

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD Artesia

RECEIVED

SEP 27 2013

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 Artesia abandoned well. Use Form 3160-3 (APD) for such proposals.

5. Lease Serial No. NMNM 86024
6. If Indian, Allottee or Tribe Name

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
333 West Sheridan
OKC, OK 73102

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

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

8. Well Name and No.
Cochiti 28 Federal 1

9. API Well No. 30-015-30113

10. Field and Pool or Exploratory Area
SWD; Bell Canyon (96769)

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
Sec 28-T23S-R29E
1980' FNL & 660' FWL

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 Expand Existing
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	Injection Interval
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	to 3,260 - 3,810'

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.)

PROPOSED SWD CONVERSION: Devon is filing Form C-108 (Application for Authorization to Inject) with the Oil Conservation Division in Santa Fe, New Mexico. Proposed SWD conversion is in the existing Bell Canyon formation perforated from 3,260' - 3,810'; expand existing injection interval.

Devon respectfully requests permission to improve the injection capacity of the Cochiti 28 Fed 1 SWD located at Section 28 T23S-R29E by performing the following work.

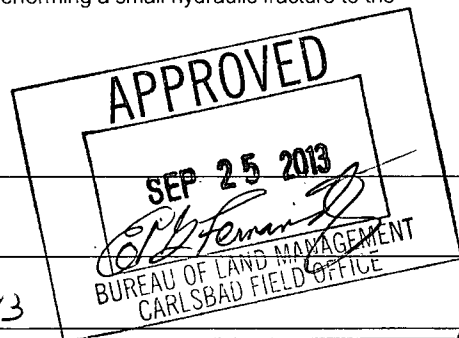
The well is currently perforated in the Bell Canyon member of the Delaware Mountain group at 3,428'-3,467' and 3,628'-3,658'. The current injection string is 2-7/8", 6/5# IPC tubing set at 3,384' with a 5-1/2" x 2-7/8" arrowset packer.

Devon would like to add perforations with in the Bell Canyon member at 3,260'-3,380', 3,420'-3,500', 3,540'-3,560', 3,565'-3,660', 3,675'-3,715', and 3,780'-3,810', at 4 SPF. Acid stimulate the new and existing perforations. Replace the existing 2-7/8" injection string with new 3-1/2" integral joint IPC tubing and packer set at +/-2,990'. Perform a step rate test. If the injectivity is not satisfactory operator will consider performing a small hydraulic fracture to the injection interval, details of which will be submitted in a separate NOI sundry.

(Current and Proposed Wellbore Schematics Attached)

SUBJECT TO LIKE
APPROVAL BY STATE

SEE ATTACHED FOR
CONDITIONS OF APPROVAL



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

Name (Printed/Typed)
Stephanie A. Porter

Title Operations Technician

Signature

Date

08/04/2013

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

SWD 972-A

Approved by

Title

Accepted for record
NMOCB

Office

9/27/13

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.

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.

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Surface Owner
Cochiti 28 Federal #1 SWD

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Laguna

Laguna

23S 29E

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Cochiti 28 Fed #1 SWD
Surface: BLM

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Conditions of Approval

Devon Energy Production Co.,LP
Cochiti 28 Federal #1
API 3001530113
Sundry dated 06/04/2013

Operator request to perform a Step Rate Test
Operator to comply with NMOCD SWD-975-A

1. If available, submit an electronic copy (Adobe Acrobat Document) cement bond log record from the top of the injection interval to top of cement. The CBL may be attached to a pswartz@blm.gov email.
2. Submit a stabilized injection profile survey for the well for review.
3. Submit the well's stabilized current psig/ft surface pressure to the top perforation.
4. Submit an anticipated bottom hole fracture pressure for the field or pool formation.
5. State the **targeted** maximum bbl/min injection rate. **The objective is to avoid fracturing the injection formation.**
6. Submit the injection fluid lbs/gal weight.
7. Submit an anticipated formation fracture or breakdown pressure at the injection top.
8. Stop injection a minimum of 48 hours and record the tubing pressure as it drops. The pressure should stabilize at or below the NMOCD permitted pressure for 8 hours. Document the pressure test on a seven day full rotation calibrated recorder chart registering within 25 to 85 per cent of its full range.
9. Calculate seven injection rates by multiplying the targeted maximum bbl/min injection by 0.05 for Step 1, 0.10 for Step 2, 0.20 for Step 3, 0.40 for Step 4, 0.60 for Step 5, 0.80 for Step 6, and 1.00 for Step 7. Record both surface and top perforation step pressures at five minute increments. Each step's time duration (usually 30 minutes) should be within 1 minute or less of the preceding step. If stabilized pressure values ($\Delta \pm 15$ psig) are not obtained between the last two (five minute) increments the test results will be considered inconclusive.
10. The Step Rate fluid used should be the same as the proposed injection fluid.
11. Flow rates are to be controlled with a constant flow regulator and measured with a turbine flow meter calibrated within 0.1 bbl/min. Record those rates using a chart recorder or strip chart.
12. Use a down hole transmitting pressure device and a surface pressure device with accuracies of ± 10 psig to measure pressures.
13. **Notify BLM 575-361-2822 Eddy Co. 24 hours before beginning the test. If no answer, leave a voice mail or email with the API#, workover purpose, and a call back phone number. Note the contact, time, & date in your subsequent report.**
14. When breakdown pressure is not achieved at the **targeted rate** the formation is accepting the injection fluid without fracturing, which is the **objective**. Stop the test.

