

MAY 28 2015



Gas Analysis Certificate

GPA Standard 2261-13

30.045 0.9570

Method Name au_report_150_C6+
 Last calibration date 1/15/2015 1:00:58 PM

Client:	McElvain Energy	Project #:	06039-0058
Site Name:	Farnsworth Gas Com A-1	Meter ID:	Bradenhead
Sampled by:	Glenn Hise	Date Sampled	05-07-15
Analysed by:	Logan Richter	Date Received:	05-07-15
Sample Pressure:	60 psig	Date Analyzed:	05-14-15
Sample Temperature	N/R	Analysis Time:	Standard

Component Results (14.696)

Name	Qty (Norm) [Mol %]	Wt Percent (%)	GPM
Helium	0.000	0.000	0.000
Oxygen	0.028	0.053	0.002
Nitrogen	3.993	6.676	0.439
Carbon Dioxide	0.086	0.225	0.015
Methane	94.802	90.769	16.062
Ethane	0.864	1.550	0.231
Propane	0.123	0.324	0.034
i-Butane	0.056	0.195	0.018
n-Butane	0.025	0.087	0.008
i-Pentane	0.007	0.030	0.003
n-Pentane	0.000	0.000	0.000
C6+	0.017	0.092	0.007
	100.000	100.000	16.819

Calculations at Pressure Base 14.696

Compressibility (Z) (Dry Gas)	0.99806	C2+	0.301
Density (G) (Dry Gas)	0.57852	C3+	0.070
Component MW Total	16.76	C5+	0.010
Heating Value (Dry Ideal) Total BTU	979.66	Heating Value (Sat Ideal) Total BTU	962.56
Heating Value (Dry Real) Total BTU	981.56	Heating Value (Sat Real) Total BTU	964.37

Reviewed by

05/20/2015
mm/dd/yyyy



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Method Name au_report_150_C6+
Last calibration date 1/15/2015 1:00:58 PM

Client:	McElvain Energy	Project #:	06039-0058
Site Name:	Farnsworth Gas Com A-1	Meter ID:	Production Casing
Sampled by:	Glenn Hise	Date Sampled	05-07-15
Analysed by:	Logan Richter	Date Received:	05-07-15
Sample Pressure:	2 psig	Date Analyzed:	05-14-15
Sample Temperature	N/R	Analysis Time:	Standard

Component Results (14.696)

Name	Qty (Norm) (Mol %)	Wt Percent (%)	GPM
Helium	0.000	0.000	0.000
Oxygen	0.119	0.223	0.011
Nitrogen	1.930	3.175	0.212
Carbon Dioxide	0.132	0.342	0.023
Methane	94.626	89.147	16.035
Ethane	2.485	4.388	0.664
Propane	0.274	0.711	0.076
i-Butane	0.051	0.175	0.017
n-Butane	0.056	0.192	0.018
i-Pentane	0.045	0.191	0.016
n-Pentane	0.051	0.216	0.019
C6+	0.230	1.240	0.100
	100.000	100.000	17.190

Calculations at Pressure Base 14.696

Compressibility (Z) (Dry Gas)	0.99785	C2+	0.910
Density (G) (Dry Gas)	0.58805	C3+	0.245
Component MW Total	17.03	C5+	0.135
Heating Value (Dry Ideal) Total BTU	1025.75	Heating Value (Sat Ideal) Total BTU	1007.85
Heating Value (Dry Real) Total BTU	1027.95	Heating Value (Sat Real) Total BTU	1009.94


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