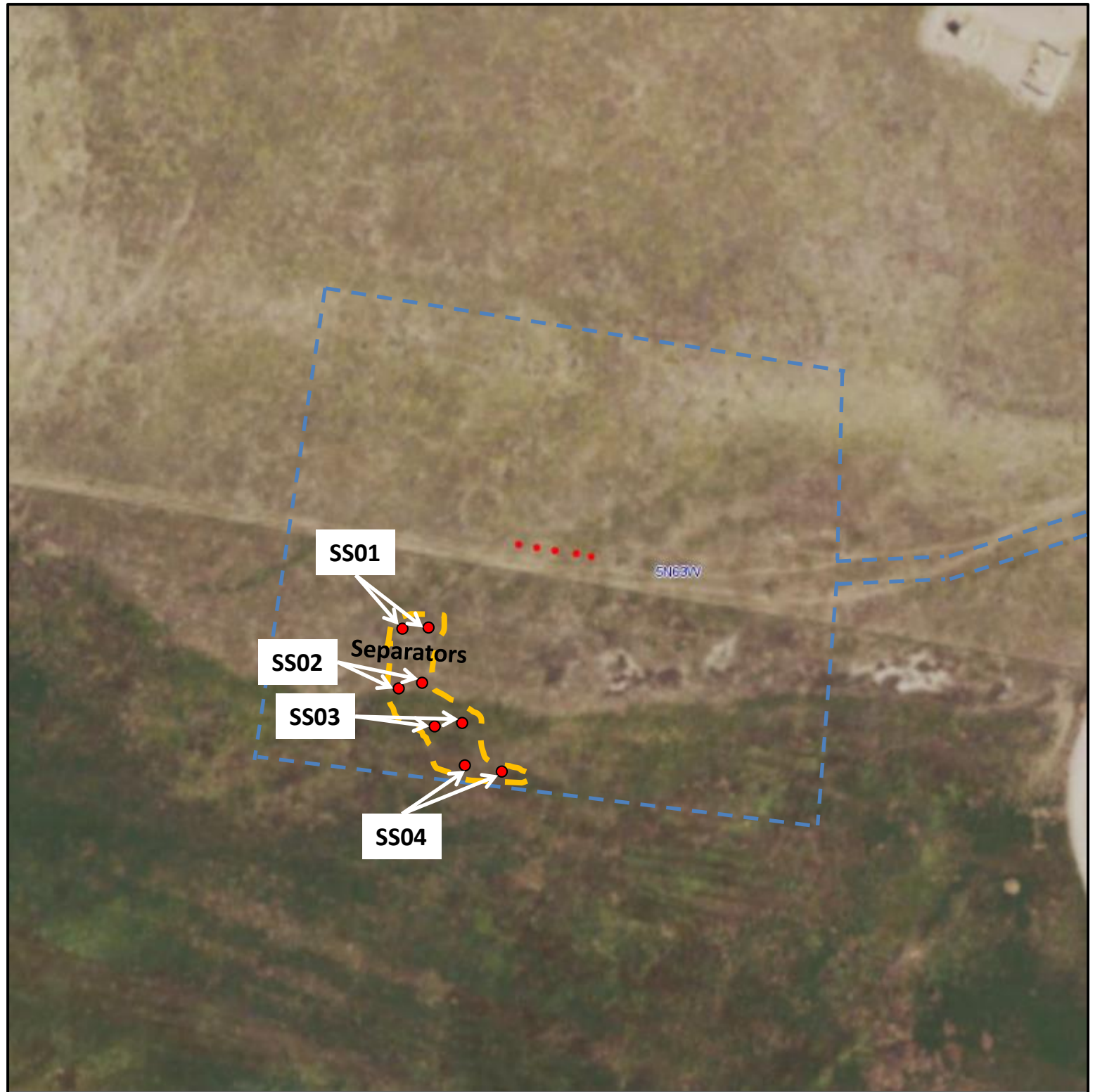


Figure 1
Location Site Map
October 5, 2020 LBK

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



Aerial photograph courtesy of COGIS

LEGEND

- X Release Location
- Release Footprint
- Sample Locations

N



Figure 2
Site Map

October 12, 2020 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 |
|---------------------|---------------|--|-----------|-----------|-----------|-----------|
| Sample Date | | | 10/6/2020 | 10/6/2020 | 10/6/2020 | 10/6/2020 |
| Sample Depth (feet) | | | 0.5-1 | 0.5-1 | 0.5-1 | 0.5-1 |
| BTEX | Benzene | 0.17 | <0.050 | <0.050 | <0.050 | <0.050 |
| | Toluene | 85 | <0.050 | <0.050 | <0.050 | <0.050 |
| | Ethylbenzene | 100 | <0.050 | <0.050 | <0.050 | <0.050 |
| | Total Xylenes | 175 | <0.050 | <0.050 | <0.050 | <0.050 |
| TPH | DRO | -- | <50 | <50 | <50 | <50 |
| | GRO | -- | <50 | <50 | <50 | <50 |
| | Total | 500 | <50 | <50 | <50 | <50 |
| Inorganics | EC (mmhos/cm) | <4 | 0.0609 | 0.0407 | 0.0700 | 0.0230 |
| | SAR | <12 | 1.08 | 2.49 | 3.32 | 0.200 |
| | pH (unitless) | 6 - 9 | 9.13 | 8.47 | 8.66 | 8.67 |

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

EC - electrical conductivity

mmhos/cm - millimhos per centimeter

SAR - sodium adsorption ratio

NA - not analyzed

All results are in mg/kg unless stated otherwise.



October 16, 2020

Bonanza Creek Energy, Inc.

Luke Kelly

