



NMOCD REC'D
10/12/20

Well Name: NEIL LS 3; CSG
API #: API #300451067800
Source: CASING
Sample Type: GAS
Analysis No: SO200077
Cust No: 15950-11765

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT
Well Name: NEIL LS 3; CSG
County/State: SAN JUAN NM
Location:
Lease/PA/CA:
Formation:
Cust. Stn. No.: API #300451067800

Source: CASING
Well Flowing: Y
Pressure: 35 PSIG
Flow Temp: DEG. F
Ambient Temp: 69 DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Sample Date: 07/17/2020
Sample Time: 7.39 AM
Sampled By: ERIC S.
Sampled by (CO): ABC

Heat Trace: N
Remarks:

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.2864	0.2783	0.0320	0.00	0.0028
CO2	0.0412	0.0400	0.0070	0.00	0.0006
Methane	82.4022	80.0577	14.0150	832.26	0.4564
Ethane	9.3943	9.1270	2.5210	166.25	0.0975
Propane	4.1629	4.0445	1.1510	104.74	0.0634
Iso-Butane	0.6937	0.6740	0.2280	22.56	0.0139
N-Butane	1.2969	1.2600	0.4100	42.31	0.0260
I-Pentane	0.4603	0.4472	0.1690	18.42	0.0115
N-Pentane	0.3653	0.3549	0.1330	14.64	0.0091
Hexane Plus	0.8968	0.8713	0.4010	47.27	0.0297
Total	100.0000	97.1549	19.0670	1248.45	0.7109

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0035
BTU/CU.FT IDEAL: 1251.3
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1255.7
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1233.9
DRY BTU @ 15.025: 1280.8
REAL SPECIFIC GRAVITY: 0.7131

CYLINDER #: 1025
CYLINDER PRESSURE: 32 PSIG
ANALYSIS DATE: 07/22/2020
ANALYSIS TIME: 10:46:18 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: 07/24/2020

GC Method: C6+ Gas



BP - SOUTH BHD PROJECT
WELL ANALYSIS COMPARISON

Lease: NEIL LS 3; CSG
Stn. No.: API
Mtr. No.:

CASING

07/24/2020
15950-11765

Smpl Date: 07/17/2020
Test Date: 07/22/2020
Run No: SO200077

Nitrogen: 0.2864
CO2: 0.0412
Methane: 82.4022
Ethane: 9.3943
Propane: 4.1629
I-Butane: 0.6937
N-Butane: 1.2969
I-Pentane: 0.4603
N-Pentane: 0.3653
Hexane+: 0.8968

BTU: 1255.7
GPM: 19.0670
SPG: 0.7131



NMOCD REC'D
10/12/20

Well Name: NEIL LS 3; INTER
API #: API #300451067800
Source: INTERMEDIATE CASING
Sample Type: GAS
Analysis No: SO200078
Cust No: 15950-11770

Well/Lease Information

Customer Name:	BP - SOUTH BHD PROJECT	Source:	INTERMEDIATE CASING
Well Name:	NEIL LS 3; INTER	Well Flowing:	Y
County/State:	SAN JUAN NM	Pressure:	35 PSIG
Location:		Flow Temp:	DEG. F
Lease/PA/CA:		Ambient Temp:	69 DEG. F
Formation:		Flow Rate:	MCF/D
Cust. Stn. No.:	API #300451067800	Sample Method:	Purge & Fill
		Sample Date:	07/17/2020
		Sample Time:	7.34 AM
		Sampled By:	ERIC S.
		Sampled by (CO):	ABC
Heat Trace:	N		
Remarks:			

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.2908	0.2771	0.0320	0.00	0.0028
CO2	0.0398	0.0379	0.0070	0.00	0.0006
Methane	81.6934	77.8564	13.8960	825.10	0.4525
Ethane	9.6466	9.1935	2.5880	170.72	0.1002
Propane	4.3674	4.1623	1.2070	109.89	0.0665
Iso-Butane	0.7233	0.6893	0.2370	23.52	0.0145
N-Butane	1.3565	1.2928	0.4290	44.25	0.0272
I-Pentane	0.4710	0.4489	0.1730	18.84	0.0117
N-Pentane	0.3759	0.3582	0.1370	15.07	0.0094
Hexane Plus	1.0353	0.9867	0.4630	54.57	0.0343
Total	100.0000	95.3031	19.1690	1261.97	0.7197

