



**MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY**

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

14 September 2015

Work Order: 1508211

Price: \$4,485.00

Amy Keranen

MDEQ-RRD-UP

1504 W. Washington St.

Marquette, MI 49855

RE: ABANDONED MINING WASTES-TAMARACK CITY

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,

George Krisztian

Laboratory Director



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

Project: ABANDONED MINING WASTES-TAMARACK CITY Ops
Site Code: 31000098
Project Manager: Amy Keranen

Reported:
09/14/2015

Analytical Report for Samples

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Qualifier
CHTC - GW - 44 25-30'	1508211-01	Water	08/21/2015	08/25/2015	
CHTC - GW - 38 - 6'-10'	1508211-02	Water	08/21/2015	08/25/2015	
CHTC - GW - 37 - 9-13'	1508211-03	Water	08/21/2015	08/25/2015	
CHTC - GW - 35 - 16'-21'	1508211-04	Water	08/22/2015	08/25/2015	
CHTC - GW - 36 - 20-25'	1508211-05	Water	08/22/2015	08/25/2015	
CHTC - GW - 33 - 21'-25'	1508211-06	Water	08/22/2015	08/25/2015	
CHTC - GW - 31 - 10'-15'	1508211-07	Water	08/22/2015	08/25/2015	
CHTC - GW - 31 - 10'-15' DUP	1508211-08	Water	08/22/2015	08/25/2015	
CHTC - GW - 34 - 6'-10'	1508211-09	Water	08/22/2015	08/25/2015	
CHTC - GW - 32 - 6'-10'	1508211-10	Water	08/22/2015	08/25/2015	
CHTC - GW - 40 - 13'-17'	1508211-11	Water	08/22/2015	08/25/2015	
CHTC - GW - 30 - 7'-12'	1508211-12	Water	08/22/2015	08/25/2015	
CHTC - GW - 43 - 10'-15'	1508211-13	Water	08/22/2015	08/25/2015	

Notes and Definitions

X	Methods 8260 & 624 are used to analyze volatile organics that have boiling points below 200 °C. 2-Methylnaphthalene & naphthalene have boiling points above 200 °C and are better suited to analysis by methods 8270 & 625 as semivolatile organics.
I	Dilution required due to matrix interference; reporting limit (RL) raised.
A11	Result is estimated due to high initial verification standard criteria failure.
A09	Result is estimated due to high recovery of batch quality control.
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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Client ID: CHTC - GW - 44 25-30'

Lab ID: 1508211-01

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	08/27/15	B5H2701	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	08/27/15	B5H2701	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	08/27/15	B5H2701	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/L	1	08/27/15	B5H2701	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	08/27/15	B5H2701	8260	
591-78-6	2-Hexanone	ND	5.0	ug/L	1	08/27/15	B5H2701	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	08/27/15	B5H2701	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	08/27/15	B5H2701	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	08/27/15	B5H2701	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	08/27/15	B5H2701	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	
108-86-1	Bromobenzene	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	08/27/15	B5H2701	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	08/27/15	B5H2701	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	08/27/15	B5H2701	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	08/27/15	B5H2701	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	



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Organics-Volatiles									
74-95-3	Dibromomethane	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	08/27/15	B5H2701	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	08/27/15	B5H2701	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	08/27/15	B5H2701	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	08/27/15	B5H2701	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	08/27/15	B5H2701	8260	
98-82-8	Isopropylbenzene	1.2	1.0	ug/L	1	08/27/15	B5H2701	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	08/27/15	B5H2701	8260	
74-88-4	Methyl iodide	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	08/27/15	B5H2701	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	08/27/15	B5H2701	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	
99-87-6	p-Isopropyl toluene	17	1.0	ug/L	1	08/27/15	B5H2701	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	08/27/15	B5H2701	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	08/27/15	B5H2701	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	08/27/15	B5H2701	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	
110-57-6	trans-1,4-Dichloro-2-butene	ND	5.0	ug/L	1	08/27/15	B5H2701	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	
Surrogate: Bromofluorobenzene			95.2 %	85-115		08/27/15	B5H2701	8260	
Surrogate: Dibromofluoromethane			101 %	82.7-115		08/27/15	B5H2701	8260	
Surrogate: Toluene-d8			98.4 %	85-115		08/27/15	B5H2701	8260	



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Lab ID: 1508211-01

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	09/01/15	B5H2805	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	09/01/15	B5H2805	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	09/01/15	B5H2805	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
<i>Surrogate: 2-Fluorobiphenyl</i>			44.6 %		24.1-115	09/01/15	B5H2805	8270	
<i>Surrogate: Nitrobenzene-d5</i>			45.0 %		17.8-115	09/01/15	B5H2805	8270	
<i>Surrogate: p-Terphenyl-d14</i>			67.7 %		41.8-115	09/01/15	B5H2805	8270	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	0.10	ug/L	1	08/29/15	B5H2617	8081/8082	
11104-28-2	Aroclor 1221	ND	0.10	ug/L	1	08/29/15	B5H2617	8081/8082	
11141-16-5	Aroclor 1232	ND	0.10	ug/L	1	08/29/15	B5H2617	8081/8082	
53469-21-9	Aroclor 1242	ND	0.10	ug/L	1	08/29/15	B5H2617	8081/8082	
12672-29-6	Aroclor 1248	ND	0.10	ug/L	1	08/29/15	B5H2617	8081/8082	
11097-69-1	Aroclor 1254	ND	0.10	ug/L	1	08/29/15	B5H2617	8081/8082	
11096-82-5	Aroclor 1260	ND	0.10	ug/L	1	08/29/15	B5H2617	8081/8082	
37324-23-5	Aroclor 1262	ND	0.10	ug/L	1	08/29/15	B5H2617	8081/8082	
11100-14-4	Aroclor 1268	ND	0.10	ug/L	1	08/29/15	B5H2617	8081/8082	
<i>Surrogate: Decachlorobiphenyl</i>			34.7 %		30-150	08/29/15	B5H2617	8081/8082	
<i>Surrogate: Tetrachloro-m-xylene</i>			45.4 %		30-150	08/29/15	B5H2617	8081/8082	



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Client ID: CHTC - GW - 44 25-30'

Lab ID: 1508211-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-Metals									
7429-90-5	Aluminium	92000	500	ug/L	100	09/01/15	B5H2601	6020/200.8	
7440-36-0	Antimony	ND	10	ug/L	10	08/31/15	B5H2601	6020/200.8	I
7440-38-2	Arsenic	61	10	ug/L	10	08/31/15	B5H2601	6020/200.8	
7440-39-3	Barium	320	50	ug/L	10	08/31/15	B5H2601	6020/200.8	
7440-41-7	Beryllium	15	10	ug/L	10	09/01/15	B5H2601	6020/200.8	
7440-43-9	Cadmium	ND	2.0	ug/L	10	08/31/15	B5H2601	6020/200.8	I
7440-47-3	Chromium	420	10	ug/L	10	08/31/15	B5H2601	6020/200.8	
7440-48-4	Cobalt	150	50	ug/L	10	08/31/15	B5H2601	6020/200.8	
7440-50-8	Copper	420000	100	ug/L	100	09/01/15	B5H2601	6020/200.8	
7439-89-6	Iron	100000	200	ug/L	10	09/02/15	B5H2601	6010/200.7	
7439-92-1	Lead	45	10	ug/L	10	08/31/15	B5H2601	6020/200.8	
7439-93-2	Lithium	84	10	ug/L	1	09/02/15	B5H2601	6010/200.7	
7439-95-4	Magnesium	130	5.0	mg/L	10	09/02/15	B5H2601	6010/200.7	
7439-96-5	Manganese	4400	500	ug/L	100	09/01/15	B5H2601	6020/200.8	
7439-97-6	Mercury	1.9	0.2	ug/L	1	08/27/15	B5H2612	7470/245.1	
7440-02-0	Nickel	320	20	ug/L	10	08/31/15	B5H2601	6020/200.8	
7782-49-2	Selenium	ND	10	ug/L	10	08/31/15	B5H2601	6020/200.8	I
7440-22-4	Silver	94	2.0	ug/L	10	09/01/15	B5H2601	6020/200.8	
7440-28-0	Thallium	ND	20	ug/L	10	08/31/15	B5H2601	6020/200.8	I
7440-66-6	Zinc	1400	500	ug/L	100	09/01/15	B5H2601	6020/200.8	



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Client ID: CHTC - GW - 38 - 6'-10'

Lab ID: 1508211-02

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	08/29/15	B5H2617	8081/8082	
11104-28-2	Aroclor 1221	ND	0.10	ug/L	1	08/29/15	B5H2617	8081/8082	
11141-16-5	Aroclor 1232	ND	0.10	ug/L	1	08/29/15	B5H2617	8081/8082	
53469-21-9	Aroclor 1242	ND	0.10	ug/L	1	08/29/15	B5H2617	8081/8082	
12672-29-6	Aroclor 1248	ND	0.10	ug/L	1	08/29/15	B5H2617	8081/8082	
11097-69-1	Aroclor 1254	ND	0.10	ug/L	1	08/29/15	B5H2617	8081/8082	
11096-82-5	Aroclor 1260	ND	0.10	ug/L	1	08/29/15	B5H2617	8081/8082	
37324-23-5	Aroclor 1262	ND	0.10	ug/L	1	08/29/15	B5H2617	8081/8082	
11100-14-4	Aroclor 1268	ND	0.10	ug/L	1	08/29/15	B5H2617	8081/8082	
Surrogate: Decachlorobiphenyl			45.5 %		30-150	08/29/15	B5H2617	8081/8082	
Surrogate: Tetrachloro-m-xylene			47.5 %		30-150	08/29/15	B5H2617	8081/8082	



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Client ID: CHTC - GW - 37 - 9-13'

