



Well Name: HUERFANO 80; BHD
 API #: 3004506096
 Source: BRADENHEAD
 Sample Type: GAS
 Analysis No: HS2021181
 Cust No: 35825-10885

Well/Lease Information

Customer Name:	HILCORP (BHD PROJECT)	Source:	BRADENHEAD
Well Name:	HUERFANO 80; BHD	Well Flowing:	N
County/State:	SAN JUAN NM	Pressure:	129 PSIG
Location:		Flow Temp:	113 DEG. F
Lease/PA/CA:		Ambient Temp:	DEG. F
Formation:	PC	Flow Rate:	MCF/D
Cust. Stn. No.:	3004506096	Sample Method:	Purge & Fill
	74503	Sample Date:	08/06/2021
	AREA 6 / RUN 0604	Sample Time:	1.15 PM
Heat Trace:	N	Sampled By:	ARCHIE LUCERO
Remarks:		Sampled by (CO):	HILCORP

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.1862	0.1837	0.0210	0.00	0.0018
CO2	4.1214	4.0663	0.7050	0.00	0.0626
Methane	87.0046	85.8423	14.7830	878.75	0.4819
Ethane	8.2734	8.1629	2.2180	146.41	0.0859
Propane	0.2449	0.2416	0.0680	6.16	0.0037
Iso-Butane	0.0533	0.0526	0.0170	1.73	0.0011
N-Butane	0.0394	0.0389	0.0120	1.29	0.0008
I-Pentane	0.0159	0.0157	0.0060	0.64	0.0004
N-Pentane	0.0110	0.0109	0.0040	0.44	0.0003
Hexane Plus	0.0499	0.0492	0.0220	2.63	0.0017
Total	100.0000	98.6641	17.8560	1038.05	0.6401

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z):	1.0025	CYLINDER #:	6094
BTU/CU.FT IDEAL:	1040.5	CYLINDER PRESSURE:	18 PSIG
BTU/CU.FT (DRY) CORRECTED FOR (1/Z):	1043.1	ANALYSIS DATE:	08/16/2021
BTU/CU.FT (WET) CORRECTED FOR (1/Z):	1025.0	ANALYSIS TIME:	01:19:17 PM
DRY BTU @ 15.025:	1064.0	ANALYSIS RUN BY:	RICHARD WILSON
REAL SPECIFIC GRAVITY:	0.6415		

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: 08/20/2021

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease:	HUERFANO 80; BHD	BRADENHEAD	08/20/2021
Stn. No.:	3004506096	PC	35825-10885
Mtr. No.:	74503		

Smpl Date:	08/06/2021	09/24/2018
Test Date:	08/16/2021	09/26/2018
Run No:	HS2021181	HS180217
Nitrogen:	0.1862	0.1151
CO2:	4.1214	4.1711
Methane:	87.0046	87.3170
Ethane:	8.2734	7.9422
Propane:	0.2449	0.2205
I-Butane:	0.0533	0.0496
N-Butane:	0.0394	0.0408
I-Pentane:	0.0159	0.0167
N-Pentane:	0.0110	0.0109
Hexane+:	0.0499	0.1161
BTU:	1043.1	1043.2
GPM:	17.8560	17.8430
SPG:	0.6415	0.6416



Well Name: HUERFANO 80; CSG

API #: 3004506096

Source: CASING

Sample Type: GAS

Analysis No: HS2021180

Cust No: 35825-13915

Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)

Well Name: HUERFANO 80; CSG

County/State: SAN JUAN NM

Location:

Lease/PA/CA:

Formation: PC

Cust. Stn. No.: 3004506096

74503

AREA 06 / RUN 0604

Heat Trace: N

Remarks:

Source: CASING

Well Flowing: N

Pressure: 129 PSIG

Flow Temp: 113 DEG. F

Ambient Temp: DEG. F

Flow Rate: MCF/D

Sample Method: Purge & Fill

Sample Date: 08/06/2021

Sample Time: 1.15 PM

Sampled By: ARCHIE LUCERO

Sampled by (CO): HILCORP

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.1868	0.1837	0.0210	0.00	0.0018
CO2	4.4728	4.3990	0.7650	0.00	0.0680
Methane	86.3990	84.9728	14.6800	872.63	0.4786
Ethane	8.5171	8.3765	2.2830	150.73	0.0884
Propane	0.2538	0.2496	0.0700	6.39	0.0039
Iso-Butane	0.0605	0.0595	0.0200	1.97	0.0012
N-Butane	0.0441	0.0434	0.0140	1.44	0.0009
I-Pentane	0.0162	0.0159	0.0060	0.65	0.0004
N-Pentane	0.0092	0.0090	0.0030	0.37	0.0002
Hexane Plus	0.0405	0.0398	0.0180	2.13	0.0013
Total	100.0000	98.3492	17.8800	1036.30	0.6447

