



Well Name: Moore 11
API# 30 - 045 - 26666
Casing Sampled: Braden head
Sample Type: Gas

Analysis No: SO190070
Cust No: 15950-10160

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT
Well Name: MOORE 11; BHD
County/State: NM
Location:
Lease/PA/CA:
Formation: MV/DK
Cust. Stn. No.:
API 300452666

Source: BRADENHEAD
Well Flowing: Y
Pressure: 47 PSIA
Flow Temp: DEG. F
Ambient Temp: 77 DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Sample Date: 06/14/2019
Sample Time: 10.36 AM
Sampled By: E. HAMILTON
Sampled by (CO): PESCO

Heat Trace: N
Remarks:

NMOC
JUL 11 2019
DISTRICT III

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.8693	0.8466	0.0960	0.00	0.0084
CO2	0.0245	0.0239	0.0040	0.00	0.0004
Methane	87.7925	85.4990	14.9210	886.70	0.4863
Ethane	6.8337	6.6552	1.8320	120.94	0.0709
Propane	2.6733	2.6035	0.7380	67.26	0.0407
Iso-Butane	0.4763	0.4639	0.1560	15.49	0.0096
N-Butane	0.6342	0.6176	0.2000	20.69	0.0127
I-Pentane	0.2255	0.2196	0.0830	9.02	0.0056
N-Pentane	0.1462	0.1424	0.0530	5.86	0.0036
Hexane Plus	0.3245	0.3160	0.1450	17.10	0.0107
Total	100.0000	97.3877	18.2280	1143.07	0.6490

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0028
BTU/CU.FT IDEAL: 1145.7
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1148.9
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1128.9
DRY BTU @ 15.025: 1171.9
REAL SPECIFIC GRAVITY: 0.6506

CYLINDER #: 8001
CYLINDER PRESSURE: 54 PSIG
ANALYSIS DATE: 06/25/2019
ANALYSIS TIME: 03:38:02 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: 06/28/2019

GC Method: C6+ Gas



BP - SOUTH BHD PROJECT
WELL ANALYSIS COMPARISON

Lease: MOORE 11; BHD
Stn. No.:
Mtr. No.: API 3004526666

BRADENHEAD
MV/DK

06/28/2019
15950-10160

Smpl Date:	06/14/2019	06/21/2017
Test Date:	06/25/2019	06/21/2017
Run No:	SO190070	SO170029
Nitrogen:	0.8693	0.6610
CO2:	0.0245	0.0483
Methane:	87.7925	88.2768
Ethane:	6.8337	6.7032
Propane:	2.6733	2.5805
I-Butane:	0.4763	0.4718
N-Butane:	0.6342	0.6137
I-Pentane:	0.2255	0.2223
N-Pentane:	0.1462	0.1439
Hexane+:	0.3245	0.2787
BTU:	1148.9	1145.7
GPM:	18.2280	18.2030
SPG:	0.6506	0.6467



Well Name: Moore 11
API# 30 - 045 - 26666
Casing Sampled: Production
Sample Type: Gas

Analysis No: SO190071
Cust No: 15950-10110

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT
Well Name: MOORE 11; CSG
County/State: NM
Location:
Lease/PA/CA:
Formation: MV/DK
Cust. Stn. No.:
API 3004526666

Source: CASING
Well Flowing: Y
Pressure: 56 PSIA
Flow Temp: DEG. F
Ambient Temp: 77 DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Sample Date: 06/14/2019
Sample Time: 10.30 AM
Sampled By: E. HAMILTON
Sampled by (CO): PESCO

Heat Trace: N
Remarks:

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.7867	0.7742	0.0870	0.00	0.0076
CO2	0.8969	0.8826	0.1540	0.00	0.0136
Methane	84.1431	82.8028	14.3050	849.85	0.4661
Ethane	8.1436	8.0139	2.1840	144.12	0.0845
Propane	3.8735	3.8118	1.0700	97.46	0.0590
Iso-Butane	0.3847	0.3786	0.1260	12.51	0.0077
N-Butane	0.9361	0.9212	0.2960	30.54	0.0188
I-Pentane	0.2162	0.2128	0.0790	8.65	0.0054
N-Pentane	0.2005	0.1973	0.0730	8.04	0.0050
Hexane Plus	0.4187	0.4120	0.1870	22.07	0.0139
Total	100.0000	98.4072	18.5610	1173.23	0.6816

