Grand Traverse Analytical, LLC

INDEPENDENT TESTING LAB
830 ROBINWOOD COURT, TRAVERSE CITY, MI 49686
PH: 231-929-0905 FAX: 231-929-0894
www.gtanalytical.com

Company:	MACKINAC ENVIRONMENTAL	Site Addr:	TROUT LAKE CCRC
Name:			
ClientProj:	M93-232		
		Sampled By:	SLF/MJR - MET
GTA ProjNo:	121319-4	Date Rec:	12/13/2019
		Time Rec:	11:46 AM

Sample No.	Sample ID	Date Sampled	Time Sampled	Sample Matrix
1	MW-7	12/10/2019		WATER
2	VW-2	12/10/2019		WATER
3	MW-15	12/10/2019		WATER
4	MW-2	12/10/2019		WATER
5	VW-1	12/10/2019		WATER
6	MW-14	12/10/2019		WATER
7	MW-1	12/10/2019		WATER
8	VW-3	12/10/2019		WATER
9	MW-6R	12/10/2019		WATER

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 Chase

Kirk L. Chase/Chemist
Grand Traverse Analytical
830 Robinwood Court
Traverse City, MI 49686
Ph: 231-929-0905
Fx: 231-929-0894
SP: 231-590-0291
kirk@gtanalytical.com

Grand Traverse Analytical, LLC
INDEPENDENT TESTING LAB
830 ROBINWOOD COURT, TRAVERSE CITY, MI 49686
PH: 231-929-0905 FAX: 231-929-0894
www.gtanalytical.com

COMPANY:	MACKINAC ENVIRONMENTAL	GTA PROJECT NO:	121319-4
		GTA SAMPLE NO:	1
PROJECT NO:	M93-232		
LOCATION:	TROUT LAKE CCRC	DATE SAMPLED:	12/10/2019
		TIME SAMPLED:	
		DATE RECEIVED:	12/13/2019
	MI	TIME RECEIVED:	11:46 AM
SAMPLE MATRIX:	WATER		
SAMPLE ID:	MW-7	SAMPLED BY:	SLF/MJR - MET

EPA 8260B VOLATILE ORGANICS

Analysis	Concentration	LOD	Units	Analyst	Date Extracted	Date Complete	Prep Method
Benzene	ND	1.0	ug/L (PPB)	MR		12/18/2019	EPA 5030B
Toluene	ND	1.0					
Ethylbenzene	3.2	1.0					
Xylene(Total)	11	3.0					
1,2,4-Trimethylbenzene	36	1.0					
1,3,5-Trimethylbenzene	12	1.0					
Methyl-t-Butyl Ether	ND	5.0					
Naphthalene	17	5.0					
2-Methylnaphthalene	44	5.0					

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

Grand Traverse Analytical, LLC
INDEPENDENT TESTING LAB
830 ROBINWOOD COURT, TRAVERSE CITY, MI 49686
PH: 231-929-0905 FAX: 231-929-0894
www.gtanalytical.com

COMPANY:	MACKINAC ENVIRONMENTAL	GTA PROJECT NO:	121319-4
		GTA SAMPLE NO:	2
PROJECT NO:	M93-232		
LOCATION:	TROUT LAKE CCRC	DATE SAMPLED:	12/10/2019
		TIME SAMPLED:	
		DATE RECEIVED:	12/13/2019
	MI	TIME RECEIVED:	11:46 AM
SAMPLE MATRIX:	WATER		
SAMPLE ID:	VW-2	SAMPLED BY:	SLF/MJR - MET

EPA 8260B VOLATILE ORGANICS

Analysis	Concentration	LOD	Units	Analyst	Date Extracted	Date Complete	Prep Method
Benzene	ND	1.0	ug/L (PPB)	MR		12/18/2019	EPA 5030B
Toluene	ND	1.0					
Ethylbenzene	ND	1.0					
Xylene(Total)	ND	3.0					
1,2,4-Trimethylbenzene	ND	1.0					
1,3,5-Trimethylbenzene	ND	1.0					
Methyl-t-Butyl Ether	ND	5.0					
Naphthalene	ND	5.0					
2-Methylnaphthalene	ND	5.0					

