



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

Analysis No: HS180232
Cust No: 35825-10760

Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)
Well Name: HUERFANITO 81; BHD
County/State: SAN JUAN NM
Location:
Field: AREA 9 / RUN 907
Formation: DK
Cust. Stn. No.:

Source: BRADENHEAD
Well Flowing:
Pressure: 20 PSIA
Flow Temp: DEG. F
Ambient Temp: DEG. F
Flow Rate: MCF/D
Sample Method:
Sample Date: 10/04/2018
Sample Time: 9.00 AM
Sampled By: WILFRED JARAMILLO
Sampled by (CO): HILCORP

Heat Trace:

Remarks:

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	3.0123	2.9489	0.3320	0.00	0.0291
CO2	0.0930	0.0910	0.0160	0.00	0.0014
Methane	78.5497	76.8969	13.3580	793.35	0.4351
Ethane	10.7792	10.5524	2.8920	190.76	0.1119
Propane	4.1184	4.0317	1.1380	103.62	0.0627
Iso-Butane	0.8364	0.8188	0.2750	27.20	0.0168
N-Butane	1.1193	1.0957	0.3540	36.51	0.0225
I-Pentane	0.5035	0.4929	0.1850	20.14	0.0125
N-Pentane	0.3073	0.3008	0.1120	12.32	0.0077
Hexane Plus	0.6809	0.6666	0.3050	35.89	0.0225
Total	100.0000	97.8957	18.9670	1219.80	0.7222

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0034
BTU/CU.FT IDEAL: 1222.6
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1226.8
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1205.5
DRY BTU @ 15.025: 1251.4
REAL SPECIFIC GRAVITY: 0.7244

CYLINDER #: 6087
CYLINDER PRESSURE: 20 PSIG
ANALYSIS DATE: 10/09/2018
ANALYSIS TIME: 01:25:59 PM
ANALYSIS RUN BY: CAMERON MANGAN

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: 10/12/2018

GC Method: C6+ Gas

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HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease: HUERFANITO 81; BHD
Stn. No.:
Mtr. No.:

BRADENHEAD
DK

10/12/2018
35825-10760

Smpl Date:	10/04/2018	09/28/2018	08/28/2018
Test Date:	10/09/2018	10/04/2018	09/10/2018
Run No:	HS180232	HS180229	HS180189
Nitrogen:	3.0123	3.4141	1.0726
CO2:	0.0930	0.0528	0.0168
Methane:	78.5497	78.6966	80.4340
Ethane:	10.7792	10.3278	10.6546
Propane:	4.1184	4.0927	4.2419
I-Butane:	0.8364	0.8867	0.9143
N-Butane:	1.1193	1.1305	1.1948
I-Pentane:	0.5035	0.5314	0.5616
N-Pentane:	0.3073	0.3071	0.3172
Hexane+:	0.6809	0.5603	0.5922
BTU:	1226.8	1216.3	1250.0
GPM:	18.9670	18.8780	19.0960
SPG:	0.7244	0.7213	0.7174



2030 Afton Place
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(505) 325-6622

Analysis No: HS180233
Cust No: 35825-10765

Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)
Well Name: HUERFANITO 81; CSG
County/State: SAN JUAN NM
Location:
Field: AREA 9 / RUN 907
Formation: DK
Cust. Stn. No.:

Source: CASING
Well Flowing:
Pressure: PSIA
Flow Temp: DEG. F
Ambient Temp: DEG. F
Flow Rate: MCF/D
Sample Method:
Sample Date: 10/04/2018
Sample Time: 9.00 AM
Sampled By: W. JARAMILLO
Sampled by (CO): HILCORP

Heat Trace:

Remarks:

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.3026	0.2977	0.0330	0.00	0.0029
CO2	1.1243	1.1060	0.1930	0.00	0.0171
Methane	78.5975	77.3161	13.3730	793.83	0.4354
Ethane	11.0581	10.8779	2.9680	195.70	0.1148
Propane	4.4800	4.4070	1.2390	112.72	0.0682
Iso-Butane	0.9476	0.9322	0.3110	30.82	0.0190
N-Butane	1.3624	1.3402	0.4310	44.45	0.0273
I-Pentane	0.6892	0.6780	0.2530	27.57	0.0172
N-Pentane	0.4921	0.4841	0.1790	19.73	0.0123
Hexane Plus	0.9462	0.9308	0.4240	49.87	0.0313
Total	100.0000	98.3700	19.4040	1274.69	0.7455

