



OIL CONS. DIV DIST. 3

DEC 18 2015

API 3D-045-24152
Casing

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:	Hutton GC C1E	Meter ID:	3004524152 (CSG)
Sampled by:	Daniel F.	Date Sampled:	06-09-15
Analyzed by:	Logan Richter	Date Received:	06-19-15
Sample Pressure:	78 psig	Date Analyzed:	06-24-15
Sample Temperature:		Analysis Time:	Standard

Component Results (14.696)

Name	Qty (Norm) [Mol %]	Wt Percent (%)	GPM
Helium	0.040	0.008	0.004
Oxygen	0.006	0.010	0.001
Nitrogen	0.412	0.577	0.045
Carbon Dioxide	1.360	2.992	0.232
Methane	83.976	67.349	14.245
Ethane	8.130	12.221	2.176
Propane	3.281	7.232	0.904
i-Butane	0.551	1.602	0.181
n-Butane	0.981	2.850	0.309
i-Pentane	0.345	1.243	0.126
n-Pentane	0.306	1.102	0.111
C6+	0.612	2.813	0.267
	100.000	100.000	18.602

Calculations at Pressure Base 14.696

Compressibility (Z) (Dry Gas)	0.99682	C2+	4.074
Density (G) (Dry Gas)	0.69092	C3+	1.899
Component MW Total	20.00	C5+	0.504
Heating Value (Dry Ideal) Total BTU	1181.94	Heating Value (Sat Ideal) Total BTU	1161.32
Heating Value (Dry Real) Total BTU	1185.72	Heating Value (Sat Real) Total BTU	1164.90

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API 30-045-24152
Bradenthead

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:	Hutton GC C1E	Meter ID:	3004524152 (BHD)
Sampled by:	Daniel F.	Date Sampled	06-09-15
Analyzed by:	Logan Richter	Date Received:	06-19-15
Sample Pressure:	78 psig	Date Analyzed:	06-24-15
Sample Temperature		Analysis Time:	Standard

Component Results (14.696)

Name	Qty (Norm) [Mol %]	Wt Percent (%)	GPM
Helium	0.028	0.006	0.003
Oxygen	0.016	0.030	0.001
Nitrogen	1.606	2.563	0.177
Carbon Dioxide	0.000	0.000	0.000
Methane	92.219	84.282	15.630
Ethane	3.949	6.765	1.056
Propane	1.351	3.393	0.372
i-Butane	0.366	1.211	0.120
n-Butane	0.286	0.947	0.090
i-Pentane	0.077	0.314	0.028
n-Pentane	0.042	0.173	0.015
C6+	0.060	0.315	0.026
	100.000	100.000	17.519

Calculations at Pressure Base 14.696

Compressibility (Z) (Dry Gas)	0.99767	C2+	1.707
Density (G) (Dry Gas)	0.60609	C3+	0.651
Component MW Total	17.55	C5+	0.070
Heating Value (Dry Ideal) Total BTU	1064.35	Heating Value (Sat Ideal) Total BTU	1045.78
Heating Value (Dry Real) Total BTU	1066.84	Heating Value (Sat Real) Total BTU	1048.14

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