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Hilcorp
382 CR 3100
Aztec NM, 87410

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

Reported:
07/24/23 08:21

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
Grambling 1 A - Produced water from Separator	2307183-04	Water	07/18/23 13:30	07/18/23 16:47	

DRAFT REPORT

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DRAFT REPORT, DATA SUBJECT TO CHANGE

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Hilcorp 382 CR 3100 Aztec NM, 87410	Project: Braden Head Project Name / Number: South Project Manager: David Bounds	Reported: 07/24/23 08:21
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Grambling 1 A - Produced water from Separator

2307183-04 (Produced Water)

Sampled Date: 07/18/23 13:30

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

Chloride*	10700	200	11.1	mg/L	200	07/20/23 23:34	EPA300.0		AWG
pH*	7.09			pH Units	1	07/20/23 10:49	EPA150.1		KRW
pH Temperature, degrees C	24.0			pH Units	1	07/20/23 10:49	EPA150.1		KRW
Sulfate*	86.6	200	24.8	mg/L	200	07/20/23 23:34	EPA300.0	J	AWG
Total Dissolved Solids*	17400	40.0		mg/L	4	07/20/23 15:48	EPA160.1		CAI

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Hilcorp 382 CR 3100 Aztec NM, 87410	Project: Braden Head Project Name / Number: South Project Manager: David Bounds	Reported: 07/13/23 15:11
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Grambling 1-A - Braden Head

2307024-02 (Produced Water)

Sampled Date: 06/25/23 10:00

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

Chloride*	55.3	50.0	2.78	mg/L	50	07/10/23 18:40	EPA300.0		AWG
pH*	9.35			pH Units	1	07/07/23 14:45	EPA150.1	H4	KRW
pH Temperature, degrees C	21.7			pH Units	1	07/07/23 14:45	EPA150.1	H4	KRW
Sulfate*	7230	50.0	6.20	mg/L	50	07/10/23 18:40	EPA300.0		AWG
Total Dissolved Solids*	10600	10.0		mg/L	1	07/07/23 10:14	EPA160.1	H1	CAI

Green Analytical Laboratories

Veronica Wells, Project Manager

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Hilcorp 382 CR 3100 Aztec NM, 87410	Project: Braden Head Project Name / Number: South Project Manager: David Bounds	Reported: 07/24/23 08:21
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General Chemistry - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B232088 - General Prep - Wet Chem										
Blank (B232088-BLK1) Prepared & Analyzed: 07/20/23										
Total Dissolved Solids	ND	10.0	mg/L							
Reference (B232088-SRM1) Prepared & Analyzed: 07/20/23										
Total Dissolved Solids	400	10.0	mg/L	400		100	85-115			
Batch B232090 - IC- Ion Chromatograph										
Blank (B232090-BLK1) Prepared & Analyzed: 07/20/23										
Chloride	ND	1.00	mg/L							
Sulfate	ND	1.00	mg/L							
LCS (B232090-BS1) Prepared & Analyzed: 07/20/23										
Chloride	25.8	1.00	mg/L	25.0		103	90-110			
Sulfate	24.8	1.00	mg/L	25.0		99.1	90-110			
LCS Dup (B232090-BSD1) Prepared & Analyzed: 07/20/23										
Chloride	25.9	1.00	mg/L	25.0		103	90-110	0.0813	20	
Sulfate	24.8	1.00	mg/L	25.0		99.4	90-110	0.282	20	
Batch B232094 - General Prep - Wet Chem										
Reference (B232094-SRM1) Prepared & Analyzed: 07/20/23										
pH	7.01		pH Units	7.00		100	98.57-101.42			

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382 CR 3100	Project Name / Number: South	Reported:
Aztec NM, 87410	Project Manager: David Bounds	07/24/23 08:21

Notes and Definitions

- J Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).
- 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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Released to Imaging: 9/20/2023 2:49:02 PM

Project Information

Printed: 07/20/2023 9:54 am

Hilcorp

382 CR 3100

Aztec, NM 87410

Laboratory PM: Veronica Wells

Hilcorp

Phone: (505) 599-4005

Fax: (505) 599-4005

Project Name: Braden Head
Project Number:
Client PM: Kevin Fredrickson
Comments:

Analysis	Comment
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Chloride [IC]

pH

Sulfate [IC]

Total Dissolved Solids [TDS]

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 243572

CONDITIONS

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 243572
	Action Type: [UF-GA] Gas Analysis (GAS ANALYSIS)

CONDITIONS

Created By	Condition	Condition Date
mkuehling	TDS 10600 - bradenhead has produced water	9/20/2023