



30045 2017
Bradenhead

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

Analysis No: SO170071
Cust No: 15950-10355

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT
Well Name: ATLANTIC B LS 8A;BHD
County/State: SAN JUAN NM
Location:
Field:
Formation: MV
Cust. Stn. No.:
API 3004522975

OIL CONS. DIV DIST. 3

JAN 02 2018

Source: BRADENHEAD
Well Flowing: Y
Pressure: 38 PSIA
Flow Temp: DEG. F
Ambient Temp: 74 DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Date Sampled: 09/14/2017
Sample Time: 2:27 PM
Sampled By: MATTHEW YAZZIE
Sampled by (CO): PESCO

Remarks:

Analysis

Component::	Mole%:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	2.6366	0.2910	0.00	0.0255
CO2	0.0255	0.0040	0.00	0.0004
Methane	88.9255	15.1090	898.15	0.4926
Ethane	5.2092	1.3960	92.19	0.0541
Propane	2.0228	0.5590	50.90	0.0308
Iso-Butane	0.3658	0.1200	11.90	0.0073
N-Butane	0.4404	0.1390	14.37	0.0088
I-Pentane	0.1582	0.0580	6.33	0.0039
N-Pentane	0.0907	0.0330	3.64	0.0023
Hexane Plus	0.1253	0.0560	6.60	0.0041
Total	100.0000	17.7650	1084.06	0.6299

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0025
BTU/CU.FT IDEAL: 1086.6
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1089.3
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1070.3
DRY BTU @ 15.025: 1111.1
REAL SPECIFIC GRAVITY: 0.6312

CYLINDER #: 7051
CYLINDER PRESSURE: 37 PSIG
DATE RUN: 9/26/17 2:27 PM
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: 10/03/2017

GC Method: C6+ Gas

5



30045 22415
TUBING

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

Analysis No: SO170073
Cust No: 15950-10345

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT
Well Name: ATLANTIC B LS 8A;TBG
County/State: SAN JUAN NM
Location:
Field:
Formation:
Cust. Stn. No.:
API 3004522975

OIL CONS. DIV DIST. 3

JAN 02 2018

Source: TUBING
Well Flowing: Y
Pressure: 30 PSIA
Flow Temp: DEG. F
Ambient Temp: DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Date Sampled: 09/14/2017
Sample Time: 2.55 PM
Sampled By: MATTHEW YAZZIE
Sampled by (CO): PESCO

Remarks: CYLINDER PRESSURE IS 30PSIA

Analysis

Component::	Mole%:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	1.5139	0.1670	0.00	0.0146
CO2	8.1138	1.3890	0.00	0.1233
Methane	78.1025	13.2770	788.84	0.4326
Ethane	8.7867	2.3560	155.50	0.0912
Propane	2.4438	0.6750	61.49	0.0372
Iso-Butane	0.1489	0.0490	4.84	0.0030
N-Butane	0.2217	0.0700	7.23	0.0044
I-Pentane	0.1380	0.0510	5.52	0.0034
N-Pentane	0.1105	0.0400	4.43	0.0028
Hexane Plus	0.4202	0.1880	22.15	0.0139
Total	100.0000	18.2620	1050.00	0.7265

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.003
BTU/CU.FT IDEAL: 1052.4
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1055.6
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1037.2
DRY BTU @ 15.025: 1076.7
REAL SPECIFIC GRAVITY: 0.7284

CYLINDER #: 7026
CYLINDER PRESSURE: PSIG
DATE RUN: 9/26/17 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: 10/03/2017

GC Method: C6+ Gas



3004522975
TUBING

BP - SOUTH BHD PROJECT
WELL ANALYSIS COMPARISON

Lease: ATLANTIC B LS 8A;TBG
Stn. No.:
Mtr. No.: API 3004522975

TUBING

10/03/2017
15950-10345

Smpl Date: 09/14/2017
Test Date: 09/26/2017
Run No: SO170073

Nitrogen: 1.5139
CO2: 8.1138
Methane: 78.1025
Ethane: 8.7867
Propane: 2.4438
I-Butane: 0.1489
N-Butane: 0.2217
I-Pentane: 0.1380
N-Pentane: 0.1105
Hexane+: 0.4202

BTU: 1055.6
GPM: 18.2620
SPG: 0.7284



30045 00113
CASING

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

Analysis No: SO170072
Cust No: 15950-10350

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT
Well Name: ATLANTIC B LS 8A;CSG
County/State: SAN JUAN NM
Location:
Field:
Formation:
Cust. Stn. No.:
API 3004522975

Source: CASING
Well Flowing: Y
Pressure: 70 PSIA
Flow Temp: DEG. F
Ambient Temp: 74 DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Date Sampled: 09/14/2017
Sample Time: 2.40 PM
Sampled By: MATTHEW YAZZIE
Sampled by (CO): PESCO

Remarks:

Analysis

Component::	Mole%:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.3050	0.0340	0.00	0.0029
CO2	1.2179	0.2080	0.00	0.0185
Methane	84.7212	14.4050	855.68	0.4693
Ethane	7.9391	2.1290	140.50	0.0824
Propane	3.1014	0.8570	78.03	0.0472
Iso-Butane	0.6031	0.1980	19.61	0.0121
N-Butane	0.7910	0.2500	25.80	0.0159
I-Pentane	0.3193	0.1170	12.77	0.0080
N-Pentane	0.2368	0.0860	9.49	0.0059
Hexane Plus	0.7652	0.3420	40.33	0.0253
Total	100.0000	18.6260	1182.24	0.6875

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0032
BTU/CU.FT IDEAL: 1185.0
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1188.8
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1168.1
DRY BTU @ 15.025: 1212.6
REAL SPECIFIC GRAVITY: 0.6895

CYLINDER #: 8001
CYLINDER PRESSURE: 67 PSIG
DATE RUN: 9/26/17 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

GC Method: C6+ Gas

Last Cal/Verify: 10/03/2017

3004522975
Casing



BP - SOUTH BHD PROJECT
WELL ANALYSIS COMPARISON

Lease: ATLANTIC B LS 8A;CSG
Stn. No.:
Mtr. No.: API 3004522975

CASING

10/03/2017
15950-10350

Smpl Date: 09/14/2017
Test Date: 09/26/2017
Run No: SO170072

Nitrogen: 0.3050
CO2: 1.2179
Methane: 84.7212
Ethane: 7.9391
Propane: 3.1014
I-Butane: 0.6031
N-Butane: 0.7910
I-Pentane: 0.3193
N-Pentane: 0.2368
Hexane+: 0.7652

BTU: 1188.8
GPM: 18.6260
SPG: 0.6895