

RM

WYOMING CARLSBAD FIELD OFFICE

Form 3160-5
(February 2005)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No 1004-0137
Expires March 31, 2007

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

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator
Devon Energy Production Co., LP

3a. Address
20 North Broadway
OKC, OK 73107

3b. Phone No. (include area code)
(405)-552-7802

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
SENE 2310' FNL & 330' FEL
Sec 29-T16S-R28E Lot H

5. Lease Serial No.

NMNM-54856

6. If Indian, Allottee or Tribe Name

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

8. Well Name and No
Dickens 29 Federal 3H

9. API Well No.
30-015-37220

10. Field and Pool or Exploratory Area
Dog Canyon; Wolfcamp

11. Country or Parish, State
Eddy County, NM

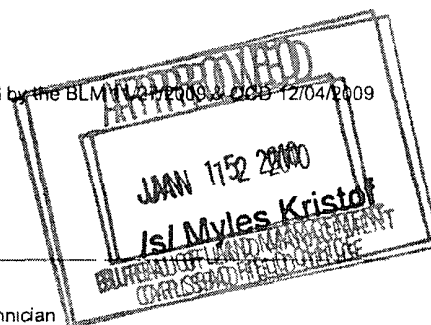
12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

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 Change
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	Drilling Program
	<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 must 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 must be filed once testing has been completed. Final Abandonment Notices must 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 Co., LP respectfully requests approval to deviate from the original approved APD and revise the drilling program per the attached:

Note: Please see sundry documentation for the Shakespeare 20 Fed Com 3H API# 30-015-37193; approved by the BLM on 12/12/2009 & OCS 12/04/2009



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

Name (Printed/Typed)

Stephanie A Ysasaga

Title Sr Staff Engineering Technician

Signature

Date 01/13/2010

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Title

Date

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

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.

(Instructions on page 2)

DG



Devon Energy Corporation
20 North Broadway
Oklahoma City, OK 73102-8260

405 235 3611 Phone
www.devonenergy.com

January 13, 2010

United States
Department of The Interior
Carlsbad, New Mexico
Re: Dickens 29 Fed 3H
Sec 29-T16S-R28E
Eddy County, New Mexico
API # 30-015-37220

Devon Energy would like to make the following changes to the approved drilling design for the above referred well.

1. The 17 1/2' hole to be drilled to ~600' (as per BLM COA) and at set 13 3/8" 48# H-40 ST&C casing. Cement to surface with 375 sacks 35:65 Poz Class C yield 1.96 cuft/sk and 250 sacks of Class C yield 1.34 cuft/sk.
2. The 12 1/4" hole to be drilled to ~2300' and set 9 5/8" 36# J-55 LT&C casing. Cement to surface with: Lead with 600 sx 35:65 Poz Class C Yield 1.97 cf/sk and Tail with 350 sx Class C Yield 1.35 cf/sk.
3. This well will NOT have a PILOT HOLE. The 7" and 4 1/2" casing described in the approved APD will only be ran if hole conditions deteriorate and this will be considered as a option.
4. An 8 3/4" hole will be drilled from 2300' to the TMD ~10,890.
5. The current proposed production casing will be 5 1/2" 17# BT&C & LT&C P110 HC and will be ran with a Packer type completion system with Swell Packers for isolation in the lateral to a MTD of ~10890'.
6. A Port Collar (PC) will be placed in the 5 1/2" casing at KOP (~5900') while running the casing.
7. Once the casing with the completion system is ran, tubing will be ran to open the PC (5900') and the 5 1/2" casing be cemented from 5900' to surface. Cement volume will be 985 sacks 35:65 Poz Class C with a yield of 1.96 cuft/sk and 380 sacks of Class C with a yield of 1.34 cuft/sk.
8. Data for 5 1/2" casing: ~5000' of 17# P110 BT&C and ~5950' of 17# P 110 LT&C. Safety factors are: Collapse 2.93, Burst 4.01 and Tensile 2.37.

Devon Energy reserves the right to change the tubular design as the well is being drilled and will inform the Carlsbad New Mexico BLM office within 24 hours of any changes which may occur.

