



30-045-24291

Gas Analysis Certificate

GPA Standard 2261-13

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

Client:	BP	Project #:	03143-0880
Site Name:	GCU 145 E - DK	Meter ID:	3004524291 (BH)
Sampled by:	Brandon K.	Date Sampled	05-14-15
Analysed by:	Logan Richter	Date Received:	05-15-15
Sample Pressure:	175 psig	Date Analyzed:	05-20-15
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	0.006	0.009	0.001
Nitrogen	0.586	0.802	0.065
Carbon Dioxide	0.207	0.444	0.035
Methane	82.221	64.390	13.951
Ethane	8.655	12.705	2.317
Propane	4.866	10.475	1.342
i-Butane	0.695	1.972	0.228
n-Butane	1.432	4.063	0.452
i-Pentane	0.458	1.611	0.167
n-Pentane	0.405	1.427	0.147
C6+	0.469	2.102	0.205
	100.000	100.000	18.908

Calculations at Pressure Base 14.696

Compressibility (Z) (Dry Gas)	0.99658	C2+	4.857
Density (G) (Dry Gas)	0.70750	C3+	2.540
Component MW Total	20.49	C5+	0.519
Heating Value (Dry Ideal) Total BTU	1233.94	Heating Value (Sat Ideal) Total BTU	1212.41
Heating Value (Dry Real) Total BTU	1238.17	Heating Value (Sat Real) Total BTU	1216.42

Reviewed by

05/22/2015
mm/dd/yyyy



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

Client:	BP	Project #:	03143-0880
Site Name:	GCU 145E - DK	Meter ID:	3004524291 (PC)
Sampled by:	Brandon K.	Date Sampled	05-14-15
Analysed by:	Logan Richter	Date Received:	05-15-15
Sample Pressure:	177 psig	Date Analyzed:	05-20-15
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	0.007	0.011	0.001
Nitrogen	0.637	0.850	0.070
Carbon Dioxide	0.230	0.483	0.039
Methane	80.918	61.833	13.733
Ethane	8.821	12.633	2.361
Propane	5.230	10.984	1.442
i-Butane	0.800	2.214	0.262
n-Butane	1.684	4.662	0.531
i-Pentane	0.560	1.923	0.205
n-Pentane	0.497	1.709	0.181
C6+	0.616	2.698	0.269
	100.000	100.000	19.094

Calculations at Pressure Base 14.696

Compressibility (Z) (Dry Gas)	0.99639	C2+	5.252
Density (G) (Dry Gas)	0.72515	C3+	2.890
Component MW Total	20.99	C5+	0.655
Heating Value (Dry Ideal) Total BTU	1259.84	Heating Value (Sat Ideal) Total BTU	1237.86
Heating Value (Dry Real) Total BTU	1264.41	Heating Value (Sat Real) Total BTU	1242.19

Reviewed by

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