



NMOCD REC'D  
10/12/20

Well Name: LEEPER GC 1A; CSG  
API #: API #300452213400  
Source: CASING  
Sample Type: GAS  
Analysis No: SO200090  
Cust No: 15950-11830

### Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT  
Well Name: LEEPER GC 1A; CSG  
County/State: SAN JUAN NM  
Location:  
Lease/PA/CA:  
Formation:  
Cust. Stn. No.: API #300452213400

Source: CASING  
Well Flowing: Y  
Pressure: 55 PSIG  
Flow Temp: DEG. F  
Ambient Temp: 87 DEG. F  
Flow Rate: MCF/D  
Sample Method: Purge & Fill  
Sample Date: 07/29/2020  
Sample Time: 11.40 AM  
Sampled By: SEAN C.  
Sampled by (CO): ABC

Heat Trace: N  
Remarks:

### Analysis

| Component:: | Mole%:   | Unnormalized %: | **GPM:  | *BTU:   | *SP Gravity: |
|-------------|----------|-----------------|---------|---------|--------------|
| Nitrogen    | 0.1550   | 0.1547          | 0.0170  | 0.00    | 0.0015       |
| CO2         | 2.0729   | 2.0691          | 0.3550  | 0.00    | 0.0315       |
| Methane     | 84.7310  | 84.5762         | 14.4070 | 855.78  | 0.4693       |
| Ethane      | 7.4901   | 7.4764          | 2.0090  | 132.55  | 0.0778       |
| Propane     | 2.8056   | 2.8005          | 0.7750  | 70.59   | 0.0427       |
| Iso-Butane  | 0.4624   | 0.4616          | 0.1520  | 15.04   | 0.0093       |
| N-Butane    | 0.7619   | 0.7605          | 0.2410  | 24.86   | 0.0153       |
| I-Pentane   | 0.2805   | 0.2800          | 0.1030  | 11.22   | 0.0070       |
| N-Pentane   | 0.2173   | 0.2169          | 0.0790  | 8.71    | 0.0054       |
| Hexane Plus | 1.0233   | 1.0214          | 0.4580  | 53.94   | 0.0339       |
| Total       | 100.0000 | 99.8173         | 18.5960 | 1172.69 | 0.6936       |

\* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

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

COMPRESSIBILITY FACTOR (1/Z): 1.0032  
BTU/CU.FT IDEAL: 1175.4  
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1179.2  
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1158.7  
DRY BTU @ 15.025: 1202.8  
REAL SPECIFIC GRAVITY: 0.6956

CYLINDER #: 15  
CYLINDER PRESSURE: 47 PSIG  
ANALYSIS DATE: 08/05/2020  
ANALYSIS TIME: 09:18:00 AM  
ANALYSIS RUN BY: SHYANN ELLEDGE

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: 08/06/2020

GC Method: C6+ Gas



BP - SOUTH BHD PROJECT  
WELL ANALYSIS COMPARISON

Lease: LEEPER GC 1A; CSG  
Stn. No.: API  
Mtr. No.:

CASING

08/06/2020  
15950-11830

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Smpl Date: 07/29/2020  
Test Date: 08/05/2020  
Run No: SO200090  
  
Nitrogen: 0.1550  
CO2: 2.0729  
Methane: 84.7310  
Ethane: 7.4901  
Propane: 2.8056  
I-Butane: 0.4624  
N-Butane: 0.7619  
I-Pentane: 0.2805  
N-Pentane: 0.2173  
Hexane+: 1.0233  
  
BTU: 1179.2  
GPM: 18.5960  
SPG: 0.6956



NMOCD REC'D  
10/12/20

Well Name: LEEPER GC 1A; INTER  
API #: API #300452213400  
Source: INTERMEDIATE CASING  
Sample Type: GAS  
Analysis No: SO200091  
Cust No: 15950-11835

### Well/Lease Information

|                 |                        |                  |                     |
|-----------------|------------------------|------------------|---------------------|
| Customer Name:  | BP - SOUTH BHD PROJECT | Source:          | INTERMEDIATE CASING |
| Well Name:      | LEEPER GC 1A; INTER    | Well Flowing:    |                     |
| County/State:   | NM                     | Pressure:        | 30 PSIG             |
| Location:       |                        | Flow Temp:       | DEG. F              |
| Lease/PA/CA:    |                        | Ambient Temp:    | 87 DEG. F           |
| Formation:      |                        | Flow Rate:       | MCF/D               |
| Cust. Stn. No.: | API #300452213400      | Sample Method:   | Purge & Fill        |
|                 |                        | Sample Date:     | 07/29/2020          |
|                 |                        | Sample Time:     | 11.45 AM            |
|                 |                        | Sampled By:      | SEAN C.             |
|                 |                        | Sampled by (CO): | ABC                 |
| Heat Trace:     | N                      |                  |                     |
| Remarks:        |                        |                  |                     |

### Analysis

| Component:: | Mole%:   | Unnormalized %: | **GPM:  | *BTU:   | *SP Gravity: |
|-------------|----------|-----------------|---------|---------|--------------|
| Nitrogen    | 0.3041   | 0.3002          | 0.0340  | 0.00    | 0.0029       |
| CO2         | 1.8737   | 1.8498          | 0.3210  | 0.00    | 0.0285       |
| Methane     | 84.4529  | 83.3746         | 14.3640 | 852.97  | 0.4678       |
| Ethane      | 6.5136   | 6.4304          | 1.7480  | 115.27  | 0.0676       |
| Propane     | 2.9174   | 2.8801          | 0.8060  | 73.40   | 0.0444       |
| Iso-Butane  | 0.5526   | 0.5455          | 0.1810  | 17.97   | 0.0111       |
| N-Butane    | 0.9410   | 0.9290          | 0.2980  | 30.70   | 0.0189       |
| I-Pentane   | 0.3697   | 0.3650          | 0.1360  | 14.79   | 0.0092       |
| N-Pentane   | 0.3047   | 0.3008          | 0.1110  | 12.21   | 0.0076       |
| Hexane Plus | 1.7703   | 1.7477          | 0.7920  | 93.31   | 0.0586       |
| Total       | 100.0000 | 98.7231         | 18.7910 | 1210.64 | 0.7166       |

\* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

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

|                                      |        |
|--------------------------------------|--------|
| COMPRESSIBILITY FACTOR (1/Z):        | 1.0035 |
| BTU/CU.FT IDEAL:                     | 1213.4 |
| BTU/CU.FT (DRY) CORRECTED FOR (1/Z): | 1217.7 |
| BTU/CU.FT (WET) CORRECTED FOR (1/Z): | 1196.5 |
| DRY BTU @ 15.025:                    | 1242.1 |
| REAL SPECIFIC GRAVITY:               | 0.7188 |

|                    |                |
|--------------------|----------------|
| CYLINDER #:        | 1096           |
| CYLINDER PRESSURE: | 21 PSIG        |
| ANALYSIS DATE:     | 08/05/2020     |
| ANALYSIS TIME:     | 09:44:58 AM    |
| ANALYSIS RUN BY:   | SHYANN ELLEDGE |

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: 08/06/2020

GC Method: C6+ Gas



BP - SOUTH BHD PROJECT  
WELL ANALYSIS COMPARISON

Lease: LEEPER GC 1A; INTER  
Stn. No.: API  
Mtr. No.:

INTERMEDIATE CASING

08/06/2020  
15950-11835

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Smpl Date: 07/29/2020  
Test Date: 08/05/2020  
Run No: SO200091  
  
Nitrogen: 0.3041  
CO2: 1.8737  
Methane: 84.4529  
Ethane: 6.5136  
Propane: 2.9174  
I-Butane: 0.5526  
N-Butane: 0.9410  
I-Pentane: 0.3697  
N-Pentane: 0.3047  
Hexane+: 1.7703  
  
BTU: 1217.7  
GPM: 18.7910  
SPG: 0.7188



NMOCD REC'D  
10/12/20

Well Name: LEEPER GC 1A; TBG  
API #: API #300452213400  
Source: TUBING  
Sample Type: GAS  
Analysis No: SO200092  
Cust No: 15950-11840

### Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT  
Well Name: LEEPER GC 1A; TBG  
County/State: NM  
Location:  
Lease/PA/CA:  
Formation:  
Cust. Stn. No.: API #300452213400

Source: TUBING  
Well Flowing: Y  
Pressure: 55 PSIG  
Flow Temp: DEG. F  
Ambient Temp: 87 DEG. F  
Flow Rate: MCF/D  
Sample Method: Purge & Fill  
Sample Date: 07/29/2020  
Sample Time: 11.35 AM  
Sampled By: SEAN C.  
Sampled by (CO): ABC

Heat Trace: N  
Remarks:

### Analysis

| Component:: | Mole%:   | Unnormalized %: | **GPM:  | *BTU:   | *SP Gravity: |
|-------------|----------|-----------------|---------|---------|--------------|
| Nitrogen    | 0.1643   | 0.1603          | 0.0180  | 0.00    | 0.0016       |
| CO2         | 1.9859   | 1.9377          | 0.3400  | 0.00    | 0.0302       |
| Methane     | 84.0901  | 82.0471         | 14.2990 | 849.31  | 0.4658       |
| Ethane      | 7.9233   | 7.7308          | 2.1250  | 140.22  | 0.0823       |
| Propane     | 3.0542   | 2.9800          | 0.8440  | 76.85   | 0.0465       |
| Iso-Butane  | 0.5586   | 0.5450          | 0.1830  | 18.17   | 0.0112       |
| N-Butane    | 0.8124   | 0.7927          | 0.2570  | 26.50   | 0.0163       |
| I-Pentane   | 0.2962   | 0.2890          | 0.1090  | 11.85   | 0.0074       |
| N-Pentane   | 0.2154   | 0.2102          | 0.0780  | 8.63    | 0.0054       |
| Hexane Plus | 0.8996   | 0.8777          | 0.4020  | 47.42   | 0.0298       |
| Total       | 100.0000 | 97.5705         | 18.6550 | 1178.95 | 0.6963       |

\* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

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

COMPRESSIBILITY FACTOR (1/Z): 1.0033  
BTU/CU.FT IDEAL: 1181.7  
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1185.5  
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1164.9  
DRY BTU @ 15.025: 1209.2  
REAL SPECIFIC GRAVITY: 0.6983

CYLINDER #: 37  
CYLINDER PRESSURE: 44 PSIG  
ANALYSIS DATE: 08/05/2020  
ANALYSIS TIME: 09:28:57 AM  
ANALYSIS RUN BY: SHYANN ELLEDGE

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: 08/06/2020

GC Method: C6+ Gas



BP - SOUTH BHD PROJECT  
WELL ANALYSIS COMPARISON

Lease: LEEPER GC 1A; TBG  
Stn. No.: API  
Mtr. No.:

TUBING

08/06/2020  
15950-11840

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Smpl Date: 07/29/2020  
Test Date: 08/05/2020  
Run No: SO200092  
  
Nitrogen: 0.1643  
CO2: 1.9859  
Methane: 84.0901  
Ethane: 7.9233  
Propane: 3.0542  
I-Butane: 0.5586  
N-Butane: 0.8124  
I-Pentane: 0.2962  
N-Pentane: 0.2154  
Hexane+: 0.8996  
  
BTU: 1185.5  
GPM: 18.6550  
SPG: 0.6983