

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

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

SUNDRY NOTICES AND REPORTS ON WELLS **AUG 01 2008**

**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 page 2**

1. Type of Well <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other		5. Lease Serial No. <b>SF-079485A</b>
2. Name of Operator <b>Energen Resources Corporation</b>		6. If Indian, Allottee or Tribe Name
3a. Address <b>2010 Afton Place, Farmington, NM 87401</b>	3b. Phone No. (include area code) <b>(505) 325-6800</b>	7. If Unit or CA/Agreement, Name and/or No <b>San Juan 30-4 Unit</b>
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) <b>1180 fsl, 1965 fel at surface 2530 fsl, 760 fel at bottom</b>		8. Well Name and No. <b>San Juan 30-4 Unit #105S</b>
		9. API Well No. <b>30-039-30158</b>
		10. Field and Pool, or Exploratory Area <b>Basin Fruitland Coal</b>
		11. County or Parish, State <b>Rio Arriba NM</b>

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 Name Change

Drilling program

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 recomple 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 recomple 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 would like to change the name of the San Juan 30-4 Unit #105S to the San Juan 30-4 Unit #105 and drill the east half of the spacing unit from the staked surface hole location of 1180 fsl, 1965 fel. The new BHL will be 760 fsl, 760 fel. 7" Intermediate casing will be set at 4600' MD with no change in cement volumes. The new TD of the well will be 7739' MD.

A revised C-102, Operations Plan, and Directional Drilling Plan are attached.

**RCVD AUG 7 '08  
OIL CONS. DIV.  
DIST. 3**

**CONDITIONS OF APPROVAL**

**Adhere to previously issued stipulations.**

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

**Nathan Smith**

Title **Drilling Engineer**

Signature

Date **7/31/08**

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by

**Troy L. Salvors**

Title

**Petroleum Engineer**

Date

**8-4-2008**

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.

**NMOCD**

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

State of New Mexico  
Energy, Minerals & Natural Resources Department

Form C-102  
Revised October 12, 2005

DISTRICT II  
1301 W. Grand Avenue, Artesia, N.M. 88210

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

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

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

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number	<sup>2</sup> Pool Code	<sup>3</sup> Pool Name FRUITLAND COAL
<sup>4</sup> Property Code	<sup>5</sup> Property Name SAN JUAN 30-4 UNIT	<sup>6</sup> Well Number 105
<sup>7</sup> OGRID No.	<sup>8</sup> Operator Name ENERGEN RESOURCES CORPORATION	<sup>9</sup> Elevation 7423'

<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
0	18	30N	4W		1180'	SOUTH	1965'	WEST	RIO ARRIBA

