

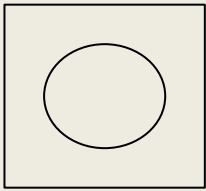
LEGEND

 Site Location

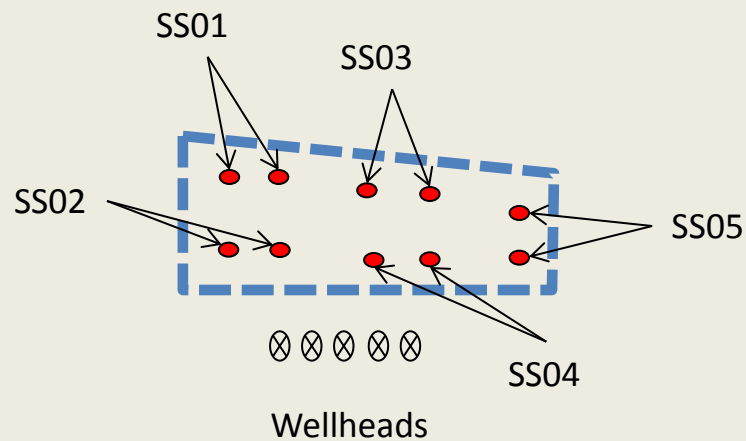


Figure 1
Location Site Map
December 7, 2018 LBK

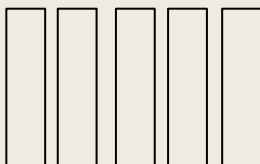
..... North Platte I-21
Location ID: 455363
NESW¼Sec 21, T5N, R63W, 6th PM
Weld County, Colorado



Maintenance Tank






Separators



Aerial photograph courtesy of Google Earth Pro

LEGEND

-  Release Location
-  Excavated Area
-  Sample Location

N



Figure 2
Site Map

March 25, 2019 LBK

North Platte I-21
Location ID: 455363
NESW, Sec 21, T5N, R63W, 6th PM
Weld County, Colorado

TABLE 1
SOIL ANALYTICAL RESULTS
NORTH PLATTE I-21
WELD COUNTY, COLORADO
BONANZA CREEK ENERGY OPERATING COMPANY LLC.

Parameters		COGCC Table 910-1 Concentration Level	SS01	SS02	SS03	SS04	SS05
Sample Date			3/18/2019	3/18/2019	3/18/2019	3/18/2019	3/18/2019
Sample Depth (feet)			1.5-2	1.5-2	1.5-2	1.5-2	1.5-2
BTEX	Benzene	0.17	<0.002	<0.002	<0.002	<0.002	<0.002
	Toluene	85	<0.002	<0.002	<0.002	<0.002	<0.002
	Ethylbenzene	100	<0.002	<0.002	<0.002	<0.002	<0.002
	Total Xylenes	175	<0.002	<0.002	<0.002	<0.002	<0.002
TPH	DRO	--	<50	<50	<50	<50	<50
	GRO	--	<50	<50	<50	<50	<50
	Total	500	<50	<50	<50	<50	<50

Notes:

COGCC - Colorado Oil and Gas Conservation Commission

-- - no concentration level is available

BTEX - benzene, toluene, ethylbenzene, xylenes (total)

DRO - diesel range organics

GRO - gasoline range organics

TPH - total petroleum hydrocarbons

All results are in mg/kg unless stated otherwise.



March 22, 2019

Bonanza Creek Energy, Inc.

Brian Dodek

410 17th St, Suite 1400

Denver

CO 80211

Project Name - North Platte I-21

Project Number - [none]

Attached are your analytical results for North Platte I-21 received by Origins Laboratory, Inc. March 19, 2019. This project is associated with Origins project number Y903226-01.

The analytical results in the following report were analyzed under the guidelines of EPA Methods. These methods are identified as follows; "SW" are defined in SW-846, "EPA" are defined in 40CFR part 136 and "SM" are defined in the most current revision of Standard Methods For the Examination of Water and Wastewater.

The analytical results apply specifically to the samples and analyses specified per the attached Chain of Custody. As such, this report shall not be reproduced except in full, without the written approval of Origin's laboratory.

Unless otherwise noted, the analytical results for all soil samples are reported on a wet weight basis. All analytical analyses were performed under NELAP guidelines unless noted by a data qualifier.

