

PLEASE PROCESS AS AN APD-ROW APPLICATION

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

FORM APPROVED
OMB No. 1004-0136
Expires January 31, 2004

5. Lease Serial No.

NMSF - 080245

6. If Indian, Allottee or Tribe Name

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

8. Lease Name and Well No
Federal 31-11-28 #3

9. API Well No.

30-045- 32576

10. Field and Pool, or Exploratory

Basin Fruitland Coal

11. Sec., T., R., M., or Blk. and Survey or Area

Sec. 28 T. 31N., R. 11 W. N.M.P.M.

12. County or Parish

San Juan County

13. State

NM

1a. Type of Work: ☐ Oil
Well

☐ REENTER

1b. Type of Well: ☒ Gas Well ☐ Other

☒ Single Zone ☐ Multiple Zone

2. Name of Operator

Energen Resources Corporation, an Energen Company

3a. Address

2198 Bloomfield Highway Farmington, NM 87401

3b. Phone No. (include area code)

505 326-6191

4. Location of Well (Report location clearly and in accordance with any State requirements.)

At surface SWSE 1010 FSL 1720 FEL Lat 36° 51'56" Long. 107° 59'37"

At proposed prod. zone same

14. Distance in miles and direction from nearest town or post office*

2 1/2 miles north, northeast of Aztec, NM

15. Distance from proposed*

location to nearest
property or lease line, ft.

(Also to nearest drig. unit line, if any) 1010 feet from south line

16. No. of Acres in lease

2,475.61

17. Spacing Unit dedicated to this well

320 E/2

18. Distance from proposed location*

to nearest well, drilling, completed,
applied for, on this lease, ft. 1200 ft to BP America
Heaton LS #1A

19. Proposed Depth

2550'

20. BLM/BIA Bond No. on file

B2918255

21. Elevations (Show whether DF, KDB, RT, GL, etc.)

5871 GL

22. Approximate date work will start*

February, 2005

23. Estimated duration

30 days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form:

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).

4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification.
6. Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature

Doug Thomas

Name (Printed/Typed)

Mr. Doug Thomas

Date

9/8/04

Title

Drilling Superintendent

Approved by (Signature)

[Signature]

Name (Printed/Typed)

Office

FFO

Date

10/13/04

Application approval 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.

Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make 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.

*(Instructions on reverse)

District I
PO Box 1980, Hobbs NM 88241-1980
District II
PO Drawer KK, Artesia, NM 87211-0719
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

Form C-102
Revised February 21, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

RECEIVED

☐ AMENDED REPORT

SEP 09 2004

WELL LOCATION AND ACREAGE DEDICATION PLAT

Bureau of Land Management
Farmington Field Office

1 API Number 30-045-32576	2 Pool Code 71629	3 Property Name Basin Fruitland coal
4 Property Code 300459	5 Operator Name FEDERAL 31-11-28	6 Well Number # 3
7 OGRID No. 142928	8 Operator Name ENERGEN RESOURCES CORPORATION	9 Elevation 5871

10 Surface Location

UL or Lot No. O	Section 28	Township 31 N	Range 11 W	Lot Idn	Feet from the 1010	North/South line SOUTH	Feet from the 1720	East/West line EAST	County SAN JUAN
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11 Bottom Hole Location If Different From Surface

7 UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
12 Dedicated Acres	13 Joint or Infill	14 Consolidation Code	15 Order No.						

