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Gas Analysis Certificate

GPA Standard 2261-13

Acquisition Method Name	au_report_150_C6+
Last calibration date	7/10/2015 10:21:38 AM

Client:	BP	Project #:	03143-0880
Site Name:	Heaton LS #9A	Meter ID:	3004524988 (BHD)
Sampled by:	Sawyer M.	Date Sampled	07-20-15
Analyzed by:	Logan Richter	Date Received:	07-20-15
Sample Pressure:	10 psig	Date Analyzed:	07-22-15
Sample Temperature	N/A	Analysis Time:	Standard

Component Results (14.696)

Name	Qty (Norm) [Mol %]	Wt Percent (%)	GPM
Helium	0.044	0.009	0.004
Oxygen	0.121	0.199	0.011
Nitrogen	1.633	2.353	0.180
Carbon Dioxide	0.000	0.000	0.000
Methane	84.963	70.116	14.410
Ethane	7.449	11.522	1.993
Propane	3.407	7.728	0.939
i-Butane	0.614	1.834	0.201
n-Butane	0.897	2.682	0.283
i-Pentane	0.326	1.209	0.119
n-Pentane	0.231	0.859	0.084
C6+	0.315	1.488	0.137
	100.000	100.000	18.361

Calculations at Pressure Base 14.696

Compressibility (Z) (Dry Gas)	0.99704	C2+	3.756
Density (G) (Dry Gas)	0.67133	C3+	1.763
Component MW Total	19.44	C5+	0.341
Heating Value (Dry Ideal) Total BTU	1163.35	Heating Value (Sat Ideal) Total BTU	1143.05
Heating Value (Dry Real) Total BTU	1166.80	Heating Value (Sat Real) Total BTU	1146.33

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Gas Analysis Certificate

GPA Standard 2261-13

Acquisition Method Name	au_report_150_C6+
Last calibration date	7/10/2015 10:21:38 AM

Client:	BP	Project #:	03143-0880
Site Name:	Heaton LS #9A	Meter ID:	3004524988 (CSG)
Sampled by:	Sawyer M.	Date Sampled	07-20-15
Analyzed by:	Logan Richter	Date Received:	07-20-15
Sample Pressure:	85 psig	Date Analyzed:	07-22-15
Sample Temperature	N/A	Analysis Time:	Standard

Component Results (14.696)

Name	Qty (Norm) [Mol %]	Wt Percent (%)	GPM
Helium	0.016	0.004	0.002
Oxygen	0.211	0.392	0.019
Nitrogen	2.564	4.162	0.282
Carbon Dioxide	0.062	0.159	0.011
Methane	93.399	86.819	15.828
Ethane	2.204	3.840	0.589
Propane	0.944	2.412	0.260
i-Butane	0.295	0.992	0.096
n-Butane	0.143	0.480	0.045
i-Pentane	0.075	0.313	0.027
n-Pentane	0.028	0.119	0.010
C6+	0.058	0.307	0.025
	100.000	100.000	17.194

Calculations at Pressure Base 14.696

Compressibility (Z) (Dry Gas)	0.99784	C2+	1.053
Density (G) (Dry Gas)	0.59591	C3+	0.464
Component MW Total	17.26	C5+	0.063
Heating Value (Dry Ideal) Total BTU	1027.42	Heating Value (Sat Ideal) Total BTU	1009.50
Heating Value (Dry Real) Total BTU	1029.65	Heating Value (Sat Real) Total BTU	1011.61

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