

API 30-045-26193
Bradenhead



OIL CONS. DIV DIST. 3

Gas Analysis Certificate

DEC 18 2015

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 90E	Meter ID:	3004526193 (BHD)
Sampled by:	Daniel F.	Date Sampled	07-09-15
Analyzed by:	Logan Richter	Date Received:	07-13-15
Sample Pressure:	63 psig	Date Analyzed:	07-15-15
Sample Temperature	N/R	Analysis Time:	Standard

Component Results (14.696)

Name	Qty (Norm) [Mol %]	Wt Percent (%)	GPM
Helium	0.054	0.011	0.006
Oxygen	0.007	0.011	0.001
Nitrogen	0.487	0.679	0.054
Carbon Dioxide	0.805	1.766	0.138
Methane	84.798	67.794	14.386
Ethane	7.295	10.932	1.952
Propane	3.233	7.105	0.891
i-Butane	0.531	1.539	0.174
n-Butane	1.073	3.107	0.338
i-Pentane	0.404	1.453	0.148
n-Pentane	0.414	1.487	0.150
C6+	0.899	4.115	0.392
	100.000	100.000	18.629

Calculations at Pressure Base 14.696

Compressibility (Z) (Dry Gas)	0.99675	C2+	4.047
Density (G) (Dry Gas)	0.69323	C3+	2.094
Component MW Total	20.07	C5+	0.690
Heating Value (Dry Ideal) Total BTU	1198.03	Heating Value (Sat Ideal) Total BTU	1177.12
Heating Value (Dry Real) Total BTU	1201.93	Heating Value (Sat Real) Total BTU	1180.83

Signature

10/19/2015

16.07.2015 14:50:04

1 of 1

3



API 30-045-26193
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:	GCU 90E	Meter ID:	3004526193 (CSG)
Sampled by:	Daniel F.	Date Sampled	07-10-15
Analyzed by:	Logan Richter	Date Received:	07-13-15
Sample Pressure:	142 psig	Date Analyzed:	07-15-15
Sample Temperature	N/R	Analysis Time:	Standard

Component Results (14.696)

Name	Qty (Norm) [Mol %]	Wt Percent (%)	GPM
Helium	0.012	0.003	0.001
Oxygen	0.014	0.025	0.001
Nitrogen	0.943	1.454	0.104
Carbon Dioxide	0.000	0.000	0.000
Methane	92.028	81.251	15.602
Ethane	3.024	5.004	0.809
Propane	1.774	4.304	0.489
i-Butane	0.627	2.007	0.205
n-Butane	0.773	2.473	0.244
i-Pentane	0.325	1.292	0.119
n-Pentane	0.221	0.879	0.080
C6+	0.259	1.309	0.113
	100.000	100.000	17.766

Calculations at Pressure Base 14.696

Compressibility (Z) (Dry Gas)	0.99742	C2+	2.059
Density (G) (Dry Gas)	0.62749	C3+	1.250
Component MW Total	18.17	C5+	0.312
Heating Value (Dry Ideal) Total BTU	1108.41	Heating Value (Sat Ideal) Total BTU	1089.07
Heating Value (Dry Real) Total BTU	1111.27	Heating Value (Sat Real) Total BTU	1091.78



OIL CONSERVATION DIVISION
AZTEC DISTRICT OFFICE
1000 RIO BRAZOS ROAD
AZTEC, NM 87410
(505 334-6178 FAX: (505) 334-6170
<http://www.emnrd.state.nm.us/ocd/>

(Submit 2 copies to above address)

OIL CONS. DIV DIST. 3

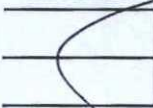
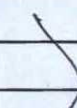
DEC 18 2015

Date of Test	7/9/15	Operator	BP America Production Company	API #	3004526193
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Property Name	GCU 090E-DK	Location:	Unit <u>P</u>	Section <u>35</u>	Township <u>28</u>	Range <u>13</u>
(Well Name and Number)						

Pressure (Shut-in or Producing) Tubing 142 Intermediate — Casing 142 Bradenhead 6.5

OPEN BRADENHEAD AND INTERMEDIATE TO ATMOSPHERE INDIVIDUALLY FOR 15 MINUTES EACH

Time	Bradenhead			Intermediate			Bradenhead	Intermediate
	BH Blowdown	Casing Monitor	Intermediate Monitor	Intermediate Blowdown	Casing Monitor		Flowed	Flowed
5 minutes	W	142					Steady Flow	
10 minutes	W	142				Surges		
15 minutes	W	142				Down to Nothing		
20 minutes	0	142				No Flow		
25 minutes	0	142				Gas		
30 minutes	0	142				Gas and Water		
5 minute SI	2						Water	

If bradenhead flowed water, check all of the descriptions that apply below:

Clear _____ Fresh _____ Salty _____ Sulfur _____ Black _____

5 Minute Shut-in	Bradenhead	<u>1</u>	Intermediate	—
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REMARKS:

REMARKS: Blew from 1" valve. BH blew to a whisper in 10 sec.

By [Signature] Witness

(Position)