Form 3160-5
(August 2007)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD Hobbs

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

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.

5. Lease Serial No.
NMNM94186

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.
NMNM88526X

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

8. Well Name and No.
THISTLE UNIT 53H

2. Name of Operator
DEVON ENERGY PRODUCTION CO LP

Contact: TRINA C COUCH
Mail: trina.couch@dvn.com

9. API Well No.
30-025-41794-00-X1

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

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

HOBBS OCD
SEP 17 2014
RECEIVED

10. Field and Pool, or Exploratory
TRIPLE X

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
Sec 28 T23S R33E NWNE 200FNL 2030FEL
32.282533 N Lat, 103.575401 W Lon

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

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

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other Change to Original APD
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ 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 recomplete 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 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 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 run a two stage surface cement job as opposed to the approved one stage job in the original APD. The DV Tool will be placed at 3300' MD in open hole.

Please see attachments for volumes and updated data

SEE ATTACHED FOR CONDITIONS OF APPROVAL

APPROVED
SEP 10 2014
BUREAU OF LAND MANAGEMENT
CARLSBAD FIELD OFFICE

SEE ATTACHED FOR CONDITIONS OF APPROVAL

14. I hereby certify that the foregoing is true and correct.

Electronic Submission #262499 verified by the BLM Well Information System
For DEVON ENERGY PRODUCTION CO LP, sent to the Hobbs
Committed to AFMSS for processing by ED FERNANDEZ on 09/11/2014 (14EF0094SE)

Name *(Printed/Typed)* TRINA C COUCH — Title REGULATORY ANALYST

Signature (Electronic Submission) — Date 09/10/2014

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By EDWARD FERNANDEZ — Title PETROLEUM ENGINEER — Date 09/11/2014

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

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 ****

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

SEP 19 2014

Additional data for EC transaction #262499 that would not fit on the form

32. Additional remarks, continued

Thank you

Thistle Unit 53H– APD DRILLING PLAN
Li Zhang – Nov 5, 2013

Casing program:

Hole Size	Hole Interval	Casing OD	Casing interval	Casing Wt (ppf)	Connection	Casing Grade
17-1/2"	0 – 1,4155'	13-3/8"	0 - 1,415'	48	STC	H-40
12-1/4"	1,415 - 5,200'	9-5/8"	0-4,300'	40	BTC	J-55
12-1/4"	1,415 - 5,200'	9-5/8"	4300 - 5200'	40	BTC	HCK-55
8-3/4"	5,200 – 16,080'	7"	0 – 10,650'	29	BTC	P-110
8-3/4"	5,200 - 16,080'	5-1/2"	10,650 - 16,080'	17	BTC	P-110

****13-3/8" DV Tool will be run on the surface casing job at 300' MD****

Design factors:

Casing	Collapse	Burst	Tension
13-3/8" H-40 STC	1.28	3.02	5.06
9-5/8" J-55 BTC	1.15	3.43	4.69
9-5/8" HCK-55 BTC	1.57	4.63	6.07
7" P-110 BTC	1.78	1.25	2.16
5-1/2" P-110 BTC	1.42	1.25	2.07

There is no potential for the intermediate casing to be used as a production string. All casing strings utilized are new.

Mud program:

Depth	Mud Wt. (ppg)	Visc. (cp)	Fluid loss	Type System
0 - 1,415'	8.5 - 8.7	1 - 3	NC	Fresh water
1,415 - 5,200'	9.8 - 10.0	1 - 3	< 100	Brine
5,200 - 16,080'	8.4 - 9.0	1 - 3	< 100	Fresh water/cut brine

Pressure control equipment:

Devon proposes using a multi-bowl wellhead assembly (FMC Uni-head). This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be 3000 (3M) psi.

- Wellhead will be installed by FMC's representatives.
- If the welding is performed by a third party, the FMC's representative will monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
- FMC representative will install the test plug for the initial BOP test.
- FMC will install a solid steel body pack-off to completely isolate the lower head after cementing intermediate casing. After installation of the pack-off, the pack-off and the lower flange will be tested to 5M, as shown on the attached schematic. Everything above the pack-off will not have been altered whatsoever from the initial nipple up. Therefore the BOP components will not be retested at that time.