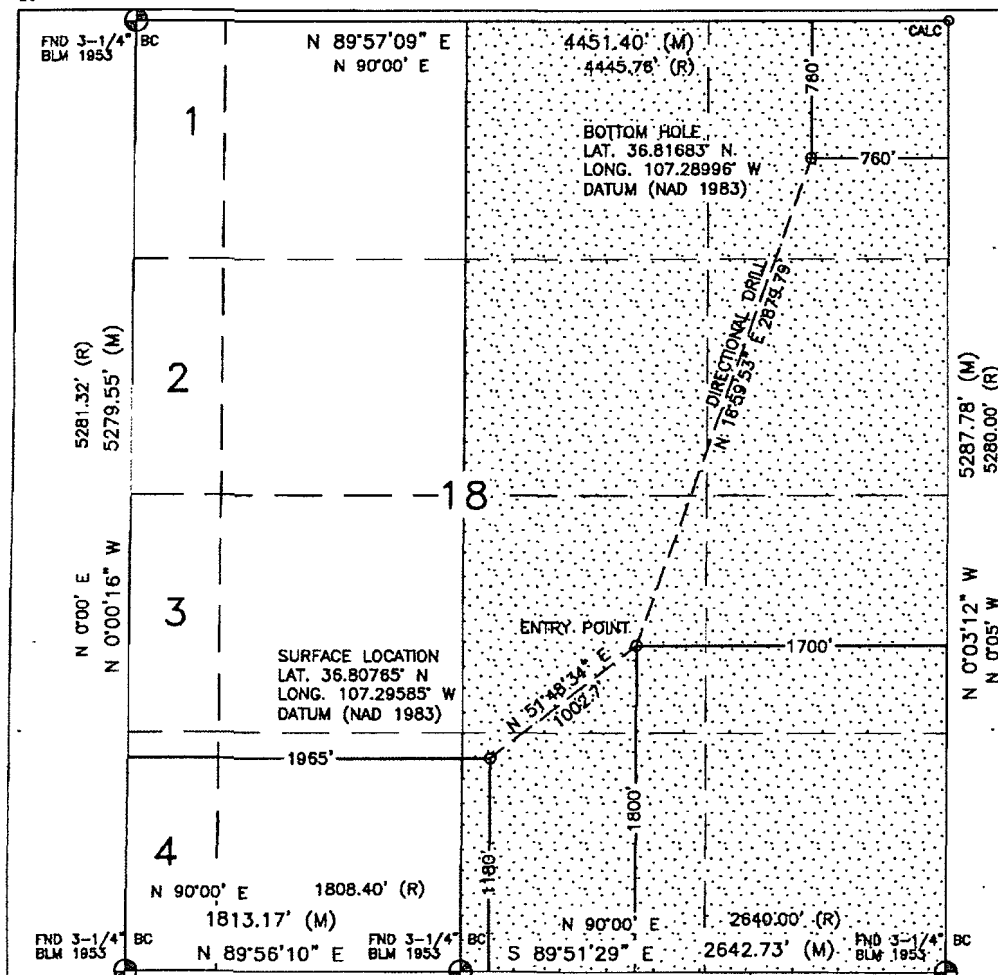
<sup>11</sup> Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	18	30N	4W		760'	NORTH	760'	EAST	RIO ARRIBA

<sup>12</sup> Dedicated Acres PROJECT AREA 320.57 Acres - (E/2)	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> 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

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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 or a compulsory pooling order heretofore entered by the division.

*Nathan Smith* 7/31/08  
Signature Date

*Nathan Smith*  
Printed Name

18 SURVEYOR CERTIFICATION

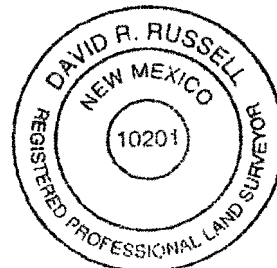
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

JUNE 7, 2006

Date of Survey

Signature and Seal of Professional Surveyor:

*David R. Russell*



## Operations Plan

Revised July 15, 2008

### San Juan 30-4 Unit #105

#### General Information

Location	1180 fsl, 1965 fwl at surface 760 fnl, 760 fel at bottom nene S18, T30N, R4W Rio Arriba County, New Mexico
Elevations	7423' GL
Total Depth	7739' (MD), 4115' (TVD)
Formation Objective	Basin Fruitland Coal

#### Formation Tops

San Jose	Surface
Nacimiento	2368' (TVD)
Ojo Alamo Ss	3495' (TVD)
Kirtland Sh	3698' (TVD), 3706' (MD)
Fruitland Fm	3721' (TVD), 3732' (MD)
Top Coal	4106' (TVD), 4455' (MD)
Bottom Coal	4126' (TVD)
Total Depth	4115' (TVD), 7739' (MD)

#### 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 8.9 ppg to 9.5 ppg.

**Projected KOP is 3415' TVD with 8.27°/100' doglegs.**

The 6 1/4" wellbore will be drilled with a fresh water or brine water system depending on reservoir characteristics. Anticipated BHP can be as high as 1100 psi.

Blowout Control Specifications:

A 3000 psi minimum double ram or annulus BOP stack 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. Pressure test BOP to 250 psi for 15 min and 1500 psi for 15 min. Pressure test manifold to 1500 psi for 30 min.

