



Well Name: QUINE GAS COM 1E; BHD  
 API #: 30-045-26142  
 Source: BRADENHEAD  
 Sample Type: GAS  
 Analysis No: HS20240145  
 Cust No: 35825-15960

### Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)  
 Well Name: QUINE GAS COM 1E; BHD  
 County/State: SAN JUAN NM  
 Location:  
 Lease/PA/CA:  
 Formation:  
 Cust. Stn. No.: 30-045-26142  
 95617

Source: BRADENHEAD  
 Well Flowing: N  
 Pressure: PSIG  
 Flow Temp: DEG. F  
 Ambient Temp: 76 DEG. F  
 Flow Rate: MCF/D  
 Sample Method: Purge & Fill  
 Sample Date: 06/25/2024  
 Sample Time: 8.45 AM  
 Sampled By: WAYNE JOHNSON  
 Sampled by (CO): HILCORP

Heat Trace: N  
 Remarks: AREA 2 / RUN 0209

### Analysis

| Component:: | Mole%:   | Unnormalized %: | **GPM:  | *BTU:   | *SP Gravity: |
|-------------|----------|-----------------|---------|---------|--------------|
| Nitrogen    | 0.4516   | 0.4518          | 0.0500  | 0.00    | 0.0044       |
| CO2         | 0.0108   | 0.0108          | 0.0020  | 0.00    | 0.0002       |
| Methane     | 90.3133  | 90.3599         | 15.3480 | 912.16  | 0.5002       |
| Ethane      | 5.3793   | 5.3821          | 1.4420  | 95.20   | 0.0558       |
| Propane     | 2.3144   | 2.3156          | 0.6390  | 58.23   | 0.0352       |
| Iso-Butane  | 0.4227   | 0.4229          | 0.1390  | 13.75   | 0.0085       |
| N-Butane    | 0.5605   | 0.5608          | 0.1770  | 18.29   | 0.0112       |
| I-Pentane   | 0.1925   | 0.1926          | 0.0710  | 7.70    | 0.0048       |
| N-Pentane   | 0.1278   | 0.1279          | 0.0460  | 5.12    | 0.0032       |
| Hexane Plus | 0.2271   | 0.2272          | 0.1020  | 11.97   | 0.0075       |
| Total       | 100.0000 | 100.0516        | 18.0160 | 1122.42 | 0.6311       |

\* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

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

COMPRESSIBILITY FACTOR (1/Z): 1.0027  
 BTU/CU.FT IDEAL: 1125.0  
 BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1128.1  
 BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1108.5  
 DRY BTU @ 15.025: 1150.7  
 REAL SPECIFIC GRAVITY: 0.6325

CYLINDER #: 2195  
 CYLINDER PRESSURE: 158 PSIG  
 ANALYSIS DATE: 06/26/2024  
 ANALYSIS TIME: 03:16:18 PM  
 ANALYSIS RUN BY: ALEXIS MITCHELL

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: 06/28/2024

GC Method: C6+ Gas



HILCORP (BHD PROJECT)  
WELL ANALYSIS COMPARISON

Lease: QUINE GAS COM 1E; BHD  
Stn. No.: 30-045-26142  
Mtr. No.: 95617

BRADENHEAD

06/28/2024  
35825-15960

Smpl Date: 06/25/2024  
Test Date: 06/26/2024  
Run No: HS20240145

Nitrogen: 0.4516  
CO2: 0.0108  
Methane: 90.3133  
Ethane: 5.3793  
Propane: 2.3144  
I-Butane: 0.4227  
N-Butane: 0.5605  
I-Pentane: 0.1925  
N-Pentane: 0.1278  
Hexane+: 0.2271

BTU: 1128.1  
GPM: 18.0160  
SPG: 0.6325



Well Name: QUINE GAS COM 1E; CSG

API #: 30-045-26142

Source: CASING

Sample Type: GAS

Analysis No: HS20240146

Cust No: 35825-15955

### Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)

Well Name: QUINE GAS COM 1E; CSG

County/State: SAN JUAN NM

Location:

Lease/PA/CA:

