

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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.

FORM APPROVED
OMB NO. 1004-0135
Expires: July 31, 2010

OCD Hobbs
HOBBS
OCT 22 2013
RECEIVED

5. Lease Serial No.
NMNM114990

6. If Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE - Other instructions on reverse side.

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

8. Well Name and No.
SALADO DRAW 6 FED 1H

9. API Well No.
30-025-41293-00-X1

10. Field and Pool, or Exploratory
WC-025 G09 S263406D

11. County or Parish, and State
LEA COUNTY, NM

1. Type of Well
 Oil Well Gas Well Other

2. Name of Operator
DEVON ENERGY PRODUCTION CO LP
Contact: TRINA C COUCH
Email: trina.couch@dvn.com

3a. Address
333 WEST SHERIDAN AVE
OKLAHOMA CITY, OK 73102

3b. Phone No. (include area code)
Ph: 405-228-7203

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
Sec 6 T26S R34E Lot 4 200FSL 875FWL

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 checked="" type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	Change to Original APD
	<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 recomplate 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 recomplate 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 site is ready for final inspection.)

Devon Energy Production Company, L.P. respectfully requests to change the production long string from a 5.5" production long string to a 7" intermediate with a 4.5" liner.

Attachments:
Drilling Plan

Thank you

**SEE ATTACHED FOR
CONDITIONS OF APPROVAL**

APPROVED
SEP 30 2013
[Signature]
BUREAU OF LAND MANAGEMENT
CARLSBAD FIELD OFFICE

14. I hereby certify that the foregoing is true and correct.
**Electronic Submission #221405 verified by the BLM Well Information System
For DEVON ENERGY PRODUCTION CO LP, sent to the Hobbs
Committed to AFMSS for processing by CHRISTOPHER WALLS on 09/30/2013 (13CRW0070SE)**

Name (Printed/Typed) TRINA C COUCH Title REGULATORY ASSOCIATE

Signature (Electronic Submission) Date 09/27/2013

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By (BLM Approver Not Specified) _____ Title Petroleum Engineer Date 09/30/2013

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 Hobbs *[Signature]* OCT 23 2013

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.

**** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ****

OCT 23 2013

Salado Draw 6 Fed 1H – APD DRILLING PLAN

JSL 01.21.13

SKS 09.26.13

Casing Program

<u>Hole Size</u>	<u>Hole Interval</u>	<u>OD Csg</u>	<u>Casing Interval</u>	<u>Weight</u>	<u>Collar</u>	<u>Grade</u>
17-1/2"	0 – 920	13-3/8"	0 – 920	48#	STC	H-40
12-1/4"	920 – 5,200	9-5/8"	0 – 5,200	40#	LTC	HCK-55
8-3/4"	5,200 – 12,890	7"	0 – 12,890	29#	BTC	HCP-110
8-3/4"	12,890 – 17,071	4-1/2"	11,881 – 17,071	13.5#	BTC	P-110

No Pilot hole.

Design Factors

<u>Casing Size</u>	<u>Collapse Design Factor</u>	<u>Burst Design Factor</u>	<u>Tension Design Factor</u>
13-3/8"	1.27	1.82	1.88
9-5/8" 40# J-55 LTC	1.48	3.33	6.71
7" 29# HCP-110 LTC	1.5	1.8	2.5
4-1/2" 13.5# P-110 BTC	1.71	1.99	1.83

Mud Program

<u>Depth</u>	<u>Mud Wt.</u>	<u>Visc.</u>	<u>Fluid Loss</u>	<u>Type System</u>
0 – 920	8.4 – 8.6	28 – 32	N/C	FW
920 – 5,200.	9.9 – 10.1	28 – 29	N/C	Brine
5,200 – 12,890	8.7 – 9.4	28 – 29	N/C	FW
12,890' - 17,071	8.7 – 9.6	28 – 29	N/C	FW

Pressure Control Equipment:

The BOP system used to drill intermediate holes the will consist of a 13-5/8" 5M Tipple Ram and Annular preventer. The BOP system will be tested as per BLM Onshore Oil and Gas Order 2 as a **5M system** prior to drilling out the surface casing shoe.

The BOP system used to drill the production hole will consist of a 13-5/8" 5M Tipple Ram and Annular preventer. The BOP system will be tested as per BLM Onshore Oil and Gas Order 2 as a **5M system** prior to drilling out the intermediate casing shoe.

The pipe rams will be operated and checked each 24 hour period and each time the drill pipe is out of the hole. These tests will be logged in the daily driller's log. A 2" kill line and 3" choke line will be incorporated into the drilling spool below the ram BOP. In addition to the rams and annular preventer, additional BOP accessories include a kelly cock, floor safety valve, choke lines, and choke manifold rated at **5,000 psi WP**.

