



INDEPENDENT TESTING LAB

830 ROBINWOOD COURT, TRAVERSE CITY, MI 49686

PH: 231-929-0905

FAX: 231-929-0894

www.gtanalytical.com

Company: MACKINAC ENVIRONMENTAL
Name:
ClientProj: M11-1853
GTA ProjNo: 110519-10

Site Addr: FREEDOM #28

Sampled By: PJK/MET
Date Rec: 11/5/2019
Time Rec: 12:40 PM

Sample No.	Sample ID	Date Sampled	Time Sampled	Sample Matrix
1	B-11 @ 5'	10/31/2019		SOIL
2	B-12 @ 5'	10/31/2019		SOIL
3	B-13 @ 5'	10/31/2019		SOIL
4	B-14 @ 5'	10/31/2019		SOIL
5	MW-6 @ 7'	10/31/2019		SOIL

ELECTRONIC SIGNATURE REPORT. This is a final report for the following pages of data for the samples specified above. All analysis was performed by the methods stated and all quality control measures required were completed. All quality control information is available upon request.

Kirk L Chase

Kirk L. Chase/Chemist
Grand Traverse Analytical
830 Robinwood Court
Traverse City, MI 49686
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SP: 231-590-0291
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COMPANY: MACKINAC ENVIRONMENTAL
 PROJECT NO: M11-1853
 LOCATION: FREEDOM #28
 MI
 SAMPLE MATRIX: SOIL
 SAMPLE ID: B-11 @ 5'

GTA PROJECT NO: 110519-10
 GTA SAMPLE NO: 1
 DATE SAMPLED: 10/31/2019
 TIME SAMPLED:
 DATE RECEIVED: 11/5/2019
 TIME RECEIVED: 12:40 PM

SAMPLED BY: PJK/MET

**THIS SAMPLE WAS RECEIVED MEOH PRESERVED.

EPA 8260B VOLATILE ORGANICS

<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date</u> <u>Extracted</u>	<u>Date</u> <u>Complete</u>	<u>Prep Method</u>
Benzene	57	50	ug/Kg (PPB)	MR	10/31/2019	11/7/2019	EPA 5035A
Toluene	230	50					
Ethylbenzene	ND	50					
Xylene(Total)	280	150					
1,2,4-Trimethylbenzene	84	50					
1,3,5-Trimethylbenzene	ND	50					
Methyl-t-Butyl Ether	ND	250					
Naphthalene	ND	250					
2-Methylnaphthalene	ND	250					

SOIL/SOLIDS CONCENTRATIONS ARE DETERMINED ON A DRY WEIGHT BASIS.
 ND = NOT DETECTED, RESULT < LOD
 LOD = LIMIT OF DETECTION

COMPANY: MACKINAC ENVIRONMENTAL
PROJECT NO: M11-1853
LOCATION: FREEDOM #28
MI
SAMPLE MATRIX: SOIL
SAMPLE ID: B-12 @ 5'

GTA PROJECT NO: 110519-10
GTA SAMPLE NO: 2
DATE SAMPLED: 10/31/2019
TIME SAMPLED:
DATE RECEIVED: 11/5/2019
TIME RECEIVED: 12:40 PM
SAMPLED BY: PJK/MET

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EPA 8260B VOLATILE ORGANICS

<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date</u> <u>Extracted</u>	<u>Date</u> <u>Complete</u>	<u>Prep Method</u>
Benzene	ND	50	ug/Kg (PPB)	MR	10/31/2019	11/7/2019	EPA 5035A
Toluene	ND	50					
Ethylbenzene	ND	50					
Xylene(Total)	ND	150					
1,2,4-Trimethylbenzene	ND	50					
1,3,5-Trimethylbenzene	ND	50					
Methyl-t-Butyl Ether	ND	250					
Naphthalene	ND	250					
2-Methylnaphthalene	ND	250					

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COMPANY: MACKINAC ENVIRONMENTAL
PROJECT NO: M11-1853
LOCATION: FREEDOM #28
MI
SAMPLE MATRIX: SOIL
SAMPLE ID: B-13 @ 5'

