



GCU 107
30-045-08131
Bradenhead Sample

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

Analysis No: SO180051
Cust No: 15950-10685

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT

Well Name: GCU 107; BHD

County/State: SAN JUAN NM

Location:

Field:

Formation: PC

Cust. Stn. No.: 3004508131

Source: BRADENHEAD

Well Flowing: Y

Pressure: 29 PSIA

Flow Temp: DEG. F

Ambient Temp: 69 DEG. F

Flow Rate: MCF/D

Sample Method: Purge & Fill

Sample Date: 06/29/2018

Sample Time: 8.43 AM

Sampled By: SCOTT WILLARD

Sampled by (CO): PESCO

Heat Trace: N

Remarks: PRESSURED WITH HELIUM TO 30 LBS.

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.4030	0.1269	0.0440	0.00	0.0039
CO2	0.0156	0.0049	0.0030	0.00	0.0002
Methane	87.6483	27.6011	14.9010	885.25	0.4855
Ethane	5.8954	1.8565	1.5810	104.33	0.0612
Propane	2.7456	0.8646	0.7590	69.08	0.0418
Iso-Butane	0.6608	0.2081	0.2170	21.49	0.0133
N-Butane	1.0724	0.3377	0.3390	34.98	0.0215
I-Pentane	0.4989	0.1571	0.1830	19.96	0.0124
N-Pentane	0.3912	0.1232	0.1420	15.68	0.0097
Hexane Plus	0.6688	0.2106	0.2990	35.25	0.0221
Total	100.0000	31.4907	18.4680	1186.03	0.6717

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0031
BTU/CU.FT IDEAL: 1188.8
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1192.5
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1171.8
DRY BTU @ 15.025: 1216.4
REAL SPECIFIC GRAVITY: 0.6735

CYLINDER #: 7084
CYLINDER PRESSURE: 3 PSIG
ANALYSIS DATE: 07/10/2018
ANALYSIS TIME: 10:21:15 AM
ANALYSIS RUN BY: SHYANN ELLEDGE

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: 07/12/2018

GC Method: C6+ Gas



BP - SOUTH BHD PROJECT
WELL ANALYSIS COMPARISON

Lease: GCU 107; BHD
Stn. No.: 3004508131
Mtr. No.:

BRADENHEAD
PC

07/12/2018
15950-10685

Smpl Date: 06/29/2018
Test Date: 07/10/2018
Run No: SO180051

Nitrogen: 0.4030
CO2: 0.0156
Methane: 87.6483
Ethane: 5.8954
Propane: 2.7456
I-Butane: 0.6608
N-Butane: 1.0724
I-Pentane: 0.4989
N-Pentane: 0.3912
Hexane+: 0.6688

BTU: 1192.5
GPM: 18.4680
SPG: 0.6735



GCU 107
30-045-08131
Casing Sample

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

Analysis No: SO180052
Cust No: 15950-10690

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT

Well Name: GCU 107; CSG

County/State: SAN JUAN NM

Location:

Field:

Formation: PC

Cust. Stn. No.: 3004508131

Source: CASING

Well Flowing: Y

Pressure: 205 PSIA

Flow Temp: DEG. F

Ambient Temp: 69 DEG. F

Flow Rate: MCF/D

Sample Method: Purge & Fill

Sample Date: 06/29/2018

Sample Time: 8.46 AM

Sampled By: SCOTT WILLARD

Sampled by (CO): PESCO

Heat Trace: N

Remarks:

WOOD

FEB 13 2019

DISTRICT III

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.3873	0.3913	0.0430	0.00	0.0037
CO2	1.1057	1.1172	0.1890	0.00	0.0168
Methane	83.2562	84.1193	14.1570	840.89	0.4612
Ethane	8.5709	8.6598	2.2990	151.68	0.0890
Propane	3.6405	3.6782	1.0060	91.60	0.0554
Iso-Butane	0.5421	0.5477	0.1780	17.63	0.0109
N-Butane	1.1255	1.1372	0.3560	36.72	0.0226
I-Pentane	0.3704	0.3742	0.1360	14.82	0.0092
N-Pentane	0.3459	0.3495	0.1260	13.87	0.0086
Hexane Plus	0.6555	0.6623	0.2930	34.55	0.0217
Total	100.0000	101.0367	18.7830	1201.75	0.6991

