



2030 Afton Place
Farmington, NM 87401
(505) 325-6622

Analysis No: HS190225
Cust No: 35825-11880

Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)
Well Name: STATE GAS COM BB 1; BHD
County/State: SAN JUAN NM
Location:
Lease/PA/CA:
Formation: DK
Cust. Str. No.: 75070

Source: BRADENHEAD
Well Flowing: N
Pressure: PSIG
Flow Temp: DEG. F
Ambient Temp: 80 DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Sample Date: 08/09/2019
Sample Time: 11.20 AM
Sampled By: JORDAN MCMORRIS
Sampled by (CO): HILCORP

API # 3004510701

AREA 2 / RUN 203

Heat Trace: N

Remarks:

NMOC
AUG 28 2019
DISTRICT III

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	4.2272	4.1709	0.4660	0.00	0.0409
CO2	0.1102	0.1087	0.0190	0.00	0.0017
Methane	77.7247	76.6897	13.2170	785.02	0.4305
Ethane	10.1064	9.9718	2.7110	178.85	0.1049
Propane	4.4194	4.3605	1.2210	111.20	0.0673
Iso-Butane	0.8117	0.8009	0.2660	26.40	0.0163
N-Butane	1.2894	1.2722	0.4080	42.06	0.0259
I-Pentane	0.4678	0.4616	0.1720	18.72	0.0117
N-Pentane	0.3438	0.3392	0.1250	13.78	0.0086
Hexane Plus	0.4994	0.4927	0.2230	26.32	0.0165
Total	100.0000	98.6682	18.8280	1202.35	0.7242

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0033
BTU/CU.FT IDEAL: 1205.1
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1209.1
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1188.1
DRY BTU @ 15.025: 1233.3
REAL SPECIFIC GRAVITY: 0.7263

CYLINDER #: 5036
CYLINDER PRESSURE: 28 PSIG
ANALYSIS DATE: 08/19/2019
ANALYSIS TIME: 09:31:40 AM
ANALYSIS RUN BY: SHYANN ELLEDGE

GPM, BTU, and SPG calculations as shown above are based on current GPA constants.

GPA Standard: GPA-2261

GC: Danalyzer Model 500

GC Method: C6+ Gas

Last Cal/Verify: 08/22/2019



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease: STATE GAS COM BB 1; BHD
Stn. No.: 75070
Mtr. No.: API # 3004510701

BRADENHEAD
DK

08/22/2019
35825-11880

Smpl Date: 08/09/2019
Test Date: 08/19/2019
Run No: HS190225

Nitrogen: 4.2272
CO2: 0.1102
Methane: 77.7247
Ethane: 10.1064
Propane: 4.4194
I-Butane: 0.8117
N-Butane: 1.2894
I-Pentane: 0.4678
N-Pentane: 0.3438
Hexane+: 0.4994

BTU: 1209.1
GPM: 18.8280
SPG: 0.7263



2030 Afton Place
Farmington, NM 87401
(505) 325-6622

Analysis No: HS190227
Cust No: 35825-11890

Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)
Well Name: STATE GAS COM BB 1; TBG
County/State: SAN JUAN NM
Location:
Lease/PA/CA:
Formation: DK
Cust. Stn. No.: 75070
API # 3004510701
AREA 2 / RUN 203
Heat Trace: N
Remarks:

Source: TUBING
Well Flowing: N
Pressure: PSIG
Flow Temp: DEG. F
Ambient Temp: 80 DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Sample Date: 08/09/2019
Sample Time: 11.00 AM
Sampled By: JORDAN MCMORRIS
Sampled by (CO): HILCORP

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.4733	0.4667	0.0520	0.00	0.0046
CO2	0.0066	0.0065	0.0010	0.00	0.0001
Methane	81.7747	80.6362	13.9080	825.92	0.4530
Ethane	9.7685	9.6325	2.6210	172.87	0.1014
Propane	4.5601	4.4966	1.2600	114.74	0.0694
Iso-Butane	0.8265	0.8150	0.2710	26.88	0.0166
N-Butane	1.1912	1.1746	0.3770	38.86	0.0239
I-Pentane	0.4477	0.4415	0.1640	17.91	0.0112
N-Pentane	0.3342	0.3295	0.1220	13.40	0.0083
Hexane Plus	0.6172	0.6086	0.2760	32.53	0.0204
Total	100.0000	98.6077	19.0520	1243.11	0.7089