410 17th St, Suite 1400

Denver CO 80211

Project Name - NP I-21

Project Number - [none]

Attached are your analytical results for NP I-21 received by Origins Laboratory, Inc. October 12, 2020. This project is associated with Origins project number Y010151-01.

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

Luke Kelly

Project Number: [none]

Project: NP I-21

CROSS REFERENCE REPORT

| Sample ID | Laboratory ID | Matrix | Date Sampled | Date Received |
|---------------|---------------|--------|-----------------------|------------------|
| SS01(N) 6-12" | Y010151-01 | Soil | October 6, 2020 11:00 | 10/12/2020 08:05 |
| SS02 (6-12") | Y010151-02 | Soil | October 6, 2020 11:05 | 10/12/2020 08:05 |
| SS03 (6-12") | Y010151-03 | Soil | October 6, 2020 11:10 | 10/12/2020 08:05 |
| SS04 (6-12") | Y010151-04 | Soil | October 6, 2020 11:15 | 10/12/2020 08:05 |

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

Luke Kelly

Project Number: [none]

Project: NP I-21

Origins Laboratory

F-012207-01-R1

Effective Date: 01/09/12

Sample Receipt Checklist

Origins Work Order: Y010151

Client: Bonanza

Client Project ID: NPT-21

Checklist Completed by: KDK

Shipped Via: HD

Date/time completed: 10-12-2020

(UPS, FedEx, Hand Delivered, Pick-up, etc.)

Airbill #: N/A

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

Cooler Number/Temperature: 1, 7.3 °C / _____ °C / _____ °C (Describe)

