

From: Robert Caraway Caraway Analytical, INC. Fax: 316-626-7108  
To: Simpson, Paul Trilobite Testing, L. L. C. Fax: 1 913 625 5620

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# NATURAL GAS ANALYSIS REPORT

Sampled by:  
Trilobite Testing, L. L. C.  
Hays, Kansas  
Scott City, Kansas  
Phone: 800-728-5369  
Fax: 913-625-5620

Analyzed by:  
Caraway Analytical, Inc  
P. O. Box 2137  
Liberal, Kansas 67905  
Phone: 316-624-5389  
Fax: 316-626-7108

Lab Number: 971555  
Sample From: Dirks 1-30 DST 3  
Producer: Cross Bar Petroleum  
Date:  
Time:  
Sampler:  
Source:

Analyzed: 06/02/97  
Pressure:  
Temperature:  
Location: 30-28-18  
County: Kiowa  
State: Kansas  
Formation: Miss.

|                | Mole %     | GPM   |
|----------------|------------|-------|
| Helium         | He: 0.178  | 0.000 |
| Oxygen         | O2: 0.000  | 0.000 |
| Nitrogen       | N2: 2.948  | 0.000 |
| Carbon Dioxide | CO2: 0.174 | 0.000 |
| Methane        | C1: 90.909 | 0.000 |
| Ethane         | C2: 3.179  | 0.850 |
| Propane        | C3: 1.042  | 0.287 |
| Iso Butane     | iC4: 0.180 | 0.059 |
| Normal Butane  | nC4: 0.356 | 0.112 |
| Iso Pentane    | iC5: 0.133 | 0.049 |
| Normal Pentane | nC5: 0.138 | 0.050 |
| Hexanes Plus   | C6+: 0.763 | 0.333 |

TOTAL: 100.000 1.740  
Z Fact: 0.9977  
SP. GR.: 0.6259  
BTU ( SAT): 1054.4 @ 14.73 psia  
BTU ( DRY): 1073.1 @ 14.73 psia  
OCTANE RATING: 123.3

COMMENTS:

0.000