

Well Name: Heaton Com LS 9API# 30 - 045 - 24988Casing Sampled: BradenheadSample Type Gas

(505) 325-6622

Analysis No: SO190051

Cust No: 15950-10030

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT

Well Name: HEATON COM LS 9; BHD

County/State: SAN JUAN NM

Location:

Lease/PA/CA:

Formation: PC/MV

Cust. Stn. No.: API # 3004524988

Source: BRADENHEAD

Well Flowing: Y

Pressure: 9 PSIA

Flow Temp: DEG. F

Ambient Temp: 83 DEG. F

Flow Rate: MCF/D

Sample Method: Purge & Fill

Sample Date: 06/12/2019

Sample Time: 1.59 PM

Sampled By:

Sampled by (CO): PESCO

Heat Trace: N

Remarks: PRESSURED WITH HELIUM TO 30LBS.

Analysis

Component:	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	6.3616	2.3124	0.7020	0.00	0.0615
CO2	0.0292	0.0106	0.0050	0.00	0.0004
Methane	82.7992	30.0968	14.0710	836.27	0.4586
Ethane	5.9894	2.1771	1.6060	105.99	0.0622
Propane	2.8254	1.0270	0.7800	71.09	0.0430
Iso-Butane	0.5376	0.1954	0.1760	17.48	0.0108
N-Butane	0.6889	0.2504	0.2180	22.47	0.0138
I-Pentane	0.2625	0.0954	0.0960	10.50	0.0065
N-Pentane	0.1502	0.0546	0.0550	6.02	0.0037
Hexane Plus	0.3560	0.1294	0.1590	18.77	0.0118
Total	100.0000	36.3491	17.8680	1088.60	0.6725

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0027
BTU/CU.FT IDEAL: 1091.1
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1094.1
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1075.1
DRY BTU @ 15.025: 1116.0
REAL SPECIFIC GRAVITY: 0.674

CYLINDER #: 7036
CYLINDER PRESSURE: PSIG
ANALYSIS DATE: 06/20/2019
ANALYSIS TIME: 11:24:48 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: 06/25/2019

GC Method: C6+ Gas



BP - SOUTH BHD PROJECT
WELL ANALYSIS COMPARISON

Lease: HEATON COM LS 9; BHD
Stn. No.: API # 3004524988
Mtr. No.:

BRADENHEAD
PC/MV

06/25/2019
15950-10030

Smpl Date:	06/12/2019	05/11/2017
Test Date:	06/20/2019	05/11/2017
Run No:	SO190051	SO170007
Nitrogen:	6.3616	5.0350
CO2:	0.0292	0.0190
Methane:	82.7992	83.7160
Ethane:	5.9894	6.3500
Propane:	2.8254	2.9720
I-Butane:	0.5376	0.5400
N-Butane:	0.6889	0.7460
I-Pentane:	0.2625	0.2730
N-Pentane:	0.1502	0.1600
Hexane+:	0.3560	0.1890
BTU:	1094.1	1107.4
GPM:	17.8680	17.9630
SPG:	0.6740	0.6683



Well Name: Heaton Com LS 9
API# 30 - 045 - 24988
Casing Sampled: Production
Sample Type Gas
(505) 325-6622

Analysis No: SO190052
Cust No: 15950-10035

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT
Well Name: HEATON COM LS 9; CSG
County/State: SAN JUAN NM
Location:
Lease/PA/CA:
Formation: PC/MV
Cust. Stn. No.: API 3004524988

Source: CASING
Well Flowing: Y
Pressure: 29 PSIA
Flow Temp: DEG. F
Ambient Temp: 83 DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Sample Date: 06/12/2019
Sample Time: 2.00 PM
Sampled By: EUGENIA HAMILTON
Sampled by (CO): PESCO

Heat Trace: N
Remarks:

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.5371	0.5199	0.0590	0.00	0.0052
CO2	1.0044	0.9721	0.1720	0.00	0.0153
Methane	82.1253	79.4882	13.9830	829.47	0.4549
Ethane	5.7649	5.5798	1.5480	102.02	0.0599
Propane	3.0451	2.9473	0.8430	76.62	0.0464
Iso-Butane	0.7083	0.6856	0.2330	23.03	0.0142
N-Butane	1.1386	1.1020	0.3610	37.14	0.0228
I-Pentane	0.7445	0.7206	0.2730	29.79	0.0185
N-Pentane	0.6938	0.6715	0.2530	27.81	0.0173
Hexane Plus	4.2380	4.1019	1.8980	223.39	0.1403
Total	100.0000	96.7889	19.6230	1349.27	0.7947

