



**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  
APR 17 2014

Date of Test 4-11-14 Operator Energen Resources API # 30 045 25002

Property Name Holly Federal #1 Location: Unit P Section 29 Township 30N Range 15W  
(Well Name and Number)

Pressure (Shut-in or Producing) Tubing 42 Intermediate N/A Casing 42 Bradenhead 50

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	45	42	N/A	N/A	N/A	✓	N/A
10 minutes	45	42	↓	↓	↓	Surges	↓
15 minutes	45	43					
20 minutes	45	43					
25 minutes	45	44					
30 minutes	45	44					
5 minute SI	46	44	✓	↓	↓	Water	✓

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

Clear ✓ Fresh \_\_\_\_\_ Salty \_\_\_\_\_ Sulfur \_\_\_\_\_ Black \_\_\_\_\_

5 Minute Shut-in Bradenhead 46 Intermediate N/A

REMARKS: Bradenhead Flowed Back 2 BBLs water. No Gas Flow

By Eugene Burbank Witness \_\_\_\_\_  
Production Foreman  
(Position)



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

Analysis No: EN140147  
 Cust No: 73500-12990

### Well/Lease Information

Customer Name: ENERGEN RESOURCES CORP.  
 Well Name: HOLLY FEDERAL #1  
 County/State: SAN JUAN NM  
 Location: NMNM13959  
 Field:  
 Formation:  
 Cust. Stn. No.: 29080  
 DP#3129080

Source: *Meter / Casing*  
 Pressure: 30 PSIG  
 Sample Temp: DEG. F  
 Well Flowing: Y  
 Date Sampled: 03/12/2014  
 Sampled By: EUGENE BURBANK  
 Foreman/Engr.:

Remarks:

### Analysis

Component::	Mole%:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	1.582	0.1750	0.00	0.0153
CO2	0.422	0.0720	0.00	0.0064
Methane	75.037	12.7740	757.88	0.4156
Ethane	9.537	2.5610	168.77	0.0990
Propane	7.341	2.0310	184.71	0.1118
Iso-Butane	0.783	0.2570	25.46	0.0157
N-Butane	2.546	0.8060	83.06	0.0511
I-Pentane	0.626	0.2300	25.05	0.0156
N-Pentane	0.674	0.2450	27.02	0.0168
Hexane Plus	1.452	0.6500	76.54	0.0481
<b>Total</b>	<b>100.000</b>	<b>19.8010</b>	<b>1348.47</b>	<b>0.7954</b>

\* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

\*\*@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0044  
 BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1357.6  
 BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1334.0  
 REAL SPECIFIC GRAVITY: 0.7986

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

DRY BTU @ 14.650: 1350.2  
 DRY BTU @ 14.696: 1354.5  
 DRY BTU @ 14.730: 1357.6  
 DRY BTU @ 15.025: 1384.8

CYLINDER #: 4113  
 CYLINDER PRESSURE: 30 PSIG  
 DATE RUN: 3/13/14 8:44 AM  
 ANALYSIS RUN BY: LOGAN CHENEY



RUSH

30#

- Helium     Hydrogen     Oxygen  
 C6+     C9+     BTEX

2030 Afton Place, Farmington, NM 87401 • 505/325-6622

Company Energen Res

Pressure(PSIG) 30

Well Name Holly Federal #1

Sample Temp (Deg. F) \_\_\_\_\_

Location/Source Meter

Well Flowing  Yes     No

Lease/County \_\_\_\_\_

Date Sampled 3-12-14

Formation \_\_\_\_\_

Sampled By Eugene Burbank

Meter No \_\_\_\_\_

Cylinder No. 4113

Contact \_\_\_\_\_

Remarks \_\_\_\_\_



2030 Afton Place  
Farmington, NM 87401  
(505) 325-5622

Analysis No: EN140146  
Cust No: 73500-14395

### Well/Lease Information

Customer Name: ENERGEN RESOURCES CORP.  
Well Name: HOLLY FEDERAL #1 BHD  
County/State:  
Location:  
Field:  
Formation:  
Cust. Str. No.:

Source: Bradenhead  
Pressure: 40 PSIG  
Sample Temp: DEG. F  
Well Flowing: Y  
Date Sampled: 03/12/2014  
Sampled By: EUGENE BURBANK  
Foreman/Engr.:

Remarks:

### Analysis

Component:	Mole%:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	1.732	0.1910	0.00	0.0168
CO2	0.364	0.0620	0.00	0.0055
Methane	78.261	13.3160	790.44	0.4335
Ethane	8.886	2.3850	157.25	0.0923
Propane	6.104	1.6880	153.58	0.0929
Iso-Butane	0.609	0.2000	19.80	0.0122
N-Butane	1.903	0.6020	62.08	0.0382
I-Pentane	0.442	0.1620	17.68	0.0110
N-Pentane	0.474	0.1720	19.00	0.0118
Hexane Plus	1.225	0.5480	64.57	0.0405
Total	100.000	19.3260	1284.41	0.7547

\* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

\*\*@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0039  
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1292.4  
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1269.9  
REAL SPECIFIC GRAVITY: 0.7574

