



OCD Received
8/18/2020

Well Name: HUBBELL 3E; BHD
API #: API # 3004523881
Source: BRADENHEAD
Sample Type: GAS
Analysis No: HS200101
Cust No: 35825-12470

Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)
Well Name: HUBBELL 3E; BHD
County/State: SAN JUAN NM
Location:
Lease/PA/CA:
Formation:
Cust. Stn. No.: API # 3004523881

Source: BRADENHEAD
Well Flowing: N
Pressure: 17.9 PSIG
Flow Temp: 60 DEG. F
Ambient Temp: 83 DEG. F
Flow Rate: 169 MCF/D
Sample Method: Purge & Fill
Sample Date: 07/24/2020
Sample Time: 1.26 PM
Sampled By: ANDREW HARRIS
Sampled by (CO): HILCORP

Heat Trace: N
Remarks: AREA 7 / RUN 704

Analysis

Component:	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	1.2523	1.2461	0.1380	0.00	0.0121
CO2	0.0237	0.0236	0.0040	0.00	0.0004
Methane	88.2995	87.8624	15.0080	891.82	0.4891
Ethane	5.4116	5.3848	1.4510	95.77	0.0562
Propane	2.7492	2.7356	0.7590	69.17	0.0419
Iso-Butane	0.6688	0.6655	0.2190	21.75	0.0134
N-Butane	0.7433	0.7396	0.2350	24.25	0.0149
I-Pentane	0.2895	0.2881	0.1060	11.58	0.0072
N-Pentane	0.1900	0.1891	0.0690	7.62	0.0047
Hexane Plus	0.3721	0.3703	0.1660	19.61	0.0123
Total	100.0000	99.5051	18.1550	1141.58	0.6522

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0028
BTU/CU.FT IDEAL: 1144.2
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1147.4
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1127.4
DRY BTU @ 15.025: 1170.4
REAL SPECIFIC GRAVITY: 0.6538

CYLINDER #: 4146
CYLINDER PRESSURE: 33 PSIG
ANALYSIS DATE: 07/30/2020
ANALYSIS TIME: 09:21:43 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

Last Cal/Verify: 08/04/2020

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease: HUBBELL 3E; BHD
Stn. No.: API # 3004523881
Mtr. No.:

BRADENHEAD

08/04/2020
35825-12470

Smpl Date: 07/24/2020
Test Date: 07/30/2020
Run No: HS200101

Nitrogen: 1.2523
CO2: 0.0237
Methane: 88.2995
Ethane: 5.4116
Propane: 2.7492
I-Butane: 0.6688
N-Butane: 0.7433
I-Pentane: 0.2895
N-Pentane: 0.1900
Hexane+: 0.3721

BTU: 1147.4
GPM: 18.1550
SPG: 0.6538



OCD Received
8/18/2020

Well Name: HUBBELL 3E; CSG
API #: API # 3004523881
Source: CASING
Sample Type: GAS
Analysis No: HS200102
Cust No: 35825-12475

Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)
Well Name: HUBBELL 3E; CSG
County/State: SAN JUAN NM
Location:
Lease/PA/CA:
Formation:
Cust. Stn. No.: API # 3004523881

Source: CASING
Well Flowing: N
Pressure: 17.9 PSIG
Flow Temp: 60 DEG. F
Ambient Temp: 83 DEG. F
Flow Rate: 169 MCF/D
Sample Method: Purge & Fill
Sample Date: 07/24/2020
Sample Time: 1.40 PM
Sampled By: ANDEW HARRIS
Sampled by (CO): HILCORP

Heat Trace: N
Remarks:

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.3262	0.3206	0.0360	0.00	0.0032
CO2	1.0417	1.0238	0.1780	0.00	0.0158
Methane	78.8839	77.5285	13.4270	796.73	0.4369
Ethane	9.4343	9.2722	2.5330	166.96	0.0979
Propane	4.2780	4.2045	1.1830	107.64	0.0651
Iso-Butane	0.9803	0.9635	0.3220	31.88	0.0197
N-Butane	1.3602	1.3368	0.4310	44.37	0.0273
I-Pentane	0.8229	0.8088	0.3020	32.92	0.0205
N-Pentane	0.7145	0.7022	0.2600	28.64	0.0178
Hexane Plus	2.1580	2.1209	0.9660	113.75	0.0714
Total	100.0000	98.2818	19.6380	1322.89	0.7757

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0043
BTU/CU.FT IDEAL: 1326.0
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1331.7
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1308.5
DRY BTU @ 15.025: 1358.4
REAL SPECIFIC GRAVITY: 0.7787

CYLINDER #: 6092
CYLINDER PRESSURE: 49 PSIG
ANALYSIS DATE: 07/30/2020
ANALYSIS TIME: 09:29:47 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

Last Cal/Verify: 08/04/2020

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease: HUBBELL 3E; CSG
Stn. No.: API # 3004523881
Mtr. No.:

CASING

08/04/2020
35825-12475

Smpl Date: 07/24/2020
Test Date: 07/30/2020
Run No: HS200102

Nitrogen: 0.3262
CO2: 1.0417
Methane: 78.8839
Ethane: 9.4343
Propane: 4.2780
I-Butane: 0.9803
N-Butane: 1.3602
I-Pentane: 0.8229
N-Pentane: 0.7145
Hexane+: 2.1580

BTU: 1331.7
GPM: 19.6380
SPG: 0.7787