30-045-23045
Bradenhead

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

Analysis No: SO170037
Cust No: 15950-10145

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT
Well Name: SMYER COM LS 1A
County/State: NM
Location:
Field:
Formation: MV
Cust. Stn. No.:
API 3004523045

OIL CONS. DIV DIST. 3
AUG 09 2017

Source: BRADENHEAD
Pressure: 44 PSIA
Sample Temp: DEG. F
Well Flowing: Y
Date Sampled: 06/21/2017
Sampled By: E. HAMILTON
Foreman/Engr.: KEVIN IRELAND

Remarks:

Analysis

Component::	Mole%:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	2.498	0.2760	0.00	0.0242
CO2	0.021	0.0040	0.00	0.0003
Methane	87.626	14.8920	885.02	0.4854
Ethane	5.755	1.5430	101.85	0.0597
Propane	2.371	0.6550	59.67	0.0361
Iso-Butane	0.510	0.1670	16.59	0.0102
N-Butane	0.595	0.1880	19.40	0.0119
I-Pentane	0.222	0.0820	8.90	0.0055
N-Pentane	0.129	0.0470	5.16	0.0032
Hexane Plus	0.273	0.1220	14.37	0.0090
Total	100.000	17.9760	1110.95	0.6456

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBLITY FACTOR (1/Z): 1.0027
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1116.5
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1097.1
REAL SPECIFIC GRAVITY: 0.6471

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

DRY BTU @ 14.650: 1110.4
DRY BTU @ 14.696: 1113.9
DRY BTU @ 14.730: 1116.5
DRY BTU @ 15.025: 1138.9

CYLINDER #: 7055
CYLINDER PRESSURE: 43 PSIG
DATE RUN: 7/5/17 7:27 AM
ANALYSIS RUN BY: RICHARD WILSON

30-045-23045
Bradenhead

GAS ANALYSIS SERVICE

BP - SOUTH BHD PROJECT

WELL ANALYSIS COMPARISON

Lease:	SMYER COM LS 1A	BRADENHEAD	07/11/2017
Stn. No.:		MV	15950-10145
Mtr. No.:	API 3004523045		

Smpl Date:	06/21/2017
Test Date:	07/05/2017
Run No:	SO170037
Nitrogen:	2.498
CO2:	0.021
Methane:	87.626
Ethane:	5.755
Propane:	2.371
I-Butane:	0.510
N-Butane:	0.595
I-Pentane:	0.222
N-Pentane:	0.129
Hexane+:	0.273
BTU:	1116.5
GPM:	17.9760
SPG:	0.6471

30-045-23045
Casing

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

Analysis No: SO170038
Cust No: 15950-10140

Well/Lease Information

Customer Name:	BP - SOUTH BHD PROJECT	Source:	CASING
Well Name:	SMYERS COM 1S 1A	Pressure:	121 PSIA
County/State:	NM	Sample Temp:	DEG. F
Location:		Well Flowing:	Y
Field:		Date Sampled:	06/21/2017
Formation:	MV	Sampled By:	E. HAMILTON
Cust. Stn. No.:		Foreman/Engr.:	KEVIN IRELAND
	API 3004523045		

Remarks:

Analysis

Component::	Mole%:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.174	0.0190	0.00	0.0017
CO2	0.979	0.1680	0.00	0.0149
Methane	77.336	13.1620	781.09	0.4284
Ethane	10.978	2.9470	194.28	0.1140
Propane	5.471	1.5130	137.67	0.0833
Iso-Butane	0.932	0.3060	30.30	0.0187
N-Butane	1.668	0.5280	54.42	0.0335
I-Pentane	0.542	0.1990	21.68	0.0135
N-Pentane	0.464	0.1690	18.60	0.0116
Hexane Plus	1.457	0.6520	76.78	0.0482
Total	100.000	19.6630	1314.81	0.7676

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBLITY FACTOR	(1/Z):	1.0042
BTU/CU.FT (DRY) CORRECTED FOR (1/Z):		1323.3
BTU/CU.FT (WET) CORRECTED FOR (1/Z):		1300.3
REAL SPECIFIC GRAVITY:		0.7705

