



Well Name: Neil A 9A
API# 30-045-22817
Casing Sampled: Bradenhead
Sample Type Gas

Analysis No: SO190058
Cust No: 15950-10200

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT
Well Name: NEIL A 9A BHD
County/State: SAN JUAN NM
Location:
Lease/PA/CA:
Formation: PC/MV
Cust. Stn. No.: 3004522817

Source: BRADENHEAD
Well Flowing: Y
Pressure: 106.7 PSIA
Flow Temp: DEG. F
Ambient Temp: 82 DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Sample Date: 06/13/2019
Sample Time: 11.47 AM
Sampled By: EUGENIA HAMILTON
Sampled by (CO): PESCO

Heat Trace: N
Remarks:

NMOCB
DISTRICT III

Analysis

Component:	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.3413	0.3360	0.0380	0.00	0.0033
CO2	0.3747	0.3689	0.0640	0.00	0.0057
Methane	89.2316	87.8567	15.1690	901.24	0.4943
Ethane	5.3870	5.3040	1.4450	95.33	0.0559
Propane	1.8366	1.8083	0.5070	46.21	0.0280
Iso-Butane	0.4045	0.3983	0.1330	13.15	0.0081
N-Butane	0.6424	0.6325	0.2030	20.96	0.0129
I-Pentane	0.3593	0.3538	0.1320	14.38	0.0090
N-Pentane	0.2959	0.2913	0.1080	11.86	0.0074
Hexane Plus	1.1267	1.1093	0.5040	59.39	0.0373
Total	100.0000	98.4591	18.3030	1162.52	0.6618

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.003
BTU/CU.FT IDEAL: 1165.2
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1168.7
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1148.4
DRY BTU @ 15.025: 1192.1
REAL SPECIFIC GRAVITY: 0.6635

CYLINDER #: 7000
CYLINDER PRESSURE: 102 PSIG
ANALYSIS DATE: 06/20/2019
ANALYSIS TIME: 02:59:46 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: 06/25/2019

GC Method: C6+ Gas



BP - SOUTH BHD PROJECT
WELL ANALYSIS COMPARISON

Lease: NEIL A 9A BHD
Stn. No.: 3004522817
Mtr. No.:

BRADENHEAD
PC/MV

06/25/2019
15950-10200

Smpl Date:	06/13/2019	06/29/2017
Test Date:	06/20/2019	06/29/2017
Run No:	SO190058	SO170040
Nitrogen:	0.3413	0.2493
CO2:	0.3747	0.5826
Methane:	89.2316	83.2014
Ethane:	5.3870	7.7222
Propane:	1.8366	3.6633
I-Butane:	0.4045	0.7200
N-Butane:	0.6424	1.1085
I-Pentane:	0.3593	0.5053
N-Pentane:	0.2959	0.4202
Hexane+:	1.1267	1.8272
BTU:	1168.7	1269.7
GPM:	18.3030	19.1100
SPG:	0.6635	0.7307



Well Name: NEIL A 9A
API# 30-245-22817
Casing Sampled: PRODUCTION
Sample Type GAS

Analysis No: SO190059
Cust No: 15950-10195

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT
Well Name: NEIL A 9A CSG
County/State: SAN JUAN NM
Location:
Lease/PA/CA:
Formation: PC/MV
Cust. Str. No.: 3004522817

Source: CASING
Well Flowing: Y
Pressure: 116.2 PSIA
Flow Temp: DEG. F
Ambient Temp: 82 DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Sample Date: 06/13/2019
Sample Time: 11.44 AM
Sampled By: EUGENIA HAMILTON
Sampled by (CO): PESCO

Heat Trace: N
Remarks:

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.2702	0.2607	0.0300	0.00	0.0026
CO2	0.4477	0.4319	0.0770	0.00	0.0068
Methane	83.9846	81.0285	14.2830	848.24	0.4652
Ethane	8.0441	7.7610	2.1580	142.36	0.0835
Propane	3.7266	3.5954	1.0300	93.76	0.0567
Iso-Butane	0.6824	0.6584	0.2240	22.19	0.0137
N-Butane	1.0338	0.9974	0.3270	33.73	0.0207
I-Pentane	0.3899	0.3762	0.1430	15.60	0.0097
N-Pentane	0.2851	0.2751	0.1040	11.43	0.0071
Hexane Plus	1.1356	1.0956	0.5080	59.86	0.0376
Total	100.0000	96.4802	18.8840	1227.17	0.7037

