

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

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

RECEIVED

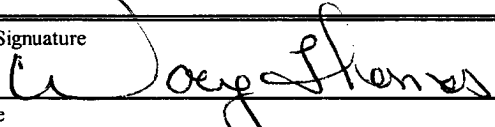
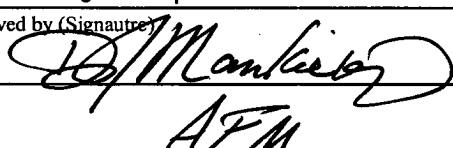
APPLICATION FOR PERMIT TO DRILL OR REENTER

|   |  |  |
|---|--|--|
| 1a. Type of Work<br><input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER  |  | 5. Lease Serial No.<br>NNSF 078502 A   |
| 1b. Type of Well<br><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. Indian, Allottee or Tribe Name  |
| 2. Name of Operator<br>Energen Resources Corporation  |  | 7. Unit or CA Agreement Name and No.<br>070 Farmington, NM                     |
| 3a. Address<br>2198 Bloomfield Highway Farmington, New Mexico 87401   | 3b. Phone No. (include area code)<br>(505)325-6800 | 8. Lease Name and Well No.<br>Vanderwart 200S                                  |
| 4. Location of Well (Report location clearly and in accordance with any State requirements)*<br>At surface 660' FNL, 1890' FWL<br>At proposed prod. zone  |  | 9. API Well No.<br>3004532147  |
| 14. Distance in miles and direction from nearest town or post office*<br>12 miles East of Blanco, NM  |  | 10. Field and Pool, or Exploratory<br>Basin Fruitland Coal                     |
| 15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drg. unit line, if any)<br>660'  |  | 11. Sec., T., R., M., or Blk. and Survey or Area<br>C-Sec. 12, T29N, R08W NMPM |
| 16. No. of Acres in lease<br>320.   |  | 12. County or Parish<br>San Juan   |
| 17. Spacing Unit dedicated to this well<br>320 W 1/2  |  | 13. State<br>NM  |
| 18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.<br>1100'   |  | 20. BLM/BIA Bond No. on file   |
| 21. Elevations (Show whether DF, KDB, RT, GL, etc.)<br>6278' GL   |  | 22. Approximate date work will start*<br>04/04                                 |
|   |  | 23. Estimated duration<br>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:

- 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<br>           | Name (Printed/Typed)<br>Doug Thomas | Date<br>01/26/04 |
| Title<br>Drilling & Completion Foreman   |                                     |                  |
| Approved by (Signature)<br> | Name (Printed/Typed)<br>AFM         | Date<br>5-18-04  |
| Title<br>AFM   | 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".

NMCCD

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

District II  
PO Drawer DD, 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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

|                                    |  |                            |   |
|------------------------------------|--|----------------------------|---|
| *API Number<br><b>30-045-32147</b> |  | *Pool Code<br><b>71629</b> | *Pool Name<br><b>BASIN FRUITLAND COAL</b> |
| *Property Code<br><b>21427</b>     | *Property Name<br><b>VANDERWART</b>                    |                            | *Well Number<br><b>200S</b>               |
| *GRID No.<br><b>162928</b>         | *Operator Name<br><b>ENERGEN RESOURCES CORPORATION</b> |                            | *Elevation<br><b>6278'</b>                |