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0031
BTU/CU.FT IDEAL: 1175.9
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1179.6
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1159.1
DRY BTU @ 15.025: 1203.2
REAL SPECIFIC GRAVITY: 0.6834

CYLINDER #: 8005
CYLINDER PRESSURE: 55 PSIG
ANALYSIS DATE: 06/26/2019
ANALYSIS TIME: 08:46:17 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: 06/28/2019

GC Method: C6+ Gas



BP - SOUTH BHD PROJECT
WELL ANALYSIS COMPARISON

Lease: MOORE 11; CSG
Stn. No.:
Mtr. No.: API 300452666

CASING
MV/DK

06/28/2019
15950-10110

Smpl Date:	06/14/2019	06/21/2017
Test Date:	06/26/2019	06/21/2017
Run No:	SO190071	SO170030
Nitrogen:	0.7867	0.2750
CO2:	0.8969	0.7809
Methane:	84.1431	84.5343
Ethane:	8.1436	8.2848
Propane:	3.8735	4.0444
I-Butane:	0.3847	0.3260
N-Butane:	0.9361	0.9599
I-Pentane:	0.2162	0.1980
N-Pentane:	0.2005	0.1990
Hexane+:	0.4187	0.3979
BTU:	1179.6	1187.4
GPM:	18.5610	18.6080
SPG:	0.6834	0.6811



Well Name: MOORE 11
 API# 30-045-26666
 Casing Sampled: Tubing
 Sample Type: Gas

Analysis No: SO190072
 Cust No: 15950-10130

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT
 Well Name: MOORE 11; TBG
 County/State: NM
 Location:
 Lease/PA/CA:
 Formation: MV/DK
 Cust. Stn. No.:
 API 3004526666

Source: TUBING
 Well Flowing: Y
 Pressure: 55 PSIA
 Flow Temp: DEG. F
 Ambient Temp: 77 DEG. F
 Flow Rate: MCF/D
 Sample Method: Purge & Fill
 Sample Date: 06/14/2019
 Sample Time: 10.37 AM
 Sampled By: E. HAMILTON
 Sampled by (CO): PESCO

Heat Trace: N
 Remarks:

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.1590	0.1564	0.0180	0.00	0.0015
CO2	2.1161	2.0815	0.3620	0.00	0.0322
Methane	82.5536	81.2048	14.0390	833.79	0.4573
Ethane	8.1694	8.0359	2.1920	144.57	0.0848
Propane	3.6865	3.6263	1.0190	92.76	0.0561
Iso-Butane	0.6859	0.6747	0.2250	22.30	0.0138
N-Butane	1.0897	1.0719	0.3450	35.55	0.0219
I-Pentane	0.3965	0.3900	0.1450	15.86	0.0099
N-Pentane	0.2985	0.2936	0.1090	11.97	0.0074
Hexane Plus	0.8448	0.8310	0.3780	44.53	0.0280
Total	100.0000	98.3661	18.8320	1201.33	0.7128

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0034
 BTU/CU.FT IDEAL: 1204.1
 BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1208.2
 BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1187.2
 DRY BTU @ 15.025: 1232.4
 REAL SPECIFIC GRAVITY: 0.7149

CYLINDER #: 7038
 CYLINDER PRESSURE: 60 PSIG
 ANALYSIS DATE: 06/26/2019
 ANALYSIS TIME: 08:59:31 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: 06/28/2019



BP - SOUTH BHD PROJECT
WELL ANALYSIS COMPARISON

Lease: MOORE 11; TBG
Stn. No.:
Mtr. No.: API 3004526666

TUBING
MV/DK

06/28/2019
15950-10130

Smpl Date:	06/14/2019	06/21/2017
Test Date:	06/26/2019	06/21/2017
Run No:	SO190072	SO170031
Nitrogen:	0.1590	0.1430
CO2:	2.1161	1.8645
Methane:	82.5536	82.9939
Ethane:	8.1694	8.2686
Propane:	3.6865	3.6649
I-Butane:	0.6859	0.6658
N-Butane:	1.0897	1.0427
I-Pentane:	0.3965	0.3789
N-Pentane:	0.2985	0.2919
Hexane+:	0.8448	0.6858
BTU:	1208.2	1202.2
GPM:	18.8320	18.7800
SPG:	0.7149	0.7068