

Attachment 1 – Sample Format for Documenting Heating Value Verification

Month/ Year	Case#	Heating Value ¹ per gas analysis Dry Basis (Btu/scf)	Heating Value ¹ per gas analysis Wet Basis (Btu/scf)	Heating Value from OGOR-B (Btu/scf)	Difference ² (%) (-) under (+) over	Follow up action if needed
11/2004	WYW12345*	1101.7	1083.8	1078	-2.15%	Notify MMS
08/2004	WYW12346	1116.6	1098.4	1098	-1.67%	Notify MMS
11/2004	WYW12347	1106.6	1088.0	1107	0.0%	OK

*See attached sample gas analysis

¹ Heating value should be adjusted to 14.73 psi and 60°F

² This is the difference between the heating value on the OGOR report and the heating value from the lab analysis, and is calculated as follows:

$$\% \text{ Difference} = \frac{H_{rep} - H_{lab}}{H_{lab}} \times 100$$

Where H_{rep} is the OGOR-reported heating value (Btu/scf) and H_{lab} is the dry/real heating value (Btu/scf) from the lab analysis report at 14.73 psi and 60°F

Applied Technology Services

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Meter Name: Federal 3-3
Field Name: Jonah
Analyst: BALDWIN

Meter Loc. #: WYW12345 Report Date: 10/21/2004 11:27
Cylinder Pressure: 0 Sample Date(s): 10/21/2004 to 10/21/2004
Line Pressure: 227 Flowing Temp: 39

Gas Analysis by Chromatograph @14.73

NAME	MOLE%	BTU	SG	GPM
Nitrogen	0.2105	0.0000	0.0020	0.0
Methane	91.6433	927.7388	0.5077	0.0
CO2	0.3979	0.0000	0.0060	0.0
Ethane	5.1217	90.8484	0.0532	1.3688
H2S	0.0000	0.0000	0.0000	0.0000
Propane	1.5142	38.1884	0.0231	0.4169
i-Butane	0.3488	11.3692	0.0070	0.1141
n-Butane	0.3474	11.3598	0.0070	0.1095
i-Pentane	0.1253	5.0247	0.0031	0.0459
n-Pentane	0.0916	3.6805	0.0023	0.0332
hexanes	0.0825	3.9328	0.0025	0.0339
heptanes	0.0689	3.8000	0.0024	0.0318
octanes	0.0479	3.0001	0.0019	0.0245
nonanes	0.0000	0.0000	0.0000	0.0000
Ideal Total	100.0000	1098.9427	0.6181	2.1786

Gross BTU/Real Cu Ft. @ 60-deg F

Pressure Base =	14.73	14.65	15.025
→ Dry =	1101.7275	1095.7288	1123.8490
Saturated =	1083.7516	1077.7515	1105.8786
Actual BTU =	1101.7275	1095.7288	1123.8490
Real S. G. =	0.619419	0.619410	0.619450
Compressibility =	0.997472	0.997486	0.997422

Gasoline Content

Pressure Base =	14.73
Propane GPM =	0.4169
Butane GPM =	0.2236
14# Gasoline GPM =	0.1849
26# Gasoline GPM =	0.2592
Total GPM =	2.1786

Sulfur Content

Mercaptans ppm = N/A
H2S ppm = N/A

Dewpoints

H2O #/mmcf = N/A
Hydrocarbon °F = N/A
@ psig = N/A

Comments

