



75 Suttle Street
Durango, CO 81303
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www.greenanalytical.com

13 October 2021

David Bounds
Hilcorp
382 Road 3100
Aztec, NM 87410
RE: Braden Head

Enclosed are the results of analyses for samples received by the laboratory on 10/07/21 16:22.
If you need any further assistance, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads 'Debbie Zufelt'. The script is cursive and fluid, with the first name 'Debbie' and last name 'Zufelt' clearly legible.

Debbie Zufelt
Reports Manager

All accredited analytes contained in this report are denoted by an asterisk (*). For a complete list of accredited analytes please do not hesitate to contact us via any of the contact information contained in this report. All of our certifications can be viewed at <http://greenanalytical.com/certifications/>

Green Analytical Laboratories is NELAP accredited through the Texas Commission on Environmental Quality. Accreditation applies to drinking water and non-potable water matrices for trace metals and a variety of inorganic parameters. Green Analytical Laboratories is also accredited through the Colorado Department of Public Health and Environment and EPA region 8 for trace metals, Cyanide, Fluoride, Nitrate, and Nitrite in drinking water.
TNI Certificate Number: T104704514-21-12.

Our affiliate laboratory, Cardinal Laboratories, is also NELAP accredited through the Texas Commission on Environmental Quality for a variety of organic constituents in drinking water, non-potable water and solid matrices. Cardinal is also accredited for regulated VOCs, TTHM, and HAA-5 in drinking water through the Colorado Department of Public Health and Environment and EPA region 8. TNI Certificate Number: T104704398-21-14



dzufelt@greenanalytical.com p: 970.247.4220 f: 970.247.4227 75 Suttle Street Durango, CO 81303

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| | | |
|---|---|-----------------------------|
| Hilcorp 382 Road 3100 Aztec NM, 87410 | Project: Braden Head Project Name / Number: South Project Manager: David Bounds | Reported: 10/13/21 08:46 |
|---|---|-----------------------------|

ANALYTICAL REPORT FOR SAMPLES

| Sample ID | Laboratory ID | Matrix | Date Sampled | Date Received | Notes |
|---------------------------------|---------------|--------|----------------|----------------|-------|
| McClanahan #3 (Produced Tubing) | 2110089-01 | Water | 10/06/21 00:00 | 10/07/21 16:22 | Q1 |

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A handwritten signature in black ink that reads 'Debbie Zufelt'.

Debbie Zufelt, Reports Manager

Released to Imaging: 10/14/2021 8:12:57 AM

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Hilcorp
382 Road 3100
Aztec NM, 87410

Project: Braden Head
Project Name / Number: South
Project Manager: David Bounds

Reported:
10/13/21 08:46

**McClanahan #3 (Produced Tubing)
Area 8**

2110089-01 (Produced Water)

| Analyte | Result | RL | MDL | Units | Dilution | Analyzed | Method | Notes | Analyst |
|---------|--------|----|-----|-------|----------|----------|--------|-------|---------|
|---------|--------|----|-----|-------|----------|----------|--------|-------|---------|

General Chemistry

| | | | | | | | | | |
|---------------------------|-------|------|------|----------|------|----------------|----------|----|-----|
| Chloride* | 28600 | 1000 | 42.2 | mg/L | 1000 | 10/11/21 11:58 | EPA300.0 | | AES |
| pH* | 5.00 | | | pH Units | 1 | 10/08/21 14:40 | EPA150.1 | H2 | JDA |
| pH Temperature, degrees C | 21.4 | | | pH Units | 1 | 10/08/21 14:40 | EPA150.1 | H2 | JDA |
| Total Dissolved Solids* | 50800 | 80.0 | | mg/L | 8 | 10/11/21 16:30 | EPA160.1 | | VJW |
| Sulfate* | 447 | 1000 | 152 | mg/L | 1000 | 10/11/21 11:58 | EPA300.0 | J | AES |

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Page 3 of 5 2110089 GAL_no QC FINAL 10 13 21 0846 10/13/21 08:46:50



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| | | |
|---|---|-----------------------------|
| Hilcorp 382 Road 3100 Aztec NM, 87410 | Project: Braden Head Project Name / Number: South Project Manager: David Bounds | Reported: 10/13/21 08:46 |
|---|---|-----------------------------|

Notes and Definitions

Q1 Sample received outside of acceptable temperature range for analyses requiring cold storage.

