260	ND	120	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
37324-23-5	Aroclor 1262	ND	120	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11100-14-4	Aroclor 1268	ND	120	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
Surrogate: Decachlorobiphenyl			*107 %*	*30-150*		*10/13/18*	B8J0906	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*88.9 %*	*30-150*		*10/13/18*	B8J0906	*8081/8082*	

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ENVIRONMENTAL LABORATORY

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TEL: (517) 335-9800
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Client ID: QMCP-SD 06-15-35''

Lab ID: 1809083-08

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**80.3**	0.1	%	1	09/18/18	B8I1416	2540 B	N
Inorganics-Metals									
7440-38-2	**Arsenic**	**1.1**	0.5	mg/kg dry	10	09/25/18	B8I1912	200.8	
7440-43-9	Cadmium	ND	0.2	mg/kg dry	10	09/25/18	B8I1912	200.8	
7440-47-3	**Chromium**	**12**	2.0	mg/kg dry	10	09/25/18	B8I1912	200.8	
7440-50-8	**Copper**	**2300**	1.0	mg/kg dry	10	09/25/18	B8I1912	200.8	
7439-92-1	**Lead**	**16**	1.0	mg/kg dry	10	09/25/18	B8I1912	200.8	
7439-96-5	**Manganese**	**390**	1.0	mg/kg dry	10	09/25/18	B8I1912	200.8	
7439-97-6	**Mercury**	**0.2**	0.06	mg/kg dry	1	09/21/18	B8I1825	245.5	
7440-22-4	**Silver**	**4.2**	0.1	mg/kg dry	10	09/25/18	B8I1912	200.8	
7440-66-6	**Zinc**	**61**	1.0	mg/kg dry	10	09/25/18	B8I1912	200.8	

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Client ID: QMCP-SD 07-0-11"

Lab ID: 1809083-09

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y17, Y20**
91-57-6	2-Methylnaphthalene	ND	660	ug/kg dry	1	09/24/18	B8I1218	8270	
83-32-9	Acenaphthene	ND	260	ug/kg dry	1	09/24/18	B8I1218	8270	
208-96-8	Acenaphthylene	ND	260	ug/kg dry	1	09/24/18	B8I1218	8270	
120-12-7	Anthracene	ND	260	ug/kg dry	1	09/24/18	B8I1218	8270	
56-55-3	**Benz[a]anthracene**	**300**	260	ug/kg dry	1	09/24/18	B8I1218	8270	
50-32-8	Benzo[a]pyrene	ND	530	ug/kg dry	1	09/24/18	B8I1218	8270	
205-99-2	Benzo[b]fluoranthene	ND	530	ug/kg dry	1	09/24/18	B8I1218	8270	
191-24-2	Benzo[g,h,i]perylene	ND	530	ug/kg dry	1	09/24/18	B8I1218	8270	
207-08-9	Benzo[k]fluoranthene	ND	530	ug/kg dry	1	09/24/18	B8I1218	8270	
218-01-9	**Chrysene**	**290**	260	ug/kg dry	1	09/24/18	B8I1218	8270	
53-70-3	Dibenz[a,h]anthracene	ND	530	ug/kg dry	1	09/24/18	B8I1218	8270	
206-44-0	**Fluoranthene**	**730**	260	ug/kg dry	1	09/24/18	B8I1218	8270	
86-73-7	Fluorene	ND	260	ug/kg dry	1	09/24/18	B8I1218	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	530	ug/kg dry	1	09/24/18	B8I1218	8270	
91-20-3	**Naphthalene**	**410**	260	ug/kg dry	1	09/24/18	B8I1218	8270	
85-01-8	**Phenanthrene**	**510**	260	ug/kg dry	1	09/24/18	B8I1218	8270	
129-00-0	**Pyrene**	**640**	260	ug/kg dry	1	09/24/18	B8I1218	8270	
Surrogate: 2-Fluorobiphenyl			*82.0 %*	*32.9-115*		*09/24/18*	B8I1218	*8270*	
Surrogate: Nitrobenzene-d5			*77.9 %*	*31.8-115*		*09/24/18*	B8I1218	*8270*	
Surrogate: p-Terphenyl-d14			*89.1 %*	*38.5-115*		*09/24/18*	B8I1218	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	130	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11104-28-2	Aroclor 1221	ND	130	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11141-16-5	Aroclor 1232	ND	130	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
53469-21-9	Aroclor 1242	ND	130	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
12672-29-6	Aroclor 1248	ND	130	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11097-69-1	Aroclor 1254	ND	130	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11096-82-5	Aroclor 1260	ND	130	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
37324-23-5	Aroclor 1262	ND	130	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11100-14-4	Aroclor 1268	ND	130	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
Surrogate: Decachlorobiphenyl			*102 %*	*30-150*		*10/13/18*	B8J0906	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*87.8 %*	*30-150*		*10/13/18*	B8J0906	*8081/8082*	

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Client ID: QMCP-SD 07-0-11''

Lab ID: 1809083-09

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**75.8**	0.1	%	1	09/18/18	B8I1416	2540 B	N
Inorganics-Metals									
7440-38-2	**Arsenic**	**3.3**	0.5	mg/kg dry	10	09/25/18	B8I1912	200.8	
7440-43-9	**Cadmium**	**0.2**	0.2	mg/kg dry	10	09/25/18	B8I1912	200.8	
7440-47-3	**Chromium**	**18**	2.0	mg/kg dry	10	09/25/18	B8I1912	200.8	
7440-50-8	**Copper**	**1700**	1.0	mg/kg dry	10	09/25/18	B8I1912	200.8	
7439-92-1	**Lead**	**26**	1.0	mg/kg dry	10	09/25/18	B8I1912	200.8	
7439-96-5	**Manganese**	**510**	1.0	mg/kg dry	10	09/25/18	B8I1912	200.8	
7439-97-6	**Mercury**	**0.1**	0.07	mg/kg dry	1	09/21/18	B8I1825	245.5	
7440-22-4	**Silver**	**2.8**	0.1	mg/kg dry	10	09/25/18	B8I1912	200.8	
7440-66-6	**Zinc**	**100**	1.0	mg/kg dry	10	09/25/18	B8I1912	200.8	

STATE OF MICHIGAN
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ENVIRONMENTAL LABORATORY

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

Client ID: QMCP-SD 08-0-8"

Lab ID: 1809083-10

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y17, Y20**
91-57-6	2-Methylnaphthalene	ND	1600	ug/kg dry	1	09/24/18	B8I1218	8270	
83-32-9	Acenaphthene	ND	630	ug/kg dry	1	09/24/18	B8I1218	8270	
208-96-8	Acenaphthylene	ND	630	ug/kg dry	1	09/24/18	B8I1218	8270	
120-12-7	Anthracene	ND	630	ug/kg dry	1	09/24/18	B8I1218	8270	
56-55-3	Benz[a]anthracene	ND	630	ug/kg dry	1	09/24/18	B8I1218	8270	
50-32-8	Benzo[a]pyrene	ND	1300	ug/kg dry	1	09/24/18	B8I1218	8270	
205-99-2	Benzo[b]fluoranthene	ND	1300	ug/kg dry	1	09/24/18	B8I1218	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1300	ug/kg dry	1	09/24/18	B8I1218	8270	
207-08-9	Benzo[k]fluoranthene	ND	1300	ug/kg dry	1	09/24/18	B8I1218	8270	
218-01-9	Chrysene	ND	630	ug/kg dry	1	09/24/18	B8I1218	8270	
53-70-3	Dibenz[a,h]anthracene	ND	1300	ug/kg dry	1	09/24/18	B8I1218	8270	
206-44-0	**Fluoranthene**	**1200**	630	ug/kg dry	1	09/24/18	B8I1218	8270	
86-73-7	Fluorene	ND	630	ug/kg dry	1	09/24/18	B8I1218	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	1300	ug/kg dry	1	09/24/18	B8I1218	8270	
91-20-3	**Naphthalene**	**1100**	630	ug/kg dry	1	09/24/18	B8I1218	8270	
85-01-8	**Phenanthrene**	**980**	630	ug/kg dry	1	09/24/18	B8I1218	8270	
129-00-0	**Pyrene**	**1100**	630	ug/kg dry	1	09/24/18	B8I1218	8270	
Surrogate: 2-Fluorobiphenyl			*73.1 %*	*32.9-115*		*09/24/18*	B8I1218	*8270*	
Surrogate: Nitrobenzene-d5			*65.5 %*	*31.8-115*		*09/24/18*	B8I1218	*8270*	
Surrogate: p-Terphenyl-d14			*76.8 %*	*38.5-115*		*09/24/18*	B8I1218	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	320	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11104-28-2	Aroclor 1221	ND	320	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11141-16-5	Aroclor 1232	ND	320	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
53469-21-9	Aroclor 1242	ND	320	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
12672-29-6	Aroclor 1248	ND	320	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11097-69-1	Aroclor 1254	ND	320	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11096-82-5	Aroclor 1260	ND	320	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
37324-23-5	Aroclor 1262	ND	320	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
11100-14-4	Aroclor 1268	ND	320	ug/kg dry	1	10/13/18	B8J0906	8081/8082	
Surrogate: Decachlorobiphenyl			*100 %*	*30-150*		*10/13/18*	B8J0906	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*88.0 %*	*30-150*		*10/13/18*	B8J0906	*8081/8082*	

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TEL: (517) 335-9800
FAX: (517) 335-9600

Client ID: QMCP-SD 08-0-8"

