

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED

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

APPLICATION FOR PERMIT TO DRILL OR REENTER

FEB 09 2011

1a. Type of Work <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. I-149-IND-8181	
1b. Type of Well <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name Navajo Nation <i>Allotment</i>	
2. Name of Operator Energen Resources Corporation		7. Unit or CA Agreement Name and No.	
3a. Address 2010 Afton Place Farmington, New Mexico 87401		8. Lease Name and Well No. Richardson #103	
3b. Phone No. (include area code) (505) 325-6800		9. API Well No. 30-045-35241	
4. Location of Well (Report location clearly and in accordance with any State requirements)* At surface (L) Sec. 1-T27N-R13W ; 1,680' FSL, 955' FWL		10. Field and Pool, or Exploratory Basin Fruitland Coal	
At proposed prod. zone		11. Sec., T., R., M., or Blk. and Survey or Area Sec. 1-T27N-R13W	
14. Distance in miles and direction from nearest town or post office* 5 miles south of Farmington, NM		12. County or Parish San Juan	13. State NM
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drg. unit line, if any) 955'	16. No. of Acres in lease 319.91	17. Spacing Unit dedicated to this well 319.91 acre (W/2)	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 76'	19. Proposed Depth 1,535' MD	20. BLM/BIA Bond No. on file	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 5,838' GL	22. Approximate date work will start* 05/01/2011	23. Estimated duration 15 days	

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

24. Attachments

DRILLING OPERATIONS AUTHORIZED ARE SUBJECT TO COMPLIANCE WITH ATTACHED GENERAL REQUIREMENTS*

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

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

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

RCVD JUN 10 '11
OIL CONS. DIV.
DIST. 3

25. Signature 	Name (Printed/Typed) Andrew Soto	Date 1/26/11
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Title Drilling Engineer		
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Approved by (Signature) 	Name (Printed/Typed) AFM	Date 6/7/11
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Title AFM	Office FEO	
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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.

(Continued on page 2)

*(Instructions on page 2)

NOTIFY AZTEC OCD 24 HRS.
PRIOR TO CASING & CEMENT

JUN 22 2011

AV

NMOCD

BLM'S APPROVAL OR ACCEPTANCE OF THIS ACTION DOES NOT RELIEVE THE LESSEE AND OPERATOR FROM OBTAINING ANY OTHER AUTHORIZATION REQUIRED FOR OPERATIONS ON FEDERAL AND INDIAN LANDS

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

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

District III
3000 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
FEB 09 2011

Farrington Field Office AMENDED REPORT
Bureau of Land Management

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-045-35241		*Pool Code 71629	*Pool Name BASIN FRUITLAND COAL
*Property Code 21370	*Property Name RICHARDSON		*Well Number 103
*OGHU No 162928	*Operator Name ENERGEN RESOURCES CORPORATION		*Elevation 5838