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

Grand Traverse Analytical, LLC
INDEPENDENT TESTING LAB
830 ROBINWOOD COURT, TRAVERSE CITY, MI 49686
PH: 231-929-0905 FAX: 231-929-0894
www.gtanalytical.com

COMPANY:	MACKINAC ENVIRONMENTAL	GTA PROJECT NO:	121319-4
		GTA SAMPLE NO:	3
PROJECT NO:	M93-232		
LOCATION:	TROUT LAKE CCRC	DATE SAMPLED:	12/10/2019
		TIME SAMPLED:	
		DATE RECEIVED:	12/13/2019
	MI	TIME RECEIVED:	11:46 AM
SAMPLE MATRIX:	WATER		
SAMPLE ID:	MW-15	SAMPLED BY:	SLF/MJR - MET

EPA 8260B VOLATILE ORGANICS

Analysis	Concentration	LOD	Units	Analyst	Date Extracted	Date Complete	Prep Method
Benzene	ND	1.0	ug/L (PPB)	MR		12/18/2019	EPA 5030B
Toluene	ND	1.0					
Ethylbenzene	ND	1.0					
Xylene(Total)	ND	3.0					
1,2,4-Trimethylbenzene	ND	1.0					
1,3,5-Trimethylbenzene	ND	1.0					
Methyl-t-Butyl Ether	ND	5.0					
Naphthalene	ND	5.0					
2-Methylnaphthalene	ND	5.0					

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

Grand Traverse Analytical, LLC
INDEPENDENT TESTING LAB
830 ROBINWOOD COURT, TRAVERSE CITY, MI 49686
PH: 231-929-0905 FAX: 231-929-0894
www.gtanalytical.com

COMPANY:	MACKINAC ENVIRONMENTAL	GTA PROJECT NO:	121319-4
		GTA SAMPLE NO:	4
PROJECT NO:	M93-232		
LOCATION:	TROUT LAKE CCRC	DATE SAMPLED:	12/10/2019
		TIME SAMPLED:	
		DATE RECEIVED:	12/13/2019
	MI	TIME RECEIVED:	11:46 AM
SAMPLE MATRIX:	WATER		
SAMPLE ID:	MW-2	SAMPLED BY:	SLF/MJR - MET

EPA 8260B VOLATILE ORGANICS

Analysis	Concentration	LOD	Units	Analyst	Date Extracted	Date Complete	Prep Method
Benzene	ND	1.0	ug/L (PPB)	MR		12/18/2019	EPA 5030B
Toluene	ND	1.0					
Ethylbenzene	2.7	1.0					
Xylene(Total)	11	3.0					
1,2,4-Trimethylbenzene	47	1.0					
1,3,5-Trimethylbenzene	14	1.0					
Methyl-t-Butyl Ether	ND	5.0					
Naphthalene	14	5.0					
2-Methylnaphthalene	20	5.0					

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

Grand Traverse Analytical, LLC
INDEPENDENT TESTING LAB
830 ROBINWOOD COURT, TRAVERSE CITY, MI 49686
PH: 231-929-0905 FAX: 231-929-0894
www.gtanalytical.com

COMPANY:	MACKINAC ENVIRONMENTAL	GTA PROJECT NO:	121319-4
		GTA SAMPLE NO:	5
PROJECT NO:	M93-232		
LOCATION:	TROUT LAKE CCRC	DATE SAMPLED:	12/10/2019
		TIME SAMPLED:	
		DATE RECEIVED:	12/13/2019
	MI	TIME RECEIVED:	11:46 AM
SAMPLE MATRIX:	WATER		
SAMPLE ID:	VW-1	SAMPLED BY:	SLF/MJR - MET

