



GCU 182 E
30-045 24864
Bradenhead Sample

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

Analysis No: SO180154
Cust No: 15950-11200

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT
Well Name: GCU #182E; BHD
County/State: SAN JUAN NM
Location:
Field:
Formation: PC
Cust. Stn. No.: API 3004524864

Source: BRADENHEAD
Well Flowing: Y
Pressure: 88 PSIA
Flow Temp: DEG. F
Ambient Temp: 58 DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Sample Date: 07/30/2018
Sample Time: 7.31 AM
Sampled By: SCOTT WILLARD
Sampled by (CO): PESCO

Heat Trace: N
Remarks:

NMOC
FEB 13 2019
DISTRICT III

Analysis

Component:	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.7595	0.7508	0.0840	0.00	0.0073
CO2	0.0055	0.0054	0.0010	0.00	0.0001
Methane	84.5359	83.5669	14.3720	853.81	0.4682
Ethane	7.7712	7.6821	2.0840	137.53	0.0807
Propane	4.7848	4.7299	1.3220	120.39	0.0728
Iso-Butane	0.8960	0.8857	0.2940	29.14	0.0180
N-Butane	0.8232	0.8138	0.2600	26.86	0.0165
I-Pentane	0.1762	0.1742	0.0650	7.05	0.0044
N-Pentane	0.1123	0.1110	0.0410	4.50	0.0028
Hexane Plus	0.1354	0.1338	0.0610	7.14	0.0045
Total	100.0000	98.8536	18.5840	1186.41	0.6754

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z):	1.0031	CYLINDER #:	7061
BTU/CU.FT IDEAL:	1189.2	CYLINDER PRESSURE:	88 PSIG
BTU/CU.FT (DRY) CORRECTED FOR (1/Z):	1192.9	ANALYSIS DATE:	08/06/2018
BTU/CU.FT (WET) CORRECTED FOR (1/Z):	1172.1	ANALYSIS TIME:	05:28:10 PM
DRY BTU @ 15.025:	1216.8	ANALYSIS RUN BY:	PATRICIA KING
REAL SPECIFIC GRAVITY:	0.6772		

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: 08/09/2018

GC Method: C6+ Gas

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BP - SOUTH BHD PROJECT
WELL ANALYSIS COMPARISON

Lease: GCU #182E; BHD
Stn. No.: API 3004524864
Mtr. No.:

BRADENHEAD
PC

08/09/2018
15950-11200

Smpl Date: 07/30/2018
Test Date: 08/06/2018
Run No: SO180154

Nitrogen: 0.7595
CO2: 0.0055
Methane: 84.5359
Ethane: 7.7712
Propane: 4.7848
I-Butane: 0.8960
N-Butane: 0.8232
I-Pentane: 0.1762
N-Pentane: 0.1123
Hexane+: 0.1354

BTU: 1192.9
GPM: 18.5840
SPG: 0.6772



GCU 182 E
30-045-24864
Casing Sample

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

Analysis No: SO180155
Cust No: 15950-11205

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT
Well Name: GCU #182E; CSG
County/State: SAN JUAN NM
Location:
Field:
Formation: PC
Cust. Str. No.: API 3004524864

Source: CASING
Well Flowing: Y
Pressure: 34 PSIA
Flow Temp: DEG. F
Ambient Temp: 63 DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Sample Date: 07/30/2018
Sample Time: 7.53 AM
Sampled By: SCOTT WILLARD
Sampled by (CO): PESCO

Heat Trace: N
Remarks:

WMOCB
FEB 13 2019
DISTRICT III

Analysis

Component:	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.3396	0.3387	0.0370	0.00	0.0033
CO2	0.0359	0.0358	0.0060	0.00	0.0005
Methane	96.2129	95.9702	16.3430	971.75	0.5329
Ethane	2.5442	2.5378	0.6820	45.02	0.0264
Propane	0.6442	0.6426	0.1780	16.21	0.0098
Iso-Butane	0.1745	0.1741	0.0570	5.67	0.0035
N-Butane	0.0252	0.0251	0.0080	0.82	0.0005
I-Pentane	0.0108	0.0108	0.0040	0.43	0.0003
N-Pentane	0.0000	0.0000	0.0000	0.00	0.0000
Hexane Plus	0.0127	0.0127	0.0060	0.67	0.0004
Total	100.0000	99.7478	17.3210	1040.58	0.5777

