

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

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

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.

SUBMIT IN TRIPLICATE - Other instructions on reverse side

RECEIVED

OTO FARMINGTON

1. Type of Well  
☐ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator  
Energen Resources Corporation

3a. Address  
2198 Bloomfield Highway, Farmington, NM 87401

3b. Phone No. (include area code)  
505.325.6800

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
1085' fsl, 1585' fwl, Sec 08, T30N, R04W, N.M.P.M  
SE/NW

5. Lease Serial No.

NMSF 079483

6. If Indian, Allottee or Tribe Name

28

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

MM

8. Well Name and No.

Carson #207S

9. API Well No.

30-039-27580

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

☒ Notice of Intent

☐ Subsequent Report

☐ Final Abandonment Notice

☐ Acidize

☐ Alter Casing

☐ Casing Repair

☒ Change Plans

☐ Convert to Injection

☐ Deepen

☐ Fracture Treat

☐ New Construction

☐ Plug and Abandon

☐ Plug Back

☐ Production (Start/Resume)

☐ Reclamation

☐ Recomplete

☐ Temporarily Abandon

☐ Water Disposal

☐ Water Shut-Off

☐ Well Integrity

☐ Other

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.)

Energen Resources plans to make the following changes to the Carson #207S well:

\* Change the drilling plan from a vertical completion to a horizontal drill plan and completion as indicated on the attached C-102 and directional survey plan.

\* Change the setting depth of the 7" intermediate casing string from 3949' (TVD) to 4040' (TVD), 4445' (MD) and cement with 600 sks of lead followed by 125 sks of tail (1331 cu.ft.).

\* Change the 5-1/2" production liner to a 4-1/2", 11.6 ppf, J-55 LT&C production liner, and set to 4040' (TVD), 7447' (MD).

HOLD C104 FOR Directional Survey

14. I hereby certify that the foregoing is true and correct  
Name (Printed/Typed)

Nathan Smith

Title

Drilling Engineer

Date 6/16/05

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Title

Pet. Eng

Date

6/22/05

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

FFO

Title 18 U.S.C. Section 1001, and Title 43 U.S.C. Section 1212, makes 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.

RM000

DISTRICT I  
1825 N. French Dr., Hobbs, N.M. 88240

State of New Mexico  
Energy, Minerals & Natural Resources Department

Form C-102  
Revised August 15, 2000

DISTRICT II  
811 South First, Artesia, N.M. 88210

DISTRICT III  
1000 Rio Brazos Rd., Aztec, N.M. 87410

DISTRICT IV  
2040 South Pacheco, Santa Fe, NM 87505

OIL CONSERVATION DIVISION

2040 South Pacheco  
Santa Fe, NM 87505

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

☐ AMENDED REPORT

2005 JUN 20 PM 2 28

WELL LOCATION AND ACREAGE DEDICATION PLAT

|                    |  |                    |  |
|--------------------|--|--------------------|--|
| API Number         |  | Pool Code<br>71629 | Pool Name<br>070 FARMINGTON BASIN FRUITLAND COAL |
| Property Code      | Property Name<br>CARSON                        |                    | Well Number<br>207S                              |
| GRID No.<br>162928 | Operator Name<br>ENERGEN RESOURCES CORPORATION |                    | Elevation<br>7294'                               |

<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             | 8       | 30N      | 4W    |         | 1085'         | NORTH            | 1585'         | WEST           | RIO ARriba |

