

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, L.L.C.
 728 North Roosevelt
 Liberal, Kansas 67901
 Phone: 316-324-5389
 Fax: 316-626-7108

Lab Number:	950191	Analyzed:	04/13/95
Sample From:	Gaskill #3-5 DST 2	Pressure:	
Producer:	Hugoton Energy Corp	Temperature:	
Date:		Location:	5-31-33W
Time:		County:	Seward
Sampler:		State:	Kansas
Source:		Formation:	Kansas A

	Mole %	GPM
Helium	He: 0.025	0.000
Oxygen	O2: 0.000	0.000
Nitrogen	N2: 5.404	0.000
Carbon Dioxide	CO2: 0.069	0.000
Methane	C1: 56.953	0.000
Ethane	C2: 14.263	3.815
Propane	C3: 14.225	3.920
Iso Butane	iC4: 1.837	0.601
Normal Butane	nC4: 4.260	1.343
Iso Pentane	iC5: 0.900	0.329
Normal Pentane	nC5: 0.883	0.320
Hexanes Plus	C6+: 1.181	0.515
TOTAL:	100.000	10.843
Z Fact:	0.9942	
SP.GR.:	0.9438	
BTU (SAT):	1502.0 @	14.73 psia
BTU (DRY):	1528.6 @	14.73 psia
OCTANE RATING:	109.7	

COMMENTS: Sample contained liquids

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Lab Number:	950192	Analyzed:	04/13/95
Sample From:	Gaskill #3-5 DST 3	Pressure:	
Producer:	Hugoton Energy Corp	Temperature:	
Date:		Location:	5-31-33W
Time:		County:	Seward
Sampler:		State:	Kansas
Source:		Formation:	Marmaton

	Mole %	GPM
Helium	He: 0.064	0.000
Oxygen	O2: 0.000	0.000
Nitrogen	N2: 2.177	0.000
Carbon Dioxide	CO2: 0.154	0.000
Methane	C1: 51.422	0.000
Ethane	C2: 14.811	3.961
Propane	C3: 18.139	4.998
Iso Butane	iC4: 2.433	0.796
Normal Butane	nC4: 6.285	1.982
Iso Pentane	iC5: 1.382	0.506
Normal Pentane	nC5: 1.447	0.524
Hexanes Plus	C6+: 1.686	0.736
TOTAL:	100.000	13.502
Z Fact:	0.9923	
SP.GR.:	1.0460	
BTU (SAT):	1708.9	@ 14.73 psia
BTU (DRY):	1739.2	@ 14.73 psia
OCTANE RATING:	110.1	

COMMENTS: Sample contained liquids

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Lab Number:	950193	Analyzed:	04/15/95
Sample From:	Gaskill #3-5 DST 4	Pressure:	
Producer:	Hugoton Energy Corp	Temperature:	
Date:		Location:	5-31-33W
Time:		County:	Seward
Sampler:		State:	Kansas
Source:		Formation:	Morrow

	Mole %	GPM
Helium	He: 0.912	0.000
Oxygen	O2: 0.000	0.000
Nitrogen	N2: 12.953	0.000
Carbon Dioxide	CO2: 0.467	0.000
Methane	C1: 72.590	0.000
Ethane	C2: 6.262	1.675
Propane	C3: 3.699	1.019
Iso Butane	iC4: 0.725	0.237
Normal Butane	nC4: 1.248	0.393
Iso Pentane	iC5: 0.368	0.135
Normal Pentane	nC5: 0.409	0.148
Hexanes Plus	C6+: 0.367	0.160
TOTAL:	100.000	3.768
Z Fact:	0.9974	
SP.GR.:	0.7297	
BTU (SAT):	1038.1 @ 14.73 psia	
BTU (DRY):	1056.4 @ 14.73 psia	
OCTANE RATING:	106.9	

COMMENTS: Sample entered under vacuum