Please see sundry documentation for the Shakespeare 20 Fed Com 3H API# 30-015-37193; approved by the BLM 11/27/2009 and approved by the OCD 12/04/2009.

Regards
Pat Brown
Drilling Engineer

Ysasaga, Stephanie

From: Ysasaga, Stephanie
Sent: Wednesday, January 13, 2010 11:56 AM
To: 'Wesley_Ingram@blm.gov'
Cc: Brown, Patrick; McGowen, Gregory
Subject: Dickens 29 Federal 3H: NOI - Change Drilling Program (Review)

Attachments: Dickens 29 Federal 3H .pdf

Wesley,

Attached is the sundry to deviate from the original approved APD and revise the drilling program per the attached. I've reference the documentation of the Shakespeare 20 Fed Com 3H and its' API # should review of the original sundry's approval and documentation need to be re-visited since this is an offset location to the Shakespeare 20 Fed Com 3H.

This well will be spud in the next week and a half When approval is granted, can you please fax the approval back to me? I will get hardcopies in the mail next day to you. Fax number is below. Thanks! ☺



Dickens 29 Federal
3H .pdf (98...

Stephanie A. Ysasaga

Sr. Staff Engineering Technician
(405)-552-7802 Phone (405)-721-7689 Cell
(405)-552-8113 Fax
Corporate Tower 03 056
Stephanie.Ysasaga@dvn.com

**PECOS DISTRICT
CONDITIONS OF APPROVAL**

OPERATOR'S NAME:	Devon Energy Production Company, LP
LEASE NO.:	NM-54856
WELL NAME & NO.:	Dickens 29 Federal #3H
SURFACE HOLE FOOTAGE:	2310' FNL & 330' FEL
BOTTOM HOLE FOOTAGE:	2310' FNL & 330' FWL
LOCATION:	Section 29, T. 16 S., R 28 E., NMPM
COUNTY:	Eddy County, New Mexico

**SUBJECT TO LIKE APPROVAL BY STATE – POTENTIAL
DOWNHOLE COMMINGLE BEHIND PIPE FROM 5900' TO 1ST
PACKER**

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 there are no measured amounts of Hydrogen Sulfide reported, it is always a potential hazard. If Hydrogen Sulfide is encountered, please 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.**
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.

High cave/karst

Possible lost circulation in the Slaughter zone of the San Andres formation.

Possible high pressure gas bursts in the Wolfcamp.

1. **The 13-3/8 inch surface casing shall be set at approximately 590 feet in the Seven Rivers formation and cemented to the surface. Fresh water mud is 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. 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.
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.
Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst.

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 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 minimum of one every other joint.

IF LOST CIRCULATION OCCURS WHILE DRILLING THE 8-3/4" PRODUCTION HOLE, THE CEMENT PROGRAM FOR THE 5-1/2" CASING WILL NEED TO BE MODIFIED AND THE BLM IS TO BE CONTACTED PRIOR TO RUNNING THE CASING. A MINIMUM OF TWO CASING STRINGS CEMENTED TO SURFACE IS REQUIRED IN HIGH CAVE/KARST AREAS. THE CEMENT MUST BE IN A SOLID SHEATH THEREFORE, ONE INCH OPERATIONS WILL NOT BE PERMITTED. A DV TOOL MAY BE NEEDED IN ADDITION TO THE PORTED COLLAR.

3. The minimum required fill of cement behind the 5-1/2" production casing is:
- ☒ Cement to surface. If cement does not circulate, contact the appropriate BLM office. Operator is using a ported collar at 5900'.

Contingency Casing

4. The minimum required fill of cement behind the 7 inch second intermediate casing is:
- ☒ Cement should tie-back at least 500 feet into previous casing string. Operator shall provide method of verification. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to high cave/karst.**

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 and the mud weight for the bottom of the hole. Report results to BLM office.

