



Well Name: STATE G.C. BJ 1; BHD

API #: 3004510008

Source: BRADENHEAD

Sample Type: GAS

Analysis No: HS2021219

Cust No: 35825-13985

Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)

Well Name: STATE G.C. BJ 1; BHD

County/State: SAN JUAN NM

Location:

Lease/PA/CA: E-3419

Formation: DK

Cust. Stn. No.: 3004510008
75157

AREA 2 / RUN 0205

Heat Trace:

Remarks: PRESSURED WITH HELIUM TO 30 LBS.

Source: BRADENHEAD

Well Flowing: Y

Pressure: 4 PSIG

Flow Temp: DEG. F

Ambient Temp: DEG. F

Flow Rate: MCF/D

Sample Method: Purge & Fill

Sample Date: 08/20/2021

Sample Time: 1.00 PM

Sampled By: JOHN RUSSELL

Sampled by (CO):

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.5316	0.1591	0.0590	0.00	0.0051
CO2	0.0221	0.0066	0.0040	0.00	0.0003
Methane	89.2929	26.7243	15.1780	901.86	0.4946
Ethane	5.0938	1.5245	1.3660	90.14	0.0529
Propane	2.5053	0.7498	0.6920	63.04	0.0381
Iso-Butane	0.5697	0.1705	0.1870	18.53	0.0114
N-Butane	0.6572	0.1967	0.2080	21.44	0.0132
I-Pentane	0.3044	0.0911	0.1120	12.18	0.0076
N-Pentane	0.2158	0.0646	0.0780	8.65	0.0054
Hexane Plus	0.8072	0.2416	0.3610	42.55	0.0267
Total	100.0000	29.9288	18.2450	1158.38	0.6554

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0029
 BTU/CU.FT IDEAL: 1161.1
 BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1164.4
 BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1144.1
 DRY BTU @ 15.025: 1187.7
 REAL SPECIFIC GRAVITY: 0.657

CYLINDER #: 4192
 CYLINDER PRESSURE: PSIG
 ANALYSIS DATE: 09/02/2021
 ANALYSIS TIME: 01:36:06 PM
 ANALYSIS RUN BY: ALEXIS MITCHELL

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: 09/07/2021

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease:	STATE G.C. BJ 1; BHD	BRADENHEAD	09/07/2021
Stn. No.:	3004510008	DK	35825-13985
Mtr. No.:	75157		

Smpl Date: 08/20/2021
Test Date: 09/02/2021
Run No: HS2021219

Nitrogen: 0.5316
CO2: 0.0221
Methane: 89.2929
Ethane: 5.0938
Propane: 2.5053
I-Butane: 0.5697
N-Butane: 0.6572
I-Pentane: 0.3044
N-Pentane: 0.2158
Hexane+: 0.8072

BTU: 1164.4
GPM: 18.2450
SPG: 0.6570



Well Name: STATE G.C. BJ 1; CSG

API #: 3004510008

Source: CASING

Sample Type: GAS

Analysis No: HS2021220

Cust No: 35825-13990

Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)

Well Name: STATE G.C. BJ 1; CSG

County/State: SAN JUAN NM

Location:

Lease/PA/CA: E-3149

Formation: DK

Cust. Stn. No.: 3004510008
75157

AREA 2 / RUN 0205

Heat Trace:

Remarks:

Source: CASING

Well Flowing: Y

Pressure: 90 PSIG

Flow Temp: DEG. F

Ambient Temp: DEG. F

Flow Rate: MCF/D

Sample Method: Purge & Fill

Sample Date: 08/20/2021

Sample Time: 1.00 PM

Sampled By: JOHN RUSSELL

Sampled by (CO):

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.5812	0.5737	0.0640	0.00	0.0056
CO2	0.4297	0.4242	0.0740	0.00	0.0065
Methane	86.1177	85.0103	14.6400	869.79	0.4770
Ethane	7.0973	7.0060	1.9030	125.60	0.0737
Propane	3.3837	3.3402	0.9350	85.14	0.0515
Iso-Butane	0.6772	0.6685	0.2220	22.02	0.0136
N-Butane	0.7964	0.7862	0.2520	25.98	0.0160
I-Pentane	0.2920	0.2882	0.1070	11.68	0.0073
N-Pentane	0.1918	0.1893	0.0700	7.69	0.0048
Hexane Plus	0.4330	0.4274	0.1940	22.82	0.0143
Total	100.0000	98.7140	18.4610	1170.72	0.6703