EPA 8260B VOLATILE ORGANICS

Analysis	Concentration	LOD	Units	Analyst	Date Extracted	Date Complete	Prep Method
Benzene	ND	1.0	ug/L (PPB)	MR		12/18/2019	EPA 5030B
Toluene	ND	1.0					
Ethylbenzene	ND	1.0					
Xylene(Total)	ND	3.0					
1,2,4-Trimethylbenzene	ND	1.0					
1,3,5-Trimethylbenzene	ND	1.0					
Methyl-t-Butyl Ether	ND	5.0					
Naphthalene	ND	5.0					
2-Methylnaphthalene	ND	5.0					

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

Grand Traverse Analytical, LLC
INDEPENDENT TESTING LAB
830 ROBINWOOD COURT, TRAVERSE CITY, MI 49686
PH: 231-929-0905 FAX: 231-929-0894
www.gtanalytical.com

COMPANY:	MACKINAC ENVIRONMENTAL	GTA PROJECT NO:	121319-4
		GTA SAMPLE NO:	6
PROJECT NO:	M93-232		
LOCATION:	TROUT LAKE CCRC	DATE SAMPLED:	12/10/2019
		TIME SAMPLED:	
		DATE RECEIVED:	12/13/2019
	MI	TIME RECEIVED:	11:46 AM
SAMPLE MATRIX:	WATER		
SAMPLE ID:	MW-14	SAMPLED BY:	SLF/MJR - MET

EPA 8260B VOLATILE ORGANICS

Analysis	Concentration	LOD	Units	Analyst	Date Extracted	Date Complete	Prep Method
Benzene	ND	1.0	ug/L (PPB)	MR		12/18/2019	EPA 5030B
Toluene	ND	1.0					
Ethylbenzene	ND	1.0					
Xylene(Total)	ND	3.0					
1,2,4-Trimethylbenzene	ND	1.0					
1,3,5-Trimethylbenzene	ND	1.0					
Methyl-t-Butyl Ether	ND	5.0					
Naphthalene	ND	5.0					
2-Methylnaphthalene	ND	5.0					

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

Grand Traverse Analytical, LLC
INDEPENDENT TESTING LAB
830 ROBINWOOD COURT, TRAVERSE CITY, MI 49686
PH: 231-929-0905 FAX: 231-929-0894
www.gtanalytical.com

COMPANY:	MACKINAC ENVIRONMENTAL	GTA PROJECT NO:	121319-4
		GTA SAMPLE NO:	7
PROJECT NO:	M93-232		
LOCATION:	TROUT LAKE CCRC	DATE SAMPLED:	12/10/2019
		TIME SAMPLED:	
		DATE RECEIVED:	12/13/2019
	MI	TIME RECEIVED:	11:46 AM
SAMPLE MATRIX:	WATER		
SAMPLE ID:	MW-1	SAMPLED BY:	SLF/MJR - MET

EPA 8260B VOLATILE ORGANICS

Analysis	Concentration	LOD	Units	Analyst	Date Extracted	Date Complete	Prep Method
Benzene	ND	1.0	ug/L (PPB)	MR		12/18/2019	EPA 5030B
Toluene	ND	1.0					
Ethylbenzene	3.6	1.0					
Xylene(Total)	16	3.0					
1,2,4-Trimethylbenzene	34	1.0					
1,3,5-Trimethylbenzene	14	1.0					
Methyl-t-Butyl Ether	ND	5.0					
Naphthalene	20	5.0					
2-Methylnaphthalene	15	5.0					

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

Grand Traverse Analytical, LLC
INDEPENDENT TESTING LAB
830 ROBINWOOD COURT, TRAVERSE CITY, MI 49686
PH: 231-929-0905 FAX: 231-929-0894
www.gtanalytical.com

