

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

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



APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. <b>USA NMM 33026</b>	
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 <b>Navajo</b>	
2. Name of Operator <b>Energen Resources Corporation</b>		7. Unit or CA Agreement Name and No.	
3a. Address <b>2198 Bloomfield Highway Farmington, New Mexico 87401</b>		8. Lease Name and Well No. <b>Trading Post #2S</b>	
3b. Phone No. (include area code) <b>(505) 325-6800</b>		9. API Well No. <b>30-045-33657</b>	
4. Location of Well (Report location clearly and in accordance with any State requirements)* At surface <b>995' fnl, 825' fw1</b> At proposed prod. zone		10. Field and Pool, or Exploratory <b>Basin Fruitland Coal</b>	
14. Distance in miles and direction from nearest town or post office* <b>Approximately 14.5 miles south west of Bloomfield</b>		11. Sec., T., R., M., or Blk. and Survey or Area <b>D S34, T27N, R12W</b>	
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drg. unit line, if any) <b>825'</b>	16. No. of Acres in lease <b>640</b>	17. Spacing Unit dedicated to this well <b>320 W 1/2</b>	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. <b>Approx. 1000'</b>	19. Proposed Depth <b>1381' +/-</b>	20. BLM/BIA Bond No. on file <b>NM 2707</b>	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) <b>GL 5806'</b>	22. Approximate date work will start* <b>07/25/06</b>	23. Estimated duration <b>8 days</b>	

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) <b>Nathan Smith</b>	Date <b>3/20/06</b>
Title <b>Drilling Engineer</b>		
Approved by (Signature) 	Name (Printed/Typed) <b>Mark</b>	Date <b>5/7/07</b>
Title <b>AFM</b>		

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)

NOTIFY AZTEC OCD 24 HRS.  
PRIOR TO CASING & CEMENT



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".

NMOCD

R 5/10

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

District II  
PO Drawer 00, Artesia, NM 88211-0719

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

2006 MAR 20 PM 3 53

AMENDED REPORT

RECEIVED

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number <b>30-045-33657</b>		*Pool Code 71629	*Pool Name BASIN FRUITLAND COAL
*Property Code <b>22044</b>	*Property Name TRADING POST		*Well Number 2S
*GRID No. 162928	*Operator Name ENERGEN RESOURCES CORPORATION		*Elevation 5806'



10 Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	34	27N	12W		995	NORTH	825	WEST	SAN JUAN

11 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
12 Dedicated Acres 320.0 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

	<p>17 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>Nathan Smith</i> Signature Nathan Smith Printed Name Drilling Engineer Title 2/21/06 Date</p>
	<p>18 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>Date of Survey: MARCH 3, 2004</p> <p>Signature and Seal of Professional Surveyor</p> <p> JASON C. EDWARDS Certificate Number 15269</p>

Submit 3 Copies To Appropriate District Office'  
District I  
1625 N. French Dr., Hobbs, NM 87240  
District II  
1301 W. Grand Ave., 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 and Natural Resources

Form C-103  
May 27, 2004

OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

WELL API NO. 30-045-33657

5. Indicate Type of Lease  
STATE ☐ FEE ☐

6. State Oil & Gas Lease No.  
USA NMM 33026

7. Lease Name or Unit Agreement Name:  
Trading Post

8. Well Number  
2S

9. OGRID Number  
162928

10. Pool name or Wildcat  
Basin Fruitland Coal

SUNDRY NOTICES AND REPORTS ON WELLS  
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well:  
Oil Well ☐ Gas Well ☒ Other ☐  
2. Name of Operator  
Energen Resources Corporation  
3. Address of Operator  
2198 Bloomfield Highway Farmington, NM 87401  
4. Well Location

Unit Letter D : 995 feet from the North line and 825 feet from the West line

Section 34 Township 27N Range 12W NMPM County San Juan

11. Elevation (Show whether DR, RKB, RT, GR, etc.)  
5849'

Pit or Below-grade Tank Application ☒ or Closure ☐

Pit type Drill Depth to Groundwater 100' Distance from nearest fresh water well 1000' Distance from nearest surface water >250'

Pit Liner Thickness: 12 mil Below-Grade Tank: Volume        bbls; Construction Material       

12. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐  
TEMPORARILY ABANDON ☐ CHANGE PLANS ☐  
PULL OR ALTER CASING ☐ MULTIPLE COMPLETION ☐

OTHER: Build Drilling Pit ☒

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐  
COMMENCE DRILLING OPNS. ☐ PLUG AND ABANDONMENT ☐  
CASING TEST AND CEMENT JOB ☐

OTHER: ☐

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Energen Resources plans to build a lined pit according to 'OCD Pit and Below Grade Tank Guidelines' as issued on November 1, 2004. Energen anticipates the submittal of a C-144 for closure of this pit in accordance with BLM and 'OCD Pit and Below Grade Tank Guidelines'.

hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that any pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☒ , a general permit ☐ or an (attached) alternative OCD-approved plan ☐

SIGNATURE Nathan Smith TITLE Drilling Engineer DATE 3/20/06

E-mail address:

Type or print name Nathan Smith

Telephone No. 505.326.6800

For State Use Only

APPROVED BY [Signature] TITLE DEPUTY OIL & GAS INSPECTOR, DIST. 4 DATE 5/10/07

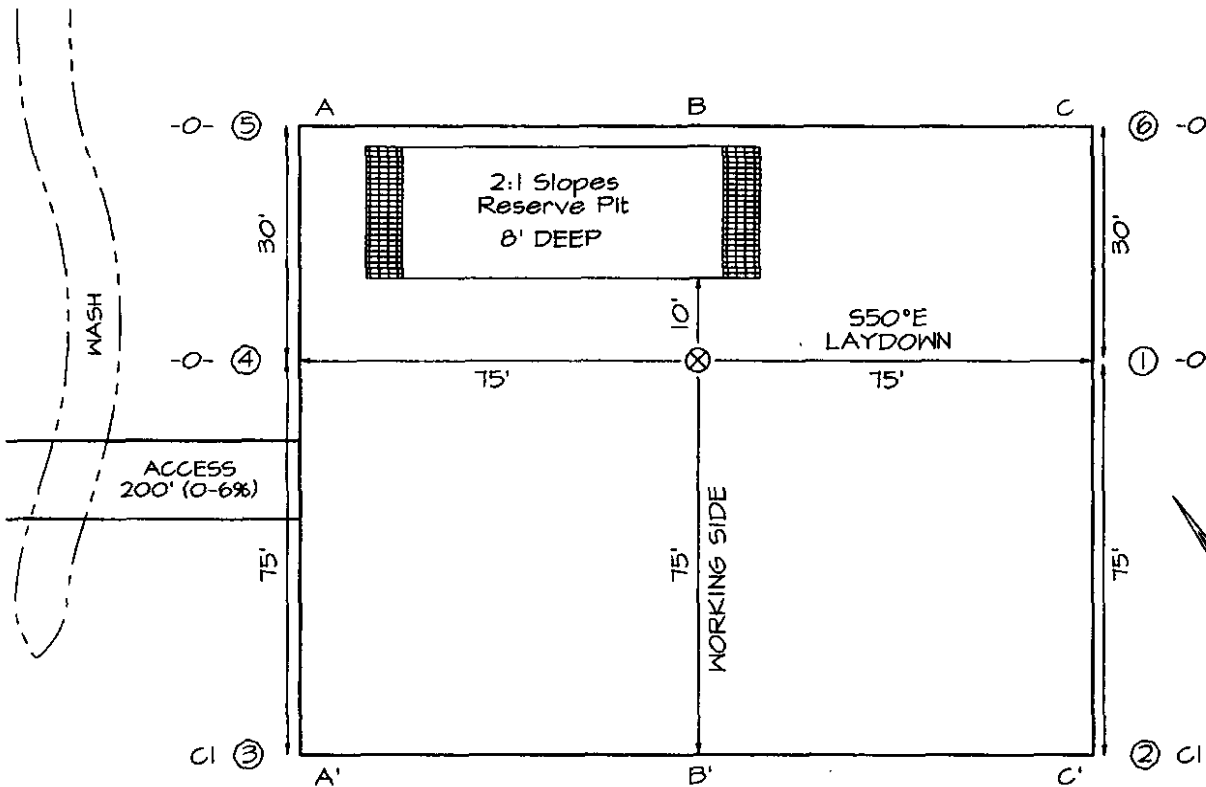
Conditions of Approval, if any:

