



75 Suttle Street
Durango, CO 81303
970.247.4220 Phone
jeremy.allen@greenanalytical.com

27 February 2025

Ashley Bates
Hilcorp
382 CR 3100
Aztec, NM 87410
RE: [none]

Enclosed are the results of analyses for samples received by the laboratory on 02/21/25 12:00. The data to follow was performed, in whole or in part, by Green Analytical Laboratories. Any data that was performed by a subcontract laboratory is included within the GAL report, or with an additional report attached.

If you need any further assistance, please feel free to contact me.

Sincerely,

A handwritten signature in blue ink that reads 'Jeremy D. Allen'.

Jeremy D Allen
Laboratory Director

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: TX-C25-00012

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: TX-C24-00112

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Hilcorp	Project: Braden Head	
382 CR 3100	Project Name / Number: [none]	Reported:
Aztec NM, 87410	Project Manager: Ashley Bates	02/27/25 14:25

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
Howell K Unit 4	2502221-01	Water	02/20/25 10:00	02/21/25 12:00	

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Jeremy D Allen, Laboratory Director

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Hilcorp
382 CR 3100
Aztec NM, 87410

Project: Braden Head
Project Name / Number: [none]
Project Manager: Ashley Bates

Reported:
02/27/25 14:25

Howell K Unit 4

2502221-01 (Other)

Sampled Date: 02/20/25 10:00

Sampled By: Rick Culak

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

General Chemistry

Chloride*	379	20.0	9.94	mg/L	20	02/26/25 00:35	EPA 300.0		AWG
pH*	11.8			pH Units	1	02/26/25 08:45	EPA 150.1/9040C	H2	HIC
pH Temperature, degrees C	17.6			pH Units	1	02/26/25 08:45	EPA 150.1/9040C	H2	HIC
Sulfate*	8450	100	56.3	mg/L	100	02/26/25 09:56	EPA 300.0		AWG
Total Dissolved Solids*	13500	20.0		mg/L	2	02/25/25 17:15	EPA 160.1/SM 2540C		HIC

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Hilcorp
382 CR 3100
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Project: Braden Head
Project Name / Number: [none]
Project Manager: Ashley Bates

Reported:
02/27/25 14:25

General Chemistry - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B250464 - General Prep - Wet Chem										
Blank (B250464-BLK1)				Prepared & Analyzed: 02/25/25						
Total Dissolved Solids	ND	10.0	mg/L							
Reference (B250464-SRM1)				Prepared & Analyzed: 02/25/25						
Total Dissolved Solids	380	10.0	mg/L	400		95.0	85-115			
Batch B250466 - IC- Ion Chromatograph										
Blank (B250466-BLK1)				Prepared & Analyzed: 02/25/25						
Chloride	ND	1.00	mg/L							
Sulfate	ND	1.00	mg/L							
LCS (B250466-BS1)				Prepared & Analyzed: 02/25/25						
Chloride	24.6	1.00	mg/L	25.0		98.5	90-110			
Sulfate	24.6	1.00	mg/L	25.0		98.4	90-110			
LCS Dup (B250466-BSD1)				Prepared & Analyzed: 02/25/25						
Chloride	25.1	1.00	mg/L	25.0		100	90-110	1.79	20	
Sulfate	25.1	1.00	mg/L	25.0		100	90-110	1.80	20	
Batch B250476 - General Prep - Wet Chem										
Reference (B250476-SRM1)				Prepared & Analyzed: 02/26/25						
pH	7.06		pH Units	7.00		101	97.5-102.5			

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Hilcorp	Project: Braden Head	
382 CR 3100	Project Name / Number: [none]	Reported:
Aztec NM, 87410	Project Manager: Ashley Bates	02/27/25 14:25

Notes and Definitions

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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Hilcorp
382 CR 3100
Aztec NM, 87410

Project: Braden Head
Project Name / Number: [none]
Project Manager: Ashley Bates

Reported:
02/27/25 14:25

Qualifier Summary

<u>LabNumber</u>	<u>Analysis</u>	<u>Analyte</u>	<u>Qualifier</u>	<u>TextBody</u>
2502221-01	pH	pH	H2	Sample analysis performed past hold time specified by the method.
2502221-01	pH	pH Temperature, degrees C	H2	Sample analysis performed past hold time specified by the method.

