



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 9/28/2015 11:07:06 AM

Client: BP Project #: 03143-0880
Site Name: GCU 93 Meter ID: 3004507699 (BHD)
Sampled by: Brandon K. Date Sampled: 10-16-15
Analyzed by: Logan Richter Date Received: 10-19-15
Sample Pressure: 66 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	0.019	0.001
Nitrogen	0.378	0.593	0.042
Carbon Dioxide	0.000	0.000	0.000
Methane	91.617	82.268	15.531
Ethane	5.289	8.902	1.414
Propane	1.586	3.914	0.437
i-Butane	0.283	0.920	0.093
n-Butane	0.363	1.181	0.114
i-Pentane	0.121	0.489	0.044
n-Pentane	0.088	0.356	0.032
C6+	0.264	1.358	0.115
	100.000	100.000	17.824

Calculations at Pressure Base 14.696

Compressibility (Z) (Dry Gas)	0.99748	C2+	2.250
Density (G) (Dry Gas)	0.61696	C3+	0.835
Component MW Total	17.87	C5+	0.191
Heating Value (Dry Ideal) Total BTU	1101.79	Heating Value (Sat Ideal) Total BTU	1082.56
Heating Value (Dry Real) Total BTU	1104.57	Heating Value (Sat Real) Total BTU	1085.21

27.10.2015 18:12:21

11/23/2015
1 of 1

3



API 30-045-07694
Casing

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 93	Meter ID:	3004507699 (CSG)
Sampled by:	Brandon K.	Date Sampled	10-16-15
Analyzed by:	Logan Richter	Date Received:	10-19-15
Sample Pressure:	16 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	0.009	0.018	0.001
Nitrogen	0.201	0.335	0.022
Carbon Dioxide	0.123	0.321	0.021
Methane	95.893	91.450	16.251
Ethane	3.010	5.380	0.805
Propane	0.464	1.216	0.128
i-Butane	0.124	0.428	0.040
n-Butane	0.043	0.148	0.014
i-Pentane	0.014	0.062	0.005
n-Pentane	0.009	0.040	0.003
C6+	0.110	0.602	0.048
	100.000	100.000	17.338

Calculations at Pressure Base 14.696

Compressibility (Z) (Dry Gas)	0.99781	C2+	1.043
Density (G) (Dry Gas)	0.58086	C3+	0.239
Component MW Total	16.82	C5+	0.057
Heating Value (Dry Ideal) Total BTU	1045.49	Heating Value (Sat Ideal) Total BTU	1027.24
Heating Value (Dry Real) Total BTU	1047.78	Heating Value (Sat Real) Total BTU	1029.42

RSR

11/03/2015



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 6/11/15 Operator BP America Production Company API # 3004507699

Property Name GCU 093-FC Location: Unit E Section 36 Township 29 Range 12
(Well Name and Number)

Pressure (Shut-in or Producing) SS Tubing SS Intermediate N/A Casing 18 Bradenhead 121

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	<u>W</u>	<u>18</u>				Steady Flow	
10 minutes	<u>W</u>	<u>18</u>				Surges	
15 minutes	<u>W</u>	<u>18</u>				Down to Nothing	
20 minutes	<u>W</u>	<u>18</u>				No Flow	
25 minutes	<u>W</u>	<u>18</u>				Gas	☒
30 minutes	<u>W</u>	<u>18</u>				Gas and Water	
5 minute SI	<u>6</u>	<u>18</u>				Water	

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

Clear ☐ Fresh ☐ Salty ☐ Sulfur ☐ Black ☐

5 Minute Shut-in Bradenhead 6 Intermediate N/A

REMARKS:

BH blew to a whisper in 3 sec. Blew from 1" valve

By [Signature] Witness _____

(Position)