



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

Analysis No: HS180221
Cust No: 35825-10380

Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)
Well Name: HUERFANO 179E; BHD
County/State: SAN JUAN NM
Location: K14-26N-10W
Field: AREA 6 / RUN 610
Formation: DK
Cust. Stn. No.:

Source: BRADENHEAD
Well Flowing: N
Pressure: 35 PSIG
Flow Temp: DEG. F
Ambient Temp: DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Sample Date: 09/28/2018
Sample Time: 10.32 AM
Sampled By: MATT CRANE
Sampled by (CO):

Heat Trace:
Remarks:

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	1.0209	1.0277	0.1130	0.00	0.0099
CO2	1.2239	1.2321	0.2100	0.00	0.0186
Methane	75.4518	75.9570	12.8390	762.06	0.4179
Ethane	11.2350	11.3102	3.0160	198.83	0.1166
Propane	6.5629	6.6068	1.8150	165.13	0.0999
Iso-Butane	1.0585	1.0656	0.3480	34.42	0.0212
N-Butane	2.0121	2.0256	0.6370	65.64	0.0404
I-Pentane	0.5750	0.5788	0.2110	23.01	0.0143
N-Pentane	0.4932	0.4965	0.1790	19.77	0.0123
Hexane Plus	0.3667	0.3692	0.1640	19.33	0.0121
Total	100.0000	100.6695	19.5320	1288.19	0.7633

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.004
BTU/CU.FT IDEAL: 1291.2
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1296.2
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1273.6
DRY BTU @ 15.025: 1322.2
REAL SPECIFIC GRAVITY: 0.766

CYLINDER #: 6165
CYLINDER PRESSURE: 34 PSIG
ANALYSIS DATE: 10/04/2018
ANALYSIS TIME: 02:31:38 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

GC Method: C6+ Gas

Last Cal/Verify: 10/08/2018

NMOCB

OCT 25 2018

DISTRICT III



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease: HUERFANO 179E; BHD
Stn. No.:
Mtr. No.:

BRADENHEAD
DK

10/08/2018
35825-10380

Smpl Date:	09/28/2018	08/10/2018
Test Date:	10/04/2018	08/16/2018
Run No:	HS180221	HS180100
Nitrogen:	1.0209	1.0633
CO2:	1.2239	1.1574
Methane:	75.4518	74.8740
Ethane:	11.2350	11.4008
Propane:	6.5629	6.7095
I-Butane:	1.0585	1.1269
N-Butane:	2.0121	2.0887
I-Pentane:	0.5750	0.6195
N-Pentane:	0.4932	0.5313
Hexane+:	0.3667	0.4286
BTU:	1296.2	1308.5
GPM:	19.5320	19.6140
SPG:	0.7660	0.7733



2030 Afton Place
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Analysis No: HS180222
Cust No: 35825-10385

Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)
Well Name: HUERFANO 179E; CSG
County/State: SAN JUAN NM
Location: K14-26-N-10W
Field: AREA 6 / RUN 610
Formation: DK
Cust. Stn. No.:

Source: CASING
Well Flowing:
Pressure: 199 PSIG
Flow Temp: DEG. F
Ambient Temp: DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Sample Date: 09/28/2018
Sample Time: 12.10 PM
Sampled By: MATT CRANE
Sampled by (CO):

Heat Trace:
Remarks:

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	1.0666	1.0782	0.1180	0.00	0.0103
CO2	1.3938	1.4090	0.2390	0.00	0.0212
Methane	75.1527	75.9733	12.7880	759.04	0.4163
Ethane	10.8696	10.9883	2.9180	192.36	0.1128
Propane	6.6500	6.7226	1.8390	167.32	0.1012
Iso-Butane	1.0838	1.0956	0.3560	35.24	0.0217
N-Butane	2.1001	2.1230	0.6650	68.51	0.0421
I-Pentane	0.6359	0.6428	0.2330	25.44	0.0158
N-Pentane	0.5654	0.5716	0.2060	22.67	0.0141
Hexane Plus	0.4821	0.4874	0.2160	25.41	0.0160
Total	100.0000	101.0918	19.5780	1296.00	0.7716