Devon

Salado Draw 6 Fed 1H

Cementing Program (cement volumes based on at least Surface 100% excess, 1st Intermediate 75% excess, 2nd Intermediate 50% excess, and Production Liner is 25% excess)

13-3/8" Surface

Lead: 340 sacks **Lead: 960 sacks** Class C Cement + 0.125 lbs/sack Poly-E-Flake + 4% bwoc Bentonite + 70.6% Fresh Water, 13.5 ppg

Yield: 1.72 cf/sk

TOC @ surface

Tail: 550 sacks 100% Class C Cement + 1% BWOC Calcium Chloride + 0.125 lbs/sack Poly-E-Flake + 63.9% Fresh Water, 14.8 ppg

Yield: 1.33 cf/sk

9-5/8" 1st Intermediate

Lead: 1165 sacks (65:35) Class C Cement: Poz (Fly Ash): 6% BWOC Bentonite + 5% BWOW Sodium Chloride + 0.125 lbs/sack Poly-E-Flake + 70.8 % Fresh Water, 12.9 ppg

Yield: 1.85 cf/sk

TOC @ surface

Tail: 430 sacks 100% Class C Cement + 0.125 lbs/sack Poly-E-Flake + 63.9% Fresh Water, 14.8ppg

Yield: 1.33 cf/sk

7" 2nd Intermediate Option #1

1st Stage

Lead: 650 sacks (65:35) Class H Cement: Poz (Fly Ash): 6% BWOC Bentonite + 5% BWOW Sodium Chloride + 0.125 lbs/sack Poly-E-Flake + 72.9% Fresh Water, 12.9 ppg

Yield: 1.88 cf/sk

TOC @ 6500ft

Tail: 200 sacks (50:50) Class H Cement: Poz (Fly Ash) + 2% BWOC Bentonite + 0.2% BWOC Halad-9 + 0.2% BWOC HR-800 + 62.4% Fresh Water, 14.4 ppg

Yield: 1.24 cf/sk

DV Tool at 6500ft

2nd Stage

Lead: 140 sacks (65:35) Class H Cement: Poz (Fly Ash): 6% BWOC Bentonite + 5% BWOW Sodium Chloride + 0.125 lbs/sack Poly-E-Flake + 72.9% Fresh Water, 12.9 ppg

TOC @ 4700ft

Tail: 95 sacks 100% Class H Cement + 0.1% BWOC HR-800 + 60.7% Fresh Water, 15.6ppg

7" 2nd Intermediate Option #2

Lead: 660 sacks Tuned Light Class C Based + 0.2 lb/sack HR-800 + 62.3 % Fresh Water, 11 ppg

Yield: 2.24 cf/sk

TOC @ 4700ft

Tail: 290 sacks (50:50) Class H Cement: Poz (Fly Ash) + 2% BWOC Bentonite + 0.2% BWOC Halad-9 + 0.2% BWOC HR-800 + 62.4% Fresh Water, 14.4 ppg

Yield: 1.24 cf/sk

4-1/2" Production Liner

Tail: 505 sacks (50:50) Class H Cement: Poz (Fly Ash) + 1 lb/sk Sodium Chloride + 0.5% bwoc HALAD-344 + 0.4% bwoc CFR-3 + 0.1% bwoc HR-601 + 2% bwoc Bentonite + 58.8% Fresh Water, 14.5 ppg

Yield: 1.22 cf/sk

TOC @ 11781ft

TOC for All Strings:

Surface: 920ft	0ft (420ft of Lead & 500ft of fill of Tail)
Intermediate #1: 5200ft	0ft (4200ft of fill of Lead & 1000 ft of fill of Tail)
Intermediate #2 Option #1: 12890ft	6500ft (Stage 1 - 5390ft of Lead & 1500ft of Tail) DV Tool at 6500ft 4700ft (Stage 2 - 1300ft of Lead & 500ft of Tail)
Intermediate #2 Option #2: 12890ft	4700ft (6690ft of Lead & 1500ft of Tail)
Production Liner: 17071ft	11781ft (5290ft of fill of Tail)

ACTUAL CEMENT VOLUMES WILL BE ADJUSTED BASED ON FLUID CALIPER AND/OR CALIPER LOG DATA.

- If lost circulation is encountered while drilling the second intermediate wellbore, a DV tool will be installed a minimum of 50' below the previous casing shoe and of 200' above the current shoe. If the DV tool has to be moved, the cement volumes will be adjusted proportionately.

CONDITIONS OF APPROVAL

Sundry Dated 9/27/2013

OPERATOR'S NAME:	Devon Energy Prod Co
LEASE NO.:	NM114990
WELL NAME & NO.:	1H Salado Draw 6 Fed (3002541293)
SURFACE HOLE FOOTAGE:	220' FSL & 875' FWL
BOTTOM HOLE FOOTAGE:	330' FNL & 500' FWL
LOCATION:	Section 6, T.26 S., R.34 E., NMPM
COUNTY:	Lea

HOBBS OCD

I. DRILLING

OCT 22 2013

A. DRILLING OPERATIONS REQUIREMENTS

The BLM is to be notified in advance for a representative to witness:

RECEIVED

- a. Spudding well (minimum of 24 hours)
- b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
- c. BOPE tests (minimum of 4 hours)

Lea County

Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240,
(575) 393-3612

1. **Hydrogen Sulfide (H2S) monitors shall be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, provide measured values and formations to the BLM.**
2. Unless the production casing 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. **If the drilling rig is removed without approval – an Incident of Non-Compliance will be written and will be a “Major” violation.**
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 is located, this does not include the dog house or stairway area.

