

# Natural Gas Analysis Report SAN JUAN DIVISION

## Sample Information

30-045-09214

| Sample Information |                     |
|--------------------|---------------------|
| Sample Name        | STEDJE GC 1 BH      |
| TECH               | Tim Doering         |
| GC Serial          | GC1008B621          |
| Report Date        | 2016-11-11 08:03:45 |

## Component Results

| Component Name   | Norm%    | Gross HV (Dry)<br>(BTU / Ideal cu.ft.) | Relative Gas<br>Density (Dry) | GPM (Dry)<br>(Gal. / 1000 cu.ft.) |
|------------------|----------|----------------------------------------|-------------------------------|-----------------------------------|
| Nitrogen         | 0.1849   | 0.0                                    | 0.00179                       | 0.020                             |
| Oxygen           | 0.0057   | 0.0                                    | 0.00006                       | 0.001                             |
| Methane          | 85.4940  | 865.5                                  | 0.47355                       | 14.536                            |
| Carbon Dioxide   | 0.0610   | 0.0                                    | 0.00093                       | 0.010                             |
| Ethane           | 7.3178   | 129.8                                  | 0.07597                       | 1.963                             |
| Propane          | 3.9577   | 99.8                                   | 0.06026                       | 1.094                             |
| I-Butane         | 0.8357   | 27.2                                   | 0.01677                       | 0.274                             |
| N-Butane         | 1.1588   | 37.9                                   | 0.02325                       | 0.366                             |
| I-Pentane        | 0.3269   | 13.1                                   | 0.00814                       | 0.120                             |
| N-Pentane        | 0.2077   | 8.3                                    | 0.00517                       | 0.076                             |
| Hexanes          | 0.2087   | 9.9                                    | 0.00621                       | 0.086                             |
| Heptanes         | 0.1258   | 6.9                                    | 0.00435                       | 0.058                             |
| Octanes          | 0.0943   | 5.9                                    | 0.00372                       | 0.048                             |
| Nonanes          | 0.0210   | 1.5                                    | 0.00093                       | 0.012                             |
| Hydrogen Sulfide | 0.0000   | 0.0                                    | 0.00000                       | 0.000                             |
| Water            | 0.0000   | 0.0                                    | 0.00000                       | 0.000                             |
| Total:           | 100.0000 | 1206.0                                 | 0.68111                       | 18.665                            |

OIL CONS. DIV DIST. 3  
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## Results Summary

| Result                                  | Dry      | Sat.     |
|-----------------------------------------|----------|----------|
| Total Normalized Mole%                  | 100.0000 | 100.0000 |
| Pressure Base (psia)                    | 14.730   |          |
| Flowing Temperature (Deg. F)            | 40.0     |          |
| Flowing Pressure (psia)                 | 137.0    |          |
| Gross Heating Value (BTU / Real cu.ft.) | 1209.8   | 1189.2   |
| Relative Density (G), Real              | 0.6830   | 0.6822   |
| Compressibility (Z) Factor              | 0.9968   | 0.9964   |
| Total GPM                               | 18.665   | 18.447   |

# **Natural Gas Analysis Report** **SAN JUAN DIVISION**

## **Sample Information**

| Sample Information |                     |
|--------------------|---------------------|
| Sample Name        | STEDJE GC 1 CASING  |
| TECH               | Tim Doering         |
| GC Serial          | GC1008B621          |
| Report Date        | 2016-11-11 08:21:08 |

## **Component Results**

| Component Name   | Norm%           | Gross HV (Dry)<br>(BTU / Ideal cu.ft.) | Relative Gas<br>Density (Dry) | GPM (Dry)<br>(Gal. / 1000 cu.ft.) |
|------------------|-----------------|----------------------------------------|-------------------------------|-----------------------------------|
| Nitrogen         | 0.5355          | 0.0                                    | 0.00518                       | 0.059                             |
| Oxygen           | 0.0068          | 0.0                                    | 0.00008                       | 0.001                             |
| Methane          | 79.5157         | 805.0                                  | 0.44044                       | 13.525                            |
| Carbon Dioxide   | 0.8230          | 0.0                                    | 0.01251                       | 0.141                             |
| Ethane           | 10.6854         | 189.5                                  | 0.11094                       | 2.867                             |
| Propane          | 5.2023          | 131.2                                  | 0.07921                       | 1.438                             |
| I-Butane         | 0.7439          | 24.2                                   | 0.01493                       | 0.244                             |
| N-Butane         | 1.3884          | 45.4                                   | 0.02786                       | 0.439                             |
| I-Pentane        | 0.3715          | 14.9                                   | 0.00925                       | 0.136                             |
| N-Pentane        | 0.3107          | 12.5                                   | 0.00774                       | 0.113                             |
| Hexanes          | 0.3136          | 14.9                                   | 0.00933                       | 0.129                             |
| Heptanes         | 0.0897          | 4.9                                    | 0.00310                       | 0.042                             |
| Octanes          | 0.0087          | 0.5                                    | 0.00034                       | 0.004                             |
| Nonanes          | 0.0048          | 0.3                                    | 0.00021                       | 0.003                             |
| Hydrogen Sulfide | 0.0000          | 0.0                                    | 0.00000                       | 0.000                             |
| Water            | 0.0000          | 0.0                                    | 0.00000                       | 0.000                             |
| <b>Total:</b>    | <b>100.0000</b> | <b>1243.5</b>                          | <b>0.72111</b>                | <b>19.141</b>                     |

## **Results Summary**

| Result                                  | Dry      | Sat.     |
|-----------------------------------------|----------|----------|
| Total Normalized Mole%                  | 100.0000 | 100.0000 |
| Pressure Base (psia)                    | 14.730   |          |
| Flowing Temperature (Deg. F)            | 40.0     |          |
| Flowing Pressure (psia)                 | 130.0    |          |
| Gross Heating Value (BTU / Real cu.ft.) | 1247.9   | 1226.7   |
| Relative Density (G), Real              | 0.7234   | 0.7219   |
| Compressibility (Z) Factor              | 0.9965   | 0.9961   |
| Total GPM                               | 19.141   | 18.915   |