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z):	1.0036
BTU/CU.FT IDEAL:	1264.9
BTU/CU.FT (DRY) CORRECTED FOR (1/Z):	1269.5
BTU/CU.FT (WET) CORRECTED FOR (1/Z):	1247.4
DRY BTU @ 15.025:	1294.9
REAL SPECIFIC GRAVITY:	0.722

CYLINDER #:	36
CYLINDER PRESSURE:	30 PSIG
ANALYSIS DATE:	07/22/2020
ANALYSIS TIME:	10:54:55 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: 07/24/2020

GC Method: C6+ Gas



BP - SOUTH BHD PROJECT
WELL ANALYSIS COMPARISON

Lease: NEIL LS 3; INTER
Stn. No.: API
Mtr. No.:

INTERMEDIATE CASING

07/24/2020
15950-11770

Smpl Date: 07/17/2020
Test Date: 07/22/2020
Run No: SO200078

Nitrogen: 0.2908
CO2: 0.0398
Methane: 81.6934
Ethane: 9.6466
Propane: 4.3674
I-Butane: 0.7233
N-Butane: 1.3565
I-Pentane: 0.4710
N-Pentane: 0.3759
Hexane+: 1.0353

BTU: 1269.5
GPM: 19.1690
SPG: 0.7220



NMOCD REC'D
10/12/20

Well Name: NEIL LS 3; TBG
API #: API #300451067800
Source: TUBING
Sample Type: GAS
Analysis No: SO200079
Cust No: 15950-11775

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT
Well Name: NEIL LS 3; TBG
County/State: SAN JUAN NM
Location:
Lease/PA/CA:
Formation:
Cust. Stn. No.: API #300451067800

Source: TUBING
Well Flowing: Y
Pressure: 21 PSIG
Flow Temp: DEG. F
Ambient Temp: 69 DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Sample Date: 07/17/2020
Sample Time: 7.42 AM
Sampled By: ERIC S.
Sampled by (CO): ABC

Heat Trace: N
Remarks:

Analysis

Component:	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.3365	0.3299	0.0370	0.00	0.0033
CO2	1.1305	1.1082	0.1940	0.00	0.0172
Methane	79.7977	78.2210	13.5760	805.96	0.4420
Ethane	9.8223	9.6282	2.6360	173.83	0.1020
Propane	4.5179	4.4286	1.2490	113.67	0.0688
Iso-Butane	0.7318	0.7173	0.2400	23.80	0.0147
N-Butane	1.4361	1.4077	0.4540	46.85	0.0288
I-Pentane	0.5125	0.5024	0.1880	20.50	0.0128
N-Pentane	0.4254	0.4170	0.1550	17.05	0.0106
Hexane Plus	1.2893	1.2638	0.5770	67.96	0.0427
Total	100.0000	98.0241	19.3060	1269.62	0.7427

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0038
BTU/CU.FT IDEAL: 1272.6
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1277.4
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1255.2
DRY BTU @ 15.025: 1303.0
REAL SPECIFIC GRAVITY: 0.7453

CYLINDER #: 1432
CYLINDER PRESSURE: 18 PSIG
ANALYSIS DATE: 07/22/2020
ANALYSIS TIME: 10:34:27 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: 07/24/2020

GC Method: C6+ Gas



BP - SOUTH BHD PROJECT
WELL ANALYSIS COMPARISON

Lease: NEIL LS 3; TBG
Stn. No.: API
Mtr. No.:

TUBING

07/24/2020
15950-11775

Smpl Date: 07/17/2020
Test Date: 07/22/2020
Run No: SO200079

Nitrogen: 0.3365
CO2: 1.1305
Methane: 79.7977
Ethane: 9.8223
Propane: 4.5179
I-Butane: 0.7318
N-Butane: 1.4361
I-Pentane: 0.5125
N-Pentane: 0.4254
Hexane+: 1.2893

BTU: 1277.4
GPM: 19.3060
SPG: 0.7453