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0025
 BTU/CU.FT IDEAL: 1038.7
 BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1041.3
 BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1023.2
 DRY BTU @ 15.025: 1062.2
 REAL SPECIFIC GRAVITY: 0.6461

CYLINDER #: 4199
 CYLINDER PRESSURE: 19 PSIG
 ANALYSIS DATE: 08/16/2021
 ANALYSIS TIME: 01:37:09 PM
 ANALYSIS RUN BY: RICHARD WILSON

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: 08/20/2021

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease:	HUERFANO 80; CSG	CASING	08/20/2021
Stn. No.:	3004506096	PC	35825-13915
Mtr. No.:	74503		

Smpl Date: 08/06/2021
Test Date: 08/16/2021
Run No: HS2021180

Nitrogen: 0.1868
CO2: 4.4728
Methane: 86.3990
Ethane: 8.5171
Propane: 0.2538
I-Butane: 0.0605
N-Butane: 0.0441
I-Pentane: 0.0162
N-Pentane: 0.0092
Hexane+: 0.0405

BTU: 1041.3
GPM: 17.8800
SPG: 0.6461



Well Name: HUERFANO 80; TBG

API #: 3004506096

Source: TUBING

Sample Type: GAS

Analysis No: HS2021182

Cust No: 35825-13920

Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)

Well Name: HUERFANO 80; TBG

County/State: SAN JUAN NM

Location:

Lease/PA/CA:

Formation: PC

Cust. Stn. No.: 3004506096

74503

AREA 06 / RUN 0604

Heat Trace: N

Remarks:

Source: TUBING

Well Flowing: N

Pressure: 129 PSIG

Flow Temp: 113 DEG. F

Ambient Temp: DEG. F

Flow Rate: MCF/D

Sample Method: Purge & Fill

Sample Date: 08/06/2021

Sample Time: 1.15 PM

Sampled By: ARCHIE LUCERO

Sampled by (CO): HILCORP

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.1606	0.1585	0.0180	0.00	0.0016
CO2	4.4860	4.4283	0.7670	0.00	0.0682
Methane	86.3846	85.2735	14.6780	872.48	0.4785
Ethane	8.5248	8.4152	2.2850	150.86	0.0885
Propane	0.2540	0.2507	0.0700	6.39	0.0039
Iso-Butane	0.0603	0.0595	0.0200	1.96	0.0012
N-Butane	0.0577	0.0570	0.0180	1.88	0.0012
I-Pentane	0.0175	0.0173	0.0060	0.70	0.0004
N-Pentane	0.0112	0.0111	0.0040	0.45	0.0003
Hexane Plus	0.0433	0.0427	0.0190	2.28	0.0014
Total	100.0000	98.7138	17.8850	1037.01	0.6451

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0025
 BTU/CU.FT IDEAL: 1039.4
 BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1042.0
 BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1023.9
 DRY BTU @ 15.025: 1062.9
 REAL SPECIFIC GRAVITY: 0.6464

CYLINDER #: 6204
 CYLINDER PRESSURE: 19 PSIG
 ANALYSIS DATE: 08/16/2021
 ANALYSIS TIME: 01:27:55 PM
 ANALYSIS RUN BY: RICHARD WILSON

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: 08/20/2021

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease:	HUERFANO 80; TBG	TUBING	08/20/2021
Stn. No.:	3004506096	PC	35825-13920
Mtr. No.:	74503		

Smpl Date: 08/06/2021
Test Date: 08/16/2021
Run No: HS2021182

Nitrogen: 0.1606
CO2: 4.4860
Methane: 86.3846
Ethane: 8.5248
Propane: 0.2540
I-Butane: 0.0603
N-Butane: 0.0577
I-Pentane: 0.0175
N-Pentane: 0.0112
Hexane+: 0.0433

BTU: 1042.0
GPM: 17.8850
SPG: 0.6464

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
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District III

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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

COMMENTS

Action 43600

COMMENTS

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 43600
	Action Type: [UF-GA] Gas Analysis (GAS ANALYSIS)

COMMENTS

Created By	Comment	Comment Date
mkuehling	same gas all strings	9/3/2021

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
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Santa Fe, NM 87505

CONDITIONS

Action 43600

CONDITIONS

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 43600
	Action Type: [UF-GA] Gas Analysis (GAS ANALYSIS)

CONDITIONS

Created By	Condition	Condition Date
mkuehling	None	10/14/2021