



OIL CONS. DIV DIST. 3

API 30-445-07516
Bradenhead

Gas Analysis Certificate

DEC 18 2015

GPA Standard 2261-13

Acquisition Method Name au_report_150_C6+
Last calibration date 9/28/2015 10:07:06 AM

Client:	BP	Project #:	03143-0880
Site Name:	GCU 167	Meter ID:	3004507516 (BHD)
Sampled by:	Brandon K.	Date Sampled	10-16-15
Analyzed by:	Logan Richter	Date Received:	10-19-15
Sample Pressure:	34 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	0.011	0.020	0.001
Nitrogen	0.386	0.587	0.042
Carbon Dioxide	0.000	0.000	0.000
Methane	89.399	77.970	15.158
Ethane	6.338	10.362	1.695
Propane	2.358	5.652	0.650
i-Butane	0.437	1.380	0.143
n-Butane	0.535	1.690	0.169
i-Pentane	0.192	0.752	0.070
n-Pentane	0.125	0.491	0.045
C6+	0.219	1.096	0.096
	100.000	100.000	18.069

Calculations at Pressure Base 14.696

Compressibility (Z) (Dry Gas)	0.99731	C2+	2.868
Density (G) (Dry Gas)	0.63519	C3+	1.172
Component MW Total	18.39	C5+	0.211
Heating Value (Dry Ideal) Total BTU	1130.01	Heating Value (Sat Ideal) Total BTU	1110.30
Heating Value (Dry Real) Total BTU	1133.06	Heating Value (Sat Real) Total BTU	1113.19

05.11.2015 12:45:03

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API 30-045-07516
Casing
Gas Analysis Certificate

GPA Standard 2261-13

Acquisition Method Name au_report_150_C6+
Last calibration date 9/28/2015 10:07:06 AM

Client:	BP	Project #:	03143-0880
Site Name:	GCU 167	Meter ID:	3004507516 (CSG)
Sampled by:	Brandon K.	Date Sampled	10-16-15
Analyzed by:	Logan Richter	Date Received:	10-19-15
Sample Pressure:	279 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	0.010	0.015	0.001
Nitrogen	0.564	0.744	0.062
Carbon Dioxide	1.346	2.791	0.230
Methane	78.573	59.375	13.335
Ethane	10.749	15.224	2.878
Propane	4.965	10.314	1.369
i-Butane	0.941	2.575	0.308
n-Butane	1.588	4.348	0.501
i-Pentane	0.478	1.625	0.175
n-Pentane	0.443	1.504	0.161
C6+	0.343	1.484	0.150
	100.000	100.000	19.169

Calculations at Pressure Base 14.696

Compressibility (Z) (Dry Gas)	0.99638	C2+	5.542
Density (G) (Dry Gas)	0.73315	C3+	2.664
Component MW Total	21.23	C5+	0.486
Heating Value (Dry Ideal) Total BTU	1245.60	Heating Value (Sat Ideal) Total BTU	1223.87
Heating Value (Dry Real) Total BTU	1250.12	Heating Value (Sat Real) Total BTU	1228.16

RFJ

11/5/2015



NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

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/>

BRADENHEAD TEST REPORT

(Submit 2 copies to above address)

OIL CONS. DIV DIST. 3

DEC 18 2015

Date of Test 6/12/15 Operator BP America Production Company API # 3004507516

Property Name GCU 167-DK Location: Unit C Section 18 Township 28 Range 11
(Well Name and Number)

Pressure (Shut-in or Producing) 202 Tubing 202 Intermediate N/A Casing 200 Bradenhead 38

OPEN BRADENHEAD AND INTERMEDIATE TO ATMOSPHERE INDIVIDUALLY FOR 15 MINUTES EACH

Time	Bradenhead			Intermediate		Bradenhead Flowed	Intermediate Flowed
	BH Blowdown	Casing Monitor	Intermediate Monitor	Intermediate Blowdown	Casing Monitor		
5 minutes	<u>W</u>	<u>170</u>				Steady Flow	
10 minutes	<u>W</u>	<u>170</u>				Surges	
15 minutes	<u>W</u>	<u>170</u>				Down to Nothing	
20 minutes	<u>Ø</u>	<u>170</u>				No Flow	
25 minutes	<u>Ø</u>	<u>170</u>				Gas	
30 minutes	<u>Ø</u>	<u>170</u>				Gas and Water	
5 minute SI	<u>Ø</u>	<u>170</u>				Water	

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

Clear Fresh Salty Sulfur Black

5 Minute Shut-in Bradenhead Ø Intermediate N/A

REMARKS:

BH blew to a whisper in 5 sec. Blew from 1" valve

By Witness

(Position)