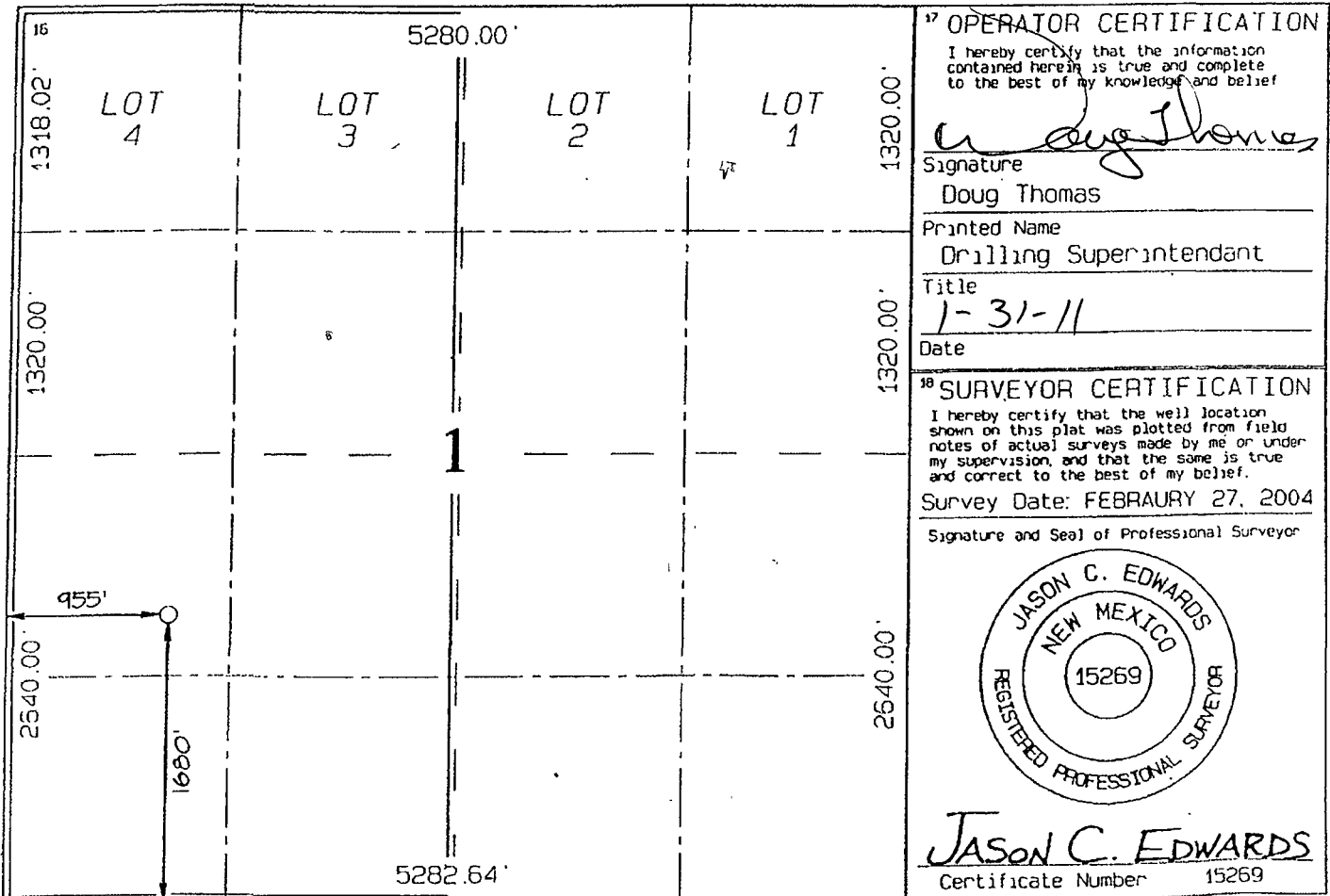
¹⁰ Surface Location

Ut. or lot no	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	1	27N	13W		1680	SOUTH	955	WEST	SAN JUAN

¹¹ Bottom Hole Location If Different From Surface

Ut. or lot no	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
¹² Dedicated Acres 319.91 Acres - (W/2)					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



¹⁷ OPERATOR CERTIFICATION
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief
Doug Thomas
Signature
Doug Thomas
Printed Name
Drilling Superintendent
Title
1-31-11
Date

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.
Survey Date: FEBRAURY 27, 2004
Signature and Seal of Professional Surveyor

JASON C. EDWARDS
NEW MEXICO
REGISTERED PROFESSIONAL SURVEYOR
15269

JASON C. EDWARDS
Certificate Number 15269

1/31/2011

OPERATIONS PLAN

WELL NAME.....Richardson #103
JOB TYPE.....Vertical Fruitland Coal
DEPT.....Drilling and Completions
PREPARED BY.....Andrew Soto

GENERAL INFORMATION

Surface Location	1,680' FSL & 955' FWL
S-T-R	(L) Sec.1-T27N-R13W
County, State	San Juan, New Mexico
Elevations	5,838' GL
Total Depth	1,535' +/- (MD)
Formation Objective	Basin Fruitland Coal

FORMATION TOPS

Ojo Alamo Ss	60'
Kirtland Sh	170'
Fruitland Fm	1,040'
Top Coal	1,175'
Base Coal	1,335'
Pictured Cliffs	1,340'
Total Depth	1,535'

DRILLING

The 12 1/4" wellbore will be drilled with a fresh water mud system.
The 7 7/8" wellbore will be drilled with a low solids fresh water/polymer mud system.
Weighting materials will be drill cuttings and, if needed, barite. Mud density is expected to range from 8.3 ppg to 8.9 ppg.

Blowout Control Specifications:

A 2,000 psi minimum double ram or annulus BOP stack will be used following nipple up of casing head. A 2" nominal, 2,000 psi minimum choke manifold will also be used. An upper Kelly Cock valve handle and drill string valve should be available to fit each drill string and be available on the rig floor during drilling operations. **Pressure test BOP to 250 psi for 15 min and 2,000 psi for 15 min.**

Logging Program:

Open hole logs: 7 7/8" wellbore SLB Standard Platform Express
Mudlogs: none
Surveys: Surface and/or every 350' to TD.

1/31/2011

CASING, TUBING & CASING EQUIPMENT

String	Start Depth	End Depth	Wellbore	Size	Wt	Grade
Surface	0	150'	12 1/4"	8 5/8"	24.0 lb/ft	J-55 ST&C
Production	0	1,535'	7 7/8"	5 1/2"	15.5 lb/ft	J-55 LT&C
Tubing	0	1,535'		2 3/8"	4.7 lb/ft	J-55

Casing Equipment:

Surface Casing: Depending on wellbore conditions, a Texas Pattern Guide Shoe on first joint with and insert float valve on top. Run standard bow spring centralizers as follows: every other joint from TD to surface.