Lab ID: 1809083-10

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**31.6**	0.1	%	1	09/18/18	B8I1416	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**7.4**	0.5	mg/kg dry	10	09/25/18	B8I1912	200.8	
7440-43-9	**Cadmium**	**0.4**	0.2	mg/kg dry	10	09/25/18	B8I1912	200.8	
7440-47-3	**Chromium**	**32**	2.0	mg/kg dry	10	09/25/18	B8I1912	200.8	
7440-50-8	**Copper**	**1100**	1.0	mg/kg dry	10	09/25/18	B8I1912	200.8	
7439-92-1	**Lead**	**65**	1.0	mg/kg dry	10	09/25/18	B8I1912	200.8	
7439-96-5	**Manganese**	**360**	1.0	mg/kg dry	10	09/25/18	B8I1912	200.8	
7439-97-6	**Mercury**	**0.6**	0.2	mg/kg dry	1	09/21/18	B8I1825	245.5	
7440-22-4	**Silver**	**2.0**	0.1	mg/kg dry	10	09/25/18	B8I1912	200.8	
7440-66-6	**Zinc**	**97**	1.0	mg/kg dry	10	09/25/18	B8I1912	200.8	

Michigan Department of Environmental Quality
Laboratory Services Section

Analysis Request Sheet

Lab Work Order Number	Project Name	Matrix
1809083	Abandoned Mining Wastes- QMCP	SEDIMENT

Site Code/Project Number: 31000098	AY: 17	CC Email 1: jbinkley@manniksmithgroup.com	Project TAT Days:	Sample Collector:
Dept-Division-District: DEQ RRD UP District- Calumet	Index: 7000	CC Email 2:	Project Due Date:	Sample Collector Phone:
State Project Manager: Amy Keranen	PCA: 42050/1533	CC Email 3:		Contract Firm: Mannik & Smith Group
State Project Manager Email: keranena@michigan.gov	location: 6996	Overflow Lab Choice 1: Test America- asbestos	Accept Analysis hold time codes: No	Contract Firm Primary Contact: Jeff Binkley
State Project Manager Phone: 906-337-0389	sub location: 6010	Overflow Lab Choice 2: ALS for waste characterization		Primary Contact Phone: 906-281-3404

	Lab Use Only	Field Sample Identification	Collection Date	Collection Time	Container Count	Comments
1	01	QMCP-SD03-0-6"	9/5/18	1015	1	
2	02	QMCP-SD04-0-4.5"	9/5/18	1140	1	
3	03	QMCP-SD04-4.5-9"	9/5/18	1145	1	No sump position on JLF.
4	04	QMCP-SD05-0-6"	9/5/18	1200	1	
5	05	QMCP-SD05-6-18"	9/5/18	1205	1	
6	06	QMCP-SD06-0-15"	9/5/18	1350	1	
7	07	QMCP-SD06-0-15"FD	9/5/18	1352	1	
8	08	QMCP-SD06-15-35"	9/5/18	1355	1	
9	09	QMCP-SD07-0-11"	9/5/18	1430	1	
10	10	QMCP-SD08-0-8"	9/5/18	1515	1	

ORGANIC CHEMISTRY

VOA - Volatile Organic Acidic

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

OS - Pesticides, PCBs

Pesticides & PCBs	1 2 3 4 5 6 7 8 9 10
Pesticides only	1 2 3 4 5 6 7 8 9 10
PCBs only	1 2 3 4 5 6 7 8 9 10
Toxaphene	1 2 3 4 5 6 7 8 9 10

BNA - Base Neutral Acids

BNAs	1 2 3 4 5 6 7 8 9 10
PNAs only	1 2 3 4 5 6 7 8 9 10
BNs only	1 2 3 4 5 6 7 8 9 10

Organic Specialty Requests

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

METALS CHEMISTRY PACKAGES

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

MS - TOTAL METALS

Silver - Ag	1 2 3 4 5 6 7 8 9 10
Aluminum - Al	1 2 3 4 5 6 7 8 9 10
Arsenic - As	1 2 3 4 5 6 7 8 9 10
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

GENERAL CHEMISTRY

Total Cyanide - CN	1 2 3 4 5 6 7 8 9 10
Available Cyanide - CN	1 2 3 4 5 6 7 8 9 10
Chem Oxyg Dem - COD	1 2 3 4 5 6 7 8 9 10
Total Org Carbon - TOC	1 2 3 4 5 6 7 8 9 10
Kjeldahl Nitrogen - KN	1 2 3 4 5 6 7 8 9 10
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.: Brian Eustice DEQ Signature:	Ari Mikkeen	
Print Name & Org.: Ari Mikkeen MDEQ RRD - GSU Signature: Ari Mikkeen	Nicole Hardigan Nicole Hardigan	9/14/18 1315
Print Name & Org.: Signature:		

STATE OF MICHIGAN
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ENVIRONMENTAL LABORATORY

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07 November 2018

Work Order: 1809098

Price: $1,356.00

Amy Keranen
MDEQ-RRD-UP
1504 W. Washington St.
Marquette, MI 49855

RE: ABANDONED MINING WASTES-QMCP

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

Page 1 of 9

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MDEQ-RRD-UP	Project: ABANDONED MINING WASTES-QMCP	
1504 W. Washington St.	Site Code: 31000098	**Reported:**
Marquette MI, 49855	Project Manager: Amy Keranen	11/07/2018

Analytical Report for Samples

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Qualifier
QMCP-SDM01	1809098-01	Soil/Sediment	09/09/2018	09/12/2018	
QMCP-SDM02	1809098-02	Soil/Sediment	09/09/2018	09/12/2018	
QMCP-SDM03	1809098-03	Soil/Sediment	09/09/2018	09/12/2018	

Notes and Definitions

Y21	Reporting Limits (RL) raised due to matrix interference.
Y20	Reporting Limits (RL) raised due to matrix.
X3	Spike recovery is not applicable due to large target analyte concentration in the source sample.
N	Result is estimated due to Non-homogeneous sample.
LRB	Laboratory reagent blank was greater than 2.2 times the MDL, or greater than 10% of the analyte level in the sample.
A04	Result is estimated due to high matrix spike recovery.
ND	Indicates compound analyzed for but not detected
RL	Reporting Limit
NA	Not Applicable
dry	Sample results reported on a dry weight basis

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TEL: (517) 335-9800
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Client ID: QMCP-SDM01

Lab ID: 1809098-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y21**
91-57-6	2-Methylnaphthalene	ND	5000	ug/kg dry	1	10/01/18	B8I1921	8270	
83-32-9	Acenaphthene	ND	2000	ug/kg dry	1	10/01/18	B8I1921	8270	
208-96-8	Acenaphthylene	ND	2000	ug/kg dry	1	10/01/18	B8I1921	8270	
120-12-7	Anthracene	ND	2000	ug/kg dry	1	10/01/18	B8I1921	8270	
56-55-3	Benz[a]anthracene	ND	2000	ug/kg dry	1	10/01/18	B8I1921	8270	
50-32-8	Benzo[a]pyrene	ND	4000	ug/kg dry	1	10/01/18	B8I1921	8270	
205-99-2	Benzo[b]fluoranthene	ND	4000	ug/kg dry	1	10/01/18	B8I1921	8270	
191-24-2	Benzo[g,h,i]perylene	ND	4000	ug/kg dry	1	10/01/18	B8I1921	8270	
207-08-9	Benzo[k]fluoranthene	ND	4000	ug/kg dry	1	10/01/18	B8I1921	8270	
218-01-9	Chrysene	ND	2000	ug/kg dry	1	10/01/18	B8I1921	8270	
53-70-3	Dibenz[a,h]anthracene	ND	4000	ug/kg dry	1	10/01/18	B8I1921	8270	
206-44-0	Fluoranthene	ND	2000	ug/kg dry	1	10/01/18	B8I1921	8270	
86-73-7	Fluorene	ND	2000	ug/kg dry	1	10/01/18	B8I1921	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	4000	ug/kg dry	1	10/01/18	B8I1921	8270	
91-20-3	Naphthalene	ND	2000	ug/kg dry	1	10/01/18	B8I1921	8270	
85-01-8	Phenanthrene	ND	2000	ug/kg dry	1	10/01/18	B8I1921	8270	
129-00-0	Pyrene	ND	2000	ug/kg dry	1	10/01/18	B8I1921	8270	
Surrogate: 2-Fluorobiphenyl			*81.3 %*	*32.9-115*		*10/01/18*	B8I1921	*8270*	
Surrogate: Nitrobenzene-d5			*67.7 %*	*31.8-115*		*10/01/18*	B8I1921	*8270*	
Surrogate: p-Terphenyl-d14			*85.5 %*	*38.5-115*		*10/01/18*	B8I1921	*8270*	
Organics-PCBs as Aroclors									**See note Y20**
12674-11-2	Aroclor 1016	ND	800	ug/kg dry	1	10/14/18	B8J1012	8081/8082	
11104-28-2	Aroclor 1221	ND	800	ug/kg dry	1	10/14/18	B8J1012	8081/8082	
11141-16-5	Aroclor 1232	ND	800	ug/kg dry	1	10/14/18	B8J1012	8081/8082	
53469-21-9	Aroclor 1242	ND	800	ug/kg dry	1	10/14/18	B8J1012	8081/8082	
12672-29-6	Aroclor 1248	ND	800	ug/kg dry	1	10/14/18	B8J1012	8081/8082	
11097-69-1	Aroclor 1254	ND	800	ug/kg dry	1	10/14/18	B8J1012	8081/8082	
11096-82-5	Aroclor 1260	ND	800	ug/kg dry	1	10/14/18	B8J1012	8081/8082	
37324-23-5	Aroclor 1262	ND	800	ug/kg dry	1	10/14/18	B8J1012	8081/8082	
11100-14-4	Aroclor 1268	ND	800	ug/kg dry	1	10/14/18	B8J1012	8081/8082	
Surrogate: Decachlorobiphenyl			*110 %*	*30-150*		*10/14/18*	B8J1012	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*95.8 %*	*30-150*		*10/14/18*	B8J1012	*8081/8082*	