Thermometer ID: 1003

| Requirement Description | Yes | No | N/A | Comments (if any) |
|---|------------|----|-----|---------------------------------|
| If samples require cooling, was the temperature between 0°C to ≤ 6°C ⁽¹⁾ ? | | - | | |
| Is there ice present (document if blue ice is used) | - | | | |
| Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact) | | | - | |
| Are custody seals present on each sample container? (if so, document in comments if they are signed and dated, broken or intact) | | | - | |
| Were all samples received intact ⁽¹⁾ ? | - | | | |
| Was adequate sample volume provided ⁽¹⁾ ? | - | | | |
| Are short holding time analytes or samples with HTs due within 48 hours present ⁽¹⁾ ? | | | - | |
| Is a chain-of-custody (COC) present and filled out completely ⁽¹⁾ ? | - | | | |
| Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ? | <i>Jim</i> | X | | there are only 4 samples, not 5 |
| Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ? | - | | | |
| Is the COC properly relinquished by the client with date and time recorded ⁽¹⁾ ? | - | | | |
| For volatiles in water – is there headspace (> ¼ inch bubble) present? If yes, contact client and note in narrative. | | | - | |
| 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) | | | - | |
| 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 *Jim* (Project Manager)

Date/Time Reviewed

Origins Laboratory, Inc.

Jordan A. Merrill

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

Luke Kelly

Project Number: [none]

Project: NP I-21

SS01(N) 6-12"

10/6/2020 11:00:00AM

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

Origins Laboratory, Inc.

Y010151-01 (Soil)

BTEX by EPA 8260D

| | | | | | | | | | |
|----------------|----|-------|-------|----|---------|-----|------------|------------|---|
| Benzene | ND | 0.050 | mg/kg | 25 | BOJ1203 | KDK | 10/12/2020 | 10/12/2020 | U |
| Toluene | ND | 0.050 | " | " | " | KDK | " | " | U |
| Ethylbenzene | ND | 0.050 | " | " | " | KDK | " | " | U |
| Xylenes, total | ND | 0.050 | " | " | " | KDK | " | " | U |

Surrogate: 1,2-Dichloroethane-d4

85.8 %

70-130

"

"

"

Surrogate: Toluene-d8

107 %

70-130

"

"

"

Surrogate: 4-Bromofluorobenzene

94.9 %

70-130

"

"

"

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

| | | | | | | | | | |
|-------------------|----|------|-------|---|---------|-----|------------|------------|---|
| Gasoline (C6-C10) | ND | 50.0 | mg/kg | 1 | BOJ1204 | KDK | 10/12/2020 | 10/12/2020 | U |
| Diesel (C10-C28) | ND | 50.0 | " | " | " | KDK | " | " | U |

Surrogate: o-Terphenyl

75.6 %

50-150

"

"

"

Metals (Saturated Paste Prep)

| | | | | | | | | | |
|-----------|------|------|---|--------|--|--|------------|------------|--|
| Calcium | 1.73 | me/L | 1 | [none] | | | 10/13/2020 | 10/16/2020 | |
| Magnesium | 0.83 | " | " | " | | | " | " | |
| Sodium | 1.22 | " | " | " | | | " | " | |

pH in Soil by EPA 9045D

| | | | | | | | | | |
|----|------|----------|---|---------|-----|------------|------------|--|--|
| pH | 9.13 | pH Units | 1 | BOJ1205 | DJL | 10/12/2020 | 10/12/2020 | | |
|----|------|----------|---|---------|-----|------------|------------|--|--|

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

Luke Kelly

Project Number: [none]

Project: NP I-21

SS01(N) 6-12"

10/6/2020 11:00:00AM

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

Origins Laboratory, Inc.

Y010151-01 (Soil)

SAR by 20B Saturated Paste

| | | | | | | | |
|-----|------|--|---|--------|--|------------|------------|
| SAR | 1.08 | | 1 | [none] | | 10/13/2020 | 10/16/2020 |
|-----|------|--|---|--------|--|------------|------------|

Specific Conductance by Modified 9050A

| | | | | | | | | |
|---------------------------|--------|---------|----------|---|---------|-----|------------|------------|
| Specific Conductance (EC) | 0.0609 | 0.00500 | mmhos/cm | 1 | BOJ1206 | DJL | 10/12/2020 | 10/12/2020 |
|---------------------------|--------|---------|----------|---|---------|-----|------------|------------|

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

Luke Kelly

Project Number: [none]