COMPANY:	MACKINAC ENVIRONMENTAL	GTA PROJECT NO:	121319-4
		GTA SAMPLE NO:	8
PROJECT NO:	M93-232		
LOCATION:	TROUT LAKE CCRC	DATE SAMPLED:	12/10/2019
		TIME SAMPLED:	
		DATE RECEIVED:	12/13/2019
	MI	TIME RECEIVED:	11:46 AM
SAMPLE MATRIX:	WATER		
SAMPLE ID:	VW-3	SAMPLED BY:	SLF/MJR - MET

EPA 8260B VOLATILE ORGANICS

Analysis	Concentration	LOD	Units	Analyst	Date Extracted	Date Complete	Prep Method
Benzene	ND	1.0	ug/L (PPB)	MR		12/18/2019	EPA 5030B
Toluene	ND	1.0					
Ethylbenzene	ND	1.0					
Xylene(Total)	ND	3.0					
1,2,4-Trimethylbenzene	ND	1.0					
1,3,5-Trimethylbenzene	ND	1.0					
Methyl-t-Butyl Ether	ND	5.0					
Naphthalene	ND	5.0					
2-Methylnaphthalene	ND	5.0					

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

Grand Traverse Analytical, LLC
INDEPENDENT TESTING LAB
830 ROBINWOOD COURT, TRAVERSE CITY, MI 49686
PH: 231-929-0905 FAX: 231-929-0894
www.gtanalytical.com

COMPANY:	MACKINAC ENVIRONMENTAL	GTA PROJECT NO:	121319-4
		GTA SAMPLE NO:	9
PROJECT NO:	M93-232		
LOCATION:	TROUT LAKE CCRC	DATE SAMPLED:	12/10/2019
		TIME SAMPLED:	
		DATE RECEIVED:	12/13/2019
	MI	TIME RECEIVED:	11:46 AM
SAMPLE MATRIX:	WATER		
SAMPLE ID:	MW-6R	SAMPLED BY:	SLF/MJR - MET

EPA 8260B VOLATILE ORGANICS

Analysis	Concentration	LOD	Units	Analyst	Date Extracted	Date Complete	Prep Method
Benzene	ND	1.0	ug/L (PPB)	MR		12/18/2019	EPA 5030B
Toluene	ND	1.0					
Ethylbenzene	ND	1.0					
Xylene(Total)	ND	3.0					
1,2,4-Trimethylbenzene	ND	1.0					
1,3,5-Trimethylbenzene	ND	1.0					
Methyl-t-Butyl Ether	ND	5.0					
Naphthalene	ND	5.0					
2-Methylnaphthalene	ND	5.0					

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

Grand Traverse Analytical, LLC
INDEPENDENT TESTING LAB
830 ROBINWOOD COURT, TRAVERSE CITY, MI 49686
PH: 231-929-0905 FAX: 231-929-0894
www.gtanalytical.com

COMPANY:	MACKINAC ENVIRONMENTAL	GTA PROJECT NO:	121319-4
		GTA SAMPLE NO:	1
PROJECT NO:	M93-232		
LOCATION:	TROUT LAKE CCRC	DATE SAMPLED:	12/10/2019
		TIME SAMPLED:	
	MI	DATE RECEIVED:	12/13/2019
SAMPLED BY:	SLF/MJR - MET	TIME RECEIVED:	11:46 AM
SAMPLE MATRIX:	WATER		
SAMPLE ID:	MW-7		

PNA EPA 8270D (SIM)

Analysis	Concentration	LOD	Units	Analyst	Date Extracted	Date Complete	Prep Method
Acenaphthene	ND	5.0	ug/L (PPB)	KC/TR	12/16/2019	12/18/2019	EPA 3511
Acenaphthylene	ND	5.0					
Anthracene	ND	5.0					
Benzo(a)anthracene	ND	1.0					
Benzo(b)fluoranthene	ND	1.0					
Benzo(k)fluoranthene	ND	1.0					
Benzo(a)pyrene	ND	1.0					
Benzo(ghi)perylene	ND	2.0					
2-Chloronaphthalene	ND	5.0					
Chrysene	ND	1.0					
Dibenz(ah)anthracene	ND	2.0					
Fluoranthene	ND	1.0					
Fluorene	ND	5.0					
Indeno(123-cd)pyrene	ND	2.0					
Phenanthrene	ND	2.0					
Pyrene	ND	5.0					

