



NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
AZTEC DISTRICT OFFICE
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OIL CONS. DIV DIST. 3

JAN 28 2016

BRADENHEAD TEST REPORT

(Submit 2 copies to above address)

Date of Test 6/24/15 Operator BP America Production Company API # 3004524869

Property Name GCU COM H 180E-GP/DK Location: Unit N Section 28 Township 29 Range 12
(Well Name and Number)

Pressure (Shut-in or Producing) Tubing 135 Intermediate N/A Casing 175 Bradenhead 252

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>C</u>	<u>182</u>					
10 minutes	<u>W</u>	<u>182</u>					
15 minutes	<u>W</u>	<u>183</u>					
20 minutes	<u>W</u>	<u>183</u>					
25 minutes	<u>W</u>	<u>183</u>					
30 minutes	<u>W</u>	<u>183</u>					
5 minute SI	<u>6</u>	<u>183</u>					
						Steady Flow	
						Surges	
						Down to Nothing	
						No Flow	
						Gas	☒
						Gas and Water	
						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:

Blew from 1" valve. BH whispered through test.

C = continuous

W = whisper

******FAILURE TO COMPLY
WITH BRADENHEAD TEST
MEMORANDUM DATED
FEBRUARY 1, 2016**

By [Signature] Witness _____

(Position)



API 30-045-24869
Bradenhead

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 Com H 180E	Meter ID:	3004524869 (BHD)
Sampled by:	Daniel F.	Date Sampled	06-25-15
Analyzed by:	Logan Richter	Date Received:	07-13-15
Sample Pressure:	252 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	0.013	0.003	0.001
Oxygen	0.005	0.008	0.000
Nitrogen	0.356	0.546	0.039
Carbon Dioxide	0.000	0.000	0.000
Methane	90.080	79.160	15.273
Ethane	5.901	9.719	1.578
Propane	2.215	5.350	0.610
i-Butane	0.409	1.301	0.134
n-Butane	0.504	1.605	0.159
i-Pentane	0.167	0.660	0.061
n-Pentane	0.112	0.443	0.041
C6+	0.240	1.206	0.105
	100.000	100.000	18.001

Calculations at Pressure Base 14.696

Compressibility (Z) (Dry Gas)	0.99735	C2+	2.687
Density (G) (Dry Gas)	0.63042	C3+	1.109
Component MW Total	18.26	C5+	0.206
Heating Value (Dry Ideal) Total BTU	1123.16	Heating Value (Sat Ideal) Total BTU	1103.56
Heating Value (Dry Real) Total BTU	1126.14	Heating Value (Sat Real) Total BTU	1106.39

29/6/15

10/20/2015



API 30-045-24869
COWING
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 Com H 180E	Meter ID:	3004524869 (CSG)
Sampled by:	Daniel F.	Date Sampled	06-25-15
Analyzed by:	Logan Richter	Date Received:	07-13-15
Sample Pressure:	175 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	0.086	0.018	0.009
Oxygen	0.011	0.019	0.001
Nitrogen	1.458	2.172	0.160
Carbon Dioxide	0.608	1.424	0.104
Methane	86.552	73.855	14.676
Ethane	7.757	12.406	2.075
Propane	2.744	6.436	0.756
i-Butane	0.070	0.218	0.023
n-Butane	0.020	0.062	0.006
i-Pentane	0.000	0.000	0.000
n-Pentane	0.000	0.000	0.000
C6+	0.694	3.391	0.303
	100.000	100.000	18.113

Calculations at Pressure Base 14.696

Compressibility (Z) (Dry Gas)	0.99726	C2+	3.163
Density (G) (Dry Gas)	0.64944	C3+	1.088
Component MW Total	18.80	C5+	0.303
Heating Value (Dry Ideal) Total BTU	1119.01	Heating Value (Sat Ideal) Total BTU	1099.49
Heating Value (Dry Real) Total BTU	1122.09	Heating Value (Sat Real) Total BTU	1102.41

API 30-045-24869

**GCU Com H 180E GP/ DK**

Gallup - Dakota
API # 30-045-24869
Sec. 28, T29N, R12W
San Juan County, New Mexico

