



NMOCD REC'D
10/12/20

Well Name: NEBU 229J; BHD
API #: API # 300453278500
Source: BRADENHEAD
Sample Type: GAS
Analysis No: SO200105
Cust No: 15950-11905

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT
Well Name: NEBU 229J; BHD
County/State: NM
Location:
Lease/PA/CA:
Formation:
Cust. Stn. No.: API # 300453278500

Source: BRADENHEAD
Well Flowing: N
Pressure: 19 PSIG
Flow Temp: DEG. F
Ambient Temp: 80 DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Sample Date: 08/21/2020
Sample Time: 10.15 AM
Sampled By: SEAN CASAUS
Sampled by (CO): ABC

Heat Trace: N
Remarks:

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	99.4822	48.1470	10.9450	0.00	0.9622
CO2	0.0095	0.0046	0.0020	0.00	0.0001
Methane	0.4479	0.2168	0.0760	4.52	0.0025
Ethane	0.0132	0.0064	0.0040	0.23	0.0001
Propane	0.0116	0.0056	0.0030	0.29	0.0002
Iso-Butane	0.0000	0.0000	0.0000	0.00	0.0000
N-Butane	0.0025	0.0012	0.0010	0.08	0.0001
I-Pentane	0.0000	0.0000	0.0000	0.00	0.0000
N-Pentane	0.0000	0.0000	0.0000	0.00	0.0000
Hexane Plus	0.0331	0.0160	0.0150	1.74	0.0011
Total	100.0000	48.3976	11.0460	6.88	0.9663

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0003
BTU/CU.FT IDEAL: 6.9
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 6.9
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 6.8
DRY BTU @ 15.025: 7.0
REAL SPECIFIC GRAVITY: 0.9662

CYLINDER #: 1270
CYLINDER PRESSURE: 19 PSIG
ANALYSIS DATE: 08/26/2020
ANALYSIS TIME: 01:51:02 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: 09/03/2020

GC Method: C6+ Gas



BP - SOUTH BHD PROJECT
WELL ANALYSIS COMPARISON

Lease: NEBU 229J; BHD
Stn. No.: API #
Mtr. No.:

BRADENHEAD

09/03/2020
15950-11905

Smpl Date: 08/21/2020
Test Date: 08/26/2020
Run No: SO200105

Nitrogen: 99.4822
CO2: 0.0095
Methane: 0.4479
Ethane: 0.0132
Propane: 0.0116
I-Butane: 0.0000
N-Butane: 0.0025
I-Pentane: 0.0000
N-Pentane: 0.0000
Hexane+: 0.0331

BTU: 6.9
GPM: 11.0460
SPG: 0.9662



NMOCD REC'D
10/12/20

Well Name: NEBU 229J; CSG
API #: API # 300453278500
Source: CASING
Sample Type: GAS
Analysis No: SO200106
Cust No: 15950-11910

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT
Well Name: NEBU 229J; CSG
County/State: NM
Location:
Lease/PA/CA:
Formation:
Cust. Stn. No.: API # 300453278500

Source: CASING
Well Flowing: Y
Pressure: 76 PSIG
Flow Temp: DEG. F
Ambient Temp: 80 DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Sample Date: 08/21/2020
Sample Time: 10.20 AM
Sampled By: SEAN C.
Sampled by (CO): ABC

Heat Trace: N
Remarks:

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.1969	0.1929	0.0220	0.00	0.0019
CO2	0.4530	0.4438	0.0780	0.00	0.0069
Methane	82.5856	80.9063	14.0460	834.11	0.4574
Ethane	8.9255	8.7440	2.3950	157.95	0.0927
Propane	4.2851	4.1980	1.1840	107.82	0.0652
Iso-Butane	0.7414	0.7263	0.2430	24.11	0.0149
N-Butane	1.0576	1.0361	0.3350	34.50	0.0212
I-Pentane	0.3632	0.3558	0.1330	14.53	0.0090
N-Pentane	0.2968	0.2908	0.1080	11.90	0.0074
Hexane Plus	1.0949	1.0726	0.4900	57.71	0.0362
Total	100.0000	97.9666	19.0340	1242.64	0.7129