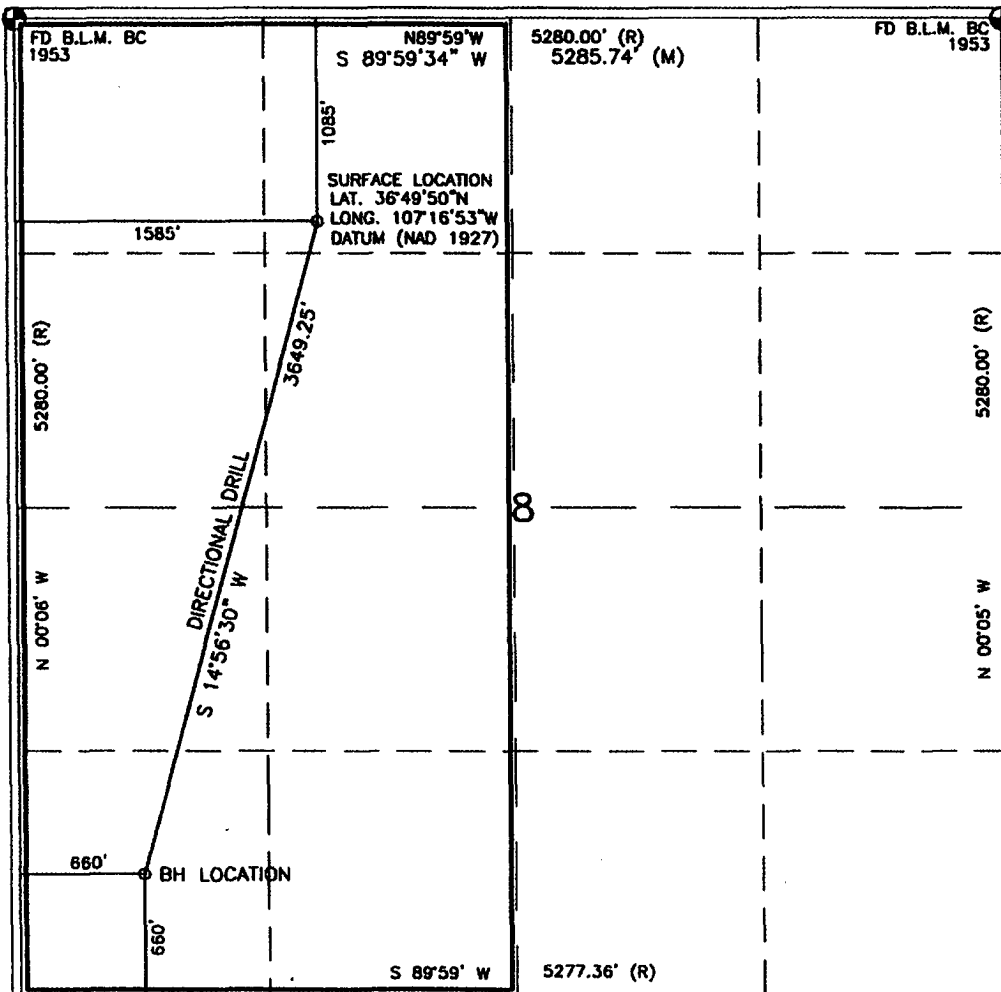
<sup>11</sup> Bottom Hole Location If Different From Surface

| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County     |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|------------|
| M             | 8       | 30N      | 4W    |         | 660'          | SOUTH            | 660'          | WEST           | RIO ARriba |

|  |                 |                    |           |
|--|-----------------|--------------------|-----------|
| Dedicated Acres<br>320.00 Acres -- (W/2) | Joint or Infill | Consolidation Code | 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

16



17 OPERATOR CERTIFICATION

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

*Nathan Smith*  
Signature

Nathan Smith  
Printed Name

Drilling Engineer  
Title

6/20/05  
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.