Project: NP I-21

SS02 (6-12")

10/6/2020 11:05:00AM

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

Origins Laboratory, Inc.
Y010151-02 (Soil)

BTEX by EPA 8260D

| | | | | | | | | | |
|----------------|----|-------|-------|----|---------|-----|------------|------------|---|
| Benzene | ND | 0.050 | mg/kg | 25 | BOJ1203 | KDK | 10/12/2020 | 10/13/2020 | U |
| Toluene | ND | 0.050 | " | " | " | KDK | " | " | U |
| Ethylbenzene | ND | 0.050 | " | " | " | KDK | " | " | U |
| Xylenes, total | ND | 0.050 | " | " | " | KDK | " | " | U |

Surrogate: 1,2-Dichloroethane-d4

104 %

70-130

"

"

"

Surrogate: Toluene-d8

115 %

70-130

"

"

"

Surrogate: 4-Bromofluorobenzene

98.6 %

70-130

"

"

"

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

| | | | | | | | | | |
|-------------------|----|------|-------|---|---------|-----|------------|------------|---|
| Gasoline (C6-C10) | ND | 50.0 | mg/kg | 1 | BOJ1204 | KDK | 10/12/2020 | 10/13/2020 | U |
| Diesel (C10-C28) | ND | 50.0 | " | " | " | KDK | " | 10/13/2020 | U |

Surrogate: o-Terphenyl

85.5 %

50-150

"

"

"

Metals (Saturated Paste Prep)

| | | | | | | | | | |
|-----------|-------|--|------|---|--------|--|------------|------------|--|
| Calcium | 10.12 | | me/L | 1 | [none] | | 10/13/2020 | 10/16/2020 | |
| Magnesium | 7.76 | | " | " | " | | " | " | |
| Sodium | 7.44 | | " | " | " | | " | " | |

pH in Soil by EPA 9045D

| | | | | | | | | | |
|----|------|--|----------|---|---------|-----|------------|------------|--|
| pH | 8.47 | | pH Units | 1 | BOJ1205 | DJL | 10/12/2020 | 10/12/2020 | |
|----|------|--|----------|---|---------|-----|------------|------------|--|

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

Luke Kelly

Project Number: [none]

Project: NP I-21

SS02 (6-12")

10/6/2020 11:05:00AM

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

Origins Laboratory, Inc.
Y010151-02 (Soil)

SAR by 20B Saturated Paste

| | | | | | | | | | |
|-----|------|--|--|---|--------|--|------------|------------|--|
| SAR | 2.49 | | | 1 | [none] | | 10/13/2020 | 10/16/2020 | |
|-----|------|--|--|---|--------|--|------------|------------|--|

Specific Conductance by Modified 9050A

| | | | | | | | | | |
|---------------------------|--------|---------|----------|---|---------|-----|------------|------------|--|
| Specific Conductance (EC) | 0.0407 | 0.00500 | mmhos/cm | 1 | BOJ1206 | DJL | 10/12/2020 | 10/12/2020 | |
|---------------------------|--------|---------|----------|---|---------|-----|------------|------------|--|

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

Luke Kelly

Project Number: [none]

Project: NP I-21

SS03 (6-12")

10/6/2020 11:10:00AM

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

Origins Laboratory, Inc.
Y010151-03 (Soil)

BTEX by EPA 8260D

| | | | | | | | | | |
|----------------|----|-------|-------|----|---------|-----|------------|------------|---|
| Benzene | ND | 0.050 | mg/kg | 25 | BOJ1203 | KDK | 10/12/2020 | 10/13/2020 | U |
| Toluene | ND | 0.050 | " | " | " | KDK | " | " | U |
| Ethylbenzene | ND | 0.050 | " | " | " | KDK | " | " | U |
| Xylenes, total | ND | 0.050 | " | " | " | KDK | " | " | U |

Surrogate: 1,2-Dichloroethane-d4

96.9 %

70-130

"

"

