

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

RECEIVED

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

JUN 29 2011

5. Lease Serial No.

A NMNM 30351

6. If Indian, Allottee or Tribe Name

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 page 2

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

1. Type of Well

☐ Oil Well ☒ Gas Well ☐ Other

2. Name of or

Energen Resources Corporation

3a. Address

3b. Phone No (include area code)

- 6800

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

SHL: 1045 FNL, 480 FEL ; Sec.15-T32N-R05W

BHL: 300 FNL, 1200 FEL ; Sec.14-T32N-R05W

8. Well Name and No.

Carracas Unit 119

9. API Well No.

10. Field and Pool, or Exploratory Area  
Basin Fruitland Coal

11. County or Parish, State

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

| TYPE OF SUBMISSION                                   | TYPE OF ACTION  |
|--|---|
| <input checked="" type="checkbox"/> Notice of Intent | <input type="checkbox"/> Acidize <input type="checkbox"/> Deepen <input type="checkbox"/> Production (Start/Resume) <input type="checkbox"/> Water Shut-Off |
| <input type="checkbox"/> Subsequent Report           | <input type="checkbox"/> Alter Casing <input type="checkbox"/> Fracture Treat <input type="checkbox"/> Reclamation <input type="checkbox"/> Well Integrity  |
| <input type="checkbox"/> Final Abandonment Notice    | <input type="checkbox"/> Casing Repair <input type="checkbox"/> New Construction <input type="checkbox"/> Recomplete <input type="checkbox"/> Other         |
|  | <input checked="" type="checkbox"/> Change Plans <input type="checkbox"/> Plug and Abandon <input type="checkbox"/> Temporarily Abandon                     |
|  | <input type="checkbox"/> Convert to Injection <input type="checkbox"/> Plug Back <input type="checkbox"/> Water Disposal                                    |

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 Carracas Unit #119 well:

RCVD JUL 12 '11

OIL CONS. DIV.

DIST. 3

\* Energen would like to change the casing program as follows:

- Set 13-3/8" conductor casing to 150'TVD in a 17-1/2" hole and cement to surface.
- Set 9-5/8" surface casing to 2000'TVD in a 12-1/4" hole and cement to surface.
- The previous plan was to not set a conductor casing and set surface to 250'MD.

\* The reason for these changes is that we have encountered a loss circulation zone @ 320'TVD and severe shale problems in the intermediate section (we are unsure where the shale is coming from). Setting surface deeper should relieve Energen of the problem zone.

\* After setting conductor casing, the surface hole will be drilled with a 3000# BOP stack with a single blind and an annular BOP for safety precautions.

\* The cement program has also changed and is outlined, along with the casing specifications, in the attached Operations Plan.

CONDITIONS OF APPROVAL  
Adhere to previously issued stipulations.

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

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

Stephen Byers

Title Drilling Engineer

Signature

Stephen Byers

Date 06/30/2011

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Troy L. Solvers

Title

Petroleum Engineer

Date

7/11/2011

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

6/30/2011



### OPERATIONS PLAN

**WELL NAME**.....Carracas Unit #119H  
**JOB TYPE**.....Horizontal OPE FTC  
**DEPT**.....Drilling and Completions

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|                      |                             |
|----------------------|-----------------------------|
| Surface Location     | 1045 FNL 480 FEL            |
| S-T-R                | (A) Sec.15, T32N, R05W      |
| Bottom Hole Location | 300 FNL 1200 FEL            |
| S-T-R                | (A) Sec.14, T32N, R05W      |
| County, State        | Rio Arriba, New Mexico      |
| Elevations           | 7533' GL                    |
| Total Depth          | 8536' +/- (MD); 4046' (TVD) |
| Formation Objective  | Basin Fruitland Coal        |

### FORMATION TOPS

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|                    |                                |
|--------------------|--------------------------------|
| San Jose           | Surface                        |
| Nacimiento         | 2152' (TVD)                    |
| Ojo Alamo Ss       | 3402' (TVD)                    |
| Kirtland Sh        | 3575' (TVD)                    |
| Fruitland Fm       | 3696' (TVD) 3745'MD            |
| Top Target Coal    | 4036' (TVD) 4388'MD            |
| Base Target Coal   | 4060' (TVD)                    |
| <b>Total Depth</b> | <b>4046' (TVD), 8536' (MD)</b> |

### DRILLING

**Conductor:** 17-1/2" wellbore will be drilled with a freshwater mud system (spud mud)

**Surface:** 12-1/4" wellbore will be drilled with a fresh water mud system (spud mud).

**Intermediate:** 8-3/4" wellbore will be drilled with a LSND mud system. Weighting materials will be drill cuttings and if needed barite. Mud density is expected to range from 8.8 ppg to 9.3 ppg.

