



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

Analysis No: HS190172
Cust No: 35825-11620

Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)
Well Name: AXI APACHE O 13; BHD
County/State: RIO ARRIBA NM
Location:
Lease/PA/CA:
Formation: PC
Cust. Stn. No.: 33237-30
API # 3003921432

Source: BRADENHEAD
Well Flowing: Y
Pressure: 95 PSIG
Flow Temp: 42 DEG. F
Ambient Temp: 68 DEG. F
Flow Rate: 0 MCF/D
Sample Method: Purge & Fill
Sample Date: 07/12/2019
Sample Time: 7.27 AM
Sampled By: GREG VIGIL
Sampled by (CO): HILCORP

Heat Trace: N
Remarks:

NMOC
AUG 06 2019
DISTRICT III

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.4816	0.4816	0.0530	0.00	0.0047
CO2	0.1139	0.1139	0.0190	0.00	0.0017
Methane	87.6752	87.6820	14.9030	885.52	0.4856
Ethane	6.3290	6.3295	1.6970	112.00	0.0657
Propane	3.1751	3.1753	0.8770	79.89	0.0483
Iso-Butane	0.6603	0.6604	0.2170	21.47	0.0133
N-Butane	0.7303	0.7304	0.2310	23.82	0.0147
I-Pentane	0.2636	0.2636	0.0970	10.55	0.0066
N-Pentane	0.1733	0.1733	0.0630	6.95	0.0043
Hexane Plus	0.3977	0.3977	0.1780	20.96	0.0132
Total	100.0000	100.0077	18.3350	1161.17	0.6580

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0029
BTU/CU.FT IDEAL: 1163.9
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1167.2
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1146.9
DRY BTU @ 15.025: 1190.6
REAL SPECIFIC GRAVITY: 0.6597

CYLINDER #: 6045
CYLINDER PRESSURE: 96 PSIG
ANALYSIS DATE: 07/19/2019
ANALYSIS TIME: 02:20:18 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: 07/23/2019



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease: AXI APACHE O 13; BHD
Stn. No.: 33237-30
Mtr. No.: API # 3003921432

BRADENHEAD
PC

07/23/2019
35825-11620

Smpl Date: 07/12/2019
Test Date: 07/19/2019
Run No: HS190172

Nitrogen: 0.4816
CO2: 0.1139
Methane: 87.6752
Ethane: 6.3290
Propane: 3.1751
I-Butane: 0.6603
N-Butane: 0.7303
I-Pentane: 0.2636
N-Pentane: 0.1733
Hexane+: 0.3977

BTU: 1167.2
GPM: 18.3350
SPG: 0.6597



2030 Afton Place
Farmington, NM 87401
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Analysis No: HS190173
Cust No: 35825-11625

Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)
Well Name: AXI APACHE O 13; CSG
County/State: RIO ARRIBA NM
Location:
Lease/PA/CA:
Formation: PC
Cust. Stn. No.: 33237-30
API # 3003921432

Source: CASING
Well Flowing:
Pressure: 111 PSIG
Flow Temp: 42 DEG. F
Ambient Temp: 68 DEG. F
Flow Rate: 0 MCF/D
Sample Method: Purge & Fill
Sample Date: 07/12/2019
Sample Time: 7.40 AM
Sampled By: GREG VIGIL
Sampled by (CO): HILCORP

AREA 14 / RUN 1411

Heat Trace:
Remarks:

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.4760	0.4764	0.0530	0.00	0.0046
CO2	0.1157	0.1158	0.0200	0.00	0.0018
Methane	87.5852	87.6591	14.8890	884.61	0.4851
Ethane	6.3325	6.3378	1.6980	112.07	0.0657
Propane	3.1783	3.1810	0.8780	79.97	0.0484
Iso-Butane	0.6620	0.6626	0.2170	21.53	0.0133
N-Butane	0.7344	0.7350	0.2320	23.96	0.0147
I-Pentane	0.2667	0.2669	0.0980	10.67	0.0066
N-Pentane	0.1758	0.1759	0.0640	7.05	0.0044
Hexane Plus	0.4734	0.4738	0.2120	24.95	0.0157
Total	100.0000	100.0843	18.3610	1164.80	0.6603