<sup>10</sup> Surface Location

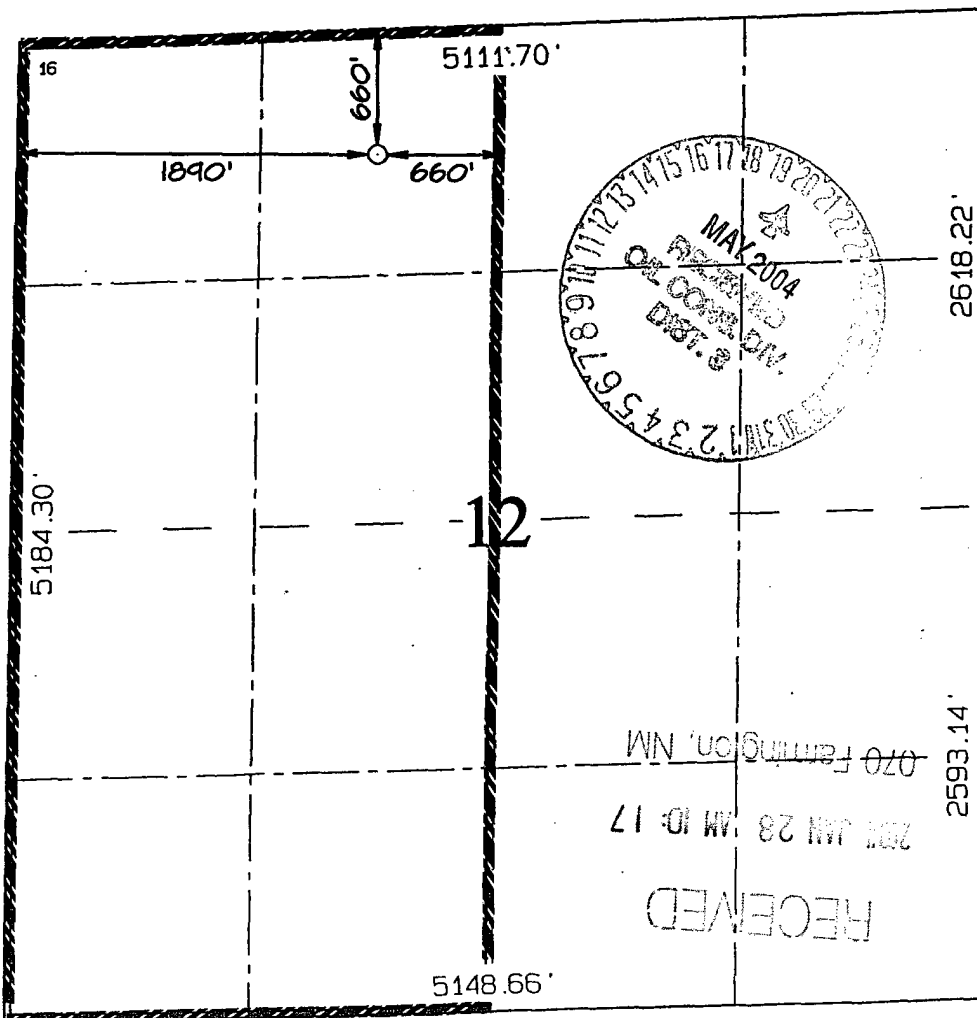
| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County   |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|----------|
| C             | 12      | 29N      | 8W    |         | 660           | NORTH            | 1890          | WEST           | SAN JUAN |

<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<br><b>320.0 Acres - (W/2)</b> | <sup>13</sup> Joint or Infill | <sup>14</sup> Consolidation Code | <sup>15</sup> 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



<sup>17</sup> OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief

Signature  
*Don Adams*

Printed Name

Title

Date  
**1-15-04**

<sup>18</sup> 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: **NOVEMBER 12, 2003**

Signature and Seal of Professional Surveyor



**JASON C. EDWARDS**  
Certificate Number **15269**

## OPERATIONS PLAN

WELL NAME: Vanderwart # 200S

LOCATION: 660' FNL, 1890' FWL, Section 12, T29N, R8W, San Juan County, NM

FIELD: BASIN FRUITLAND COAL

ELEVATION: 6278' GL

### FORMATION TOPS:

|            |         |
|------------|---------|
| San Jose   | Surface |
| Nacimiento | 580     |
| Ojo Alamo  | 1930    |
| Kirtland   | 2100    |
| Fruitland  | 2680    |

**Total Depth                      3190**

### LOGGING PROGRAM:

Open Hole Logs:

Surface to intermediate: None

Top of Fruitland to total depth:

Mud Logs:                      None

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 1/4"          | 200'         | 9 5/8"          | 32.3#      | H-40 ST&C    |
| 7 7/8"           | 3190'        | 5 1/2"          | 15.5#      | J-55 ST&C    |

### TUBING PROGRAM:

|       |        |      |      |
|-------|--------|------|------|
| 3160' | 2-3/8" | 4.7# | J-55 |
|-------|--------|------|------|

WELLHEAD: 9 5/8"x 2000# x 5 1/2" Larkin Fig. 92 casing head. 5 1/2" 2000 x 2" tubing head.

### 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, with 3 centralizers on first 3 joints.

5 1/2" production casing:

Cement with 480 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. (1050 cu. ft. of slurry, 90% excess to circulate to surface). WOC 12 hrs prior to completion. If cement does not circulate, run temperature survey in 8 hrs. to determine TOC.

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.