"

Surrogate: Toluene-d8

109 %

70-130

"

"

"

Surrogate: 4-Bromofluorobenzene

97.4 %

70-130

"

"

"

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

| | | | | | | | | | |
|-------------------|----|------|-------|---|---------|-----|------------|------------|---|
| Gasoline (C6-C10) | ND | 50.0 | mg/kg | 1 | BOJ1204 | KDK | 10/12/2020 | 10/13/2020 | U |
| Diesel (C10-C28) | ND | 50.0 | " | " | " | KDK | " | 10/13/2020 | U |

Surrogate: o-Terphenyl

87.1 %

50-150

"

"

"

Metals (Saturated Paste Prep)

| | | | | | | | | | |
|-----------|------|------|---|--------|--|--|------------|------------|--|
| Calcium | 1.62 | me/L | 1 | [none] | | | 10/13/2020 | 10/16/2020 | |
| Magnesium | 0.65 | " | " | " | | | " | " | |
| Sodium | 3.54 | " | " | " | | | " | " | |

pH in Soil by EPA 9045D

| | | | | | | | | | |
|----|------|----------|---|---------|-----|------------|------------|--|--|
| pH | 8.66 | pH Units | 1 | BOJ1205 | DJL | 10/12/2020 | 10/12/2020 | | |
|----|------|----------|---|---------|-----|------------|------------|--|--|

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

Luke Kelly

Project Number: [none]

Project: NP I-21

SS03 (6-12")

10/6/2020 11:10:00AM

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

Origins Laboratory, Inc.
Y010151-03 (Soil)

SAR by 20B Saturated Paste

| | | | | | | | | | |
|-----|------|--|--|---|--------|--|------------|------------|--|
| SAR | 3.32 | | | 1 | [none] | | 10/13/2020 | 10/16/2020 | |
|-----|------|--|--|---|--------|--|------------|------------|--|

Specific Conductance by Modified 9050A

| | | | | | | | | | |
|---------------------------|--------|---------|----------|---|---------|-----|------------|------------|--|
| Specific Conductance (EC) | 0.0700 | 0.00500 | mmhos/cm | 1 | BOJ1206 | DJL | 10/12/2020 | 10/12/2020 | |
|---------------------------|--------|---------|----------|---|---------|-----|------------|------------|--|

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

Luke Kelly

Project Number: [none]

Project: NP I-21

SS04 (6-12")

10/6/2020 11:15:00AM

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

Origins Laboratory, Inc.

Y010151-04 (Soil)

BTEX by EPA 8260D

| | | | | | | | | | |
|----------------|----|-------|-------|----|---------|-----|------------|------------|---|
| Benzene | ND | 0.050 | mg/kg | 25 | BOJ1203 | KDK | 10/12/2020 | 10/13/2020 | U |
| Toluene | ND | 0.050 | " | " | " | KDK | " | " | U |
| Ethylbenzene | ND | 0.050 | " | " | " | KDK | " | " | U |
| Xylenes, total | ND | 0.050 | " | " | " | KDK | " | " | U |

Surrogate: 1,2-Dichloroethane-d4

104 %

70-130

"

"

"

Surrogate: Toluene-d8

108 %

70-130

"

"

"

Surrogate: 4-Bromofluorobenzene

97.9 %

70-130

"

"

"

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

| | | | | | | | | | |
|-------------------|----|------|-------|---|---------|-----|------------|------------|---|
| Gasoline (C6-C10) | ND | 50.0 | mg/kg | 1 | BOJ1204 | KDK | 10/12/2020 | 10/13/2020 | U |
| Diesel (C10-C28) | ND | 50.0 | " | " | " | KDK | " | " | U |

Surrogate: o-Terphenyl

90.7 %

50-150

"

"

"