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

Grand Traverse Analytical, LLC
INDEPENDENT TESTING LAB
830 ROBINWOOD COURT, TRAVERSE CITY, MI 49686
PH: 231-929-0905 FAX: 231-929-0894
www.gtanalytical.com

COMPANY:	MACKINAC ENVIRONMENTAL	GTA PROJECT NO:	121319-4
		GTA SAMPLE NO:	2
PROJECT NO:	M93-232		
LOCATION:	TROUT LAKE CCRC	DATE SAMPLED:	12/10/2019
		TIME SAMPLED:	
	MI	DATE RECEIVED:	12/13/2019
SAMPLED BY:	SLF/MJR - MET	TIME RECEIVED:	11:46 AM
SAMPLE MATRIX:	WATER		
SAMPLE ID:	VW-2		

PNA EPA 8270D (SIM)

Analysis	Concentration	LOD	Units	Analyst	Date Extracted	Date Complete	Prep Method
Acenaphthene	ND	5.0	ug/L (PPB)	KC/TR	12/16/2019	12/18/2019	EPA 3511
Acenaphthylene	ND	5.0					
Anthracene	ND	5.0					
Benzo(a)anthracene	ND	1.0					
Benzo(b)fluoranthene	ND	1.0					
Benzo(k)fluoranthene	ND	1.0					
Benzo(a)pyrene	ND	1.0					
Benzo(ghi)perylene	ND	2.0					
2-Chloronaphthalene	ND	5.0					
Chrysene	ND	1.0					
Dibenz(ah)anthracene	ND	2.0					
Fluoranthene	ND	1.0					
Fluorene	ND	5.0					
Indeno(123-cd)pyrene	ND	2.0					
Phenanthrene	ND	2.0					
Pyrene	ND	5.0					

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

Grand Traverse Analytical, LLC
INDEPENDENT TESTING LAB
830 ROBINWOOD COURT, TRAVERSE CITY, MI 49686
PH: 231-929-0905 FAX: 231-929-0894
www.gtanalytical.com

COMPANY:	MACKINAC ENVIRONMENTAL	GTA PROJECT NO:	121319-4
		GTA SAMPLE NO:	3
PROJECT NO:	M93-232		
LOCATION:	TROUT LAKE CCRC	DATE SAMPLED:	12/10/2019
		TIME SAMPLED:	
	MI	DATE RECEIVED:	12/13/2019
SAMPLED BY:	SLF/MJR - MET	TIME RECEIVED:	11:46 AM
SAMPLE MATRIX:	WATER		
SAMPLE ID:	MW-15		

PNA EPA 8270D (SIM)

Analysis	Concentration	LOD	Units	Analyst	Date Extracted	Date Complete	Prep Method
Acenaphthene	ND	5.0	ug/L (PPB)	KC/TR	12/16/2019	12/18/2019	EPA 3511
Acenaphthylene	ND	5.0					
Anthracene	ND	5.0					
Benzo(a)anthracene	ND	1.0					
Benzo(b)fluoranthene	ND	1.0					
Benzo(k)fluoranthene	ND	1.0					
Benzo(a)pyrene	ND	1.0					
Benzo(ghi)perylene	ND	2.0					
2-Chloronaphthalene	ND	5.0					
Chrysene	ND	1.0					
Dibenz(ah)anthracene	ND	2.0					
Fluoranthene	ND	1.0					
Fluorene	ND	5.0					
Indeno(123-cd)pyrene	ND	2.0					
Phenanthrene	ND	2.0					
Pyrene	ND	5.0					