**Production:** 6-1/4" wellbore will be drilled with QMax Solution's lateral fluid, CBmax. Mud density is expected to range from 9.0 ppg to 9.4 ppg. Anticipated BHP can be as high as 1500 psi.

**Projected KOP is 2400' TVD with 7.4°/100' doglegs.**

#### **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 2000 psi for 15 min.**

#### **Logging & Coring Program:**

DST: None

Coring: None

Cased hole logs: None

Open hole logs: None

Mudlogs: From surface to TD (sample frequency every 30'. ROP dependent)

Surveys: Surface to KOP every 500' and a minimum of every 200' for directional.

6/30/2011



## CASING, TUBING & CASING EQUIPMENT

| String       | Start Depth | End Depth | Wellbore | Size    | Wt         | Grade     |
|--------------|-------------|-----------|----------|---------|------------|-----------|
| Conductor    | 0           | 150       | 17-1/2"  | 13-3/8" | 48 lb/ft   | H-40 ST&C |
| Surface      | 0           | 2000      | 12-1/4"  | 9-5/8"  | 32.3 lb/ft | H-40 ST&C |
| Intermediate | 0           | 4513      | 8-3/4"   | 7"      | 23 lb/ft   | J-55 LT&C |
| TVD          | 0           | 4046      |          |         |            |           |
| Prod. Liner  | 4413        | 8536      | 6-1/4"   | 4-1/2"  | 11.6 lb/ft | J-55 LT&C |
| TVD          | 4044        | 4046      |          |         |            |           |
| Tubing       | 0           | 4300      | none     | 2-3/8"  | 4.7 lb/ft  | J-55      |

**Conductor Casing:** Texas Pattern Guide Shoe on bottom of first joint and an insert float valve on top of first joint. Casing centralization with a minimum of 3 standard bow spring centralizers to achieve optimal standoff.

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

**Intermediate Casing:** Self fill float shoe with self fill float collar on bottom and top of first joint. Casing centralization with double bow spring and centralizers to optimize standoff.

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

## WELLHEAD

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

## CEMENTING

**Conductor Casing:** 177 sks Type V with 2.0 % CaCl<sub>2</sub> and ¼ #/sk Flocele (15.6 ppg, 1.18 ft<sup>3</sup>/sk 209 ft<sup>3</sup> of slurry, 100% excess to circulate to surface). WOC 12 hours. Pressure test conductor casing to 750 psi for 30 min.

**Surface Casing:** Cement may consist of 393 sks PRB II with 5 #/sk Gilsonite and ¼ #/sk Flocele (12.3 ppg, 2.24 ft<sup>3</sup>/sk) and a tail of 150 sks 50/50 Poz with 0.3% Halad-9, 5 #/sk Gilsonite, 1/8 #/sk Pol-E-Flake and 0.1% CFR-3 (13.5 ppg, 1.31 ft<sup>3</sup>/sk). (1075 ft<sup>3</sup> of slurry, 100% excess lead to circulate to surface). WOC 12 hours. Pressure test surface casing to 1500 psi for 30 min.

**Intermediate Casing:** Depending on wellbore conditions, cement may consist of 488 sks PRB II with 5 #/sk Gilsonite, and ¼ #/sk Flocele (12.3 ppg, 2.24 ft<sup>3</sup>/sk) and a tail of 100 sks PRB II with ¼ #/sk Flocele and 5 #/sk Gilsonite (13.5 ppg, 1.81 ft<sup>3</sup>/sk). (1273 ft<sup>3</sup> of slurry, 100% excess lead to circulate to surface). WOC 12 hours. Test casing to 1500 psi for 30 min.

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6/30/2011



**Production Liner:** NO CEMENT, Open Hole Completion

**Set slips with full string weight**

If cement does not circulate, notify BLM/OCD & run temperature survey in 8 hrs. to determine TOC.

**OTHER INFORMATION**

1) This well will be an open hole completion lined with an uncemented pre-drilled liner.

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) This gas is dedicated.

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