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Client ID: QMCP-SDM01

Lab ID: 1809098-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**25.0**	0.1	%	1	09/18/18	B8I1419	2540 B	
Inorganics-Metals									
7440-38-2	**Arsenic**	**8.4**	0.5	mg/kg dry	10	09/26/18	B8I1915	200.8	
7440-43-9	**Cadmium**	**0.5**	0.2	mg/kg dry	10	09/26/18	B8I1915	200.8	
7440-47-3	**Chromium**	**21**	2.0	mg/kg dry	10	09/26/18	B8I1915	200.8	
7440-50-8	**Copper**	**750**	1.0	mg/kg dry	10	09/26/18	B8I1915	200.8	
7439-92-1	**Lead**	**63**	1.0	mg/kg dry	10	09/26/18	B8I1915	200.8	
7439-96-5	**Manganese**	**470**	1.0	mg/kg dry	10	09/26/18	B8I1915	200.8	
7439-97-6	**Mercury**	**0.2**	0.2	mg/kg dry	1	09/26/18	B8I2412	245.5	
7440-22-4	**Silver**	**1.5**	0.1	mg/kg dry	10	09/26/18	B8I1915	200.8	
7440-66-6	**Zinc**	**91**	1.0	mg/kg dry	10	09/26/18	B8I1915	200.8	

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Client ID: QMCP-SDM02

Lab ID: 1809098-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y21**
91-57-6	2-Methylnaphthalene	ND	3600	ug/kg dry	1	10/01/18	B8I1921	8270	
83-32-9	Acenaphthene	ND	1500	ug/kg dry	1	10/01/18	B8I1921	8270	
208-96-8	Acenaphthylene	ND	1500	ug/kg dry	1	10/01/18	B8I1921	8270	
120-12-7	Anthracene	ND	1500	ug/kg dry	1	10/01/18	B8I1921	8270	
56-55-3	Benz[a]anthracene	ND	1500	ug/kg dry	1	10/01/18	B8I1921	8270	
50-32-8	Benzo[a]pyrene	ND	2900	ug/kg dry	1	10/01/18	B8I1921	8270	
205-99-2	Benzo[b]fluoranthene	ND	2900	ug/kg dry	1	10/01/18	B8I1921	8270	
191-24-2	Benzo[g,h,i]perylene	ND	2900	ug/kg dry	1	10/01/18	B8I1921	8270	
207-08-9	Benzo[k]fluoranthene	ND	2900	ug/kg dry	1	10/01/18	B8I1921	8270	
218-01-9	Chrysene	ND	1500	ug/kg dry	1	10/01/18	B8I1921	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2900	ug/kg dry	1	10/01/18	B8I1921	8270	
206-44-0	**Fluoranthene**	**1900**	1500	ug/kg dry	1	10/01/18	B8I1921	8270	
86-73-7	Fluorene	ND	1500	ug/kg dry	1	10/01/18	B8I1921	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2900	ug/kg dry	1	10/01/18	B8I1921	8270	
91-20-3	Naphthalene	ND	1500	ug/kg dry	1	10/01/18	B8I1921	8270	
85-01-8	Phenanthrene	ND	1500	ug/kg dry	1	10/01/18	B8I1921	8270	
129-00-0	**Pyrene**	**1600**	1500	ug/kg dry	1	10/01/18	B8I1921	8270	
Surrogate: 2-Fluorobiphenyl			*80.5 %*	*32.9-115*		*10/01/18*	B8I1921	*8270*	
Surrogate: Nitrobenzene-d5			*68.8 %*	*31.8-115*		*10/01/18*	B8I1921	*8270*	
Surrogate: p-Terphenyl-d14			*84.6 %*	*38.5-115*		*10/01/18*	B8I1921	*8270*	
Organics-PCBs as Aroclors									**See note Y20**
12674-11-2	Aroclor 1016	ND	580	ug/kg dry	1	10/14/18	B8J1012	8081/8082	
11104-28-2	Aroclor 1221	ND	580	ug/kg dry	1	10/14/18	B8J1012	8081/8082	
11141-16-5	Aroclor 1232	ND	580	ug/kg dry	1	10/14/18	B8J1012	8081/8082	
53469-21-9	Aroclor 1242	ND	580	ug/kg dry	1	10/14/18	B8J1012	8081/8082	
12672-29-6	Aroclor 1248	ND	580	ug/kg dry	1	10/14/18	B8J1012	8081/8082	
11097-69-1	Aroclor 1254	ND	580	ug/kg dry	1	10/14/18	B8J1012	8081/8082	
11096-82-5	Aroclor 1260	ND	580	ug/kg dry	1	10/14/18	B8J1012	8081/8082	
37324-23-5	Aroclor 1262	ND	580	ug/kg dry	1	10/14/18	B8J1012	8081/8082	
11100-14-4	Aroclor 1268	ND	580	ug/kg dry	1	10/14/18	B8J1012	8081/8082	
Surrogate: Decachlorobiphenyl			*98.9 %*	*30-150*		*10/14/18*	B8J1012	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*87.4 %*	*30-150*		*10/14/18*	B8J1012	*8081/8082*	

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P.O. Box 30270
Lansing, MI 48909
TEL: (517) 335-9800
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Client ID: QMCP-SDM02

Lab ID: 1809098-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**34.3**	0.1	%	1	09/18/18	B8I1425	2540 B	N
Inorganics-Metals									
7440-38-2	**Arsenic**	**4.5**	0.5	mg/kg dry	10	09/26/18	B8I1915	200.8	
7440-43-9	**Cadmium**	**0.3**	0.2	mg/kg dry	10	09/26/18	B8I1915	200.8	
7440-47-3	**Chromium**	**22**	2.0	mg/kg dry	10	09/26/18	B8I1915	200.8	
7440-50-8	**Copper**	**1100**	1.0	mg/kg dry	10	09/26/18	B8I1915	200.8	
7439-92-1	**Lead**	**38**	1.0	mg/kg dry	10	09/26/18	B8I1915	200.8	
7439-96-5	**Manganese**	**480**	1.0	mg/kg dry	10	09/26/18	B8I1915	200.8	
7439-97-6	**Mercury**	**0.4**	0.1	mg/kg dry	1	09/26/18	B8I2412	245.5	
7440-22-4	**Silver**	**2.0**	0.1	mg/kg dry	10	09/26/18	B8I1915	200.8	
7440-66-6	**Zinc**	**85**	1.0	mg/kg dry	10	09/26/18	B8I1915	200.8	

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Client ID: QMCP-SDM03

Lab ID: 1809098-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									**See note Y21**
91-57-6	2-Methylnaphthalene	ND	3900	ug/kg dry	1	10/01/18	B8I1921	8270	
83-32-9	Acenaphthene	ND	1600	ug/kg dry	1	10/01/18	B8I1921	8270	
208-96-8	Acenaphthylene	ND	1600	ug/kg dry	1	10/01/18	B8I1921	8270	
120-12-7	Anthracene	ND	1600	ug/kg dry	1	10/01/18	B8I1921	8270	
56-55-3	Benz[a]anthracene	ND	1600	ug/kg dry	1	10/01/18	B8I1921	8270	
50-32-8	Benzo[a]pyrene	ND	3100	ug/kg dry	1	10/01/18	B8I1921	8270	
205-99-2	Benzo[b]fluoranthene	ND	3100	ug/kg dry	1	10/01/18	B8I1921	8270	
191-24-2	Benzo[g,h,i]perylene	ND	3100	ug/kg dry	1	10/01/18	B8I1921	8270	
207-08-9	Benzo[k]fluoranthene	ND	3100	ug/kg dry	1	10/01/18	B8I1921	8270	
218-01-9	Chrysene	ND	1600	ug/kg dry	1	10/01/18	B8I1921	8270	
53-70-3	Dibenz[a,h]anthracene	ND	3100	ug/kg dry	1	10/01/18	B8I1921	8270	
206-44-0	**Fluoranthene**	**1600**	1600	ug/kg dry	1	10/01/18	B8I1921	8270	
86-73-7	Fluorene	ND	1600	ug/kg dry	1	10/01/18	B8I1921	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	3100	ug/kg dry	1	10/01/18	B8I1921	8270	
91-20-3	Naphthalene	ND	1600	ug/kg dry	1	10/01/18	B8I1921	8270	
85-01-8	Phenanthrene	ND	1600	ug/kg dry	1	10/01/18	B8I1921	8270	
129-00-0	Pyrene	ND	1600	ug/kg dry	1	10/01/18	B8I1921	8270	
Surrogate: 2-Fluorobiphenyl			*81.1 %*	*32.9-115*		*10/01/18*	B8I1921	*8270*	
Surrogate: Nitrobenzene-d5			*68.7 %*	*31.8-115*		*10/01/18*	B8I1921	*8270*	
Surrogate: p-Terphenyl-d14			*89.6 %*	*38.5-115*		*10/01/18*	B8I1921	*8270*	
Organics-PCBs as Aroclors									**See note Y20**
12674-11-2	Aroclor 1016	ND	630	ug/kg dry	1	10/19/18	B8J1013	8081/8082	
11104-28-2	Aroclor 1221	ND	630	ug/kg dry	1	10/19/18	B8J1013	8081/8082	
11141-16-5	Aroclor 1232	ND	630	ug/kg dry	1	10/19/18	B8J1013	8081/8082	
53469-21-9	Aroclor 1242	ND	630	ug/kg dry	1	10/19/18	B8J1013	8081/8082	
12672-29-6	Aroclor 1248	ND	630	ug/kg dry	1	10/19/18	B8J1013	8081/8082	
11097-69-1	Aroclor 1254	ND	630	ug/kg dry	1	10/19/18	B8J1013	8081/8082	
11096-82-5	Aroclor 1260	ND	630	ug/kg dry	1	10/19/18	B8J1013	8081/8082	
37324-23-5	Aroclor 1262	ND	630	ug/kg dry	1	10/19/18	B8J1013	8081/8082	
11100-14-4	Aroclor 1268	ND	630	ug/kg dry	1	10/19/18	B8J1013	8081/8082	
Surrogate: Decachlorobiphenyl			*79.8 %*	*30-150*		*10/19/18*	B8J1013	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*71.3 %*	*30-150*		*10/19/18*	B8J1013	*8081/8082*	