Metals (Saturated Paste Prep)

| | | | | | | | | | |
|-----------|------|------|---|--------|--|--|------------|------------|--|
| Calcium | 2.18 | me/L | 1 | [none] | | | 10/13/2020 | 10/16/2020 | |
| Magnesium | 2.26 | " | " | " | | | " | " | |
| Sodium | 0.30 | " | " | " | | | " | " | |

pH in Soil by EPA 9045D

| | | | | | | | | | |
|----|------|----------|---|---------|-----|------------|------------|--|--|
| pH | 8.67 | pH Units | 1 | BOJ1205 | DJL | 10/12/2020 | 10/12/2020 | | |
|----|------|----------|---|---------|-----|------------|------------|--|--|

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

Luke Kelly

Project Number: [none]

Project: NP I-21

SS04 (6-12")

10/6/2020 11:15:00AM

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

Origins Laboratory, Inc.

Y010151-04 (Soil)

SAR by 20B Saturated Paste

| | | | | | | | | | |
|-----|------|--|--|---|--------|--|------------|------------|--|
| SAR | 0.20 | | | 1 | [none] | | 10/13/2020 | 10/16/2020 | |
|-----|------|--|--|---|--------|--|------------|------------|--|

Specific Conductance by Modified 9050A

| | | | | | | | | | |
|---------------------------|--------|---------|----------|---|---------|-----|------------|------------|--|
| Specific Conductance (EC) | 0.0230 | 0.00500 | mmhos/cm | 1 | BOJ1206 | DJL | 10/12/2020 | 10/12/2020 | |
|---------------------------|--------|---------|----------|---|---------|-----|------------|------------|--|

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

Luke Kelly

Project Number: [none]

Project: NP I-21

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

Origins Laboratory, Inc.

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

Batch B0J1203 - EPA 5030 (soil)

Blank (B0J1203-BLK1)

Prepared: 10/12/2020 Analyzed: 10/12/2020

| | | | | | | | | | | |
|----------------------------------|------|-------|-------|-------|--|------|--------|--|--|---|
| 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 | 0.11 | | " | 0.125 | | 91.9 | 70-130 | | | |
| Surrogate: Toluene-d8 | 0.14 | | " | 0.125 | | 110 | 70-130 | | | |
| Surrogate: 4-Bromofluorobenzene | 0.13 | | " | 0.125 | | 105 | 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

Luke Kelly

Project Number: [none]

Project: NP I-21

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

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

Batch B0J1203 - EPA 5030 (soil)

LCS (B0J1203-BS1)

Prepared: 10/12/2020 Analyzed: 10/12/2020

| | | | | | | | | | | |
|----------------------------------|-------|-------|-------|--------|--|------|--------|--|--|--|
| Benzene | 0.042 | 0.002 | mg/kg | 0.0500 | | 83.9 | 70-130 | | | |
| Toluene | 0.048 | 0.002 | " | 0.0500 | | 95.6 | 70-130 | | | |
| Ethylbenzene | 0.054 | 0.002 | " | 0.0500 | | 108 | 70-130 | | | |
| m,p-Xylene | 0.113 | 0.004 | " | 0.100 | | 113 | 70-130 | | | |
| o-Xylene | 0.055 | 0.002 | " | 0.0500 | | 111 | 70-130 | | | |
| Surrogate: 1,2-Dichloroethane-d4 | 0.12 | | " | 0.125 | | 93.8 | 70-130 | | | |
| Surrogate: Toluene-d8 | 0.13 | | " | 0.125 | | 107 | 70-130 | | | |
| Surrogate: 4-Bromofluorobenzene | 0.13 | | " | 0.125 | | 105 | 70-130 | | | |

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Bonanza Creek Energy, Inc.

