



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: M19-3099
GTA ProjNo: 091319-2

Site Addr: MIDWEST SIDING & SALES

Sampled By: BRAD JEFFERS/MET
Date Rec: 9/13/2019
Time Rec: 12:30 PM

Sample No.	Sample ID	Date Sampled	Time Sampled	Sample Matrix
1	S-1 @ 0-6"	9/12/2019		SOIL
2	S-2 @ 0-6"	9/12/2019		SOIL
3	S-3 @ 0-6"	9/12/2019		SOIL
4	S-4 @ 0-6"	9/12/2019		SOIL
5	S-7 @ 0-6"	9/12/2019		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
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COMPANY: MACKINAC ENVIRONMENTAL
PROJECT NO: M19-3099
LOCATION: MIDWEST SIDING & SALES

GTA PROJECT NO: 091319-2
GTA SAMPLE NO: 1

DATE SAMPLED: 9/12/2019
TIME SAMPLED:

SAMPLED BY: MI
BRAD JEFFERS/MET

DATE RECEIVED: 9/13/2019
TIME RECEIVED: 12:30 PM

SAMPLE MATRIX: SOIL
SAMPLE ID: S-1 @ 0-6"

PNA EPA 8270D (SIM)

<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>
Acenaphthene	ND	330	ug/Kg (PPB)	KC/TR	9/24/2019	9/25/2019	EPA 3550B
Acenaphthylene	ND	330					
Anthracene	ND	330					
Benzo(a)anthracene	ND	330					
Benzo(b)fluoranthene	ND	330					
Benzo(k)fluoranthene	ND	330					
Benzo(a)pyrene	ND	330					
Benzo(ghi)perylene	ND	330					
2-Chloronaphthalene	ND	330					
Chrysene	ND	330					
Dibenz(ah)anthracene	ND	330					
Fluoranthene	ND	330					
Fluorene	ND	330					
Indeno(123-cd)pyrene	ND	330					
2-Methylnaphthalene	ND	330					
Naphthalene	ND	330					
Phenanthrene	ND	330					
Pyrene	ND	330					

SOIL/SOLIDS CONCENTRATIONS ARE DETERMINED ON A DRY WEIGHT BASIS.

ND = NOT DETECTED

LOD = LIMIT OF DETECTION

COMPANY: MACKINAC ENVIRONMENTAL
PROJECT NO: M19-3099
LOCATION: MIDWEST SIDING & SALES

GTA PROJECT NO: 091319-2
GTA SAMPLE NO: 2

DATE SAMPLED: 9/12/2019
TIME SAMPLED:

SAMPLED BY: MI
BRAD JEFFERS/MET

DATE RECEIVED: 9/13/2019
TIME RECEIVED: 12:30 PM

SAMPLE MATRIX: SOIL
SAMPLE ID: S-2 @ 0-6"

PNA EPA 8270D (SIM)

<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>
Acenaphthene	ND	330	ug/Kg (PPB)	KC/TR	9/24/2019	9/25/2019	EPA 3550B
Acenaphthylene	ND	330					
Anthracene	ND	330					
Benzo(a)anthracene	ND	330					
Benzo(b)fluoranthene	ND	330					
Benzo(k)fluoranthene	ND	330					
Benzo(a)pyrene	ND	330					
Benzo(ghi)perylene	ND	330					
2-Chloronaphthalene	ND	330					
Chrysene	ND	330					
Dibenz(ah)anthracene	ND	330					
Fluoranthene	ND	330					
Fluorene	ND	330					
Indeno(123-cd)pyrene	ND	330					
2-Methylnaphthalene	ND	330					
Naphthalene	ND	330					
Phenanthrene	ND	330					
Pyrene	ND	330					

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COMPANY: MACKINAC ENVIRONMENTAL
PROJECT NO: M19-3099
LOCATION: MIDWEST SIDING & SALES

GTA PROJECT NO: 091319-2
GTA SAMPLE NO: 3

DATE SAMPLED: 9/12/2019
TIME SAMPLED:

SAMPLED BY: MI
BRAD JEFFERS/MET

DATE RECEIVED: 9/13/2019
TIME RECEIVED: 12:30 PM

SAMPLE MATRIX: SOIL
SAMPLE ID: S-3 @ 0-6"

PNA EPA 8270D (SIM)

<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>
Acenaphthene	ND	330	ug/Kg (PPB)	KC/TR	9/24/2019	9/25/2019	EPA 3550B
Acenaphthylene	ND	330					
Anthracene	ND	330					
Benzo(a)anthracene	ND	330					
Benzo(b)fluoranthene	ND	330					
Benzo(k)fluoranthene	ND	330					
Benzo(a)pyrene	ND	330					
Benzo(ghi)perylene	ND	330					
2-Chloronaphthalene	ND	330					
Chrysene	ND	330					
Dibenz(ah)anthracene	ND	330					
Fluoranthene	ND	330					
Fluorene	ND	330					
Indeno(123-cd)pyrene	ND	330					
2-Methylnaphthalene	ND	330					
Naphthalene	ND	330					
Phenanthrene	ND	330					
Pyrene	ND	330					

