

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED

FORM APPROVED
OMB NO. 1004-0137
Expires March 31, 2007

APPLICATION FOR PERMIT TO DRILL OR REENTER **NOV 01 2007**

1a. Type of Work ☒ DRILL ☐ REENTER **Bureau of Land Management
Farmington Field Office**
1b. Type of Well ☐ Oil Well ☒ Gas Well ☐ Other ☐ Single Zone ☐ Multiple Zone

2. Name of Operator
Energen Resources Corporation

3a. Address **2198 Bloomfield Highway Farmington, New Mexico 87401** 3b. Phone No. (include area code) **(505) 325-6800**

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

At surface **1465' FSL, 842' FEL NE/SE**

At proposed prod. zone

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

5-1/2 miles southwest of Farmington, NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drg unit line, if any) **842'**

16. No. of Acres in lease
502.00

17. Spacing Unit dedicated to this well
250.50 s/2

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. **2600'**

19. Proposed Depth
1729'

20. BLM/BIA Bond No. on file
NM 2707

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
5887'

22. Approximate date work will start*
February 2, 2008

23. Estimated duration
15 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:

- 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 shall 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 authorized officer.

25. Signature **Vicki Donaghey** Name (Printed/Typed) **Vicki Donaghey** Date **10/31/07**
Title **Regulatory Analyst**

Approved by (Signautre) **DJ Maniewicz** Name (Printed/Typed) **DJ Maniewicz** Date **6/23/08**
Title **AFM** Office **FEO**

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 page 2)

A COMPLETE C-144 MUST BE SUBMITTED TO AND APPROVED BY THE NMOCD FOR: A PIT, CLOSED LOOP SYSTEM, BELOW GRADE TANK, OR PROPOSED ALTERNATIVE METHOD, PURSUANT TO NMOCD PART 19.15.17, PRIOR TO THE USE OR CONSTRUCTION OF THE ABOVE APPLICATIONS.

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

NMOCD

NOTIFY AZTEC OCD 24 HRS.
PRIOR TO CASING & CEMENT

JUN 30 2008

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

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

RECEIVED

District I
1625 N. French Dr., Hobbs, NM 88240

District II
1301 W. Grand Avenue, Artesia, NM 88210

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

District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

NOV 01 2007

Form C-102
Revised October 12, 2005
Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-045-344911		² Pool Code 71629		³ Pool Name Basin Fruitland Coal	
⁴ Property Code 21180		⁵ Property Name C.J. HOLDER			⁶ Well Number # 500
⁷ OGRID No. 1163928		⁸ Operator Name ENERGEN RESOURCES CORPORATION			⁹ Elevation 5887'

¹⁰ Surface Location

U/L or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
I	31	29N	13W		1465	SOUTH	842	EAST	SAN JUAN

¹¹ Bottom Hole Location If Different From Surface

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

¹² Dedicated Acres 250.80 9/2	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ 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.

(CALC. COR.
BY SGL PROP.)
S89°54'00"E 4158.00' (R)
S89°31'37"E 4130.23 (M)

¹⁶ FD. 1 1/2" ALUM. CAP HCS LS#9672 10535.18' (R) 5267.59' (R) 5266.22' (M)		¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. Signature: Vicki Donaghey Date: 10-21-07 Printed Name: Vicki Donaghey	
N00°19'42"E N00°20'39"E R14W R13W		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. Date of Survey: 8/29/07 Signature and Seal of Professional Surveyor: [Seal] NM #11952 Certificate Number	
N89°55'01"W 1488.88' (M)		NAD 83 N26.647790 W108.24153 N00°10'42"E S00°19'00"W 842' 1465' 2656.55' (M)	
FD. 3 1/2" BRASS CAP GLO 1911		FD. 3 1/4" BRASS CAP BLM 1913	
FD. 3 1/2" BRASS CAP GLO 1913		FD. 3 1/2" BRASS CAP GLO 1913	

Drilling Plan

October 5, 2007

CJ Holder #500

General Information

Location	1465' fsl, 842' fel Nese S31, T29N, R13W San Juan County, New Mexico
Elevations	5887' GL
Total Depth	1729' (MD)
Formation Objective	Basin Fruitland Coal

Formation Tops

Ojo Alamo Ss	Surface
Kirtland Sh	209'
Fruitland Fm	1174'
Top Coal	1404'
Bottom Coal	1529'
Pictured Cliffs Ss	1529'
Total Depth	1729'

Drilling

The 12 1/4" wellbore will be drilled with a fresh water mud system.

