Hilcorp	Project: Braden Head	
382 CR 3100	Project Name / Number: Area 7	**Reported:**
Aztec NM, 87410	Project Manager: David Bounds	07/11/24 15:59

McCalanahan 4 - Area 7

2407072-01 (Other) (30.045.13302)

Sampled Date: 06/28/24 08:00

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
General Chemistry									
Chloride*	**17.6**	50.0	2.78	mg/L	50	07/10/24 16:03	EPA300.0		AWG
pH*	**11.5**			pH Units	1	07/09/24 12:00	EPA150.1	H1	HIC
pH Temperature, degrees C	**19.8**			pH Units	1	07/09/24 12:00	EPA150.1	H1	HIC
Sulfate*	**5660**	50.0	6.20	mg/L	50	07/10/24 16:03	EPA300.0		AWG
Total Dissolved Solids*	**8590**	20.0		mg/L	2	07/09/24 11:58	EPA160.1	H2	HIC

Green Analytical Laboratories

Veronica J Wells

Veronica Wells, Project Manager

Well Name: MCCLANAHAN #4; CSG
API #: 3004513302
Source: CASING
Sample Type: GAS

Analysis No: HS20240156
Cust No: 35825-13930

Well/Lease Information

Customer Name:	HILCORP (BHD PROJECT)	Source:	CASING
Well Name:	MCCLANAHAN #4; CSG	Well Flowing:	Y
County/State:	SAN JUAN NM	Pressure:	140 PSIG
Location:	SEC 14, T28N, R10W	Flow Temp:	118 DEG. F
Lease/PA/CA:	NMSF-079634	Ambient Temp:	91 DEG. F
Formation:	PC	Flow Rate:	50 MCF/D
Cust. Stn. No.:	3004513302	Sample Method:	Purge & Fill
	32405-304	Sample Date:	07/02/2024
		Sample Time:	2.45 PM
	AREA 07 / RUN 710	Sampled By:	LT WATSON
Heat Trace:		Sampled by (CO):	HILCORP
Remarks:			

Analysis

Component::	Mole%:	Unormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.0966	0.0944	0.0110	0.00	0.0009
CO2	1.7815	1.7409	0.3050	0.00	0.0271
Methane	83.3757	81.4759	14.1750	842.09	0.4618
Ethane	9.9819	9.7544	2.6770	176.65	0.1036
Propane	3.0240	2.9551	0.8350	76.09	0.0460
Iso-Butane	0.4577	0.4473	0.1500	14.88	0.0092
N-Butane	0.5271	0.5151	0.1670	17.20	0.0106
I-Pentane	0.1910	0.1866	0.0700	7.64	0.0048
N-Pentane	0.1209	0.1181	0.0440	4.85	0.0030
Hexane Plus	0.4436	0.4335	0.1980	23.38	0.0147
Total	100.0000	97.7213	18.6320	1162.78	0.6817

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY
**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBLITY FACTOR (1/Z):	1.0031	CYLINDER #:	7
BTU/CU.FT IDEAL:	1165.5	CYLINDER PRESSURE:	14 PSIG
BTU/CU.FT (DRY) CORRECTED FOR (1/Z):	1169.1	ANALYIS DATE:	07/09/2024
BTU/CU.FT (WET) CORRECTED FOR (1/Z):	1148.8	ANALYIS TIME:	10:46:09 AM
DRY BTU @ 15.025:	1192.5	ANALYSIS RUN BY:	SARAH BALLARD
REAL SPECIFIC GRAVITY:	0.6836		

GPM, BTU, and SPG calculations as shown above are based on current GPA constants.
GPA Standard: GPA-2261
GC: Danalyzer Model 500 **Last Cal/Verify: 07/10/2024**
GC Method: C6+ Gas

HILCORP (BHD PROJECT)

WELL ANALYSIS COMPARISON

Lease:	MCCLANAHAN #4; CSG	CASING	07/10/2024
Stn. No.:	3004513302	PC	35825-13930
Mtr. No.:	32405-304		

