



NMOCD REC'D
10/12/20

Well Name: NEIL A 9A BHD
API #: 3004522817
Source: BRADENHEAD
Sample Type: GAS
Analysis No: SO200066
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: 146 PSIG
Flow Temp: DEG. F
Ambient Temp: 98 DEG. F
Flow Rate: MCF/D
Sample Method:
Sample Date: 07/15/2020
Sample Time: 12.35 PM
Sampled By: SEAN C.
Sampled by (CO): SABRE BEEBE

Heat Trace: N
Remarks:

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.2594	0.2517	0.0290	0.00	0.0025
CO2	0.3708	0.3598	0.0630	0.00	0.0056
Methane	86.4150	83.8580	14.6920	872.79	0.4787
Ethane	7.4031	7.1840	1.9850	131.01	0.0769
Propane	2.9364	2.8495	0.8110	73.88	0.0447
Iso-Butane	0.4955	0.4808	0.1630	16.11	0.0099
N-Butane	0.7055	0.6846	0.2230	23.02	0.0142
I-Pentane	0.2794	0.2711	0.1020	11.18	0.0070
N-Pentane	0.2130	0.2067	0.0770	8.54	0.0053
Hexane Plus	0.9219	0.8946	0.4120	48.59	0.0305
Total	100.0000	97.0408	18.5570	1185.13	0.6752

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0031
BTU/CU.FT IDEAL: 1187.9
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1191.6
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1170.9
DRY BTU @ 15.025: 1215.5
REAL SPECIFIC GRAVITY: 0.6771

CYLINDER #: 1086
CYLINDER PRESSURE: 130 PSIG
ANALYSIS DATE: 07/17/2020
ANALYSIS TIME: 09:05:06 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: 07/22/2020

GC Method: C6+ Gas



BP - SOUTH BHD PROJECT
WELL ANALYSIS COMPARISON

Lease:	NEIL A 9A BHD	BRADENHEAD	07/22/2020
Stn. No.:	3004522817	PC/MV	15950-10200
Mtr. No.:			

Smpl Date:	07/15/2020	06/13/2019	06/29/2017
Test Date:	07/17/2020	06/20/2019	06/29/2017
Run No:	SO200066	SO190058	SO170040
Nitrogen:	0.2594	0.3413	0.2493
CO2:	0.3708	0.3747	0.5826
Methane:	86.4150	89.2316	83.2014
Ethane:	7.4031	5.3870	7.7222
Propane:	2.9364	1.8366	3.6633
I-Butane:	0.4955	0.4045	0.7200
N-Butane:	0.7055	0.6424	1.1085
I-Pentane:	0.2794	0.3593	0.5053
N-Pentane:	0.2130	0.2959	0.4202
Hexane+:	0.9219	1.1267	1.8272
BTU:	1191.6	1168.7	1269.7
GPM:	18.5570	18.3030	19.1100
SPG:	0.6771	0.6635	0.7307



NMOCD REC'D
10/12/20

Well Name: NEIL A 9A CSG
API #: 3004522817
Source: CASING
Sample Type: GAS
Analysis No: SO200067
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. Stn. No.: 3004522817

Source: CASING
Well Flowing: Y
Pressure: 146 PSIG
Flow Temp: DEG. F
Ambient Temp: 98 DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Sample Date: 07/15/2020
Sample Time: 12.45 PM
Sampled By: SEAN C.
Sampled by (CO): ABC

Heat Trace: N
Remarks:

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.2255	0.2196	0.0250	0.00	0.0022
CO2	0.3922	0.3819	0.0670	0.00	0.0060
Methane	84.8617	82.6358	14.4290	857.10	0.4700
Ethane	7.9593	7.7505	2.1350	140.86	0.0826
Propane	3.6451	3.5495	1.0070	91.71	0.0555
Iso-Butane	0.6724	0.6548	0.2210	21.87	0.0135
N-Butane	0.9872	0.9613	0.3120	32.21	0.0198
I-Pentane	0.3593	0.3499	0.1320	14.38	0.0090
N-Pentane	0.2577	0.2509	0.0940	10.33	0.0064
Hexane Plus	0.6396	0.6228	0.2860	33.71	0.0212
Total	100.0000	97.3770	18.7080	1202.16	0.6862