The 8 3/4" 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 2000 psi minimum double ram or annulus BOP stack (figure 1) will be used following nipple up of casing head. A 2" nominal, 2000 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.

Logging Program:

Open hole logs: Induction/Gamma Ray and Density Logs

Coring: None

Surveys: Surface and/or every 500' to TD

Tubulars

Casing, Tubing, & Casing Equipment:

String	Interval	Wellbore	Casing	Csg Wt	Grade
Surface	0'-150'	12 1/4"	9 5/8"	32.3 ppf	H-40 LT&C
Production	150'-1729'	8 3/4"	7"	23.0 ppf	J-55 LT&C
Tubing	0'-1729'		2 3/8"	4.7 ppf	J-55

Casing Equipment:

Surface Casing: Depending on wellbore conditions, a Guide Shoe on bottom. Casing centralization with standard bow spring centralizers to achieve optimal standoff.

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.

Cementing

Surface Casing: 100 sks Std (class B) with 2.0 % CaCl_2 and 1/4 #/sk Flocele (15.6 ppg, 1.18 ft³/sk 59 ft³ of slurry, 100% excess to circulate to surface). WOC 12 hours. Pressure test surface casing to 600 psi for 30 min.

Production Casing: Before cementing, circulate hole at least 1 1/2 hole volumes of mud and reduce funnel viscosity to minimum to aide in hole cleanout. Depending on wellbore conditions, cement may consist of 200 sks 65/35 with 6.0 % Bentonite, 2.0 % CaCl_2 , 10 #/sk Gilsonite, and 1/2 #/sk Flocele (12.3 ppg, 1.93 ft³/sk) and a tail of 135 sks of Standard (Class B) cement with 5.0 #/sk Gilsonite, and 1/4 #/sk Flocele (15.4ppg, 1.18 ft³/sk). (545 ft³ of slurry, 100 % excess to circulate to surface).

Pump a 10 bbls water, 20 bbls gelled water, 5 bbls water spacer ahead of cement

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.
- 4) No abnormal temperatures or pressures are anticipated.
- 5) This gas is dedicated.

Anticipated BHP \approx 300 psi

ENERGEN RESOURCES CORPORATION

C.J. HOLDER #500

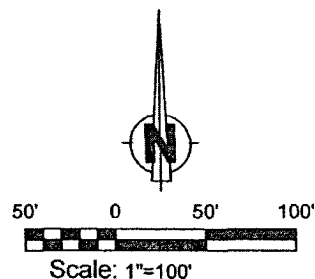
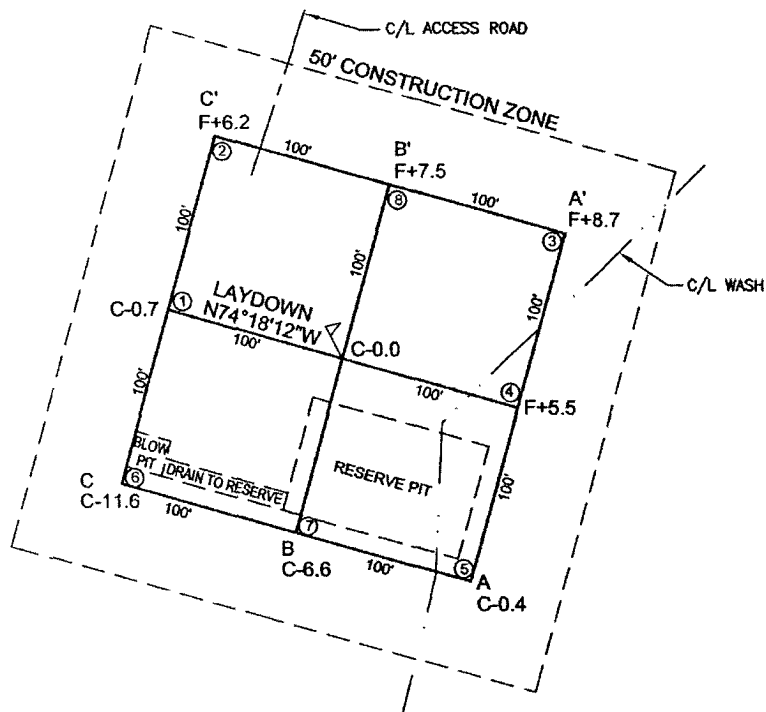
1465' FSL & 842' FEL

