

## Analytical Report

### Report Summary

Client: Epic Energy

Samples Received: 7/19/2019

Job Number: 18012-0006

Work Order: P907064

Project Name/Location: Bradenheads

Report Reviewed By:



Date: 7/26/19

Walter Hinchman, Laboratory Director

NMOCB  
AUG 19 2019  
DISTRICT III



Envirotech Inc. certifies the test results meet all requirements of TNI unless footnoted otherwise.  
Statement of Data Authenticity: Envirotech, Inc, attests the data reported has not been altered in any way.  
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Envirotech, Inc, currently holds the appropriate and available Utah TNI certification NM009792018-1 for the data reported.



Epic Energy  
7420 Main Street  
Farmington NM, 87402

Project Name: Bradenheads  
Project Number: 18012-0006  
Project Manager: Vern Andrews

Reported:  
07/26/19 14:04

### Analytical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
#1- Candado 2	P907064-01A	Aqueous	07/18/19	07/19/19	Poly 500mL

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Epic Energy	Project Name:	Bradenheads	Reported:
7420 Main Street	Project Number:	18012-0006	07/26/19 14:04
Farmington NM, 87402	Project Manager:	Vern Andrews	

**#1- Candado 2**  
**P907064-01 (Water)**

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

**Wet Chem/Gravimetric**

Total Dissolved Solids	649	10.0	mg/L	1	1929024	07/19/19	07/26/19	SM2540C	
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**Dissolved Metals by 6010**

Calcium	3.82	1.00	mg/L	1	1930004	07/22/19	07/22/19	EPA 6010C	
Iron	ND	2.00	mg/L	1	1930004	07/22/19	07/22/19	EPA 6010C	
Magnesium	ND	1.00	mg/L	1	1930004	07/22/19	07/22/19	EPA 6010C	
Potassium	1.65	1.00	mg/L	1	1930004	07/22/19	07/22/19	EPA 6010C	
Sodium	302	2.00	mg/L	1	1930004	07/22/19	07/22/19	EPA 6010C	
Sodium Absorption Ratio	34.9		N/A	1	1930017	07/23/19	07/23/19	[CALC]	

**Anions by 300.0/9056A**

Chloride	6.35	2.00	mg/L	1	1929038	07/19/19	07/19/19	EPA 300.0/9056A	
Fluoride	1.45	0.250	mg/L	1	1929038	07/19/19	07/19/19	EPA 300.0/9056A	
Nitrate-N	ND	0.250	mg/L	1	1929038	07/19/19 14:20	07/19/19 16:35	EPA 300.0/9056A	
Nitrite-N	ND	0.250	mg/L	1	1929038	07/19/19 14:20	07/19/19 16:35	EPA 300.0/9056A	
o-Phosphate-P	ND	0.250	mg/L	1	1929038	07/19/19 14:20	07/19/19 16:35	EPA 300.0/9056A	
Sulfate	469	2.00	mg/L	1	1929038	07/19/19	07/19/19	EPA 300.0/9056A	

**Wet Chemistry**

Total Alkalinity (as CaCO <sub>3</sub> at pH 4.5)	125	10.0	mg/L	1	1930034	07/25/19	07/25/19	SM2320B	
Specific Conductance (@ 25 C)	1290	10.0	uS/cm	1	1929036	07/19/19	07/19/19	9050A/2510 B	
pH @25°C	9.22		pH Units	1	1929037	07/19/19 13:01	07/19/19 16:35	9040C/4500 H+B	

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### Wet Chem/Gravimetric - Quality Control

### Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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#### Batch 1929024 - Wet Chemistry Preparation

##### Blank (1929024-BLK1)

Prepared: 07/17/19 1 Analyzed: 07/22/19 1

Total Dissolved Solids	ND	10.0	mg/L
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##### LCS (1929024-BS1)

Prepared: 07/17/19 1 Analyzed: 07/22/19 1

Total Dissolved Solids	96.0	10.0	mg/L	100	96.0	50-150
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##### Duplicate (1929024-DUP1)

Source: P907045-01

Prepared: 07/17/19 1 Analyzed: 07/22/19 1

Total Dissolved Solids	6370	50.0	mg/L	6320	0.788	5
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7420 Main Street	Project Number:	18012-0006	07/26/19 14:04
Farmington NM, 87402	Project Manager:	Vern Andrews	