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Client ID: QMCP-SDM03

Lab ID: 1809098-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-General Chemistry									
TS	**% Total Solids**	**31.8**	0.1	%	1	09/18/18	B8I1425	2540 B	N
Inorganics-Metals									
7440-38-2	**Arsenic**	**9.8**	0.5	mg/kg dry	10	09/26/18	B8I1915	200.8	
7440-43-9	**Cadmium**	**0.5**	0.2	mg/kg dry	10	09/26/18	B8I1915	200.8	
7440-47-3	**Chromium**	**26**	2.0	mg/kg dry	10	09/26/18	B8I1915	200.8	
7440-50-8	**Copper**	**560**	1.0	mg/kg dry	10	09/26/18	B8I1915	200.8	
7439-92-1	**Lead**	**89**	1.0	mg/kg dry	10	09/26/18	B8I1915	200.8	
7439-96-5	**Manganese**	**350**	1.0	mg/kg dry	10	09/26/18	B8I1915	200.8	
7439-97-6	**Mercury**	**0.3**	0.2	mg/kg dry	1	09/26/18	B8I2412	245.5	
7440-22-4	**Silver**	**1.0**	0.1	mg/kg dry	10	09/26/18	B8I1915	200.8	
7440-66-6	**Zinc**	**100**	1.0	mg/kg dry	10	09/26/18	B8I1915	200.8	

Michigan Department of Environmental Quality
Laboratory Services Section

Analysis Request Sheet

Lab Work Order Number	Project Name	Matrix
189098	Abandoned Mining Wastes- QMCP	SEDIMENT

Site Code/Project Number: 31000098	AY: 17	CC Email 1: jbinkley@manniksmithgroup.com	Project TAT Days:	Sample Collector: B. Eustice
Dept-Division-District: DEQ RRD UP District- Calumet	Index: 7000	CC Email 2: eustice@michigan.gov	Project Due Date:	Sample Collector Phone: 517-242-1170
State Project Manager: Amy Keranen	PCA: 42050/1533	CC Email 3:		Contract Firm: Mannik & Smith Group
State Project Manager Email: keranena@michigan.gov	location: 6996	Overflow Lab Choice 1: Test America- asbestos	Accept Analysis hold time codes: No	Contract Firm Primary Contact: Jeff Binkley
State Project Manager Phone: 906-337-0389	sub location: 6010	Overflow Lab Choice 2: ALS for waste characterization		Primary Contact Phone: 906-281-3404

	Lab Use Only	Field Sample Identification	Collection Date	Collection Time	Container Count	Comments
1		QMCP-SDM01	9/9/18	1000		
2		QMCP-SDM02	9/9/18	1145		
3		QMCP-SDM03	9/9/18	1155		
4		QMCP-SD				
5		QMCP-SD				
6		QMCP-SD				
7		QMCP-SD				
8		QMCP-SD				
9		QMCP-SD				
10		QMCP-SD				

ORGANIC CHEMISTRY

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

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

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

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

METALS CHEMISTRY PACKAGES

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

MS - TOTAL METALS

- Silver - Ag: 1 2 3 4 5 6 7 8 9 10
- Aluminum - Al: 1 2 3 4 5 6 7 8 9 10
- Arsenic - As: 1 2 3 4 5 6 7 8 9 10
- 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

GENERAL CHEMISTRY

GS - General Chemistry
- Total Cyanide - CN: 1 2 3 4 5 6 7 8 9 10
- Available Cyanide - CN: 1 2 3 4 5 6 7 8 9 10
- Chem Oxyg Dem - COD: 1 2 3 4 5 6 7 8 9 10
- Total Org Carbon - TOC: 1 2 3 4 5 6 7 8 9 10
- Kjeldahl Nitrogen - KN: 1 2 3 4 5 6 7 8 9 10
- 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.: Brian Eustice DEQ Signature:	Melissa Smith	9/12/18 831
Print Name & Org.: Signature:		
Print Name & Org.: Signature:		

MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERG

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21 October 2020

Work Order: 2009215

Price: $4,058.00

Amy Keranen
EGLE-RRD-UP
1504 W. Washington St.
Marquette, MI 49855

RE: ABANDONED MINING WASTES-QMCP

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

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EGLE-RRD-UP	Project: ABANDONED MINING WASTES-QMCP	
1504 W. Washington St.	Site Code: 31000098	**Reported:**
Marquette MI, 49855	Project Manager: Amy Keranen	10/21/2020

Analytical Report for Samples

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Qualifier
QMCP-MW-1	2009215-01	Water	09/23/2020	09/25/2020	
QMCP-MW-2	2009215-02	Water	09/23/2020	09/25/2020	
QMCP-MW-3	2009215-03	Water	09/23/2020	09/25/2020	
QMCP-MW-4	2009215-04	Water	09/23/2020	09/25/2020	
QMCP-MW-5	2009215-05	Water	09/23/2020	09/25/2020	
QMCP-MW-6	2009215-06	Water	09/23/2020	09/25/2020	
QMCP-MW-4-DUP	2009215-07	Water	09/23/2020	09/25/2020	
QMCP-MW-7	2009215-08	Water	09/23/2020	09/25/2020	
QMCP-MW-501	2009215-09	Water	09/23/2020	09/25/2020	
QMCP-MW-503	2009215-10	Water	09/23/2020	09/25/2020	
QMCP-MW-505	2009215-11	Water	09/23/2020	09/25/2020	
QMCP-MW-302	2009215-12	Water	09/23/2020	09/25/2020	
QMCP-MW-301	2009215-13	Water	09/23/2020	09/25/2020	
QMCP-MW-505-DUP	2009215-14	Water	09/23/2020	09/25/2020	

Notes and Definitions

X	Methods 8260 & 624 are used to analyze volatile organics that have boiling points below 200 ºC. 2-Methylnaphthalene & naphthalene have boiling points above 200 ºC and are better suited to analysis by methods 8270 & 625 as semivolatile organics.
A11	Result is estimated due to high initial verification standard criteria failure.
A09	Result is estimated due to high recovery of batch quality control.
A08	Result(s) and reporting limits(s) are estimated due to low recovery of batch QC.
A05	Result and reporting limit are estimated due to low continuing calibration standard criteria failure.
A04	Result is estimated due to high matrix spike recovery.
ND	Indicates compound analyzed for but not detected at or above the reporting limit (RL).
RL	Reporting Limit
NA	Not Applicable

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TEL: (517) 335-9800
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Client ID: QMCP-MW-1

Lab ID: 2009215-01

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	09/28/20	B0I2801	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
540-84-1	2,2,4-Trimethylpentane	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	09/28/20	B0I2801	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	A05
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	

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Client ID: QMCP-MW-1

Lab ID: 2009215-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	09/28/20	B0I2801	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	09/28/20	B0I2801	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
127-18-4	**Tetrachloroethylene**	**1.5**	1.0	ug/L	1	09/28/20	B0I2801	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
79-01-6	**Trichloroethylene**	**4.8**	1.0	ug/L	1	09/28/20	B0I2801	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
Surrogate: Bromofluorobenzene			*97.0 %*	*85-115*		*09/28/20*	B0I2801	*8260*	
Surrogate: Dibromofluoromethane			*94.1 %*	*82.7-115*		*09/28/20*	B0I2801	*8260*	
Surrogate: Toluene-d8			*101 %*	*85-115*		*09/28/20*	B0I2801	*8260*	

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ENVIRONMENTAL LABORATORY

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Client ID: QMCP-MW-1

Lab ID: 2009215-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	10/06/20	B0I2929	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	10/06/20	B0I2929	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	10/06/20	B0I2929	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	10/06/20	B0I2929	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	10/06/20	B0I2929	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	10/06/20	B0I2929	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	10/06/20	B0I2929	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	10/06/20	B0I2929	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	10/06/20	B0I2929	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	10/06/20	B0I2929	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	10/06/20	B0I2929	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	10/06/20	B0I2929	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	10/06/20	B0I2929	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	10/06/20	B0I2929	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	10/06/20	B0I2929	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	10/06/20	B0I2929	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	10/06/20	B0I2929	8270	
Surrogate: 2-Fluorobiphenyl			*59.4 %*	*20-101*		*10/06/20*	B0I2929	*8270*	
Surrogate: Nitrobenzene-d5			*56.8 %*	*13-100*		*10/06/20*	B0I2929	*8270*	
Surrogate: p-Terphenyl-d14			*50.1 %*	*18-150*		*10/06/20*	B0I2929	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	0.10	ug/L	1	10/14/20	B0J0901	8081/8082	
11104-28-2	Aroclor 1221	ND	0.10	ug/L	1	10/14/20	B0J0901	8081/8082	
11141-16-5	Aroclor 1232	ND	0.10	ug/L	1	10/14/20	B0J0901	8081/8082	
53469-21-9	Aroclor 1242	ND	0.10	ug/L	1	10/14/20	B0J0901	8081/8082	
12672-29-6	Aroclor 1248	ND	0.10	ug/L	1	10/14/20	B0J0901	8081/8082	
11097-69-1	Aroclor 1254	ND	0.10	ug/L	1	10/14/20	B0J0901	8081/8082	
11096-82-5	Aroclor 1260	ND	0.10	ug/L	1	10/14/20	B0J0901	8081/8082	
37324-23-5	Aroclor 1262	ND	0.10	ug/L	1	10/14/20	B0J0901	8081/8082	
11100-14-4	Aroclor 1268	ND	0.10	ug/L	1	10/14/20	B0J0901	8081/8082	
Surrogate: Decachlorobiphenyl			*90.8 %*	*30-150*		*10/14/20*	B0J0901	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*57.1 %*	*30-150*		*10/14/20*	B0J0901	*8081/8082*	

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Client ID: QMCP-MW-2

Lab ID: 2009215-02

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	09/28/20	B0I2801	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
540-84-1	2,2,4-Trimethylpentane	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	09/28/20	B0I2801	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	A05
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	