M2 Matrix spike recovery was below laboratory acceptance criteria. Recovery possibly affected by a matrix interference in the sample. The method blank spike recovery was acceptable.

J Estimated concentration. Analyte concentration between MDL and RL.

H2 Sample analysis performed past hold time specified by the method.

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis
*Results reported on as received basis unless designated as dry.

RPD Relative Percent Difference

LCS Laboratory Control Sample (Blank Spike)

RL Report Limit

MDL Method Detection Limit

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100% RUSH

| | | | |
|---|---------------------|---|-----------------------------|
| Client: Hilcorp | Asset: South | Phone# 505-419-3410 | Contact David Bounds |
| Address: 9A CR# 5793, Farmington NM 87401 | | E-Mail Address dbounds@hilcorp.com | |



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Phone: 970-247-4220
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CHAIN OF CUSTODY RECORD

GAL Work Order # **2110 089**

PO#

Project Name:

Sample Location:

(1)BumperSpring, (2)CompressorDischarge, (3)Flowline, (4)Meter, (5)Oil Tank
(6)PigLauncher, (7)PigReceiver, (8)Pipeline, (9)Pit Tank, (10)PostFilter, (11)PreFilter
(12)SeparatorInlet, (13)SeparatorOutlet, (14)SeparatorDump, (15)SWDInlet
(16)SWDOutlet, (17)TransferPump, (18)ValveCan, (19)WaterTank, (20)Wellhead
(21)Other

Sample Type:

(1)Casing, (2)CO2GasTube, (3)Coupon, (4)Water, (5)H2SGasTube, (6)Metals
(7)O2GasTube, (8)PipeSection, (9)Residual, (10)Sludge, (11)Solid, (12)Tubing, (13)Other

| Collection | | | | | | | | Preservative | | | | Analyses Required | | | |
|-----------------------------|----------|-------------|------|-----------------------|-----------------|-------------|-------------------|-----------------|-------------|----------|----------|--------------------|-----------|----------------|-------------|
| Well Name (Sample Name) | Area | Date | Time | Collected By: (Init.) | Sample Location | Sample Type | No. of Containers | Filtered: Y / N | Unpreserved | H2SO4 | Other: | Iron and Manganese | Phosphate | Full Water API | Braden head |
| 1. McClanahan # 3 | 8 | 10/6 | | LL | 20 | 4 | 1 | N | Y | N | N | | | | X |
| 2. (Produced Tubing) | | | | | | | | | | | | | | | |
| 3. | | | | | | | | | | | | | | | |
| 4. | | | | | | | | | | | | | | | |
| 5. | | | | | | | | | | | | | | | |
| 6. | | | | | | | | | | | | | | | |
| 7. | | | | | | | | | | | | | | | |
| 8. | | | | | | | | | | | | | | | |
| 9. | | | | | | | | | | | | | | | |
| 10. | | | | | | | | | | | | | | | |
| 11. | | | | | | | | | | | | | | | |
| 12. | | | | | | | | | | | | | | | |
| 13. | | | | | | | | | | | | | | | |
| 14. | | | | | | | | | | | | | | | |
| 15. | | | | | | | | | | | | | | | |
| 16. | | | | | | | | | | | | | | | |
| 17. | | | | | | | | | | | | | | | |
| 18. | | | | | | | | | | | | | | | |
| 19. | | | | | | | | | | | | | | | |
| 20. | | | | | | | | | | | | | | | |

| | | | | | |
|-------------------------|----------------|--------------|-------------------------|----------------|--------------|
| Relinquished by: | Date: | Time: | Received By: | Date: | Time: |
| Ryan Pritchard | 10/7/21 | 4:22 | Chris Clark | 10/7/21 | 16:22 |
| Chris Clark | 10/7/21 | 16:55 | Kangaroo Express | 10/7/21 | 16:55 |
| Kangaroo Express | 10/8/21 | 08:30 | Shirley Turner | 10/8/21 | |

4.2/4.1 onlce
Ffd
Shirley Turner

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 55621

CONDITIONS

| | |
|--|---|
| Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002 | OGRID: 372171 |
| | Action Number: 55621 |
| | Action Type: [UF-GA] Gas Analysis (GAS ANALYSIS) |

CONDITIONS

| | | |
|------------|-----------|----------------|
| Created By | Condition | Condition Date |
| mkuehling | None | 10/13/2021 |