



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

Analysis No: HS180006
Cust No: 35825-10085

30-045-26112

Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)
Well Name: MCCORD #11E; BHD
County/State: SAN JUAN NM
Location:
Field: AREA 1 / RUN 100
Formation: DK
Cust. Stn. No.: 95337

Source: BRADENHEAD
Well Flowing: Y
Pressure: 146 PSIG
Flow Temp: DEG. F
Ambient Temp: DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Sample Date: 02/23/2018
Sample Time: 10.47 AM
Sampled By: PETE
Sampled by (CO):

Heat Trace:

Remarks:

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.5662	0.5658	0.0620	0.00	0.0055
CO2	1.3226	1.3217	0.2260	0.00	0.0201
Methane	80.4259	80.3721	13.6780	812.30	0.4455
Ethane	10.2922	10.2853	2.7610	182.14	0.1069
Propane	4.4891	4.4861	1.2410	112.95	0.0683
Iso-Butane	0.6685	0.6681	0.2190	21.74	0.0134
N-Butane	1.2043	1.2035	0.3810	39.29	0.0242
I-Pentane	0.3530	0.3528	0.1300	14.12	0.0088
N-Pentane	0.3000	0.2998	0.1090	12.03	0.0075
Hexane Plus	0.3782	0.3779	0.1690	19.94	0.0125
Total	100.0000	99.9331	18.9760	1214.50	0.7126

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0034
BTU/CU.FT IDEAL: 1217.3
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1221.5
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1200.2
DRY BTU @ 15.025: 1246.0
REAL SPECIFIC GRAVITY: 0.7148

CYLINDER #: 085
CYLINDER PRESSURE: 149 PSIG
ANALYSIS DATE: 02/26/2018
ANALYSIS TIME: 08:55:35 AM
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

GC Method: C6+ Gas

Last Cal/Verify: 02/27/2018



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease: MCCORD #11E; BHD
Stn. No.: 95337
Mtr. No.:

BRADENHEAD
DK

02/27/2018
35825-10085

Smpl Date: 02/23/2018
Test Date: 02/26/2018
Run No: HS180006

Nitrogen: 0.5662
CO2: 1.3226
Methane: 80.4259
Ethane: 10.2922
Propane: 4.4891
I-Butane: 0.6685
N-Butane: 1.2043
I-Pentane: 0.3530
N-Pentane: 0.3000
Hexane+: 0.3782

BTU: 1221.5
GPM: 18.9760
SPG: 0.7148



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

Analysis No: HS180007
Cust No: 35825-10090

Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)
Well Name: MCCORD #11E; CSG
County/State: SAN JUAN NM
Location:
Field: AREA 1 / RUN 100
Formation: DK
Cust. Stn. No.: 95337

Source: CASING
Well Flowing: Y
Pressure: 173 PSIG
Flow Temp: DEG. F
Ambient Temp: DEG. F
Flow Rate: MCF/D
Sample Method:
Sample Date: 02/23/2018
Sample Time: 10.08 AM
Sampled By: PETE
Sampled by (CO):

Heat Trace:

Remarks:

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.5674	0.5672	0.0630	0.00	0.0055
CO2	1.3860	1.3856	0.2370	0.00	0.0211
Methane	80.5027	80.4800	13.6910	813.08	0.4459
Ethane	10.2858	10.2829	2.7590	182.03	0.1068
Propane	4.4631	4.4618	1.2330	112.30	0.0680
Iso-Butane	0.6573	0.6571	0.2160	21.37	0.0132
N-Butane	1.1723	1.1720	0.3710	38.24	0.0235
I-Pentane	0.3327	0.3326	0.1220	13.31	0.0083
N-Pentane	0.2791	0.2790	0.1010	11.19	0.0070
Hexane Plus	0.3536	0.3535	0.1580	18.64	0.0117
Total	100.0000	99.9717	18.9510	1210.16	0.7109

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0034
BTU/CU.FT IDEAL: 1213.0
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1217.1
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1195.9
DRY BTU @ 15.025: 1241.5
REAL SPECIFIC GRAVITY: 0.713

CYLINDER #: 006
CYLINDER PRESSURE: 189 PSIG
ANALYSIS DATE: 02/26/2018
ANALYSIS TIME: 08:40:51 AM
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: 02/27/2018

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease: MCCORD #11E; CSG
Stn. No.: 95337
Mtr. No.:

CASING
DK

02/27/2018
35825-10090

Smpl Date: 02/23/2018
Test Date: 02/26/2018
Run No: HS180007
Nitrogen: 0.5674
CO2: 1.3860
Methane: 80.5027
Ethane: 10.2858
Propane: 4.4631
I-Butane: 0.6573
N-Butane: 1.1723
I-Pentane: 0.3327
N-Pentane: 0.2791
Hexane+: 0.3536
BTU: 1217.1
GPM: 18.9510
SPG: 0.7130



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

Analysis No: HS180008
Cust No: 35825-10095

Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)
Well Name: MCCORD #11E; TBG
County/State: SAN JUAN NM
Location:
Field: AREA 1 / RUN 100
Formation: DK
Cust. Stn. No.: 95337

Source: TUBING
Well Flowing: Y
Pressure: 176 PSIG
Flow Temp: DEG. F
Ambient Temp: DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Sample Date: 02/23/2018
Sample Time: 10.15 AM
Sampled By: PETE
Sampled by (CO):

Heat Trace:

Remarks:

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.5705	0.5658	0.0630	0.00	0.0055
CO2	1.3501	1.3389	0.2310	0.00	0.0205
Methane	80.9629	80.2917	13.7690	817.73	0.4485
Ethane	9.8058	9.7245	2.6310	173.53	0.1018
Propane	4.3844	4.3481	1.2120	110.32	0.0668
Iso-Butane	0.6493	0.6439	0.2130	21.11	0.0130
N-Butane	1.1457	1.1362	0.3620	37.38	0.0230
I-Pentane	0.3409	0.3381	0.1250	13.64	0.0085
N-Pentane	0.2936	0.2912	0.1070	11.77	0.0073
Hexane Plus	0.4968	0.4927	0.2220	26.19	0.0164
Total	100.0000	99.1711	18.9350	1211.66	0.7113

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0034
BTU/CU.FT IDEAL: 1214.5
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1218.6
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1197.4
DRY BTU @ 15.025: 1243.0
REAL SPECIFIC GRAVITY: 0.7135

CYLINDER #: 037
CYLINDER PRESSURE: 187 PSIG
ANALYSIS DATE: 02/26/2018
ANALYSIS TIME: 08:52:54 AM
ANALYSIS RUN BY: PATRICIA KING

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: 02/27/2018



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease: MCCORD #11E; TBG
Stn. No.: 95337
Mtr. No.:

TUBING
DK

02/27/2018
35825-10095

Smpl Date: 02/23/2018
Test Date: 02/26/2018
Run No: HS180008

Nitrogen: 0.5705
CO2: 1.3501
Methane: 80.9629
Ethane: 9.8058
Propane: 4.3844
I-Butane: 0.6493
N-Butane: 1.1457
I-Pentane: 0.3409
N-Pentane: 0.2936
Hexane+: 0.4968

BTU: 1218.6
GPM: 18.9350
SPG: 0.7135