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0032
BTU/CU.FT IDEAL: 1204.9
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1208.8
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1187.8
DRY BTU @ 15.025: 1233.0
REAL SPECIFIC GRAVITY: 0.6881

CYLINDER #: 1106
CYLINDER PRESSURE: 129 PSIG
ANALYSIS DATE: 07/17/2020
ANALYSIS TIME: 09:19:53 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: 07/22/2020

GC Method: C6+ Gas



BP - SOUTH BHD PROJECT
WELL ANALYSIS COMPARISON

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

CASING
PC/MV

07/22/2020
15950-10195

Smpl Date:	07/15/2020	06/13/2019	06/29/2017
Test Date:	07/17/2020	06/20/2019	06/29/2017
Run No:	SO200067	SO190059	SO170041
Nitrogen:	0.2255	0.2702	0.3662
CO2:	0.3922	0.4477	0.6004
Methane:	84.8617	83.9846	84.1507
Ethane:	7.9593	8.0441	7.8953
Propane:	3.6451	3.7266	3.6328
I-Butane:	0.6724	0.6824	0.6883
N-Butane:	0.9872	1.0338	1.0053
I-Pentane:	0.3593	0.3899	0.4047
N-Pentane:	0.2577	0.2851	0.2984
Hexane+:	0.6396	1.1356	0.9579
BTU:	1208.8	1234.2	1221.8
GPM:	18.7080	18.8840	18.8060
SPG:	0.6881	0.7058	0.7014



NMOCD REC'D
10/12/20

Well Name: NEIL A 9A TBG
API #: 3004522817
Source: TUBING
Sample Type: GAS
Analysis No: SO200068
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:
Pressure: 28 PSIG
Flow Temp: DEG. F
Ambient Temp: 98 DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Sample Date: 07/15/2020
Sample Time: 12.40 PM
Sampled By: SEAN C.
Sampled by (CO): ABC

Heat Trace: N
Remarks:

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.2596	0.2547	0.0290	0.00	0.0025
CO2	1.3885	1.3620	0.2380	0.00	0.0211
Methane	78.9986	77.4927	13.4410	797.89	0.4376
Ethane	9.9102	9.7213	2.6600	175.38	0.1029
Propane	4.7088	4.6190	1.3020	118.48	0.0717
Iso-Butane	0.8429	0.8268	0.2770	27.41	0.0169
N-Butane	1.5125	1.4837	0.4790	49.34	0.0304
I-Pentane	0.5679	0.5571	0.2080	22.72	0.0141
N-Pentane	0.4639	0.4551	0.1690	18.60	0.0116
Hexane Plus	1.3471	1.3214	0.6030	71.01	0.0446
Total	100.0000	98.0938	19.4060	1280.82	0.7533

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0039
BTU/CU.FT IDEAL: 1283.8
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1288.8
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1266.4
DRY BTU @ 15.025: 1314.6
REAL SPECIFIC GRAVITY: 0.756

CYLINDER #: 28
CYLINDER PRESSURE: 26 PSIG
ANALYSIS DATE: 07/17/2020
ANALYSIS TIME: 09:12:07 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: 07/22/2020

GC Method: C6+ Gas



BP - SOUTH BHD PROJECT
WELL ANALYSIS COMPARISON

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

TUBING
PC/MV

07/22/2020
15950-10190

Smpl Date:	07/15/2020	06/13/2019	06/29/2017
Test Date:	07/17/2020	06/20/2019	06/29/2017
Run No:	SO200068	SO190060	SO170042
Nitrogen:	0.2596	0.2563	0.4094
CO2:	1.3885	1.1050	1.3024
Methane:	78.9986	84.6686	80.3555
Ethane:	9.9102	8.0074	9.2425
Propane:	4.7088	3.2785	4.2332
I-Butane:	0.8429	0.5299	0.7647
N-Butane:	1.5125	0.8454	1.3347
I-Pentane:	0.5679	0.2732	0.5181
N-Pentane:	0.4639	0.2073	0.4188
Hexane+:	1.3471	0.8284	1.4207
BTU:	1288.8	1193.6	1270.2
GPM:	19.4060	18.6540	19.2410
SPG:	0.7560	0.6902	0.7443