



75 Suttle Street  
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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".

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



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

Green Analytical Laboratories

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

**2110089-01 (Produced Water)**

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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**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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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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*Debbie Zufelt*

Debbie Zufelt, Reports Manager

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**100% RUSH**

Client: <b>Hilcorp</b>	Asset: <b>South</b>	Phone# <b>505-419-3410</b>	Contact: <b>David Bounds</b>
Address: 9A CR# 5793, Farmington NM 87401		E-Mail Address: <a href="mailto:dbounds@hilcorp.com">dbounds@hilcorp.com</a>	



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Phone: 970-247-4220  
FAX: 970-247-4227

CHAIN OF CUSTODY RECORD	
GAL Work Order #	<b>2110 089</b>
PO#	
Project Name:	

*22.4C  
NO ICE*

**Sample Location:**

- (1) Bumper Spring, (2) Compressor Discharge, (3) Flowline, (4) Meter, (5) Oil Tank
- (6) Pig Launcher, (7) Pig Receiver, (8) Pipeline, (9) Pit Tank, (10) Post Filter, (11) Pre Filter
- (12) Separator Inlet, (13) Separator Outlet, (14) Separator Dump, (15) SWD Inlet
- (16) SWD Outlet, (17) Transfer Pump, (18) Valve Can, (19) Water Tank, (20) Wellhead
- (21) Other

**Sample Type:**

- (1) Casing, (2) CO2 Gas Tube, (3) Coupon, (4) Water, (5) H2S Gas Tube, (6) Metals
- (7) O2 Gas Tube, (8) Pipe Section, (9) Residual, (10) Sludge, (11) Solid, (12) Tubing, (13) Other

Well Name (Sample Name)	Collection				Preservative				Analyses Required						
	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	Bradley head
1. <i>McClanahan # 3</i> <i>(Produced Tubing)</i>	8	10/6		LL	20	4	1	N	Y	N	N				X
2.															
3.															
4.															
5.															
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18.															
19.															
20.															

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

*4.2/4.1 on ice*  
*FFJ*  
*Shirley*

**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