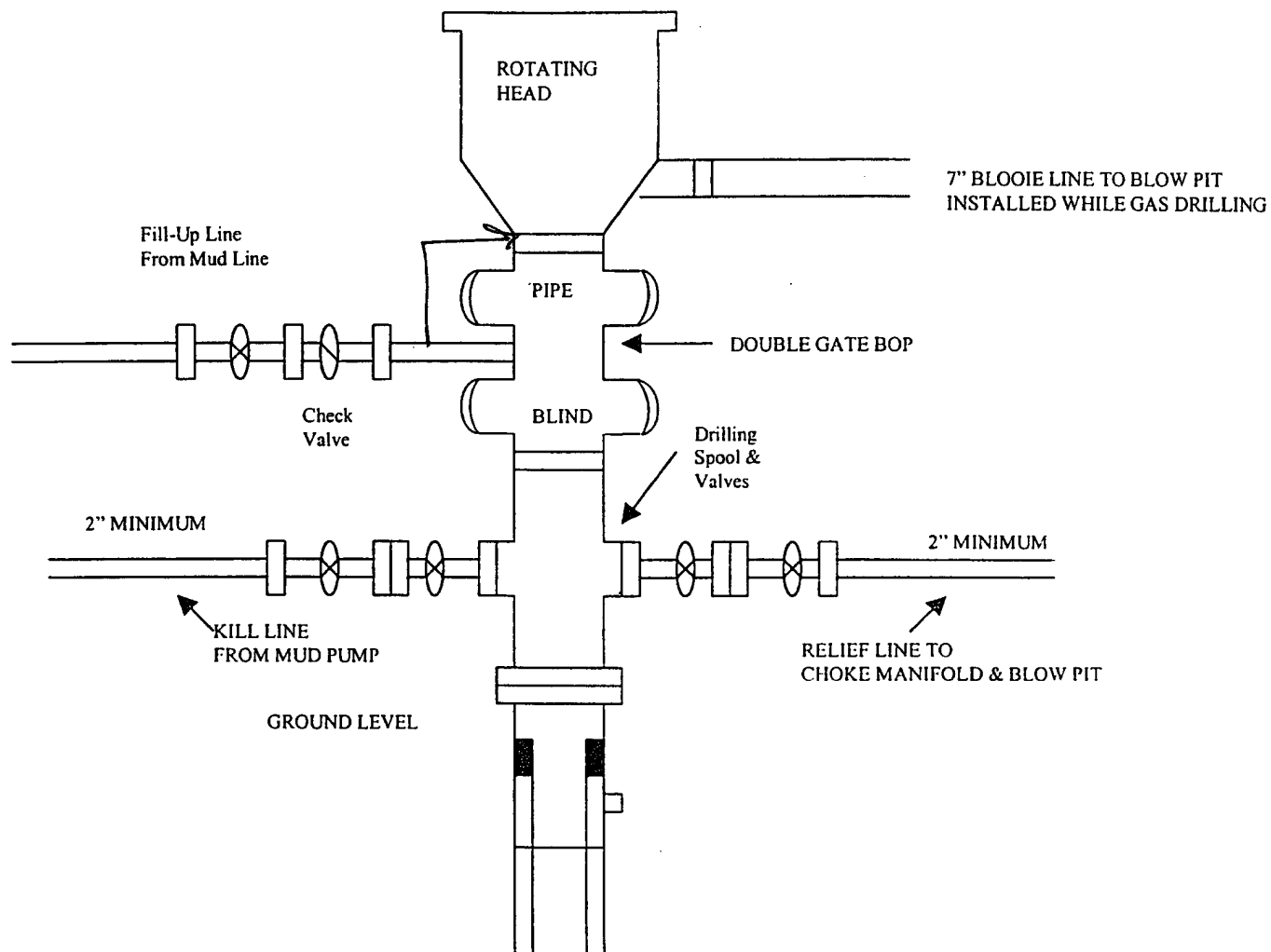
OTHER INFORMATION:

