



OCD Received 9/9/2020

Well Name: CONGRESS #011 RTU; CSG

API #: API #3004525512

Source: CASING

Sample Type: GAS

Analysis No: HS200160

Cust No: 35825-12765

**Well/Lease Information**

Customer Name: HILCORP (BHD PROJECT)  
Well Name: CONGRESS #011 RTU; CSG  
County/State: SAN JUAN NM  
Location:  
Lease/PA/CA:  
Formation:  
Cust. Stn. No.: API #3004525512  
14633036

Source: CASING  
Well Flowing: N  
Pressure: 20 PSIG  
Flow Temp: DEG. F  
Ambient Temp: DEG. F  
Flow Rate: MCF/D  
Sample Method:  
Sample Date: 07/31/2020  
Sample Time: 9.59 AM  
Sampled By: NATE NICHOLS  
Sampled by (CO): HILCORP

AREA 7 / RUN 706

Heat Trace:

Remarks:

**Analysis**

| Component:: | Mole%:   | Unnormalized %: | **GPM:  | *BTU:   | *SP Gravity: |
|-------------|----------|-----------------|---------|---------|--------------|
| Nitrogen    | 0.5395   | 0.5321          | 0.0600  | 0.00    | 0.0052       |
| CO2         | 0.0390   | 0.0385          | 0.0070  | 0.00    | 0.0006       |
| Methane     | 81.3180  | 80.1997         | 13.8370 | 821.31  | 0.4504       |
| Ethane      | 9.1155   | 8.9901          | 2.4470  | 161.32  | 0.0946       |
| Propane     | 4.0709   | 4.0149          | 1.1260  | 102.43  | 0.0620       |
| Iso-Butane  | 0.4426   | 0.4365          | 0.1450  | 14.39   | 0.0089       |
| N-Butane    | 1.3774   | 1.3585          | 0.4360  | 44.93   | 0.0276       |
| I-Pentane   | 0.4475   | 0.4413          | 0.1640  | 17.90   | 0.0111       |
| N-Pentane   | 0.5371   | 0.5297          | 0.1950  | 21.53   | 0.0134       |
| Hexane Plus | 2.1125   | 2.0834          | 0.9460  | 111.35  | 0.0699       |
| Total       | 100.0000 | 98.6247         | 19.3630 | 1295.17 | 0.7438       |

\* @ 14.730 PSIA DRY &amp; UNCORRECTED FOR COMPRESSIBILITY

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

COMPRESSIBILITY FACTOR (1/Z): 1.004  
BTU/CU.FT IDEAL: 1298.2  
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1303.2  
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1280.5  
DRY BTU @ 15.025: 1329.3  
REAL SPECIFIC GRAVITY: 0.7464

CYLINDER #: 7058  
CYLINDER PRESSURE: 20 PSIG  
ANALYSIS DATE: 08/06/2020  
ANALYSIS TIME: 01:17:09 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: 08/07/2020

GC Method: C6+ Gas



HILCORP (BHD PROJECT)  
WELL ANALYSIS COMPARISON

**Lease:** CONGRESS #011 RTU; CSG  
**Stn. No.:** API #3004525512  
**Mtr. No.:** 14633036

CASING

08/07/2020  
35825-12765

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**Smpl Date:** 07/31/2020  
**Test Date:** 08/06/2020  
**Run No:** HS200160

**Nitrogen:** 0.5395  
**CO2:** 0.0390  
**Methane:** 81.3180  
**Ethane:** 9.1155  
**Propane:** 4.0709  
**I-Butane:** 0.4426  
**N-Butane:** 1.3774  
**I-Pentane:** 0.4475  
**N-Pentane:** 0.5371  
**Hexane+:** 2.1125

**BTU:** 1303.2  
**GPM:** 19.3630  
**SPG:** 0.7464



OCD Received 9/9/2020

Well Name: CONGRESS #011 RTU; BHD  
API #: API #3004525512  
Source: BRADENHEAD  
Sample Type: GAS  
Analysis No: HS200159  
Cust No: 35825-12760

**Well/Lease Information**

Customer Name: HILCORP (BHD PROJECT)  
Well Name: CONGRESS #011 RTU; BHD  
County/State: SAN JUAN NM  
Location:  
Lease/PA/CA:  
Formation:  
Cust. Stn. No.: API #3004525512  
104633036

Source: BRADENHEAD  
Well Flowing: Y  
Pressure: 20 PSIG  
Flow Temp: DEG. F  
Ambient Temp: DEG. F  
Flow Rate: MCF/D  
Sample Method: Purge & Fill  
Sample Date: 07/31/2020  
Sample Time: 9.58 AM  
Sampled By: NATE NICHOLS  
Sampled by (CO): HILCORP

Heat Trace: AREA 7 / RUN 706  
N

Remarks:

**Analysis**

| Component:: | Mole%:   | Unnormalized %: | **GPM:  | *BTU:   | *SP Gravity: |
|-------------|----------|-----------------|---------|---------|--------------|
| Nitrogen    | 0.5157   | 0.5117          | 0.0570  | 0.00    | 0.0050       |
| CO2         | 0.0061   | 0.0061          | 0.0010  | 0.00    | 0.0001       |
| Methane     | 89.8434  | 89.1476         | 15.2670 | 907.42  | 0.4976       |
| Ethane      | 6.5183   | 6.4678          | 1.7470  | 115.35  | 0.0677       |
| Propane     | 2.3708   | 2.3524          | 0.6550  | 59.65   | 0.0361       |
| Iso-Butane  | 0.2993   | 0.2970          | 0.0980  | 9.73    | 0.0060       |
| N-Butane    | 0.3011   | 0.2988          | 0.0950  | 9.82    | 0.0060       |
| I-Pentane   | 0.0612   | 0.0607          | 0.0220  | 2.45    | 0.0015       |
| N-Pentane   | 0.0360   | 0.0357          | 0.0130  | 1.44    | 0.0009       |
| Hexane Plus | 0.0481   | 0.0477          | 0.0220  | 2.54    | 0.0016       |
| Total       | 100.0000 | 99.2255         | 17.9770 | 1108.41 | 0.6226       |

\* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

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

COMPRESSIBILITY FACTOR (1/Z): 1.0026  
BTU/CU.FT IDEAL: 1111.0  
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1113.9  
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1094.5  
DRY BTU @ 15.025: 1136.2  
REAL SPECIFIC GRAVITY: 0.6239

CYLINDER #: 6202  
CYLINDER PRESSURE: 50 PSIG  
ANALYSIS DATE: 08/05/2020  
ANALYSIS TIME: 04:03:39 PM  
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: 08/07/2020

GC Method: C6+ Gas



HILCORP (BHD PROJECT)  
WELL ANALYSIS COMPARISON

**Lease:** CONGRESS #011 RTU; BHD  
**Stn. No.:** API #3004525512  
**Mtr. No.:** 104633036

BRADENHEAD

08/07/2020  
35825-12760

**Smpl Date:** 07/31/2020  
**Test Date:** 08/05/2020  
**Run No:** HS200159

**Nitrogen:** 0.5157  
**CO2:** 0.0061  
**Methane:** 89.8434  
**Ethane:** 6.5183  
**Propane:** 2.3708  
**I-Butane:** 0.2993  
**N-Butane:** 0.3011  
**I-Pentane:** 0.0612  
**N-Pentane:** 0.0360  
**Hexane+:** 0.0481

**BTU:** 1113.9  
**GPM:** 17.9770  
**SPG:** 0.6239