

**INDEPENDENT TESTING LAB**

830 ROBINWOOD COURT, TRAVERSE CITY, MI 49686

PH: 231-929-0905

FAX: 231-929-0894

www.gtanalytical.com

Company: LAMBDA ENERGY RESOURCES, LLC

Name:

ClientProj: 2018100143.01

GTA ProjNo: 122019-9

Site Addr: ST KAL G

Sampled By: BRENDON RUPPEN/GCES

Date Rec: 12/20/2019

Time Rec: 10:00 AM

Sample No.	Sample ID	Date Sampled	Time Sampled	Sample Matrix
1	MW-2	12/19/2019	10:30 AM	WATER
2	MW-4	12/19/2019	10:00 AM	WATER
3	MW-6	12/19/2019	11:30 AM	WATER
4	MW-8	12/19/2019	12:00 PM	WATER
5	MW-11	12/19/2019	12:30 PM	WATER
6	MW-7	12/19/2019	1:00 PM	WATER
7	MW-13	12/19/2019	1:30 PM	WATER
8	MW-12	12/19/2019	2:00 PM	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
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COMPANY: LAMBDA ENERGY RESOURCES, LLC
PROJECT NO: 2018100143.01
LOCATION: ST KAL G
MI
SAMPLE MATRIX: WATER
SAMPLE ID: MW-2

GTA PROJECT NO: 122019-9
GTA SAMPLE NO: 1
DATE SAMPLED: 12/19/2019
TIME SAMPLED: 10:30 AM
DATE RECEIVED: 12/20/2019
TIME RECEIVED: 10:00 AM
SAMPLED BY: BRENDON RUPPEN/GCES

EPA 8260B VOLATILE ORGANICS

<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date Extracted</u>	<u>Date Complete</u>	<u>Prep Method</u>
Benzene	ND	1.0	ug/L (PPB)	MR		12/22/2019	EPA 5030B
Toluene	ND	1.0					
Ethylbenzene	ND	1.0					
Xylene(Total)	ND	3.0					

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

ND = NOT DETECTED, RESULT < LOD

LOD = LIMIT OF DETECTION

COMPANY: LAMBDA ENERGY RESOURCES, LLC
PROJECT NO: 2018100143.01
LOCATION: ST KAL G
MI
SAMPLE MATRIX: WATER
SAMPLE ID: MW-4
GTA PROJECT NO: 122019-9
GTA SAMPLE NO: 2
DATE SAMPLED: 12/19/2019
TIME SAMPLED: 10:00 AM
DATE RECEIVED: 12/20/2019
TIME RECEIVED: 10:00 AM
SAMPLED BY: BRENDON RUPPEN/GCES

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	1.0	ug/L (PPB)	MR		12/22/2019	EPA 5030B
Toluene	ND	1.0					
Ethylbenzene	ND	1.0					
Xylene(Total)	ND	3.0					

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

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COMPANY: LAMBDA ENERGY RESOURCES, LLC
PROJECT NO: 2018100143.01
LOCATION: ST KAL G
MI
SAMPLE MATRIX: WATER
SAMPLE ID: MW-6

GTA PROJECT NO: 122019-9
GTA SAMPLE NO: 3
DATE SAMPLED: 12/19/2019
TIME SAMPLED: 11:30 AM
DATE RECEIVED: 12/20/2019
TIME RECEIVED: 10:00 AM
SAMPLED BY: BRENDON RUPPEN/GCES

EPA 8260B VOLATILE ORGANICS

<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date Extracted</u>	<u>Date Complete</u>	<u>Prep Method</u>
Benzene	ND	1.0	ug/L (PPB)	MR		12/22/2019	EPA 5030B
Toluene	ND	1.0					
Ethylbenzene	ND	1.0					
Xylene(Total)	ND	3.0					

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

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LOD = LIMIT OF DETECTION

COMPANY:	LAMBDA ENERGY RESOURCES, LLC	GTA PROJECT NO:	122019-9
PROJECT NO:	2018100143.01	GTA SAMPLE NO:	4
LOCATION:	ST KAL G	DATE SAMPLED:	12/19/2019
		TIME SAMPLED:	12:00 PM
		DATE RECEIVED:	12/20/2019
	MI	TIME RECEIVED:	10:00 AM
SAMPLE MATRIX:	WATER		
SAMPLE ID:	MW-8	SAMPLED BY:	BRENDON RUPPEN/GCES