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0022
BTU/CU.FT IDEAL: 1043.0
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1045.3
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1027.1
DRY BTU @ 15.025: 1066.2
REAL SPECIFIC GRAVITY: 0.5787

CYLINDER #: 1120
CYLINDER PRESSURE: 29 PSIG
ANALYSIS DATE: 08/03/2018
ANALYSIS TIME: 11:05:23 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: 08/09/2018

GC Method: C6+ Gas



BP - SOUTH BHD PROJECT
WELL ANALYSIS COMPARISON

Lease: GCU #182E; CSG
Stn. No.: API 3004524864
Mtr. No.:

CASING
PC

08/09/2018
15950-11205

Smpl Date: 07/30/2018
Test Date: 08/03/2018
Run No: SO180155

Nitrogen: 0.3396
CO2: 0.0359
Methane: 96.2129
Ethane: 2.5442
Propane: 0.6442
I-Butane: 0.1745
N-Butane: 0.0252
I-Pentane: 0.0108
N-Pentane: 0.0000
Hexane+: 0.0127

BTU: 1045.3
GPM: 17.3210
SPG: 0.5787



GCU 182 E
30-045-24864
Tubing Sample

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

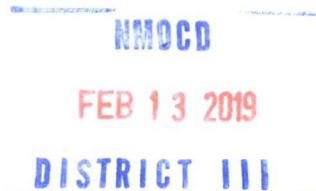
Analysis No: SO180156
Cust No: 15950-11210

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT
Well Name: GCU #182E; TBG
County/State: SAN JUAN NM
Location:
Field:
Formation: PC
Cust. Stn. No.: API 3004524864

Source: TUBING
Well Flowing: Y
Pressure: 23 PSIA
Flow Temp: DEG. F
Ambient Temp: 58 DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Sample Date: 07/30/2018
Sample Time: 7.36 AM
Sampled By: SCOTT WILLARD
Sampled by (CO): PESCO

Heat Trace: N
Remarks:



Analysis

Component:	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.2846	0.2826	0.0310	0.00	0.0028
CO2	0.0607	0.0603	0.0100	0.00	0.0009
Methane	96.0870	95.4051	16.3210	970.48	0.5322
Ethane	2.4147	2.3976	0.6470	42.73	0.0251
Propane	0.6983	0.6933	0.1930	17.57	0.0106
Iso-Butane	0.1763	0.1750	0.0580	5.73	0.0035
N-Butane	0.0924	0.0917	0.0290	3.01	0.0019
I-Pentane	0.0529	0.0525	0.0190	2.12	0.0013
N-Pentane	0.0304	0.0302	0.0110	1.22	0.0008
Hexane Plus	0.1027	0.1020	0.0460	5.41	0.0034
Total	100.0000	99.2903	17.3650	1048.28	0.5825

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0022
BTU/CU.FT IDEAL: 1050.7
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1053.0
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1034.7
DRY BTU @ 15.025: 1074.1
REAL SPECIFIC GRAVITY: 0.5835

CYLINDER #: 7097
CYLINDER PRESSURE: 17 PSIG
ANALYSIS DATE: 08/03/2018
ANALYSIS TIME: 01:14:06 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

Last Cal/Verify: 08/09/2018

GC Method: C6+ Gas



BP - SOUTH BHD PROJECT
WELL ANALYSIS COMPARISON

Lease: GCU #182E; TBG
Stn. No.: API 3004524864
Mtr. No.:

TUBING
PC

08/09/2018
15950-11210

Smpl Date: 07/30/2018
Test Date: 08/03/2018
Run No: SO180156

Nitrogen: 0.2846
CO2: 0.0607
Methane: 96.0870
Ethane: 2.4147
Propane: 0.6983
I-Butane: 0.1763
N-Butane: 0.0924
I-Pentane: 0.0529
N-Pentane: 0.0304
Hexane+: 0.1027

BTU: 1053.0
GPM: 17.3650
SPG: 0.5835