Lab ID: 1508211-03

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	09/02/15	B5I0111	8081/8082	
11104-28-2	Aroclor 1221	ND	0.10	ug/L	1	09/02/15	B5I0111	8081/8082	
11141-16-5	Aroclor 1232	ND	0.10	ug/L	1	09/02/15	B5I0111	8081/8082	
53469-21-9	Aroclor 1242	ND	0.10	ug/L	1	09/02/15	B5I0111	8081/8082	
12672-29-6	Aroclor 1248	ND	0.10	ug/L	1	09/02/15	B5I0111	8081/8082	
11097-69-1	Aroclor 1254	ND	0.10	ug/L	1	09/02/15	B5I0111	8081/8082	
11096-82-5	Aroclor 1260	ND	0.10	ug/L	1	09/02/15	B5I0111	8081/8082	
37324-23-5	Aroclor 1262	ND	0.10	ug/L	1	09/02/15	B5I0111	8081/8082	
11100-14-4	Aroclor 1268	ND	0.10	ug/L	1	09/02/15	B5I0111	8081/8082	
Surrogate: Decachlorobiphenyl			56.7 %		30-150	09/02/15	B5I0111	8081/8082	
Surrogate: Tetrachloro-m-xylene			53.6 %		30-150	09/02/15	B5I0111	8081/8082	



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: CHTC - GW - 35 - 16'-21'

Lab ID: 1508211-04

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	09/02/15	B5I0111	8081/8082	
11104-28-2	Aroclor 1221	ND	0.10	ug/L	1	09/02/15	B5I0111	8081/8082	
11141-16-5	Aroclor 1232	ND	0.10	ug/L	1	09/02/15	B5I0111	8081/8082	
53469-21-9	Aroclor 1242	ND	0.10	ug/L	1	09/02/15	B5I0111	8081/8082	
12672-29-6	Aroclor 1248	ND	0.10	ug/L	1	09/02/15	B5I0111	8081/8082	
11097-69-1	Aroclor 1254	ND	0.10	ug/L	1	09/02/15	B5I0111	8081/8082	
11096-82-5	Aroclor 1260	ND	0.10	ug/L	1	09/02/15	B5I0111	8081/8082	
37324-23-5	Aroclor 1262	ND	0.10	ug/L	1	09/02/15	B5I0111	8081/8082	
11100-14-4	Aroclor 1268	ND	0.10	ug/L	1	09/02/15	B5I0111	8081/8082	
Surrogate: Decachlorobiphenyl			68.1 %		30-150	09/02/15	B5I0111	8081/8082	
Surrogate: Tetrachloro-m-xylene			48.8 %		30-150	09/02/15	B5I0111	8081/8082	



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P.O. Box 30270
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TEL: (517) 335-9800
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Client ID: CHTC - GW - 36 - 20-25'

Lab ID: 1508211-05

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	09/02/15	B5I0111	8081/8082	
11104-28-2	Aroclor 1221	ND	0.10	ug/L	1	09/02/15	B5I0111	8081/8082	
11141-16-5	Aroclor 1232	ND	0.10	ug/L	1	09/02/15	B5I0111	8081/8082	
53469-21-9	Aroclor 1242	ND	0.10	ug/L	1	09/02/15	B5I0111	8081/8082	
12672-29-6	Aroclor 1248	ND	0.10	ug/L	1	09/02/15	B5I0111	8081/8082	
11097-69-1	Aroclor 1254	ND	0.10	ug/L	1	09/02/15	B5I0111	8081/8082	
11096-82-5	Aroclor 1260	ND	0.10	ug/L	1	09/02/15	B5I0111	8081/8082	
37324-23-5	Aroclor 1262	ND	0.10	ug/L	1	09/02/15	B5I0111	8081/8082	
11100-14-4	Aroclor 1268	ND	0.10	ug/L	1	09/02/15	B5I0111	8081/8082	
<i>Surrogate: Decachlorobiphenyl</i>			40.1 %		30-150	09/02/15	B5I0111	8081/8082	
<i>Surrogate: Tetrachloro-m-xylene</i>			46.7 %		30-150	09/02/15	B5I0111	8081/8082	



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Client ID: CHTC - GW - 33 - 21'-25'

Lab ID: 1508211-06

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	08/27/15	B5H2701	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	08/27/15	B5H2701	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	08/27/15	B5H2701	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/L	1	08/27/15	B5H2701	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	08/27/15	B5H2701	8260	
591-78-6	2-Hexanone	ND	5.0	ug/L	1	08/27/15	B5H2701	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	08/27/15	B5H2701	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	08/27/15	B5H2701	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	08/27/15	B5H2701	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	08/27/15	B5H2701	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	
108-86-1	Bromobenzene	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	08/27/15	B5H2701	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	08/27/15	B5H2701	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	08/27/15	B5H2701	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	08/27/15	B5H2701	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	



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ENVIRONMENTAL LABORATORY**

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Client ID: CHTC - GW - 33 - 21'-25'

Lab ID: 1508211-06

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
74-95-3	Dibromomethane	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	08/27/15	B5H2701	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	08/27/15	B5H2701	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	08/27/15	B5H2701	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	08/27/15	B5H2701	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	08/27/15	B5H2701	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	08/27/15	B5H2701	8260	
74-88-4	Methyl iodide	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	08/27/15	B5H2701	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	08/27/15	B5H2701	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	
99-87-6	p-Isopropyl toluene	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	08/27/15	B5H2701	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	08/27/15	B5H2701	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	08/27/15	B5H2701	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	
110-57-6	trans-1,4-Dichloro-2-butene	ND	5.0	ug/L	1	08/27/15	B5H2701	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	08/27/15	B5H2701	8260	
Surrogate: Bromofluorobenzene			95.5 %	85-115		08/27/15	B5H2701	8260	
Surrogate: Dibromofluoromethane			102 %	82.7-115		08/27/15	B5H2701	8260	
Surrogate: Toluene-d8			100 %	85-115		08/27/15	B5H2701	8260	



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Lansing, MI 48909
TEL: (517) 335-9800
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Client ID: CHTC - GW - 33 - 21'-25'

Lab ID: 1508211-06

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	09/01/15	B5H2805	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	09/01/15	B5H2805	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	09/01/15	B5H2805	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
<i>Surrogate: 2-Fluorobiphenyl</i>			48.5 %		24.1-115	09/01/15	B5H2805	8270	
<i>Surrogate: Nitrobenzene-d5</i>			49.8 %		17.8-115	09/01/15	B5H2805	8270	
<i>Surrogate: p-Terphenyl-d14</i>			55.1 %		41.8-115	09/01/15	B5H2805	8270	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	0.10	ug/L	1	09/02/15	B5I0111	8081/8082	
11104-28-2	Aroclor 1221	ND	0.10	ug/L	1	09/02/15	B5I0111	8081/8082	
11141-16-5	Aroclor 1232	ND	0.10	ug/L	1	09/02/15	B5I0111	8081/8082	
53469-21-9	Aroclor 1242	ND	0.10	ug/L	1	09/02/15	B5I0111	8081/8082	
12672-29-6	Aroclor 1248	ND	0.10	ug/L	1	09/02/15	B5I0111	8081/8082	
11097-69-1	Aroclor 1254	ND	0.10	ug/L	1	09/02/15	B5I0111	8081/8082	
11096-82-5	Aroclor 1260	ND	0.10	ug/L	1	09/02/15	B5I0111	8081/8082	
37324-23-5	Aroclor 1262	ND	0.10	ug/L	1	09/02/15	B5I0111	8081/8082	
11100-14-4	Aroclor 1268	ND	0.10	ug/L	1	09/02/15	B5I0111	8081/8082	
<i>Surrogate: Decachlorobiphenyl</i>			52.6 %		30-150	09/02/15	B5I0111	8081/8082	
<i>Surrogate: Tetrachloro-m-xylene</i>			41.7 %		30-150	09/02/15	B5I0111	8081/8082	



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P.O. Box 30270
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Client ID: CHTC - GW - 33 - 21'-25'

Lab ID: 1508211-06

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-Metals									
7429-90-5	Aluminium	16000	50	ug/L	10	09/01/15	B5H2601	6020/200.8	
7440-36-0	Antimony	ND	1.0	ug/L	1	08/31/15	B5H2601	6020/200.8	
7440-38-2	Arsenic	8.3	1.0	ug/L	1	08/31/15	B5H2601	6020/200.8	
7440-39-3	Barium	65	5.0	ug/L	1	08/31/15	B5H2601	6020/200.8	
7440-41-7	Beryllium	ND	1.0	ug/L	1	08/31/15	B5H2601	6020/200.8	
7440-43-9	Cadmium	ND	0.2	ug/L	1	08/31/15	B5H2601	6020/200.8	
7440-47-3	Chromium	38	1.0	ug/L	1	08/31/15	B5H2601	6020/200.8	
7440-48-4	Cobalt	20	5.0	ug/L	1	08/31/15	B5H2601	6020/200.8	
7440-50-8	Copper	1000	1.0	ug/L	1	08/31/15	B5H2601	6020/200.8	
7439-89-6	Iron	14000	20	ug/L	1	09/02/15	B5H2601	6010/200.7	
7439-92-1	Lead	2.8	1.0	ug/L	1	08/31/15	B5H2601	6020/200.8	
7439-93-2	Lithium	ND	10	ug/L	1	09/02/15	B5H2601	6010/200.7	
7439-95-4	Magnesium	20	0.5	mg/L	1	09/02/15	B5H2601	6010/200.7	
7439-96-5	Manganese	420	50	ug/L	10	09/01/15	B5H2601	6020/200.8	
7439-97-6	Mercury	ND	0.2	ug/L	1	08/27/15	B5H2612	7470/245.1	
7440-02-0	Nickel	36	2.0	ug/L	1	08/31/15	B5H2601	6020/200.8	
7782-49-2	Selenium	ND	1.0	ug/L	1	08/31/15	B5H2601	6020/200.8	
7440-22-4	Silver	0.8	0.2	ug/L	1	09/01/15	B5H2601	6020/200.8	
7440-28-0	Thallium	ND	2.0	ug/L	1	08/31/15	B5H2601	6020/200.8	
7440-66-6	Zinc	140	50	ug/L	10	09/01/15	B5H2601	6020/200.8	



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P.O. Box 30270
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TEL: (517) 335-9800
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Client ID: CHTC - GW - 31 - 10'-15'

Lab ID: 1508211-07

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	08/28/15	B5H2806	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	08/28/15	B5H2806	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	08/28/15	B5H2806	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/L	1	08/28/15	B5H2806	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	08/28/15	B5H2806	8260	
591-78-6	2-Hexanone	ND	5.0	ug/L	1	08/28/15	B5H2806	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	08/28/15	B5H2806	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	08/28/15	B5H2806	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	08/28/15	B5H2806	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	08/28/15	B5H2806	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
108-86-1	Bromobenzene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	08/28/15	B5H2806	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	08/28/15	B5H2806	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	08/28/15	B5H2806	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	08/28/15	B5H2806	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	



**MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
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P.O. Box 30270
Lansing, MI 48909
TEL: (517) 335-9800
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Client ID: CHTC - GW - 31 - 10'-15'

Lab ID: 1508211-07

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
74-95-3	Dibromomethane	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	08/28/15	B5H2806	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	08/28/15	B5H2806	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	08/28/15	B5H2806	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	08/28/15	B5H2806	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	08/28/15	B5H2806	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	08/28/15	B5H2806	8260	
74-88-4	Methyl iodide	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	08/28/15	B5H2806	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	08/28/15	B5H2806	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
99-87-6	p-Isopropyl toluene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	08/28/15	B5H2806	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	08/28/15	B5H2806	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	08/28/15	B5H2806	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
110-57-6	trans-1,4-Dichloro-2-butene	ND	5.0	ug/L	1	08/28/15	B5H2806	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
Surrogate: Bromofluorobenzene			103 %	85-115		08/28/15	B5H2806	8260	
Surrogate: Dibromofluoromethane			95.1 %	82.7-115		08/28/15	B5H2806	8260	
Surrogate: Toluene-d8			99.8 %	85-115		08/28/15	B5H2806	8260	



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Client ID: CHTC - GW - 31 - 10'-15'

Lab ID: 1508211-07

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	09/01/15	B5H2805	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	09/01/15	B5H2805	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	09/01/15	B5H2805	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
<i>Surrogate: 2-Fluorobiphenyl</i>			55.6 %		24.1-115	09/01/15	B5H2805	8270	
<i>Surrogate: Nitrobenzene-d5</i>			61.6 %		17.8-115	09/01/15	B5H2805	8270	
<i>Surrogate: p-Terphenyl-d14</i>			73.1 %		41.8-115	09/01/15	B5H2805	8270	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	0.10	ug/L	1	09/02/15	B5I0111	8081/8082	
11104-28-2	Aroclor 1221	ND	0.10	ug/L	1	09/02/15	B5I0111	8081/8082	
11141-16-5	Aroclor 1232	ND	0.10	ug/L	1	09/02/15	B5I0111	8081/8082	
53469-21-9	Aroclor 1242	ND	0.10	ug/L	1	09/02/15	B5I0111	8081/8082	
12672-29-6	Aroclor 1248	ND	0.10	ug/L	1	09/02/15	B5I0111	8081/8082	
11097-69-1	Aroclor 1254	ND	0.10	ug/L	1	09/02/15	B5I0111	8081/8082	
11096-82-5	Aroclor 1260	ND	0.10	ug/L	1	09/02/15	B5I0111	8081/8082	
37324-23-5	Aroclor 1262	ND	0.10	ug/L	1	09/02/15	B5I0111	8081/8082	
11100-14-4	Aroclor 1268	ND	0.10	ug/L	1	09/02/15	B5I0111	8081/8082	
<i>Surrogate: Decachlorobiphenyl</i>			77.5 %		30-150	09/02/15	B5I0111	8081/8082	
<i>Surrogate: Tetrachloro-m-xylene</i>			47.6 %		30-150	09/02/15	B5I0111	8081/8082	



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Client ID: CHTC - GW - 31 - 10'-15' DUP

Lab ID: 1508211-08

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	08/27/15	B5H2707	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
591-78-6	2-Hexanone	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	A05, X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	08/27/15	B5H2707	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
108-86-1	Bromobenzene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	



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Client ID: CHTC - GW - 31 - 10'-15' DUP

Lab ID: 1508211-08

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
74-95-3	Dibromomethane	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	08/27/15	B5H2707	8260	
74-88-4	Methyl iodide	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
99-87-6	p-Isopropyl toluene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	08/27/15	B5H2707	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
110-57-6	trans-1,4-Dichloro-2-butene	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
Surrogate: Bromofluorobenzene			104 %	85-115		08/27/15	B5H2707	8260	
Surrogate: Dibromofluoromethane			97.1 %	82.7-115		08/27/15	B5H2707	8260	
Surrogate: Toluene-d8			98.3 %	85-115		08/27/15	B5H2707	8260	



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Client ID: CHTC - GW - 31 - 10'-15' DUP

Lab ID: 1508211-08

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	09/01/15	B5H2805	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	09/01/15	B5H2805	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	09/01/15	B5H2805	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
<i>Surrogate: 2-Fluorobiphenyl</i>			50.5 %		24.1-115	09/01/15	B5H2805	8270	
<i>Surrogate: Nitrobenzene-d5</i>			56.3 %		17.8-115	09/01/15	B5H2805	8270	
<i>Surrogate: p-Terphenyl-d14</i>			73.6 %		41.8-115	09/01/15	B5H2805	8270	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	0.10	ug/L	1	09/08/15	B5I0111	8081/8082	
11104-28-2	Aroclor 1221	ND	0.10	ug/L	1	09/08/15	B5I0111	8081/8082	
11141-16-5	Aroclor 1232	ND	0.10	ug/L	1	09/08/15	B5I0111	8081/8082	
53469-21-9	Aroclor 1242	ND	0.10	ug/L	1	09/08/15	B5I0111	8081/8082	
12672-29-6	Aroclor 1248	ND	0.10	ug/L	1	09/08/15	B5I0111	8081/8082	
11097-69-1	Aroclor 1254	ND	0.10	ug/L	1	09/08/15	B5I0111	8081/8082	
11096-82-5	Aroclor 1260	ND	0.10	ug/L	1	09/08/15	B5I0111	8081/8082	
37324-23-5	Aroclor 1262	ND	0.10	ug/L	1	09/08/15	B5I0111	8081/8082	
11100-14-4	Aroclor 1268	ND	0.10	ug/L	1	09/08/15	B5I0111	8081/8082	
<i>Surrogate: Decachlorobiphenyl</i>			73.6 %		30-150	09/08/15	B5I0111	8081/8082	
<i>Surrogate: Tetrachloro-m-xylene</i>			49.5 %		30-150	09/08/15	B5I0111	8081/8082	



MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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

Client ID: CHTC - GW - 34 - 6'-10'

Lab ID: 1508211-09

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	09/08/15	B5I0111	8081/8082	
11104-28-2	Aroclor 1221	ND	0.10	ug/L	1	09/08/15	B5I0111	8081/8082	
11141-16-5	Aroclor 1232	ND	0.10	ug/L	1	09/08/15	B5I0111	8081/8082	
53469-21-9	Aroclor 1242	ND	0.10	ug/L	1	09/08/15	B5I0111	8081/8082	
12672-29-6	Aroclor 1248	ND	0.10	ug/L	1	09/08/15	B5I0111	8081/8082	
11097-69-1	Aroclor 1254	ND	0.10	ug/L	1	09/08/15	B5I0111	8081/8082	
11096-82-5	Aroclor 1260	ND	0.10	ug/L	1	09/08/15	B5I0111	8081/8082	
37324-23-5	Aroclor 1262	ND	0.10	ug/L	1	09/08/15	B5I0111	8081/8082	
11100-14-4	Aroclor 1268	ND	0.10	ug/L	1	09/08/15	B5I0111	8081/8082	
Surrogate: Decachlorobiphenyl			50.9 %		30-150	09/08/15	B5I0111	8081/8082	
Surrogate: Tetrachloro-m-xylene			40.7 %		30-150	09/08/15	B5I0111	8081/8082	



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P.O. Box 30270
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TEL: (517) 335-9800
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Client ID: CHTC - GW - 32 - 6'-10'

Lab ID: 1508211-10

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	08/27/15	B5H2707	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
591-78-6	2-Hexanone	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	A05, X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	08/27/15	B5H2707	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
108-86-1	Bromobenzene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	



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ENVIRONMENTAL LABORATORY**

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Client ID: CHTC - GW - 32 - 6'-10'

Lab ID: 1508211-10

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
74-95-3	Dibromomethane	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	08/27/15	B5H2707	8260	
74-88-4	Methyl iodide	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
99-87-6	p-Isopropyl toluene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	08/27/15	B5H2707	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
110-57-6	trans-1,4-Dichloro-2-butene	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
<i>Surrogate: Bromofluorobenzene</i>			102 %	85-115		08/27/15	B5H2707	8260	
<i>Surrogate: Dibromofluoromethane</i>			96.3 %	82.7-115		08/27/15	B5H2707	8260	
<i>Surrogate: Toluene-d8</i>			102 %	85-115		08/27/15	B5H2707	8260	



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ENVIRONMENTAL LABORATORY**

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

Client ID: CHTC - GW - 32 - 6'-10'

Lab ID: 1508211-10

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	09/01/15	B5H2805	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	09/01/15	B5H2805	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	09/01/15	B5H2805	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
<i>Surrogate: 2-Fluorobiphenyl</i>			45.2 %	24.1-115		09/01/15	B5H2805	8270	
<i>Surrogate: Nitrobenzene-d5</i>			49.1 %	17.8-115		09/01/15	B5H2805	8270	
<i>Surrogate: p-Terphenyl-d14</i>			80.2 %	41.8-115		09/01/15	B5H2805	8270	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	0.10	ug/L	1	09/08/15	B5I0111	8081/8082	
11104-28-2	Aroclor 1221	ND	0.10	ug/L	1	09/08/15	B5I0111	8081/8082	
11141-16-5	Aroclor 1232	ND	0.10	ug/L	1	09/08/15	B5I0111	8081/8082	
53469-21-9	Aroclor 1242	ND	0.10	ug/L	1	09/08/15	B5I0111	8081/8082	
12672-29-6	Aroclor 1248	ND	0.10	ug/L	1	09/08/15	B5I0111	8081/8082	
11097-69-1	Aroclor 1254	ND	0.10	ug/L	1	09/08/15	B5I0111	8081/8082	
11096-82-5	Aroclor 1260	ND	0.10	ug/L	1	09/08/15	B5I0111	8081/8082	
37324-23-5	Aroclor 1262	ND	0.10	ug/L	1	09/08/15	B5I0111	8081/8082	
11100-14-4	Aroclor 1268	ND	0.10	ug/L	1	09/08/15	B5I0111	8081/8082	
<i>Surrogate: Decachlorobiphenyl</i>			57.4 %	30-150		09/08/15	B5I0111	8081/8082	
<i>Surrogate: Tetrachloro-m-xylene</i>			44.6 %	30-150		09/08/15	B5I0111	8081/8082	



**MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY**

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

Client ID: CHTC - GW - 40 - 13'-17'

Lab ID: 1508211-11

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	08/27/15	B5H2707	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
591-78-6	2-Hexanone	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	A05, X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	08/27/15	B5H2707	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
108-86-1	Bromobenzene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	



**MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY**

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

Client ID: CHTC - GW - 40 - 13'-17'

Lab ID: 1508211-11

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
74-95-3	Dibromomethane	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	08/27/15	B5H2707	8260	
74-88-4	Methyl iodide	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
99-87-6	p-Isopropyl toluene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	08/27/15	B5H2707	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
110-57-6	trans-1,4-Dichloro-2-butene	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
<i>Surrogate: Bromofluorobenzene</i>			100 %	85-115		08/27/15	B5H2707	8260	
<i>Surrogate: Dibromofluoromethane</i>			95.0 %	82.7-115		08/27/15	B5H2707	8260	
<i>Surrogate: Toluene-d8</i>			101 %	85-115		08/27/15	B5H2707	8260	



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Client ID: CHTC - GW - 40 - 13'-17'

Lab ID: 1508211-11

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	09/01/15	B5H2805	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	09/01/15	B5H2805	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	09/01/15	B5H2805	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
<i>Surrogate: 2-Fluorobiphenyl</i>			49.6 %	24.1-115		09/01/15	B5H2805	8270	
<i>Surrogate: Nitrobenzene-d5</i>			54.3 %	17.8-115		09/01/15	B5H2805	8270	
<i>Surrogate: p-Terphenyl-d14</i>			56.7 %	41.8-115		09/01/15	B5H2805	8270	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	0.10	ug/L	1	09/08/15	B5I0111	8081/8082	
11104-28-2	Aroclor 1221	ND	0.10	ug/L	1	09/08/15	B5I0111	8081/8082	
11141-16-5	Aroclor 1232	ND	0.10	ug/L	1	09/08/15	B5I0111	8081/8082	
53469-21-9	Aroclor 1242	ND	0.10	ug/L	1	09/08/15	B5I0111	8081/8082	
12672-29-6	Aroclor 1248	ND	0.10	ug/L	1	09/08/15	B5I0111	8081/8082	
11097-69-1	Aroclor 1254	ND	0.10	ug/L	1	09/08/15	B5I0111	8081/8082	
11096-82-5	Aroclor 1260	ND	0.10	ug/L	1	09/08/15	B5I0111	8081/8082	
37324-23-5	Aroclor 1262	ND	0.10	ug/L	1	09/08/15	B5I0111	8081/8082	
11100-14-4	Aroclor 1268	ND	0.10	ug/L	1	09/08/15	B5I0111	8081/8082	
<i>Surrogate: Decachlorobiphenyl</i>			38.1 %	30-150		09/08/15	B5I0111	8081/8082	
<i>Surrogate: Tetrachloro-m-xylene</i>			51.1 %	30-150		09/08/15	B5I0111	8081/8082	



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Client ID: CHTC - GW - 40 - 13'-17'

Lab ID: 1508211-11

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-Metals									
7429-90-5	Aluminium	91000	500	ug/L	100	09/01/15	B5H2601	6020/200.8	
7440-36-0	Antimony	ND	10	ug/L	10	08/31/15	B5H2601	6020/200.8	I
7440-38-2	Arsenic	51	10	ug/L	10	08/31/15	B5H2601	6020/200.8	
7440-39-3	Barium	530	50	ug/L	10	08/31/15	B5H2601	6020/200.8	
7440-41-7	Beryllium	13	10	ug/L	10	09/01/15	B5H2601	6020/200.8	
7440-43-9	Cadmium	ND	2.0	ug/L	10	08/31/15	B5H2601	6020/200.8	I
7440-47-3	Chromium	320	10	ug/L	10	08/31/15	B5H2601	6020/200.8	
7440-48-4	Cobalt	150	50	ug/L	10	08/31/15	B5H2601	6020/200.8	
7440-50-8	Copper	330000	100	ug/L	100	09/01/15	B5H2601	6020/200.8	
7439-89-6	Iron	84000	200	ug/L	10	09/02/15	B5H2601	6010/200.7	
7439-92-1	Lead	50	10	ug/L	10	08/31/15	B5H2601	6020/200.8	
7439-93-2	Lithium	83	10	ug/L	1	09/02/15	B5H2601	6010/200.7	
7439-95-4	Magnesium	140	5.0	mg/L	10	09/02/15	B5H2601	6010/200.7	
7439-96-5	Manganese	3900	500	ug/L	100	09/01/15	B5H2601	6020/200.8	
7439-97-6	Mercury	1.3	0.2	ug/L	1	08/27/15	B5H2612	7470/245.1	
7440-02-0	Nickel	310	20	ug/L	10	08/31/15	B5H2601	6020/200.8	
7782-49-2	Selenium	ND	10	ug/L	10	08/31/15	B5H2601	6020/200.8	I
7440-22-4	Silver	62	2.0	ug/L	10	09/01/15	B5H2601	6020/200.8	
7440-28-0	Thallium	ND	20	ug/L	10	08/31/15	B5H2601	6020/200.8	I
7440-66-6	Zinc	1300	5.0	ug/L	1	08/31/15	B5H2601	6020/200.8	



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Client ID: CHTC - GW - 30 - 7'-12'

Lab ID: 1508211-12

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	08/27/15	B5H2707	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
591-78-6	2-Hexanone	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	A05, X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	08/27/15	B5H2707	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
108-86-1	Bromobenzene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	



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Client ID: CHTC - GW - 30 - 7'-12'

Lab ID: 1508211-12

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
74-95-3	Dibromomethane	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	08/27/15	B5H2707	8260	
74-88-4	Methyl iodide	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
99-87-6	p-Isopropyl toluene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	08/27/15	B5H2707	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
110-57-6	trans-1,4-Dichloro-2-butene	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
Surrogate: Bromofluorobenzene			104 %	85-115		08/27/15	B5H2707	8260	
Surrogate: Dibromofluoromethane			98.2 %	82.7-115		08/27/15	B5H2707	8260	
Surrogate: Toluene-d8			101 %	85-115		08/27/15	B5H2707	8260	



**MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY**

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

Client ID: CHTC - GW - 30 - 7'-12'

Lab ID: 1508211-12

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	09/01/15	B5H2805	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	09/01/15	B5H2805	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	09/01/15	B5H2805	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
Surrogate: 2-Fluorobiphenyl			51.2 %	24.1-115		09/01/15	B5H2805	8270	
Surrogate: Nitrobenzene-d5			58.8 %	17.8-115		09/01/15	B5H2805	8270	
Surrogate: p-Terphenyl-d14			70.0 %	41.8-115		09/01/15	B5H2805	8270	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	0.10	ug/L	1	09/08/15	B5I0111	8081/8082	
11104-28-2	Aroclor 1221	ND	0.10	ug/L	1	09/08/15	B5I0111	8081/8082	
11141-16-5	Aroclor 1232	ND	0.10	ug/L	1	09/08/15	B5I0111	8081/8082	
53469-21-9	Aroclor 1242	ND	0.10	ug/L	1	09/08/15	B5I0111	8081/8082	
12672-29-6	Aroclor 1248	ND	0.10	ug/L	1	09/08/15	B5I0111	8081/8082	
11097-69-1	Aroclor 1254	ND	0.10	ug/L	1	09/08/15	B5I0111	8081/8082	
11096-82-5	Aroclor 1260	ND	0.10	ug/L	1	09/08/15	B5I0111	8081/8082	
37324-23-5	Aroclor 1262	ND	0.10	ug/L	1	09/08/15	B5I0111	8081/8082	
11100-14-4	Aroclor 1268	ND	0.10	ug/L	1	09/08/15	B5I0111	8081/8082	
Surrogate: Decachlorobiphenyl			34.8 %	30-150		09/08/15	B5I0111	8081/8082	
Surrogate: Tetrachloro-m-xylene			45.7 %	30-150		09/08/15	B5I0111	8081/8082	



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

Client ID: CHTC - GW - 43 - 10'-15'

Lab ID: 1508211-13

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	08/27/15	B5H2707	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
591-78-6	2-Hexanone	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	A05, X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	08/27/15	B5H2707	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
108-86-1	Bromobenzene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	



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Client ID: CHTC - GW - 43 - 10'-15'

Lab ID: 1508211-13

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
74-95-3	Dibromomethane	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	08/27/15	B5H2707	8260	
74-88-4	Methyl iodide	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
99-87-6	p-Isopropyl toluene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	08/27/15	B5H2707	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
110-57-6	trans-1,4-Dichloro-2-butene	ND	5.0	ug/L	1	08/27/15	B5H2707	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	08/27/15	B5H2707	8260	
Surrogate: Bromofluorobenzene			102 %	85-115		08/27/15	B5H2707	8260	
Surrogate: Dibromofluoromethane			97.2 %	82.7-115		08/27/15	B5H2707	8260	
Surrogate: Toluene-d8			99.9 %	85-115		08/27/15	B5H2707	8260	



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Client ID: CHTC - GW - 43 - 10'-15'

