



30-045-10097
Bradenhead

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

Analysis No: SO170001
Cust No: 15950-10000

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT
Well Name: CASE B 3; BHD
County/State: SAN JUAN NM
Location:
Field:
Formation: MV
Cust. Str. No.: API # 3004510694

OIL CONS. DIV DIST. 3

JAN 02 2018

Source: BRADENHEAD
Pressure: PSIG
Sample Temp: DEG. F
Well Flowing: Y
Date Sampled: 05/25/2017
Sampled By: EUGENIA HAMILTON
Foreman/Engr.: SABRE BEEBE

Remarks:

Analysis

Component::	Mole%:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	19.627	2.1640	0.00	0.1898
CO2	0.036	0.0060	0.00	0.0005
Methane	69.083	11.7360	697.74	0.3827
Ethane	6.943	1.8610	122.87	0.0721
Propane	2.607	0.7200	65.59	0.0397
Iso-Butane	0.431	0.1410	14.02	0.0086
N-Butane	0.648	0.2050	21.14	0.0130
I-Pentane	0.222	0.0810	8.88	0.0055
N-Pentane	0.137	0.0500	5.49	0.0034
Hexane Plus	0.266	0.1190	14.02	0.0088
Total	100.000	17.0830	949.75	0.7242

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0023
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 954.1
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 937.5
REAL SPECIFIC GRAVITY: 0.7256

GPM, BTU, and SPG calculations as shown
above are based on current GPA factors.

DRY BTU @ 14.650: 948.9
DRY BTU @ 14.696: 951.9
DRY BTU @ 14.730: 954.1
DRY BTU @ 15.025: 973.2

CYLINDER #: 7087
CYLINDER PRESSURE: 30 PSIG
DATE RUN: 6/2/17 10:57 AM
ANALYSIS RUN BY: PATRICIA KING

30-045-10694
Bradenhead



BP - SOUTH BHD PROJECT
WELL ANALYSIS COMPARISON

Lease: CASE B 3; BHD
Stn. No.: API # 3004510694
Mtr. No.:

BRADENHEAD
MV

06/27/2017
15950-10000

Smpl Date: 05/25/2017
Test Date: 06/02/2017
Run No: SO170001

Nitrogen: 19.627
CO2: 0.036
Methane: 69.083
Ethane: 6.943
Propane: 2.607
I-Butane: 0.431
N-Butane: 0.648
I-Pentane: 0.222
N-Pentane: 0.137
Hexane+: 0.266

BTU: 954.1
GPM: 17.0830
SPG: 0.7256



30-045-10694
Casing

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

Analysis No: SO170002
Cust No: 15950-10005

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT
Well Name: CASE B 3; CSG
County/State: SAN JUAN NM
Location:
Field:
Formation: MV
Cust. Stn. No.: API # 3004510694

Source: CASING
Pressure: PSIG
Sample Temp: DEG. F
Well Flowing: Y
Date Sampled: 05/25/2017
Sampled By: EUGENIA HAMILTON
Foreman/Engr.: SABRE BEEBE

Remarks:

Analysis

Component::	Mole%:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.249	0.0280	0.00	0.0024
CO2	0.010	0.0020	0.00	0.0002
Methane	74.835	12.7460	755.83	0.4145
Ethane	10.460	2.8100	185.11	0.1086
Propane	6.980	1.9320	175.63	0.1063
Iso-Butane	1.492	0.4910	48.52	0.0299
N-Butane	2.072	0.6560	67.60	0.0416
I-Pentane	0.883	0.3240	35.33	0.0220
N-Pentane	0.795	0.2900	31.87	0.0198
Hexane Plus	2.224	0.9960	117.23	0.0736
Total	100.000	20.2750	1417.11	0.8189

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0049
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1427.4
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1402.6
REAL SPECIFIC GRAVITY: 0.8226

GPM, BTU, and SPG calculations as shown
above are based on current GPA factors.

DRY BTU @ 14.650: 1419.6
DRY BTU @ 14.696: 1424.1
DRY BTU @ 14.730: 1427.4
DRY BTU @ 15.025: 1456.0

CYLINDER #: 7091
CYLINDER PRESSURE: 53 PSIG
DATE RUN: 6/2/17 10:59 AM
ANALYSIS RUN BY: PATRICIA KING



30-045-10694
Casing

BP - SOUTH BHD PROJECT
WELL ANALYSIS COMPARISON

Lease: CASE B 3; CSG
Stn. No.: API # 3004510694
Mtr. No.:

CASING
MV

06/27/2017
15950-10005

Smpl Date: 05/25/2017
Test Date: 06/02/2017
Run No: SO170002

Nitrogen: 0.249
CO2: 0.010
Methane: 74.835
Ethane: 10.460
Propane: 6.980
I-Butane: 1.492
N-Butane: 2.072
I-Pentane: 0.883
N-Pentane: 0.795
Hexane+: 2.224

BTU: 1427.4
GPM: 20.2750
SPG: 0.8226



30-045-10694
Tubing

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

Analysis No: SO170003
Cust No: 15950-10010

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT
Well Name: CASE B 3; TBG
County/State: SAN JUAN NM
Location:
Field:
Formation: MV
Cust. Stn. No.: API 3004510694

Source: TUBING
Pressure: PSIG
Sample Temp: DEG. F
Well Flowing: Y
Date Sampled: 05/25/2017
Sampled By: EUGENIA HAMILTON
Foreman/Engr.: SABRE BEEBE

Remarks:

Analysis

Component::	Mole%:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.242	0.0270	0.00	0.0023
CO2	0.998	0.1710	0.00	0.0152
Methane	81.917	13.9340	827.36	0.4537
Ethane	9.262	2.4850	163.91	0.0962
Propane	3.958	1.0940	99.59	0.0603
Iso-Butane	0.708	0.2320	23.02	0.0142
N-Butane	1.117	0.3530	36.44	0.0224
I-Pentane	0.418	0.1530	16.72	0.0104
N-Pentane	0.317	0.1150	12.71	0.0079
Hexane Plus	1.063	0.4760	56.03	0.0352
Total	100.000	19.0400	1235.79	0.7178

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0036
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1243.0
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1221.4
REAL SPECIFIC GRAVITY: 0.72

GPM, BTU, and SPG calculations as shown
above are based on current GPA factors.

DRY BTU @ 14.650: 1236.2
DRY BTU @ 14.696: 1240.1
DRY BTU @ 14.730: 1243.0
DRY BTU @ 15.025: 1267.9

CYLINDER #: 7038
CYLINDER PRESSURE: 50 PSIG
DATE RUN: 6/2/17 11:00 AM
ANALYSIS RUN BY: PATRICIA KING

30-045-10694
Tubing



BP - SOUTH BHD PROJECT
WELL ANALYSIS COMPARISON

Lease: CASE B 3; TBG
Stn. No.: API 3004510694
Mtr. No.:

TUBING
MV

06/27/2017
15950-10010

Smpl Date: 05/25/2017
Test Date: 06/02/2017
Run No: SO170003

Nitrogen: 0.242
CO2: 0.998
Methane: 81.917
Ethane: 9.262
Propane: 3.958
I-Butane: 0.708
N-Butane: 1.117
I-Pentane: 0.418
N-Pentane: 0.317
Hexane+: 1.063

BTU: 1243.0
GPM: 19.0400
SPG: 0.7200