30-045-07578

UPI 30-045-07578
Bradenhead

envirotech

OIL CONS. DIV DIST. 3

DEC 18 2015

Gas Analysis Certificate

GPA Standard 2261-13

Acquisition Method Name	au_report_150_C6+
Last calibration date	9/28/2015 11:07:06 AM

Client:	BP	Project #:	03143-0880
Site Name:	GCU 138	Meter ID:	3004507578 (BHD)
Sampled by:	Brandon K.	Date Sampled	10-16-15
Analyzed by:	Logan Richter	Date Received:	10-19-15
Sample Pressure:	29 psig	Date Analyzed:	10-26-15
Sample Temperature	NA	Analysis Time:	Standard

Component Results (14.696)

Name	Qty (Norm) [Mol %]	Wt Percent (%)	GPM
Helium	0.000	0.000	0.000
Oxygen	0.014	0.024	0.001
Nitrogen	0.300	0.457	0.033
Carbon Dioxide	0.000	0.000	0.000
Methane	89.317	77.812	15.144
Ethane	6.427	10.494	1.719
Propane	2.440	5.842	0.672
i-Butane	0.514	1.623	0.168
n-Butane	0.508	1.604	0.160
i-Pentane	0.141	0.551	0.051
n-Pentane	0.093	0.363	0.034
C6+	0.247	1.230	0.108
	100.000	100.000	18.091

Calculations at Pressure Base 14.696

Compressibility (Z) (Dry Gas)	0.99730	C2+	2.912
Density (G) (Dry Gas)	0.63591	C3+	1.193
Component MW Total	18.41	C5+	0.193
Heating Value (Dry Ideal) Total BTU	1132.50	Heating Value (Sat Ideal) Total BTU	1112.74
Heating Value (Dry Real) Total BTU	1135.57	Heating Value (Sat Real) Total BTU	1115.65

11/03/2015

API 30-045 07510
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Gas Analysis Certificate

GPA Standard 2261-13

Acquisition Method Name	au_report_150_C6+
Last calibration date	9/28/2015 11:07:06 AM

Client:	BP	Project #:	03143-0880
Site Name:	GCU 138	Meter ID:	3004507578 (CSG)
Sampled by:	Brandon K.	Date Sampled	10-16-15
Analyzed by:	Logan Richter	Date Received:	10-19-15
Sample Pressure:	136 psig	Date Analyzed:	10-26-15
Sample Temperature	NA	Analysis Time:	Standard

Component Results (14.696)

Name	Qty (Norm) [Mol %]	Wt Percent (%)	GPM
Helium	0.000	0.000	0.000
Oxygen	10.410	14.076	0.923
Nitrogen	36.973	43.767	4.063
Carbon Dioxide	0.165	0.307	0.028
Methane	46.446	31.486	7.865
Ethane	3.399	4.319	0.908
Propane	1.442	2.688	0.397
i-Butane	0.293	0.720	0.096
n-Butane	0.388	0.952	0.122
i-Pentane	0.122	0.373	0.045
n-Pentane	0.107	0.328	0.039
C6+	0.253	0.984	0.110
	100.000	100.000	14.596

Calculations at Pressure Base 14.696

Compressibility (Z) (Dry Gas)	0.99860	C2+	1.717
Density (G) (Dry Gas)	0.81718	C3+	0.809
Component MW Total	23.66	C5+	0.194
Heating Value (Dry Ideal) Total BTU	609.93	Heating Value (Sat Ideal) Total BTU	599.29
Heating Value (Dry Real) Total BTU	610.79	Heating Value (Sat Real) Total BTU	600.10

11/03/2015