



Well Name: MCCLANAHAN 21; BHD
 API #: 3004525362
 Source: BRADENHEAD
 Sample Type: GAS
 Analysis No: HS20240190
 Cust No: 35825-16105

Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)
 Well Name: MCCLANAHAN 21; BHD
 County/State:
 Location:
 Lease/PA/CA:
 Formation:
 Cust. Stn. No.: 3004525362

Source: BRADENHEAD
 Well Flowing: Y
 Pressure: PSIG
 Flow Temp: DEG. F
 Ambient Temp: DEG. F
 Flow Rate: MCF/D
 Sample Method:
 Sample Date: 07/23/2024
 Sample Time: 2.02 PM
 Sampled By:
 Sampled by (CO): HILCORP

AREA 8 / RUN 0806

Heat Trace:

Remarks:

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	4.4870	4.3882	0.4950	0.00	0.0434
CO2	0.0873	0.0854	0.0150	0.00	0.0013
Methane	84.3396	82.4825	14.3330	851.83	0.4672
Ethane	5.5186	5.3971	1.4790	97.66	0.0573
Propane	3.2929	3.2204	0.9090	82.85	0.0501
Iso-Butane	0.8435	0.8249	0.2770	27.43	0.0169
N-Butane	0.8263	0.8081	0.2610	26.96	0.0166
I-Pentane	0.2805	0.2743	0.1030	11.22	0.0070
N-Pentane	0.1302	0.1273	0.0470	5.22	0.0032
Hexane Plus	0.1941	0.1898	0.0870	10.23	0.0064
Total	100.0000	97.7980	18.0060	1113.40	0.6695

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0027
 BTU/CU.FT IDEAL: 1116.0
 BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1119.0
 BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1099.5
 DRY BTU @ 15.025: 1141.4
 REAL SPECIFIC GRAVITY: 0.671

CYLINDER #: 2057
 CYLINDER PRESSURE: 17 PSIG
 ANALYSIS DATE: 07/29/2024
 ANALYSIS TIME: 01:52:45 PM
 ANALYSIS RUN BY: SARAH BALLARD

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: 08/01/2024

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease:	MCCLANAHAN 21; BHD	BRADENHEAD	08/01/2024
Stn. No.:	3004525362		35825-16105
Mtr. No.:			

Smpl Date:	07/23/2024	07/09/2024
Test Date:	07/29/2024	07/15/2024
Run No:	HS20240190	HS20240182
Nitrogen:	4.4870	4.8278
CO2:	0.0873	0.0067
Methane:	84.3396	83.9678
Ethane:	5.5186	5.6239
Propane:	3.2929	3.3154
I-Butane:	0.8435	0.8220
N-Butane:	0.8263	0.8117
I-Pentane:	0.2805	0.2773
N-Pentane:	0.1302	0.1384
Hexane+:	0.1941	0.2090
BTU:	1119.0	1117.5
GPM:	18.0060	17.9990
SPG:	0.6710	0.6724



Well Name: MCCLANAHAN 21; CSG

API #: 3004525362

Source: CASING

Sample Type: GAS

Analysis No: HS20240191

Cust No: 35825-16110

Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)

Well Name: MCCLANAHAN 21; CSG

County/State:

Location:

Lease/PA/CA:

Formation:

Cust. Stn. No.: 3004525362

Source: CASING

Well Flowing: Y

Pressure: PSIG

Flow Temp: DEG. F

Ambient Temp: DEG. F

Flow Rate: MCF/D

Sample Method:

Sample Date: 07/23/2024

Sample Time: 2.15 PM

Sampled By:

Sampled by (CO): HILCORP

AREA 8 / RUN 0806

Heat Trace:

Remarks:

Analysis

Component:	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.2239	0.2244	0.0250	0.00	0.0022
CO2	0.8215	0.8233	0.1410	0.00	0.0125
Methane	87.6592	87.8465	14.8990	885.36	0.4855
Ethane	6.9792	6.9941	1.8710	123.51	0.0725
Propane	2.6736	2.6793	0.7380	67.27	0.0407
Iso-Butane	0.4535	0.4545	0.1490	14.75	0.0091
N-Butane	0.5983	0.5996	0.1890	19.52	0.0120
I-Pentane	0.1974	0.1978	0.0720	7.90	0.0049
N-Pentane	0.1201	0.1204	0.0440	4.81	0.0030
Hexane Plus	0.2733	0.2739	0.1220	14.41	0.0090
Total	100.0000	100.2138	18.2500	1137.52	0.6514

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0028
 BTU/CU.FT IDEAL: 1140.2
 BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1143.4
 BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1123.5
 DRY BTU @ 15.025: 1166.3
 REAL SPECIFIC GRAVITY: 0.653

CYLINDER #: 1414
 CYLINDER PRESSURE: 52 PSIG
 ANALYSIS DATE: 07/29/2024
 ANALYSIS TIME: 02:00:15 PM
 ANALYSIS RUN BY: SARAH BALLARD

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: 08/01/2024

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease:	MCCLANAHAN 21; CSG	CASING	08/01/2024
Stn. No.:	3004525362		35825-16110
Mtr. No.:			

Smpl Date:	07/23/2024	07/09/2024
Test Date:	07/29/2024	07/15/2024
Run No:	HS20240191	HS20240183
Nitrogen:	0.2239	47.0261
CO2:	0.8215	0.7626
Methane:	87.6592	46.1916
Ethane:	6.9792	3.8553
Propane:	2.6736	1.1536
I-Butane:	0.4535	0.1909
N-Butane:	0.5983	0.1918
I-Pentane:	0.1974	0.0688
N-Pentane:	0.1201	0.0347
Hexane+:	0.2733	0.5246
BTU:	1143.4	610.3
GPM:	18.2500	14.8960
SPG:	0.6530	0.8083

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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 370204

CONDITIONS

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 370204
	Action Type: [UF-GA] Gas Analysis (GAS ANALYSIS)

CONDITIONS

Created By	Condition	Condition Date
mkuehling	similar	8/26/2024