JUN 20 2005  
Date of Survey  
Signature of Registered Professional Surveyor

*David R. Russell*  
Certificate Number 10201

**Drilling Plan**  
Revised June 16, 2005

**Carson #207S**

**General Information**

|                     |   |
|---------------------|---|
| Location            | 1085' fnl, 1585' fwl<br>nenw S08, T30N, R04W<br>Rio Arriba County, New Mexico |
| Elevations          | 7294' GL  |
| Total Depth         | 4040' (TVD), 7447' (MD)   |
| Formation Objective | Basin Fruitland Coal  |

**Formation Tops**

|                            |                                |
|----------------------------|--------------------------------|
| San Jose                   | Surface                        |
| Nacimiento                 | 2119'                          |
| Ojo Alamo Ss               | 3419'                          |
| Kirtland Sh                | 3619'                          |
| Fruitland Fm               | 3889' (TVD), 3944' (MD)        |
| <b>Intermediate Casing</b> | <b>4040' (TVD), 4445' (MD)</b> |
| Top Coal                   | 3989' (TVD), 4139' (MD)        |
| Bottom Coal                | 4069' (TVD)                    |
| Pictured Cliffs Ss         | 4069' (TVD)                    |
| <b>Total Depth</b>         | <b>4040' (TVD), 7447' (MD)</b> |

**Drilling**

The 12 ¼" wellbore will be drilled with a fresh water mud system.

The 8 ¾" 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.

The 6 ¼" wellbore will be drilled with a brine water system from intermediate casing point to total depth.

**Blowout Control Specifications:**

A 3000 psi minimum double ram or annulus BOP stack 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 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: None

Mud Logs: From Intermediate TD to total depth.

Coring: None

Natural Gauges: Surface casing point and/or every 500' to TD.

## Tubulars

### Casing, Tubing, & Casing Equipment:

| String       | Interval                              | Wellbore | Casing | Csg Wt   | Grade     |
|--------------|---------------------------------------|----------|--------|----------|-----------|
| Surface      | 0'-200'                               | 12 1/4"  | 9 5/8" | 32.3 ppf | H-40 ST&C |
| Intermediate | 200'-4040' (TVD)<br>4445' (MD)        | 8 3/4"   | 7"     | 23.0 ppf | J-55 LT&C |
| Production   | 4040'-4040' (TVD)<br>4380'-7447' (MD) | 6 1/4"   | 5 1/2" | 15.5 ppf | J-55 LT&C |
| Tubing       | 0'-4025 +/-'                          |          | 2 3/8" | 4.7 ppf  | J-55      |

### Casing Equipment:

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

Intermediate 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 and rigid centralizers to optimize standoff. Two turbolating centralizers at the base of the Ojo Alamo are recommended.

## Wellhead

11" x 9 5/8" 3000 psi Casing Head. 11" x 7 1/16" 3000 psi Christmas Tree.

## Cementing

Surface Casing: 125 sks Std (class B) with 1.0 % CaCl<sub>2</sub> and 1/4 #/sk Flocele (15.6 ppg, 1.18 ft<sup>3</sup>/sk 147.5 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.

Intermediate 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 600 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 125 sks of Standard (Class B) cement with 5 #/sk Gilsonite, and 1/4 #/sk Flocele (15.2 ppg, 1.24 ft<sup>3</sup>/sk). (1331 ft<sup>3</sup> of slurry, 100 % excess to circulate to surface). WOC 12 hrs. Test casing to 1200 psi for 30 min.