EPA 8260B VOLATILE ORGANICS

<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date Extracted</u>	<u>Date Complete</u>	<u>Prep Method</u>
Benzene	ND	1.0	ug/L (PPB)	MR		12/22/2019	EPA 5030B
Toluene	ND	1.0					
Ethylbenzene	ND	1.0					
Xylene(Total)	ND	3.0					

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

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COMPANY: LAMBDA ENERGY RESOURCES, LLC
PROJECT NO: 2018100143.01
LOCATION: ST KAL G
MI
SAMPLE MATRIX: WATER
SAMPLE ID: MW-11

GTA PROJECT NO: 122019-9
GTA SAMPLE NO: 5
DATE SAMPLED: 12/19/2019
TIME SAMPLED: 12:30 PM
DATE RECEIVED: 12/20/2019
TIME RECEIVED: 10:00 AM
SAMPLED BY: BRENDON RUPPEN/GCES

EPA 8260B VOLATILE ORGANICS

<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date Extracted</u>	<u>Date Complete</u>	<u>Prep Method</u>
Benzene	ND	1.0	ug/L (PPB)	MR		12/22/2019	EPA 5030B
Toluene	ND	1.0					
Ethylbenzene	ND	1.0					
Xylene(Total)	5.1	3.0					

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

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LOD = LIMIT OF DETECTION

COMPANY: LAMBDA ENERGY RESOURCES, LLC
PROJECT NO: 2018100143.01
LOCATION: ST KAL G
MI
SAMPLE MATRIX: WATER
SAMPLE ID: MW-7
GTA PROJECT NO: 122019-9
GTA SAMPLE NO: 6
DATE SAMPLED: 12/19/2019
TIME SAMPLED: 1:00 PM
DATE RECEIVED: 12/20/2019
TIME RECEIVED: 10:00 AM
SAMPLED BY: BRENDON RUPPEN/GCES

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	1.0	ug/L (PPB)	MR		12/22/2019	EPA 5030B
Toluene	ND	1.0					
Ethylbenzene	ND	1.0					
Xylene(Total)	5.0	3.0					

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

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COMPANY: LAMBDA ENERGY RESOURCES, LLC
PROJECT NO: 2018100143.01
LOCATION: ST KAL G
MI
SAMPLE MATRIX: WATER
SAMPLE ID: MW-13

GTA PROJECT NO: 122019-9
GTA SAMPLE NO: 7
DATE SAMPLED: 12/19/2019
TIME SAMPLED: 1:30 PM
DATE RECEIVED: 12/20/2019
TIME RECEIVED: 10:00 AM
SAMPLED BY: BRENDON RUPPEN/GCES

EPA 8260B VOLATILE ORGANICS

<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date Extracted</u>	<u>Date Complete</u>	<u>Prep Method</u>
Benzene	ND	1.0	ug/L (PPB)	MR		12/22/2019	EPA 5030B
Toluene	ND	1.0					
Ethylbenzene	2.4	1.0					
Xylene(Total)	79	3.0					

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

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COMPANY: LAMBDA ENERGY RESOURCES, LLC

PROJECT NO: 2018100143.01

LOCATION: ST KAL G

MI

SAMPLE MATRIX: WATER

SAMPLE ID: MW-12

GTA PROJECT NO: 122019-9

GTA SAMPLE NO: 8

DATE SAMPLED: 12/19/2019

TIME SAMPLED: 2:00 PM

DATE RECEIVED: 12/20/2019

TIME RECEIVED: 10:00 AM

SAMPLED BY: BRENDON RUPPEN/GCES

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	1.0	ug/L (PPB)	MR		12/22/2019	EPA 5030B
Toluene	ND	1.0					
Ethylbenzene	8.1	1.0					
Xylene(Total)	520	3.0					
1,2,4-Trimethylbenzene	130	1.0					
1,3,5-Trimethylbenzene	67	1.0					
Naphthalene	ND	5.0					
2-Methylnaphthalene	ND	5.0					

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COMPANY: LAMBDA ENERGY RESOURCES, LLC