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Client ID: QMCP-MW-2

Lab ID: 2009215-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	09/28/20	B0I2801	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	09/28/20	B0I2801	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
Surrogate: Bromofluorobenzene			*97.5 %*	*85-115*		*09/28/20*	B0I2801	*8260*	
Surrogate: Dibromofluoromethane			*95.1 %*	*82.7-115*		*09/28/20*	B0I2801	*8260*	
Surrogate: Toluene-d8			*99.6 %*	*85-115*		*09/28/20*	B0I2801	*8260*	

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Client ID: QMCP-MW-2

Lab ID: 2009215-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	10/05/20	B0I2510	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	10/05/20	B0I2510	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	10/05/20	B0I2510	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	10/05/20	B0I2510	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	10/05/20	B0I2510	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	10/05/20	B0I2510	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	10/05/20	B0I2510	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	10/05/20	B0I2510	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	10/05/20	B0I2510	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	10/05/20	B0I2510	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	10/05/20	B0I2510	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	10/05/20	B0I2510	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	10/05/20	B0I2510	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	10/05/20	B0I2510	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	10/05/20	B0I2510	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	10/05/20	B0I2510	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	10/05/20	B0I2510	8270	
Surrogate: 2-Fluorobiphenyl			*88.2 %*	*20-101*		*10/05/20*	B0I2510	*8270*	
Surrogate: Nitrobenzene-d5			*71.9 %*	*13-100*		*10/05/20*	B0I2510	*8270*	
Surrogate: p-Terphenyl-d14			*112 %*	*18-150*		*10/05/20*	B0I2510	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	0.10	ug/L	1	10/15/20	B0J0901	8081/8082	
11104-28-2	Aroclor 1221	ND	0.10	ug/L	1	10/15/20	B0J0901	8081/8082	
11141-16-5	Aroclor 1232	ND	0.10	ug/L	1	10/15/20	B0J0901	8081/8082	
53469-21-9	Aroclor 1242	ND	0.10	ug/L	1	10/15/20	B0J0901	8081/8082	
12672-29-6	Aroclor 1248	ND	0.10	ug/L	1	10/15/20	B0J0901	8081/8082	
11097-69-1	Aroclor 1254	ND	0.10	ug/L	1	10/15/20	B0J0901	8081/8082	
11096-82-5	Aroclor 1260	ND	0.10	ug/L	1	10/15/20	B0J0901	8081/8082	
37324-23-5	Aroclor 1262	ND	0.10	ug/L	1	10/15/20	B0J0901	8081/8082	
11100-14-4	Aroclor 1268	ND	0.10	ug/L	1	10/15/20	B0J0901	8081/8082	
Surrogate: Decachlorobiphenyl			*91.6 %*	*30-150*		*10/15/20*	B0J0901	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*68.0 %*	*30-150*		*10/15/20*	B0J0901	*8081/8082*	

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ENVIRONMENTAL LABORATORY

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Client ID: QMCP-MW-3

Lab ID: 2009215-03

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	09/28/20	B0I2801	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
540-84-1	2,2,4-Trimethylpentane	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	09/28/20	B0I2801	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	A05
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	

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ENVIRONMENTAL LABORATORY

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

Client ID: QMCP-MW-3

Lab ID: 2009215-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	09/28/20	B0I2801	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	09/28/20	B0I2801	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
Surrogate: Bromofluorobenzene			*99.1 %*	*85-115*		*09/28/20*	B0I2801	*8260*	
Surrogate: Dibromofluoromethane			*96.3 %*	*82.7-115*		*09/28/20*	B0I2801	*8260*	
Surrogate: Toluene-d8			*99.2 %*	*85-115*		*09/28/20*	B0I2801	*8260*	

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P.O. Box 30270
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TEL: (517) 335-9800
FAX: (517) 335-9600

Client ID: QMCP-MW-3

Lab ID: 2009215-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	10/07/20	B0I2929	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	10/07/20	B0I2929	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	10/07/20	B0I2929	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
Surrogate: 2-Fluorobiphenyl			*58.2 %*	*20-101*		*10/07/20*	B0I2929	*8270*	
Surrogate: Nitrobenzene-d5			*57.2 %*	*13-100*		*10/07/20*	B0I2929	*8270*	
Surrogate: p-Terphenyl-d14			*90.1 %*	*18-150*		*10/07/20*	B0I2929	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	0.10	ug/L	1	10/14/20	B0J0901	8081/8082	
11104-28-2	Aroclor 1221	ND	0.10	ug/L	1	10/14/20	B0J0901	8081/8082	
11141-16-5	Aroclor 1232	ND	0.10	ug/L	1	10/14/20	B0J0901	8081/8082	
53469-21-9	Aroclor 1242	ND	0.10	ug/L	1	10/14/20	B0J0901	8081/8082	
12672-29-6	Aroclor 1248	ND	0.10	ug/L	1	10/14/20	B0J0901	8081/8082	
11097-69-1	Aroclor 1254	ND	0.10	ug/L	1	10/14/20	B0J0901	8081/8082	
11096-82-5	Aroclor 1260	ND	0.10	ug/L	1	10/14/20	B0J0901	8081/8082	
37324-23-5	Aroclor 1262	ND	0.10	ug/L	1	10/14/20	B0J0901	8081/8082	
11100-14-4	Aroclor 1268	ND	0.10	ug/L	1	10/14/20	B0J0901	8081/8082	
Surrogate: Decachlorobiphenyl			*104 %*	*30-150*		*10/14/20*	B0J0901	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*61.5 %*	*30-150*		*10/14/20*	B0J0901	*8081/8082*	

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ENVIRONMENTAL LABORATORY

P.O. Box 30270
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TEL: (517) 335-9800
FAX: (517) 335-9600

Client ID: QMCP-MW-4

Lab ID: 2009215-04

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	09/28/20	B0I2801	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
540-84-1	2,2,4-Trimethylpentane	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	09/28/20	B0I2801	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	A05
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	

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Client ID: QMCP-MW-4

Lab ID: 2009215-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	09/28/20	B0I2801	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	09/28/20	B0I2801	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
Surrogate: Bromofluorobenzene			*99.6 %*	*85-115*		*09/28/20*	B0I2801	*8260*	
Surrogate: Dibromofluoromethane			*94.6 %*	*82.7-115*		*09/28/20*	B0I2801	*8260*	
Surrogate: Toluene-d8			*100 %*	*85-115*		*09/28/20*	B0I2801	*8260*	

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ENVIRONMENTAL LABORATORY

P.O. Box 30270
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Client ID: QMCP-MW-4

Lab ID: 2009215-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	10/07/20	B0I2929	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	10/07/20	B0I2929	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	10/07/20	B0I2929	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
Surrogate: 2-Fluorobiphenyl			*61.5 %*	*20-101*		*10/07/20*	B0I2929	*8270*	
Surrogate: Nitrobenzene-d5			*57.6 %*	*13-100*		*10/07/20*	B0I2929	*8270*	
Surrogate: p-Terphenyl-d14			*93.9 %*	*18-150*		*10/07/20*	B0I2929	*8270*	

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ENVIRONMENTAL LABORATORY

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Client ID: QMCP-MW-5

Lab ID: 2009215-05

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	09/28/20	B0I2801	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
540-84-1	2,2,4-Trimethylpentane	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	09/28/20	B0I2801	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	A05
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	

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Client ID: QMCP-MW-5

Lab ID: 2009215-05

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	09/28/20	B0I2801	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	09/28/20	B0I2801	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
Surrogate: Bromofluorobenzene			*99.1 %*	*85-115*		*09/28/20*	B0I2801	*8260*	
Surrogate: Dibromofluoromethane			*95.2 %*	*82.7-115*		*09/28/20*	B0I2801	*8260*	
Surrogate: Toluene-d8			*100 %*	*85-115*		*09/28/20*	B0I2801	*8260*	

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Client ID: QMCP-MW-5

Lab ID: 2009215-05

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	5.1	ug/L	1	10/07/20	B0I2929	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	10/07/20	B0I2929	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	10/07/20	B0I2929	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
Surrogate: 2-Fluorobiphenyl			*61.8 %*	*20-101*		*10/07/20*	B0I2929	*8270*	
Surrogate: Nitrobenzene-d5			*59.4 %*	*13-100*		*10/07/20*	B0I2929	*8270*	
Surrogate: p-Terphenyl-d14			*95.3 %*	*18-150*		*10/07/20*	B0I2929	*8270*	

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ENVIRONMENTAL LABORATORY

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Client ID: QMCP-MW-6

Lab ID: 2009215-06

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	09/28/20	B0I2801	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
540-84-1	2,2,4-Trimethylpentane	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	09/28/20	B0I2801	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	A05
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	

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Client ID: QMCP-MW-6

Lab ID: 2009215-06

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	09/28/20	B0I2801	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	09/28/20	B0I2801	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
Surrogate: Bromofluorobenzene			*102 %*	*85-115*		*09/28/20*	B0I2801	*8260*	
Surrogate: Dibromofluoromethane			*95.1 %*	*82.7-115*		*09/28/20*	B0I2801	*8260*	
Surrogate: Toluene-d8			*103 %*	*85-115*		*09/28/20*	B0I2801	*8260*	

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Client ID: QMCP-MW-6

Lab ID: 2009215-06

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	5.1	ug/L	1	10/07/20	B0I2929	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	10/07/20	B0I2929	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	10/07/20	B0I2929	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
Surrogate: 2-Fluorobiphenyl			*69.4 %*	*20-101*		*10/07/20*	B0I2929	*8270*	
Surrogate: Nitrobenzene-d5			*67.5 %*	*13-100*		*10/07/20*	B0I2929	*8270*	
Surrogate: p-Terphenyl-d14			*97.4 %*	*18-150*		*10/07/20*	B0I2929	*8270*	