Liner: NO CEMENT

## Other Information

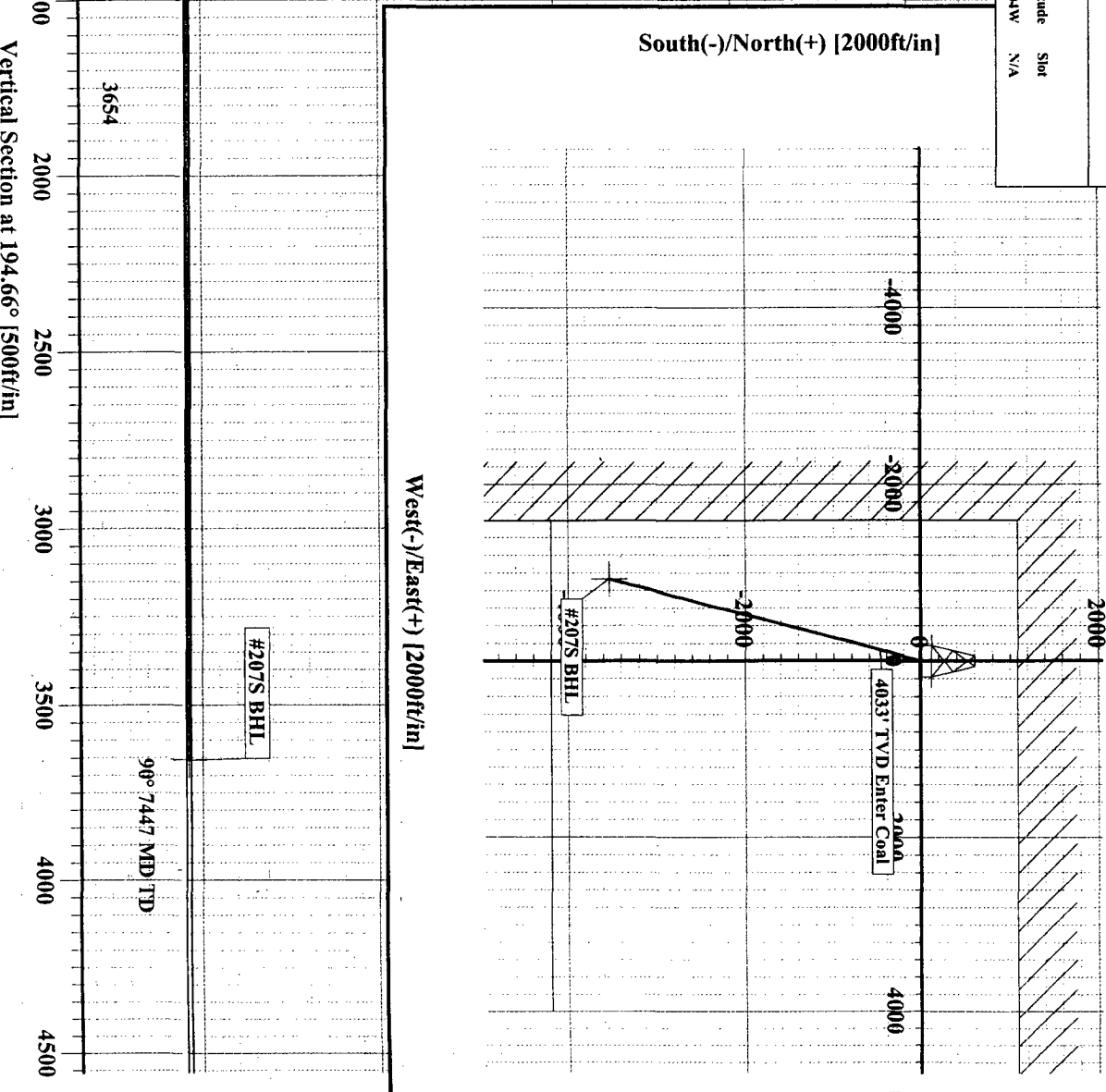
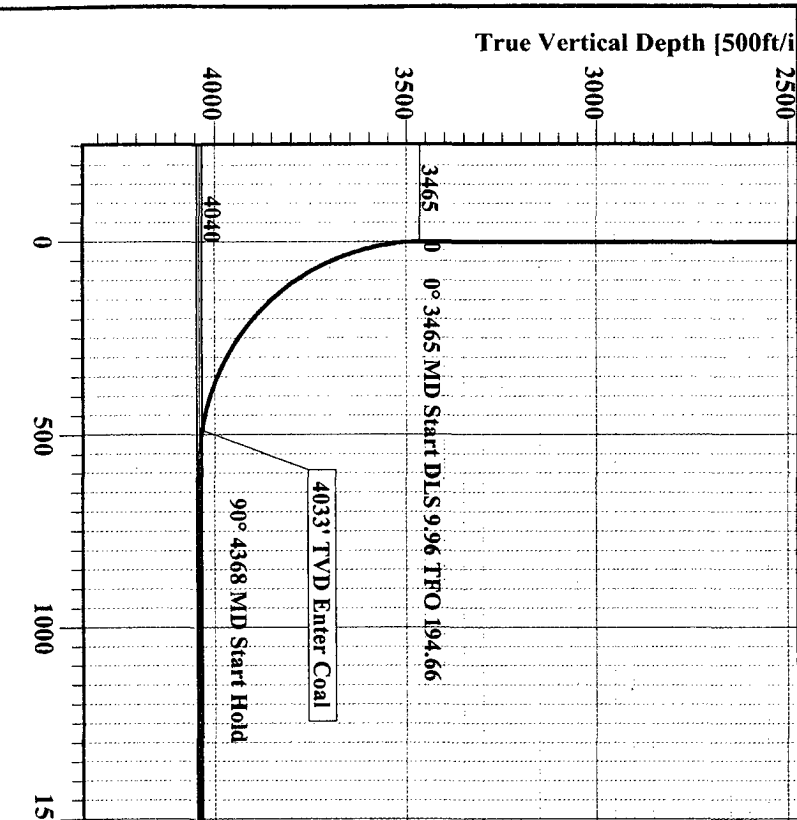
- 1) This well will be an open hole completion.
- 2) If lost circulation is encountered, sufficient LCM will be added to the mud system to maintain well control. The intermediate string may need to be cemented in multiple stages with a slurry design deviated from that listed above.
- 3) If high reservoir 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 are anticipated, however reservoir pressures may be 1200 psi.
- 5) This gas is dedicated.