Smpl Date:	07/02/2024	08/15/2021
Test Date:	07/09/2024	08/25/2021
Run No:	HS20240156	HS2021191
Nitrogen:	0.0966	0.0775
CO2:	1.7815	1.6727
Methane:	83.3757	83.7891
Ethane:	9.9819	10.1565
Propane:	3.0240	2.7950
I-Butane:	0.4577	0.4048
N-Butane:	0.5271	0.4369
I-Pentane:	0.1910	0.1568
N-Pentane:	0.1209	0.1029
Hexane+:	0.4436	0.4078
BTU:	1169.1	1161.8
GPM:	18.6320	18.5830
SPG:	0.6836	0.6769

Well Name: MCCLANAHAN #4; TBG
API #: 3004513302
Source: TUBING
Sample Type: GAS

Analysis No: HS20240157
Cust No: 35825-13925

Well/Lease Information

Customer Name:	HILCORP (BHD PROJECT)	Source:	TUBING
Well Name:	MCCLANAHAN #4; TBG	Well Flowing:	Y
County/State:	SAN JUAN NM	Pressure:	140 PSIG
Location:	SEC 14 T28N R10W	Flow Temp:	118 DEG. F
Lease/PA/CA:	NMSF-079634	Ambient Temp:	91 DEG. F
Formation:	PC	Flow Rate:	50 MCF/D
Cust. Stn. No.:	3004513302	Sample Method:	Purge & Fill
	32405-304	Sample Date:	07/02/2024
		Sample Time:	2.30 PM
	AREA 07 / RUN 710	Sampled By:	LT WATSON
Heat Trace:	N	Sampled by (CO):	HILCORP
Remarks:			

Analysis

Component::	Mole%:	Unormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.1024	0.1023	0.0110	0.00	0.0010
CO2	1.7614	1.7591	0.3010	0.00	0.0268
Methane	83.8588	83.7476	14.2570	846.97	0.4645
Ethane	9.6617	9.6489	2.5910	170.98	0.1003
Propane	2.8993	2.8955	0.8010	72.95	0.0441
Iso-Butane	0.4503	0.4497	0.1480	14.64	0.0090
N-Butane	0.5216	0.5209	0.1650	17.02	0.0105
I-Pentane	0.1910	0.1907	0.0700	7.64	0.0048
N-Pentane	0.1247	0.1245	0.0450	5.00	0.0031
Hexane Plus	0.4288	0.4282	0.1920	22.60	0.0142
Total	100.0000	99.8674	18.5810	1157.81	0.6783

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY
**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBLITY FACTOR (1/Z):	1.0031	CYLINDER #:	2136
BTU/CU.FT IDEAL:	1160.5	CYLINDER PRESSURE:	13 PSIG
BTU/CU.FT (DRY) CORRECTED FOR (1/Z):	1164.1	ANALYIS DATE:	07/09/2024
BTU/CU.FT (WET) CORRECTED FOR (1/Z):	1143.8	ANALYIS TIME:	10:33:13 AM
DRY BTU @ 15.025:	1187.4	ANALYSIS RUN BY:	SARAH BALLARD
REAL SPECIFIC GRAVITY:	0.6801		

GPM, BTU, and SPG calculations as shown above are based on current GPA constants.
GPA Standard: GPA-2261
GC: Danalyzer Model 500 **Last Cal/Verify: 07/10/2024**
GC Method: C6+ Gas

HILCORP (BHD PROJECT)

WELL ANALYSIS COMPARISON

Lease:	MCCLANAHAN #4; TBG	TUBING	07/10/2024
Stn. No.:	3004513302	PC	35825-13925
Mtr. No.:	32405-304		

Smpl Date:	07/02/2024	08/15/2021
Test Date:	07/09/2024	08/25/2021
Run No:	HS20240157	HS2021192
Nitrogen:	0.1024	81.5536
CO2:	1.7614	0.4229
Methane:	83.8588	14.4456
Ethane:	9.6617	2.1912
Propane:	2.8993	0.7929
I-Butane:	0.4503	0.1397
N-Butane:	0.5216	0.1583
I-Pentane:	0.1910	0.0604
N-Pentane:	0.1247	0.0376
Hexane+:	0.4288	0.1978
BTU:	1164.1	229.4
GPM:	18.5810	12.5220
SPG:	0.6801	0.9252

District I
1625 N. French Dr., Hobbs, NM 88240
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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 365842

CONDITIONS

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 365842
	Action Type: [UF-GA] Gas Analysis (GAS ANALYSIS)

CONDITIONS

Created By	Condition	Condition Date
mkuehling	TDS 8590 produced water	7/24/2024