- If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head will be cut and top out operations will be conducted.
- Devon will pressure test all seals above and below the mandrel (but still above the casing) to full working pressure rating.
- Devon will test the casing to 70% of burst or 1500 psi, whichever is greater, as per Onshore Order #2.

After running the 13-3/8" surface casing, a 13-5/8" BOP/BOPE system with a minimum rating of 3M will be installed on the FMC Uni-head wellhead system and will undergo a 250 psi low pressure test followed by a 3,000 psi high pressure test. The 3,000 psi high and 250 psi low test will cover testing requirements a maximum of 30 days, as per Onshore Order #2. If the well is not complete within 30 days of this BOP test, another full BOP test will be conducted, as per Onshore Order #2.

After running the 9-5/8' intermediate casing with a mandrel hanger, the 13-5/8" BOP/BOPE system with a minimum rating of 3M will already be installed on the FMC Uni-head.

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 3,000 psi WP.

Devon requests a variance to use a flexible line with flanged ends between the BOP and the choke manifold (choke line). The line will be kept as straight as possible with minimal turns.

Devon
Thistle Unit 53H
Cementing Program (cement volumes based on at least Surface 100% excess, Intermediate 75% excess and Production is 25% excess)

13-3/8" Surface First Stage	**Lead: 655 sacks** Class C Cement + 0.25 lbs/sack Poly-E-Flake + 4% bwoc Bentonite + 70.8% Fresh Water, 13.5 ppg **Yield:** 1.75 cf/sk **Water Requirement:** 9.07 gal/sk **Mix Water Volume:** 145bbls **TOC @ 300'** **Tail: 425 sacks** Class C Cement + 0.125 lbs/sack Poly-E-Flake + 63.1% Fresh Water, 14.8 ppg **Yield:** 1.33 cf/sk **Water Requirement:** 6.32 gal/sk **Mix Water Volume:** 85bbls
13-3/8" Surface Second Stage	**Lead: 470 sacks** Class C Cement + 0.25 lbs/sack Poly-E-Flake + 4% bwoc Bentonite + 70.8% Fresh Water, 13.5 ppg **Yield:** 1.75 cf/sk **Water Requirement:** 9.07 gal/sk **Mix Water Volume:** 145 bbls **TOC @ surface** **Tail: 560 sacks** Class C Cement + 0.125 lbs/sack Poly-E-Flake + 63.1% Fresh Water, 14.8 ppg **Yield:** 1.33 cf/sk **Water Requirement:** 6.32 gal/sk
9-5/8" Intermediate	**Lead: 1140 sacks** (65:35) Class C Cement: Poz (Fly Ash): 6% BWOC Bentonite + 5% BWOW Sodium Chloride + 0.125 lbs/sack Poly-E-Flake + 70.9 % Fresh Water, 12.9 ppg **Yield**: 1.85 cf/sk **Water Requirement:** 9.81gal/sk **Mix Water Volume:** 266bbls **TOC @ surface** **Tail: 430 sacks** Class C Cement + 0.125 lbs/sack Poly-E-Flake + 63.9% Fresh Water, 14.8 ppg **Yield**: 1.33 cf/sk **Water Requirement:** 6.32 gal/sk **Mix Water Volume:** 65bbls
5-1/2" Production	**Lead #1: 550 sacks** (50:50) Class H Cement: Poz (Fly Ash) + 10% BWOC Bentonite + 1 lb/sk of Kol-Seal + 0.3% BWOC HR-601 + 0.5lb/sk D-Air 5000 + 76.4% Fresh Water, 11.9 ppg **Yield**: 2.26 cf/sk