Lab ID: 1508211-13

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	09/01/15	B5H2805	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	09/01/15	B5H2805	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	09/01/15	B5H2805	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
Surrogate: 2-Fluorobiphenyl			46.0 %	24.1-115		09/01/15	B5H2805	8270	
Surrogate: Nitrobenzene-d5			49.6 %	17.8-115		09/01/15	B5H2805	8270	
Surrogate: p-Terphenyl-d14			72.8 %	41.8-115		09/01/15	B5H2805	8270	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	0.10	ug/L	1	09/08/15	B5I0111	8081/8082	
11104-28-2	Aroclor 1221	ND	0.10	ug/L	1	09/08/15	B5I0111	8081/8082	
11141-16-5	Aroclor 1232	ND	0.10	ug/L	1	09/08/15	B5I0111	8081/8082	
53469-21-9	Aroclor 1242	ND	0.10	ug/L	1	09/08/15	B5I0111	8081/8082	
12672-29-6	Aroclor 1248	ND	0.10	ug/L	1	09/08/15	B5I0111	8081/8082	
11097-69-1	Aroclor 1254	ND	0.10	ug/L	1	09/08/15	B5I0111	8081/8082	
11096-82-5	Aroclor 1260	ND	0.10	ug/L	1	09/08/15	B5I0111	8081/8082	
37324-23-5	Aroclor 1262	ND	0.10	ug/L	1	09/08/15	B5I0111	8081/8082	
11100-14-4	Aroclor 1268	ND	0.10	ug/L	1	09/08/15	B5I0111	8081/8082	
Surrogate: Decachlorobiphenyl			49.6 %	30-150		09/08/15	B5I0111	8081/8082	
Surrogate: Tetrachloro-m-xylene			50.0 %	30-150		09/08/15	B5I0111	8081/8082	



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TEL: (517) 335-9800
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Client ID: CHTC - GW - 43 - 10'-15'

Lab ID: 1508211-13

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Inorganics-Metals									
7429-90-5	Aluminium	14000	50	ug/L	10	09/01/15	B5H2601	6020/200.8	
7440-36-0	Antimony	ND	1.0	ug/L	1	08/31/15	B5H2601	6020/200.8	
7440-38-2	Arsenic	8.1	1.0	ug/L	1	08/31/15	B5H2601	6020/200.8	
7440-39-3	Barium	190	50	ug/L	10	09/01/15	B5H2601	6020/200.8	
7440-41-7	Beryllium	ND	1.0	ug/L	1	08/31/15	B5H2601	6020/200.8	
7440-43-9	Cadmium	0.2	0.2	ug/L	1	08/31/15	B5H2601	6020/200.8	
7440-47-3	Chromium	47	1.0	ug/L	1	08/31/15	B5H2601	6020/200.8	
7440-48-4	Cobalt	13	5.0	ug/L	1	08/31/15	B5H2601	6020/200.8	
7440-50-8	Copper	6500	10	ug/L	10	09/01/15	B5H2601	6020/200.8	
7439-89-6	Iron	42000	200	ug/L	10	09/02/15	B5H2601	6010/200.7	
7439-92-1	Lead	53	1.0	ug/L	1	08/31/15	B5H2601	6020/200.8	
7439-93-2	Lithium	ND	10	ug/L	1	09/02/15	B5H2601	6010/200.7	
7439-95-4	Magnesium	21	0.5	mg/L	1	09/02/15	B5H2601	6010/200.7	
7439-96-5	Manganese	690	50	ug/L	10	09/01/15	B5H2601	6020/200.8	
7439-97-6	Mercury	ND	0.2	ug/L	1	08/27/15	B5H2612	7470/245.1	
7440-02-0	Nickel	34	2.0	ug/L	1	08/31/15	B5H2601	6020/200.8	
7782-49-2	Selenium	ND	1.0	ug/L	1	08/31/15	B5H2601	6020/200.8	
7440-22-4	Silver	1.8	0.2	ug/L	1	09/01/15	B5H2601	6020/200.8	
7440-28-0	Thallium	ND	2.0	ug/L	1	08/31/15	B5H2601	6020/200.8	
7440-66-6	Zinc	140	50	ug/L	10	09/01/15	B5H2601	6020/200.8	



Analysis Request Sheet

Lab Work Order Number

Project Name

Matrix

1508211	Abandoned Mining Wastes - Torch Lake PCB C&H Tamarack City Ops		ground WATER
Site Code/Project Number 31000098	AT 13	CC Email 1 j.binkley@westonsolutions.com	Project 1A1 Days
Dept./Division/District DEQ-RRD-UP District	Index 44251	CC Email 2 denaldobad@westonsolutions.com	Project Due Date
State Project Manager Amy Keranen	PCA 30872	CC Email 3 pincumbel@michigan.gov	Sample Collector AK/JP/AB-DEQ-RRD
State Project Manager Email keranena@michigan.gov	Project 456990	Overflow Lab Choice 1	Sample Collector Phone 906-337-0389
State Project Manager Phone 906-337-0389	Phase 00	Overflow Lab Choice 2	Contract Firm Weston Solutions
		Accept Analysis hold time codes no	Contract Firm Primary Contact Jeff Binkley
			Primary Contact Phone 906-523-5457

Lab Use Only	Field Sample Identification	Collection Date	Collection Time	Container Count	Comments
1	01 CHTC-GW44 25-30'	8/21/15	1150		
2	02 CHTC-GW38 - 6'-10'	8/21/15	1250		
3	03 CHTC-GW37-9-13'	8/21/15	1320		
4	04 CHTC-GW35-10'-21'	8/22	0840		Amber's labelled GW35-16'-20'
5	05 CHTC-GW36-20-25'	"	1030		
6	06 CHTC-GW33-21'-25'	"	1050		
7	07 CHTC-GW31-10'-15'	"	1120		
8	08 CHTC-GW31-10'-15' DUP	"	1120		
9	09 CHTC-GW34-6'-10'	"	1155		
10	10 CHTC-GW32-6'-10'	"	1405		

ORGANIC CHEMISTRY	MAD - DISSOLVED METALS	MA - TOTAL METALS	GENERAL CHEMISTRY
VOA - Volatile Organic Acidic Volatiles - Full List 1 2 3 4 5 6 7 8 9 10 BTEX/MTBE/TMB only 1 2 3 4 5 6 7 8 9 10 Chlorinated only 1 2 3 4 5 6 7 8 9 10 GRO 1 2 3 4 5 6 7 8 9 10 1,4 Dioxane 1 2 3 4 5 6 7 8 9 10 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 - SemVolts 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,Bd,Cd,Cr,Cu,Co,Fe,Pb,Mn,Hg,Mo,Ni,Se,Ag,Ti,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)	Diss - Silver - Ag 1 2 3 4 5 6 7 8 9 10 Diss - Aluminum - Al 1 2 3 4 5 6 7 8 9 10 Diss - Arsenic - As 1 2 3 4 5 6 7 8 9 10 Diss - Boron - B 1 2 3 4 5 6 7 8 9 10 Diss - Barium - Ba 1 2 3 4 5 6 7 8 9 10 Diss - Beryllium - Be 1 2 3 4 5 6 7 8 9 10 Diss - Cadmium - Cd 1 2 3 4 5 6 7 8 9 10 Diss - Cobalt - Co 1 2 3 4 5 6 7 8 9 10 Diss - Chromium - Cr 1 2 3 4 5 6 7 8 9 10 Diss - Copper - Cu 1 2 3 4 5 6 7 8 9 10 Diss - Iron - Fe 1 2 3 4 5 6 7 8 9 10 Diss - Mercury - Hg 1 2 3 4 5 6 7 8 9 10 Diss - Lithium - Li 1 2 3 4 5 6 7 8 9 10 Diss - Manganese - Mn 1 2 3 4 5 6 7 8 9 10 Diss - Molybdenum - Mo 1 2 3 4 5 6 7 8 9 10 Diss - Nickel - Ni 1 2 3 4 5 6 7 8 9 10 Diss - Lead - Pb 1 2 3 4 5 6 7 8 9 10 Diss - Antimony - Sb 1 2 3 4 5 6 7 8 9 10 Diss - Selenium - Se 1 2 3 4 5 6 7 8 9 10 Diss - Strontium - Sr 1 2 3 4 5 6 7 8 9 10 Diss - Titanium - Ti 1 2 3 4 5 6 7 8 9 10 Diss - Thallium - Tl 1 2 3 4 5 6 7 8 9 10 Diss - Uranium - U 1 2 3 4 5 6 7 8 9 10 Diss - Vanadium - V 1 2 3 4 5 6 7 8 9 10 Diss - Zinc - Zn 1 2 3 4 5 6 7 8 9 10 Diss - Calcium - Ca 1 2 3 4 5 6 7 8 9 10 Diss - Potassium - K 1 2 3 4 5 6 7 8 9 10 Diss - Magnesium - Mg 1 2 3 4 5 6 7 8 9 10 Diss - Sodium - Na 1 2 3 4 5 6 7 8 9 10 Diss - Hardness - Ca, Mg 1 2 3 4 5 6 7 8 9 10 MD - Metals Dissolved Lab Filtration 1 2 3 4 5 6 7 8 9 10	Silver - Ag 1 2 3 4 5 6 7 8 9 10 Aluminum - Al 1 2 3 4 5 6 7 8 9 10 Arsenic - As 1 2 3 4 5 6 7 8 9 10 Boron - B 1 2 3 4 5 6 7 8 9 10 Barium - Ba 1 2 3 4 5 6 7 8 9 10 Beryllium - Be 1 2 3 4 5 6 7 8 9 10 Cadmium - Cd 1 2 3 4 5 6 7 8 9 10 Cobalt - Co 1 2 3 4 5 6 7 8 9 10 Chromium - Cr 1 2 3 4 5 6 7 8 9 10 Copper - Cu 1 2 3 4 5 6 7 8 9 10 Iron - Fe 1 2 3 4 5 6 7 8 9 10 Mercury - Hg 1 2 3 4 5 6 7 8 9 10 Lithium - Li 1 2 3 4 5 6 7 8 9 10 Manganese - Mn 1 2 3 4 5 6 7 8 9 10 Molybdenum - Mo 1 2 3 4 5 6 7 8 9 10 Nickel - Ni 1 2 3 4 5 6 7 8 9 10 Lead - Pb 1 2 3 4 5 6 7 8 9 10 Antimony - Sb 1 2 3 4 5 6 7 8 9 10 Selenium - Se 1 2 3 4 5 6 7 8 9 10 Strontium - Sr 1 2 3 4 5 6 7 8 9 10 Titanium - Ti 1 2 3 4 5 6 7 8 9 10 Thallium - Tl 1 2 3 4 5 6 7 8 9 10 Uranium - U 1 2 3 4 5 6 7 8 9 10 Vanadium - V 1 2 3 4 5 6 7 8 9 10 Zinc - Zn 1 2 3 4 5 6 7 8 9 10 Calcium - Ca 1 2 3 4 5 6 7 8 9 10 Potassium - K 1 2 3 4 5 6 7 8 9 10 Magnesium - Mg 1 2 3 4 5 6 7 8 9 10 Sodium - Na 1 2 3 4 5 6 7 8 9 10 Hardness - Ca, Mg 1 2 3 4 5 6 7 8 9 10 LHG - Low Level Mercury Mercury Low Level - Hg 1 2 3 4 5 6 7 8 9 10	GB Total Cyanide - CN 1 2 3 4 5 6 7 8 9 10 GB Amenable Cyanide - CN 1 2 3 4 5 6 7 8 9 10 GCN Available Cyanide - CN 1 2 3 4 5 6 7 8 9 10 CA Chlorophyll 1 2 3 4 5 6 7 8 9 10 GN Ortho Phosphate - OP 1 2 3 4 5 6 7 8 9 10 GN Nitrite - NO ₂ 1 2 3 4 5 6 7 8 9 10 GN Nitrate - NO ₃ (Calc.) 1 2 3 4 5 6 7 8 9 10 GN Suspended Solids - SS 1 2 3 4 5 6 7 8 9 10 GN Dissolved Solids - TDS 1 2 3 4 5 6 7 8 9 10 MN Diss Solids - TDS (Calc.) 1 2 3 4 5 6 7 8 9 10 GN Turbidity 1 2 3 4 5 6 7 8 9 10 MN Total Alkalinity 1 2 3 4 5 6 7 8 9 10 MN Bicarb/Carb Alkalinity (Includes Total Alkalinity) 1 2 3 4 5 6 7 8 9 10 MN Chloride - Cl 1 2 3 4 5 6 7 8 9 10 MN Fluoride - F 1 2 3 4 5 6 7 8 9 10 MN Sulfate - SO ₄ 1 2 3 4 5 6 7 8 9 10 MN Chromium 6 - Cr+6 1 2 3 4 5 6 7 8 9 10 MN Conductivity 1 2 3 4 5 6 7 8 9 10 MN pH 1 2 3 4 5 6 7 8 9 10 GA Chem Oxyg Dem - COD 1 2 3 4 5 6 7 8 9 10 GA Diss Org Carbon - DOC (FF) (Field - Filtered & Preserved) 1 2 3 4 5 6 7 8 9 10 GN Diss Org Carbon - DOC (LF) (Lab - Filtered & Preserved) 1 2 3 4 5 6 7 8 9 10 GA Total Org Carbon - TOC 1 2 3 4 5 6 7 8 9 10 GA Ammonia - NH ₃ 1 2 3 4 5 6 7 8 9 10 GA Nitrate+Nitrite - NO ₃ +NO ₂ 1 2 3 4 5 6 7 8 9 10 GA Kjeldahl Nitrogen - KN 1 2 3 4 5 6 7 8 9 10 GA Total Phosphorus - TP 1 2 3 4 5 6 7 8 9 10