LOCATED IN THE NE/4 SE/4 OF SECTION 31,

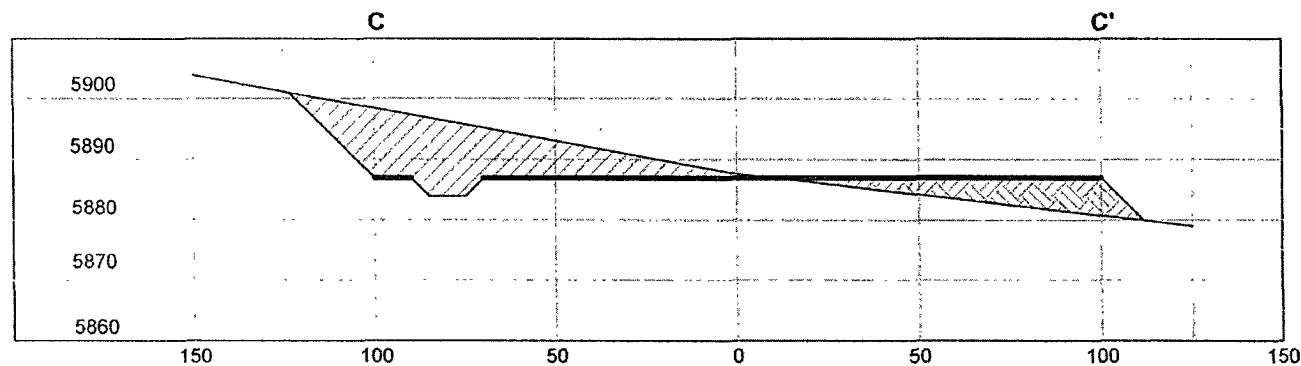
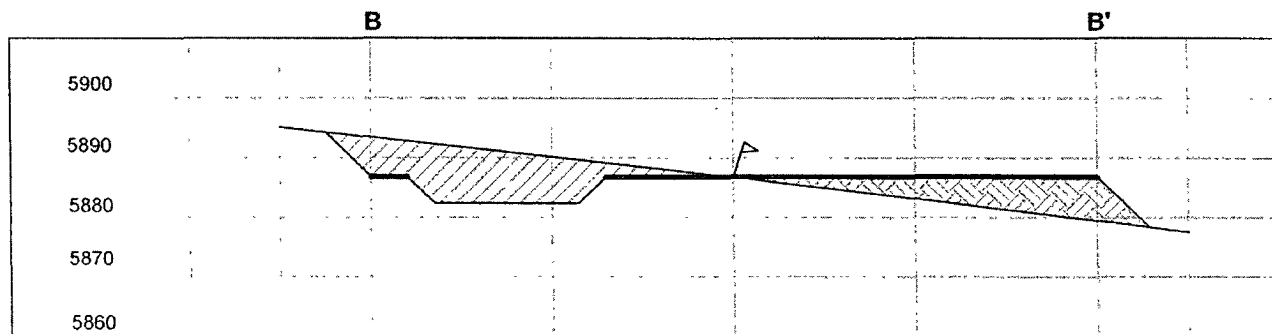
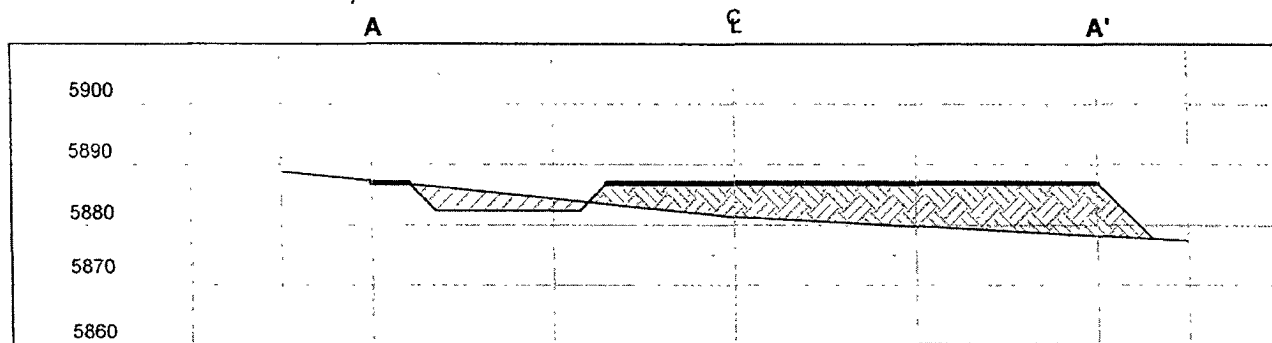
T29N, R13W, N.M.P.M.,

