



75 Suttle Street
Durango, CO 81303
970.247.4220 Phone
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www.greenanalytical.com

09 September 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 08/27/21 15:15.
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



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Hilcorp
382 Road 3100
Aztec NM, 87410

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

Reported:
09/09/21 12:37

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
Cole A 1E (Tubing)	2108318-01	Water	08/27/21 00:00	08/27/21 15:15	Q1, Q3

Green Analytical Laboratories

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

Debbie Zufelt, Reports Manager

Released to Imaging: 12/21/2021 8:30:06 AM

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. In no event shall Green Analytical Laboratories be liable for incidental or consequential damages. GALs liability, and clients exclusive remedy for any claim arising, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever, shall be deemed waived unless made in writing and received within thirty days after completion of the applicable service.



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382 Road 3100
Aztec NM, 87410

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

Reported:
09/09/21 12:37

**Cole A 1E (Tubing)
Area 8**

2108318-01 (Ground Water)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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General Chemistry

Chloride*	18000	500	21.1	mg/L	500	09/07/21 23:08	EPA300.0		AES
pH*	7.62			pH Units	1	09/01/21 09:12	EPA150.1	H1	VJW
pH Temperature, degrees C	20.9			pH Units	1	09/01/21 09:12	EPA150.1	H1	VJW
Total Dissolved Solids*	30400	100		mg/L	10	09/02/21 15:50	EPA160.1		VJW
Sulfate*	141	500	76.2	mg/L	500	09/07/21 23:08	EPA300.0	J	AES

Green Analytical Laboratories

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Page 3 of 5 2108318 GAL_no QC FINAL 09 09 21 1237 09/09/21 12:37:16



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Hilcorp 382 Road 3100 Aztec NM, 87410	Project: Braden Head Project Name / Number: South Project Manager: David Bounds	Reported: 09/09/21 12:37
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Notes and Definitions

Q3 Sample received without proper chemical preservation as requested by the method of analysis.

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.

H1 Sample was received several days after collected and subsequently analyzed past hold time.

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

Green Analytical Laboratories

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Page 4 of 5 2108318 GAL_no QC FINAL 09 09 21 1237 09/09/21 12:37:16

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



75 Suttle Street
Durango, CO 81303
Phone: 970-247-4220
FAX: 970-247-4227

CHAIN OF CUSTODY RECORD

GAL Work Order # **2108318**

PO#

Project Name:

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

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	Endonhead
1. Cole A 1E (Tubing)	8	8/27		MV	20	4	1	N	Y	N	N				X
2.															
3.															
4.															
5.															
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16.															
17.															
18.															
19.															
20.															

Relinquished by:	Date:	Time:	Received By:	Date:	Time:
<i>Kyran Pritchard</i>	8/27/21	3:12	<i>Vickie Gurry</i>	8-27-21	15:15

Kangaroo Express 8/31/21 0845

Kangaroo Express
Junada Dampz 0845 8/31/21
5.40 Laser #3 on Ice
26.8°C

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 47565

CONDITIONS

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 47565
	Action Type: [UF-GA] Gas Analysis (GAS ANALYSIS)

CONDITIONS

Created By	Condition	Condition Date
mkuehling	None	12/21/2021