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.003
 BTU/CU.FT IDEAL: 1173.4
 BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1177.0
 BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1156.5
 DRY BTU @ 15.025: 1200.6
 REAL SPECIFIC GRAVITY: 0.6721

CYLINDER #: 4078
 CYLINDER PRESSURE: 93 PSIG
 ANALYSIS DATE: 09/02/2021
 ANALYSIS TIME: 01:13:33 PM
 ANALYSIS RUN BY: ALEXIS MITCHELL

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: 09/07/2021

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease: STATE G.C. BJ 1; CSG
Stn. No.: 3004510008
Mtr. No.: 75157

CASING
DK

09/07/2021
35825-13990

Smpl Date: 08/20/2021
Test Date: 09/02/2021
Run No: HS2021220

Nitrogen: 0.5812
CO2: 0.4297
Methane: 86.1177
Ethane: 7.0973
Propane: 3.3837
I-Butane: 0.6772
N-Butane: 0.7964
I-Pentane: 0.2920
N-Pentane: 0.1918
Hexane+: 0.4330

BTU: 1177.0
GPM: 18.4610
SPG: 0.6721



Well Name: STATE G.C. BJ 1; TBG

API #: 3004510008

Source: TUBING

Sample Type: GAS

Analysis No: HS2021221

Cust No: 35825-13995

Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)

Well Name: STATE G.C. BJ 1; TBG

County/State: SAN JUAN NM

Location:

Lease/PA/CA: E-3419

Formation: DK

Cust. Stn. No.: 3004510008
75157

AREA 2 / RUN 0205

Heat Trace:

Remarks:

Source: TUBING

Well Flowing: Y

Pressure: 90 PSIG

Flow Temp: DEG. F

Ambient Temp: DEG. F

Flow Rate: MCF/D

Sample Method: Purge & Fill

Sample Date: 08/20/2021

Sample Time: 1.00 PM

Sampled By: JOHN RUSSELL

Sampled by (CO):

Analysis

Component:	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.5807	0.5739	0.0640	0.00	0.0056
CO2	0.4249	0.4199	0.0730	0.00	0.0065
Methane	86.0097	85.0021	14.6230	868.70	0.4764
Ethane	7.0723	6.9894	1.8970	125.16	0.0734
Propane	3.3852	3.3455	0.9350	85.18	0.0515
Iso-Butane	0.6817	0.6737	0.2240	22.17	0.0137
N-Butane	0.8041	0.7947	0.2540	26.23	0.0161
I-Pentane	0.3006	0.2971	0.1100	12.03	0.0075
N-Pentane	0.1994	0.1971	0.0720	7.99	0.0050
Hexane Plus	0.5414	0.5351	0.2420	28.54	0.0179
Total	100.0000	98.8285	18.4940	1175.99	0.6736

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0031
 BTU/CU.FT IDEAL: 1178.7
 BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1182.4
 BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1161.8
 DRY BTU @ 15.025: 1206.1
 REAL SPECIFIC GRAVITY: 0.6755

CYLINDER #: 6053
 CYLINDER PRESSURE: 88 PSIG
 ANALYSIS DATE: 09/02/2021
 ANALYSIS TIME: 12:55:13 AM
 ANALYSIS RUN BY: ALEXIS MITCHELL

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: 09/07/2021

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease: STATE G.C. BJ 1; TBG
Stn. No.: 3004510008
Mtr. No.: 75157

TUBING
DK

09/07/2021
35825-13995

Smpl Date: 08/20/2021
Test Date: 09/02/2021
Run No: HS2021221

Nitrogen: 0.5807
CO2: 0.4249
Methane: 86.0097
Ethane: 7.0723
Propane: 3.3852
I-Butane: 0.6817
N-Butane: 0.8041
I-Pentane: 0.3006
N-Pentane: 0.1994
Hexane+: 0.5414

BTU: 1182.4
GPM: 18.4940
SPG: 0.6755

District I

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District II

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District III

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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 46825

CONDITIONS

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 46825
	Action Type: [UF-GA] Gas Analysis (GAS ANALYSIS)

CONDITIONS

Created By	Condition	Condition Date
mkuehling	same gas all strings	10/18/2021