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

Grand Traverse Analytical, LLC
INDEPENDENT TESTING LAB
830 ROBINWOOD COURT, TRAVERSE CITY, MI 49686
PH: 231-929-0905 FAX: 231-929-0894
www.gtanalytical.com

COMPANY:	MACKINAC ENVIRONMENTAL	GTA PROJECT NO:	121319-4
		GTA SAMPLE NO:	4
PROJECT NO:	M93-232		
LOCATION:	TROUT LAKE CCRC	DATE SAMPLED:	12/10/2019
		TIME SAMPLED:	
	MI	DATE RECEIVED:	12/13/2019
SAMPLED BY:	SLF/MJR - MET	TIME RECEIVED:	11:46 AM
SAMPLE MATRIX:	WATER		
SAMPLE ID:	MW-2		

PNA EPA 8270D (SIM)

Analysis	Concentration	LOD	Units	Analyst	Date Extracted	Date Complete	Prep Method
Acenaphthene	ND	5.0	ug/L (PPB)	KC/TR	12/16/2019	12/18/2019	EPA 3511
Acenaphthylene	ND	5.0					
Anthracene	ND	5.0					
Benzo(a)anthracene	ND	1.0					
Benzo(b)fluoranthene	ND	1.0					
Benzo(k)fluoranthene	ND	1.0					
Benzo(a)pyrene	ND	1.0					
Benzo(ghi)perylene	ND	2.0					
2-Chloronaphthalene	ND	5.0					
Chrysene	ND	1.0					
Dibenz(ah)anthracene	ND	2.0					
Fluoranthene	ND	1.0					
Fluorene	ND	5.0					
Indeno(123-cd)pyrene	ND	2.0					
Phenanthrene	ND	2.0					
Pyrene	ND	5.0					

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

Grand Traverse Analytical, LLC
INDEPENDENT TESTING LAB
830 ROBINWOOD COURT, TRAVERSE CITY, MI 49686
PH: 231-929-0905 FAX: 231-929-0894
www.gtanalytical.com

COMPANY:	MACKINAC ENVIRONMENTAL	GTA PROJECT NO:	121319-4
		GTA SAMPLE NO:	5
PROJECT NO:	M93-232		
LOCATION:	TROUT LAKE CCRC	DATE SAMPLED:	12/10/2019
		TIME SAMPLED:	
	MI	DATE RECEIVED:	12/13/2019
SAMPLED BY:	SLF/MJR - MET	TIME RECEIVED:	11:46 AM
SAMPLE MATRIX:	WATER		
SAMPLE ID:	VW-1		

PNA EPA 8270D (SIM)

Analysis	Concentration	LOD	Units	Analyst	Date Extracted	Date Complete	Prep Method
Acenaphthene	ND	5.0	ug/L (PPB)	KC/TR	12/16/2019	12/18/2019	EPA 3511
Acenaphthylene	ND	5.0					
Anthracene	ND	5.0					
Benzo(a)anthracene	ND	1.0					
Benzo(b)fluoranthene	ND	1.0					
Benzo(k)fluoranthene	ND	1.0					
Benzo(a)pyrene	ND	1.0					
Benzo(ghi)perylene	ND	2.0					
2-Chloronaphthalene	ND	5.0					
Chrysene	ND	1.0					
Dibenz(ah)anthracene	ND	2.0					
Fluoranthene	ND	1.0					
Fluorene	ND	5.0					
Indeno(123-cd)pyrene	ND	2.0					
Phenanthrene	ND	2.0					
Pyrene	ND	5.0					

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

Grand Traverse Analytical, LLC
INDEPENDENT TESTING LAB
830 ROBINWOOD COURT, TRAVERSE CITY, MI 49686
PH: 231-929-0905 FAX: 231-929-0894
www.gtanalytical.com