410 17th St, Suite 1400

Denver CO 80211

Luke Kelly

Project Number: [none]

Project: NP I-21

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

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

Batch B0J1203 - EPA 5030 (soil)

| Matrix Spike (B0J1203-MS1) | | Source: Y010151-01 | | | Prepared: 10/12/2020 Analyzed: 10/12/2020 | | | | | |
|----------------------------------|-------|--------------------|-------|--------|---|------|--------|--|--|--|
| Benzene | 0.042 | 0.002 | mg/kg | 0.0500 | ND | 83.8 | 70-130 | | | |
| Toluene | 0.050 | 0.002 | " | 0.0500 | 0.002 | 95.2 | 70-130 | | | |
| Ethylbenzene | 0.052 | 0.002 | " | 0.0500 | ND | 105 | 70-130 | | | |
| m,p-Xylene | 0.109 | 0.004 | " | 0.100 | 0.005 | 104 | 70-130 | | | |
| o-Xylene | 0.054 | 0.002 | " | 0.0500 | 0.002 | 105 | 70-130 | | | |
| Surrogate: 1,2-Dichloroethane-d4 | 0.11 | | " | 0.125 | | 86.2 | 70-130 | | | |
| Surrogate: Toluene-d8 | 0.13 | | " | 0.125 | | 107 | 70-130 | | | |
| Surrogate: 4-Bromofluorobenzene | 0.13 | | " | 0.125 | | 103 | 70-130 | | | |

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Bonanza Creek Energy, Inc.

410 17th St, Suite 1400

Denver CO 80211

Luke Kelly

Project Number: [none]

Project: NP I-21

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

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

Batch B0J1203 - EPA 5030 (soil)

| Matrix Spike Dup (B0J1203-MSD1) | | Source: Y010151-01 | | | Prepared: 10/12/2020 Analyzed: 10/12/2020 | | | | | |
|----------------------------------|-------|--------------------|-------|--------|---|------|--------|-------|----|--|
| Benzene | 0.044 | 0.002 | mg/kg | 0.0500 | ND | 88.5 | 70-130 | 5.53 | 20 | |
| Toluene | 0.050 | 0.002 | " | 0.0500 | 0.002 | 94.9 | 70-130 | 0.320 | 20 | |
| Ethylbenzene | 0.055 | 0.002 | " | 0.0500 | ND | 111 | 70-130 | 5.24 | 20 | |
| m,p-Xylene | 0.114 | 0.004 | " | 0.100 | 0.005 | 109 | 70-130 | 4.24 | 20 | |
| o-Xylene | 0.057 | 0.002 | " | 0.0500 | 0.002 | 111 | 70-130 | 5.11 | 20 | |
| Surrogate: 1,2-Dichloroethane-d4 | 0.11 | | " | 0.125 | | 85.9 | 70-130 | | | |
| Surrogate: Toluene-d8 | 0.13 | | " | 0.125 | | 105 | 70-130 | | | |
| Surrogate: 4-Bromofluorobenzene | 0.13 | | " | 0.125 | | 105 | 70-130 | | | |

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410 17th St, Suite 1400

Denver CO 80211

Luke Kelly

Project Number: [none]

Project: NP I-21

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

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------------------------------|--------|-----------------|-------|-------------|---|------|-------------|-----|-----------|-------|
| Batch B0J1204 - EPA 3580 | | | | | | | | | | |
| Blank (B0J1204-BLK1) | | | | | Prepared: 10/12/2020 Analyzed: 10/13/2020 | | | | | |
| Gasoline (C6-C10) | ND | 25.0 | mg/kg | | | | | | | U |
| Diesel (C10-C28) | ND | 25.0 | " | | | | | | | U |
| Surrogate: o-Terphenyl | 24 | | " | 25.0 | | 95.2 | 50-150 | | | |

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410 17th St, Suite 1400

Denver CO 80211

Luke Kelly

Project Number: [none]

Project: NP I-21

Extractable Petroleum Hydrocarbons by 8015D - Quality Control

Origins Laboratory, Inc.