### Dissolved Metals by 6010 - Quality Control

#### Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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#### Batch 1930004 - Metals Water Hotblock Digestion EPA 3010A/200.2

##### Blank (1930004-BLK1)

Prepared: 07/22/19 | Analyzed: 07/22/19 2

Calcium	ND	1.00	mg/L
Iron	ND	2.00	"
Magnesium	ND	1.00	"
Potassium	ND	1.00	"
Sodium	ND	2.00	"

##### LCS (1930004-BS1)

Prepared: 07/22/19 | Analyzed: 07/22/19 2

Calcium	52.9	1.00	mg/L	50.0	106	80-120
Iron	105	2.00	"	100	105	80-120
Magnesium	52.8	1.00	"	50.0	106	80-120
Potassium	5.28	1.00	"	5.00	106	80-120
Sodium	19.7	2.00	"	20.0	98.7	80-120

##### Matrix Spike (1930004-MS1)

Source: P907064-01

Prepared: 07/22/19 | Analyzed: 07/22/19 2

Calcium	56.2	1.00	mg/L	50.0	3.82	105	75-125	
Iron	104	2.00	"	100	ND	104	75-125	
Magnesium	52.4	1.00	"	50.0	ND	105	75-125	
Potassium	8.16	1.00	"	5.00	1.65	130	75-125	SPK1
Sodium	335	2.00	"	20.0	302	166	75-125	SPK2

##### Matrix Spike Dup (1930004-MSD1)

Source: P907064-01

Prepared: 07/22/19 | Analyzed: 07/22/19 2

Calcium	56.4	1.00	mg/L	50.0	3.82	105	75-125	0.284	20	
Iron	105	2.00	"	100	ND	105	75-125	0.860	20	
Magnesium	53.6	1.00	"	50.0	ND	107	75-125	2.27	20	
Potassium	8.17	1.00	"	5.00	1.65	130	75-125	0.0245	20	SPK1
Sodium	339	2.00	"	20.0	302	181	75-125	0.920	20	SPK2

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### Anions by 300.0/9056A - Quality Control

#### Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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#### Batch 1929038 - Anion Extraction EPA 300.0/9056A

##### Blank (1929038-BLK1)

Prepared & Analyzed: 07/19/19 1

Fluoride	ND	0.250	mg/L
Chloride	ND	2.00	"
Nitrite-N	ND	0.250	"
Nitrate-N	ND	0.250	"
o-Phosphate-P	ND	0.250	"
Sulfate	ND	2.00	"

##### LCS (1929038-BS1)

Prepared & Analyzed: 07/19/19 1

Fluoride	2.46	0.250	mg/L	2.50	98.5	90-110
Chloride	26.7	2.00	"	25.0	107	90-110
Nitrite-N	2.47	0.250	"	2.50	98.7	90-110
Nitrate-N	2.51	0.250	"	2.50	100	90-110
o-Phosphate-P	12.5	0.250	"	12.5	100	90-110
Sulfate	25.5	2.00	"	25.0	102	90-110

##### Matrix Spike (1929038-MS1)

Source: P907064-01

Prepared & Analyzed: 07/19/19 1

Fluoride	4.00	0.250	mg/L	2.50	1.45	102	80-120
Chloride	33.1	2.00	"	25.0	6.35	107	80-120
Nitrite-N	2.50	0.250	"	2.50	ND	100	80-120
Nitrate-N	2.53	0.250	"	2.50	ND	101	80-120
o-Phosphate-P	12.6	0.250	"	12.5	ND	101	80-120
Sulfate	469	2.00	"	25.0	469	0.180	80-120

SPK2

##### Matrix Spike Dup (1929038-MSD1)

Source: P907064-01

Prepared & Analyzed: 07/19/19 1

Fluoride	3.97	0.250	mg/L	2.50	1.45	101	80-120	0.728	20
Chloride	32.8	2.00	"	25.0	6.35	106	80-120	0.940	20
Nitrite-N	2.48	0.250	"	2.50	ND	99.0	80-120	0.925	20
Nitrate-N	2.58	0.250	"	2.50	ND	103	80-120	2.00	20
o-Phosphate-P	12.4	0.250	"	12.5	ND	99.6	80-120	1.32	20
Sulfate	472	2.00	"	25.0	469	11.2	80-120	0.587	20

SPK2

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**Wet Chemistry - Quality Control**  
**Envirotech Analytical Laboratory**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
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**Batch 1929036 - Wet Chemistry Preparation**

