



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:	GCU 224	Meter ID:	3004511685 (BHD)
Sampled by:	Daniel F.	Date Sampled	08-20-15
Analyzed by:	Logan Richter	Date Received:	08-27-15
Sample Pressure:	35 psig	Date Analyzed:	09-01-15
Sample Temperature	N/R	Analysis Time:	Standard

Component Results (14.696)

Name	Qty (Norm) [Mol %]	Wt Percent (%)	GPM
Helium	0.038	0.006	0.004
Oxygen	0.207	0.275	0.018
Nitrogen	1.503	1.747	0.166
Carbon Dioxide	1.086	1.983	0.186
Methane	70.690	47.038	12.011
Ethane	11.459	14.292	3.071
Propane	7.385	13.506	2.039
i-Butane	1.353	3.263	0.444
n-Butane	2.902	6.995	0.917
i-Pentane	1.261	3.772	0.462
n-Pentane	1.150	3.441	0.418
C6+	0.966	3.683	0.423
	100.000	100.000	20.158

Calculations at Pressure Base 14.696

Compressibility (Z) (Dry Gas)	0.99524	C2+	7.773
Density (G) (Dry Gas)	0.83286	C3+	4.702
Component MW Total	24.11	C5+	1.302
Heating Value (Dry Ideal) Total BTU	1387.32	Heating Value (Sat Ideal) Total BTU	1363.11
Heating Value (Dry Real) Total BTU	1393.96	Heating Value (Sat Real) Total BTU	1369.41

Logan Richter

9/10/2015



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Last calibration date 7/10/2015 10:21:38 AM

Client:	BP	Project #:	03143-0880
Site Name:	GCU 224	Meter ID:	3004511685 (CSG)
Sampled by:	Daniel F.	Date Sampled	08-20-15
Analyzed by:	Logan Richter	Date Received:	08-27-15
Sample Pressure:	106 psig	Date Analyzed:	09-01-15
Sample Temperature	N/R	Analysis Time:	Standard

Component Results (14.696)

Name	Qty (Norm) [Mol %]	Wt Percent (%)	GPM
Helium	0.010	0.002	0.001
Oxygen	0.063	0.111	0.006
Nitrogen	0.872	1.343	0.096
Carbon Dioxide	0.000	0.000	0.000
Methane	90.596	79.918	15.359
Ethane	4.754	7.860	1.271
Propane	2.127	5.157	0.586
i-Butane	0.548	1.753	0.179
n-Butane	0.561	1.792	0.177
i-Pentane	0.184	0.728	0.067
n-Pentane	0.103	0.409	0.037
C6+	0.184	0.928	0.080
	100.000	100.000	17.860

Calculations at Pressure Base 14.696

Compressibility (Z) (Dry Gas)	0.99742	C2+	2.398
Density (G) (Dry Gas)	0.62799	C3+	1.127
Component MW Total	18.19	C5+	0.185
Heating Value (Dry Ideal) Total BTU	1109.68	Heating Value (Sat Ideal) Total BTU	1090.31
Heating Value (Dry Real) Total BTU	1112.55	Heating Value (Sat Real) Total BTU	1093.04

9/10/2015