Water Requirement: 12.89 gal/sk

Mix Water Volume: 169bbls

TOC @ 4750ft

Lead #2:330 sacks (65:35) Class H Cement: Poz (Fly Ash) + 6% BWOC Bentonite + 0.25% BWOC HR-601 + 0.125 lbs/sack Poly-E-Flake + 74.1 % Fresh Water, 12.5 ppg

Yield: 1.95 cf/sk

Water Requirement: 10.79 gal/sk

Mix Water Volume: 85bbls

TOC @ 8739ft

Tail: 1400 sacks (50:50) Class H Cement: Poz (Fly Ash) + 1 lb/sk Sodium Chloride + 0.5% bwoc HALAD-344 + 0.4% bwoc CFR-3 + 0.2% bwoc HR-601 + 2% bwoc Bentonite + 58.8% Fresh Water, 14.5 ppg

Yield: 1.22 cf/sk

Water Requirement: 5.38 gal/sk

Mix Water Volume: 180bbls

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

2.3 *Job Volume Estimates* *Surface Casing - Two Stage Option*

Stage 1

Fluid 1: Water Spacer		
Red Dye Spacer	Fluid Density:	8.34 lbm/gal
0.10 lbm/bbl Rhodamine Red Dye No. 2	Volume :	20 bbl
Fluid 2: Lead Slurry		
HALCEM (TM) SYSTEM	Fluid Weight:	13.5 lbm/gal
0.1250 lbm Poly-E-Flake	Volume:	203.6 bbl
4 % Bentonite	Slurry Yield:	1.719 ft3/sack
	Total Mixing Fluid:	9.09 Gal/sack
	Top Of Fluid:	0 ft
	Calculated Fill:	971 ft
	Calculated sack:	665 sack
	Proposed sack:	665 sack
Fluid 3: Tail Slurry		
HALCEM (TM) SYSTEM	Fluid Weight:	14.8 lbm/gal
1 % Calcium Chloride - Flake	Volume:	101.1 bbl
	Slurry Yield:	1.336 ft3/sack
	Total Mixing Fluid:	6.36 Gal/sack
	Top Of Fluid:	971 ft
	Calculated Fill:	479 ft
	Calculated sack:	425 sack
	Proposed sack:	425 sack
Fluid 4: Water Spacer		
Fresh Water Displacement	Fluid Density:	8.34 lbm/gal
	Volume :	221.4 bbl
Multiple Stage Cementer		300 ft(MD)

Stage 2

Fluid 1: Water Spacer		
Red Dye Spacer	Fluid Density:	8.34 lbm/gal
0.10 lbm/bbl Rhodamine Red Dye No. 2	Volume :	20 bbl
Fluid 2: Tail Slurry		
HALCEM (TM) SYSTEM	Fluid Weight:	14.8 lbm/gal
1 % Calcium Chloride - Flake	Volume:	111.8 bbl
	Slurry Yield:	1.336 ft3/sack

Total Mixing Fluid:	6.36 Gal/sack
Top Of Fluid:	0 ft
Calculated Fill:	300 ft
Calculated sack:	470 sack
Proposed sack:	470 sack

Fluid 3: Water Spacer

Fresh Water Displacement

Fluid Density:	8.34 lbm/gal
Volume :	47.1 bbl

CONDITIONS OF APPROVAL

Sundry dated 09/10/2014

OPERATOR'S NAME:	**Devon Energy Production Company, L.P.**
LEASE NO.:	**NMNM-94186**
WELL NAME & NO.:	**Thistle Unit 53H 30-025-41794**
SURFACE HOLE FOOTAGE:	**0200' FNL & 2030' FEL**
LOCATION:	**Section 28, T. 23 S., R 33 E., NMPM**
COUNTY:	**Lea County, New Mexico**

The original COAs still stand with the following drilling modifications:

Operator has proposed DV tool at depth of 300'. Operator is to submit sundry if DV tool depth varies by more than 100' from approved depth.

1. The **13-3/8** inch surface casing shall be set at approximately **1450** 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. **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 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.

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 on the next stage.

Second stage above DV tool:

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

EGF 091014