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

23 February 2024

Kevin Fredrickson  
Hilcorp  
382 CR 3100  
Aztec, NM 87410  
RE: East

Enclosed are the results of analyses for samples received by the laboratory on 02/16/24 12:20. 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 "Veronica J. Wells". The signature is written in a cursive style and is enclosed in a light gray rectangular box.

Veronica Wells  
Project 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: TX-C24-00019

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: T104704398-23-16

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Hilcorp  
382 CR 3100  
Aztec NM, 87410

Project: TDS & Chloride, NOX, TKN  
Project Name / Number: East  
Project Manager: Kevin Fredrickson

Reported:  
02/23/24 15:31

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
Howell K 4	2402156-01	Water	02/15/24 08:00	02/16/24 12:20	

Green Analytical Laboratories

Veronica Wells, Project Manager

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Hilcorp 382 CR 3100 Aztec NM, 87410	Project: TDS & Chloride, NOX, TKN Project Name / Number: East Project Manager: Kevin Fredrickson	<b>Reported:</b> 02/23/24 15:31
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**Howell K 4**

**2402156-01 (Water)**

**Sampled Date: 02/15/24 08:00**

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

<b>Chloride*</b>	<b>388</b>	100	5.55	mg/L	100	02/22/24 00:44	EPA300.0		AWG
<b>Total Dissolved Solids*</b>	<b>25900</b>	20.0		mg/L	2	02/22/24 11:44	EPA160.1		IDB

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Hilcorp 382 CR 3100 Aztec NM, 87410	Project: TDS & Chloride, NOX, TKN Project Name / Number: East Project Manager: Kevin Fredrickson	Reported: 02/23/24 15:31
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**General Chemistry - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B240382 - IC- Ion Chromatograph</b>										
<b>Blank (B240382-BLK1)</b> Prepared: 02/20/24 Analyzed: 02/21/24										
Chloride	ND	1.00	mg/L							
<b>LCS (B240382-BS1)</b> Prepared: 02/20/24 Analyzed: 02/21/24										
Chloride	25.6	1.00	mg/L	25.0		103	90-110			
<b>Batch B240384 - General Prep - Wet Chem</b>										
<b>Blank (B240384-BLK1)</b> Prepared & Analyzed: 02/20/24										
Total Dissolved Solids	ND	10.0	mg/L							
<b>Duplicate (B240384-DUP1)</b> Source: 2402156-01 Prepared: 02/20/24 Analyzed: 02/23/24										
Total Dissolved Solids	26700	20.0	mg/L		25900			2.96	20	
<b>Reference (B240384-SRM1)</b> Prepared & Analyzed: 02/20/24										
Total Dissolved Solids	395	10.0	mg/L	400		98.8	85-115			

**Notes and Definitions**

- 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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SAMPLE CONDITION RECEIPT FORM

Client Name: Hilcorp

Work Order # 2402-156

Courier:  Fed Ex  UPS  USPS  Client  Kangaroo  Third Party  Other

Custody Seals on Box/Cooler Present:  Yes  No  
Seals Intact:  Yes  No

Thermometer Used: #2 Samples on ice, cooling process has begun:  Yes  No

Type of Ice:  Wet  Blue  None

Cooler Temp: Observed Temp: 4.2 °C Correction Factor: Ø °C Final Temp: 4.2 °C

Date/Initials of person examining contents: MPN 2.28.24  
Labeled by initials: \_\_\_\_\_  
(if different than above)

\* Temp should be above freezing to 6°C

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	2.
Chain of Custody Relinquished:	<input type="checkbox"/> Yes <input type="checkbox"/> No	3.
Sampler Name and Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	4.
Samples arrived within hold time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5.
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6.
Rush Turn Around Time Requested:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	7. <u>3 day</u>
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9.
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10.
Dissolved Testing Needed:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	11.
Field Filtered: <input type="checkbox"/> Yes <input type="checkbox"/> No		
Sample Labels match COC: -Includes Date/Time/ID	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	12.
Matrix:	<input checked="" type="checkbox"/> WT <input type="checkbox"/> SL <input type="checkbox"/> OT	
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13.
Trip Blank Custody Seals Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	