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.004
BTU/CU.FT IDEAL: 1299.0
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1304.2
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1281.5
DRY BTU @ 15.025: 1330.3
REAL SPECIFIC GRAVITY: 0.7744

CYLINDER #: 4129
CYLINDER PRESSURE: 194 PSIG
ANALYSIS DATE: 10/04/2018
ANALYSIS TIME: 02:43:54 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: 10/08/2018

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease: HUERFANO 179E; CSG
Stn. No.:
Mtr. No.:

CASING
DK

10/08/2018
35825-10385

Smpl Date:	09/28/2018	08/10/2018
Test Date:	10/04/2018	08/16/2018
Run No:	HS180222	HS180101
Nitrogen:	1.0666	1.0103
CO2:	1.3938	1.3958
Methane:	75.1527	74.6017
Ethane:	10.8696	11.2058
Propane:	6.6500	6.7381
I-Butane:	1.0838	1.1200
N-Butane:	2.1001	2.1398
I-Pentane:	0.6359	0.6653
N-Pentane:	0.5654	0.5832
Hexane+:	0.4821	0.5400
BTU:	1304.2	1314.4
GPM:	19.5780	19.6610
SPG:	0.7744	0.7804



Huerfano Unit 179E - API# 30-045-26672

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

Analysis No: HS180223
Cust No: 35825-10390

Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)
Well Name: HUERFANO 179E; TBG
County/State: SAN JUAN NM
Location: K14-26N-10W
Field: AREA 6 / RUN 610
Formation: DK
Cust. Str. No.:

Source: TUBING
Well Flowing: N
Pressure: 199 PSIG
Flow Temp: DEG. F
Ambient Temp: DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Sample Date: 09/28/2018
Sample Time: 12.05 PM
Sampled By: MATT CRANE
Sampled by (CO):

Heat Trace: N
Remarks:

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	1.0677	1.0775	0.1180	0.00	0.0103
CO2	1.4406	1.4539	0.2470	0.00	0.0219
Methane	76.2598	76.9615	12.9740	770.22	0.4224
Ethane	10.8943	10.9945	2.9240	192.80	0.1131
Propane	6.2516	6.3091	1.7280	157.30	0.0952
Iso-Butane	1.0085	1.0178	0.3310	32.80	0.0202
N-Butane	1.8173	1.8340	0.5750	59.29	0.0365
I-Pentane	0.4929	0.4974	0.1810	19.72	0.0123
N-Pentane	0.4111	0.4149	0.1500	16.48	0.0102
Hexane Plus	0.3562	0.3595	0.1590	18.78	0.0118
Total	100.0000	100.9201	19.3870	1267.37	0.7539

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0038
BTU/CU.FT IDEAL: 1270.3
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1275.2
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1253.0
DRY BTU @ 15.025: 1300.7
REAL SPECIFIC GRAVITY: 0.7565

CYLINDER #: 5018
CYLINDER PRESSURE: 199 PSIG
ANALYSIS DATE: 10/04/2018
ANALYSIS TIME: 02:22:50 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

GC Method: C6+ Gas

Last Cal/Verify: 10/08/2018



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease: HUERFANO 179E; TBG
Stn. No.:
Mtr. No.:

TUBING
DK

10/08/2018
35825-10390

Smpl Date:	09/28/2018	08/10/2018
Test Date:	10/04/2018	08/16/2018
Run No:	HS180223	HS180102
Nitrogen:	1.0677	1.0949
CO2:	1.4406	1.4433
Methane:	76.2598	76.6266
Ethane:	10.8943	10.7204
Propane:	6.2516	6.1034
I-Butane:	1.0085	0.9766
N-Butane:	1.8173	1.7368
I-Pentane:	0.4929	0.4633
N-Pentane:	0.4111	0.3855
Hexane+:	0.3562	0.4492
BTU:	1275.2	1271.1
GPM:	19.3870	19.3500
SPG:	0.7565	0.7542