



GCU 333
30-045-25807
Bradenhead Sample

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

Analysis No: SO180036
Cust No: 15950-10610

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT
Well Name: GCU #333; BHD
County/State: SAN JUAN NM
Location:
Field:
Formation: PC
Cust. Stn. No.: API 3004525807

Source: BRADENHEAD
Well Flowing: Y
Pressure: 71 PSIA
Flow Temp: DEG. F
Ambient Temp: 69 DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Sample Date: 06/22/2018
Sample Time: 9.50 AM
Sampled By: SCOTT WILLARD
Sampled by (CO): PESCO

Heat Trace: N
Remarks:

NMOCB
FEB 13 2019
DISTRICT III

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.4393	0.4357	0.0480	0.00	0.0042
CO2	0.0035	0.0035	0.0010	0.00	0.0001
Methane	92.1095	91.3613	15.6490	930.31	0.5102
Ethane	6.0267	5.9778	1.6150	106.65	0.0626
Propane	0.8649	0.8579	0.2390	21.76	0.0132
Iso-Butane	0.1882	0.1867	0.0620	6.12	0.0038
N-Butane	0.2047	0.2030	0.0650	6.68	0.0041
I-Pentane	0.0673	0.0668	0.0250	2.69	0.0017
N-Pentane	0.0398	0.0395	0.0140	1.60	0.0010
Hexane Plus	0.0561	0.0556	0.0250	2.96	0.0019
Total	100.0000	99.1878	17.7430	1078.77	0.6026

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0024
BTU/CU.FT IDEAL: 1081.3
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1083.9
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1065.0
DRY BTU @ 15.025: 1105.6
REAL SPECIFIC GRAVITY: 0.6039

CYLINDER #: 7045
CYLINDER PRESSURE: 63 PSIG
ANALYSIS DATE: 07/05/2018
ANALYSIS TIME: 11:12:46 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: 07/09/2018

GC Method: C6+ Gas



BP - SOUTH BHD PROJECT
WELL ANALYSIS COMPARISON

Lease: GCU #333; BHD
Stn. No.: API 3004525807
Mtr. No.:

BRADENHEAD
PC

07/09/2018
15950-10610

Smpl Date: 06/22/2018
Test Date: 07/05/2018
Run No: SO180036

Nitrogen: 0.4393
CO2: 0.0035
Methane: 92.1095
Ethane: 6.0267
Propane: 0.8649
I-Butane: 0.1882
N-Butane: 0.2047
I-Pentane: 0.0673
N-Pentane: 0.0398
Hexane+: 0.0561

BTU: 1083.9
GPM: 17.7430
SPG: 0.6039



GCU 333
30-045-25807
Casing Sample

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

Analysis No: SO180037
Cust No: 15950-10615

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT
Well Name: GCU #333; CSG
County/State: SAN JUAN NM
Location:
Field:
Formation: PC
Cust. Stn. No.: API 3004525807

Source: CASING
Well Flowing: Y
Pressure: 11 PSIA
Flow Temp: DEG. F
Ambient Temp: 69 DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Sample Date: 06/22/2018
Sample Time: 9.56 AM
Sampled By: SCOTT WILLARD
Sampled by (CO): PESCO

Heat Trace: N
Remarks: PRESSURED WITH HELIUM TO 30LBS.

NMOC

FEB 13 2019

DISTRICT III

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.6726	0.3188	0.0740	0.00	0.0065
CO2	0.0690	0.0327	0.0120	0.00	0.0010
Methane	89.7482	42.5381	15.2540	906.46	0.4971
Ethane	5.3258	2.5243	1.4280	94.25	0.0553
Propane	2.2077	1.0464	0.6100	55.55	0.0336
Iso-Butane	0.4186	0.1984	0.1370	13.61	0.0084
N-Butane	0.6135	0.2908	0.1940	20.01	0.0123
I-Pentane	0.2431	0.1152	0.0890	9.73	0.0061
N-Pentane	0.1764	0.0836	0.0640	7.07	0.0044
Hexane Plus	0.5251	0.2489	0.2350	27.68	0.0174
Total	100.0000	47.3972	18.0970	1134.36	0.6421