SAN JUAN COUNTY, NEW MEXICO

ELEVATION: 5887', NAVD 88



LATITUDE: 36.647990 N
LONGITUDE: 108.24153 W
DATUM: NAD 83



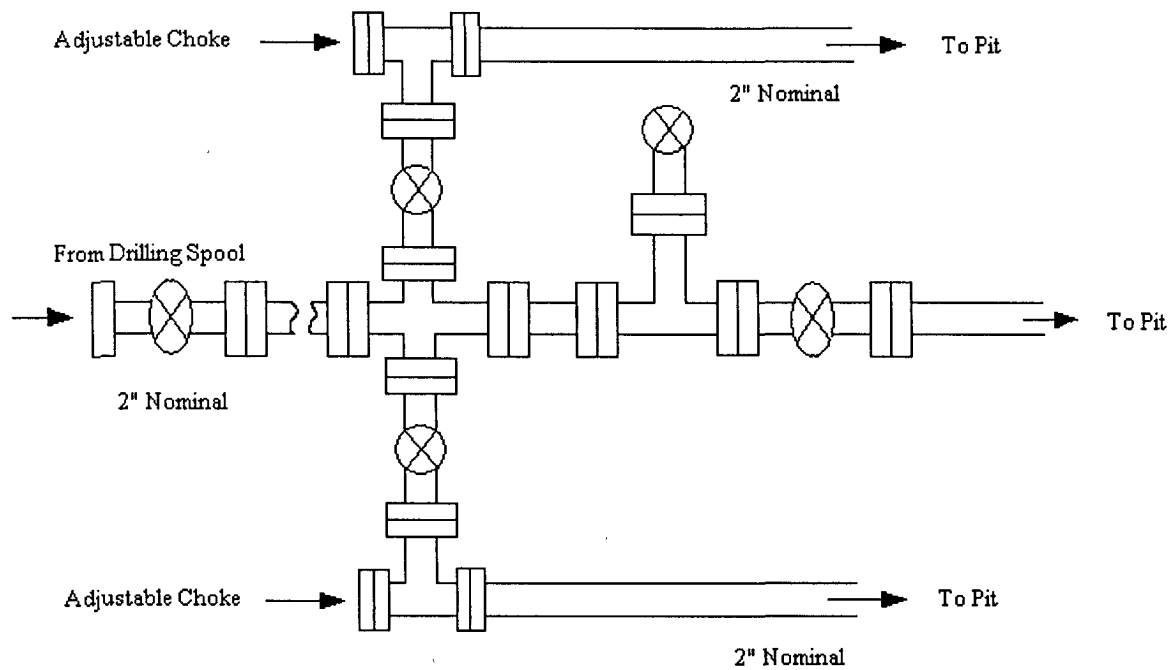
HORIZ. SCALE: 1"=50'
VERT. SCALE: 1"=30'

Red Skies Surveying & Mapping, Inc.
A Native American Owned Company

101 Fauver Lane, Bloomfield, New Mexico 87413
Phone/Fax: (505) 632-8906 Cell No: (505) 793-5325

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