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0046
BTU/CU.FT IDEAL: 1352.4
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1358.6
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1335.0
DRY BTU @ 15.025: 1385.8
REAL SPECIFIC GRAVITY: 0.7981

CYLINDER #: 7077
CYLINDER PRESSURE: 24 PSIG
ANALYSIS DATE: 06/21/2019
ANALYSIS TIME: 09:58:00 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: 06/25/2019

GC Method: C6+ Gas



BP - SOUTH BHD PROJECT
WELL ANALYSIS COMPARISON

Lease: HEATON COM LS 9; CSG
Stn. No.: API 3004524988
Mtr. No.:

CASING
PC/MV

06/25/2019
15950-10035

Smpl Date:	06/12/2019	05/11/2017
Test Date:	06/21/2019	05/11/2017
Run No:	SO190052	SO170008
Nitrogen:	0.5371	0.2420
CO2:	1.0044	0.5130
Methane:	82.1253	78.1582
Ethane:	5.7649	9.6549
Propane:	3.0451	4.9980
I-Butane:	0.7083	1.0100
N-Butane:	1.1386	1.6180
I-Pentane:	0.7445	0.7250
N-Pentane:	0.6938	0.6340
Hexane+:	4.2380	2.4470
BTU:	1358.6	1364.3
GPM:	19.6230	19.8340
SPG:	0.7981	0.7902



Well Name: Heaton LS 9
 API# 30 - 045-24988
 Casing Sampled: Tubing
 Sample Type Gas
 (505) 325-6622

Analysis No: SO190053
 Cust No: 15950-10040

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT
 Well Name: HEATON COM LS 9; TBG
 County/State: SAN JUAN NM
 Location:
 Lease/PA/CA:
 Formation: PC/MV
 Cust. Stn. No.: API 3004524988

Source: TUBING
 Well Flowing: Y
 Pressure: 23 PSIA
 Flow Temp: DEG. F
 Ambient Temp: 83 DEG. F
 Flow Rate: MCF/D
 Sample Method: Purge & Fill
 Sample Date: 06/12/2019
 Sample Time: 1.59 PM
 Sampled By: EUGENIA HAMILTON
 Sampled by (CO): PESCO

Heat Trace: N

Remarks:

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.4792	0.4676	0.0530	0.00	0.0046
CO2	0.9068	0.8849	0.1550	0.00	0.0138
Methane	81.8734	79.8916	13.9260	826.92	0.4535
Ethane	8.6564	8.4469	2.3230	153.19	0.0899
Propane	4.2157	4.1137	1.1650	106.07	0.0642
Iso-Butane	0.7761	0.7573	0.2550	25.24	0.0156
N-Butane	1.1963	1.1673	0.3780	39.03	0.0240
I-Pentane	0.4391	0.4285	0.1610	17.57	0.0109
N-Pentane	0.3395	0.3313	0.1230	13.61	0.0085
Hexane Plus	1.1175	1.0905	0.5000	58.90	0.0370
Total	100.0000	97.5796	19.0390	1240.53	0.7219

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0036
 BTU/CU.FT IDEAL: 1243.4
 BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1247.9
 BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1226.2
 DRY BTU @ 15.025: 1272.9
 REAL SPECIFIC GRAVITY: 0.7242

CYLINDER #: 4932
 CYLINDER PRESSURE: 29 PSIG
 ANALYSIS DATE: 06/20/2019
 ANALYSIS TIME: 04:24:42 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

GC Method: C6+ Gas

Last Cal/Verify: 06/25/2019



BP - SOUTH BHD PROJECT
WELL ANALYSIS COMPARISON

Lease: HEATON COM LS 9; TBG
Stn. No.: API 3004524988
Mtr. No.:

TUBING
PC/MV

06/25/2019
15950-10040

Smpl Date:	06/12/2019	05/11/2017
Test Date:	06/20/2019	05/11/2017
Run No:	SO190053	SO170009
Nitrogen:	0.4792	0.2890
CO2:	0.9068	0.7400
Methane:	81.8734	81.6442
Ethane:	8.6564	8.7689
Propane:	4.2157	4.1890
I-Butane:	0.7761	0.7850
N-Butane:	1.1963	1.1990
I-Pentane:	0.4391	0.4490
N-Pentane:	0.3395	0.3440
Hexane+:	1.1175	1.5920
BTU:	1247.9	1273.3
GPM:	19.0390	19.1990
SPG:	0.7242	0.7358