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

# ENERGEN RESOURCES CORPORATION

Mesa Verde / Dakota Well

## BOP Configuration

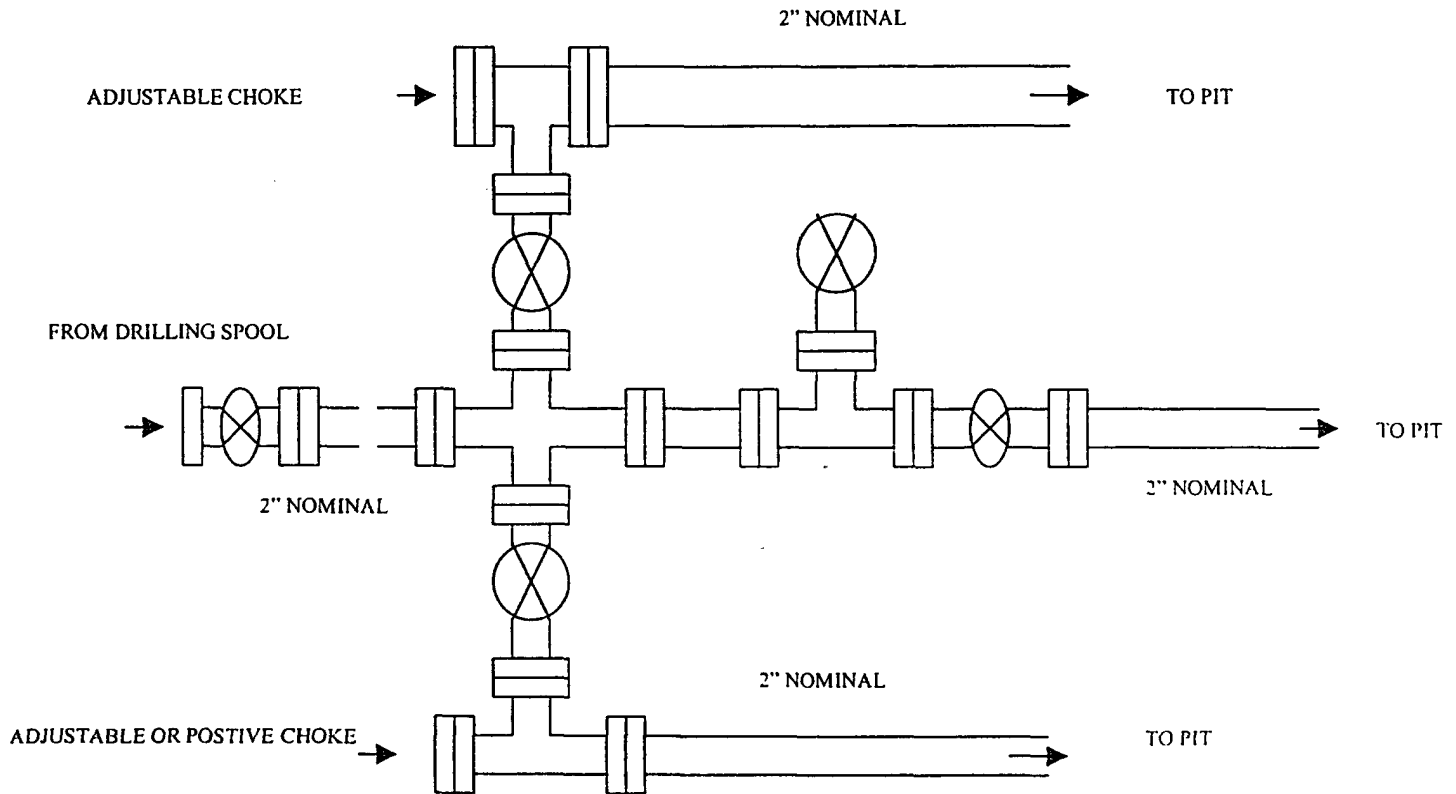


Minimum BOP installation for a Mesaverde well from Surface to Total Depth. 11' Bore, 2000 psi minimum working pressure double Gate BOP to be equipped with blind and pipe rams. A Schaffer Type 50 or equivalent rotating head to be installed on the top of The BOP. All equipment is 2000 psi working pressure or greater.

# ENERGEN RESOURCES CORPORATION

## Choke Manifold Configuration

2M psi System



Minimum choke manifold installation from surface to Total Depth.  
2" minimum, 2000 psi working pressure equipment with two chokes.

**ENERGEN RESOURCES CORPORATION VANDERWART #200S**  
**660' FNL & 1890' FWL, SECTION 12, T29N, R8W, NMPM**  
**SAN JUAN COUNTY, NEW MEXICO**  
**GROUND ELEVATION: 6278'**

LATITUDE: 36°44'41"  
 LONGITUDE: 107°37'45"  
 DATUM: NAD1927

