

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
OMB NO. 1004-0136  
Expires: November 30, 2000

APPLICATION FOR PERMIT TO DRILL OR REENTER

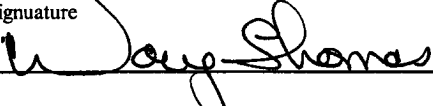

RECEIVED

1a. Type of Work <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		2003 MAR -7 AM 11:34	5. Lease Serial No. NM-4461
1b. Type of Well <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		075 Farmington	6. Indian, Allottee or Tribe Name
2. Name of Operator Energen Resources Corporation			7. Unit or CA Agreement Name and No. NM 32567
3a. Address 2198 Bloomfield Highway Farmington, New Mexico 87401		3b. Phone No. (include area code) (505)325-6800	8. Lease Name and Well No. Elk Horn 100
4. Location of Well (Report location clearly and in accordance with any State requirements)* At surface 725 FSL, 800 FWL - SWSW At proposed prod. zone			9. API Well No. 3003927337
14. Distance in miles and direction from nearest town or post office* 16 miles northeast of Gobernador		10. Field and Pool, or Exploratory Basin Fruitland Coal	11. Sec., T., R., M., or Blk. and Survey or Area Sec. 29, T32N, R05W, N.M.P.M.
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drg. unit line, if any) 725'		16. No. of Acres in lease 3	17. Spacing Unit dedicated to this well 320/W2
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 75'		19. Proposed Depth 3522'	20. BLM/BIA Bond No. on file
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 6682' GL		22. Approximate date work will start* 06/01/03	23. Estimated duration 5 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.  | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).    |
| 2. A Drilling Plan  | 5. Operator certification.   |
| 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). | 6. Such other site specific information and/or plans as may be required by the authorized officer. |

25. Signature 	Name (Printed/Typed) Doug Thomas	Date 12/30/02
Title Drilling & Completion Foreman		
Approved by (Signautre) 	Name (Printed/Typed)	Date JUL 14 2003
Title Office		

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)

This action is subject to technical and procedural review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4

DRILLING OPERATIONS AUTHORIZED ARE  
SUBJECT TO COMPLIANCE WITH ATTACHED  
"GENERAL REQUIREMENTS".

NOOCD

District I  
PO Box 1980, Hobbs, NM 88241-1980

State of New Mexico  
Energy, Minerals & Natural Resources Department

Form C-102  
Revised February 21, 1994

District II  
PO Drawer DD, Artesia, NM 88211-0719

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

Instructions on back  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

District III  
1000 Rio Brazos Rd., Aztec, NM 87410

District IV  
PO Box 2088, Santa Fe, NM 87504-2088

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number <b>30-039-27337</b>	*Pool Code 71629	*Pool Name Basin Fruitland Coal
*Property Code <b>32567</b>	*Property Name ELK HORN	*Well Number 100
*GRID No. 162928	*Operator Name ENERGEN RESOURCES CORPORATION	*Elevation 6682'

<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	29	32N	5W		725	SOUTH	800	WEST	RIO ARriba

<sup>11</sup> Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

<sup>12</sup> Dedicated Acres 320.0 Acres - (W/2)	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.
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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

<div><p><sup>16</sup></p></div>	<div><p><sup>17</sup> OPERATOR CERTIFICATION</p><p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</p><p><i>Don Graham</i></p><p>Signature Don Graham</p><p>Printed Name Production Superintendant</p><p>Title</p><p><u>12-13-02</u></p><p>Date</p></div> <div><p><sup>18</sup> SURVEYOR CERTIFICATION</p><p>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.</p><p>Survey Date: NOVEMBER 5, 2002</p><p>Signature and Seal of Professional Surveyor</p><div></div><p><b>JASON C. EDWARDS</b></p><p>Certificate Number 15269</p></div>
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UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

RECEIVED

FORM APPROVED  
OMB NO. 1004-0135  
Expires: November 30, 2000

**SUNDRY NOTICES AND REPORTS ON WELLS**

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

2003 JUN 10 AM 070 Farmington, NM

**SUBMIT IN TRIPLICATE - Other instructions on reverse side**

1. Type of Well <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other		5. Lease Serial No. NM-4461
2. Name of Operator ENERGEN RESOURCES CORPORATION		6. If Indian, Allottee or Tribe Name
3a. Address 2198 Bloomfield Highway, 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) 725' FSL, 800' FWL, Sec. 29, T32N, R5W, N.M.P.M.		8. Well Name and No. Elk Horn 100
		9. API Well No.
		10. Field and Pool, or Exploratory Area Basin Fruitland Coal
		11. County or Parish, State Rio Arriba NM

**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 type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other
	<input checked="" 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 recompleat 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 recompleat 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.)

As per the data furnished Jim Lavato & Joe Hewitt it is intended to change the total depth of this well from 3465' at the base of the coal to 3522' in order to provide rat hole to efficiently pump this well. A mud log over the section will be furnished at time of drill out. All other data is consistant with the previously Submitted APD.