**Blank (1929036-BLK1)**

Prepared & Analyzed: 07/19/19 1

Specific Conductance (@ 25 C) ND 10.0 uS/cm

**LCS (1929036-BS1)**

Prepared & Analyzed: 07/19/19 1

Specific Conductance (@ 25 C) 1410 10.0 uS/cm 1410 99.7 98-102

**Duplicate (1929036-DUP1)**

Source: P907064-01

Prepared & Analyzed: 07/19/19 1

Specific Conductance (@ 25 C) 1290 10.0 uS/cm 1290 0.0775 20

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07/26/19 14:04

**Wet Chemistry - Quality Control**  
**Envirotech Analytical Laboratory**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 1929037 - Wet Chemistry Preparation**

**LCS (1929037-BS1)**

Prepared & Analyzed: 07/19/19 1

pH	7.99		pH Units	8.00		99.9	98.75-101.25			
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**Duplicate (1929037-DUP1)**

Source: P907064-01

Prepared & Analyzed: 07/19/19 1

pH	9.24		pH Units		9.22			0.217	20	
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**Wet Chemistry - Quality Control**  
**Envirotech Analytical Laboratory**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 1930034 - Wet Chemistry Preparation**

**LCS (1930034-BS1)**

Prepared & Analyzed: 07/25/19 1

Total Alkalinity (as CaCO <sub>3</sub> at pH 4.5)	252	10.0	mg/L	250	101	70-130
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**Duplicate (1930034-DUP1)**

Source: P907064-01

Prepared & Analyzed: 07/25/19 1

Total Alkalinity (as CaCO <sub>3</sub> at pH 4.5)	152	10.0	mg/L	125	19.5	20
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**QC Summary Report**

**Comment:**

Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

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Reported:  
07/26/19 14:04

#### Notes and Definitions

SPK2 The spike recovery was outside of QC acceptance limits for the MS and/or MSD due to native analyte concentration at 4 times or greater than the spike concentration.

SPK1 The spike recovery is outside of quality control limits.

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

RPD Relative Percent Difference

\*\* Methods marked with \*\* are non-accredited methods.

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Client: <u>Epic Operations</u>		Report due by: _____		Lab Use Only		TAT		EPA Program																	
Project: <u>Graden heads</u>		Attention: _____		Lab WO# <u>P907064</u>		Job Number		1D	3D	RCRA	CWA	SDWA													
Project Manager: <u>Vern Andrews</u>		Address: _____		Analysis and Method				State																	
Address: _____		City, State, Zip _____		DRO/RO by 8015		GRO/DRO by 8015		BTX by 8021		VOC by 8260		Metals 6010		Chloride 300.0		AP I		NM		CO		UT		AZ	
Phone: _____		Email: <u>Vandrews@walsh.net</u>		Email: _____																					
Time Sampled		Date Sampled		Matrix		No Containers		Sample ID		Lab Number															
10:47A		7-18				1		#1 - CANDADO 2		1															



NMOC

Project Information

Chain of Custody

AUG 19 2019

Page 1 of 1

Client: <u>Epic Energy</u> Project: <u>Braden heads</u> Project Manager: <u>Vern Andrews</u> Address: _____ City, State, Zip: _____ Phone: _____ Email: <u>Vandrews@walsh.net</u>				Report Attention Report due by: _____ Attention: _____ Address: _____ City, State, Zip: _____ Phone: _____ Email: _____				Lab Use Only Lab WO# <u>P907064</u> Job Number <u>18012-M06</u>				TAT 1D 3D		EPA Program RCRA CWA SDWA						
								Analysis and Method DRO/DRO by 8015 GRO/DRO by 8015 BTEX by 8021 VOC by 8260 Metals 6010 Chloride 300.0				State NM CO UT AZ								
Time Sampled	Date Sampled	Matrix	No Containers	Sample ID	Lab Number															
10:47A	7-18		1	#1 - CANDADO 2																

**Additional Instructions:**

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: Blaine Williams

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

Relinquished by: (Signature) <u>[Signature]</u>	Date <u>7-19-19</u>	Time <u>8:12A</u>	Received by: (Signature) <u>[Signature]</u>	Date <u>7-19-19</u>	Time <u>8:12</u>	Lab Use Only
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Received on ice: Y <u>(N)</u>
						T1 <u>10.8</u> T2 <u>10.8</u> T3
						AVG Temp °C <u>10.8</u>

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other \_\_\_\_\_ Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.