COMPANY:	MACKINAC ENVIRONMENTAL	GTA PROJECT NO:	121319-4
		GTA SAMPLE NO:	6
PROJECT NO:	M93-232		
LOCATION:	TROUT LAKE CCRC	DATE SAMPLED:	12/10/2019
		TIME SAMPLED:	
	MI	DATE RECEIVED:	12/13/2019
SAMPLED BY:	SLF/MJR - MET	TIME RECEIVED:	11:46 AM
SAMPLE MATRIX:	WATER		
SAMPLE ID:	MW-14		

PNA EPA 8270D (SIM)

Analysis	Concentration	LOD	Units	Analyst	Date Extracted	Date Complete	Prep Method
Acenaphthene	ND	5.0	ug/L (PPB)	KC/TR	12/16/2019	12/18/2019	EPA 3511
Acenaphthylene	ND	5.0					
Anthracene	ND	5.0					
Benzo(a)anthracene	ND	1.0					
Benzo(b)fluoranthene	ND	1.0					
Benzo(k)fluoranthene	ND	1.0					
Benzo(a)pyrene	ND	1.0					
Benzo(ghi)perylene	ND	2.0					
2-Chloronaphthalene	ND	5.0					
Chrysene	ND	1.0					
Dibenz(ah)anthracene	ND	2.0					
Fluoranthene	ND	1.0					
Fluorene	ND	5.0					
Indeno(123-cd)pyrene	ND	2.0					
Phenanthrene	ND	2.0					
Pyrene	ND	5.0					

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

Grand Traverse Analytical, LLC
INDEPENDENT TESTING LAB
830 ROBINWOOD COURT, TRAVERSE CITY, MI 49686
PH: 231-929-0905 FAX: 231-929-0894
www.gtanalytical.com

COMPANY:	MACKINAC ENVIRONMENTAL	GTA PROJECT NO:	121319-4
		GTA SAMPLE NO:	7
PROJECT NO:	M93-232		
LOCATION:	TROUT LAKE CCRC	DATE SAMPLED:	12/10/2019
		TIME SAMPLED:	
	MI	DATE RECEIVED:	12/13/2019
SAMPLED BY:	SLF/MJR - MET	TIME RECEIVED:	11:46 AM
SAMPLE MATRIX:	WATER		
SAMPLE ID:	MW-1		

PNA EPA 8270D (SIM)

Analysis	Concentration	LOD	Units	Analyst	Date Extracted	Date Complete	Prep Method
Acenaphthene	ND	5.0	ug/L (PPB)	KC/TR	12/16/2019	12/18/2019	EPA 3511
Acenaphthylene	ND	5.0					
Anthracene	ND	5.0					
Benzo(a)anthracene	ND	1.0					
Benzo(b)fluoranthene	ND	1.0					
Benzo(k)fluoranthene	ND	1.0					
Benzo(a)pyrene	ND	1.0					
Benzo(ghi)perylene	ND	2.0					
2-Chloronaphthalene	ND	5.0					
Chrysene	ND	1.0					
Dibenz(ah)anthracene	ND	2.0					
Fluoranthene	ND	1.0					
Fluorene	ND	5.0					
Indeno(123-cd)pyrene	ND	2.0					
Phenanthrene	ND	2.0					
Pyrene	ND	5.0					

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

Grand Traverse Analytical, LLC
INDEPENDENT TESTING LAB
830 ROBINWOOD COURT, TRAVERSE CITY, MI 49686
PH: 231-929-0905 FAX: 231-929-0894
www.gtanalytical.com

COMPANY:	MACKINAC ENVIRONMENTAL	GTA PROJECT NO:	121319-4
		GTA SAMPLE NO:	8
PROJECT NO:	M93-232		
LOCATION:	TROUT LAKE CCRC	DATE SAMPLED:	12/10/2019
		TIME SAMPLED:	
	MI	DATE RECEIVED:	12/13/2019
SAMPLED BY:	SLF/MJR - MET	TIME RECEIVED:	11:46 AM
SAMPLE MATRIX:	WATER		
SAMPLE ID:	VW-3		