15. When the formation fracture pressure has been exceeded as evidenced by at least two rate-pressure combinations greater than the breakdown pressure stop the test and record the bottom hole Instantaneous Shut-in Pressure. This ISIP is considered the minimum pressure to hold open a fracture in this formation at this well. Fifty psig less than the ISIP is the maximum bottom hole pressure BLM will approve.
16. Record with each five minute interval the corresponding rate (bbl/min), down hole, and surface pressure (psig). Provide BLM with the tabulation of each five minute interval. Include a graph showing the stabilized pressure at each injection rate. Submit that data to BLM with the shut-in pressure recording of paragraph 8.
- 17. Hydraulic fracture NOT Approved with this sundry**

The intent of a step rate test is to establish that a proposed rate of injection into a formation is below fracture. Because it becomes likely that fracture pressure may be attained and exceeded it is considered a nonroutine fracturing job and requires a notice of intent. Reference: 43 CFR 3162.3-2 Subsequent well operations.

EGF 092513

DEVON ENERGY PRODUCTION COMPANY LP

Well Name: Cochiti 28 Federal #1		Field: SWD; Bell Canyon	
Location: 1980' FNL & 660' FWL, Sec 28-T23S-R29E		County: EDDY	State: NM
Elevation: 2995' GR		Spud Date: 5/3/1998	Compl Date: 10/29/1998
API#: 30-015-30113	Prepared by: Ronnie Slack	Date: 10/18/05	Rev: TJK - 5/14/13

PROPOSED

Converted to SWD 10/2005
Administrative Order SWD-972

17-1/2" hole
13-3/8", 48#, H40, STC, @ 403'
Cmt'd w/ 440 sx. Cement to surface

TOC @ 2250 (CBL-6/30/98)

11" hole
8-5/8", 32#, J55, STC, @ 2916'
Cmt'd w/ 875 sx. Cement to surface

DELAWARE BELL CANYON
3,428'-3,467'; 3,628'-3,658' (6/4/05)

PROPOSED INJECTION PERFS
DELAWARE BELL CANYON
3,260'-3,380'; 3,420'-3,500'; 3,540'-3,560'
3,675'-3,715'; 3,780'-3,810'
4 spf 90° phase
Acidize with 10,000 gals 15% NeFe

Formation Tops

Bell Canyon 2,970'
Cherry Canyon 3,840'
Brushy Canyon 5,230'
Bone Spring 6,640'
Wolfcamp 9,912'

PROPOSED INJ TUBING

3-1/2" IJ 9.3# J-55 IPC TBG
5-1/2" X 3-1/2" ARROWSET PKR
Set at +/-2,990'

Arrowset plastic coated packer @ 2990'

35' cement on top. PBD @ 3823'.
CIBP @ 3858' (6-5-05)

Fish in hole: Left collar locator, setting tool,
CIBP on bottom. Tagged at 6120'. (6-5-05)

35' cement on top. Tested to 1000 psi.
CIBP @ 6160'. (6-4-05)

Casing Hole indicated at 6118', but tested ok at
1000 psi. (5/29/99)

BRUSHY CANYON (10/14/98)
6210' - 6230' Frac'd 10/31/98

Parted casing indicated at 6402'-6404'. Lost
150 psi in 15 min. (5/29/99)

Pumped balanced cement plug @ 6450'.
Tagged TOC @ 6345'. (6-4-05)

BONE SPRING (7/22/98)
7816' - 7821'
7828' - 7834'
7862' - 7875'

Fill tagged at 7974' (3/7/03)

Tagged PBD @ 7977' (5/27/99)
Set 35' cement plug @ 7960' - 7995' (5/26/99)
PBD tagged @ 7995' (5/25/99)

DV Tool @ 8177'

WOLFCAMP (7/2/98)
10126' - 10132'

7-7/8" hole
5-1/2", 17#, N80, LTC, @ 10180'
Cmt'd w/ 1650 sx

TD @ 10180'

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INJECTION PERFS

DELAWARE BELL CANYON (perfed 6-4-05)
3428'-3467'
3628'-3658'
4 spf, 90° phase
6-4-05: acidized w/3000 gals 7.5% NeFe
6-6-05: fraced w/120K# 12/20 brown sand

Casing Hole indicated at 6118', but tested ok at 1000 psi. (5/29/99)

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6210' - 6230' Frac'd 10/31/98

Parted casing indicated at 6402'-6404'. Lost 150 psi in 15 min. (5/29/99)

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Formation	Top
Bell Canyon	2970'
Brushy Canyon	5230'
Bone Spring	6640'
Wolfcamp	9912'

2-7/8", 6.5#, IPC Tubing

Arrowset plastic coated packer @ 3384'

35' cement on top. PBD @ 3823'.
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