PROJECT NO: 2018100143.01

LOCATION: ST KAL G

GTA PROJECT NO: 122019-9

GTA SAMPLE NO: 1

DATE SAMPLED: 12/19/2019

TIME SAMPLED: 10:30 AM

DATE RECEIVED: 12/20/2019

TIME RECEIVED: 10:00 AM

MI

SAMPLED BY: BRENDON RUPPEN/GCES

SAMPLE ANALYSIS

<u>No:</u>	<u>Analysis</u>	<u>Concentration</u>	<u>LOD</u>	<u>Units</u>	<u>Analyst</u>	<u>Date Completed</u>	<u>Sample Matrix</u>
	SAMPLE ID: MW-2						
	CHLORIDE EPA 300.0	ND	10	mg/L (PPM)	LV	12/20/2019	WATER
	CONDUCTIVITY SM2510-B	280	1.0	uS/cm@25C	LV	12/20/2019	WATER

ND = NOT DETECTED, RESULT < LOD

LOD = LIMIT OF DETECTION

s.u. = STANDARD pH UNITS REPORTED AT 25 C

DISS = DISSOLVED



INDEPENDENT TESTING LAB

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COMPANY: LAMBDA ENERGY RESOURCES, LLC

GTA PROJECT NO: 122019-9

PROJECT NO: 2018100143.01

GTA SAMPLE NO: 2

LOCATION: ST KAL G

DATE SAMPLED: 12/19/2019

TIME SAMPLED: 10:00 AM

DATE RECEIVED: 12/20/2019

TIME RECEIVED: 10:00 AM

MI

SAMPLED BY: BRENDON RUPPEN/GCES

SAMPLE ANALYSIS

No: Analysis

SAMPLE ID: MW-4

CHLORIDE EPA 300.0

Concentration

ND

LOD

10

Units

mg/L (PPM)

Analyst

LV

Date

12/20/2019

Sample

WATER

ND = NOT DETECTED, RESULT < LOD

LOD = LIMIT OF DETECTION

s.u. = STANDARD pH UNITS REPORTED AT 25 C

COMPANY: LAMBDA ENERGY RESOURCES, LLC

GTA PROJECT NO: 122019-9

PROJECT NO: 2018100143.01

GTA SAMPLE NO: 3

LOCATION: ST KAL G

DATE SAMPLED: 12/19/2019

TIME SAMPLED: 11:30 AM

DATE RECEIVED: 12/20/2019

TIME RECEIVED: 10:00 AM

MI

SAMPLED BY: BRENDON RUPPEN/GCES

SAMPLE ANALYSIS

No: Analysis

SAMPLE ID: MW-6

CHLORIDE EPA 300.0

Concentration

ND

LOD

10

Units

mg/L (PPM)

Analyst

LV

Date

12/20/2019

Sample

WATER

ND = NOT DETECTED, RESULT < LOD

LOD = LIMIT OF DETECTION

s.u. = STANDARD pH UNITS REPORTED AT 25 C

COMPANY: LAMBDA ENERGY RESOURCES, LLC

GTA PROJECT NO: 122019-9

PROJECT NO: 2018100143.01

GTA SAMPLE NO: 4

LOCATION: ST KAL G

DATE SAMPLED: 12/19/2019

TIME SAMPLED: 12:00 PM

DATE RECEIVED: 12/20/2019

TIME RECEIVED: 10:00 AM

MI

SAMPLED BY: BRENDON RUPPEN/GCES

SAMPLE ANALYSIS

No: Analysis

SAMPLE ID: MW-8

CHLORIDE EPA 300.0

Concentration

ND

LOD

10

Units

mg/L (PPM)

Analyst

LV

Date

12/20/2019

Sample

WATER

ND = NOT DETECTED, RESULT < LOD

LOD = LIMIT OF DETECTION

s.u. = STANDARD pH UNITS REPORTED AT 25 C

COMPANY: LAMBDA ENERGY RESOURCES, LLC

GTA PROJECT NO: 122019-9

PROJECT NO: 2018100143.01

GTA SAMPLE NO: 5

LOCATION: ST KAL G

DATE SAMPLED: 12/19/2019

TIME SAMPLED: 12:30 PM

DATE RECEIVED: 12/20/2019

TIME RECEIVED: 10:00 AM

MI

SAMPLED BY: BRENDON RUPPEN/GCES

SAMPLE ANALYSIS

No: Analysis

SAMPLE ID: MW-11

CHLORIDE EPA 300.0

Concentration

ND

LOD

10

Units

mg/L (PPM)