Chain of Custody	Relinquished by	Received By	Date / Time
	Print Name & Org. Signature: Amy Keranen Amy Ker	Print Name & Org. Signature: Jeff Pincumbel JEFF Pincumbel	8-23-15 7:00 AM
	Print Name & Org. Signature: Jeff Pincumbel JEFF Pincumbel	Print Name & Org. Signature: Joshua Pung MDEQ Joshua R Pung	8/25/15 1206
	Print Name & Org. Signature:		



Analysis Request Sheet

Lab Work Order Number 1508211	Project Name Abandoned Mining Wastes - Torch Lake PCB C&H Tamarack City Ops	Matrix ground WATER
Site Code/Project Number 31000098	AY 13	CC Email 1 j.binkley@westonsolutions.com
Dept-Division-District DEQ-RRD-UP District	Index 44251	CC Email 2 danieldickson@westonsolutions.com
State Project Manager Amy Keranen	PCA 30872	CC Email 3 plncumbel@michigan.gov
State Project Manager Email keranena@michigan.gov	Project 456990	Overflow Lab Choice 1
State Project Manager Phone 906-337-0389	Phase 00	Overflow Lab Choice 2
		Accept Analysis hold time codes no
		Sample Collector AK/JP/AB-DEQ-RRD
		Sample Collector Phone 906-337-0389
		Contract Firm Weston Solutions
		Contract Firm Primary Contact Jeff Binkley
		Primary Contact Phone 906-523-5457

Lab Use Only	Field Sample Identification	Collection Date	Collection Time	Container Count	Comments
1	CHTC-GW40-13-17'	8/20/15	1450		
2	CHTC-GW30-7-12'		1520		
3	CHTC-GW43-10-15'		1610		
4	CHTC-GW-				
5	CHTC-GW-				
6	CHTC-GW-				
7	CHTC-GW-				
8	CHTC-GW-				
9	CHTC-GW-				
10	CHTC-GW-				

ORGANIC CHEMISTRY	MAD - DISSOLVED METALS	MA - TOTAL METALS	GENERAL CHEMISTRY
VOA - Volatile Organic Acids Volatiles - Full List BTX/MTBE/TMB only Chlorinated only GRO 1,4 Dioxane METH - Methane, Ethane, Ethene Methane, Ethane, Ethene ON - Pesticides, PCBs Pesticides & PCBs Pesticides only PCBs only Toxaphene Chlordane BNA - Base Neutral Acids BNAs Benzidines PNAs only BNs only Acids only Organic Specialty Requests Library search - Volatiles Library search - SemVol Finger Print DRO/ORO	Diss - Silver - Ag Diss - Aluminum - Al Diss - Arsenic - As Diss - Boron - B Diss - Barium - Ba Diss - Beryllium - Be Diss - Cadmium - Cd Diss - Cobalt - Co Diss - Chromium - Cr Diss - Copper - Cu Diss - Iron - Fe Diss - Mercury - Hg Diss - Lithium - Li Diss - Manganese - Mn Diss - Molybdenum - Mo Diss - Nickel - Ni Diss - Lead - Pb Diss - Antimony - Sb Diss - Selenium - Se Diss - Strontium - Sr Diss - Titanium - Ti Diss - Thallium - Tl Diss - Uranium - U Diss - Vanadium - V Diss - Zinc - Zn Diss - Calcium - Ca Diss - Potassium - K Diss - Magnesium - Mg Diss - Sodium - Na Diss - Hardness - Ca, Mg MD - Metals Dissolved Lab Filtration	Silver - Ag Aluminum - Al Arsenic - As Boron - B Barium - Ba Beryllium - Be Cadmium - Cd Cobalt - Co Chromium - Cr Copper - Cu Iron - Fe Mercury - Hg Lithium - Li Manganese - Mn Molybdenum - Mo Nickel - Ni Lead - Pb Antimony - Sb Selenium - Se Strontium - Sr Titanium - Ti Thallium - Tl Uranium - U Vanadium - V Zinc - Zn Calcium - Ca Potassium - K Magnesium - Mg Sodium - Na Hardness - Ca, Mg LHG - Low Level Mercury Mercury Low Level - Hg	GB Total Cyanide - CN GB Amenable Cyanide - CN GCN Available Cyanide - CN CA Chlorophyll GN Ortho Phosphate - OP GN Nitrite - NO ₂ GN Nitrate - NO ₃ (Calc.) GN Suspended Solids - SS GN Dissolved Solids - TDS MN Diss Solids - TDS (Calc.) GN Turbidity MN Total Alkalinity MN Bicarb/Carb Alkalinity (Includes Total Alkalinity) MN Chloride - Cl MN Fluoride - F MN Sulfate - SO ₄ MN Chromium 6 - Cr+6 MN Conductivity MN pH GA Chem Oxyg Dem - COD GA Diss Org Carbon - DOC (FF) (Field - Filtered & Preserved) GN Diss Org Carbon - DOC (LF) (Lab - Filtered & Preserved) GA Total Org Carbon - TOC GA Ammonia - NH ₃ GA Nitrate+Nitrite - NO ₃ +NO ₂ GA Kjeldahl Nitrogen - KN GA Total Phosphorus - TP

Chain of Custody	Relinquished by	Received By	Date / Time
Print Name & Org. Signature:	Amy Keranen, MDEQ C. Keranen	JEFF PINCUMBE Jeff Pincumbe	8-23-15 7:00 PM
Print Name & Org. Signature:	JEFF PINCUMBE MDEQ Jeff Pincumbe	Joshua Pung MDEQ Joshua R Pung	8/25/15 1206
Print Name & Org. Signature:			



**MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY**

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

14 September 2015

Work Order: 1508219

Price: \$1,116.00

Amy Keranen

MDEQ-RRD-UP

1504 W. Washington St.

Marquette, MI 49855

RE: ABANDONED MINING WASTES-LAKE LINDEN Op

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,

George Krisztian

Laboratory Director



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

Project: ABANDONED MINING WASTES-LAKE LINDEN Ops
Site Code: 31000098
Project Manager: Amy Keranen

Reported:
09/14/2015

Analytical Report for Samples

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Qualifier
CHTC-GW-04-11'-15'	1508219-01	Water	08/23/2015	08/26/2015	
CHTC-GW-05-11'-15'	1508219-02	Water	08/23/2015	08/26/2015	
CHTC-GW-09-13'-17'	1508219-03	Water	08/23/2015	08/26/2015	

Notes and Definitions

X	Methods 8260 & 624 are used to analyze volatile organics that have boiling points below 200 °C. 2-Methylnaphthalene & naphthalene have boiling points above 200 °C and are better suited to analysis by methods 8270 & 625 as semivolatile organics.
A11	Result is estimated due to high initial verification standard criteria failure.
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: CHTC-GW-04-11'-15'

Lab ID: 1508219-01

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	08/28/15	B5H2806	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	08/28/15	B5H2806	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	08/28/15	B5H2806	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/L	1	08/28/15	B5H2806	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	08/28/15	B5H2806	8260	
591-78-6	2-Hexanone	ND	5.0	ug/L	1	08/28/15	B5H2806	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	08/28/15	B5H2806	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	08/28/15	B5H2806	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	08/28/15	B5H2806	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	08/28/15	B5H2806	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
108-86-1	Bromobenzene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	08/28/15	B5H2806	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	08/28/15	B5H2806	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	08/28/15	B5H2806	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	08/28/15	B5H2806	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	



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Client ID: CHTC-GW-04-11'-15'