GTA PROJECT NO: 110519-10
GTA SAMPLE NO: 3
DATE SAMPLED: 10/31/2019
TIME SAMPLED:
DATE RECEIVED: 11/5/2019
TIME RECEIVED: 12:40 PM
SAMPLED BY: PJK/MET

**THIS SAMPLE WAS RECEIVED MEOH PRESERVED.

EPA 8260B VOLATILE ORGANICS

<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date</u> <u>Extracted</u>	<u>Date</u> <u>Complete</u>	<u>Prep Method</u>
Benzene	66	50	ug/Kg (PPB)	MR	10/31/2019	11/7/2019	EPA 5035A
Toluene	170	50					
Ethylbenzene	ND	50					
Xylene(Total)	270	150					
1,2,4-Trimethylbenzene	100	50					
1,3,5-Trimethylbenzene	ND	50					
Methyl-t-Butyl Ether	ND	250					
Naphthalene	ND	250					
2-Methylnaphthalene	ND	250					

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COMPANY: MACKINAC ENVIRONMENTAL
PROJECT NO: M11-1853
LOCATION: FREEDOM #28
MI
SAMPLE MATRIX: SOIL
SAMPLE ID: B-14 @ 5'

GTA PROJECT NO: 110519-10
GTA SAMPLE NO: 4
DATE SAMPLED: 10/31/2019
TIME SAMPLED:
DATE RECEIVED: 11/5/2019
TIME RECEIVED: 12:40 PM
SAMPLED BY: PJK/MET

**THIS SAMPLE WAS RECEIVED MEOH PRESERVED.

EPA 8260B VOLATILE ORGANICS

<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date</u> <u>Extracted</u>	<u>Date</u> <u>Complete</u>	<u>Prep Method</u>
Benzene	190	50	ug/Kg (PPB)	MR	10/31/2019	11/8/2019	EPA 5035A
Toluene	5,000	50					
Ethylbenzene	20,000	450					
Xylene(Total)	230,000	1,350					
1,2,4-Trimethylbenzene	230,000	450					
1,3,5-Trimethylbenzene	62,000	450					
Methyl-t-Butyl Ether	ND	250					
Naphthalene	38,000	1,130					
2-Methylnaphthalene	32,000	1,130					

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COMPANY: MACKINAC ENVIRONMENTAL
 PROJECT NO: M11-1853
 LOCATION: FREEDOM #28
 MI
 SAMPLE MATRIX: SOIL
 SAMPLE ID: MW-6 @ 7'

GTA PROJECT NO: 110519-10
 GTA SAMPLE NO: 5
 DATE SAMPLED: 10/31/2019
 TIME SAMPLED:
 DATE RECEIVED: 11/5/2019
 TIME RECEIVED: 12:40 PM

SAMPLED BY: PJK/MET

**THIS SAMPLE WAS RECEIVED MEOH PRESERVED.

EPA 8260B VOLATILE ORGANICS

<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date</u> <u>Extracted</u>	<u>Date</u> <u>Complete</u>	<u>Prep Method</u>
Benzene	ND	50	ug/Kg (PPB)	MR	10/31/2019	11/7/2019	EPA 5035A
Toluene	ND	50					
Ethylbenzene	ND	50					
Xylene(Total)	ND	150					
1,2,4-Trimethylbenzene	ND	50					
1,3,5-Trimethylbenzene	ND	50					
Methyl-t-Butyl Ether	ND	250					
Naphthalene	ND	250					
2-Methylnaphthalene	ND	250					

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COMPANY: MACKINAC ENVIRONMENTAL

NAME:
PROJECT NO: M11-1853

LOCATION: FREEDOM #28

MI

GTA PROJECT NO: 110519-
SAMPLED BY: PJK/MET

DATE SAMPLED: 10/31/2019
TIME SAMPLED:

