F irm 3160-5 **⇔**ugust 1999)

# UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT SUNDRY NOTICES AND REPORTS ON WELLS

OV 1 3 2009

, TOTAL NOVED	.,
OMB NO. 1004-0135	
EXPIRES: NOVEMBER 30,	, 2000

NM0405444-A

Do not use this form for proposals to drill or to re-enter an	N(
andoned well. Use Form 3160-3 (APD) for such proposals	· ' '

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abandoned well. Use Folin 3160-3 (APD) for such proposals	o. If indiant, Allottee of Tribe Name
SUBMIT IN TRIPLICATE NMOCD ARTESIA	7. Unit or CA Agreement Name and No.
1a. Type of Well Oil Well Gas Well Other	7. One of CA Agreement Name and No.
1a. Type of Well Oil Well Gas Well Other	8 Well Name and No
2. Name of Operator	Todd 23D Federal 19
DEVON ENERGY PRODUCTION COMPANY, LP	9. API Well No.
3. Address and Telephone No.	30-015-36861
20 North Broadway, Oklahoma City, OK 73102 405-228-8699	10 Field and Pool, or Exploratory
4. Location of Well (Report location clearly and in accordance with Federal requirements)*	Ingle Wells; Delaware
SHL: 690' FNL & 402' FWL Sec 23 235 31E	12. County or Parish 13. State
	Eddy NM
CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT	, OR OTHER DATA
TYPE OS SUBMISSION TYPE OF ACTION	(0, 1/2)
✓ Notice of Intent  ✓ Acidize  ✓ Deepen  ✓ Production  ✓ Alter Casing  ✓ Fracture Treat  ✓ Reclamati	n (Start/Resume)
Subsequent Report Casing Fracture Treat Recialination Subsequent Report Subsequent Report Recomple	
	ily Abandon Casing  Cementing
Convert to Injection Plug Back Water Dis	posal
13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting an deepen directionally or recomplete horizontally, give subsurface location and measured and true vertical depths of all pertinent markers and zones. A	
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 distribution of the involved operations of the involved operations of the involved operations of the involved operations.	peration results in a multiple completion or recompletion 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 requirement, including determined that the site is ready for final inspection).	reclamation, have been completed, and the operator has
Devon Energy Production L.P. respectfully requests to change the casing program & de	seign factors to read:
Devoit Ellergy Froduction E.F. respectionly requests to change the casing program & de	ssign ractors to read.
Hole Size Hole Interval OD Csg Casing Interval V	Veight Collar Grade
	2# STC H-40
	24# STC J-55
	32# LTC J-55
	17# LTC J-55
Casing Size Collapse Design Factor Burst Design Factor	Tension Design Factor
11-3/4" 5.62	9.49
8-5/8" 24# J-55 STC 1.32 2.84	1.95
8-5/8" 32# J-55 LTC 1.10 1.71	5.41
5-1/2" 1.38	1.72 (1.72 (1.71)
(The changed Cementing Program for this well is attaced.) SEE ATTACHED	FOR
(The changed comenting Fregram for this wente attaced.)	
CONDITIONS OF	APPROVAL.
14. I hereby certify that the foregoing is true and correct	
Name Judy A. Barnett	APPROMED .
Signed	AND PROMETERS
(This space for Federal or State Office use)	NOV 1 1 2009
Approved by Title	Date
Conditions of approval, if any:	MIV San

WESLEY WAINGRAM

to any matter

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make any department or agency of the United States any within its jurisdiction

### Cementing Program

### 11-3/4" Surface

Lead. 200 sacks (35:65) Poz (Fly Ash) Class C Cement +.5% bwow Sodium Chloride + 0.125. lbs/sack Cello Flake + 4% bwoc Bentonite + 0.8% bwoc Sodium Metasilicate + 5% bwoc MPA-5 + 101.1% Fiesh Water, 12.8 ppg.

Yield: 1.96 cf/sk. TOC @ surface.

Tail. 250 sacks Class C Cement + 2% bwoc Calcium Chloride + 0.125 lbs/sack Cello Flake + 56.3% Fresh Water, 14.8 ppg

Yield: 1.35 cf/sk

### 8-5/8" Intermediate

Lead. 850 sacks (35:65) Poz (Fly Ash) Class C Cement + 5% bwow Sodium Chloride + 0 125 lbs/sack Cello Flake + 6% bwoc Bentonite + 107.8% Fresh Water, 12.5 ppg

Yield 2.04 cf/sk. TOC @ surface.

Tail: 300 sacks 60:40 Poz + 5% bwow Sodium Chloride + 0.125 lbs/sack Cello Flake + 0 4% bwoc Sodium Metasilicate + 4% bwoc MPA-5 + 64.7% Water, 13.8 ppg

Yield: 1.37 cf/sk.