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Client ID: QMCP-MW-4-DUP

Lab ID: 2009215-07

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	09/28/20	B0I2801	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
540-84-1	2,2,4-Trimethylpentane	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	09/28/20	B0I2801	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	A05
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	

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Client ID: QMCP-MW-4-DUP

Lab ID: 2009215-07

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	09/28/20	B0I2801	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	09/28/20	B0I2801	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
Surrogate: Bromofluorobenzene			*97.4 %*	*85-115*		*09/28/20*	B0I2801	*8260*	
Surrogate: Dibromofluoromethane			*96.1 %*	*82.7-115*		*09/28/20*	B0I2801	*8260*	
Surrogate: Toluene-d8			*99.8 %*	*85-115*		*09/28/20*	B0I2801	*8260*	

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ENVIRONMENTAL LABORATORY

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Client ID: QMCP-MW-4-DUP

Lab ID: 2009215-07

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	5.1	ug/L	1	10/07/20	B0I2929	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	10/07/20	B0I2929	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	10/07/20	B0I2929	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
Surrogate: 2-Fluorobiphenyl			*63.6 %*	*20-101*		*10/07/20*	B0I2929	*8270*	
Surrogate: Nitrobenzene-d5			*58.6 %*	*13-100*		*10/07/20*	B0I2929	*8270*	
Surrogate: p-Terphenyl-d14			*95.5 %*	*18-150*		*10/07/20*	B0I2929	*8270*	

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Client ID: QMCP-MW-7

Lab ID: 2009215-08

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	09/28/20	B0I2801	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
540-84-1	2,2,4-Trimethylpentane	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	09/28/20	B0I2801	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	A05
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	

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ENVIRONMENTAL LABORATORY

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

Client ID: QMCP-MW-7

Lab ID: 2009215-08

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	09/28/20	B0I2801	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	09/28/20	B0I2801	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
Surrogate: Bromofluorobenzene			*102 %*	*85-115*		*09/28/20*	B0I2801	*8260*	
Surrogate: Dibromofluoromethane			*98.1 %*	*82.7-115*		*09/28/20*	B0I2801	*8260*	
Surrogate: Toluene-d8			*102 %*	*85-115*		*09/28/20*	B0I2801	*8260*	

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ENVIRONMENTAL LABORATORY

P.O. Box 30270
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TEL: (517) 335-9800
FAX: (517) 335-9600

Client ID: QMCP-MW-7

Lab ID: 2009215-08

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	5.1	ug/L	1	10/07/20	B0I2929	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	10/07/20	B0I2929	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	10/07/20	B0I2929	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
Surrogate: 2-Fluorobiphenyl			*68.2 %*	*20-101*		*10/07/20*	B0I2929	*8270*	
Surrogate: Nitrobenzene-d5			*60.5 %*	*13-100*		*10/07/20*	B0I2929	*8270*	
Surrogate: p-Terphenyl-d14			*100 %*	*18-150*		*10/07/20*	B0I2929	*8270*	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	0.10	ug/L	1	10/13/20	B0J0901	8081/8082	
11104-28-2	Aroclor 1221	ND	0.10	ug/L	1	10/13/20	B0J0901	8081/8082	
11141-16-5	Aroclor 1232	ND	0.10	ug/L	1	10/13/20	B0J0901	8081/8082	
53469-21-9	Aroclor 1242	ND	0.10	ug/L	1	10/13/20	B0J0901	8081/8082	
12672-29-6	Aroclor 1248	ND	0.10	ug/L	1	10/13/20	B0J0901	8081/8082	
11097-69-1	Aroclor 1254	ND	0.10	ug/L	1	10/13/20	B0J0901	8081/8082	
11096-82-5	Aroclor 1260	ND	0.10	ug/L	1	10/13/20	B0J0901	8081/8082	
37324-23-5	Aroclor 1262	ND	0.10	ug/L	1	10/13/20	B0J0901	8081/8082	
11100-14-4	Aroclor 1268	ND	0.10	ug/L	1	10/13/20	B0J0901	8081/8082	
Surrogate: Decachlorobiphenyl			*81.9 %*	*30-150*		*10/13/20*	B0J0901	*8081/8082*	
Surrogate: Tetrachloro-m-xylene			*63.1 %*	*30-150*		*10/13/20*	B0J0901	*8081/8082*	

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ENVIRONMENTAL LABORATORY

P.O. Box 30270
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TEL: (517) 335-9800
FAX: (517) 335-9600

Client ID: QMCP-MW-501

Lab ID: 2009215-09

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	09/28/20	B0I2801	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
540-84-1	2,2,4-Trimethylpentane	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	09/28/20	B0I2801	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	A05
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	

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P.O. Box 30270
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TEL: (517) 335-9800
FAX: (517) 335-9600

Client ID: QMCP-MW-501

Lab ID: 2009215-09

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	09/28/20	B0I2801	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	09/28/20	B0I2801	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	09/28/20	B0I2801	8260	
108-88-3	**Toluene**	**1.1**	1.0	ug/L	1	09/28/20	B0I2801	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	09/28/20	B0I2801	8260	
Surrogate: Bromofluorobenzene			*100 %*	*85-115*		*09/28/20*	B0I2801	*8260*	
Surrogate: Dibromofluoromethane			*96.0 %*	*82.7-115*		*09/28/20*	B0I2801	*8260*	
Surrogate: Toluene-d8			*101 %*	*85-115*		*09/28/20*	B0I2801	*8260*	

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TEL: (517) 335-9800
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Client ID: QMCP-MW-501

Lab ID: 2009215-09

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	10/06/20	B0I2929	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	10/06/20	B0I2929	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	10/06/20	B0I2929	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	10/06/20	B0I2929	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	10/06/20	B0I2929	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	10/06/20	B0I2929	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	10/06/20	B0I2929	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	10/06/20	B0I2929	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	10/06/20	B0I2929	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	10/06/20	B0I2929	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	10/06/20	B0I2929	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	10/06/20	B0I2929	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	10/06/20	B0I2929	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	10/06/20	B0I2929	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	10/06/20	B0I2929	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	10/06/20	B0I2929	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	10/06/20	B0I2929	8270	
Surrogate: 2-Fluorobiphenyl			*66.4 %*	*20-101*		*10/06/20*	B0I2929	*8270*	
Surrogate: Nitrobenzene-d5			*62.6 %*	*13-100*		*10/06/20*	B0I2929	*8270*	
Surrogate: p-Terphenyl-d14			*78.6 %*	*18-150*		*10/06/20*	B0I2929	*8270*	

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ENVIRONMENTAL LABORATORY

P.O. Box 30270
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TEL: (517) 335-9800
FAX: (517) 335-9600

Client ID: QMCP-MW-503

Lab ID: 2009215-10

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	09/28/20	B0I2805	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
540-84-1	2,2,4-Trimethylpentane	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	09/28/20	B0I2805	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	A05
67-66-3	Chloroform	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	

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ENVIRONMENTAL LABORATORY

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

Client ID: QMCP-MW-503

Lab ID: 2009215-10

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	A05
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	09/28/20	B0I2805	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	09/28/20	B0I2805	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
Surrogate: Bromofluorobenzene			*95.6 %*	*85-115*		*09/28/20*	B0I2805	*8260*	
Surrogate: Dibromofluoromethane			*107 %*	*82.7-115*		*09/28/20*	B0I2805	*8260*	
Surrogate: Toluene-d8			*96.7 %*	*85-115*		*09/28/20*	B0I2805	*8260*	

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TEL: (517) 335-9800
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Client ID: QMCP-MW-503

Lab ID: 2009215-10

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	10/07/20	B0I2929	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	10/07/20	B0I2929	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	10/07/20	B0I2929	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
Surrogate: 2-Fluorobiphenyl			*64.5 %*	*20-101*		*10/07/20*	B0I2929	*8270*	
Surrogate: Nitrobenzene-d5			*62.2 %*	*13-100*		*10/07/20*	B0I2929	*8270*	
Surrogate: p-Terphenyl-d14			*91.8 %*	*18-150*		*10/07/20*	B0I2929	*8270*	

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P.O. Box 30270
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TEL: (517) 335-9800
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Client ID: QMCP-MW-505

Lab ID: 2009215-11

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	09/28/20	B0I2805	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
540-84-1	2,2,4-Trimethylpentane	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	09/28/20	B0I2805	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	A05
67-66-3	Chloroform	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	

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TEL: (517) 335-9800
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Client ID: QMCP-MW-505

Lab ID: 2009215-11

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	A05
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	09/28/20	B0I2805	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	09/28/20	B0I2805	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
Surrogate: Bromofluorobenzene			*98.8 %*	*85-115*		*09/28/20*	B0I2805	*8260*	
Surrogate: Dibromofluoromethane			*107 %*	*82.7-115*		*09/28/20*	B0I2805	*8260*	
Surrogate: Toluene-d8			*95.6 %*	*85-115*		*09/28/20*	B0I2805	*8260*	

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Client ID: QMCP-MW-505

Lab ID: 2009215-11

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	10/07/20	B0I2929	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	10/07/20	B0I2929	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	10/07/20	B0I2929	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
Surrogate: 2-Fluorobiphenyl			*62.5 %*	*20-101*		*10/07/20*	B0I2929	*8270*	
Surrogate: Nitrobenzene-d5			*60.9 %*	*13-100*		*10/07/20*	B0I2929	*8270*	
Surrogate: p-Terphenyl-d14			*94.0 %*	*18-150*		*10/07/20*	B0I2929	*8270*	

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ENVIRONMENTAL LABORATORY

P.O. Box 30270
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Client ID: QMCP-MW-302

Lab ID: 2009215-12

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	09/28/20	B0I2805	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
540-84-1	2,2,4-Trimethylpentane	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	09/28/20	B0I2805	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	A05
67-66-3	Chloroform	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	