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COMPANY: MACKINAC ENVIRONMENTAL
PROJECT NO: M19-3099
LOCATION: MIDWEST SIDING & SALES

GTA PROJECT NO: 091319-2
GTA SAMPLE NO: 4

DATE SAMPLED: 9/12/2019
TIME SAMPLED:

SAMPLED BY: MI
BRAD JEFFERS/MET

DATE RECEIVED: 9/13/2019
TIME RECEIVED: 12:30 PM

SAMPLE MATRIX: SOIL
SAMPLE ID: S-4 @ 0-6"

PNA EPA 8270D (SIM)

<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>
Acenaphthene	ND	330	ug/Kg (PPB)	KC/TR	9/24/2019	9/25/2019	EPA 3550B
Acenaphthylene	ND	330					
Anthracene	ND	330					
Benzo(a)anthracene	ND	330					
Benzo(b)fluoranthene	ND	330					
Benzo(k)fluoranthene	ND	330					
Benzo(a)pyrene	ND	330					
Benzo(ghi)perylene	ND	330					
2-Chloronaphthalene	ND	330					
Chrysene	ND	330					
Dibenz(ah)anthracene	ND	330					
Fluoranthene	ND	330					
Fluorene	ND	330					
Indeno(123-cd)pyrene	ND	330					
2-Methylnaphthalene	ND	330					
Naphthalene	ND	330					
Phenanthrene	450	330					
Pyrene	ND	330					

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COMPANY: MACKINAC ENVIRONMENTAL
PROJECT NO: M19-3099
LOCATION: MIDWEST SIDING & SALES

GTA PROJECT NO: 091319-2
GTA SAMPLE NO: 5

DATE SAMPLED: 9/12/2019
TIME SAMPLED:

SAMPLED BY: MI
BRAD JEFFERS/MET

DATE RECEIVED: 9/13/2019
TIME RECEIVED: 12:30 PM

SAMPLE MATRIX: SOIL
SAMPLE ID: S-7 @ 0-6"

PNA EPA 8270D (SIM)

<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>
Acenaphthene	ND	330	ug/Kg (PPB)	KC/TR	9/24/2019	9/25/2019	EPA 3550B
Acenaphthylene	ND	330					
Anthracene	ND	330					
Benzo(a)anthracene	630	330					
Benzo(b)fluoranthene	970	330					
Benzo(k)fluoranthene	580	330					
Benzo(a)pyrene	460	330					
Benzo(ghi)perylene	ND	330					
2-Chloronaphthalene	ND	330					
Chrysene	770	330					
Dibenz(ah)anthracene	ND	330					
Fluoranthene	740	330					
Fluorene	ND	330					
Indeno(123-cd)pyrene	400	330					
2-Methylnaphthalene	ND	330					
Naphthalene	ND	330					
Phenanthrene	ND	330					
Pyrene	610	330					

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COMPANY: MACKINAC ENVIRONMENTAL

PROJECT NO: M19-3099

LOCATION: MIDWEST SIDING & SALES

SAMPLED BY: MI

BRAD JEFFERS/MET

SAMPLE ID: S-1 @ 0-6"

GTA PROJECT NO: 091319-2

GTA SAMPLE NO: 1

DATE SAMPLED: 9/12/2019

TIME SAMPLED:

DATE RECEIVED: 9/13/2019

TIME RECEIVED: 12:30 PM

SAMPLE MATRIX: SOIL

METALS

<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date Completed</u>	<u>Digestion Method</u>
ARSENIC TOTAL EPA 6020A	0.53	0.28	mg/Kg (PPM)	MR/TR	9/23/2019	EPA 3050B
BARIUM TOTAL EPA 6020A	13	0.28	mg/Kg (PPM)	MR/TR	9/23/2019	EPA 3050B
CADMIUM TOTAL EPA 6020A	ND	0.28	mg/Kg (PPM)	MR/TR	9/23/2019	EPA 3050B
CHROMIUM TOTAL EPA 6020A	3.4	0.28	mg/Kg (PPM)	MR/TR	9/23/2019	EPA 3050B
LEAD TOTAL EPA 6020A	9.9	0.28	mg/Kg (PPM)	MR/TR	9/23/2019	EPA 3050B
MERCURY TOTAL EPA 7471B	ND	0.013	mg/Kg (PPM)	MR	9/25/2019	EPA 7471
SELENIUM TOTAL EPA 6020A	ND	0.28	mg/Kg (PPM)	MR/TR	9/23/2019	EPA 3050B
SILVER TOTAL EPA 6020A	ND	0.28	mg/Kg (PPM)	MR/TR	9/23/2019	EPA 3050B

