

30.045.23817



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Durango, CO 81303
970.247.4220 Phone
970.247.4227 Fax
www.greenanalytical.com

07 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 09/28/21 15:11.
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:
10/07/21 11:11

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
Grambling A 2A	2109286-01	Water	09/24/21 00:00	09/28/21 15:11	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 9:09:20 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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Hilcorp
382 Road 3100
Aztec NM, 87410

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

Reported:
10/07/21 11:11

**Grambling A 2A
Area 9**

2109286-01 (Ground Water)

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

Chloride*	34.2	50.0	2.11	mg/L	50	10/05/21 03:46	EPA300.0		AES
pH*	8.83			pH Units	1	09/29/21 09:50	EPA150.1	H1	VJW
pH Temperature, degrees C	16.8			pH Units	1	09/29/21 09:50	EPA150.1	H1	VJW
Total Dissolved Solids*	3460	10.0		mg/L	1	09/30/21 09:25	EPA160.1		VJW
Sulfate*	2550	100	15.2	mg/L	100	10/05/21 22:10	EPA300.0		AES

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Page 3 of 5 2109286 GAL_no QC FINAL 10 07 21 1111 10/07/21 11:12:05



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Hilcorp 382 Road 3100 Aztec NM, 87410	Project: Braden Head Project Name / Number: South Project Manager: David Bounds	Reported: 10/07/21 11:11
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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.

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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Debbie Zufelt, Reports Manager

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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 #	2109286
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	
1. <i>Grumbling A 2A</i>	<i>9</i>	<i>9/24</i>		<i>CK</i>	<i>20</i>	<i>4</i>	<i>1</i>	<i>N</i>	<i>Y</i>	<i>N</i>	<i>N</i>				<i>X</i>
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20.															

Relinquished by:	Date:	Time:	Received By:	Date:	Time:
<i>Evan Pritchard</i>	<i>9/28/21</i>	<i>3:11</i>	<i>Christa Clark</i>	<i>9/28/21</i>	<i>15:11</i>
<i>Christa Clark</i>	<i>9/28/21</i>	<i>16:55</i>	<i>Kangaroo Express</i>	<i>9/28/21</i>	<i>16:55</i>
<i>Kangaroo Express</i>	<i>9/29/21</i>	<i>08:30</i>	<i>Lynda Dummer</i>	<i>9/29/21</i>	<i>08:30</i>

*1.9/11-80C Laser 3
on Ice [Signature]*

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 56324

CONDITIONS

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 56324
	Action Type: [UF-GA] Gas Analysis (GAS ANALYSIS)

CONDITIONS

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