



NEW MEXICO ENERGY, MINERALS
AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
AZTEC DISTRICT OFFICE
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AZTEC, NM 87410
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<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 6/05/15 Operator BP America Production Company API # 3004524428

Property Name GCU 185E-MA/DK Location: Unit A Section 33 Township 28 Range 12
(Well Name and Number)

Pressure (Shut-in or Producing) Tubing 22 Intermediate — Casing 27 Bradenhead 29

OPEN BRADENHEAD AND INTERMEDIATE TO ATMOSPHERE INDIVIDUALLY FOR 15 MINUTES EACH

Time	Bradenhead			Intermediate		Bradenhead Intermediate Flowed Flowed	
	BH Blowdown	Casing Monitor	Intermediate Monitor	Intermediate Blowdown	Casing Monitor		
5 minutes	<u>Ø</u>	<u>27</u>				Steady Flow	
10 minutes	<u>Ø</u>	<u>27</u>				Surges	
15 minutes	<u>Ø</u>	<u>27</u>				Down to Nothing	<u>✓</u>
20 minutes	<u>Ø</u>	<u>27</u>				No Flow	
25 minutes						Gas	
30 minutes						Gas and Water	
5 minute SI	<u>Ø</u>	<u>27</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 —

REMARKS:

Blew from 1" valve. BH had blown down to nothing in
30 seconds.

By Witness —

(Position)



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 7/10/2015 10:21:38 AM

Client:	BP	Project #:	03143-0880
Site Name:	GCU 185E	Meter ID:	3004524428 (BHD)
Sampled by:	Daniel F.	Date Sampled	06-26-15
Analyzed by:	Logan Richter	Date Received:	07-13-15
Sample Pressure:	30 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	0.002	0.001
Oxygen	0.008	0.013	0.001
Nitrogen	0.658	0.958	0.072
Carbon Dioxide	0.000	0.000	0.000
Methane	87.077	72.545	14.768
Ethane	6.345	9.909	1.698
Propane	3.371	7.719	0.929
i-Butane	0.722	2.180	0.236
n-Butane	0.829	2.501	0.261
i-Pentane	0.281	1.054	0.103
n-Pentane	0.199	0.747	0.072
C6+	0.497	2.372	0.217
	100.000	100.000	18.359

Calculations at Pressure Base 14.696

Compressibility (Z) (Dry Gas)	0.99702	C2+	3.517
Density (G) (Dry Gas)	0.66508	C3+	1.819
Component MW Total	19.26	C5+	0.392
Heating Value (Dry Ideal) Total BTU	1171.85	Heating Value (Sat Ideal) Total BTU	1151.40
Heating Value (Dry Real) Total BTU	1175.35	Heating Value (Sat Real) Total BTU	1154.72



API 3004524428
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 185E	Meter ID:	3004524428 (CSG)
Sampled by:	Daniel F.	Date Sampled	06-26-15
Analyzed by:	Logan Richter	Date Received:	07-13-15
Sample Pressure:	247 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	0.057	0.008	0.006
Oxygen	0.011	0.013	0.001
Nitrogen	0.976	0.987	0.108
Carbon Dioxide	0.831	1.321	0.142
Methane	73.664	42.699	12.548
Ethane	8.433	9.162	2.266
Propane	3.513	5.597	0.972
i-Butane	0.340	0.715	0.112
n-Butane	0.660	1.386	0.209
i-Pentane	0.099	0.258	0.036
n-Pentane	0.075	0.196	0.027
C6+	11.341	37.658	4.973
	100.000	100.000	21.402

Calculations at Pressure Base 14.696

Compressibility (Z) (Dry Gas)	0.99267	C2+	8.596
Density (G) (Dry Gas)	0.96068	C3+	6.330
Component MW Total	27.68	C5+	5.036
Heating Value (Dry Ideal) Total BTU	1602.93	Heating Value (Sat Ideal) Total BTU	1574.96
Heating Value (Dry Real) Total BTU	1614.77	Heating Value (Sat Real) Total BTU	1586.19