2

**ENERGEN RESOURCES CORPORATION TRADING POST #2S**  
**995' FNL & 825' FWL, SECTION 34, T27N, R12W, NMPM**  
**SAN JUAN COUNTY, NEW MEXICO GROUND ELEVATION: 5806'**

SL 53611  
 108.10444

**LATITUDE: 36°32'10"**  
**LONGITUDE: 108°06'16"**  
 DATUM: NAD1927



A-A'						
5816'						
5806'						
5796'						

B-B'						
5816'						
5806'						
5796'						

C-C'						
5816'						
5806'						
5796'						

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

## Operations Plan

March 20, 2006

### **Trading Post #2S**

#### **General Information**

Location	995' fnl, 825' fwl nwnw S34, T27N, R12W San Juan County, New Mexico
Elevations	5806' GL
Total Depth	1381' (MD)
Formation Objective	Basin Fruitland Coal

#### **Formation Tops**

Ojo Alamo Ss	Surface
Kirtland Sh	131'
Fruitland Fm	891'
Top Coal	1026'
Bottom Coal	1181'
Pictured Cliffs Ss	1186'
<b>Total Depth</b>	<b>1381'</b>

#### **Drilling**

The 8 3/4" wellbore will be drilled with a fresh water mud system.

The 6 1/4" 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'	8 3/4"	7"	23.0 ppf	J-55 LT&C
Production	150'-1381'	6 1/4"	4 1/2"	11.6 ppf	J-55 LT&C
Tubing	0'-1325'		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: 50 sks Std (class B) with 2.0 % CaCl<sub>2</sub> and 1/4 #/sk Flocele (15.6 ppg, 1.18 ft<sup>3</sup>/sk 59 ft<sup>3</sup> 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 100 sks 65/35 with 6.0 % Bentonite, 2.0 % CaCl<sub>2</sub>, 10 #/sk Gilsonite, and 1/2 #/sk Flocele (12.3 ppg, 1.96 ft<sup>3</sup>/sk) and a tail of 85 sks of Standard (Class B) cement with 5.0 #/sk Gilsonite, and 1/4 #/sk Flocele (15.2ppg, 1.24 ft<sup>3</sup>/sk). (301 ft<sup>3</sup> of slurry, 100 % excess to circulate to surface).

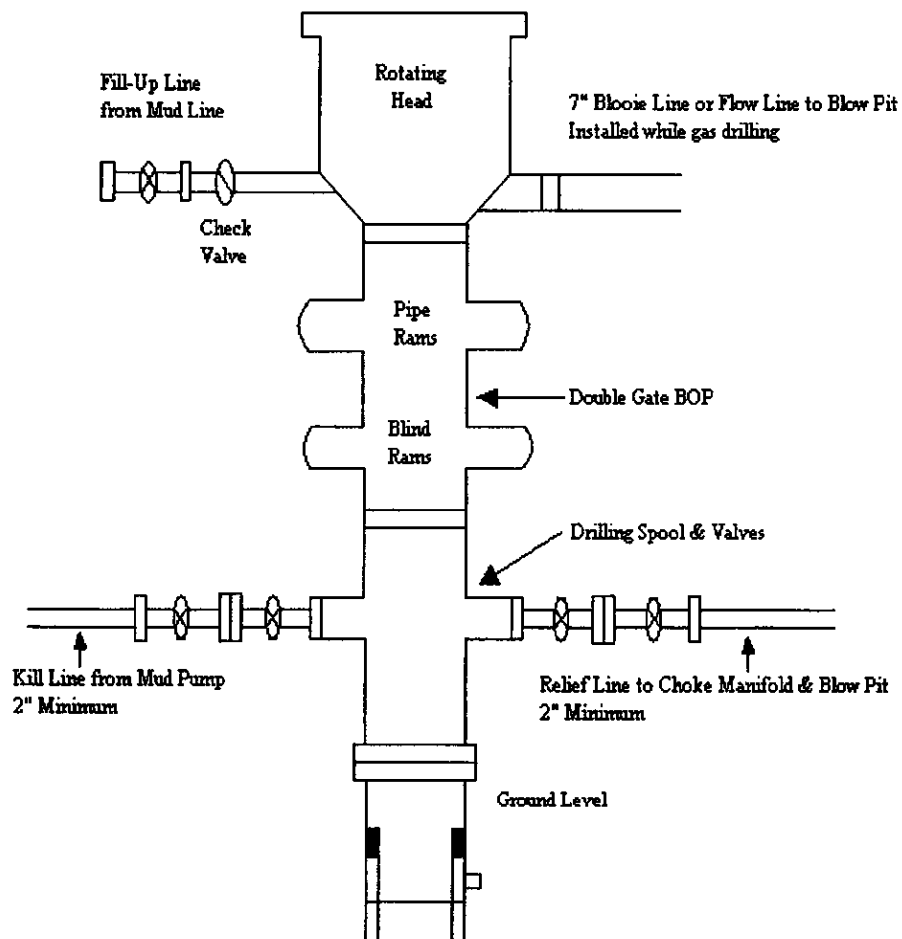
**Pump a 10 bbls water, 20 bbls gelled water, 5 bbls water spacer ahead of cement**