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PROJECT NO: M19-3099

LOCATION: MIDWEST SIDING & SALES

SAMPLED BY: MI

BRAD JEFFERS/MET

SAMPLE ID: S-2 @ 0-6"

GTA PROJECT NO: 091319-2

GTA SAMPLE NO: 2

DATE SAMPLED: 9/12/2019

TIME SAMPLED:

DATE RECEIVED: 9/13/2019

TIME RECEIVED: 12:30 PM

SAMPLE MATRIX: SOIL

METALS

<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date Completed</u>	<u>Digestion Method</u>
ARSENIC TOTAL EPA 6020A	1.6	0.43	mg/Kg (PPM)	MR/TR	9/23/2019	EPA 3050B
BARIUM TOTAL EPA 6020A	87	0.43	mg/Kg (PPM)	MR/TR	9/23/2019	EPA 3050B
CADMIUM TOTAL EPA 6020A	ND	0.43	mg/Kg (PPM)	MR/TR	9/23/2019	EPA 3050B
CHROMIUM TOTAL EPA 6020A	9.1	0.43	mg/Kg (PPM)	MR/TR	9/23/2019	EPA 3050B
LEAD TOTAL EPA 6020A	17	0.43	mg/Kg (PPM)	MR/TR	9/23/2019	EPA 3050B
MERCURY TOTAL EPA 7471B	ND	0.017	mg/Kg (PPM)	MR	9/25/2019	EPA 7471
SELENIUM TOTAL EPA 6020A	ND	0.43	mg/Kg (PPM)	MR/TR	9/23/2019	EPA 3050B
SILVER TOTAL EPA 6020A	ND	0.43	mg/Kg (PPM)	MR/TR	9/23/2019	EPA 3050B

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PROJECT NO: M19-3099

LOCATION: MIDWEST SIDING & SALES

SAMPLED BY: MI

BRAD JEFFERS/MET

SAMPLE ID: S-3 @ 0-6"

GTA PROJECT NO: 091319-2

GTA SAMPLE NO: 3

DATE SAMPLED: 9/12/2019

TIME SAMPLED:

DATE RECEIVED: 9/13/2019

TIME RECEIVED: 12:30 PM

SAMPLE MATRIX: SOIL

METALS

<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date Completed</u>	<u>Digestion Method</u>
ARSENIC TOTAL EPA 6020A	6.4	0.40	mg/Kg (PPM)	MR/TR	9/23/2019	EPA 3050B
BARIUM TOTAL EPA 6020A	110	0.40	mg/Kg (PPM)	MR/TR	9/23/2019	EPA 3050B
CADMIUM TOTAL EPA 6020A	ND	0.40	mg/Kg (PPM)	MR/TR	9/23/2019	EPA 3050B
CHROMIUM TOTAL EPA 6020A	9.6	0.40	mg/Kg (PPM)	MR/TR	9/23/2019	EPA 3050B
LEAD TOTAL EPA 6020A	260	0.40	mg/Kg (PPM)	MR/TR	9/23/2019	EPA 3050B
MERCURY TOTAL EPA 7471B	0.049	0.017	mg/Kg (PPM)	MR	9/25/2019	EPA 7471
SELENIUM TOTAL EPA 6020A	ND	0.40	mg/Kg (PPM)	MR/TR	9/23/2019	EPA 3050B
SILVER TOTAL EPA 6020A	ND	0.40	mg/Kg (PPM)	MR/TR	9/23/2019	EPA 3050B

ND = NOT DETECTED, RESULT < LOD

LOD = LIMIT OF DETECTION

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COMPANY: MACKINAC ENVIRONMENTAL

PROJECT NO: M19-3099

LOCATION: MIDWEST SIDING & SALES

SAMPLED BY: MI

BRAD JEFFERS/MET

SAMPLE ID: S-4 @ 0-6"

GTA PROJECT NO: 091319-2

GTA SAMPLE NO: 4

DATE SAMPLED: 9/12/2019

TIME SAMPLED:

DATE RECEIVED: 9/13/2019

TIME RECEIVED: 12:30 PM

SAMPLE MATRIX: SOIL

METALS

<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date Completed</u>	<u>Digestion Method</u>
ARSENIC TOTAL EPA 6020A	2.2	0.38	mg/Kg (PPM)	MR/TR	9/23/2019	EPA 3050B
BARIUM TOTAL EPA 6020A	59	0.38	mg/Kg (PPM)	MR/TR	9/23/2019	EPA 3050B
CADMIUM TOTAL EPA 6020A	ND	0.38	mg/Kg (PPM)	MR/TR	9/23/2019	EPA 3050B
CHROMIUM TOTAL EPA 6020A	8.0	0.38	mg/Kg (PPM)	MR/TR	9/23/2019	EPA 3050B
LEAD TOTAL EPA 6020A	27	0.38	mg/Kg (PPM)	MR/TR	9/23/2019	EPA 3050B
MERCURY TOTAL EPA 7471B	0.038	0.016	mg/Kg (PPM)	MR	9/25/2019	EPA 7471
SELENIUM TOTAL EPA 6020A	ND	0.38	mg/Kg (PPM)	MR/TR	9/23/2019	EPA 3050B
SILVER TOTAL EPA 6020A	ND	0.38	mg/Kg (PPM)	MR/TR	9/23/2019	EPA 3050B