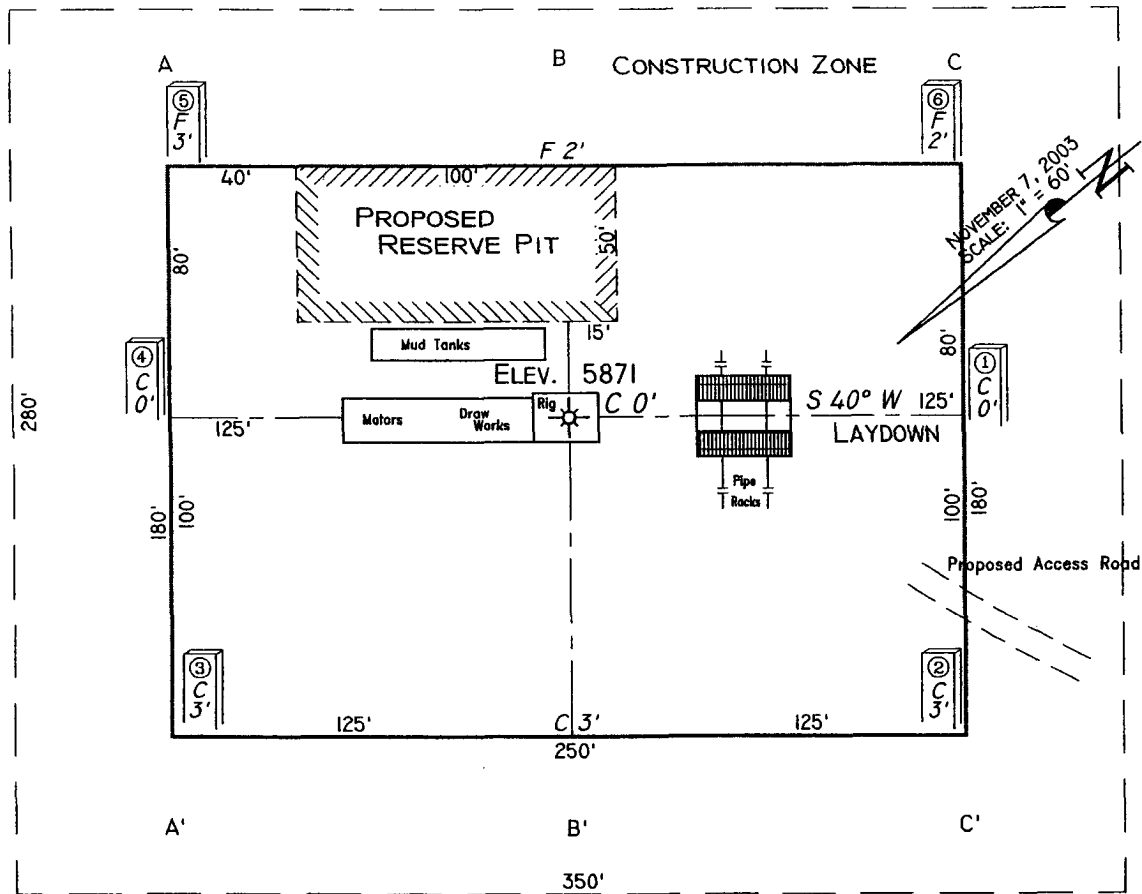
NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

16	5180(R)	2645(R)	2618(R)	2632(R)	2491(R)	1720'	1010'	28	OCT 2004 RECEIVED OIL CON. DIV. DIST. 8	17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief. Signature: Doug Thomas Printed Name: Doug Thomas Title: Drilling Superintendent Date: 9/3/04
										18 SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief. November 7, 2003 Date of Survey Signature and Seal of Professional Surveyor 7016 Certificate Number

Plat #4 Pad Location layout

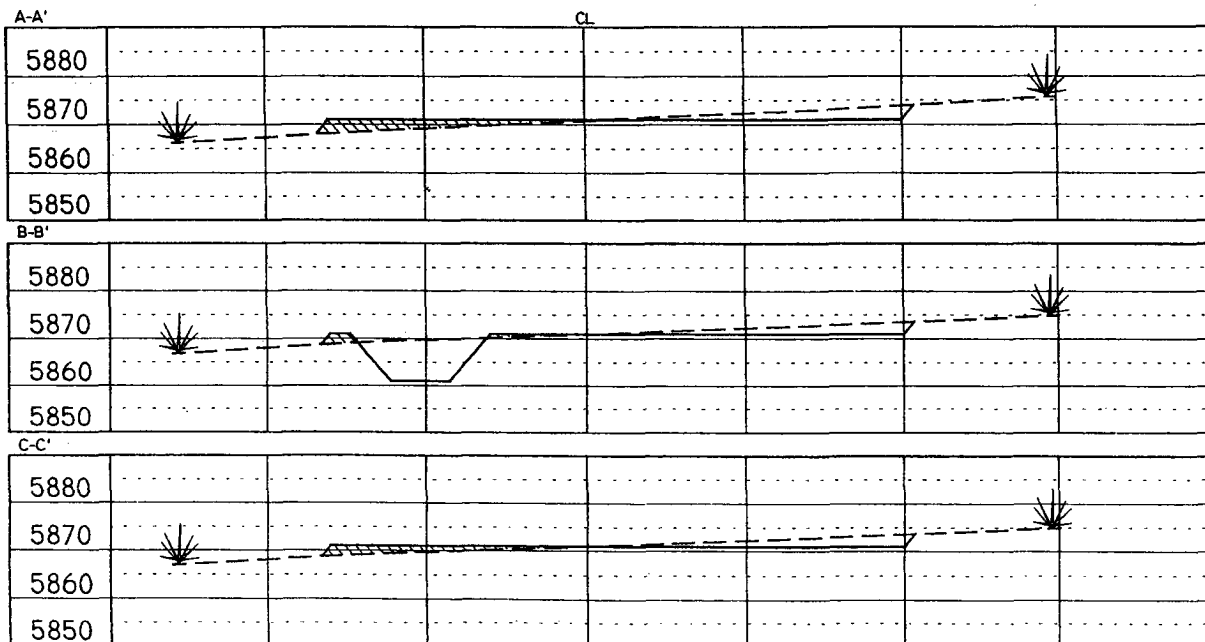
PAD LAYOUT PLAN & PROFILE
ENERGEN RESOURCES CORPORATION
 Federal 31-11-28 #3
 1010' F/SL 1720' F/EL
 SEC. 28, T31N, R11W, N.M.P.M.
 SAN JUAN COUNTY, NEW MEXICO

Lat: 36°51'56"
 Long: 107°59'37"



Area of Construction Zone - 280'x350' or 2.25 acres, more or less.