Any holding time exceedances, deviations from the method specifications or deviations from Origins Laboratory's Standard Operating Procedures are outlined in the case narrative.

Thank you for selecting Origins for your analytical needs. Please contact us with any questions concerning this report, or if we can help with anything at all.

Origins Laboratory, Inc.
303.433.1322
o-squad@oelabinc.com



1725 Elk Place, Denver, CO 80211 | Phone: 303.433.1322 | Fax: 303.265.9645

Bonanza Creek Energy, Inc.

410 17th St, Suite 1400

Denver CO 80211

Brian Dodek

Project Number: [none]

Project: North Platte I-21

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SS01	Y903226-01	Soil	March 18, 2019 16:00	03/19/2019 07:40
SS02	Y903226-02	Soil	March 18, 2019 16:05	03/19/2019 07:40
SS03	Y903226-03	Soil	March 18, 2019 16:10	03/19/2019 07:40
SS04	Y903226-04	Soil	March 18, 2019 16:15	03/19/2019 07:40
SS05	Y903226-05	Soil	March 18, 2019 16:20	03/19/2019 07:40

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Jen Pellegrini For Noelle Doyle Mathis, President

Bonanza Creek Energy, Inc.

410 17th St, Suite 1400

Denver CO 80211

Brian Dodek

Project Number: [none]

Project: North Platte I-21

www.originslaboratory.com

ORIGINS
LABORATORY, INC

page 1 of 1

Client: BCEI Project Manager: B. Dodek
 Address: _____ Project Name: NP I-21
 Telephone Number: _____ Project Number: _____
 Email Address: _____ Samples Collected By: L. Kelly

Fax: 303.265.9645 | Phone: 303.433.1322 | Denver, CO 80211 | 1725 Elk Place

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix			Analysis		Sample Instructions
				Unpreserved	HCl	HNO ₃	Other	Groundwater	Soil	Air Summa #	Other	Other	
SS01 (SS01)	3/18/19	1600	2	X				X				X	1
SS02 (SS02)		1605	1									X	2
SS03 (SS03)		1610	1										3
SS04		1615	1										4
SS05		1620	1										5
													6
													7
													8
													9
													10

Relinquished by: <u>L. Kelly</u>	Date: <u>3/19/19</u>	Time: <u>7:40</u>	Received By: <u>[Signature]</u>	Date: <u>3/19/19</u>	Time: <u>740</u>	Turnaround Time: <input checked="" type="checkbox"/> Same Day <input type="checkbox"/> 24 Hr <input type="checkbox"/> 48 Hr <input type="checkbox"/> 72 Hr <input checked="" type="checkbox"/> Standard
Relinquished by:	Date:	Time:	Received By:	Date:	Time:	

Date Results Needed

Temp Received: 19°C

Origins Laboratory, Inc.

Jen Pellegrini

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Bonanza Creek Energy, Inc.

410 17th St, Suite 1400

Denver CO 80211

Brian Dodek

Project Number: [none]

Project: North Platte I-21

Origins Laboratory

F-012207-01-R1
Effective Date: 01/09/12

Sample Receipt Checklist

Origins Work Order: Y903226

Client: Bonanza Creek

Client Project ID: NP I-21

Checklist Completed by: JG

Shipped Via: HD
(UPS, FedEx, Hand Delivered, Pick-up, etc.)

Date/time completed: 3/19/19

Airbill #: N/A

Matrix(s) Received: (Check all that apply): ☒ Soil/Solid ☐ Water ☐ Other: _____

Cooler Number/Temperature: 1 / 1.9 °C _____ / _____ °C _____ / _____ °C (Describe)

Thermometer ID: T003

Requirement Description	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature between 0°C to ≤ 6°C ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is there ice present (document if blue ice is used)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are custody seals present on each sample container? (if so, document in comments if they are signed and dated, broken or intact)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Were all samples received intact ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are short holding time analytes or samples with HTs due within 48 hours present ⁽¹⁾ ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is a chain-of-custody (COC) present and filled out completely ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client with date and time recorded ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace (> ¼ inch bubble) present? If yes, contact client and note in narrative.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples preserved that require preservation and was it checked ⁽¹⁾ ? (note ID of confirmation instrument used in comments) / (preservation is not confirmed for subcontracted analyses in order to insure sample integrity)/(pH <2 for samples preserved with HNO ₃ , HCL, H ₂ SO ₄) / (pH >10 for samples preserved with NaAsO ₂ +NaOH, ZnAc+NaOH)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Additional Comments (if any):				

⁽¹⁾If NO, then contact the client before proceeding with analysis and note date/time and person contacted as well as the corrective action to in the additional comments (above) and the case narrative.