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0034
BTU/CU.FT IDEAL: 1230.0
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1234.2
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1212.7
DRY BTU @ 15.025: 1258.9
REAL SPECIFIC GRAVITY: 0.7058

CYLINDER #: 7045
CYLINDER PRESSURE: 110 PSIG
ANALYSIS DATE: 06/20/2019
ANALYSIS TIME: 02:25:36 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: 06/25/2019

GC Method: C6+ Gas



BP - SOUTH BHD PROJECT
WELL ANALYSIS COMPARISON

Lease: NEIL A 9A CSG
Stn. No.: 3004522817
Mtr. No.:

CASING
PC/MV

06/25/2019
15950-10195

Smpl Date:	06/13/2019	06/29/2017
Test Date:	06/20/2019	06/29/2017
Run No:	SO190059	SO170041
Nitrogen:	0.2702	0.3662
CO2:	0.4477	0.6004
Methane:	83.9846	84.1507
Ethane:	8.0441	7.8953
Propane:	3.7266	3.6328
I-Butane:	0.6824	0.6883
N-Butane:	1.0338	1.0053
I-Pentane:	0.3899	0.4047
N-Pentane:	0.2851	0.2984
Hexane+:	1.1356	0.9579
BTU:	1234.2	1221.8
GPM:	18.8840	18.8060
SPG:	0.7058	0.7014



Well Name: NEIL A 9A
API# 30-045-22817
Casing Sampled: Tubing
Sample Type: _____

Analysis No: SO190060
Cust No: 15950-10190

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT
Well Name: NEIL A 9A TBG
County/State: SAN JUAN NM
Location:
Lease/PA/CA:
Formation: PC/MV
Cust. Stn. No.: 3004522817

Source: TUBING
Well Flowing: Y
Pressure: 65.3 PSIA
Flow Temp: DEG. F
Ambient Temp: 85 DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Sample Date: 06/13/2019
Sample Time: 11.44 AM
Sampled By: EUGENIA HAMILTON
Sampled by (CO): PESCO

Heat Trace: N
Remarks:

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.2563	0.2492	0.0280	0.00	0.0025
CO2	1.1050	1.0745	0.1890	0.00	0.0168
Methane	84.6686	82.3317	14.3960	855.15	0.4690
Ethane	8.0074	7.7864	2.1480	141.71	0.0831
Propane	3.2785	3.1880	0.9060	82.49	0.0499
Iso-Butane	0.5299	0.5153	0.1740	17.23	0.0106
N-Butane	0.8454	0.8221	0.2670	27.58	0.0170
I-Pentane	0.2732	0.2657	0.1000	10.93	0.0068
N-Pentane	0.2073	0.2016	0.0750	8.31	0.0052
Hexane Plus	0.8284	0.8055	0.3710	43.67	0.0274
Total	100.0000	97.2400	18.6540	1187.07	0.6883

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0032
BTU/CU.FT IDEAL: 1189.8
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1193.6
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1172.8
DRY BTU @ 15.025: 1217.5
REAL SPECIFIC GRAVITY: 0.6902

CYLINDER #: 5122
CYLINDER PRESSURE: 67 PSIG
ANALYSIS DATE: 06/20/2019
ANALYSIS TIME: 04:05:05 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: 06/25/2019

GC Method: C6+ Gas



BP - SOUTH BHD PROJECT
WELL ANALYSIS COMPARISON

Lease: NEIL A 9A TBG
Stn. No.: 3004522817
Mtr. No.:

TUBING
PC/MV

06/25/2019
15950-10190

Smpl Date:	06/13/2019	06/29/2017
Test Date:	06/20/2019	06/29/2017
Run No:	SO190060	SO170042
Nitrogen:	0.2563	0.4094
CO2:	1.1050	1.3024
Methane:	84.6686	80.3555
Ethane:	8.0074	9.2425
Propane:	3.2785	4.2332
I-Butane:	0.5299	0.7647
N-Butane:	0.8454	1.3347
I-Pentane:	0.2732	0.5181
N-Pentane:	0.2073	0.4188
Hexane+:	0.8284	1.4207
BTU:	1193.6	1270.2
GPM:	18.6540	19.2410
SPG:	0.6902	0.7443