



30045 22450
Bradenhead
2030 Afton Place
Farmington, NM 87401
(505) 325-6622

Analysis No: SO170077
Cust No: 15950-10380

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT
Well Name: RIDDLE C LS 3A;BHD
County/State: SAN JUAN NM
Location:
Field:
Formation:
Cust. Str. No.:
API 3004522450

OIL CONS. DIV DIST. 3

JAN 02 2018

Source: BRADENHEAD
Well Flowing: Y
Pressure: 33 PSIA
Flow Temp: DEG. F
Ambient Temp: 47 DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Date Sampled: 09/26/2017
Sample Time: 11.08 AM
Sampled By: SCOTT WILLARD
Sampled by (CO): PESCO

Remarks:

Analysis

Component::	Mole%:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.4182	0.0460	0.00	0.0040
CO2	0.0206	0.0040	0.00	0.0003
Methane	88.8773	15.1060	897.66	0.4923
Ethane	6.4144	1.7200	113.52	0.0666
Propane	2.5665	0.7090	64.58	0.0391
Iso-Butane	0.4380	0.1440	14.24	0.0088
N-Butane	0.6091	0.1930	19.87	0.0122
I-Pentane	0.2154	0.0790	8.62	0.0054
N-Pentane	0.1475	0.0540	5.91	0.0037
Hexane Plus	0.2930	0.1310	15.44	0.0097
Total	100.0000	18.1860	1139.84	0.6421

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0028
BTU/CU.FT IDEAL: 1142.5
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1145.7
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1125.8
DRY BTU @ 15.025: 1168.6
REAL SPECIFIC GRAVITY: 0.6436

CYLINDER #: 7052
CYLINDER PRESSURE: 32 PSIG
DATE RUN: 10/2/17 11:08 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: 10/10/2017

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30040 87450
Bradenhead



BP - SOUTH BHD PROJECT
WELL ANALYSIS COMPARISON

Lease: RIDDLE C LS 3A;BHD
Stn. No.:
Mtr. No.: API 3004522450

BRADENHEAD

10/10/2017
15950-10380

Smpl Date: 09/26/2017
Test Date: 10/02/2017
Run No: SO170077

Nitrogen: 0.4182
CO2: 0.0206
Methane: 88.8773
Ethane: 6.4144
Propane: 2.5665
I-Butane: 0.4380
N-Butane: 0.6091
I-Pentane: 0.2154
N-Pentane: 0.1475
Hexane+: 0.2930

BTU: 1145.7
GPM: 18.1860
SPG: 0.6436



30045 22450
tubing

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

Analysis No: SO170079
Cust No: 15950-10375

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT
Well Name: RIDDLE C LS 3A;TBG
County/State: SAN JUAN NM
Location:
Field:
Formation:
Cust. Str. No.:

API 3004522450

OIL CONS. DIV DIST. 3

JAN 02 2018

Source: TUBING
Well Flowing: Y
Pressure: 71 PSIA
Flow Temp: DEG. F
Ambient Temp: 47 DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Date Sampled: 09/26/2017
Sample Time: 11.20 AM
Sampled By: SCOTT WILLARD
Sampled by (CO): PESCO

Remarks:

Analysis

Component::	Mole%:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.1310	0.0140	0.00	0.0013
CO2	2.7626	0.4730	0.00	0.0420
Methane	82.0247	13.9520	828.45	0.4543
Ethane	7.5899	2.0370	134.32	0.0788
Propane	3.4063	0.9420	85.71	0.0519
Iso-Butane	0.6576	0.2160	21.38	0.0132
N-Butane	1.1748	0.3720	38.33	0.0236
I-Pentane	0.5040	0.1850	20.16	0.0126
N-Pentane	0.4008	0.1460	16.07	0.0100
Hexane Plus	1.3483	0.6030	71.07	0.0446
Total	100.0000	18.9400	1215.49	0.7322

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0036
BTU/CU.FT IDEAL: 1218.3
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1222.7
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1201.4
DRY BTU @ 15.025: 1247.2
REAL SPECIFIC GRAVITY: 0.7345

CYLINDER #: 7083
CYLINDER PRESSURE: 66 PSIG
DATE RUN: 10/2/17 12:00 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: 10/10/2017

GC Method: C6+ Gas

30045 00450
Tubing



BP - SOUTH BHD PROJECT
WELL ANALYSIS COMPARISON

Lease: RIDDLE C LS 3A;TBG
Stn. No.:
Mtr. No.: API 3004522450

TUBING

10/10/2017
15950-10375

Smpl Date: 09/26/2017
Test Date: 10/02/2017
Run No: SO170079

Nitrogen: 0.1310
CO2: 2.7626
Methane: 82.0247
Ethane: 7.5899
Propane: 3.4063
I-Butane: 0.6576
N-Butane: 1.1748
I-Pentane: 0.5040
N-Pentane: 0.4008
Hexane+: 1.3483

BTU: 1222.7
GPM: 18.9400
SPG: 0.7345



30045 22450
Casing

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

Analysis No: SO170078
Cust No: 15950-10385

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT
Well Name: RIDDLE C LS 3A;CSG
County/State: SAN JUAN NM
Location:
Field:
Formation:
Cust. Str. No.:
API 3004522450

OIL CONS. DIV DIST. 3

JAN 02 2018

Source: CASING
Well Flowing: Y
Pressure: 71 PSIA
Flow Temp: DEG. F
Ambient Temp: 47 DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Date Sampled: 09/26/2017
Sample Time: 11.04 AM
Sampled By: SCOTT WILLARD
Sampled by (CO): PESCO

Remarks:

Analysis

Component::	Mole%:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.2324	0.0260	0.00	0.0022
CO2	0.8929	0.1530	0.00	0.0136
Methane	82.2884	13.9960	831.11	0.4558
Ethane	8.8931	2.3860	157.38	0.0923
Propane	4.2833	1.1840	107.77	0.0652
Iso-Butane	0.6733	0.2210	21.90	0.0135
N-Butane	1.1846	0.3750	38.65	0.0238
I-Pentane	0.3934	0.1440	15.74	0.0098
N-Pentane	0.3058	0.1110	12.26	0.0076
Hexane Plus	0.8528	0.3820	44.95	0.0282
Total	100.0000	18.9780	1229.76	0.7121

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0035
BTU/CU.FT IDEAL: 1232.6
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1236.9
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1215.4
DRY BTU @ 15.025: 1261.7
REAL SPECIFIC GRAVITY: 0.7143

CYLINDER #: 7038
CYLINDER PRESSURE: 68 PSIG
DATE RUN: 10/2/17 11:04 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: 10/10/2017

GC Method: C6+ Gas



3004522450
Casing

BP - SOUTH BHD PROJECT
WELL ANALYSIS COMPARISON

Lease: RIDDLE C LS 3A;CSG
Stn. No.:
Mtr. No.: API 3004522450

CASING

10/10/2017
15950-10385

Smpl Date: 09/26/2017
Test Date: 10/02/2017
Run No: SO170078

Nitrogen: 0.2324
CO2: 0.8929
Methane: 82.2884
Ethane: 8.8931
Propane: 4.2833
I-Butane: 0.6733
N-Butane: 1.1846
I-Pentane: 0.3934
N-Pentane: 0.3058
Hexane+: 0.8528

BTU: 1236.9
GPM: 18.9780
SPG: 0.7143