Production Casing: Depending on wellbore conditions, a Cement nose guide shoe with self fill insert float collar on top of bottom joint and casing centralization with standard bow spring centralizers to optimize standoff. Turbolizers are to be placed in the base of the Ojo Alamo formation.

WELLHEAD

9 5/8" x 5 1/2" weld/slip on casing head. 5 1/2" x 2 3/8" 2000 psi weld/slip on tubing head.

CEMENTING

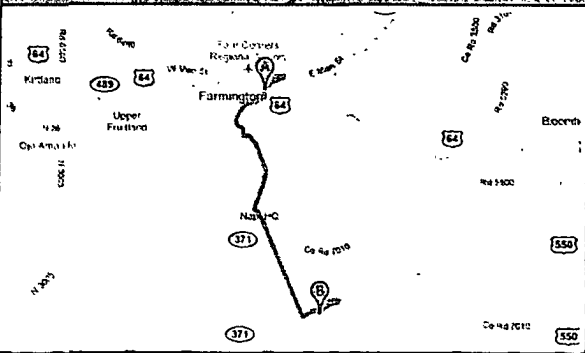
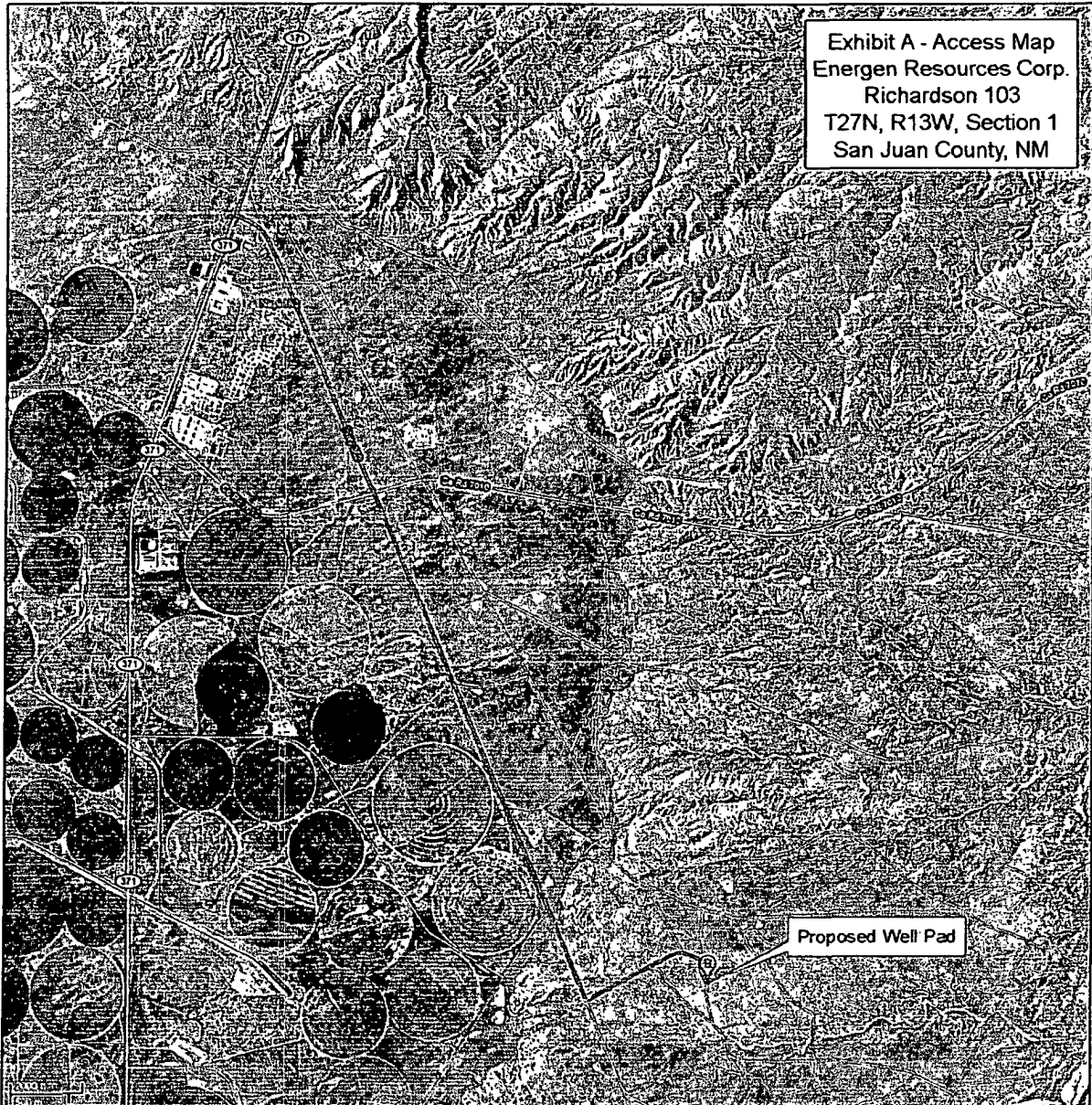
Surface Casing: 105 sks Type V with 2.0 % CaCl₂ and 1/4 #/sk Flocele (15.6 ppg, 1.18 ft³/sk 124 ft³ of slurry, 100% excess to circulate to surface). WOC 12 hours. Pressure test surface casing to 750 psi for 30 min.