5. The minimum required fill of cement behind the 4-1/2 inch production casing is:
 - ☒ Cement not required – operator is using the Peak System Iso-pack liner. The liner should tie-back at least 100 feet into previous casing string.
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.
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.
 - a. **For surface casing only:** If the BOP/BOPE is to be tested against casing, the wait on cement (WOC) time for that casing is to be met (see WOC statement at start of casing section). Independent service company required.
3. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the 9-5/8 inch intermediate 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. Casing cut-off and BOP installation will not be initiated until the cement has had 4-6 hours of setup time in a water basin and 12 hours in the potash areas. This time will start after the cement plug is bumped. Testing the BOP/BOPE against a plug can commence after meeting the above conditions plus the BOP installation time.
 - b. The tests shall be done by an independent service company utilizing a test plug.
 - c. The results of the test shall be reported to the appropriate BLM office.

- d. 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.**
- e. 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.
- f. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the **Wolfcamp** formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.
- g. **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. DRILLING MUD

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the **Wolfcamp** formation, and shall be used until production casing is run and cemented.

E. DRILL STEM TEST

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

MAK 011510

In a Cave Karst Section. Cave zones are 2 csg strings, w/their annulus cmt'd.

13 3/8 inches O.D. of Surface Casing					Design Factors				
Segment	Grade	#/ft	Coupling	Joint	Collapse	Burst	Length	Weight	
"A"	H 40	48.00	ST&C	11.37	2.82	1.45	590	28,320	
"B"							0	0	
Totals:							590	28,320	
Compare Cement Volumes, Proposed to Minimum									
Hole Size	Annular Volume	Proposed Sx Cmt	CuFt Cmt Proposed	Min Cu Ft	Excess % Cmt	Drilling Mud Wt	Calc MASP	Req'd BOPE	Min Dist Hole-Cplg
17 1/2	0.6946	400	664	468	42	8.90	689	2M	1.56
Comments for 13 3/8 " Csg									

9 5/8 << Casing inside the 13 3/8					Design Factors				
Segment	Grade	#/ft	Coupling	Joint	Collapse	Burst	Length	Weight	
"A"	J 55	36.00	LT&C	5.47	1.69	1.16	2,300	82,800	
"B"							0	0	
"C"							0	0	
"D"							0	0	
Totals:							2,300	82,800	
Compare Cement Vol(s), Proposed to Min, with 590 ft overlap above 1st csg shoe.									
Hole Size	Annular Volume	Proposed Sx Cmt	CuFt Cmt Proposed	Min Cu Ft	Excess % Cmt	Drilling Mud Wt	Calc MASP	Req'd BOPE	Min Dist Hole-Cplg
12 1/4	0.3132	655	1133	777	46	10.00	1593	2M	0.81
Comments for 9 5/8 " Csg									

5 1/2 inside the 9 5/8					Design Factors				
Segment	Grade	#/ft	Coupling	Joint	Collapse	Burst	Length	Weight	
"A"	P 110	17.00	BUTT	3.07	3.24	3.50	5,000	85,000	
"B"	P 110	17.00	LT&C	2.80	2.12	3.50	5,890	100,130	
"C"							0	0	
"D"							0	0	
Totals:							10,890	185,130	
6,575 = Max Vertical Depth of the Lateral Portion of Wellbore.									
B Segment Design Factors would be: 4.44 2.46 if it were a vertical wellbore.									
Compare Cement Vol(s), Proposed to Min, with 2300 ft overlap above 2nd csg shoe.									
Hole Size	Annular Volume	Proposed Sx Cmt	CuFt Cmt Proposed	Min Cu Ft	Excess DVT Cmt	Drilling Mud Wt	Calc MASP	Req'd BOPE	Min Dist Hole-Cplg
8 3/4	0.2526	1365	2440	2794	Check	8.90			1.35
Comments for 5 1/2 " Csg PC @ 5900' and cemented to surface									

					Design Factors				
Segment	Grade	#/ft	Coupling	Joint	Collapse	Burst	Length	Weight	
"A"							0	0	
"B"							0	0	
"C"							0	0	
"D"							0	0	
Totals:							0	0	
A Segment Design Factors would be: if it were a vertical wellbore.									
Compare Cement Vol(s), Proposed to Min, with 0 ft overlap above 3rd csg shoe.									
Hole Size	Annular Volume	Proposed Sx Cmt	CuFt Cmt Proposed	Min Cu Ft	Excess % Cmt	Drilling Mud Wt			Min Dist Hole-Cplg
Comments for " Csg									