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

DRY BTU @ 14.650:	1316.1	CYLINDER #:	7077
DRY BTU @ 14.696:	1320.2	CYLINDER PRESSURE:	59 PSIG
DRY BTU @ 14.730:	1323.3	DATE RUN:	7/5/17 7:28 AM
DRY BTU @ 15.025:	1349.8	ANALYSIS RUN BY:	RICHARD WILSON

30-045-23044
Casing

GAS ANALYSIS SERVICE

BP - SOUTH BHD PROJECT

WELL ANALYSIS COMPARISON

Lease:	SMYERS COM 1S 1A	CASING	07/11/2017
Stn. No.:		MV	15950-10140
Mtr. No.:	API 3004523045		

Smpl Date:	06/21/2017
Test Date:	07/05/2017
Run No:	SO170038
Nitrogen:	0.174
CO2:	0.979
Methane:	77.336
Ethane:	10.978
Propane:	5.471
I-Butane:	0.932
N-Butane:	1.668
I-Pentane:	0.542
N-Pentane:	0.464
Hexane+:	1.457
BTU:	1323.3
GPM:	19.6630
SPG:	0.7705

30-045-23045
tubing

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

Analysis No: SO170039
Cust No: 15950-10175

Well/Lease Information

Customer Name:	BP - SOUTH BHD PROJECT	Source:	TUBING
Well Name:	SMYERS COM LS 1A	Pressure:	56 PSIA
County/State:	NM	Sample Temp:	DEG. F
Location:		Well Flowing:	Y
Field:		Date Sampled:	06/21/2017
Formation:	MV	Sampled By:	E. HAMILTON
Cust. Stn. No.:		Foreman/Engr.:	KEVIN IRELAND
	API 3004523045		

Remarks:

Analysis

Component::	Mole%:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.151	0.0170	0.00	0.0015
CO2	1.863	0.3190	0.00	0.0283
Methane	79.825	13.5790	806.24	0.4422
Ethane	9.452	2.5370	167.28	0.0981
Propane	4.528	1.2520	113.93	0.0689
Iso-Butane	0.873	0.2870	28.38	0.0175
N-Butane	1.402	0.4430	45.73	0.0281
I-Pentane	0.530	0.1950	21.21	0.0132
N-Pentane	0.400	0.1460	16.05	0.0100
Hexane Plus	0.975	0.4370	51.42	0.0323
Total	100.000	19.2120	1250.23	0.7401

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBLITY FACTOR (1/Z):	1.0037
BTU/CU.FT (DRY) CORRECTED FOR (1/Z):	1257.8
BTU/CU.FT (WET) CORRECTED FOR (1/Z):	1235.9
REAL SPECIFIC GRAVITY:	0.7426

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

DRY BTU @ 14.650:	1251.0	CYLINDER #:	7043
DRY BTU @ 14.696:	1254.9	CYLINDER PRESSURE:	54 PSIG
DRY BTU @ 14.730:	1257.8	DATE RUN:	7/5/17 7:29 AM
DRY BTU @ 15.025:	1283.0	ANALYSIS RUN BY:	RICHARD WILSON

30-045-23
tubing

GAS ANALYSIS SERVICE

BP - SOUTH BHD PROJECT

WELL ANALYSIS COMPARISON

Lease:	SMYERS COM LS 1A	TUBING	07/11/2017
Stn. No.:		MV	15950-10175
Mtr. No.:	API 3004523045		

Smpl Date:	06/21/2017
Test Date:	07/05/2017
Run No:	SO170039
Nitrogen:	0.151
CO2:	1.863
Methane:	79.825
Ethane:	9.452
Propane:	4.528
I-Butane:	0.873
N-Butane:	1.402
I-Pentane:	0.530
N-Pentane:	0.400
Hexane+:	0.975
BTU:	1257.8
GPM:	19.2120
SPG:	0.7426