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Client ID: QMCP-MW-302

Lab ID: 2009215-12

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	A05
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	09/28/20	B0I2805	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	09/28/20	B0I2805	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
Surrogate: Bromofluorobenzene			*99.9 %*	*85-115*		*09/28/20*	B0I2805	*8260*	
Surrogate: Dibromofluoromethane			*109 %*	*82.7-115*		*09/28/20*	B0I2805	*8260*	
Surrogate: Toluene-d8			*94.4 %*	*85-115*		*09/28/20*	B0I2805	*8260*	

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Client ID: QMCP-MW-302

Lab ID: 2009215-12

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	5.1	ug/L	1	10/07/20	B0I2929	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.1	ug/L	1	10/07/20	B0I2929	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.1	ug/L	1	10/07/20	B0I2929	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
Surrogate: 2-Fluorobiphenyl			*57.7 %*	*20-101*		*10/07/20*	B0I2929	*8270*	
Surrogate: Nitrobenzene-d5			*55.8 %*	*13-100*		*10/07/20*	B0I2929	*8270*	
Surrogate: p-Terphenyl-d14			*91.8 %*	*18-150*		*10/07/20*	B0I2929	*8270*	

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P.O. Box 30270
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TEL: (517) 335-9800
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Client ID: QMCP-MW-301

Lab ID: 2009215-13

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	09/28/20	B0I2805	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
540-84-1	2,2,4-Trimethylpentane	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	09/28/20	B0I2805	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	A05
67-66-3	Chloroform	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	

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Client ID: QMCP-MW-301

Lab ID: 2009215-13

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	A05
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	09/28/20	B0I2805	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	09/28/20	B0I2805	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
Surrogate: Bromofluorobenzene			*97.1 %*	*85-115*		*09/28/20*	B0I2805	*8260*	
Surrogate: Dibromofluoromethane			*108 %*	*82.7-115*		*09/28/20*	B0I2805	*8260*	
Surrogate: Toluene-d8			*96.9 %*	*85-115*		*09/28/20*	B0I2805	*8260*	

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ENVIRONMENTAL LABORATORY

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

Client ID: QMCP-MW-301

Lab ID: 2009215-13

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	10/07/20	B0I2929	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	10/07/20	B0I2929	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	10/07/20	B0I2929	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
Surrogate: 2-Fluorobiphenyl			*64.4 %*	*20-101*		*10/07/20*	B0I2929	*8270*	
Surrogate: Nitrobenzene-d5			*63.4 %*	*13-100*		*10/07/20*	B0I2929	*8270*	
Surrogate: p-Terphenyl-d14			*101 %*	*18-150*		*10/07/20*	B0I2929	*8270*	

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P.O. Box 30270
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TEL: (517) 335-9800
FAX: (517) 335-9600

Client ID: QMCP-MW-505-DUP

Lab ID: 2009215-14

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	09/28/20	B0I2805	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
540-84-1	2,2,4-Trimethylpentane	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	09/28/20	B0I2805	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	A05
67-66-3	Chloroform	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	

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Client ID: QMCP-MW-505-DUP

Lab ID: 2009215-14

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	A05
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	09/28/20	B0I2805	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	09/28/20	B0I2805	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	09/28/20	B0I2805	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	09/28/20	B0I2805	8260	
Surrogate: Bromofluorobenzene			*97.1 %*	*85-115*		*09/28/20*	B0I2805	*8260*	
Surrogate: Dibromofluoromethane			*108 %*	*82.7-115*		*09/28/20*	B0I2805	*8260*	
Surrogate: Toluene-d8			*95.8 %*	*85-115*		*09/28/20*	B0I2805	*8260*	

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Client ID: QMCP-MW-505-DUP

Lab ID: 2009215-14

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Semivolatiles									
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	10/07/20	B0I2929	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	10/07/20	B0I2929	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	10/07/20	B0I2929	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	10/07/20	B0I2929	8270	
Surrogate: 2-Fluorobiphenyl			*59.0 %*	*20-101*		*10/07/20*	B0I2929	*8270*	
Surrogate: Nitrobenzene-d5			*57.4 %*	*13-100*		*10/07/20*	B0I2929	*8270*	
Surrogate: p-Terphenyl-d14			*95.9 %*	*18-150*		*10/07/20*	B0I2929	*8270*	

Department of Environment, Great Lakes, and Energy
Laboratory Services Section

Analysis Request Sheet

EGLE

Lab Work Order Number	Project Name	Matrix
200925	Abandoned Mining Wastes- QMCP	GROUNDWATER

Location ID	Program	CC Email 1	Project TAT Days	Sample Collector
31000098	201	jbinkley@manniksmithgroup.com	STP	Adam Donne
Dept-Division-District	**Activity**	**CC Email 2**	**Project Due Date**	**Sample Collector Phone**
EGLE RRD UP District- Calumet	M100	Pincumbej@michigan.gov		517-275-1897
State Project Manager	**Funding Source**	**CC Email 3**		**Contract Firm**
Amy Keranen	1450 42050	donnea1@michigan.gov		Mannik & Smith Group
State Project Manager Email	**Location Code**	**Overflow Lab Choice 1**	**Accept Analysis hold time codes**	**Contract Firm Primary Contact**
keranena@michigan.gov	6996	Merit Laboratories	No	Jeff Binkley
State Project Manager Phone	**SUD Location Code**	**Overflow Lab Choice 2**		**Primary Contact Phone**
906-337-0389				906-281-3404

	Lab Use Only	Field Sample Identification	Collection Date	Collection Time	Bottle Count	Comments
1	01	QMCP-MW-1	9/23/20	1410	6	
2	02	QMCP-MW-2	9/23/20	1300	6	
3	03	QMCP-MW-3	9/23/20	1510	6	
4		QMCP-MW				
5		QMCP-MW				
6		QMCP-MW				
7		QMCP-MW				
8		QMCP-MW				
9		QMCP-MW				
10		QMCP-MW				

ORGANIC CHEMISTRY

VOA - Volatile Organic Acidic	
Volatiles - Full List	1 2 3 4 5 6 7 8 9 10
BTEX/MTBE/TMB only	1 2 3 4 5 6 7 8 9 10
Chlorinated only	1 2 3 4 5 6 7 8 9 10
GRO	1 2 3 4 5 6 7 8 9 10
1,4 Dioxane	1 2 3 4 5 6 7 8 9 10
METH - Methane, Ethane, Ethene	
Methane, Ethane, Ethene	1 2 3 4 5 6 7 8 9 10
ON - Pesticides, PCBs	
Pesticides & PCBs	1 2 3 4 5 6 7 8 9 10
Pesticides only	1 2 3 4 5 6 7 8 9 10
PCBs only	1 2 3 4 5 6 7 8 9 10
Toxaphene	1 2 3 4 5 6 7 8 9 10
Chlordane	1 2 3 4 5 6 7 8 9 10
BNA - Base Neutral Acids	
BNAs	1 2 3 4 5 6 7 8 9 10
Benzidines	1 2 3 4 5 6 7 8 9 10
PNAs only	1 2 3 4 5 6 7 8 9 10
BNs only	1 2 3 4 5 6 7 8 9 10
Acids only	1 2 3 4 5 6 7 8 9 10
Organic Specialty Requests	
Library search - Volatiles	1 2 3 4 5 6 7 8 9 10
Library search - SemiVols	1 2 3 4 5 6 7 8 9 10
Finger Print	1 2 3 4 5 6 7 8 9 10
DRO / ORO	1 2 3 4 5 6 7 8 9 10

METALS CHEMISTRY PACKAGES

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

MAD - DISSOLVED METALS

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

MA - TOTAL METALS

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

GENERAL CHEMISTRY

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

* (FF)-Field Filtered

Chain of Custody

	Relinquished by	Received By	Date / Time
Print Name & Org.	Adam Donne GSS	Ashley E. Miller MSG	09/24/2020 0830
Signature:	Adam Donne	[signature]	
Print Name & Org.	Ashley E. Miller MSG	UPS TRACKING	09/24/2020 1645
Signature:	[signature]	1Z863AV00194474894	
Print Name & Org.	UPS	Melissa Smith	9-25-20 1137
Signature:		[signature]	

EGLE

Department of Environment, Great Lakes, and Energy
Laboratory Services Section

Analysis Request Sheet

Lab Work Order Number	Project Name	Matrix
2009215	Abandoned Mining Wastes- QMCP	GROUNDWATER

Location ID	Program	CC Email 1	Project TAT Days	Sample Collector
31000098	201	jbinkley@manniksmithgroup.com	STD	Adam Donne
Dept-Division-District	**Activity**	**CC Email 2**	**Project Due Date**	**Sample Collector Phone**
EGLE RRD UP District- Calumet	M100	Pincumbej@michigan.gov		517-275-1897
State Project Manager	**Funding Source**	**CC Email 3**		**Contract Firm**
Amy Keranen	1450 42050	Donne A1@michigan.gov		Mannik & Smith Group
State Project Manager Email	**Location Code**	**Overflow Lab Choice 1**	**Accept Analysis hold time codes**	**Contract Firm Primary Contact**
keranena@michigan.gov	6996	Merit Laboratories	No	Jeff Binkley
State Project Manager Phone	**SUD Location Code**	**Overflow Lab Choice 2**		**Primary Contact Phone**
906-337-0389	- - - -			906-281-3404

	Lab Use Only	Field Sample Identification	Collection Date	Collection Time	Bottle Count	Comments
1	04	QMCP-MW-4	9/23/20	1235	~~4~~ 5	
2	05	QMCP-MW-5	9/23/20	1405	5	
3	06	QMCP-MW-6	9/23/20	1455	5	
4	07	QMCP-MW-4-DUP	9/23/20	1235	5	
5		QMCP-MW				
6		QMCP-MW				
7		QMCP-MW				
8		QMCP-MW				
9		QMCP-MW				
10		QMCP-MW				