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COMPANY: MACKINAC ENVIRONMENTAL

PROJECT NO: M19-3099

LOCATION: MIDWEST SIDING & SALES

SAMPLED BY: MI

BRAD JEFFERS/MET

SAMPLE ID: S-7 @ 0-6"

GTA PROJECT NO: 091319-2

GTA SAMPLE NO: 5

DATE SAMPLED: 9/12/2019

TIME SAMPLED:

DATE RECEIVED: 9/13/2019

TIME RECEIVED: 12:30 PM

SAMPLE MATRIX: SOIL

METALS

<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date Completed</u>	<u>Digestion Method</u>
ARSENIC TOTAL EPA 6020A	0.91	0.28	mg/Kg (PPM)	MR/TR	9/23/2019	EPA 3050B
BARIUM TOTAL EPA 6020A	23	0.28	mg/Kg (PPM)	MR/TR	9/23/2019	EPA 3050B
CADMIUM TOTAL EPA 6020A	ND	0.28	mg/Kg (PPM)	MR/TR	9/23/2019	EPA 3050B
CHROMIUM TOTAL EPA 6020A	4.8	0.28	mg/Kg (PPM)	MR/TR	9/23/2019	EPA 3050B
LEAD TOTAL EPA 6020A	17	0.28	mg/Kg (PPM)	MR/TR	9/23/2019	EPA 3050B
MERCURY TOTAL EPA 7471B	0.022	0.013	mg/Kg (PPM)	MR	9/25/2019	EPA 7471
SELENIUM TOTAL EPA 6020A	ND	0.28	mg/Kg (PPM)	MR/TR	9/23/2019	EPA 3050B
SILVER TOTAL EPA 6020A	ND	0.28	mg/Kg (PPM)	MR/TR	9/23/2019	EPA 3050B

ND = NOT DETECTED, RESULT < LOD

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COMPANY: MACKINAC ENVIRONMENTAL

GTA PROJECT NO: 091319-2

NAME:

SAMPLED BY: BRAD JEFFERS/MET

PROJECT NO: M19-3099

DATE SAMPLED: 9/12/2019

TIME SAMPLED:

LOCATION: MIDWEST SIDING & SALES

SAMPLE MATRIX: SOIL

DATE RECEIVED: 9/13/2019

TIME RECEIVED: 12:30 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: S-1 @ 0-6"	% MOISTURE EPA 3550C	5.2	0.050	% OF SMAPLE	AS	9/13/2019
SAMPLE ID: S-2 @ 0-6"	% MOISTURE EPA 3550C	10	0.050	% OF SMAPLE	AS	9/13/2019
SAMPLE ID: S-3 @ 0-6"	% MOISTURE EPA 3550C	12	0.050	% OF SMAPLE	AS	9/13/2019
SAMPLE ID: S-4 @ 0-6"	% MOISTURE EPA 3550C	14	0.050	% OF SMAPLE	AS	9/13/2019
SAMPLE ID: S-7 @ 0-6"	% MOISTURE EPA 3550C	11	0.050	% OF SMAPLE	AS	9/13/2019

CHAIN OF CUSTODY

PROJECT NUMBER M 19-3099	SITE NAME/ADDRESS Midwest Siding & Sales	COMPANY/NAME
SAMPLED BY Brad Jeffers	COMPANY MET	GTA PROJECT # 091319-2

SAMPLE INFORMATION

#	SAMPLE ID	DATE SAMPLED	TIME	MATRIX	ANALYSIS
1	S-1 e c-c"	9/12/19		soil	PNA, RCRA 8 metals
2	S-2 e c-c"				
3	S-3 e c-c"				
4	S-4 e c-c"				
5	S-7 e c-c"				

BILL TO:	MET Po Box 485 St. Ignace, MI 49781	REPORT TO:	met@saath.com
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RELEASED BY	DATE/TIME	RECEIVED BY	DATE/TIME
Brad Jeffers	9/12/19 e 12:20	Hy	9/13/19 12:30

REQUESTED TAT ☒ STANDARD ☐ 1 BUSINESS DAY ☐ 2 BUSINESS DAYS ☐ 3 BUSINESS DAYS