14. I hereby certify that the foregoing is true and correct Name (Printed/Typed) Vicki Donaghey		Title Production Assistant
Date 6/6/03		
THIS SPACE FOR FEDERAL OR STATE OFFICE USE		
Approved by /s/ David J. Mankiewicz	Title	Date JUL 14 2003
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

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENTFORM APPROVED  
OMB NO. 1004-0135  
Expires: November 30, 2000**SUNDRY NOTICES AND REPORTS ON WELLS**  
**Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.**5. Lease Serial No.  
NMNM4461

6. If Indian, Allottee or Tribe Name

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

**SUBMIT IN TRIPLICATE - Other instructions on reverse side.**1. Type of Well  
☐ Oil Well ☒ Gas Well ☐ Other8. Well Name and No.  
ELK HORN 1002. Name of Operator  
ENERGEN RESOURCES CORPORATIONContact: VICKI DONAGHEY  
E-Mail: vdonaghe@energen.com9. API Well No.  
30-039-27337-00-X13a. Address  
2198 BLOOMFIELD HIGHWAY  
FARMINGTON, NM 874013b. Phone No. (include area code)  
Ph: 505.325.6800 Ext: 238  
Fx: 505.326.611210. Field and Pool, or Exploratory  
BASIN FRUITLAND COAL

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Sec 29 T32N R5W SWSW 725FSL 800FWL

11. County or Parish, and State

RIO ARRIBA COUNTY, NM

## 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 type="checkbox"/> Well Integrity
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	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	PD

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 recompleat 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 recompleat 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 site is ready for final inspection.)

At the request of Chip Harradan, BLM, the TD has been revised to 3465'. Everything else remains the same in the operations plan.

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

Electronic Submission #19524 verified by the BLM Well Information System  
For ENERGEN RESOURCES CORPORATION, sent to the Farmington  
Committed to AFMSS for processing by Adrienne Garcia on 03/14/2003 (03AXG0848SE)

Name (Printed/Typed) VICKI DONAGHEY

Title PRODUCTION ASSISTANT

Signature (Electronic Submission)

Date 03/12/2003

## THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By

/s/ David J. Mankiewicz

Title

JUL 14 2003

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

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\*\* REVISED \*\* REVISED \*\* REVISED \*\* REVISED \*\* REVISED \*\* REVISED \*\* REVISED \*\* REVISED \*\*

## OPERATIONS PLAN

WELL NAME: Elk Horn #100

LOCATION: 725' FSL, 800' FWL, Section 29, T32N, R5W, Rio Arriba County, NM

FIELD: Basin Fruitland Coal

ELEVATION: 6682' GL

### FORMATION TOPS:

Surface	San Jose
Nacimiento	1427
Ojo Alamo	2717
Kirtland	2832
Fruitland	3252

Total Depth                **3522**

### LOGGING PROGRAM:

Open Hole Logs:

Surface to intermediate: None

Inter TD to total depth: None

Mud Logs:                Intermediate to total depth

Coring:                None

Natural Gauges:        Every 500' from intermediate TD to total depth

MUD PROGRAM: Fresh water low solids mud from surface to intermediate TD (9.0 PPG).  
Air/mist from intermediate casing point to total depth.

### CASING PROGRAM:

<u>HOLE SIZE</u>	<u>DEPTH</u>	<u>CSG SIZE</u>	<u>WT.</u>	<u>GRADE</u>
12 ¼"	200'	9 5/8"	32.3#	J-55 – ST&C
8 ¾"	3332'	7"	20#	J-55 – ST&C
6 ¼"	3232'-3522'	5 ½"	15.5#	J-55 – LT&C

### TUBING PROGRAM:

3450'	2 3/8"	4.7#	J-55
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WELLHEAD: 11" 3000 x 9 5/8" casing head. 11" 3000 x 7 1/16" 3000 xmas tree.

### BOP SPECIFICATIONS:

An 11" 2000 psi minimum double gate BOP stack (Figure 1) will be used following nipple up of casing head. During air drilling operations, a Shaffer Type 50 or equivalent rotating head will be installed on top of the stack. A 2" nominal, 2000 psi minimum choke manifold will be used. An upper Kelly Cock valve with handle available and drill string valve to fit each drill string will be available on the rig floor during drilling operations.

### CEMENTING:

9 5/8" surface casing - cement with 110 sks Class B Cement with 1/4" flocele/sk and 2% calcium chloride (130 cu. ft. of slurry, 100% excess to circulate to surface). WOC 12 hrs. Test casing to 600# for 30 minutes.

Texas Pattern Guide Shoe on bottom. 3 bow type centralizers spaced throughout the string.

7" intermediate casing – cement with 325 sks 65/35 Class B Poz with 6% gel, 2% calcium chloride, 10% gilsonite, and 1/4# flocele/sk. Tail with 100 sks Class B w/2% calcium chloride, 10% gilsonite and 1/4# flocele/sk. (751 cu. ft. of slurry, 50% excess to circulate to surface). WOC 12 hrs. If cement does not circulate, run temperature survey in 8 hrs. to determine TOC. Test casing to 1200 psi for 30 minutes.

Cement nose guide shoe on bottom with a self-fill insert float valve on top of shoe joint. 10 bow spring centralizers spaced every 2nd joint off bottom. Two turbolating centralizers at the base of the Ojo Alamo.

5 1/2" liner – NO CEMENT

### OTHER INFORMATION:

- 1) The Basin Fruitland Coal will be completed.
- 2) No abnormal temperatures or pressures are anticipated.
- 3) If lost circulation is encountered sufficient LCM will be added to the mud system to maintain well control.
- 4) This gas is dedicated.
- 5) Anticipated pore pressure for the Fruitland is 700 psi.