Signature

10/20/2015

API 3004524428



OIL CONS. DIV DIST. 3

DEC 18 2015

GCU 185E DK/MA

Dakota, Mancos

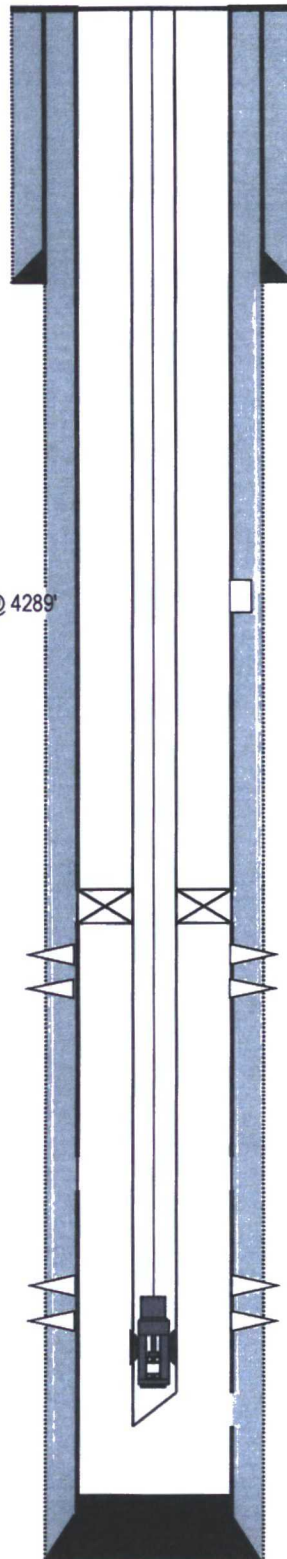
API # 30-045-24428

Sec. 33, T28N, R12W

San Juan County, New Mexico

GL 5731'

KB 5744'



12 1/4" hole

8 5/8", 24#, K55 ST&C @ 307'

Cmt w/ 300 sxs class B w/ 2% CaCl2

TOC @ surface (circ)

Tubing details

Length (ft)

2 3/8" MS	20
2 3/8" Mag Sub	1
2 3/8" Nipple	1
2 3/8" tbg	787
Tbg Anchor	3
Tbg 2 3/4", 4.7#, J55, 172 jts	5300

Rod details

Length (ft)

2x 1.25x 14 RHAC pump w/SCPID Barrel	14
0.875 Rod Stabilizer	4
.75" Guided rod	25
18K Shear tool	1
0.875 Stabilizer Pony	4
1.5" Sinker Bars	125
3/4" Slick Rods	5875
Pony Rod	8
1.5x22 Polished Rod for CPT	22

Mancos Perfs

5384 - 5399'

frac w/ 70Q N2 X link; 116K # 16/30

Dakota Perforations

6020 - 6084' @ 2 spf

frac w/ 129K gal & 330K # 20/40

7 1/8" hole

4 1/2", 10.50 #, K55 ST&C @ 6186"

stage 1 - 420 sxs class B w/ 50:50 POZ

w/ 6% gel, 2# medium tuf plug per sx & 0.8%

fluid loss additive

stage 2 - 820 sxs class B w/ 65:35 POZ

6% gel, 2# medium tuf plug per sx & 0.8%

fluid loss additive; tail with 100 sx class B neat

TOC @ surface (circ)

Tbg anchor @ 5313'
(35k shear)

3/4" rods
5-1.5" sinker bars
2x1.25x14 RHAC

F nipple @ 6104'
EOT @ 6126'

Formation Tops (ft)

Fruitland	1150
Pictured Cliffs	1430
Mesa Verde	2970
Gallup	5040
Dakota	5965

PBTD 6134'

TD 6186'