Client Notification/Resolution:

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments/Resolution: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



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Kevin Fredrickson  
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Hilcorp  
382 CR 3100  
Aztec NM, 87410

Project: TDS & Chloride, NOX, TKN  
Project Name / Number: East  
Project Manager: Kevin Fredrickson

Reported:  
02/23/24 15:39

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
Howell K 4 River-Water	2402157-01	Water	02/19/24 08:00	02/19/24 12:30	

Green Analytical Laboratories

Veronica Wells, Project Manager

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Hilcorp 382 CR 3100 Aztec NM, 87410	Project: TDS & Chloride, NOX, TKN Project Name / Number: East Project Manager: Kevin Fredrickson	<b>Reported:</b> 02/23/24 15:39
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**Howell K 4 River-Water**  
**2402157-01 (Surface Water)**  
**Sampled Date: 02/19/24 08:00**

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

<b>Chloride*</b>	<20.0	20.0	1.11	mg/L	20	02/22/24 01:04	EPA300.0		AWG
<b>Total Dissolved Solids*</b>	<b>120</b>	10.0		mg/L	1	02/20/24 15:22	EPA160.1		IDB

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Hilcorp 382 CR 3100 Aztec NM, 87410	Project: TDS & Chloride, NOX, TKN Project Name / Number: East Project Manager: Kevin Fredrickson	Reported: 02/23/24 15:39
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**General Chemistry - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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<b>Blank (B240382-BLK1)</b> Prepared: 02/20/24 Analyzed: 02/21/24										
Chloride	ND	1.00	mg/L							
<b>LCS (B240382-BS1)</b> Prepared: 02/20/24 Analyzed: 02/21/24										
Chloride	25.6	1.00	mg/L	25.0		103	90-110			
<b>Batch B240384 - General Prep - Wet Chem</b>										
<b>Blank (B240384-BLK1)</b> Prepared & Analyzed: 02/20/24										
Total Dissolved Solids	ND	10.0	mg/L							
<b>Reference (B240384-SRM1)</b> Prepared & Analyzed: 02/20/24										
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SAMPLE CONDITION RECEIPT FORM

Client Name: Hilcorp

Work Order # 2402-157

Courier:  Fed Ex  UPS  USPS  Client  Kangaroo  Third Party  Other

Custody Seals on Box/Cooler Present:  Yes  No  
Seals Intact:  Yes  No

Thermometer Used: #2 Samples on ice, cooling process has begun:  Yes  No

Type of Ice:  Wet  Blue  None

Cooler Temp: Observed Temp: 4.2 °C Correction Factor: Ø °C Final Temp: 4.2 °C

Date/Initials of person examining contents: MPN 2-20-24  
Labeled by initials: \_\_\_\_\_  
(if different than above)

\*Temp should be above freezing to 6°C

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	3.
Sampler Name and Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	4.
Samples arrived within hold time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5.
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6.
Rush Turn Around Time Requested:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	7. <u>3 day</u>
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9.
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10.
Dissolved Testing Needed:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	11.
Field Filtered: <input type="checkbox"/> Yes <input type="checkbox"/> No		
Sample Labels match COC: -Includes Date/Time/ID	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	12.
Matrix:	<u>WT</u> SL OT	
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13.
Trip Blank Custody Seals Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	

Client Notification/Resolution:

Person Contacted: \_\_\_\_\_

Date/Time: \_\_\_\_\_

Comments/Resolution: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**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 317980

**CONDITIONS**

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 317980
	Action Type: [UF-GA] Gas Analysis (GAS ANALYSIS)

**CONDITIONS**

Created By	Condition	Condition Date
mkuehling	None	4/26/2024