



**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/>

OIL CONS. DIV DIST. 3

BRADENHEAD TEST REPORT
(Submit 2 copies to above address)

APR 17 2014

Date of Test 4-16-14 Operator Energen Resources API # 3004506808

Property Name Richardson Com #3 Location: Unit N Section 2 Township 27 Range 13
(Well Name and Number)

Pressure (Shut-in or Producing) Tubing 125 Intermediate N/A Casing 130 Bradenhead 128

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	1	132	N/A	N/A		✓	N/A
10 minutes	1	134					
15 minutes	1	135					
20 minutes	1	137					
25 minutes	1	138				✓	
30 minutes	1	140					
5 minute SI	3	142	✓	✓			✓

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

Clear _____ Fresh _____ Salty _____ Sulfur _____ Black _____

5 Minute Shut-in Bradenhead 3 Intermediate N/A

REMARKS: The well was in an off cycle.

By Eugene Burbank
Production Foreman
(Position)

Witness _____



2030 Afton Place
 Farmington, NM 87401
 (505) 325-6622

Analysis No: EN140144
 Cust No: 73500-14385

Well/Lease Information

Customer Name: ENERGEN RESOURCES CORP.
 Well Name: RICHARDSON COM #3 BHD
 County/State: SAN JUAN
 Location:
 Field:
 Formation:
 Cust. Stn. No.:

Source: BRADENHEAD
 Pressure: 155 PSIG
 Sample Temp: DEG. F
 Well Flowing: Y
 Date Sampled: 03/11/2014
 Sampled By: EUGENE BURBANK
 Foreman/Engr.: EUGENE BURBANK

Remarks:

Analysis

Component:	Mole%:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	2.112	0.2330	0.00	0.0204
CO2	0.007	0.0010	0.00	0.0001
Methane	91.443	15.5360	923.57	0.5065
Ethane	3.946	1.0580	69.83	0.0410
Propane	1.553	0.4290	39.08	0.0236
Iso-Butane	0.342	0.1120	11.12	0.0069
N-Butane	0.327	0.1030	10.67	0.0066
I-Pentane	0.112	0.0410	4.48	0.0028
N-Pentane	0.060	0.0220	2.41	0.0015
Hexane Plus	0.098	0.0440	5.17	0.0032
Total	100.000	17.5790	1066.32	0.6126

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0024
 BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1071.4
 BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1052.8
 REAL SPECIFIC GRAVITY: 0.6138

GPM, BTU, and SPG calculations as shown above are based on current GPA factors.

DRY BTU @ 14.650: 1065.6
 DRY BTU @ 14.696: 1068.9
 DRY BTU @ 14.730: 1071.4
 DRY BTU @ 15.025: 1092.9

CYLINDER #: 4010
 CYLINDER PRESSURE: 142 PSIG
 DATE RUN: 3/12/14 12:00 AM
 ANALYSIS RUN BY: PATRICIA KING



RUSH

142#

- Helium Hydrogen Oxygen
 C6+ C9+ BTEX

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Company Energen

Pressure(PSIG) 155

Well Name Richardson Com #3

Sample Temp (Deg. F) _____

Location/Source Bradenhead

Well Flowing Yes No

Lease/County San Juan

Date Sampled 3-11-14

Formation _____

Sampled By Eugene Burbank

Meter No _____

Cylinder No. 4010

Contact _____

Remarks eburbank@energen.com



2030 Afton Place
 Farmington, NM 87401
 (505) 325-6622

Analysis No: EN140145
 Cust No: 73500-14390

Well/Lease Information

Customer Name: ENERGEN RESOURCES CORP.
 Well Name: RICHARDSON COM #3 MTR
 County/State:
 Location:
 Field:
 Formation:
 Cust. Stn. No.: 73979

Source: METER / *Tubing*
 Pressure: 94 PSIG
 Sample Temp: DEG. F
 Well Flowing: Y
 Date Sampled: 03/11/2014
 Sampled By: EUGENE BURBANK
 Foreman/Engr.: EUGENE BURBANK

Remarks:

Analysis

Component::	Mole%:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.643	0.0710	0.00	0.0062
CO2	0.793	0.1360	0.00	0.0120
Methane	85.454	14.5280	863.09	0.4733
Ethane	7.531	2.0200	133.27	0.0782
Propane	3.072	0.8490	77.29	0.0468
Iso-Butane	0.501	0.1640	16.29	0.0101
N-Butane	0.771	0.2440	25.15	0.0155
I-Pentane	0.276	0.1010	11.04	0.0069
N-Pentane	0.233	0.0850	9.34	0.0058
Hexane Plus	0.726	0.3250	38.27	0.0240
Total	100.000	18.5230	1173.75	0.6788