Formation:

Cust. Stn. No.: 30-045-26142  
95617

AREA 2 / RUN 0209

Heat Trace: N

Remarks:

Source: CASING

Well Flowing: N

Pressure: PSIG

Flow Temp: DEG. F

Ambient Temp: 76 DEG. F

Flow Rate: MCF/D

Sample Method: Purge &amp; Fill

Sample Date: 06/25/2024

Sample Time: 8.45 AM

Sampled By: WAYNE JOHNSON

Sampled by (CO): HILCORP

### Analysis

| Component:: | Mole%:   | Unnormalized %: | **GPM:  | *BTU:   | *SP Gravity: |
|-------------|----------|-----------------|---------|---------|--------------|
| Nitrogen    | 0.5502   | 0.5535          | 0.0610  | 0.00    | 0.0053       |
| CO2         | 0.4982   | 0.5012          | 0.0850  | 0.00    | 0.0076       |
| Methane     | 78.7278  | 79.2000         | 13.3970 | 795.15  | 0.4361       |
| Ethane      | 9.7989   | 9.8577          | 2.6300  | 173.41  | 0.1017       |
| Propane     | 5.1008   | 5.1314          | 1.4110  | 128.34  | 0.0777       |
| Iso-Butane  | 0.8882   | 0.8935          | 0.2920  | 28.88   | 0.0178       |
| N-Butane    | 1.8777   | 1.8890          | 0.5940  | 61.26   | 0.0377       |
| I-Pentane   | 0.8114   | 0.8163          | 0.2980  | 32.46   | 0.0202       |
| N-Pentane   | 0.8381   | 0.8431          | 0.3050  | 33.60   | 0.0209       |
| Hexane Plus | 0.9087   | 0.9142          | 0.4070  | 47.90   | 0.0301       |
| Total       | 100.0000 | 100.5999        | 19.4800 | 1301.00 | 0.7550       |

\* @ 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: 1304.0  
 BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1309.2  
 BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1286.4  
 DRY BTU @ 15.025: 1335.4  
 REAL SPECIFIC GRAVITY: 0.7578

CYLINDER #: 6232  
 CYLINDER PRESSURE: 149 PSIG  
 ANALYSIS DATE: 06/26/2024  
 ANALYSIS TIME: 03:24:36 PM  
 ANALYSIS RUN BY: ALEXIS MITCHELL

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: 06/28/2024

GC Method: C6+ Gas



HILCORP (BHD PROJECT)  
WELL ANALYSIS COMPARISON

Lease: QUINE GAS COM 1E; CSG  
Stn. No.: 30-045-26142  
Mtr. No.: 95617

CASING

06/28/2024  
35825-15955

Smpl Date: 06/25/2024  
Test Date: 06/26/2024  
Run No: HS20240146

Nitrogen: 0.5502  
CO2: 0.4982  
Methane: 78.7278  
Ethane: 9.7989  
Propane: 5.1008  
I-Butane: 0.8882  
N-Butane: 1.8777  
I-Pentane: 0.8114  
N-Pentane: 0.8381  
Hexane+: 0.9087  
  
BTU: 1309.2  
GPM: 19.4800  
SPG: 0.7578



Well Name: QUINE GAS COM 1 E; TBG

API #: 30-045-26142

Source: TUBING

Sample Type: GAS

Analysis No: HS20240147

Cust No: 35825-15950

### Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)  
 Well Name: QUINE GAS COM 1 E; TBG  
 County/State: SAN JUAN NM  
 Location:  
 Lease/PA/CA:  
 Formation:  
 Cust. Stn. No.: 30-045-26142  
 95617

Source: TUBING  
 Well Flowing: N  
 Pressure: PSIG  
 Flow Temp: DEG. F  
 Ambient Temp: 76 DEG. F  
 Flow Rate: MCF/D  
 Sample Method: Purge & Fill  
 Sample Date: 06/25/2024  
 Sample Time: 8.45 AM  
 Sampled By: WAYNE JOHNSON  
 Sampled by (CO): HILCORP

Heat Trace: N  
 Remarks:

