

NATURAL GAS ANALYSIS REPORT

Sampled by:
Trilobite Testing, L. L. C.
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Analyzed by:
Caraway Analytical, Inc
P. O. Box 2137
Liberal, Kansas 67905
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Lab Number: 995776
Sample From: Boltz #2 4pt
Producer: Horseshoe Operating
Date:
Time:
Sampler:
Source:

Analyzed: 10/31/99
Pressure:
Temperature:
Location: 1-24-41
County: Hamilton
State: Kansas
Formation: Winfield

	Mole %	GPM
Helium	He: 0.843	0.000
Hydrogen	H2: 0.010	0.000
Oxygen	O2: 0.000	0.000
Nitrogen	N2: 37.397	0.000
Carbon Dioxide	CO2: 0.000	0.000
Methane	C1: 51.787	0.000
Ethane	C2: 4.412	1.180
Propane	C3: 3.291	0.907
Iso Butane	iC4: 0.415	0.136
Normal Butane	nC4: 1.070	0.337
Iso Pentane	iC5: 0.226	0.083
Normal Pentane	nC5: 0.268	0.097
Hexanes Plus	C6+: 0.281	0.123

TOTAL: 100.000 2.862
Z Fact: 0.9983
SP.GR.: 0.7985
BTU (SAT): 756.3 @ 14.73 psia
BTU (DRY): 769.7 @ 14.73 psia
OCTANE RATING: 76.8

COMMENTS:

0.000

FieldNotes

Field Measurements

	Date	Clock Time	Comments	Casing Pres	Static1 Pres	Diff1 Pres	Meter1 Temp	Gas1 Rate	Orifice1 in
	yyyy/mm/dd	hh:mm:ss		psi(g)	psi(g)	in of-H2O	°F	MMCF/D	
1	1999/10/29	15:30:00	shut in	127.80	0.00	0.00	0.00	0.000	0.000
2		15:45:00		126.00	54.00	2.00	55.00	0.037	0.750
3		16:00:00		125.00	55.00	2.00	55.00	0.037	
4		16:15:00	1st pt	122.80	55.00	4.00	54.00	0.052	
5		16:30:00		109.00	56.00	14.00	57.00	0.098	
6		16:45:00		112.60	56.00	10.00	55.00	0.083	
7		17:00:00	2nd pt	112.40	55.00	9.00	55.00	0.078	
8		17:15:00		105.60	57.00	16.00	55.00	0.106	
9		17:30:00		104.20	58.00	16.00	54.00	0.107	
10		17:45:00	3rd pt	103.80	58.00	16.00	54.00	0.107	
11		18:00:00		90.60	59.00	25.00	53.00	0.134	
12		18:15:00		90.60	60.00	24.00	53.00	0.133	
13		18:30:00	4th pt	90.60	60.00	24.00	53.00	0.133	
14	1999/10/30	15:05:00		78.20	60.00	16.00	65.00	0.107	

Horseshoe Operating Inc
SE NE 1 24s 41w Hamilton county Kansas

Boltz 2

Plot