History

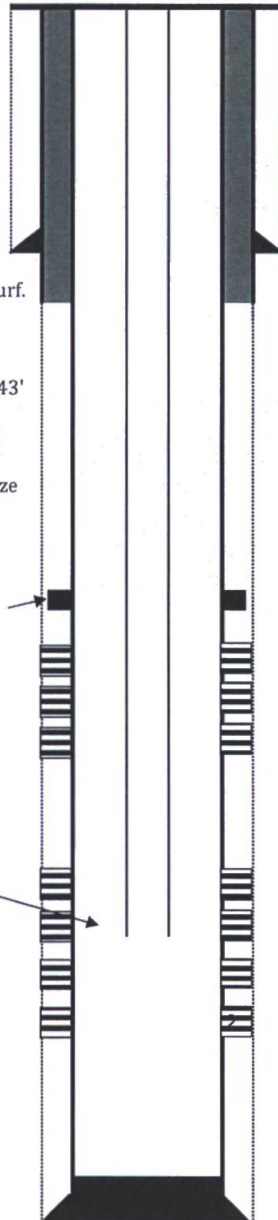
Spud date 1/9/1982
Recomplete to Gallup 11/1986
Packer Test 1/22/1988
Packer Test 8/30/1991
Packer Test 5/13/1996 TOC - 900' below surf.
Packer Test 11/5/1999
Workover 2/2003 - Remove dual completion
downhole commingle Gallup & Dakota, change
change out wellhead. Run single string. EOT@ 5843'
6/30/2010: Took gas sample from Bradenhead.
Tested wellhead seals. Cleaned out. Ran CBL. TOC
AT 720'. Regulatory agencies were satisfied
the Farmington formation was isolated. No squeeze
work required at this time.

Formation Tops:

Fruitland 650'
Pictured Cliffs 1248'
Lewis /SD/ 1355'
Cliff House 2900'
Menefee 3145'
Point Lookout 3672'
Gallup /SD/SH 4913'
Greenhorn 5678'
Dakota 5770'

DV Tool set @ 4131'

2-3/8", 4.7#, J-55 8rd T-B tbgr
set @ 5843'



PBTD: 5936'
TD: 5980'

NFM (6/6/10)

GL 5322'

12-1/4" Hole
8-5/8", 24.0# @ 330'
Cmt w/ 300 sks class B neat cement
containing 2% Ca Cl₂

<u>Tubing Details (2003)</u>	<u>Len (ft)</u>
TUBING HANGER	0.85
TUBING JOINT(S)	5,797.16
PROFILE NIPPLE	0.68
TUBING PUP JOINT	4.1
PROFILE NIPPLE	0.85
TUBING JOINT(S)	30.2
CHECK	0.8

OIL CONS. DIV DIST. 3

JAN 28 2016

Deviation Report

Depth	Deviation
1594'	3/4 deg
2617'	1/4 deg
4088'	1/4 deg
5108'	1 deg
5790'	1-1/2 deg

Gallup Perforations (11/1986)

4914-5270
5318-5378
5388-5448
Frac'd w/ 30,000 lbs 20-40 sand &
10,000 gals quality foam

Dakota Perforations (1/1982)

5782-5794 w/ 2jspf
5808-5814 w/ 2jspf
5818-5822 w/ 2jspf
5858-5904 w/ 2jspf

Frac'd w/ 112,000 gals of foam and
288,000 lbs 20-40 sand

7-7/8" Hole

5-1/2", 17# @ 5980'

Cement'd in 2 stages:

stage 1: Cmt w/ 330 sx (508 cu ft.) class B neat cmt containing
50:50 Paxx, 6% gel, 2# medium tuff plug per sx
and 0.8% fluid loss additive. Tailed w/ 118 cu ft. class
B neat cement

stage 2: Cmt w/ 2000 cu ft. class B neat cmt containing
65:35 Paz, 6% gel, 2# medium tuff plug per sx and
0.8% fluid loss additives. Tailed w/ 118 sx class B neat
cement.

The cement top behind the casing is 900' from surface