



GCU 268
30-045-22239
Bradenhead Sample

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

Analysis No: SO180112
Cust No: 15950-10990

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT
Well Name: GCU 268; BHD
County/State: SAN JUAN NM
Location:
Field:
Formation: PC

Source: BRADENHEAD
Well Flowing: Y
Pressure: 28 PSIA
Flow Temp: DEG. F
Ambient Temp: 78 DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Sample Date: 07/13/2018
Sample Time: 11.20 AM
Sampled By: E. HAMILTON
Sampled by (CO): PESCO

Cust. Stn. No.: API 3004522239

NMOC
FEB 13 2019
DISTRICT III

Heat Trace: N
Remarks:

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	2.4084	2.3439	0.2650	0.00	0.0233
CO2	0.0235	0.0229	0.0040	0.00	0.0004
Methane	94.0143	91.4955	15.9680	949.54	0.5207
Ethane	3.1771	3.0920	0.8510	56.23	0.0330
Propane	0.1427	0.1389	0.0390	3.59	0.0022
Iso-Butane	0.0432	0.0420	0.0140	1.40	0.0009
N-Butane	0.0447	0.0435	0.0140	1.46	0.0009
I-Pentane	0.0182	0.0177	0.0070	0.73	0.0005
N-Pentane	0.0088	0.0086	0.0030	0.35	0.0002
Hexane Plus	0.1191	0.1159	0.0530	6.28	0.0039
Total	100.0000	97.3209	17.2180	1019.58	0.5859

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0021
BTU/CU.FT IDEAL: 1021.9
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1024.1
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1006.3
DRY BTU @ 15.025: 1044.6
REAL SPECIFIC GRAVITY: 0.5869

CYLINDER #: 7012
CYLINDER PRESSURE: 24 PSIG
ANALYSIS DATE: 07/24/2018
ANALYSIS TIME: 10:00:03 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

GC Method: C6+ Gas

Last Cal/Verify: 07/26/2018



BP - SOUTH BHD PROJECT
WELL ANALYSIS COMPARISON

Lease: GCU 268; BHD
Stn. No.:
Mtr. No.: API 3004522239

BRADENHEAD
PC

07/26/2018
15950-10990

Smpl Date: 07/13/2018
Test Date: 07/24/2018
Run No: SO180112

Nitrogen: 2.4084
CO2: 0.0235
Methane: 94.0143
Ethane: 3.1771
Propane: 0.1427
I-Butane: 0.0432
N-Butane: 0.0447
I-Pentane: 0.0182
N-Pentane: 0.0088
Hexane+: 0.1191

BTU: 1024.1
GPM: 17.2180
SPG: 0.5869



GCU 268
30-045-22239
Casing Sample

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

Analysis No: SO180113
Cust No: 15950-10995

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT
Well Name: GCU 268; CSG
County/State: SAN JUAN NM
Location:
Field:
Formation: PC
Cust. Stn. No.:

API 3004522239

Heat Trace: N
Remarks:

Source: CASING
Well Flowing: Y
Pressure: 14 PSIA
Flow Temp: DEG. F
Ambient Temp: 78 DEG. F
Flow Rate: MCF/D
Sample Method:
Sample Date: 07/13/2018
Sample Time: 11.25 AM
Sampled By: E. HAMILTON
Sampled by (CO): PESCO

NMOCB
FEB 13 2019
DISTRICT III

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.0949	0.0921	0.0100	0.00	0.0009
CO2	3.3446	3.2460	0.5720	0.00	0.0508
Methane	87.2440	84.6714	14.8280	881.16	0.4832
Ethane	6.5151	6.3230	1.7470	115.30	0.0676
Propane	1.1771	1.1424	0.3250	29.62	0.0179
Iso-Butane	0.2575	0.2499	0.0840	8.37	0.0052
N-Butane	0.3494	0.3391	0.1100	11.40	0.0070
I-Pentane	0.1726	0.1675	0.0630	6.91	0.0043
N-Pentane	0.1255	0.1218	0.0460	5.03	0.0031
Hexane Plus	0.7193	0.6981	0.3220	37.91	0.0238
Total	100.0000	97.0513	18.1070	1095.70	0.6640

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0028
BTU/CU.FT IDEAL: 1098.2
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1101.3
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1082.1
DRY BTU @ 15.025: 1123.4
REAL SPECIFIC GRAVITY: 0.6656

CYLINDER #: 77064
CYLINDER PRESSURE: 14 PSIG
ANALYSIS DATE: 07/23/2018
ANALYSIS TIME: 04:31:48 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: 07/26/2018



BP - SOUTH BHD PROJECT
WELL ANALYSIS COMPARISON

Lease: GCU 268; CSG
Stn. No.:
Mtr. No.: API 3004522239

CASING
PC

07/26/2018
15950-10995

Smpl Date: 07/13/2018
Test Date: 07/23/2018
Run No: SO180113

Nitrogen: 0.0949
CO2: 3.3446
Methane: 87.2440
Ethane: 6.5151
Propane: 1.1771
I-Butane: 0.2575
N-Butane: 0.3494
I-Pentane: 0.1726
N-Pentane: 0.1255
Hexane+: 0.7193

BTU: 1101.3
GPM: 18.1070
SPG: 0.6656