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0039
BTU/CU.FT IDEAL: 1277.6
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1282.5
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1260.2
DRY BTU @ 15.025: 1308.2
REAL SPECIFIC GRAVITY: 0.748

CYLINDER #: 7008
CYLINDER PRESSURE: 117 PSIG
ANALYSIS DATE: 10/09/2018
ANALYSIS TIME: 02:10:23 AM
ANALYSIS RUN BY: CAMERON MANGAN

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: 10/12/2018

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease: HUERFANITO 81; CSG
Stn. No.:
Mtr. No.:

CASING
DK

10/12/2018
35825-10765

Smpl Date:	10/04/2018	09/28/2018	08/28/2018
Test Date:	10/09/2018	10/04/2018	09/10/2018
Run No:	HS180233	HS180230	HS180190
Nitrogen:	0.3026	0.3020	0.3175
CO2:	1.1243	1.1119	1.0545
Methane:	78.5975	78.6361	77.7283
Ethane:	11.0581	11.0608	10.7599
Propane:	4.4800	4.4575	4.4877
I-Butane:	0.9476	0.9376	1.0472
N-Butane:	1.3624	1.3382	1.6025
I-Pentane:	0.6892	0.6802	1.0269
N-Pentane:	0.4921	0.4924	0.7858
Hexane+:	0.9462	0.9833	1.1897
BTU:	1282.5	1282.9	1318.5
GPM:	19.4040	19.4050	19.6210
SPG:	0.7480	0.7480	0.7702

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

Analysis No: HS180234
Cust No: 35825-10775



Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)
Well Name: HUERFANITO 81; TBG
County/State: SAN JUAN NM
Location:
Field: AREA 9 / RUN 907
Formation: DK
Cust. Stn. No.:

Source: TUBING
Well Flowing:
Pressure: 115 PSIA
Flow Temp: DEG. F
Ambient Temp: DEG. F
Flow Rate: MCF/D
Sample Method:
Sample Date: 10/04/2018
Sample Time: 9.00 AM
Sampled By: W. JARAMILLO
Sampled by (CO): HILCORP

Heat Trace:

Remarks:

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.2710	0.2665	0.0300	0.00	0.0026
CO2	1.2773	1.2561	0.2190	0.00	0.0194
Methane	78.3020	77.0034	13.3200	790.85	0.4337
Ethane	11.5224	11.3313	3.0920	203.91	0.1196
Propane	4.7779	4.6987	1.3210	120.22	0.0727
Iso-Butane	0.9667	0.9507	0.3170	31.44	0.0194
N-Butane	1.3315	1.3094	0.4210	43.44	0.0267
I-Pentane	0.5605	0.5512	0.2060	22.43	0.0140
N-Pentane	0.3549	0.3490	0.1290	14.23	0.0088
Hexane Plus	0.6358	0.6253	0.2850	33.51	0.0210
Total	100.0000	98.3416	19.3400	1260.02	0.7381

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0037
BTU/CU.FT IDEAL: 1262.9
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1267.6
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1245.5
DRY BTU @ 15.025: 1293.0
REAL SPECIFIC GRAVITY: 0.7405

CYLINDER #: 4090
CYLINDER PRESSURE: 119 PSIG
ANALYSIS DATE: 10/09/2018
ANALYSIS TIME: 01:49:51 AM
ANALYSIS RUN BY: CAMERON MANGAN

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: 10/12/2018

NMOC

NOV 05 2018

DISTRICT III



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease: HUERFANITO 81; TBG
Stn. No.:
Mtr. No.:

TUBING
DK

10/12/2018
35825-10775

Smpl Date:	10/04/2018	09/28/2018	08/28/2018
Test Date:	10/09/2018	10/04/2018	09/10/2018
Run No:	HS180234	HS180231	HS180192
Nitrogen:	0.2710	0.2619	0.2670
CO2:	1.2773	1.1980	1.2693
Methane:	78.3020	78.0372	78.7531
Ethane:	11.5224	11.3545	10.8170
Propane:	4.7779	4.8006	4.5073
I-Butane:	0.9667	1.0782	0.9067
N-Butane:	1.3315	1.5110	1.3159
I-Pentane:	0.5605	0.8414	0.5909
N-Pentane:	0.3549	0.4757	0.3885
Hexane+:	0.6358	0.4415	1.1843
BTU:	1267.6	1278.1	1282.2
GPM:	19.3400	19.3970	19.3970
SPG:	0.7405	0.7459	0.7498