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

Batch B0J1204 - EPA 3580

LCS (B0J1204-BS1)

Prepared: 10/12/2020 Analyzed: 10/12/2020

| | | | | | | | | | | |
|------------------------|------|------|-------|------|--|------|--------|--|--|--|
| Gasoline (C6-C10) | 1030 | 50.0 | mg/kg | 1000 | | 103 | 70-130 | | | |
| Diesel (C10-C28) | 910 | 50.0 | " | 1000 | | 91.0 | 70-130 | | | |
| Surrogate: o-Terphenyl | 53 | | " | 50.0 | | 106 | 50-150 | | | |

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Bonanza Creek Energy, Inc.

410 17th St, Suite 1400

Denver CO 80211

Luke Kelly

Project Number: [none]

Project: NP I-21

Extractable Petroleum Hydrocarbons by 8015D - Quality Control

Origins Laboratory, Inc.

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

Batch B0J1204 - EPA 3580

| Matrix Spike (B0J1204-MS1) | | Source: Y010140-01 | | | Prepared: 10/12/2020 Analyzed: 10/12/2020 | | | | | |
|----------------------------|------|--------------------|-------|------|---|------|--------|--|--|--|
| Gasoline (C6-C10) | 1040 | 50.0 | mg/kg | 1000 | 50.9 | 98.9 | 70-130 | | | |
| Diesel (C10-C28) | 931 | 50.0 | " | 1000 | 57.8 | 87.3 | 70-130 | | | |
| Surrogate: o-Terphenyl | 51 | | " | 50.0 | | 102 | 50-150 | | | |

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Denver CO 80211

Luke Kelly

Project Number: [none]

Project: NP I-21

Extractable Petroleum Hydrocarbons by 8015D - Quality Control

Origins Laboratory, Inc.

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

Batch B0J1204 - EPA 3580

| Matrix Spike Dup (B0J1204-MSD1) | | Source: Y010140-01 | | | Prepared: 10/12/2020 Analyzed: 10/12/2020 | | | | | |
|---------------------------------|------|--------------------|-------|------|---|------|--------|-------|----|--|
| Gasoline (C6-C10) | 1050 | 50.0 | mg/kg | 1000 | 50.9 | 99.9 | 70-130 | 0.976 | 35 | |
| Diesel (C10-C28) | 916 | 50.0 | " | 1000 | 57.8 | 85.8 | 70-130 | 1.64 | 35 | |
| Surrogate: o-Terphenyl | 50 | | " | 50.0 | | 101 | 50-150 | | | |

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410 17th St, Suite 1400

Denver CO 80211

Luke Kelly

Project Number: [none]

Project: NP I-21

Extractable Petroleum Hydrocarbons by 8015D - Quality Control

Origins Laboratory, Inc.

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

Classical Chemistry Parameters - Quality Control

Origins Laboratory, Inc.

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

Batch B0J1205 - NO PREP

Duplicate (B0J1205-DUP1)

Source: Y010150-01

Prepared: 10/12/2020 Analyzed: 10/12/2020

| | | | | | |
|----|------|----------|------|------|----|
| pH | 7.41 | pH Units | 7.50 | 1.21 | 25 |
|----|------|----------|------|------|----|

Batch B0J1206 - NO PREP

Blank (B0J1206-BLK1)

Prepared: 10/12/2020 Analyzed: 10/12/2020

| | | | |
|---------------------------|----------|---------|----------|
| Specific Conductance (EC) | 0.000300 | 0.00500 | mmhos/cm |
|---------------------------|----------|---------|----------|

Duplicate (B0J1206-DUP1)

Source: Y010151-01

Prepared: 10/12/2020 Analyzed: 10/12/2020

| | | | | | | |
|---------------------------|--------|---------|----------|--------|------|----|
| Specific Conductance (EC) | 0.0494 | 0.00500 | mmhos/cm | 0.0609 | 20.9 | 25 |
|---------------------------|--------|---------|----------|--------|------|----|

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Bonanza Creek Energy, Inc.

410 17th St, Suite 1400

Denver CO 80211

Luke Kelly

Project Number: [none]

Project: NP 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.

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