



OIL CONS. DIV DIST. 3

Gas Analysis Certificate

GPA Standard 2261-13

DEC 18 2015

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 188E	Meter ID:	3004524171 (BHD)
Sampled by:	Daniel F.	Date Sampled	08-17-15
Analyzed by:	Logan Richter	Date Received:	08-27-15
Sample Pressure:	148 psig	Date Analyzed:	09-01-15
Sample Temperature	N/R	Analysis Time:	Standard

Component Results (14.696)

Name	Qty (Norm) [Mol %]	Wt Percent (%)	GPM
Helium	0.010	0.002	0.001
Oxygen	0.003	0.005	0.000
Nitrogen	0.237	0.358	0.026
Carbon Dioxide	0.000	0.000	0.000
Methane	89.133	77.271	15.114
Ethane	6.460	10.498	1.728
Propane	2.518	5.999	0.694
i-Butane	0.452	1.419	0.148
n-Butane	0.591	1.858	0.186
i-Pentane	0.202	0.789	0.074
n-Pentane	0.142	0.552	0.051
C6+	0.251	1.248	0.110
	100.000	100.000	18.132

Calculations at Pressure Base 14.696

Compressibility (Z) (Dry Gas)	0.99726	C2+	2.991
Density (G) (Dry Gas)	0.63904	C3+	1.263
Component MW Total	18.51	C5+	0.235
Heating Value (Dry Ideal) Total BTU	1138.58	Heating Value (Sat Ideal) Total BTU	1118.71
Heating Value (Dry Real) Total BTU	1141.71	Heating Value (Sat Real) Total BTU	1121.68



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 188E	Meter ID:	3004524171 (CSG)
Sampled by:	Daniel F.	Date Sampled:	10-15-15
Analyzed by:	Logan Richter	Date Received:	10-15-15
Sample Pressure:	408 psig	Date Analyzed:	10-19-15
Sample Temperature:	N/R	Analysis Time:	Standard

Component Results (14.696)

Name	Qty (Norm) [Mol %]	Wt Percent (%)	GPM
Helium	0.000	0.000	0.000
Oxygen	0.009	0.015	0.001
Nitrogen	0.585	0.834	0.064
Carbon Dioxide	0.162	0.364	0.028
Methane	85.034	69.482	14.424
Ethane	7.656	11.726	2.049
Propane	3.832	8.606	1.056
i-Butane	0.579	1.713	0.189
n-Butane	1.207	3.574	0.381
i-Pentane	0.356	1.307	0.130
n-Pentane	0.335	1.230	0.121
C6+	0.246	1.150	0.107
	100.000	100.000	18.550

Calculations at Pressure Base 14.696

Compressibility (Z) (Dry Gas)	0.99690	C2+	4.034
Density (G) (Dry Gas)	0.67799	C3+	1.985
Component MW Total	19.63	C5+	0.359
Heating Value (Dry Ideal) Total BTU	1189.19	Heating Value (Sat Ideal) Total BTU	1168.43
Heating Value (Dry Real) Total BTU	1192.88	Heating Value (Sat Real) Total BTU	1171.94



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 8/17/15 Operator BP America Production Company API # 3004524171

Property Name GCU 188E-DK Location: Unit B Section 30 Township 29 Range 12
(Well Name and Number)

Pressure (~~Shut-in~~ or Producing) Tubing - Intermediate - Casing 332 ~~1000~~ Bradenhead 8149 ~~332~~

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>332</u>				Steady Flow	
10 minutes	<u>0</u>	<u>332</u>				Surges	
15 minutes	<u>0</u>	<u>332</u>				Down to Nothing	
20 minutes	<u>0</u>	<u>332</u>				No Flow	
25 minutes						Gas	
30 minutes						Gas and Water	
5 minute SI						Water	

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

Clear Fresh Salty Sulfur Black

5 Minute Shut-in Bradenhead 1 Intermediate -

REMARKS:

Blew from 1" valve. BH blew to a whisper in 20 seconds
unable to get tubing reading
Sample pulled turned in 8/27

By [Signature] Witness

(Position)