SAMPLE MATRIX: SOIL

DATE RECEIVED: 11/5/2019
TIME RECEIVED: 12:40 PM

MOISTURE

<u>No:</u>	<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date Complete</u>
	SAMPLE ID: B-11 @ 5'					
	% MOISTURE EPA 3550C	15	0.050	% OF	AS	11/5/2019
	SAMPLE ID: B-12 @ 5'					
	% MOISTURE EPA 3550C	15	0.050	% OF	AS	11/5/2019
	SAMPLE ID: B-13 @ 5'					
	% MOISTURE EPA 3550C	8.9	0.050	% OF	AS	11/5/2019
	SAMPLE ID: B-14 @ 5'					
	% MOISTURE EPA 3550C	7.8	0.050	% OF	AS	11/5/2019
	SAMPLE ID: MW-6 @ 7'					
	% MOISTURE EPA 3550C	10	0.050	% OF	AS	11/5/2019

CHAIN OF CUSTODY

PROJECT NUMBER <i>M11-1853</i>	SITE NAME/ADDRESS <i>Freedom #28</i>	COMPANY/NAME <i>124 West B</i>
SAMPLED BY <i>PJK</i>	COMPANY <i>MET</i>	GTA PROJECT # <i>110579-10</i>

SAMPLE INFORMATION

#	SAMPLE ID	DATE SAMPLED	TIME	MATRIX	ANALYSIS
1	<i>B-11 @ 5'</i>	<i>10-31-19</i>		<i>Soil</i>	<i>ULG</i>
2	<i>B-12 @ 5'</i>				
3	<i>B-13 @ 5'</i>				
4	<i>B-14 @ 5'</i>				
5	<i>MW-6 @ 7'</i>				
6	<i>MW-7 @ 7'</i>				<i>NO SAMPLE</i>

BILL TO: *met@sault.com*

REPORT TO:
Paul Kreski
met@sault.com

RELEASED BY <i>Paul Kreski</i>	DATE/TIME <i>11-4-19</i>	RECEIVED BY <i>Paul Kreski</i>	DATE/TIME <i>11-4-19 12:40</i> <i>see 4.00</i>
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REQUESTED TAT STANDARD 1 BUSINESS DAY 2 BUSINESS DAYS 3 BUSINESS DAYS



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Company: MACKINAC ENVIRONMENTAL
Name:
ClientProj: M11-1853
GTA ProjNo: 110719-7

Site Addr: FREEDOM #28

Sampled By: PJK/MET
Date Rec: 11/7/2019
Time Rec: 12:50 PM

Sample No.	Sample ID	Date Sampled	Time Sampled	Sample Matrix
1	MW-7	10/31/2019		SOIL

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Kirk L. Chase/Chemist
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Fx: 231-929-0894
SP: 231-590-0291
kirk@gtanalytical.com

COMPANY: MACKINAC ENVIRONMENTAL
PROJECT NO: M11-1853
LOCATION: FREEDOM #28
MI
SAMPLE MATRIX: SOIL
SAMPLE ID: MW-7

GTA PROJECT NO: 110719-7
GTA SAMPLE NO: 1
DATE SAMPLED: 10/31/2019
TIME SAMPLED:
DATE RECEIVED: 11/7/2019
TIME RECEIVED: 12:50 PM

SAMPLED BY: PJK/MET

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EPA 8260B VOLATILE ORGANICS

<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date</u> <u>Extracted</u>	<u>Date</u> <u>Complete</u>	<u>Prep Method</u>
Benzene	ND	50	ug/Kg (PPB)	MR	10/31/2019	11/8/2019	EPA 5035A
Toluene	ND	50					
Ethylbenzene	ND	50					
Xylene(Total)	ND	150					
1,2,4-Trimethylbenzene	ND	50					
1,3,5-Trimethylbenzene	ND	50					
Methyl-t-Butyl Ether	ND	250					
Naphthalene	ND	250					
2-Methylnaphthalene	ND	250					

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COMPANY: MACKINAC ENVIRONMENTAL

GTA PROJECT NO: 110719-7

NAME:
PROJECT NO: M11-1853

SAMPLED BY: PJK/MET

DATE SAMPLED: 10/31/2019
TIME SAMPLED:

LOCATION: FREEDOM #28

SAMPLE MATRIX: SOIL

DATE RECEIVED: 11/7/2019
TIME RECEIVED: 12:50 PM

MI

MOISTURE

<u>No:</u>	<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date Complete</u>
SAMPLE ID: MW-7						
% MOISTURE EPA 3550C		7.4	0.050	% OF SAMPLE	AS	11/7/2019