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0035
BTU/CU.FT IDEAL: 1245.5
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1249.9
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1228.2
DRY BTU @ 15.025: 1274.9
REAL SPECIFIC GRAVITY: 0.7151

CYLINDER #: 1421
CYLINDER PRESSURE: 70 PSIG
ANALYSIS DATE: 08/26/2020
ANALYSIS TIME: 01:35:48 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: 09/03/2020

GC Method: C6+ Gas



BP - SOUTH BHD PROJECT
WELL ANALYSIS COMPARISON

Lease: NEBU 229J; CSG
Stn. No.: API #
Mtr. No.:

CASING

09/03/2020
15950-11910

Smpl Date: 08/21/2020
Test Date: 08/26/2020
Run No: SO200106

Nitrogen: 0.1969
CO2: 0.4530
Methane: 82.5856
Ethane: 8.9255
Propane: 4.2851
I-Butane: 0.7414
N-Butane: 1.0576
I-Pentane: 0.3632
N-Pentane: 0.2968
Hexane+: 1.0949

BTU: 1249.9
GPM: 19.0340
SPG: 0.7151



NMOCD REC'D
10/12/20

Well Name: NEBU 229J; TBG
API #: API # 300453278500
Source: TUBING
Sample Type: GAS
Analysis No: SO200107
Cust No: 15950-11915

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT
Well Name: NEBU 229J; TBG
County/State: NM
Location:
Lease/PA/CA:
Formation:
Cust. Stn. No.: API # 300453278500

Source: TUBING
Well Flowing: Y
Pressure: 70 PSIG
Flow Temp: DEG. F
Ambient Temp: 80 DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Sample Date: 08/21/2020
Sample Time: 10.25 AM
Sampled By: SEAN C.
Sampled by (CO): ABC

Heat Trace: N
Remarks:

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.2225	0.2173	0.0250	0.00	0.0022
CO2	0.4729	0.4618	0.0810	0.00	0.0072
Methane	83.2402	81.2816	14.1550	840.73	0.4611
Ethane	8.9451	8.7346	2.4000	158.30	0.0929
Propane	4.2133	4.1142	1.1640	106.01	0.0641
Iso-Butane	0.7069	0.6903	0.2320	22.99	0.0142
N-Butane	0.9827	0.9596	0.3110	32.06	0.0197
I-Pentane	0.3049	0.2977	0.1120	12.20	0.0076
N-Pentane	0.2342	0.2287	0.0850	9.39	0.0058
Hexane Plus	0.6773	0.6614	0.3030	35.70	0.0224
Total	100.0000	97.6472	18.8680	1217.37	0.6972

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0033
BTU/CU.FT IDEAL: 1220.2
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1224.2
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1202.9
DRY BTU @ 15.025: 1248.7
REAL SPECIFIC GRAVITY: 0.6992

CYLINDER #: 1426
CYLINDER PRESSURE: 64 PSIG
ANALYSIS DATE: 08/26/2020
ANALYSIS TIME: 02:00:26 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: 09/03/2020

GC Method: C6+ Gas



BP - SOUTH BHD PROJECT
WELL ANALYSIS COMPARISON

Lease: NEBU 229J; TBG
Stn. No.: API #
Mtr. No.:

TUBING

09/03/2020
15950-11915

Smpl Date: 08/21/2020
Test Date: 08/26/2020
Run No: SO200107

Nitrogen: 0.2225
CO2: 0.4729
Methane: 83.2402
Ethane: 8.9451
Propane: 4.2133
I-Butane: 0.7069
N-Butane: 0.9827
I-Pentane: 0.3049
N-Pentane: 0.2342
Hexane+: 0.6773

BTU: 1224.2
GPM: 18.8680
SPG: 0.6992