



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

Analysis No: HS190222
Cust No: 35825-11860

Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)
Well Name: UTE INDIANS A 43, BHD
County/State: SAN JUAN NM
Location:
Lease/PA/CA:
Formation:
Cust. Stn. No.: 529-000-28

Source: BRADENHEAD
Well Flowing: Y
Pressure: 0 PSIG
Flow Temp: 65 DEG. F
Ambient Temp: 65 DEG. F
Flow Rate: 0 MCF/D
Sample Method: Purge & Fill
Sample Date: 08/07/2019
Sample Time: 7.00 AM
Sampled By: CASEY NICHOLS
Sampled by (CO): HILCORP

API # 3004534326

AREA 2 / RUN 200

Heat Trace: N

Remarks: PRESSURED WITH HELIUM TO 30LBS. H2S = 15,000 ppm

NMOC
AUG 20 2019
DISTRICT III

Analysis

Component:	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	2.7160	2.7141	0.3000	0.00	0.0263
CO2	0.0190	0.0190	0.0030	0.00	0.0003
Methane	86.0900	86.0298	14.6320	869.51	0.4769
Ethane	5.7309	5.7269	1.5370	101.42	0.0595
Propane	3.2416	3.2393	0.8950	81.56	0.0494
Iso-Butane	0.4061	0.4058	0.1330	13.21	0.0081
N-Butane	0.9539	0.9532	0.3010	31.12	0.0191
I-Pentane	0.2363	0.2361	0.0870	9.45	0.0059
N-Pentane	0.2146	0.2144	0.0780	8.60	0.0053
Hexane Plus	0.3916	0.3913	0.1750	20.64	0.0130
Total	100.0000	99.9299	18.1410	1135.51	0.6637

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0028
BTU/CU.FT IDEAL: 1138.1
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1141.3
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1121.4
DRY BTU @ 15.025: 1164.2
REAL SPECIFIC GRAVITY: 0.6653

CYLINDER #: 6
CYLINDER PRESSURE: 39 PSIG
ANALYSIS DATE: 08/14/2019
ANALYSIS TIME: 09:23:47 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: 08/14/2019



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease: UTE INDIANS A 43; BHD
Stn. No.: 529-000-28
Mtr. No.: API # 3004534326

BRADENHEAD

08/14/2019
35825-11860

Smpl Date: 08/07/2019
Test Date: 08/14/2019
Run No: HS190222

Nitrogen: 2.7160
CO2: 0.0190
Methane: 86.0900
Ethane: 5.7309
Propane: 3.2416
I-Butane: 0.4061
N-Butane: 0.9539
I-Pentane: 0.2363
N-Pentane: 0.2146
Hexane+: 0.3916

BTU: 1141.3
GPM: 18.1410
SPG: 0.6653



2030 Afton Place
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(505) 325-6622

Analysis No: HS190224
Cust No: 35825-11870

Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)
Well Name: UTE INDIANS A 43; TBG
County/State: SAN JUAN NM
Location:
Lease/PA/CA:
Formation:
Cust. Stn. No.: 529-000-28
API # 3004534326

Source: TUBING
Well Flowing: Y
Pressure: 0 PSIG
Flow Temp: 65 DEG. F
Ambient Temp: 65 DEG. F
Flow Rate: 0 MCF/D
Sample Method: Purge & Fill
Sample Date: 08/07/2019
Sample Time: 7.00 AM
Sampled By: CASEY NICHOLS
Sampled by (CO): HILCORP

Heat Trace: N
Remarks: AREA 2 / RUN 200

Remarks: PRESSURED WITH HELIUM TO 30LBS. H₂S = 32,000 ppm

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	1.1826	0.7883	0.1300	0.00	0.0114
CO ₂	1.4537	0.9690	0.2490	0.00	0.0221
Methane	93.8413	62.5506	15.9430	947.80	0.5198
Ethane	1.5622	1.0413	0.4190	27.65	0.0162
Propane	0.5630	0.3753	0.1550	14.17	0.0086
Iso-Butane	0.1629	0.1086	0.0530	5.30	0.0033
N-Butane	0.2436	0.1624	0.0770	7.95	0.0049
I-Pentane	0.1287	0.0858	0.0470	5.15	0.0032
N-Pentane	0.1146	0.0764	0.0420	4.59	0.0029
Hexane Plus	0.7474	0.4982	0.3340	39.40	0.0247
Total	100.0000	66.6559	17.4490	1051.99	0.6171

