

**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: 2018100136.02

GTA ProjNo: 101920-6

Site Addr: HAYES 22 CPF

Sampled By: JOSHUA GERRIE/GCES

Date Rec: 10/19/2020

Time Rec: 3:40 PM

Sample No.	Sample ID	Date Sampled	Time Sampled	Sample Matrix
1	RW-101 BLDG	10/19/2020		WATER
2	RW-102 BLDG	10/19/2020		WATER
3	RW-103 BLDG	10/19/2020		WATER
4	RW-104 BLDG	10/19/2020		WATER
5	RW-105 BLDG	10/19/2020		WATER
6	TOWER EFF	10/19/2020		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: 2018100136.02
LOCATION: HAYES 22 CPF
MI
SAMPLE MATRIX: WATER
SAMPLE ID: RW-101 BLDG

GTA PROJECT NO: 101920-6
GTA SAMPLE NO: 1
DATE SAMPLED: 10/19/2020
TIME SAMPLED:
DATE RECEIVED: 10/19/2020
TIME RECEIVED: 3:40 PM
SAMPLED BY: JOSHUA GERRIE/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		10/20/2020	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

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COMPANY: LAMBDA ENERGY RESOURCES, LLC
PROJECT NO: 2018100136.02
LOCATION: HAYES 22 CPF
MI
SAMPLE MATRIX: WATER
SAMPLE ID: RW-102 BLDG

GTA PROJECT NO: 101920-6
GTA SAMPLE NO: 2
DATE SAMPLED: 10/19/2020
TIME SAMPLED:
DATE RECEIVED: 10/19/2020
TIME RECEIVED: 3:40 PM
SAMPLED BY: JOSHUA GERRIE/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		10/20/2020	EPA 5030B
Toluene	ND	1.0					
Ethylbenzene	ND	1.0					
Xylene(Total)	ND	3.0					

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PROJECT NO: 2018100136.02
LOCATION: HAYES 22 CPF
MI
SAMPLE MATRIX: WATER
SAMPLE ID: RW-103 BLDG

GTA PROJECT NO: 101920-6
GTA SAMPLE NO: 3
DATE SAMPLED: 10/19/2020
TIME SAMPLED:
DATE RECEIVED: 10/19/2020
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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 Extracted</u>	<u>Date Complete</u>	<u>Prep Method</u>
Benzene	23	1.0	ug/L (PPB)	MR		10/20/2020	EPA 5030B
Toluene	ND	1.0					
Ethylbenzene	24	1.0					
Xylene(Total)	17	3.0					

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PROJECT NO: 2018100136.02
LOCATION: HAYES 22 CPF
MI
SAMPLE MATRIX: WATER
SAMPLE ID: RW-104 BLDG

GTA PROJECT NO: 101920-6
GTA SAMPLE NO: 4
DATE SAMPLED: 10/19/2020
TIME SAMPLED:
DATE RECEIVED: 10/19/2020
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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 Extracted</u>	<u>Date Complete</u>	<u>Prep Method</u>
Benzene	5.9	1.0	ug/L (PPB)	MR		10/20/2020	EPA 5030B
Toluene	ND	1.0					
Ethylbenzene	37	1.0					
Xylene(Total)	44	3.0					

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PROJECT NO: 2018100136.02
LOCATION: HAYES 22 CPF
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SAMPLE MATRIX: WATER
SAMPLE ID: RW-105 BLDG

GTA PROJECT NO: 101920-6
GTA SAMPLE NO: 5
DATE SAMPLED: 10/19/2020
TIME SAMPLED:
DATE RECEIVED: 10/19/2020
TIME RECEIVED: 3:40 PM
SAMPLED BY: JOSHUA GERRIE/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	22	1.0	ug/L (PPB)	MR		10/20/2020	EPA 5030B
Toluene	ND	1.0					
Ethylbenzene	21	1.0					
Xylene(Total)	42	3.0					

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COMPANY: LAMBDA ENERGY RESOURCES, LLC
PROJECT NO: 2018100136.02
LOCATION: HAYES 22 CPF
MI
SAMPLE MATRIX: WATER
SAMPLE ID: TOWER EFF

GTA PROJECT NO: 101920-6
GTA SAMPLE NO: 6
DATE SAMPLED: 10/19/2020
TIME SAMPLED:
DATE RECEIVED: 10/19/2020
TIME RECEIVED: 3:40 PM
SAMPLED BY: JOSHUA GERRIE/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		10/20/2020	EPA 5030B
Toluene	ND	1.0					
Ethylbenzene	ND	1.0					
Xylene(Total)	ND	3.0					

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PROJECT NO: 2018100136.02
LOCATION: HAYES 22 CPF
MI
SAMPLED BY: JOSHUA GERRIE/GCES
SAMPLE ID: RW-101 BLDG