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0035
BTU/CU.FT IDEAL: 1246.0
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1250.4
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1228.6
DRY BTU @ 15.025: 1275.4
REAL SPECIFIC GRAVITY: 0.7111

CYLINDER #: 6126
CYLINDER PRESSURE: 153 PSIG
ANALYSIS DATE: 08/19/2019
ANALYSIS TIME: 10:02:56 AM
ANALYSIS RUN BY: SHYANN ELLEDGE

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: 08/22/2019

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease: STATE GAS COM BB 1; TBG
Stn. No.: 75070
Mtr. No.: API # 3004510701

TUBING
DK

08/22/2019
35825-11890

Smpl Date: 08/09/2019
Test Date: 08/19/2019
Run No: HS190227

Nitrogen: 0.4733
CO2: 0.0066
Methane: 81.7747
Ethane: 9.7685
Propane: 4.5601
I-Butane: 0.8265
N-Butane: 1.1912
I-Pentane: 0.4477
N-Pentane: 0.3342
Hexane+: 0.6172

BTU: 1250.4
GPM: 19.0520
SPG: 0.7111



2030 Afton Place
Farmington, NM 87401
(505) 325-6622

Analysis No: HS190226
Cust No: 35825-11885

Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)
Well Name: STATE GAS COM BB 1; CSG
County/State: SAN JUAN NM
Location:
Lease/PA/CA:
Formation: DK
Cust. Stn. No.: 75070
API # 3004510701
AREA 2 / RUN 203
Heat Trace: N
Remarks:

Source: CASING
Well Flowing: N
Pressure: PSIG
Flow Temp: DEG. F
Ambient Temp: 80 DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Sample Date: 08/09/2019
Sample Time: 11.10 AM
Sampled By: JORDAN MCMORRIS
Sampled by (CO): HILCORP

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.3317	0.3252	0.0370	0.00	0.0032
CO2	0.6431	0.6305	0.1100	0.00	0.0098
Methane	81.0805	79.4895	13.7920	818.91	0.4491
Ethane	9.8295	9.6366	2.6380	173.95	0.1020
Propane	4.1929	4.1106	1.1590	105.50	0.0638
Iso-Butane	0.7926	0.7770	0.2600	25.77	0.0159
N-Butane	1.2888	1.2635	0.4080	42.04	0.0259
I-Pentane	0.6070	0.5951	0.2230	24.29	0.0151
N-Pentane	0.4318	0.4233	0.1570	17.31	0.0108
Hexane Plus	0.8021	0.7864	0.3590	42.28	0.0265
Total	100.0000	98.0377	19.1430	1250.06	0.7222

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0036
BTU/CU.FT IDEAL: 1252.9
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1257.5
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1235.6
DRY BTU @ 15.025: 1282.7
REAL SPECIFIC GRAVITY: 0.7245

CYLINDER #: 7048
CYLINDER PRESSURE: 172 PSIG
ANALYSIS DATE: 08/19/2019
ANALYSIS TIME: 09:52:02 AM
ANALYSIS RUN BY: SHYANN ELLEDGE

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: 08/22/2019

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease: STATE GAS COM BB 1; CSG
Stn. No.: 75070
Mtr. No.: API # 3004510701

CASING
DK

08/22/2019
35825-11885

Smpl Date: 08/09/2019
Test Date: 08/19/2019
Run No: HS190226

Nitrogen: 0.3317
CO2: 0.6431
Methane: 81.0805
Ethane: 9.8295
Propane: 4.1929
I-Butane: 0.7926
N-Butane: 1.2888
I-Pentane: 0.6070
N-Pentane: 0.4318
Hexane+: 0.8021

BTU: 1257.5
GPM: 19.1430
SPG: 0.7245