Lab ID: 1508219-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
74-95-3	Dibromomethane	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	08/28/15	B5H2806	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	08/28/15	B5H2806	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	08/28/15	B5H2806	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	08/28/15	B5H2806	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	08/28/15	B5H2806	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	08/28/15	B5H2806	8260	
74-88-4	Methyl iodide	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	08/28/15	B5H2806	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	08/28/15	B5H2806	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
99-87-6	p-Isopropyl toluene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	08/28/15	B5H2806	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	08/28/15	B5H2806	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	08/28/15	B5H2806	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
110-57-6	trans-1,4-Dichloro-2-butene	ND	5.0	ug/L	1	08/28/15	B5H2806	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
Surrogate: Bromofluorobenzene			99.9 %	85-115		08/28/15	B5H2806	8260	
Surrogate: Dibromofluoromethane			99.3 %	82.7-115		08/28/15	B5H2806	8260	
Surrogate: Toluene-d8			99.0 %	85-115		08/28/15	B5H2806	8260	



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Client ID: CHTC-GW-04-11'-15'

Lab ID: 1508219-01

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	09/01/15	B5H2805	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	09/01/15	B5H2805	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	09/01/15	B5H2805	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
<i>Surrogate: 2-Fluorobiphenyl</i>			36.5 %	24.1-115	09/01/15	B5H2805	8270		
<i>Surrogate: Nitrobenzene-d5</i>			45.8 %	17.8-115	09/01/15	B5H2805	8270		
<i>Surrogate: p-Terphenyl-d14</i>			28.8 %	41.8-115	09/01/15	B5H2805	8270		
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	0.10	ug/L	1	09/08/15	B5I0111	8081/8082	
11104-28-2	Aroclor 1221	ND	0.10	ug/L	1	09/08/15	B5I0111	8081/8082	
11141-16-5	Aroclor 1232	ND	0.10	ug/L	1	09/08/15	B5I0111	8081/8082	
53469-21-9	Aroclor 1242	ND	0.10	ug/L	1	09/08/15	B5I0111	8081/8082	
12672-29-6	Aroclor 1248	ND	0.10	ug/L	1	09/08/15	B5I0111	8081/8082	
11097-69-1	Aroclor 1254	ND	0.10	ug/L	1	09/08/15	B5I0111	8081/8082	
11096-82-5	Aroclor 1260	ND	0.10	ug/L	1	09/08/15	B5I0111	8081/8082	
37324-23-5	Aroclor 1262	ND	0.10	ug/L	1	09/08/15	B5I0111	8081/8082	
11100-14-4	Aroclor 1268	ND	0.10	ug/L	1	09/08/15	B5I0111	8081/8082	
<i>Surrogate: Decachlorobiphenyl</i>			38.6 %	30-150	09/08/15	B5I0111	8081/8082		
<i>Surrogate: Tetrachloro-m-xylene</i>			48.7 %	30-150	09/08/15	B5I0111	8081/8082		



**MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY**

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

Client ID: CHTC-GW-05-11'-15'

Lab ID: 1508219-02

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	08/28/15	B5H2806	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	08/28/15	B5H2806	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	08/28/15	B5H2806	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/L	1	08/28/15	B5H2806	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	08/28/15	B5H2806	8260	
591-78-6	2-Hexanone	ND	5.0	ug/L	1	08/28/15	B5H2806	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	08/28/15	B5H2806	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	08/28/15	B5H2806	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	08/28/15	B5H2806	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	08/28/15	B5H2806	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
108-86-1	Bromobenzene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	08/28/15	B5H2806	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	08/28/15	B5H2806	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	08/28/15	B5H2806	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	08/28/15	B5H2806	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	



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Client ID: CHTC-GW-05-11'-15'

Lab ID: 1508219-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
74-95-3	Dibromomethane	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	08/28/15	B5H2806	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	08/28/15	B5H2806	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	08/28/15	B5H2806	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	08/28/15	B5H2806	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	08/28/15	B5H2806	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	08/28/15	B5H2806	8260	
74-88-4	Methyl iodide	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	08/28/15	B5H2806	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	08/28/15	B5H2806	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
99-87-6	p-Isopropyl toluene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	08/28/15	B5H2806	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	08/28/15	B5H2806	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	08/28/15	B5H2806	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
110-57-6	trans-1,4-Dichloro-2-butene	ND	5.0	ug/L	1	08/28/15	B5H2806	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
Surrogate: Bromofluorobenzene			103 %	85-115		08/28/15	B5H2806	8260	
Surrogate: Dibromofluoromethane			95.8 %	82.7-115		08/28/15	B5H2806	8260	
Surrogate: Toluene-d8			100 %	85-115		08/28/15	B5H2806	8260	



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

Client ID: CHTC-GW-05-11'-15'

Lab ID: 1508219-02

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	09/01/15	B5H2805	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	09/01/15	B5H2805	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	09/01/15	B5H2805	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
<i>Surrogate: 2-Fluorobiphenyl</i>			47.7 %		24.1-115	09/01/15	B5H2805	8270	
<i>Surrogate: Nitrobenzene-d5</i>			55.1 %		17.8-115	09/01/15	B5H2805	8270	
<i>Surrogate: p-Terphenyl-d14</i>			48.1 %		41.8-115	09/01/15	B5H2805	8270	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	0.10	ug/L	1	09/08/15	B5I0111	8081/8082	
11104-28-2	Aroclor 1221	ND	0.10	ug/L	1	09/08/15	B5I0111	8081/8082	
11141-16-5	Aroclor 1232	ND	0.10	ug/L	1	09/08/15	B5I0111	8081/8082	
53469-21-9	Aroclor 1242	ND	0.10	ug/L	1	09/08/15	B5I0111	8081/8082	
12672-29-6	Aroclor 1248	ND	0.10	ug/L	1	09/08/15	B5I0111	8081/8082	
11097-69-1	Aroclor 1254	ND	0.10	ug/L	1	09/08/15	B5I0111	8081/8082	
11096-82-5	Aroclor 1260	ND	0.10	ug/L	1	09/08/15	B5I0111	8081/8082	
37324-23-5	Aroclor 1262	ND	0.10	ug/L	1	09/08/15	B5I0111	8081/8082	
11100-14-4	Aroclor 1268	ND	0.10	ug/L	1	09/08/15	B5I0111	8081/8082	
<i>Surrogate: Decachlorobiphenyl</i>			44.2 %		30-150	09/08/15	B5I0111	8081/8082	
<i>Surrogate: Tetrachloro-m-xylene</i>			58.3 %		30-150	09/08/15	B5I0111	8081/8082	



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ENVIRONMENTAL LABORATORY**

P.O. Box 30270
Lansing, MI 48909
TEL: (517) 335-9800
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Client ID: CHTC-GW-09-13'-17'

Lab ID: 1508219-03

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	08/28/15	B5H2806	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	08/28/15	B5H2806	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	08/28/15	B5H2806	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/L	1	08/28/15	B5H2806	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	08/28/15	B5H2806	8260	
591-78-6	2-Hexanone	ND	5.0	ug/L	1	08/28/15	B5H2806	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	08/28/15	B5H2806	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	08/28/15	B5H2806	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	08/28/15	B5H2806	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	08/28/15	B5H2806	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
108-86-1	Bromobenzene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	08/28/15	B5H2806	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	08/28/15	B5H2806	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	08/28/15	B5H2806	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	08/28/15	B5H2806	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	



**MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY**

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

Client ID: CHTC-GW-09-13'-17'

Lab ID: 1508219-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
74-95-3	Dibromomethane	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	08/28/15	B5H2806	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	08/28/15	B5H2806	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	08/28/15	B5H2806	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	08/28/15	B5H2806	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	08/28/15	B5H2806	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	08/28/15	B5H2806	8260	
74-88-4	Methyl iodide	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	08/28/15	B5H2806	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	08/28/15	B5H2806	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
99-87-6	p-Isopropyl toluene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	08/28/15	B5H2806	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	08/28/15	B5H2806	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	08/28/15	B5H2806	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
110-57-6	trans-1,4-Dichloro-2-butene	ND	5.0	ug/L	1	08/28/15	B5H2806	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	08/28/15	B5H2806	8260	
<i>Surrogate: Bromofluorobenzene</i>			101 %	85-115		08/28/15	B5H2806	8260	
<i>Surrogate: Dibromofluoromethane</i>			99.6 %	82.7-115		08/28/15	B5H2806	8260	
<i>Surrogate: Toluene-d8</i>			100 %	85-115		08/28/15	B5H2806	8260	



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Client ID: CHTC-GW-09-13'-17'

Lab ID: 1508219-03

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	09/01/15	B5H2805	8270	
83-32-9	Acenaphthene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
208-96-8	Acenaphthylene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
120-12-7	Anthracene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
56-55-3	Benz[a]anthracene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
50-32-8	Benzo[a]pyrene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
205-99-2	Benzo[b]fluoranthene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
191-24-2	Benzo[g,h,i]perylene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
207-08-9	Benzo[k]fluoranthene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
218-01-9	Chrysene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
53-70-3	Dibenz[a,h]anthracene	ND	2.0	ug/L	1	09/01/15	B5H2805	8270	
206-44-0	Fluoranthene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
86-73-7	Fluorene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
193-39-5	Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1	09/01/15	B5H2805	8270	
91-20-3	Naphthalene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
85-01-8	Phenanthrene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
129-00-0	Pyrene	ND	1.0	ug/L	1	09/01/15	B5H2805	8270	
<i>Surrogate: 2-Fluorobiphenyl</i>			42.4 %		24.1-115	09/01/15	B5H2805	8270	
<i>Surrogate: Nitrobenzene-d5</i>			42.3 %		17.8-115	09/01/15	B5H2805	8270	
<i>Surrogate: p-Terphenyl-d14</i>			72.3 %		41.8-115	09/01/15	B5H2805	8270	
Organics-PCBs as Aroclors									
12674-11-2	Aroclor 1016	ND	0.10	ug/L	1	09/09/15	B5I0111	8081/8082	
11104-28-2	Aroclor 1221	ND	0.10	ug/L	1	09/09/15	B5I0111	8081/8082	
11141-16-5	Aroclor 1232	ND	0.10	ug/L	1	09/09/15	B5I0111	8081/8082	
53469-21-9	Aroclor 1242	ND	0.10	ug/L	1	09/09/15	B5I0111	8081/8082	
12672-29-6	Aroclor 1248	ND	0.10	ug/L	1	09/09/15	B5I0111	8081/8082	
11097-69-1	Aroclor 1254	ND	0.10	ug/L	1	09/09/15	B5I0111	8081/8082	
11096-82-5	Aroclor 1260	ND	0.10	ug/L	1	09/09/15	B5I0111	8081/8082	
37324-23-5	Aroclor 1262	ND	0.10	ug/L	1	09/09/15	B5I0111	8081/8082	
11100-14-4	Aroclor 1268	ND	0.10	ug/L	1	09/09/15	B5I0111	8081/8082	
<i>Surrogate: Decachlorobiphenyl</i>			43.1 %		30-150	09/09/15	B5I0111	8081/8082	
<i>Surrogate: Tetrachloro-m-xylene</i>			46.8 %		30-150	09/09/15	B5I0111	8081/8082	