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

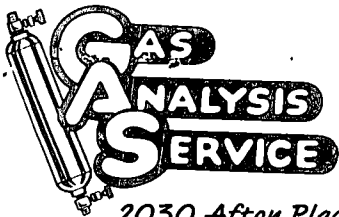
**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0031
 BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1180.1
 BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1159.6
 REAL SPECIFIC GRAVITY: 0.6806

GPM, BTU, and SPG calculations as shown above are based on current GPA factors.

DRY BTU @ 14.650: 1173.7
 DRY BTU @ 14.696: 1177.4
 DRY BTU @ 14.730: 1180.1
 DRY BTU @ 15.025: 1203.7

CYLINDER #: 4131
 CYLINDER PRESSURE: 79 PSIG
 DATE RUN: 3/12/14 12:00 AM
 ANALYSIS RUN BY: PATRICIA KING



RUSH

79#

- Helium Hydrogen° Oxygen
 C6+ C9+ BTEX

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Company Energen

Pressure(PSIG) 94

Well Name Richardson Com #3

Sample Temp (Deg. F) _____

Location/Source Meter

Well Flowing Yes No

Lease/County _____

Date Sampled 3-11-14

Formation _____

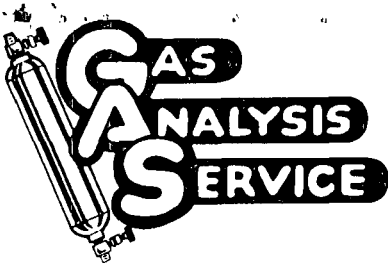
Sampled By _____

Meter No 73979

Cylinder No. 4131

Contact _____

Remarks eburbank @energen.com



2030 Afton Place
Farmington, NM 87401
(505) 325-6622

Analysis No: EN140202
Cust No: 73500-14430

Well/Lease Information

Customer Name:	ENERGEN RESOURCES CORP.	Source:	CASING
Well Name:	RICHARDSON COM #3 CSG	Pressure:	148 PSIG
County/State:		Sample Temp:	DEG. F
Location:		Well Flowing:	N
Field:		Date Sampled:	03/25/2014
Formation:		Sampled By:	EUGENE BURBANK
Cust. Stn. No.:		Foreman/Engr.:	

Remarks:

Analysis

Component:	Mole%:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.653	0.0720	0.00	0.0063
CO2	0.848	0.1450	0.00	0.0129
Methane	85.413	14.5210	862.67	0.4731
Ethane	7.581	2.0330	134.16	0.0787
Propane	3.021	0.8350	76.01	0.0460
Iso-Butane	0.478	0.1570	15.54	0.0096
N-Butane	0.803	0.2540	26.20	0.0161
I-Pentane	0.284	0.1040	11.36	0.0071
N-Pentane	0.235	0.0850	9.42	0.0059
Hexane Plus	0.684	0.3060	36.05	0.0226
Total	100.000	18.5120	1171.42	0.6783

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z):	1.0031
BTU/CU.FT (DRY) CORRECTED FOR (1/Z):	1177.8
BTU/CU.FT (WET) CORRECTED FOR (1/Z):	1157.3
REAL SPECIFIC GRAVITY:	0.6801

GPM, BTU, and SPG calculations as shown above are based on current GPA factors.

DRY BTU @ 14.650:	1171.4
DRY BTU @ 14.696:	1175.1
DRY BTU @ 14.730:	1177.8
DRY BTU @ 15.025:	1201.4

CYLINDER #:	4133
CYLINDER PRESSURE:	153 PSIG
DATE RUN:	4/2/14 10:31 AM
ANALYSIS RUN BY:	LOGAN CHENEY



153#

- Helium Hydrogen Oxygen
 C6+ C9+ BTEX

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Company Energen

Pressure(PSIG) 148

Well Name Richardson Com #3

Sample Temp (Deg. F) _____

Location/Source Casing

Well Flowing Yes No

Lease/County _____

Date Sampled 3-25-14

Formation _____

Sampled By Eugene Burbank

Meter No _____

Cylinder No. 4133

Contact _____

Remarks please call Eugene when this is done!