Analyst

LV

Date

12/20/2019

Sample

WATER

ND = NOT DETECTED, RESULT < LOD

LOD = LIMIT OF DETECTION

s.u. = STANDARD pH UNITS REPORTED AT 25 C

COMPANY: LAMBDA ENERGY RESOURCES, LLC

GTA PROJECT NO: 122019-9

PROJECT NO: 2018100143.01

GTA SAMPLE NO: 6

LOCATION: ST KAL G

DATE SAMPLED: 12/19/2019

TIME SAMPLED: 1:00 PM

DATE RECEIVED: 12/20/2019

TIME RECEIVED: 10:00 AM

MI

SAMPLED BY: BRENDON RUPPEN/GCES

SAMPLE ANALYSIS

No: Analysis

SAMPLE ID: MW-7

CHLORIDE EPA 300.0

Concentration

ND

LOD

10

Units

mg/L (PPM)

Analyst

LV

Date

12/20/2019

Sample

WATER

ND = NOT DETECTED, RESULT < LOD

LOD = LIMIT OF DETECTION

s.u. = STANDARD pH UNITS REPORTED AT 25 C

COMPANY: LAMBDA ENERGY RESOURCES, LLC

GTA PROJECT NO: 122019-9

PROJECT NO: 2018100143.01

GTA SAMPLE NO: 7

LOCATION: ST KAL G

DATE SAMPLED: 12/19/2019

TIME SAMPLED: 1:30 PM

DATE RECEIVED: 12/20/2019

TIME RECEIVED: 10:00 AM

MI

SAMPLED BY: BRENDON RUPPEN/GCES

SAMPLE ANALYSIS

No: Analysis

SAMPLE ID: MW-13

CHLORIDE EPA 300.0

Concentration

ND

LOD

10

Units

mg/L (PPM)

Analyst

LV

Date

12/20/2019

Sample

WATER

ND = NOT DETECTED, RESULT < LOD

LOD = LIMIT OF DETECTION

s.u. = STANDARD pH UNITS REPORTED AT 25 C

COMPANY: LAMBDA ENERGY RESOURCES, LLC

GTA PROJECT NO: 122019-9

PROJECT NO: 2018100143.01

GTA SAMPLE NO: 8

LOCATION: ST KAL G

DATE SAMPLED: 12/19/2019

TIME SAMPLED: 2:00 PM

DATE RECEIVED: 12/20/2019

TIME RECEIVED: 10:00 AM

MI

SAMPLED BY: BRENDON RUPPEN/GCES

SAMPLE ANALYSIS

No: Analysis

SAMPLE ID: MW-12

CHLORIDE EPA 300.0

Concentration

ND

LOD

10

Units

mg/L (PPM)

Analyst

LV

Date

12/20/2019

Sample

WATER

ND = NOT DETECTED, RESULT < LOD

LOD = LIMIT OF DETECTION

s.u. = STANDARD pH UNITS REPORTED AT 25 C

CHAIN OF CUSTODY

PROJECT NUMBER 2018100143	SITE NAME/ADDRESS St. Kol G	COMPANY/NAME LER
SAMPLED BY Brendan P. Ruppen	COMPANY GCS	GTA PROJECT # 122019-9

SAMPLE INFORMATION

#	SAMPLE ID	DATE SAMPLED	TIME	MATRIX	ANALYSIS
1	MW-2	12/19/19	10:30	GW	^{ONLY ONE VOA} BTEX, Chloride, Spec. Cond.
2	MW-4		10:00		BTEX, Chloride
3	MW-6		11:30		
4	MW-8		12:00		
5	MW-11		12:30		
6	MW-7		1:00		
7	MW-13		1:30		
8	MW-12		2:00		BTEX + 4, Chloride

BILL TO:

LER

REPORT TO:

J. Simsa

RELEASED BY <i>B. Ruppen</i>	DATE/TIME 12/20/19 10:00	RECEIVED BY <i>Leon V. Iachetta</i>	DATE/TIME 12/20/19 10:00

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