



NMOCD REC'D  
10/12/20

Well Name: NEBU 483; BHD  
API #: API # 300392439900  
Source: BRADENHEAD  
Sample Type: GAS  
Analysis No: SO200151  
Cust No: 15950-12120

### Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT  
Well Name: NEBU 483; BHD  
County/State: NM  
Location:  
Lease/PA/CA:  
Formation:  
Cust. Stn. No.: API # 300392439900

Source: BRADENHEAD  
Well Flowing: N  
Pressure: 45 PSIG  
Flow Temp: DEG. F  
Ambient Temp: 77 DEG. F  
Flow Rate: MCF/D  
Sample Method: Purge & Fill  
Sample Date: 09/17/2020  
Sample Time: 4.05 PM  
Sampled By: SEAN CASAUS  
Sampled by (CO): ABC

Heat Trace: N  
Remarks:

### Analysis

| Component:: | Mole%:   | Unnormalized %: | **GPM:  | *BTU:  | *SP Gravity: |
|-------------|----------|-----------------|---------|--------|--------------|
| Nitrogen    | 77.3103  | 1.8539          | 8.5080  | 0.00   | 0.7477       |
| CO2         | 0.2168   | 0.0052          | 0.0370  | 0.00   | 0.0033       |
| Methane     | 21.8641  | 0.5243          | 3.7080  | 220.83 | 0.1211       |
| Ethane      | 0.2544   | 0.0061          | 0.0680  | 4.50   | 0.0026       |
| Propane     | 0.2210   | 0.0053          | 0.0610  | 5.56   | 0.0034       |
| Iso-Butane  | 0.0000   | 0.0000          | 0.0000  | 0.00   | 0.0000       |
| N-Butane    | 0.0000   | 0.0000          | 0.0000  | 0.00   | 0.0000       |
| 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 | 0.1334   | 0.0032          | 0.0600  | 7.03   | 0.0044       |
| Total       | 100.0000 | 2.3980          | 12.4420 | 237.92 | 0.8826       |

\* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

\*\*@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0006  
BTU/CU.FT IDEAL: 238.5  
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 238.6  
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 234.4  
DRY BTU @ 15.025: 243.4  
REAL SPECIFIC GRAVITY: 0.8827

CYLINDER #: 1405  
CYLINDER PRESSURE: 43 PSIG  
ANALYSIS DATE: 09/24/2020  
ANALYSIS TIME: 10:35:57 AM  
ANALYSIS RUN BY: PATRICIA KING

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: 09/29/2020

GC Method: C6+ Gas



BP - SOUTH BHD PROJECT  
WELL ANALYSIS COMPARISON

Lease: NEBU 483; BHD  
Stn. No.: API #  
Mtr. No.:

BRADENHEAD

09/29/2020  
15950-12120

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Smpl Date: 09/17/2020  
Test Date: 09/24/2020  
Run No: SO200151  
  
Nitrogen: 77.3103  
CO2: 0.2168  
Methane: 21.8641  
Ethane: 0.2544  
Propane: 0.2210  
I-Butane: 0.0000  
N-Butane: 0.0000  
I-Pentane: 0.0000  
N-Pentane: 0.0000  
Hexane+: 0.1334  
  
BTU: 238.6  
GPM: 12.4420  
SPG: 0.8827



NMOCD REC'D  
10/12/20

Well Name: NEBU 483; CSG  
API #: API # 300392439900  
Source: CASING  
Sample Type: GAS  
Analysis No: SO200152  
Cust No: 15950-12125

### Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT  
Well Name: NEBU 483; CSG  
County/State: NM  
Location:  
Lease/PA/CA:  
Formation:  
Cust. Stn. No.: API # 300392439900

Source: CASING  
Well Flowing: Y  
Pressure: 1.0 PSIG  
Flow Temp: DEG. F  
Ambient Temp: 77 DEG. F  
Flow Rate: MCF/D  
Sample Method: Purge & Fill  
Sample Date: 09/17/2020  
Sample Time: 4.10 PM  
Sampled By: SEAN CASAUS  
Sampled by (CO): ABC

Heat Trace: N  
Remarks: PRESSURED WITH HELIUM TO 30LBS.

### Analysis

| Component:: | Mole%:   | Unnormalized %: | **GPM:  | *BTU:  | *SP Gravity: |
|-------------|----------|-----------------|---------|--------|--------------|
| Nitrogen    | 3.5123   | 1.0769          | 0.3870  | 0.00   | 0.0340       |
| CO2         | 20.4691  | 6.2760          | 3.5010  | 0.00   | 0.3110       |
| Methane     | 74.8491  | 22.9493         | 12.7190 | 755.98 | 0.4146       |
| Ethane      | 0.6503   | 0.1994          | 0.1740  | 11.51  | 0.0068       |
| Propane     | 0.1908   | 0.0585          | 0.0530  | 4.80   | 0.0029       |
| Iso-Butane  | 0.0258   | 0.0079          | 0.0080  | 0.84   | 0.0005       |
| N-Butane    | 0.0316   | 0.0097          | 0.0100  | 1.03   | 0.0006       |
| I-Pentane   | 0.0068   | 0.0021          | 0.0020  | 0.27   | 0.0002       |
| N-Pentane   | 0.0046   | 0.0014          | 0.0020  | 0.18   | 0.0001       |
| Hexane Plus | 0.2596   | 0.0796          | 0.1160  | 13.68  | 0.0086       |
| Total       | 100.0000 | 30.6608         | 16.9720 | 788.30 | 0.7793       |

\* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

\*\*@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0026  
BTU/CU.FT IDEAL: 790.1  
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 792.2  
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 778.4  
DRY BTU @ 15.025: 808.1  
REAL SPECIFIC GRAVITY: 0.781

CYLINDER #: 9  
CYLINDER PRESSURE: PSIG  
ANALYSIS DATE: 09/24/2020  
ANALYSIS TIME: 10:52:35 AM  
ANALYSIS RUN BY: PATRICIA KING

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: 09/29/2020

GC Method: C6+ Gas



BP - SOUTH BHD PROJECT  
WELL ANALYSIS COMPARISON

Lease: NEBU 483; CSG  
Stn. No.: API #  
Mtr. No.:

CASING

09/29/2020  
15950-12125

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Smpl Date: 09/17/2020  
Test Date: 09/24/2020  
Run No: SO200152  
  
Nitrogen: 3.5123  
CO2: 20.4691  
Methane: 74.8491  
Ethane: 0.6503  
Propane: 0.1908  
I-Butane: 0.0258  
N-Butane: 0.0316  
I-Pentane: 0.0068  
N-Pentane: 0.0046  
Hexane+: 0.2596  
  
BTU: 792.2  
GPM: 16.9720  
SPG: 0.7810



NMOCD REC'D  
10/12/20

Well Name: NEBU 483; TBG  
API #: API # 300392439900  
Source: TUBING  
Sample Type: GAS  
Analysis No: SO200153  
Cust No: 15950-12130

### Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT  
Well Name: NEBU 483; TBG  
County/State: NM  
Location:  
Lease/PA/CA:  
Formation:  
Cust. Stn. No.: API # 300392439900

Source: TUBING  
Well Flowing: Y  
Pressure: 8 PSIG  
Flow Temp: DEG. F  
Ambient Temp: 77 DEG. F  
Flow Rate: MCF/D  
Sample Method: Purge & Fill  
Sample Date: 09/17/2020  
Sample Time: 4.15 PM  
Sampled By: SEAN CASAUS  
Sampled by (CO): ABC

Heat Trace: N

Remarks: PRESSURED WITH HELIUM TO 30LBS.

### Analysis

| Component:  | Mole%:   | Unnormalized %: | **GPM:  | *BTU:  | *SP Gravity: |
|-------------|----------|-----------------|---------|--------|--------------|
| Nitrogen    | 0.3107   | 0.1700          | 0.0340  | 0.00   | 0.0030       |
| CO2         | 9.2072   | 5.0380          | 1.5750  | 0.00   | 0.1399       |
| Methane     | 89.4969  | 48.9711         | 15.2030 | 903.92 | 0.4957       |
| Ethane      | 0.6117   | 0.3347          | 0.1640  | 10.83  | 0.0064       |
| Propane     | 0.1758   | 0.0962          | 0.0490  | 4.42   | 0.0027       |
| Iso-Butane  | 0.0294   | 0.0161          | 0.0100  | 0.96   | 0.0006       |
| N-Butane    | 0.0316   | 0.0173          | 0.0100  | 1.03   | 0.0006       |
| I-Pentane   | 0.0077   | 0.0042          | 0.0030  | 0.31   | 0.0002       |
| N-Pentane   | 0.0051   | 0.0028          | 0.0020  | 0.20   | 0.0001       |
| Hexane Plus | 0.1239   | 0.0678          | 0.0550  | 6.53   | 0.0041       |
| Total       | 100.0000 | 54.7182         | 17.1050 | 928.20 | 0.6533       |

\* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

\*\*@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0023  
BTU/CU.FT IDEAL: 930.3  
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 932.5  
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 916.3  
DRY BTU @ 15.025: 951.2  
REAL SPECIFIC GRAVITY: 0.6545

CYLINDER #: 37  
CYLINDER PRESSURE: 8 PSIG  
ANALYSIS DATE: 09/24/2020  
ANALYSIS TIME: 01:44:08 PM  
ANALYSIS RUN BY: PATRICIA KING

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: 09/29/2020

GC Method: C6+ Gas



BP - SOUTH BHD PROJECT  
WELL ANALYSIS COMPARISON

Lease: NEBU 483; TBG  
Stn. No.: API #  
Mtr. No.:

TUBING

09/29/2020  
15950-12130

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Smpl Date: 09/17/2020  
Test Date: 09/24/2020  
Run No: SO200153  
  
Nitrogen: 0.3107  
CO2: 9.2072  
Methane: 89.4969  
Ethane: 0.6117  
Propane: 0.1758  
I-Butane: 0.0294  
N-Butane: 0.0316  
I-Pentane: 0.0077  
N-Pentane: 0.0051  
Hexane+: 0.1239  
  
BTU: 932.5  
GPM: 17.1050  
SPG: 0.6545