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0033
BTU/CU.FT IDEAL: 1204.5
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1208.5
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1187.5
DRY BTU @ 15.025: 1232.7
REAL SPECIFIC GRAVITY: 0.7012

CYLINDER #: 7044
CYLINDER PRESSURE: 191 PSIG
ANALYSIS DATE: 07/10/2018
ANALYSIS TIME: 10:07:15 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: 07/12/2018



BP - SOUTH BHD PROJECT
WELL ANALYSIS COMPARISON

Lease: GCU 107; CSG
Stn. No.: 3004508131
Mtr. No.:

CASING
PC

07/12/2018
15950-10690

Smpl Date: 06/29/2018
Test Date: 07/10/2018
Run No: SO180052

Nitrogen: 0.3873
CO2: 1.1057
Methane: 83.2562
Ethane: 8.5709
Propane: 3.6405
I-Butane: 0.5421
N-Butane: 1.1255
I-Pentane: 0.3704
N-Pentane: 0.3459
Hexane+: 0.6555

BTU: 1208.5
GPM: 18.7830
SPG: 0.7012



GCU 107
30-045-08131
Tubing Sample

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

Analysis No: SO180053
Cust No: 15950-10695

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT
Well Name: GCU 107; TBG
County/State: SAN JUAN NM
Location:
Field:
Formation: PC
Cust. Stn. No.: 3004508131

Source: TUBING
Well Flowing: Y
Pressure: 128 PSIA
Flow Temp: DEG. F
Ambient Temp: 69 DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Sample Date: 06/29/2018
Sample Time: 8.49 AM
Sampled By: SCOTT WILLARD
Sampled by (CO): PESCO

Heat Trace: N
Remarks:

HMOC
FEB 13 2019
DISTRICT III

Analysis

Component:	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.4037	0.4060	0.0450	0.00	0.0039
CO2	1.1710	1.1776	0.2000	0.00	0.0178
Methane	84.7626	85.2420	14.4110	856.10	0.4695
Ethane	8.1945	8.2408	2.1980	145.02	0.0851
Propane	3.1315	3.1492	0.8650	78.79	0.0477
Iso-Butane	0.4444	0.4469	0.1460	14.45	0.0089
N-Butane	0.8120	0.8166	0.2570	26.49	0.0163
I-Pentane	0.2235	0.2248	0.0820	8.94	0.0056
N-Pentane	0.1795	0.1805	0.0650	7.20	0.0045
Hexane Plus	0.6773	0.6811	0.3030	35.70	0.0224
Total	100.0000	100.5655	18.5720	1172.69	0.6816

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0031
BTU/CU.FT IDEAL: 1175.4
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1179.1
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1158.6
DRY BTU @ 15.025: 1202.7
REAL SPECIFIC GRAVITY: 0.6835

CYLINDER #: 7031
CYLINDER PRESSURE: 51 PSIG
ANALYSIS DATE: 07/10/2018
ANALYSIS TIME: 09:48:36 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: 07/12/2018

GC Method: C6+ Gas



BP - SOUTH BHD PROJECT
WELL ANALYSIS COMPARISON

Lease: GCU 107; TBG
Stn. No.: 3004508131
Mtr. No.:

TUBING
PC

07/12/2018
15950-10695

Smpl Date: 06/29/2018
Test Date: 07/10/2018
Run No: SO180053

Nitrogen: 0.4037
CO2: 1.1710
Methane: 84.7626
Ethane: 8.1945
Propane: 3.1315
I-Butane: 0.4444
N-Butane: 0.8120
I-Pentane: 0.2235
N-Pentane: 0.1795
Hexane+: 0.6773

BTU: 1179.1
GPM: 18.5720
SPG: 0.6835