Analysis Request Sheet

Lab Work Order Number 1508219	Project Name Abandoned Mining Wastes - Torch Lake PCB C&H Tamarack City Ops	Matrix ground WATER
Site Code/Project Number 31000098	AY 13	CC Email 1 j.binkley@westonsolutions.com
Dept-Division-District DEQ-RRD-UP District	Index 44251	CC Email 2 daniel.hubbey@westonsolutions.com
State Project Manager Amy Keranen	PCA 30872	CC Email 3 pincumbel@michigan.gov
State Project Manager Email keranena@michigan.gov	Project 456990	Overflow Lab Choice 1 no
State Project Manager Phone 906-337-0389	Phase 00	Overflow Lab Choice 2 no
		Accept Analysis hold time codes no
		Sample Collector AK/JP/AB-DEQ-RRD
		Sample Collector Phone 906-337-0389
		Contract Firm Weston Solutions
		Contract Firm Primary Contact Jeff Binkley
		Primary Contact Phone 906-523-5457

Lab Use Only	Field Sample Identification	Collection Date	Collection Time	Container Count	Comments
1	CHTC-GW04-11-15'	8-23-15	0840		
2	CHTC-GW05-11-15'	8-23-15	1040		
3	CHTC-GW09-13-17'	8-23-15	1120		
4	CHTC-GW-				
5	CHTC-GW-				
6	CHTC-GW-				
7	CHTC-GW-				
8	CHTC-GW-				
9	CHTC-GW-				
10	CHTC-GW-				

ORGANIC CHEMISTRY	MAD - DISSOLVED METALS	MA - TOTAL METALS	GENERAL CHEMISTRY
VOA - Volatile Organic Acids 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 - SemiVol 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,Bc,Cd,Cr,Cu,Co,Fe,Pb,Mn,Hg,Mo,Ni,Se,Ag,Ti,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)	Diss - Silver - Ag 1 2 3 4 5 6 7 8 9 10 Diss - Aluminum - Al 1 2 3 4 5 6 7 8 9 10 Diss - Arsenic - As 1 2 3 4 5 6 7 8 9 10 Diss - Boron - B 1 2 3 4 5 6 7 8 9 10 Diss - Barium - Ba 1 2 3 4 5 6 7 8 9 10 Diss - Beryllium - Be 1 2 3 4 5 6 7 8 9 10 Diss - Cadmium - Cd 1 2 3 4 5 6 7 8 9 10 Diss - Cobalt - Co 1 2 3 4 5 6 7 8 9 10 Diss - Chromium - Cr 1 2 3 4 5 6 7 8 9 10 Diss - Copper - Cu 1 2 3 4 5 6 7 8 9 10 Diss - Iron - Fe 1 2 3 4 5 6 7 8 9 10 Diss - Mercury - Hg 1 2 3 4 5 6 7 8 9 10 Diss - Lithium - Li 1 2 3 4 5 6 7 8 9 10 Diss - Manganese - Mn 1 2 3 4 5 6 7 8 9 10 Diss - Molybdenum - Mo 1 2 3 4 5 6 7 8 9 10 Diss - Nickel - Ni 1 2 3 4 5 6 7 8 9 10 Diss - Lead - Pb 1 2 3 4 5 6 7 8 9 10 Diss - Antimony - Sb 1 2 3 4 5 6 7 8 9 10 Diss - Selenium - Se 1 2 3 4 5 6 7 8 9 10 Diss - Strontium - Sr 1 2 3 4 5 6 7 8 9 10 Diss - Titanium - Ti 1 2 3 4 5 6 7 8 9 10 Diss - Thallium - Tl 1 2 3 4 5 6 7 8 9 10 Diss - Uranium - U 1 2 3 4 5 6 7 8 9 10 Diss - Vanadium - V 1 2 3 4 5 6 7 8 9 10 Diss - Zinc - Zn 1 2 3 4 5 6 7 8 9 10 Diss - Calcium - Ca 1 2 3 4 5 6 7 8 9 10 Diss - Potassium - K 1 2 3 4 5 6 7 8 9 10 Diss - Magnesium - Mg 1 2 3 4 5 6 7 8 9 10 Diss - Sodium - Na 1 2 3 4 5 6 7 8 9 10 Diss - Hardness - Ca, Mg 1 2 3 4 5 6 7 8 9 10 MD - Metals Dissolved Lab Filtration 1 2 3 4 5 6 7 8 9 10	Silver - Ag 1 2 3 4 5 6 7 8 9 10 Aluminum - Al 1 2 3 4 5 6 7 8 9 10 Arsenic - As 1 2 3 4 5 6 7 8 9 10 Boron - B 1 2 3 4 5 6 7 8 9 10 Barium - Ba 1 2 3 4 5 6 7 8 9 10 Beryllium - Be 1 2 3 4 5 6 7 8 9 10 Cadmium - Cd 1 2 3 4 5 6 7 8 9 10 Cobalt - Co 1 2 3 4 5 6 7 8 9 10 Chromium - Cr 1 2 3 4 5 6 7 8 9 10 Copper - Cu 1 2 3 4 5 6 7 8 9 10 Iron - Fe 1 2 3 4 5 6 7 8 9 10 Mercury - Hg 1 2 3 4 5 6 7 8 9 10 Lithium - Li 1 2 3 4 5 6 7 8 9 10 Manganese - Mn 1 2 3 4 5 6 7 8 9 10 Molybdenum - Mo 1 2 3 4 5 6 7 8 9 10 Nickel - Ni 1 2 3 4 5 6 7 8 9 10 Lead - Pb 1 2 3 4 5 6 7 8 9 10 Antimony - Sb 1 2 3 4 5 6 7 8 9 10 Selenium - Se 1 2 3 4 5 6 7 8 9 10 Strontium - Sr 1 2 3 4 5 6 7 8 9 10 Titanium - Ti 1 2 3 4 5 6 7 8 9 10 Thallium - Tl 1 2 3 4 5 6 7 8 9 10 Uranium - U 1 2 3 4 5 6 7 8 9 10 Vanadium - V 1 2 3 4 5 6 7 8 9 10 Zinc - Zn 1 2 3 4 5 6 7 8 9 10 Calcium - Ca 1 2 3 4 5 6 7 8 9 10 Potassium - K 1 2 3 4 5 6 7 8 9 10 Magnesium - Mg 1 2 3 4 5 6 7 8 9 10 Sodium - Na 1 2 3 4 5 6 7 8 9 10 Hardness - Ca, Mg 1 2 3 4 5 6 7 8 9 10 LHG - Low Level Mercury Mercury Low Level - Hg 1 2 3 4 5 6 7 8 9 10	GB Total Cyanide - CN 1 2 3 4 5 6 7 8 9 10 GB Amenable Cyanide - CN 1 2 3 4 5 6 7 8 9 10 GCN Available Cyanide - CN 1 2 3 4 5 6 7 8 9 10 CA Chlorophyll 1 2 3 4 5 6 7 8 9 10 GN Ortho Phosphate - OP 1 2 3 4 5 6 7 8 9 10 GN Nitrite - NO ₂ 1 2 3 4 5 6 7 8 9 10 GN Nitrate - NO ₃ (Calc.) 1 2 3 4 5 6 7 8 9 10 GN Suspended Solids - SS 1 2 3 4 5 6 7 8 9 10 GN Dissolved Solids - TDS 1 2 3 4 5 6 7 8 9 10 MN Diss Solids - TDS (Calc.) 1 2 3 4 5 6 7 8 9 10 GN Turbidity 1 2 3 4 5 6 7 8 9 10 MN Total Alkalinity 1 2 3 4 5 6 7 8 9 10 MN Bicar/Carb Alkalinity (Includes Total Alkalinity) 1 2 3 4 5 6 7 8 9 10 MN Chloride - Cl 1 2 3 4 5 6 7 8 9 10 MN Fluoride - F 1 2 3 4 5 6 7 8 9 10 MN Sulfate - SO ₄ 1 2 3 4 5 6 7 8 9 10 MN Chromium 6 - Cr+6 1 2 3 4 5 6 7 8 9 10 MN Conductivity 1 2 3 4 5 6 7 8 9 10 MN pH 1 2 3 4 5 6 7 8 9 10 GA Chem Oxyg Dem - COD 1 2 3 4 5 6 7 8 9 10 GA Diss Org Carbon - DOC (FF) (Field - Filtered & Preserved) 1 2 3 4 5 6 7 8 9 10 GN Diss Org Carbon - DOC (LF) (Lab - Filtered & Preserved) 1 2 3 4 5 6 7 8 9 10 GA Total Org Carbon - TOC 1 2 3 4 5 6 7 8 9 10 GA Ammonia - NH ₃ 1 2 3 4 5 6 7 8 9 10 GA Nitrate+Nitrite - NO ₃ +NO ₂ 1 2 3 4 5 6 7 8 9 10 GA Kjeldahl Nitrogen - KN 1 2 3 4 5 6 7 8 9 10 GA Total Phosphorus - TP 1 2 3 4 5 6 7 8 9 10

Chain of Custody	Relinquished by	Received By	Date / Time
	Print Name & Org. Amy Keranen, DEQ	UPS	8/25/15 3p
	Signature: <i>Amy Keranen</i>		
	Print Name & Org. UPS	Michelle Smith	8/26/15 1:13p
	Signature: 42316900895	<i>Michelle Smith</i>	
	Print Name & Org.		
	Signature:		