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

DRY BTU @ 14.650: 1285.4  
DRY BTU @ 14.696: 1289.4  
DRY BTU @ 14.730: 1292.4  
DRY BTU @ 15.025: 1318.3

CYLINDER #: 6236  
CYLINDER PRESSURE: 42 PSIG  
DATE RUN: 3/13/14 8:43 AM  
ANALYSIS RUN BY: LOGAN CHENEY



Rush

42#

- Helium     Hydrogen     Oxygen  
 C6+     C9+     BTEX

2030 Afton Place, Farmington, NM 87401 • 505/325-6622

Company Energen

Pressure(PSIG) 40

Well Name Holly Federal #1

Sample Temp (Deg. F) \_\_\_\_\_

Location/Source Bradenhead

Well Flowing  Yes     No

Lease/County \_\_\_\_\_

Date Sampled 3-12-14

Formation \_\_\_\_\_

Sampled By Eugene Burbank

Meter No \_\_\_\_\_

Cylinder No. 6236

Contact \_\_\_\_\_

Remarks \_\_\_\_\_

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

RECEIVED

FORM APPROVED  
OMB NO. 1004-0137  
Expires July 31, 2010

MAR 14 2014

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an existing well or to abandon a well. Use Form 3160-3 (APD) for such proposals.

5. Lease Serial No.  
NM13959

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.

8. Well Name and No.  
Holly Federal #1

9. API Well No.  
30-045-25002

10. Field and Pool, or Exploratory Area  
Meadows Gallup

11. County or Parish, State  
San Juan NM

SUBMIT IN TRIPLICATE - Other instructions on page 2

1. Type of Well  
 Oil Well  Gas Well  Other

2. Name of Operator  
ENERGEN RESOURCES CORPORATION

3a. Address  
2010 Afton Place, Farmington, NM 87401

3b. Phone No. (include area code)  
505-325-6800

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
980' FSL, 700' FEL, Sec. 29, T30N, R15W, N.M.P.M.  
(P) SE/SE

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize <input type="checkbox"/> Deepen <input type="checkbox"/> Production (Start/Resume) <input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing <input type="checkbox"/> Fracture Treat <input type="checkbox"/> Reclamation <input checked="" type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input checked="" type="checkbox"/> Casing Repair <input type="checkbox"/> New Construction <input type="checkbox"/> Recomplete <input type="checkbox"/> Other
	<input type="checkbox"/> Change Plans <input type="checkbox"/> Plug and Abandon <input type="checkbox"/> Temporarily Abandon
	<input type="checkbox"/> Convert to Injection <input type="checkbox"/> Plug Back <input type="checkbox"/> Water Disposal

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the final site is ready for final inspection.)

On 3/12/14 it was reported that the Holly Federal #1 failed a bradenhead test. Energen Resources intends to identify the casing issue and make repairs as follows:

- MIRU WSU.
- TOOH w/ TBNG. TIH w/ CBP and set @ 4000'.
- Isolate possible CSNG leak using 5 1/2" packer.
- Squeeze CSNG leak. WOC.
- Drill out CMNT and test CSNG to 600PSI for 30 mins.
- Clean out to PBDT using air/mist.
- TIH w/ production TBNG. RDMO WSU.

This will be a closed loop operation.

OIL CONS. DIV DIST. 3  
APR 17 2014

14. I hereby certify that the foregoing is true and correct

Name (Printed/Typed)  
Collin Placke

Title  
District Engineer

Signature  
*Collin Placke*

Date  
3/12/14

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by *[Signature]* Title PE Date MAR 17 2014

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon. Office F-10

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

RECEIVED

FORM APPROVED  
OMB NO. 1004-0137  
Expires July 31, 2010

MAR 14 2014

SUNDRY NOTICES AND REPORTS ON WELLS

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Farmington Field Office  
Bureau of Land Management

SUBMIT IN TRIPLICATE - Other instructions on page 2

1. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		5. Lease Serial No. NM13959
2. Name of Operator ENERGEN RESOURCES CORPORATION		6. If Indian, Allottee or Tribe Name
3a. Address 2010 Afton Place, Farmington, NM 87401	3b. Phone No. (include area code) 505-325-6800	7. If Unit or CA/Agreement, Name and/or No.
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) 980' FSL, 700' FEL, Sec. 29, T30N, R15W, N.M.P.M. (P) SE/SE		8. Well Name and No. Holly Federal #1
		9. API Well No. 30-045-25002
		10. Field and Pool, or Exploratory Area Meadows Gallup
		11. County or Parish, State San Juan NM

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

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<input type="checkbox"/> Final Abandonment Notice	<input checked="" type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
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- Squeeze CSNG leak. WOC.
- Drill out CMNT and test CSNG to 600PSI for 30 mins.
- Clean out to PBTD using air/mist.
- TIH w/ production TBNG. RDMO WSU.

This will be a closed loop operation.

Notify NMOCD 24 hrs  
prior to beginning  
operations

RCVD MAR 18 '14  
OIL CONS. DIV.

DIST. 3

14. I hereby certify that the foregoing is true and correct Name (Printed/Typed) Collin Placke		Title District Engineer
Signature <i>Collin Placke</i>		Date 3/12/14

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by Original Signed: Stephen Mason	Title	Date MAR 17 2014
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.	Office	

Title 18 U.S.C. Section 1001, and Title 43 U.S.C. Section 1212, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

NMOCD

OIL CONS. DIV DIST. 3

APR 17 2014

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EMERSON  
26021 TURNER RDS  
00 APR 30 0415-28002

