



GCU 93
30-045-07699
Bradenhead Sample

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

Analysis No: SO180125
Cust No: 15950-11055

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT
Well Name: GCU #93; BHD
County/State: SAN JUAN NM
Location:
Field:
Formation: PC
Cust. Stn. No.: API 3004507699

Source: BRADENHEAD
Well Flowing: Y
Pressure: 97 PSIA
Flow Temp: DEG. F
Ambient Temp: 78 DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Sample Date: 07/25/2018
Sample Time: 9.50 AM
Sampled By: SCOTT WILLARD
Sampled by (CO): PESCO

Heat Trace: N
Remarks:

NMOCB
FEB 19 2018
DISTRICT III

Analysis

Component:	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.3639	0.3584	0.0400	0.00	0.0035
CO2	0.0018	0.0018	0.0000	0.00	0.0000
Methane	91.3579	89.9816	15.5240	922.71	0.5060
Ethane	5.3971	5.3158	1.4470	95.51	0.0560
Propane	1.7089	1.6832	0.4720	43.00	0.0260
Iso-Butane	0.2921	0.2877	0.0960	9.50	0.0059
N-Butane	0.4068	0.4007	0.1290	13.27	0.0082
I-Pentane	0.1372	0.1351	0.0500	5.49	0.0034
N-Pentane	0.0989	0.0974	0.0360	3.96	0.0025
Hexane Plus	0.2354	0.2319	0.1050	12.41	0.0078
Total	100.0000	98.4936	17.8990	1105.86	0.6193

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0026
BTU/CU.FT IDEAL: 1108.4
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1111.3
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1092.0
DRY BTU @ 15.025: 1133.6
REAL SPECIFIC GRAVITY: 0.6207

CYLINDER #: 7063
CYLINDER PRESSURE: 86 PSIG
ANALYSIS DATE: 07/31/2018
ANALYSIS TIME: 09:09:02 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: 08/02/2018

GC Method: C6+ Gas



BP - SOUTH BHD PROJECT
WELL ANALYSIS COMPARISON

Lease: GCU #93; BHD
Stn. No.: API 3004507699
Mtr. No.:

BRADENHEAD
PC

08/02/2018
15950-11055

Smpl Date: 07/25/2018
Test Date: 07/31/2018
Run No: SO180125
Nitrogen: 0.3639
CO2: 0.0018
Methane: 91.3579
Ethane: 5.3971
Propane: 1.7089
I-Butane: 0.2921
N-Butane: 0.4068
I-Pentane: 0.1372
N-Pentane: 0.0989
Hexane+: 0.2354
BTU: 1111.3
GPM: 17.8990
SPG: 0.6207



GCU 93
30-045-07499
Casing Sample

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

Analysis No: SO180126
Cust No: 15950-11060

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT
Well Name: GCU #93; CSG
County/State: SAN JUAN NM
Location:
Field:
Formation: PC
Cust. Stn. No.: API 3004507699

Source: CASING
Well Flowing: Y
Pressure: 12 PSIA
Flow Temp: DEG. F
Ambient Temp: 78 DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Sample Date: 07/25/2018
Sample Time: 10.05 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	0.9095	0.2842	0.1000	0.00	0.0088
CO2	0.0960	0.0300	0.0160	0.00	0.0015
Methane	95.6801	29.8992	16.2520	966.37	0.5300
Ethane	2.7671	0.8647	0.7410	48.97	0.0287
Propane	0.2669	0.0834	0.0740	6.72	0.0041
Iso-Butane	0.0659	0.0206	0.0220	2.14	0.0013
N-Butane	0.0253	0.0079	0.0080	0.83	0.0005
I-Pentane	0.0109	0.0034	0.0040	0.44	0.0003
N-Pentane	0.0042	0.0013	0.0020	0.17	0.0001
Hexane Plus	0.1741	0.0544	0.0780	9.18	0.0058
Total	100.0000	31.2491	17.2970	1034.80	0.5810

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0022
BTU/CU.FT IDEAL: 1037.2
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1039.5
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1021.4
DRY BTU @ 15.025: 1060.3
REAL SPECIFIC GRAVITY: 0.582

CYLINDER #: 7009
CYLINDER PRESSURE: 1 PSIG
ANALYSIS DATE: 07/30/2018
ANALYSIS TIME: 03:27:12 PM
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: 08/02/2018



BP - SOUTH BHD PROJECT
WELL ANALYSIS COMPARISON

Lease: GCU #93; CSG
Stn. No.: API 3004507699
Mtr. No.:

* CASING
PC

08/02/2018
15950-11060

Smpl Date: 07/25/2018
Test Date: 07/30/2018
Run No: SO180126
Nitrogen: 0.9095
CO2: 0.0960
Methane: 95.6801
Ethane: 2.7671
Propane: 0.2669
I-Butane: 0.0659
N-Butane: 0.0253
I-Pentane: 0.0109
N-Pentane: 0.0042
Hexane+: 0.1741
BTU: 1039.5
GPM: 17.2970
SPG: 0.5820