Logging Program:

Open hole logs: None

Mud logs: From 3721' (TVD), 3732' (MD) to TD. (Top of Fruitland Fm)

Surveys: Surface to KOP every 500' and a minimum of every 250' for directional.

## Tubulars

### Casing, Tubing, & Casing Equipment:

String	Interval	Wellbore	Casing	Csg Wt	Grade
Surface	0'-200'	12 ¼"	9 5/8"	32.3 ppf	H-40 ST&C
Intermediate	0'-4116' (TVD) 4600' (MD)	8 ¾"	7"	23.0 ppf	J-55 LT&C
Production	4106'-4126' (TVD) 4550'-7735' (MD)	6 ¼"	4 ½"	11.6 ppf	J-55 LT&C
Tubing	0'-4500' (MD)		2 3/8"	4.7 ppf	J-55

### Casing Equipment:

Surface Casing: Texas Pattern Guide Shoe on bottom of first joint with an insert float valve on top of the first joint. Casing centralization (3) with standard bow spring centralizers to achieve optimal standoff.

Intermediate Casing: Self fill float shoe on bottom of first joint with self fill float collar on top of first joint and casing centralization with double bow spring and rigid centralizers to optimize standoff. Two turbolating centralizers at the base of the Ojo Alamo are recommended.

Liner: Bull nose guide shoe on bottom of first joint, H-Latch liner drop off tool on top of last joint.

## Wellhead

3000 psi 11" x 9 5/8" weld/slip on casing head. 9 5/8" x 7"x 2 3/8" 3000 psi Flanged Wellhead .

## Cementing

Surface Casing: 125 sks Type V with 2.0 % CaCl<sub>2</sub> and ¼ #/sk Flocele (15.6 ppg, 1.18 ft<sup>3</sup>/sk 148 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 ½ hole volumes of mud and reduce funnel viscosity to minimum to aide in hole cleanout. Depending on wellbore conditions, cement may consist of 650 sks 65/35 with 6.0 % Bentonite, 2.0 % CaCl<sub>2</sub>, 10 #/sk Gilsonite, and ½ #/sk Flocele (12.3 ppg, 1.93 ft<sup>3</sup>/sk) and a tail of 125 sks Sks with ¼ #/sk Flocele (15.6 ppg, 1.18 ft<sup>3</sup>/sk). (1402 ft<sup>3</sup> of slurry, 100 % excess to circulate to surface). Test casing to 1200 psi for 30 min.

## Other Information

- 1) This well will be an open hole completion lined with an uncemented pre-drilled liner.
- 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 or pressures are anticipated. This gas is dedicated.

**Project: NE Sec 18, T30N, R4W**  
**Site: Cabresto Mesa**  
**Well: San Juan 30-4 Unit #105**  
**Wellbore: Revised Plan**  
**Plan: Plan #1 (San Juan 30-4 Unit #105/Revised Plan)**

**PROJECT DETAILS: NE Sec 18, T30N, R4W**

Geodetic System: US State Plane 1983  
 Datum: North American Datum 1983  
 Ellipsoid: GRS 1980  
 Zone: New Mexico Central Zone  
 System Datum: Mean Sea Level



Azimuths to True North  
 Magnetic North: 10.05°

Magnetic Field  
 Strength: 51146.9snT  
 Dip Angle: 63.69°  
 Date: 6/30/2008  
 Model: IGRF200510

**SECTION DETAILS**

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	3415.0	0.00	0.00	3415.0	0.0	0.0	0.00	0.00	0.0	KOP
3	4454.7	86.00	52.03	4106.0	396.4	508.0	8.27	52.03	585.4	Enter F C
4	4712.6	90.00	52.06	4115.0	554.9	711.2	1.55	0.30	819.5	Land Curve
5	5462.6	90.00	20.99	4115.0	1150.3	1152.1	4.14	-90.00	1550.8	Hold AZ to TD
6	7739.4	90.00	8.48	4115.0	3347.8	1730.0	0.55	-89.99	3768.4	TD Well