4. **The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall 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 program need prior approval if the items substituted are of lesser grade or different casing size. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.).

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

Wait on cement (WOC) time prior to drilling out 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. DURING THIS WOC TIME, NO DRILL PIPE, ETC. SHALL BE RUN IN THE HOLE. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. IF OPERATOR DOES NOT HAVE THE WELL SPECIFIC CEMENT DETAILS ONSITE PRIOR TO PUMPING THE CEMENT FOR EACH CASING STRING, THE WOC WILL BE 30 HOURS. 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.

Possibility of water flows in the Salado, Delaware, and Bone Springs.

Possibility of lost circulation in the Rustler, Delaware and Bone Springs.

1. **The 13-3/8 inch surface casing shall be set at approximately 920 feet (in a competent bed below the Magenta Dolomite, which is a Member of the Rustler, and if salt is encountered, set casing at least 25 feet above the salt) and cemented to the surface.**
 - 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 surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.**

- 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.

Formation below the 13-3/8" shoe to be tested according to Onshore Order 2.III.B.1.i. Test to be done as a mud equivalency test using the mud weight necessary for the pore pressure of the formation below the shoe and the mud weight for the bottom of the hole. Report results to BLM office.

2. The minimum required fill of cement behind the 9-5/8 inch intermediate casing is:

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

Formation below the 9-5/8" shoe to be tested according to Onshore Order 2.III.B.1.i. Test to be done as a mud equivalency test using the mud weight necessary for the pore pressure of the formation below the shoe (not the mud weight required to prevent dissolving the salt formation) and the mud weight for the bottom of the hole. Report results to BLM office.

Centralizers required on horizontal leg, must be type for horizontal service and a minimum of one every other joint.

7 Inch Option 1

3. The minimum required fill of cement behind the 7 inch production casing is:

Operator has proposed DV tool at depth of 6500', but will adjust cement proportionately if moved. DV tool shall be set a minimum of 50' below previous shoe and a minimum of 200' above current shoe. Operator shall submit sundry if DV tool depth cannot be set in this range. If an ECP is used, it is to be set a minimum of 50' below the shoe to provide cement across the shoe. If it cannot be set below the shoe, a CBL shall be run to verify cement coverage.

- a. First stage to DV tool:
 - Cement to circulate. If cement does not circulate, contact the appropriate BLM office before proceeding with second stage cement job. Operator should have plans as to how they will achieve circulation or approved top of cement on the next stage.

b. Second stage above DV tool:

- Cement should tie-back at least **500** feet into previous casing string. Operator shall provide method of verification.

Formation below the 7" shoe to be tested according to Onshore Order 2.III.B.1.i. Test to be done as a mud equivalency test using the mud weight necessary for the pore pressure of the formation below the shoe (not the mud weight required to prevent dissolving the salt formation) and the mud weight for the bottom of the hole. Report results to BLM office.

7 Inch Option 2

4. The minimum required fill of cement behind the 7 inch production casing is:

- Cement should tie-back at least **500** feet into previous casing string. Operator shall provide method of verification.

Formation below the 7" shoe to be tested according to Onshore Order 2.III.B.1.i. Test to be done as a mud equivalency test using the mud weight necessary for the pore pressure of the formation below the shoe (not the mud weight required to prevent dissolving the salt formation) and the mud weight for the bottom of the hole. Report results to BLM office.

Centralizers required on horizontal leg, must be type for horizontal service and a minimum of one every other joint.

5. The minimum required fill of cement behind the **4-1/2** inch production liner is:

- Liner shall overlap at least 1,000 feet into previous casing string; as requested by operator and cemented. Operator shall provide method of verification.
Operator will be required to have additional cement on location since current cement design indicated to be neg. 56%.

6. 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.

C. PRESSURE CONTROL

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. **For H&P rigs – the stump test is not an approved BOP test. Equipment shall be tested when mounted on well head.**
2. Variance approved to use flex line from BOP to choke manifold. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. **Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.** If the BLM inspector questions the straightness of the hose, a BLM engineer will be contacted and will review in the field or via picture supplied by inspector to determine if changes are required (operator shall expect delays if this occurs).
3. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000 (5M) psi. 5M system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.**
4. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
 - a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
 - b. The tests shall be done by an independent service company utilizing a test plug **not a cup or J-packer**. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (18 hours) or potash (24 hours) or 500 pounds compressive strength,

whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).

- c. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock.
- d. The results of the test shall be reported to the appropriate BLM office.
- e. 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.**
- f. 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. This test shall be performed prior to the test at full stack pressure.

D. DRILL STEM TEST

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

E. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

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