### Analysis

| Component:: | Mole%:   | Unnormalized %: | **GPM:  | *BTU:   | *SP Gravity: |
|-------------|----------|-----------------|---------|---------|--------------|
| Nitrogen    | 0.5204   | 0.5231          | 0.0570  | 0.00    | 0.0050       |
| CO2         | 1.3093   | 1.3161          | 0.2240  | 0.00    | 0.0199       |
| Methane     | 82.2474  | 82.6715         | 13.9860 | 830.70  | 0.4556       |
| Ethane      | 9.3468   | 9.3950          | 2.5070  | 165.41  | 0.0970       |
| Propane     | 3.9282   | 3.9485          | 1.0860  | 98.84   | 0.0598       |
| Iso-Butane  | 0.5209   | 0.5236          | 0.1710  | 16.94   | 0.0105       |
| N-Butane    | 1.0337   | 1.0390          | 0.3270  | 33.72   | 0.0207       |
| I-Pentane   | 0.3072   | 0.3088          | 0.1130  | 12.29   | 0.0077       |
| N-Pentane   | 0.2631   | 0.2645          | 0.0960  | 10.55   | 0.0066       |
| Hexane Plus | 0.5230   | 0.5257          | 0.2340  | 27.57   | 0.0173       |
| Total       | 100.0000 | 100.5158        | 18.8010 | 1196.01 | 0.7001       |

\* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

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

COMPRESSIBILITY FACTOR (1/Z): 1.0033  
 BTU/CU.FT IDEAL: 1198.8  
 BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1202.7  
 BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1181.8  
 DRY BTU @ 15.025: 1226.8  
 REAL SPECIFIC GRAVITY: 0.7021

CYLINDER #: 6193  
 CYLINDER PRESSURE: 149 PSIG  
 ANALYSIS DATE: 06/26/2024  
 ANALYSIS TIME: 03:32:44 PM  
 ANALYSIS RUN BY: ALEXIS MITCHELL

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: 06/28/2024

GC Method: C6+ Gas



HILCORP (BHD PROJECT)  
WELL ANALYSIS COMPARISON

Lease: QUINE GAS COM 1 E; TBG  
Stn. No.: 30-045-26142  
Mtr. No.: 95617

TUBING

06/28/2024  
35825-15950

Smpl Date: 06/25/2024  
Test Date: 06/26/2024  
Run No: HS20240147

Nitrogen: 0.5204  
CO2: 1.3093  
Methane: 82.2474  
Ethane: 9.3468  
Propane: 3.9282  
I-Butane: 0.5209  
N-Butane: 1.0337  
I-Pentane: 0.3072  
N-Pentane: 0.2631  
Hexane+: 0.5230

BTU: 1202.7  
GPM: 18.8010  
SPG: 0.7021

**District I**  
1625 N. French Dr., Hobbs, NM 88240  
Phone:(575) 393-6161 Fax:(575) 393-0720  
**District II**  
811 S. First St., Artesia, NM 88210  
Phone:(575) 748-1283 Fax:(575) 748-9720  
**District III**  
1000 Rio Brazos Rd., Aztec, NM 87410  
Phone:(505) 334-6178 Fax:(505) 334-6170  
**District IV**  
1220 S. St Francis Dr., Santa Fe, NM 87505  
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico  
Energy, Minerals and Natural Resources  
Oil Conservation Division  
1220 S. St Francis Dr.  
Santa Fe, NM 87505

CONDITIONS

Action 362066

CONDITIONS

|                                                                                |                                                     |
|--------------------------------------------------------------------------------|-----------------------------------------------------|
| Operator:<br>HILCORP ENERGY COMPANY<br>1111 Travis Street<br>Houston, TX 77002 | OGRID:<br>372171                                    |
|                                                                                | Action Number:<br>362066                            |
|                                                                                | Action Type:<br>[UF-GA] Gas Analysis (GAS ANALYSIS) |

CONDITIONS

| Created By | Condition                      | Condition Date |
|------------|--------------------------------|----------------|
| mkuehling  | does not appear to be the same | 8/26/2024      |