### 5-1/2" Production

#### 1st Stage

Lead: 400 sacks (50.50) Poz (Fly Ash). Class H Cement + 5% bwow Sodium Chloride + 0.3% bwoc CD-32 + 0.5% bwoc FL-25 + 2% bwoc Bentonite + 0.6% bwoc Sodium Metasilicate + 0.5% bwoc FL-52A + 58.3% Fresh Water, 12.5 ppg

Yield 1.94 cf/sk

Tail: 250 sacks (60:40) Poz (Fly Ash):Class C Cement + 1% bwow Sodium Chloride + 0.2% bwoc R-3 + 0.125 lbs/sack Cello Flake + 0.5% bwoc BA-10A + 4% bwoc MPA-5 + 63.2% Fresh Water, 14.2 ppg

Yield: 131 cf/sk

DV TOOL at ~5,500

#### 2nd Stage

Lead: 525 sacks (35:65) Poz (Fly Ash):Class C Cement + 1% bwow Sodium Chloride + 0.125 lbs/sack Cello Flake + 6% bwoc Bentonite + 0.4% bwoc FL-52A + 103.2% Fresh Water, 12.7 ppg

Yield: 1.94 cf/sk TOC @ surface

Tail 200 sacks (60:40) Poz (Fly Ash) Class C Cement + 1% bwow Sodium Chloride + 0.2% bwoc R-3 + 0.125 lbs/sack Cello Flake + 0.5% bwoc BA-10A + 4% bwoc MPA-5 + 63.2% Fresh Water, 13.8 ppg

Yield: 1.37 cf/sk

### TOC for All Strings:

Surface: 0'
Intermediate: 0'
Production: 0'

# Intermediate Casing Collapse Design Factor for Development Drilling Applications

The maximum possible collapse load that the intermediate casing will experience will result from evacuated casing with the pore pressure exerting a collapse load at TD. The pore pressure is estimated to be 9.0 ppg for this calculation. This results in a collapse design factor of 1.20 for 8-5/8" 32# J-55 LT&C casing at a depth of 4,500 ft.

While running the intermediate casing, the casing will never be completely evacuated.

There is no potential for the intermediate casing to be used as a production string.

# PECOS DISTRICT CONDITIONS OF APPROVAL

OPERATOR'S NAME: | Devon Energy Production Company, LP

LEASE NO.: NM0405444A

WELL NAME & NO.: Todd 23D Federal # 19 SURFACE HOLE FOOTAGE: 690' FNL & 402' FWL

BOTTOM HOLE FOOTAGE | Same

LOCATION: Section 23, T. 23 S., R 31 E., NMPM

COUNTY: | Eddy County, New Mexico

### I. DRILLING

# A. DRILLING OPERATIONS REQUIREMENTS

The BLM is to be notified a minimum of 4 hours in advance for a representative to witness:

- a. Spudding well
- b. Setting and/or Cementing of all casing strings
- c. BOPE tests

# **Eddy County**

Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (575) 361-2822

- 1. Although Hydrogen Sulfide has not been reported in this section, it is always a potential hazard. If Hydrogen Sulfide is encountered, please report measured amounts and formations to the BLM.
- 2. Unless the production easing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
- 3. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.

4. The record of the drilling rate along with the CAL/GR/N well log run from TD to surface will be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

### B. CASING

Changes to the approved APD casing and cement program require submitting a sundry and receiving approval prior to work. Failure to obtain approval prior to work will result in an Incident of Non-Compliance being issued.

Centralizers required on surface casing per Onshore Order 2.III.B.1.f.

Wait on cement (WOC) time for a primary cement job will be a minimum 18 hours for a water basin, 24 hours in the potash area, or 500 pounds compressive strength, whichever is greater for all casing strings. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. See individual casing strings for details regarding lead cement slurry requirements.

No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

Possible lost circulation in the Delaware and Bone Spring formations.

Possible water flows in the Salado, Castile, Delaware and Bone Spring formations.

- 1. The 11-3/4 inch surface casing shall be set at approximately 770 feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt) and cemented to the surface. Fresh water mud to be used to setting depth.
  - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with a surface log readout will be used or a cement bond log shall be run to verify the top of the cement.
  - b. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.
  - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
  - d. If cement falls back, remedial cementing will be done prior to drilling out that string.

the Bell Canyon formation. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to R-111-P potash.

3. The minimum required fill of cement behind the 5-1/2 inch production casing is:

a. First stage to DV tool, cement shall:

Cement to circulate. If cement does not circulate, contact the appropriate BLM office, before proceeding with second stage cement job.

b. Second stage above DV tool, cement shall:

Cement to surface – BLM requirement. If cement does not circulate, contact the appropriate BLM office. Additional cement will be required to bring cement to surface.

4. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

2. The minimum required fill of cement behind the 8/5/8 inch intermediate casing is:

Cement to surface. If cement does not circulate see B.1.a, c-d above.

Casing to be set in the Lamar Limestone at approximately 4410' above

## C. PRESSURE CONTROL

requirements shall be followed.

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.

5. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD

- 2. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **2000 (2M)** psi.
- 3. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the 8-5/8" intermediate casing shoe shall be 5000 (5M) psi. Operator installing 5M stack with 3M annular and testing as 3M.

- 4. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
  - a. The tests shall be done by an independent service company.
  - b. The results of the test shall be reported to the appropriate BLM office.
  - c. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
  - d. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug.
  - e. Effective November 1, 2008, no variances will be granted on reduced pressure tests on the surface casing and BOP/BOPE. Onshore Order 2 requirements will be in effect.

### D. DRILL STEM TEST

If drill stem tests are performed, Onshore Order 2.III.D shall be followed.

WWI 111109