PNA EPA 8270D (SIM)

Analysis	Concentration	LOD	Units	Analyst	Date Extracted	Date Complete	Prep Method
Acenaphthene	ND	5.0	ug/L (PPB)	KC/TR	12/16/2019	12/18/2019	EPA 3511
Acenaphthylene	ND	5.0					
Anthracene	ND	5.0					
Benzo(a)anthracene	ND	1.0					
Benzo(b)fluoranthene	ND	1.0					
Benzo(k)fluoranthene	ND	1.0					
Benzo(a)pyrene	ND	1.0					
Benzo(ghi)perylene	ND	2.0					
2-Chloronaphthalene	ND	5.0					
Chrysene	ND	1.0					
Dibenz(ah)anthracene	ND	2.0					
Fluoranthene	ND	1.0					
Fluorene	ND	5.0					
Indeno(123-cd)pyrene	ND	2.0					
Phenanthrene	ND	2.0					
Pyrene	ND	5.0					

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

Grand Traverse Analytical, LLC
INDEPENDENT TESTING LAB
830 ROBINWOOD COURT, TRAVERSE CITY, MI 49686
PH: 231-929-0905 FAX: 231-929-0894
www.gtanalytical.com

COMPANY:	MACKINAC ENVIRONMENTAL	GTA PROJECT NO:	121319-4
		GTA SAMPLE NO:	9
PROJECT NO:	M93-232		
LOCATION:	TROUT LAKE CCRC	DATE SAMPLED:	12/10/2019
		TIME SAMPLED:	
	MI	DATE RECEIVED:	12/13/2019
SAMPLED BY:	SLF/MJR - MET	TIME RECEIVED:	11:46 AM
SAMPLE MATRIX:	WATER		
SAMPLE ID:	MW-6R		

PNA EPA 8270D (SIM)

Analysis	Concentration	LOD	Units	Analyst	Date Extracted	Date Complete	Prep Method
Acenaphthene	ND	5.0	ug/L (PPB)	KC/TR	12/16/2019	12/18/2019	EPA 3511
Acenaphthylene	ND	5.0					
Anthracene	ND	5.0					
Benzo(a)anthracene	ND	1.0					
Benzo(b)fluoranthene	ND	1.0					
Benzo(k)fluoranthene	ND	1.0					
Benzo(a)pyrene	ND	1.0					
Benzo(ghi)perylene	ND	2.0					
2-Chloronaphthalene	ND	5.0					
Chrysene	ND	1.0					
Dibenz(ah)anthracene	ND	2.0					
Fluoranthene	ND	1.0					
Fluorene	ND	5.0					
Indeno(123-cd)pyrene	ND	2.0					
Phenanthrene	ND	2.0					
Pyrene	ND	5.0					

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

Grand Traverse Analytical, LLC

INDEPENDENT TESTING LAB

830 ROBINWOOD COURT, TRAVERSE CITY, MI 49686

PH: 231-929-0905 FAX: 231-929-0894

www.gtanalytical.com

CHAIN OF CUSTODY

PROJECT NUMBER	SITE NAME/ADDRESS	COMPANY/NAME
M93-	Trout Lake CCRC	
SAMPLED BY	**COMPANY**	**GTA PROJECT #**
SLF/MJR	MET	121319-4

SAMPLE INFORMATION

#	SAMPLE ID	DATE SAMPLED	TIME	MATRIX	ANALYSIS
1	MW-7	12/10/19		GW	ULG, PNA
2	VW-2				
3	MW-15				
4	MW-2				
5	VW-1				
6	MW-14				
7	MW-1				
8	VW-3				
9	MW-6R				
					Shipped on ice

BILL TO:

REPORT TO:

RELEASED BY	DATE/TIME	RECEIVED BY	DATE/TIME
[signature]	12-17-19/1500	[signature]	12/17/19 11:46
			2.3°C on ice

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