Reviewed by (Project Manager) JG

Date/Time Reviewed 3/20/19

Origins Laboratory, Inc.

Jen Pellegrini

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Bonanza Creek Energy, Inc.

410 17th St, Suite 1400

Denver CO 80211

Brian Dodek

Project Number: [none]

Project: North Platte I-21

SS01

3/18/2019 4:00:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
---------	--------	-----------------	-------	----------	-------	---------	----------	----------	-------

Origins Laboratory, Inc.
Y903226-01 (Soil)

BTEX by EPA 8260C

Benzene	ND	0.002	mg/kg	1	B9C1904	JTD	03/19/2019	03/19/2019	U
Toluene	ND	0.002	"	"	"	JTD	"	"	U
Ethylbenzene	ND	0.002	"	"	"	JTD	"	"	U
Xylenes, total	ND	0.002	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4	106 %	70-130			"	"	"
Surrogate: Toluene-d8	94.8 %	70-130			"	"	"
Surrogate: 4-Bromofluorobenzene	96.9 %	70-130			"	"	"

GRO (TVPH)/DRO (TEPH)by EPA 8015C

Gasoline (C6-C10)	ND	50.0	mg/kg	1	B9C1905	JTD	03/19/2019	03/19/2019	U
Diesel (C10-C28)	ND	50.0	"	"	"	JTD	"	"	U

Surrogate: o-Terphenyl	75.0 %	59-131			"	"	"
------------------------	--------	--------	--	--	---	---	---

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Bonanza Creek Energy, Inc.

410 17th St, Suite 1400

Denver CO 80211

Brian Dodek

Project Number: [none]

Project: North Platte I-21

SS02

3/18/2019 4:05:00PM

Analyte	Result	Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
---------	--------	-------	-------	----------	-------	---------	----------	----------	-------

Origins Laboratory, Inc. Y903226-02 (Soil)

BTEX by EPA 8260C

Benzene	ND	0.002	mg/kg	1	B9C1904	JTD	03/19/2019	03/19/2019	U
Toluene	ND	0.002	"	"	"	JTD	"	"	U
Ethylbenzene	ND	0.002	"	"	"	JTD	"	"	U
Xylenes, total	ND	0.002	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4

104 %

70-130

"

"

"

Surrogate: Toluene-d8

95.1 %

70-130

"

"

"

Surrogate: 4-Bromofluorobenzene

95.6 %

70-130

"

"

"

GRO (TVPH)/DRO (TEPH)by EPA 8015C

Gasoline (C6-C10)	ND	50.0	mg/kg	1	B9C1905	JTD	03/19/2019	03/19/2019	U
Diesel (C10-C28)	ND	50.0	"	"	"	JTD	"	"	U

Surrogate: o-Terphenyl

81.4 %

59-131

"

"

"

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Bonanza Creek Energy, Inc.

410 17th St, Suite 1400

Denver CO 80211

Brian Dodek

Project Number: [none]

Project: North Platte I-21

SS03

3/18/2019 4:10:00PM

Analyte	Result	Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.

Y903226-03 (Soil)

BTEX by EPA 8260C

Benzene	ND	0.002	mg/kg	1	B9C1904	KDK	03/19/2019	03/21/2019	U
Toluene	ND	0.002	"	"	"	KDK	"	"	U
Ethylbenzene	ND	0.002	"	"	"	KDK	"	"	U
Xylenes, total	ND	0.002	"	"	"	KDK	"	"	U

Surrogate: 1,2-Dichloroethane-d4	107 %	70-130			"	"	"
Surrogate: Toluene-d8	94.5 %	70-130			"	"	"
Surrogate: 4-Bromofluorobenzene	96.7 %	70-130			"	"	"

GRO (TVPH)/DRO (TEPH)by EPA 8015C

Gasoline (C6-C10)	ND	50.0	mg/kg	1	B9C1905	JTD	03/19/2019	03/19/2019	U
Diesel (C10-C28)	ND	50.0	"	"	"	JTD	"	"	U

Surrogate: o-Terphenyl	80.1 %	59-131			"	"	"
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Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Bonanza Creek Energy, Inc.