## 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.

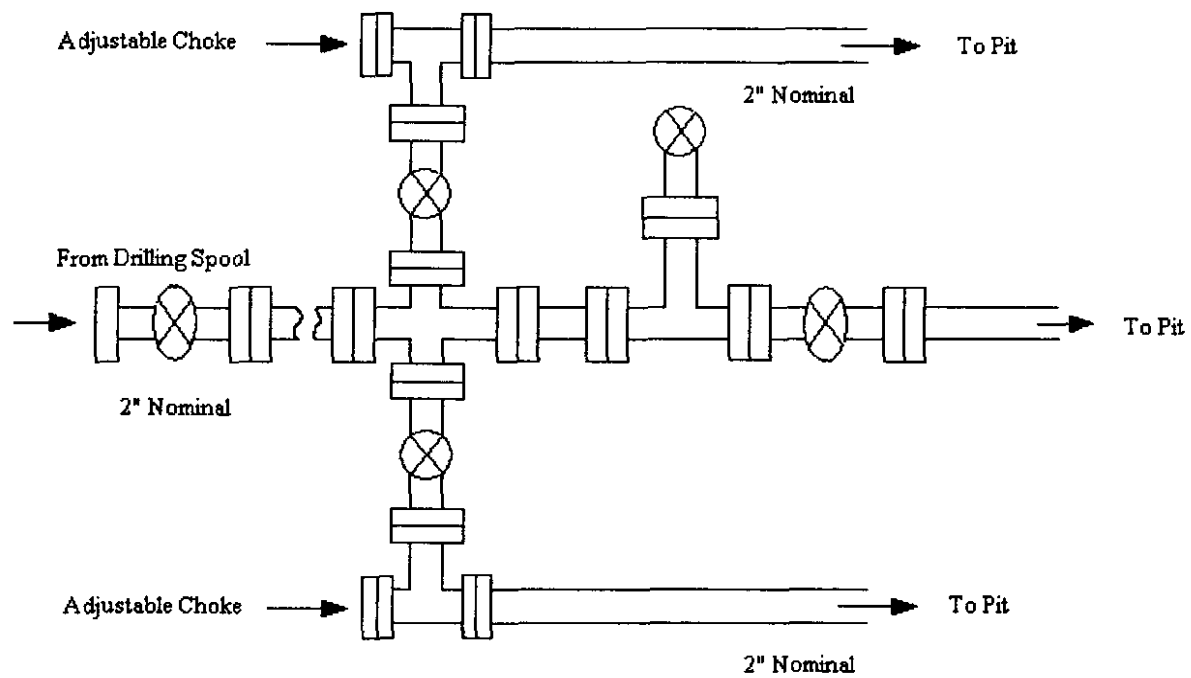
## Energen Resources Corporation

### Typical BOP Configuration for Gas Drilling



## Energen Resources Corporation

### Typical 2000 psi Choke Manifold Configuration



Choke manifold installed from surface to TD