Production Casing: Before cementing, circulate at least 1 1/2 hole volume of mud and reduce funnel viscosity to minimum to aid in hole cleanout. Depending on wellbore conditions, cement may consist of 197 sks PRB II with 5.0 #/sk Gilsonite, and 1/4 #/sk Flocele (12.3 ppg, 2.24 ft³/sk) and a tail of 50 sks of PRB II cement with 5.0 #/sk Gilsonite, and 1/4 #/sk Flocele (13.5ppg, 1.81 ft³/sk). (532 ft³ of slurry, circulate 100% excess to surface). The top of tail is designed for 1,013' FS.


Cement volumes are subject to change if caliper logs are run and dictate otherwise.

OTHER INFORMATION

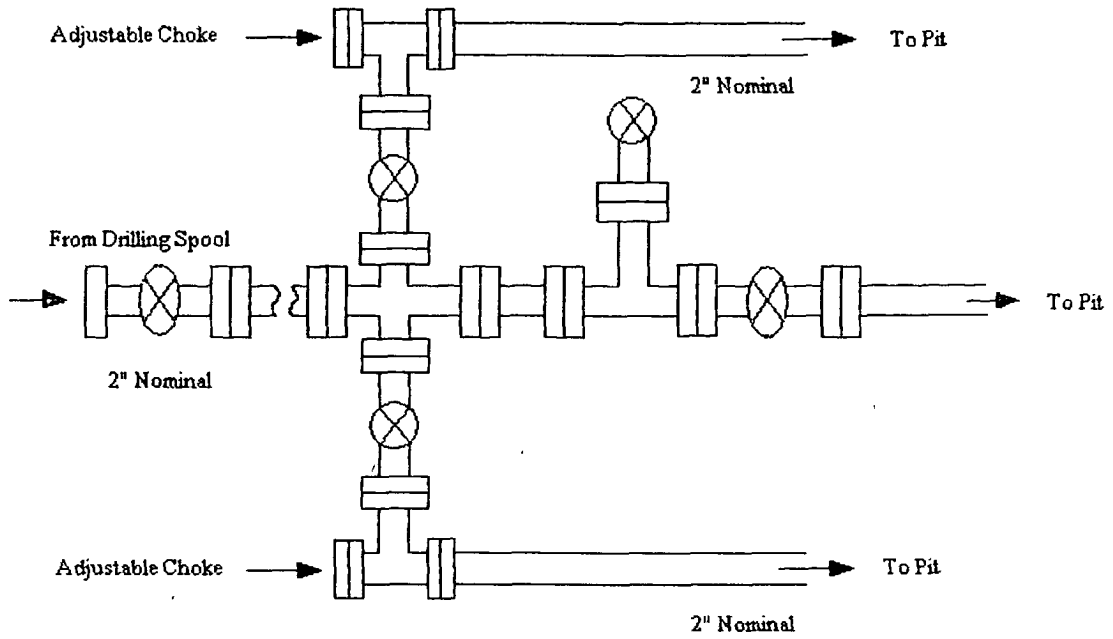
- 1) This well will be cased and the Basin Fruitland Coal fracture stimulated.
- 2) If lost circulation is encountered, sufficient LCM will be added to the mud system to maintain well control. The production string may need to be cemented in multiple stages with a slurry design deviated from that listed above.
- 3) If high reservoir pressures or water flows are encountered slurry design may need to be deviated to from those listed above to satisfy wellbore and formation conditions. Anticipated pressure is 300 psi.
- 4) No abnormal temperatures or pressures are anticipated.
- 5) This gas is dedicated.



Directions to the location from Farmington, NM:
 Travel approx. 5.6 mi south on NW-371;
 Turn left on County Road 7100 and travel south 4.6 mi;
 Turn left on an existing dirt road and travel east approx. 0.8 mi to the project location.


Adkins Consulting, Inc.
 307 East Hopi Street, Farmington, NM 87401
 tel: 505-793-1140 fax: 505-324-1183
www.AdkinsConsultingInc.com


Energen Resources Corporation
Typical 2000 psi Choke Manifold Configuration



Choke manifold installed from surface to TD

Energen Resources Corporation

Typical BOP Configuration for Gas Drilling