410 17th St, Suite 1400

Denver CO 80211

Brian Dodek

Project Number: [none]

Project: North Platte I-21

SS04

3/18/2019 4:15:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
---------	--------	-----------------	-------	----------	-------	---------	----------	----------	-------

Origins Laboratory, Inc. Y903226-04 (Soil)

BTEX by EPA 8260C

Benzene	ND	0.002	mg/kg	1	B9C1904	JTD	03/19/2019	03/19/2019	U
Toluene	ND	0.002	"	"	"	JTD	"	"	U
Ethylbenzene	ND	0.002	"	"	"	JTD	"	"	U
Xylenes, total	ND	0.002	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4

109 %

70-130

"

"

"

Surrogate: Toluene-d8

93.0 %

70-130

"

"

"

Surrogate: 4-Bromofluorobenzene

97.0 %

70-130

"

"

"

GRO (TVPH)/DRO (TEPH)by EPA 8015C

Gasoline (C6-C10)	ND	50.0	mg/kg	1	B9C1905	JTD	03/19/2019	03/19/2019	U
Diesel (C10-C28)	ND	50.0	"	"	"	JTD	"	"	U

Surrogate: o-Terphenyl

81.1 %

59-131

"

"

"

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Bonanza Creek Energy, Inc.

410 17th St, Suite 1400

Denver CO 80211

Brian Dodek

Project Number: [none]

Project: North Platte I-21

SS05

3/18/2019 4:20:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc. Y903226-05 (Soil)

BTEX by EPA 8260C

Benzene	ND	0.002	mg/kg	1	B9C1904	JTD	03/19/2019	03/19/2019	U
Toluene	ND	0.002	"	"	"	JTD	"	"	U
Ethylbenzene	ND	0.002	"	"	"	JTD	"	"	U
Xylenes, total	ND	0.002	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4

106 %

70-130

"

"

"

Surrogate: Toluene-d8

94.7 %

70-130

"

"

"

Surrogate: 4-Bromofluorobenzene

96.7 %

70-130

"

"

"

GRO (TVPH)/DRO (TEPH)by EPA 8015C

Gasoline (C6-C10)	ND	50.0	mg/kg	1	B9C1905	JTD	03/19/2019	03/19/2019	U
Diesel (C10-C28)	ND	50.0	"	"	"	JTD	"	"	U

Surrogate: o-Terphenyl

79.3 %

59-131

"

"

"

Origins Laboratory, Inc.



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Bonanza Creek Energy, Inc.

410 17th St, Suite 1400

Denver CO 80211

Brian Dodek

Project Number: [none]

Project: North Platte I-21

Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch B9C1904 - EPA 5030 (soil)

Blank (B9C1904-BLK1)

Prepared: 03/19/2019 Analyzed: 03/19/2019

Benzene	ND	0.002	mg/kg							U
Toluene	ND	0.002	"							U
Ethylbenzene	ND	0.002	"							U
Xylenes, total	ND	0.002	"							U
Surrogate: 1,2-Dichloroethane-d4	0.13		"	0.125	107		70-130			
Surrogate: Toluene-d8	0.12		"	0.125	94.0		70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125	96.8		70-130			

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Bonanza Creek Energy, Inc.

410 17th St, Suite 1400

Denver CO 80211

Brian Dodek

Project Number: [none]

Project: North Platte I-21

Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch B9C1904 - EPA 5030 (soil)

LCS (B9C1904-BS1)

Prepared: 03/19/2019 Analyzed: 03/19/2019

Benzene	0.105	0.002	mg/kg	0.100		105	77.1-124			
Toluene	0.100	0.002	"	0.100		100	74.5-128			
Ethylbenzene	0.101	0.002	"	0.100		101	66.4-127			
m,p-Xylene	0.199	0.004	"	0.200		99.5	76.6-124			
o-Xylene	0.100	0.002	"	0.100		99.7	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	0.13		"	0.125		101	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		96.5	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		99.0	70-130			

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Bonanza Creek Energy, Inc.