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

FORM-006, R 8.0

Note: Wife-Out™ or similar products cannot be used on the Chain of Custody

Company or Client:		Hilcorp/ East		Bill to (if different):		ANALYSIS REQUEST													
Address:		382 Road 3100, Aztec, NM 87410		Area 4															
City:	Aztec	State:	NM	Zip:	87410														
Phone #:	505-635-4123																		
Contact Person:	Ashley Bates																		
Email Report to:	Abates@Hilcorp.com																		
Project Name(optional):																			
Sampler Name (Print):	Rick Culak Run 409																		
Lab I.D. 2502-771	Sample Name or Location																		
Lab Use Only																			
61	Howell K Unit 4	Date	2/20/25	Time	10am	Matrix (check one)		Rush? <input checked="" type="checkbox"/> 3 Day		TAT Needed? 3 Day									
1)						GROUNDWATER	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
2)						SURFACE WATER	<input type="checkbox"/>	<input type="checkbox"/>											
3)						WASTEWATER	<input type="checkbox"/>	<input type="checkbox"/>											
4)						PRODUCED WATER	<input type="checkbox"/>	<input type="checkbox"/>											
5)						DRINKING WATER	<input type="checkbox"/>	<input type="checkbox"/>											
6)						SOIL	<input type="checkbox"/>	<input type="checkbox"/>											
7)						OTHER:	<input type="checkbox"/>	<input type="checkbox"/>											
8)						No preservation	<input type="checkbox"/>	<input type="checkbox"/>											
9)						Nitric Acid	<input type="checkbox"/>	<input type="checkbox"/>											
10)						Hydrochloric Acid	<input type="checkbox"/>	<input type="checkbox"/>											
						Sulfuric Acid	<input type="checkbox"/>	<input type="checkbox"/>											
						Sodium Hydroxide	<input type="checkbox"/>	<input type="checkbox"/>											
						OTHER:	<input type="checkbox"/>	<input type="checkbox"/>											
						Bradenhead	<input type="checkbox"/>	<input type="checkbox"/>											
						Formational	<input type="checkbox"/>	<input type="checkbox"/>											
						Complete API water analysis/Fe, Mn/Phosphate	<input type="checkbox"/>	<input type="checkbox"/>											
						PO4	<input type="checkbox"/>	<input type="checkbox"/>											
						Metals Fe/Mn	<input type="checkbox"/>	<input type="checkbox"/>											
						Corrosivity 9040C (PH)	<input type="checkbox"/>	<input type="checkbox"/>											
						TCLP RCRA Metals	<input type="checkbox"/>	<input type="checkbox"/>											
						BTEX	<input type="checkbox"/>	<input type="checkbox"/>											
						Dissolved Chlorides	<input type="checkbox"/>	<input type="checkbox"/>											
						Total Dissolved Solids	<input type="checkbox"/>	<input type="checkbox"/>											

PLEASE NOTE: GAL's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analysis. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by GAL within 30 days after completion of the applicable service. In no event shall GAL be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by GAL, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

ADDITIONAL REMARKS:

Relinquished By:	Date: 2-21-25	Received By:	Date: 2/21/25				
Relinquished By:	Time: 12:00	Received By:	Time: 2:00				
Relinquished By:	Date: 2/21/25	Received By:	Date: 2/21/25				
Relinquished By:	Time: 10:55	Received By:	Time: 10:55				
Relinquished By:	Date: 2/25/25	Received By:	Date: 2/25/25				
Relinquished By:	Time: 09:55	Received By:	Time: 09:55				
				Temperature at receipt:	18.9	°C	
				Checked by:	4	On Ice?	Y
						Therm. used:	Y

† GAL cannot accept verbal changes. Please email changes to receiving@greenanalytical.com
* Chain of Custody must be signed in "Relinquished By:" as an acceptance of services and all applicable charges.

Page 1 of 1



SAMPLE CONDITION RECEIPT FORM

Date/Initials of person examining contents:	2-25-25 CJW
Labeled by initials:	_____
(if different than above)	

Client Name: HilcorpWork Order # 2502-271Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☒ Kangaroo ☐ Third Party ☐ OtherCustody Seals on Box/Cooler Present: ☐ Yes ☒ No Seals Intact: ☐ Yes ☐ No GAL Cooler #: _____Thermometer Used: #2 Samples on ice, cooling process has begun: ☒ Yes ☐ NoType of Ice: ☒ Wet ☐ Blue ☐ None Cooler Temp: Observed Temp: 6.1 °C Correction Factor: +2 °C Final Temp: 4.3 °C

*Temp should be above freezing 6°C

Compliance: ☐ Yes ☒ No

Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	1.
COC Signed when Relinquished and Received:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	2.
Sampler Name and Signature on COC: *Required for compliance	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	3.
Samples arrived within hold time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	4.
Correct Containers Used & Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5.
Short Hold Time Analysis (<72hr):	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	6. <u>PH</u>
Rush Turn Around Time Requested:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	7. <u>3 days</u>
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	8.
pH's acceptable upon receipt, where applicable: *Not including metals bottles	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	9.
Dissolved Testing Needed: Field Filtered: <input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	10.
Sample Labels match COC: -Includes Date/Time/ID Matrix: <u>WT</u> SL OT	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	11.
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
Trip Blank Custody Seals Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
VOA's meet headspace requirement (<6mm bubbles)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Non-Conformance(s):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	13.

Client Notification/Resolution:

Person Contacted: _____

Date/Time: _____

 Comments/Resolution: _____

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
<https://www.emnrd.nm.gov/oed/contact-us>

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

CONDITIONS

Action 438419

CONDITIONS

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 438419
	Action Type: [UF-GA] Gas Analysis (GAS ANALYSIS)

CONDITIONS

Created By	Condition	Condition Date
mkuehling	TDS 13500	5/1/2025