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0028
BTU/CU.FT IDEAL: 1137.0
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1140.2
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1120.4
DRY BTU @ 15.025: 1163.0
REAL SPECIFIC GRAVITY: 0.6437

CYLINDER #: 7020
CYLINDER PRESSURE: 8 PSIG
ANALYSIS DATE: 07/05/2018
ANALYSIS TIME: 09:22:32 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: 07/09/2018



BP - SOUTH BHD PROJECT
WELL ANALYSIS COMPARISON

Lease: GCU #333; CSG
Stn. No.: API 3004525807
Mtr. No.:

CASING
PC

07/09/2018
15950-10615

Smpl Date: 06/22/2018
Test Date: 07/05/2018
Run No: SO180037
Nitrogen: 0.6726
CO2: 0.0690
Methane: 89.7482
Ethane: 5.3258
Propane: 2.2077
I-Butane: 0.4186
N-Butane: 0.6135
I-Pentane: 0.2431
N-Pentane: 0.1764
Hexane+: 0.5251
BTU: 1140.2
GPM: 18.0970
SPG: 0.6437



GCU 333
30-045-25807
Tubing Sample

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

Analysis No: SO180038
Cust No: 15950-10620

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT
Well Name: GCU #333; TBG
County/State: SAN JUAN NM
Location:
Field:
Formation: PC
Cust. Stn. No.: API 3004525807

Source: TUBING
Well Flowing: Y
Pressure: 13 PSIA
Flow Temp: DEG. F
Ambient Temp: 69 DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Sample Date: 06/22/2018
Sample Time: 10.00 AM
Sampled By: SCOTT WILLARD
Sampled by (CO): PESCO

Heat Trace: N
Remarks:



Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.6609	0.6392	0.0730	0.00	0.0064
CO2	0.4349	0.4206	0.0740	0.00	0.0066
Methane	93.2689	90.2115	15.8460	942.02	0.5166
Ethane	3.5969	3.4790	0.9640	63.65	0.0373
Propane	1.1761	1.1375	0.3250	29.59	0.0179
Iso-Butane	0.2146	0.2076	0.0700	6.98	0.0043
N-Butane	0.3028	0.2929	0.0960	9.88	0.0061
I-Pentane	0.0936	0.0905	0.0340	3.74	0.0023
N-Pentane	0.0492	0.0476	0.0180	1.97	0.0012
Hexane Plus	0.2021	0.1955	0.0900	10.65	0.0067
Total	100.0000	96.7219	17.5900	1068.49	0.6055

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0024
BTU/CU.FT IDEAL: 1071.0
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1073.5
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1054.8
DRY BTU @ 15.025: 1095.0
REAL SPECIFIC GRAVITY: 0.6067

CYLINDER #: 2543
CYLINDER PRESSURE: 13 PSIG
ANALYSIS DATE: 07/03/2018
ANALYSIS TIME: 02:17:14 PM
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

GC Method: C6+ Gas

Last Cal/Verify: 07/09/2018



BP - SOUTH BHD PROJECT
WELL ANALYSIS COMPARISON

Lease: GCU #333; TBG
Stn. No.: API 3004525807
Mtr. No.:

TUBING
PC

07/09/2018
15950-10620

Smpl Date: 06/22/2018
Test Date: 07/03/2018
Run No: SO180038
Nitrogen: 0.6609
CO2: 0.4349
Methane: 93.2689
Ethane: 3.5969
Propane: 1.1761
I-Butane: 0.2146
N-Butane: 0.3028
I-Pentane: 0.0936
N-Pentane: 0.0492
Hexane+: 0.2021
BTU: 1073.5
GPM: 17.5900
SPG: 0.6067