SCALE: 1"=60'-HORIZ.
 1"=40'-VERT.



NOTE: Contractor should call One-Call for location of any marked or unmarked buried pipelines or cables on well pad and/or access road at least two (2) working days prior to construction.

Cuts and fills shown are approximate - final finished elevation is to be adjusted so earthwork will balance. Corner stakes are approximate and do not include additional areas needed for sideslopes and drainages. Final Pad Dimensions are to be verified by Contractor.

VANN SURVEYS
 P. O. Box 1306
 Farmington, NM

Federal 31-11-28 #3
SWSE Sec 28-T319N-R11W
1010' FSL & 1720' FEL
San Juan County, New Mexico

EIGHT POINT DRILLING PROGRAM

1. Estimated Formation Tops:

Ojo Alamo	1100'
Kirtland	1250'
Fruitland Coal	2100'
Pictured Cliffs	2400'
Total Depth	2550'

2. Estimated Depth of Anticipated Minerals:

Fruitland (Gas)	2250'
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3. Minimum Specifications for Pressure Control Equipment:

BOP equipment and accessories will meet or exceed BLM requirements outlined in 43 CFR Part 3160.

A 3000 psig double ram hydraulic BOP will be used (see attached diagram). Since maximum anticipated formation pressure is 1200 psig, accessories to the BOP will meet BLM requirements for a 2000 psig system (exhibit 1). The accumulator system capacity will be sufficient to close all BOPE with a 50% safety factor. Fill line, kill line and line to choke manifold will be 2". BOP will be function tested every 24 hours and will be recorded on IADC log.

Surface casing will be tested to 1500 psig for 30 minutes.

Eight Point Drilling Program - Federal 31-11-28 #3

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Accessories to BOPE will include upper and lower Kelly cocks with handles, stabbing valve to fit drill pipe on floor at all times, string float at bit, 3000 psig choke manifold with 2" adjustable and 2" positive chokes, and pressure gauge.

4. Casing and Cementing Program:

<u>Hole Size</u>	<u>Interval</u>	<u>Csg Size</u>	<u>Wt. Grd. Jt</u>
12-1/4"	0-300'	8-5/8"	24#, J-55, STC
7-7/8"	0-2550'	5-1/2"	15.5 24#, J-55, LTC

Surface Casing will be cemented with 210 sx (248 cu ft) class B w/3% CaCl and 1/4#/sx of celloflake (Yield = 1.18 cuft/sx, Weight = 15.6 #/gal). Cement volumes include excess to circulate cement to surface. A guide shoe, insert float and three (3) centralizers will be used. WOC time is 8 hours. The casing will be pressure tested to 1500 psig.

Production Casing: Lead cement will be 185sx 65/35 poz with 6% gel, 2% CaCl and 1/4#/sx celloflake (Yield = 1.92 cuft/sx, Weight = 12.6#/gal). Tail cement will be 165 sx Class B containing 2% CaCl and 1/4#/sx celloflake (Yield = 1.18 cuft/sx, Weight = 15.6 #/gal). Total cement = 545 cuft. Cement volume includes excess to circulate cement to surface. In the event cement is not circulated a temperature survey will be run to determine the actual cement top, as required. Cementing equipment will include a guide shoe, float collar and 10 centralizers. Class G or H cement may be used depending on availability of Class B.

5. Mud Program:

A native water based mud system (FW) will be used initially followed by a low-solids, non-dispersed gel system (LSND) to condition the hole for logs. Adequate amounts of lost circulation and weighting material will be on location if needed as well as sorbitive agents to handle potential spills of fuel or lubricants.

<u>Depth</u>	<u>Type</u>	<u>Wt (ppg)</u>	<u>Vis (sec)</u>	<u>Wtr loss</u>
0-300'	FW	± 8.5	30-33	NC
300'-TD	LSND	± 8.7-9.5	30-50	8-10 cc

6. Testing, Coring and Logging Program:

No DST's or cores are planned. Openhole logs will include GR, Induction, Density and Caliper Logs. The GR-Density logs will be run from TD to the top of the Fruitland formation. GR-Induction-Caliper logs will be run from TD to the bottom of the surface casing.

7. Anticipated Abnormal Pressures and Temperatures:

No abnormal pressures or temperatures are expected in this well. Maximum anticipated Fruitland reservoir pressure is 1200 psig with a normal temperature gradient.

8. Operations:

Anticipated spud date is February 1, 2005 or as soon as permits are received and work can be scheduled. Estimated drilling time is 7 days. The Fruitland will be completed as a cased hole completion, perforated and hydraulically fracture stimulated. Completion operations are expected to take 7 – 10 days and will commence as soon after completion of drilling operations and scheduling allow.

2-M SYSTEM