| SECTION DETAILS |         |       |        |         |          |         |      |        |           |
|-----------------|---------|-------|--------|---------|----------|---------|------|--------|-----------|
| Sec             | MD      | Inc   | Azi    | TVD     | +N-S     | +E-W    | DLeg | TFace  | VSec      |
|                 | 0.00    | 0.00  | 0.00   | 0.00    | 0.00     | 0.00    | 0.00 | 0.00   | 0.00      |
|                 | 3465.00 | 0.00  | 0.00   | 3465.00 | 0.00     | 0.00    | 0.00 | 0.00   | 0.00      |
|                 | 4368.21 | 90.00 | 194.66 | 4040.00 | -556.28  | -145.52 | 9.96 | 194.66 | 575.00    |
|                 | 7447.23 | 90.00 | 194.66 | 4040.00 | -3535.06 | -924.77 | 0.00 | 0.00   | 3654.02   |
|                 |         |       |        |         |          |         |      |        | #207S BHL |

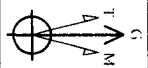
| WELL DETAILS |      |      |            |           |                 |
|--------------|------|------|------------|-----------|-----------------|
| Name         | +N-S | +E-W | Northing   | Easting   | Latitude        |
| Well #207S   | 0.00 | 0.00 | 2122046.96 | 661533.51 | 36°49'49.980"N  |
|              |      |      |            |           | 107°16'53.004"W |
|              |      |      |            |           | N/A             |

| FORMATION TOP DETAILS |         |         |             |
|-----------------------|---------|---------|-------------|
| No.                   | TVDPath | MDPath  | Formation   |
| 1                     | 4033.00 | 4278.39 | Top of Coal |

| TARGET DETAILS |         |          |         |       |
|----------------|---------|----------|---------|-------|
| Name           | TVD     | +N-S     | +E-W    | Shape |
| #207S BHL      | 4040.00 | -3535.00 | -925.00 | Point |



Section 8 T30N R4W  
 SHL  
 1085 FNL, 1585 FWL  
 BHL  
 660 FSL, 660 FWL



A/maths to Grid North  
 True North: -0.33°  
 Magnetic North: 10.09°  
 Magnetic Field  
 Strength: 515.1nT  
 Dip Angle: 63.78°  
 Date: 2005-06-14  
 Model: IGRF2005