GTA PROJECT NO: 101920-6
GTA SAMPLE NO: 1
DATE SAMPLED: 10/19/2020
TIME SAMPLED:
DATE RECEIVED: 10/19/2020
TIME RECEIVED: 3:40 PM
SAMPLE MATRIX: WATER

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 DISS EPA 200.8	ND	0.0010	mg/L (PPM)	MR	10/20/2020	EPA 3005A
IRON DISS EPA 200.8	0.013	0.010	mg/L (PPM)	MR	10/20/2020	EPA 3005A
MANGANESE DISS EPA 200.8	0.13	0.0010	mg/L (PPM)	MR	10/20/2020	EPA 3005A

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PROJECT NO: 2018100136.02
LOCATION: HAYES 22 CPF
MI
SAMPLED BY: JOSHUA GERRIE/GCES
SAMPLE ID: RW-102 BLDG

GTA PROJECT NO: 101920-6
GTA SAMPLE NO: 2
DATE SAMPLED: 10/19/2020
TIME SAMPLED:
DATE RECEIVED: 10/19/2020
TIME RECEIVED: 3:40 PM
SAMPLE MATRIX: WATER

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 DISS EPA 200.8	0.0028	0.0010	mg/L (PPM)	MR	10/20/2020	EPA 3005A
IRON DISS EPA 200.8	0.38	0.010	mg/L (PPM)	MR	10/20/2020	EPA 3005A
MANGANESE DISS EPA 200.8	0.084	0.0010	mg/L (PPM)	MR	10/20/2020	EPA 3005A

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LOCATION: HAYES 22 CPF
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SAMPLED BY: JOSHUA GERRIE/GCES
SAMPLE ID: RW-103 BLDG

GTA PROJECT NO: 101920-6
GTA SAMPLE NO: 3
DATE SAMPLED: 10/19/2020
TIME SAMPLED:
DATE RECEIVED: 10/19/2020
TIME RECEIVED: 3:40 PM
SAMPLE MATRIX: WATER

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 DISS EPA 200.8	0.0033	0.0010	mg/L (PPM)	MR	10/20/2020	EPA 3005A
IRON DISS EPA 200.8	1.1	0.010	mg/L (PPM)	MR	10/20/2020	EPA 3005A
MANGANESE DISS EPA 200.8	0.062	0.0010	mg/L (PPM)	MR	10/20/2020	EPA 3005A

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PROJECT NO: 2018100136.02
LOCATION: HAYES 22 CPF
MI
SAMPLED BY: JOSHUA GERRIE/GCES
SAMPLE ID: RW-104 BLDG

GTA PROJECT NO: 101920-6
GTA SAMPLE NO: 4
DATE SAMPLED: 10/19/2020
TIME SAMPLED:
DATE RECEIVED: 10/19/2020
TIME RECEIVED: 3:40 PM
SAMPLE MATRIX: WATER

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 DISS EPA 200.8	0.0026	0.0010	mg/L (PPM)	MR	10/20/2020	EPA 3005A
IRON DISS EPA 200.8	1.4	0.010	mg/L (PPM)	MR	10/20/2020	EPA 3005A
MANGANESE DISS EPA 200.8	0.062	0.0010	mg/L (PPM)	MR	10/20/2020	EPA 3005A

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LOCATION: HAYES 22 CPF
MI
SAMPLED BY: JOSHUA GERRIE/GCES
SAMPLE ID: RW-105 BLDG

GTA PROJECT NO: 101920-6
GTA SAMPLE NO: 5
DATE SAMPLED: 10/19/2020
TIME SAMPLED:
DATE RECEIVED: 10/19/2020
TIME RECEIVED: 3:40 PM
SAMPLE MATRIX: WATER

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 DISS EPA 200.8	0.0029	0.0010	mg/L (PPM)	MR	10/20/2020	EPA 3005A
IRON DISS EPA 200.8	1.1	0.010	mg/L (PPM)	MR	10/20/2020	EPA 3005A
MANGANESE DISS EPA 200.8	0.11	0.0010	mg/L (PPM)	MR	10/20/2020	EPA 3005A

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COMPANY: LAMBDA ENERGY RESOURCES, LLC
PROJECT NO: 2018100136.02
LOCATION: HAYES 22 CPF
MI
SAMPLED BY: JOSHUA GERRIE/GCES
SAMPLE ID: TOWER EFF

GTA PROJECT NO: 101920-6
GTA SAMPLE NO: 6
DATE SAMPLED: 10/19/2020
TIME SAMPLED:
DATE RECEIVED: 10/19/2020
TIME RECEIVED: 3:40 PM
SAMPLE MATRIX: WATER