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.003
BTU/CU.FT IDEAL: 1167.5
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1170.9
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1150.5
DRY BTU @ 15.025: 1194.3
REAL SPECIFIC GRAVITY: 0.662

CYLINDER #: 4158
CYLINDER PRESSURE: 116 PSIG
ANALYSIS DATE: 07/19/2019
ANALYSIS TIME: 02:35:48 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: 07/23/2019

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease: AXI APACHE O 13; CSG
Stn. No.: 33237-30
Mtr. No.: API # 3003921432

CASING
PC

07/23/2019
35825-11625

Smpl Date: 07/12/2019
Test Date: 07/19/2019
Run No: HS190173
Nitrogen: 0.4760
CO2: 0.1157
Methane: 87.5852
Ethane: 6.3325
Propane: 3.1783
I-Butane: 0.6620
N-Butane: 0.7344
I-Pentane: 0.2667
N-Pentane: 0.1758
Hexane+: 0.4734
BTU: 1170.9
GPM: 18.3610
SPG: 0.6620



2030 Afton Place
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Analysis No: HS190174
Cust No: 35825-11630

Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)
Well Name: AXI APACHE O 13; TGB
County/State: RIO ARRIBA NM
Location:
Lease/PA/CA:
Formation: PC
Cust. Stn. No.: 33237-30
API # 3003921432
AREA 14 / RUN 1411
Heat Trace: N
Remarks:

Source: TUBING
Well Flowing: Y
Pressure: 124 PSIG
Flow Temp: 42 DEG. F
Ambient Temp: 68 DEG. F
Flow Rate: 0 MCF/D
Sample Method: Purge & Fill
Sample Date: 07/12/2019
Sample Time: 7.40 AM
Sampled By: GREG VIGIL
Sampled by (CO): HILCORP

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.4745	0.4741	0.0520	0.00	0.0046
CO2	0.1181	0.1180	0.0200	0.00	0.0018
Methane	87.5930	87.5188	14.8900	884.69	0.4852
Ethane	6.3198	6.3145	1.6950	111.84	0.0656
Propane	3.1789	3.1762	0.8780	79.98	0.0484
Iso-Butane	0.6620	0.6614	0.2170	21.53	0.0133
N-Butane	0.7337	0.7331	0.2320	23.94	0.0147
I-Pentane	0.2667	0.2665	0.0980	10.67	0.0066
N-Pentane	0.1759	0.1758	0.0640	7.05	0.0044
Hexane Plus	0.4774	0.4770	0.2130	25.16	0.0158
Total	100.0000	99.9154	18.3590	1164.86	0.6604

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.003
BTU/CU.FT IDEAL: 1167.6
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1171.0
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1150.6
DRY BTU @ 15.025: 1194.5
REAL SPECIFIC GRAVITY: 0.6621

CYLINDER #: 7042
CYLINDER PRESSURE: 124 PSIG
ANALYSIS DATE: 07/19/2019
ANALYSIS TIME: 02:05:41 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: 07/23/2019



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease: AXI APACHE O 13; TBG
Stn. No.: 33237-30
Mtr. No.: API # 3003921432

TUBING
PC

07/23/2019
35825-11630

Smpl Date: 07/12/2019
Test Date: 07/19/2019
Run No: HS190174

Nitrogen: 0.4745
CO2: 0.1181
Methane: 87.5930
Ethane: 6.3198
Propane: 3.1789
I-Butane: 0.6620
N-Butane: 0.7337
I-Pentane: 0.2667
N-Pentane: 0.1759
Hexane+: 0.4774

BTU: 1171.0
GPM: 18.3590
SPG: 0.6621