ORGANIC CHEMISTRY

VOA - Volatile Organic Acidic	
Volatiles - Full List	1 2 3 4 5 6 7 8 9 10
BTEX/MTBE/TMB only	1 2 3 4 5 6 7 8 9 10
Chlorinated only	1 2 3 4 5 6 7 8 9 10
GRO	1 2 3 4 5 6 7 8 9 10
1,4 Dioxane	1 2 3 4 5 6 7 8 9 10
METH - Methane, Ethane, Ethene	
Methane, Ethane, Ethene	1 2 3 4 5 6 7 8 9 10
ON - Pesticides, PCBs	
Pesticides & PCBs	1 2 3 4 5 6 7 8 9 10
Pesticides only	1 2 3 4 5 6 7 8 9 10
PCBs only	1 2 3 4 5 6 7 8 9 10
Toxaphene	1 2 3 4 5 6 7 8 9 10
Chlordane	1 2 3 4 5 6 7 8 9 10
BNA - Base Neutral Acids	
BNAs	1 2 3 4 5 6 7 8 9 10
Benzidines	1 2 3 4 5 6 7 8 9 10
PNAs only	1 2 3 4 5 6 7 8 9 10
BNs only	1 2 3 4 5 6 7 8 9 10
Acids only	1 2 3 4 5 6 7 8 9 10
Organic Specialty Requests	
Library search - Volatiles	1 2 3 4 5 6 7 8 9 10
Library search - SemiVols	1 2 3 4 5 6 7 8 9 10
Finger Print	1 2 3 4 5 6 7 8 9 10
DRO / ORO	1 2 3 4 5 6 7 8 9 10

METALS CHEMISTRY PACKAGES

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

MAD - DISSOLVED METALS

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

MA - TOTAL METALS

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

GENERAL CHEMISTRY

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

* (FF)-Field Filtered

Chain of Custody

	Relinquished by	Received By	Date / Time
Print Name & Org.	Adam Donne GSS	Ashley E. Miller MSG	09/24/2020
Signature:	Adam Donne	[signature]	0830
Print Name & Org.	Ashley E. Miller MSG	UPS TRACKING	09/24/2020
Signature:	[signature]	1Z863A400194474894	1045
Print Name & Org.	(UP)	Melissa Smith	
Signature:		[signature]	9-25-20 1137

Department of Environment, Great Lakes, and Energy
Laboratory Services Section

Analysis Request Sheet

EGLE

Lab Work Order Number	Project Name	Matrix
2009215	Abandoned Mining Wastes- QMCP	GROUNDWATER

Location ID: 31000098	Program: 201	CC Email 1: jbinkley@manniksmithgroup.com	Project TAT Days: STD	Sample Collector: Adam Donne
Dept-Division-District: EGLE RRD UP District- Calumet	Activity: M100	CC Email 2: Pincumbe@michigan.gov	Project Due Date:	Sample Collector Phone: 517-275-1887
State Project Manager: Amy Keranen	Funding Source: 1533 45050	CC Email 3: DonneA1@michigan.gov		Contract Firm: Mannik & Smith Group
State Project Manager Email: keranena@michigan.gov	Location Code: 6996	Overflow Lab Choice 1: Merit Laboratories	Accept Analysis hold time codes: No	Contract Firm Primary Contact: Jeff Binkley
State Project Manager Phone: 906-337-0389	SUB Location Code:	Overflow Lab Choice 2:		Primary Contact Phone: 906-281-3404

	Lab Use Only	Field Sample Identification	Collection Date	Collection Time	Bottle Count	Comments
1	08	QMCP-MW-7	9/23/20	1635	6	
2		QMCP-MW				
3		QMCP-MW				
4		QMCP-MW				
5		QMCP-MW				
6		QMCP-MW				
7		QMCP-MW				
8		QMCP-MW				
9		QMCP-MW				
10		QMCP-MW				

ORGANIC CHEMISTRY

VOA - Volatile Organic Acidic	
Volatiles - Full List	1 2 3 4 5 6 7 8 9 10
BTEX/MTBE/TMB only	1 2 3 4 5 6 7 8 9 10
Chlorinated only	1 2 3 4 5 6 7 8 9 10
GRO	1 2 3 4 5 6 7 8 9 10
1,4 Dioxane	1 2 3 4 5 6 7 8 9 10
METH - Methane, Ethane, Ethene	
Methane, Ethane, Ethene	1 2 3 4 5 6 7 8 9 10
ON - Pesticides, PCBs	
Pesticides & PCBs	1 2 3 4 5 6 7 8 9 10
Pesticides only	1 2 3 4 5 6 7 8 9 10
PCBs only	1 2 3 4 5 6 7 8 9 10
Toxaphene	1 2 3 4 5 6 7 8 9 10
Chlordane	1 2 3 4 5 6 7 8 9 10
BNA - Base Neutral Acids	
BNAs	1 2 3 4 5 6 7 8 9 10
Benzidines	1 2 3 4 5 6 7 8 9 10
PNAs only	1 2 3 4 5 6 7 8 9 10
BNs only	1 2 3 4 5 6 7 8 9 10
Acids only	1 2 3 4 5 6 7 8 9 10
Organic Specialty Requests	
Library search - Volatiles	1 2 3 4 5 6 7 8 9 10
Library search - SemiVols	1 2 3 4 5 6 7 8 9 10
Finger Print	1 2 3 4 5 6 7 8 9 10
DRO / ORO	1 2 3 4 5 6 7 8 9 10

METALS CHEMISTRY PACKAGES

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

MAD - DISSOLVED METALS

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

MA - TOTAL METALS

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

GENERAL CHEMISTRY

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

* (FF)-Field Filtered

Chain of Custody

	Relinquished by	Received By	Date / Time
Print Name & Org.	Adam Donne GSS	Ashlyne E. Miller MSG	09/24/2020
Signature:	Adam Donne	[illegible]	0830
Print Name & Org.	Ashlyne E. Miller MSG	UPS TRACKING	09/24/2020
Signature:	[illegible]	12863 AV001944748 94	1645
Print Name & Org.	UPS	Melissa Smith	9-25-20 1137
Signature:		[illegible]	

EGLE

Department of Environment, Great Lakes, and Energy
Laboratory Services Section

Analysis Request Sheet

Lab Work Order Number	Project Name	Matrix
2009215	Abandoned Mining Wastes- QMCP	GROUNDWATER

Location ID	Program	CC Email 1	Project TAT Days	Sample Collector
31000098	201	jbinkley@manniksmithgroup.com	5 D	Adam Donne
Dept-Division-District	**Activity**	**CC Email 2**	**Project Due Date**	**Sample Collector Phone**
EGLE RRD UP District- Calumet	M100	Pinchumbe j@michigan.gov		517-275-1897
State Project Manager	**Funding Source**	**CC Email 3**		**Contract Firm**
Amy Keranen	1450 42050	DonneA1@michigan.gov		Mannik & Smith Group
State Project Manager Email	**Location Code**	**Overflow Lab Choice 1**	**Accept Analysis hold time codes**	**Contract Firm Primary Contact**
keranena@michigan.gov	6996	Merit Laboratories	No	Jeff Binkley
State Project Manager Phone	**SUD Location Code**	**Overflow Lab Choice 2**		**Primary Contact Phone**
906-337-0389				906-281-3404

	Lab Use Only	Field Sample Identification	Collection Date	Collection Time	Bottle Count	Comments
1	09	QMCP-MW-501	9/23/20	0905	5	
2	10	QMCP-MW-503	9/23/20	0950	5	
3	11	QMCP-MW-505	9/23/20	1005	~~10~~ 5	
4	12	QMCP-MW-302	9/23/20	1055	5	
5	13	QMCP-MW-301	9/23/20	1120	5	
6	14	QMCP-MW-505-DUP	9/23/20	1005	5	
7		QMCP-MW				
8		QMCP-MW				
9		QMCP-MW				
10		QMCP-MW				

ORGANIC CHEMISTRY

VOA - Volatile Organic Acidic	
Volatiles - Full List	1 2 3 4 5 6 7 8 9 10
BTEX/MTBE/TMB only	1 2 3 4 5 6 7 8 9 10
Chlorinated only	1 2 3 4 5 6 7 8 9 10
GRO	1 2 3 4 5 6 7 8 9 10
1,4 Dioxane	1 2 3 4 5 6 7 8 9 10
METH - Methane, Ethane, Ethene	
Methane, Ethane, Ethene	1 2 3 4 5 6 7 8 9 10
ON - Pesticides, PCBs	
Pesticides & PCBs	1 2 3 4 5 6 7 8 9 10
Pesticides only	1 2 3 4 5 6 7 8 9 10
PCBs only	1 2 3 4 5 6 7 8 9 10
Toxaphene	1 2 3 4 5 6 7 8 9 10
Chlordane	1 2 3 4 5 6 7 8 9 10
BNA - Base Neutral Acids	
BNAs	1 2 3 4 5 6 7 8 9 10
Benzidines	1 2 3 4 5 6 7 8 9 10
PNAs only	1 2 3 4 5 6 7 8 9 10
BNs only	1 2 3 4 5 6 7 8 9 10
Acids only	1 2 3 4 5 6 7 8 9 10
Organic Specialty Requests	
Library search - Volatiles	1 2 3 4 5 6 7 8 9 10
Library search - SemiVols	1 2 3 4 5 6 7 8 9 10
Finger Print	1 2 3 4 5 6 7 8 9 10
DRO / ORO	1 2 3 4 5 6 7 8 9 10

METALS CHEMISTRY PACKAGES

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

MAD - DISSOLVED METALS

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

MA - TOTAL METALS

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

GENERAL CHEMISTRY

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

* (FF)-Field Filtered

Chain of Custody

	Relinquished by	Received By	Date / Time
Print Name & Org.	Adam Donne GSS	Ashlyne E. Miller USG	09/24/2020
Signature:	adam Donne	[illegible]	0830
Print Name & Org.	Ashlyne E. Miller USG	UPS TRACKING	09/24/2020
Signature:	[illegible]	1Z863 AV001 94474894	1645
Print Name & Org.	UPS	Melissa Smith	
Signature:		[illegible]	9-25-20 1137