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 DISS EPA 200.8	ND	0.0010	mg/L (PPM)	MR	10/20/2020	EPA 3005A
IRON DISS EPA 200.8	ND	0.010	mg/L (PPM)	MR	10/20/2020	EPA 3005A
MANGANESE DISS EPA 200.8	ND	0.0010	mg/L (PPM)	MR	10/20/2020	EPA 3005A

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PROJECT NO: 2018100136.02
LOCATION: HAYES 22 CPF
MI
SAMPLED BY: JOSHUA GERRIE/GCES

GTA PROJECT NO: 101920-6
GTA SAMPLE NO: 1
DATE SAMPLED: 10/19/2020
TIME SAMPLED:
DATE RECEIVED: 10/19/2020
TIME RECEIVED: 3:40 PM

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</u>
	SAMPLE ID: RW-101 BLDG CHLORIDE EPA 300.0	ND	10	mg/L (PPM)	LV	10/22/2020	WATER

ND = NOT DETECTED, RESULT < LOD
LOD = LIMIT OF DETECTION
s.u. = STANDARD pH UNITS REPORTED AT 25 C

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COMPANY: LAMBDA ENERGY RESOURCES, LLC

PROJECT NO: 2018100136.02

LOCATION: HAYES 22 CPF

GTA PROJECT NO: 101920-6

GTA SAMPLE NO: 2

DATE SAMPLED: 10/19/2020

TIME SAMPLED:

DATE RECEIVED: 10/19/2020

TIME RECEIVED: 3:40 PM

MI

SAMPLED BY: JOSHUA GERRIE/GCES

SAMPLE ANALYSIS**No: Analysis**

SAMPLE ID: RW-102 BLDG

CHLORIDE EPA 300.0

Concentration

20

LOD

10

Units

mg/L (PPM)

Analyst

LV

Date Completed

10/22/2020

Sample

WATER

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COMPANY: LAMBDA ENERGY RESOURCES, LLC

PROJECT NO: 2018100136.02

LOCATION: HAYES 22 CPF

GTA PROJECT NO: 101920-6

GTA SAMPLE NO: 3

DATE SAMPLED: 10/19/2020

TIME SAMPLED:

DATE RECEIVED: 10/19/2020

TIME RECEIVED: 3:40 PM

MI

SAMPLED BY: JOSHUA GERRIE/GCES

SAMPLE ANALYSIS**No: Analysis**

SAMPLE ID: RW-103 BLDG

CHLORIDE EPA 300.0

Concentration

17

LOD

10

Units

mg/L (PPM)

Analyst

LV

Date Completed

10/22/2020

Sample

WATER

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COMPANY: LAMBDA ENERGY RESOURCES, LLC
PROJECT NO: 2018100136.02
LOCATION: HAYES 22 CPF
MI
SAMPLED BY: JOSHUA GERRIE/GCES

GTA PROJECT NO: 101920-6
GTA SAMPLE NO: 4
DATE SAMPLED: 10/19/2020
TIME SAMPLED:
DATE RECEIVED: 10/19/2020
TIME RECEIVED: 3:40 PM

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</u>
	SAMPLE ID: RW-104 BLDG CHLORIDE EPA 300.0	34	10	mg/L (PPM)	LV	10/22/2020	WATER

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COMPANY: LAMBDA ENERGY RESOURCES, LLC

PROJECT NO: 2018100136.02

LOCATION: HAYES 22 CPF

GTA PROJECT NO: 101920-6

GTA SAMPLE NO: 5

DATE SAMPLED: 10/19/2020

TIME SAMPLED:

DATE RECEIVED: 10/19/2020

TIME RECEIVED: 3:40 PM

MI

SAMPLED BY: JOSHUA GERRIE/GCES

SAMPLE ANALYSIS

No: Analysis

SAMPLE ID: RW-105 BLDG

CHLORIDE EPA 300.0

Concentration

19

LOD

10

Units

mg/L (PPM)

Analyst

LV

Date Completed

10/22/2020

Sample

WATER

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COMPANY: LAMBDA ENERGY RESOURCES, LLC
PROJECT NO: 2018100136.02
LOCATION: HAYES 22 CPF
MI
SAMPLED BY: JOSHUA GERRIE/GCES

GTA PROJECT NO: 101920-6
GTA SAMPLE NO: 6
DATE SAMPLED: 10/19/2020
TIME SAMPLED:
DATE RECEIVED: 10/19/2020
TIME RECEIVED: 3:40 PM

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</u>
	SAMPLE ID: TOWER EFF CHLORIDE EPA 300.0	27	10	mg/L (PPM)	LV	10/22/2020	WATER

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LOD = LIMIT OF DETECTION
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