410 17th St, Suite 1400

Denver CO 80211

Brian Dodek

Project Number: [none]

Project: North Platte I-21

Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch B9C1904 - EPA 5030 (soil)

Matrix Spike (B9C1904-MS1)		Source: Y903226-01			Prepared: 03/19/2019 Analyzed: 03/19/2019					
Benzene	0.109	0.002	mg/kg	0.100	ND	109	71.8-126			
Toluene	0.104	0.002	"	0.100	ND	104	65.1-130			
Ethylbenzene	0.107	0.002	"	0.100	ND	107	62.2-130			
m,p-Xylene	0.210	0.004	"	0.200	0.0009	104	46.5-137			
o-Xylene	0.105	0.002	"	0.100	0.0004	104	54.2-134			
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		98.0	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		97.1	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		100	70-130			

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Bonanza Creek Energy, Inc.

410 17th St, Suite 1400

Denver CO 80211

Brian Dodek

Project Number: [none]

Project: North Platte I-21

Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch B9C1904 - EPA 5030 (soil)

Matrix Spike Dup (B9C1904-MSD1)		Source: Y903226-01			Prepared: 03/19/2019 Analyzed: 03/19/2019					
Benzene	0.106	0.002	mg/kg	0.100	ND	106	71.8-126	2.69	11.3	
Toluene	0.099	0.002	"	0.100	ND	99.4	65.1-130	4.52	15.4	
Ethylbenzene	0.101	0.002	"	0.100	ND	101	62.2-130	6.10	19.6	
m,p-Xylene	0.196	0.004	"	0.200	0.0009	97.8	46.5-137	6.51	19.2	
o-Xylene	0.099	0.002	"	0.100	0.0004	98.4	54.2-134	5.60	17.9	
Surrogate: 1,2-Dichloroethane-d4	0.13		"	0.125		101	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		95.7	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		99.6	70-130			

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Bonanza Creek Energy, Inc.

410 17th St, Suite 1400

Denver CO 80211

Brian Dodek

Project Number: [none]

Project: North Platte I-21

Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control

Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Extractable Petroleum Hydrocarbons by 8015C - Quality Control

Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch B9C1905 - EPA 3580

Blank (B9C1905-BLK1)

Prepared: 03/19/2019 Analyzed: 03/19/2019

Gasoline (C6-C10)	ND	50.0	mg/kg							U
-------------------	----	------	-------	--	--	--	--	--	--	---

Diesel (C10-C28)	ND	50.0	"							U
------------------	----	------	---	--	--	--	--	--	--	---

Surrogate: o-Terphenyl	58		"	50.0		115	59-131			
------------------------	----	--	---	------	--	-----	--------	--	--	--

LCS (B9C1905-BS1)

Prepared: 03/19/2019 Analyzed: 03/19/2019

Gasoline (C6-C10)	789	50.0	mg/kg	1000		78.9	59-133			
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Diesel (C10-C28)	865	50.0	"	1000		86.5	64-121			
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Surrogate: o-Terphenyl	42		"	50.0		84.8	59-131			
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Matrix Spike (B9C1905-MS1)

Source: Y903226-01

Prepared: 03/19/2019 Analyzed: 03/19/2019

Gasoline (C6-C10)	829	50.0	mg/kg	1000	ND	82.9	57-139			
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Diesel (C10-C28)	914	50.0	"	1000	ND	91.4	53-125			
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Surrogate: o-Terphenyl	48		"	50.0		95.9	59-131			
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Matrix Spike Dup (B9C1905-MSD1)

Source: Y903226-01

Prepared: 03/19/2019 Analyzed: 03/19/2019

Gasoline (C6-C10)	799	50.0	mg/kg	1000	ND	79.9	57-139	3.62	20	
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Diesel (C10-C28)	925	50.0	"	1000	ND	92.5	53-125	1.30	20	
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Surrogate: o-Terphenyl	45		"	50.0		89.8	59-131			
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Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Bonanza Creek Energy, Inc.

410 17th St, Suite 1400

Denver CO 80211

Brian Dodek

Project Number: [none]

Project: North Platte I-21

Notes and Definitions

U Sample is Non-Detect.

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported at a wet weight basis.

Origins Laboratory, Inc.



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Jen Pellegrini For Noelle Doyle Mathis, President