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0024
BTU/CU.FT IDEAL: 1054.4
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1057.0
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1038.6
DRY BTU @ 15.025: 1078.2
REAL SPECIFIC GRAVITY: 0.6183

CYLINDER #: 15
CYLINDER PRESSURE: 11 PSIG
ANALYSIS DATE: 08/14/2019
ANALYSIS TIME: 09:39:52 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: 08/14/2019

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease: UTE INDIANS A 43; TBG
Stn. No.: 529-000-28
Mtr. No.: API # 3004534326

TUBING

08/14/2019
35825-11870

Smpl Date: 08/07/2019
Test Date: 08/14/2019
Run No: HS190224
Nitrogen: 1.1826
CO2: 1.4537
Methane: 93.8413
Ethane: 1.5622
Propane: 0.5630
I-Butane: 0.1629
N-Butane: 0.2436
I-Pentane: 0.1287
N-Pentane: 0.1146
Hexane+: 0.7474
BTU: 1057.0
GPM: 17.4490
SPG: 0.6183



2030 Afton Place
Farmington, NM 87401
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Analysis No: HS190223
Cust No: 35825-11865

Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)
Well Name: UTE INDIANS A 43; CSG
County/State: SAN JUAN NM
Location:
Lease/PA/CA:
Formation:
Cust. Stn. No.: 529-000-28
API # 3004534326
AREA 2 / RUN 200
Heat Trace: N
Remarks: H2S = 32,000 ppm

Source: CASING
Well Flowing: Y
Pressure: 0 PSIG
Flow Temp: 65 DEG. F
Ambient Temp: 65 DEG. F
Flow Rate: 0 MCF/D
Sample Method: Purge & Fill
Sample Date: 08/07/2019
Sample Time: 7.00 AM
Sampled By: CASEY NICHOLS
Sampled by (CO): HILCORP

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	1.4395	1.4426	0.1590	0.00	0.0139
CO2	0.4572	0.4582	0.0780	0.00	0.0069
Methane	89.1745	89.3645	15.1530	900.66	0.4939
Ethane	5.4549	5.4665	1.4620	96.54	0.0566
Propane	2.0739	2.0783	0.5730	52.18	0.0316
Iso-Butane	0.3515	0.3522	0.1150	11.43	0.0071
N-Butane	0.5138	0.5149	0.1620	16.76	0.0103
I-Pentane	0.1696	0.1700	0.0620	6.79	0.0042
N-Pentane	0.1337	0.1340	0.0490	5.36	0.0033
Hexane Plus	0.2314	0.2319	0.1030	12.20	0.0077
Total	100.0000	100.2131	17.9160	1101.91	0.6356

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0026
BTU/CU.FT IDEAL: 1104.5
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1107.3
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1088.0
DRY BTU @ 15.025: 1129.5
REAL SPECIFIC GRAVITY: 0.637

CYLINDER #: 16
CYLINDER PRESSURE: 455 PSIG
ANALYSIS DATE: 08/14/2019
ANALYSIS TIME: 09:32:08 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: 08/14/2019

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease: UTE INDIANS A 43; CSG
Stn. No.: 529-000-28
Mtr. No.: API # 3004534326

CASING

08/14/2019
35825-11865

Smpl Date: 08/07/2019
Test Date: 08/14/2019
Run No: HS190223
Nitrogen: 1.4395
CO2: 0.4572
Methane: 89.1745
Ethane: 5.4549
Propane: 2.0739
I-Butane: 0.3515
N-Butane: 0.5138
I-Pentane: 0.1696
N-Pentane: 0.1337
Hexane+: 0.2314
BTU: 1107.3
GPM: 17.9160
SPG: 0.6370