

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD-ARTESIA

FORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 2018**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.*5. Lease Serial No.
NMNM0404441 ✓

6. If Indian, Allottee or Tribe Name

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

8. Well Name and No.
TODD 13B FED 29. API Well No.
30-015-28904 ✓10. Field and Pool or Exploratory Area
INGLE WELLS SWD DELAWARE11. County or Parish, State
EDDY COUNTY, NM**SUBMIT IN TRIPLICATE - Other instructions on page 2**

1. Type of Well

☐ Oil Well ☐ Gas Well ☒ Other: INJECTION2. Name of Operator
DEVON ENERGY PROD CO LPContact: CHANCE BLAND
E-Mail: chance.bland@dmv.com3a. Address
123 W. SHERIDAN AVE
OKLAHOMA CITY, OK 731023b. Phone No. (include area code)
Ph: 405-693-9277

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Sec 13 T23S R31E Mer NMP NWNE 990FNL 1930FEL ✓

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"/> Hydraulic Fracturing	<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	
	<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 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 must 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 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 Prod Co., L.P. respectfully requests to increase maximum permitted injection pressure by running a Step Rate Test per the following procedure:

1. Wait on BLM sundry review and approval of sundry.
2. Notify BLM 24 hours before beginning test.
3. Discontinue injection for minimum 48 hours prior to test. Document pressures.
4. MIRU pumps, iron and stage injection fluid.
5. Initiate injection at a rate of 7 GPM. Step up rates in 30 GPM stages, each for 45 minutes, to a maximum of 150 GPM. Hold final rate for 90 minutes (utilizing a down-hole pressure gauge).
6. Shut in and record pressures.
7. Conclude test and RQMO pumps.
8. Run MIT test and chart. File MIT w/ NMOC office.
9. Return well to injection service.

NMOC IS RESPONSIBLE FOR UIC PERMITTING.
SUMMITTER-DATE RESULTS TO NMOC-SANTA FE FOR APPROVAL
SEE ATTACHED FOR CONDITIONS OF APPROVAL

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

Electronic Submission #377368 verified by the BLM Well Information System
For DEVON ENERGY PROD CO LP, sent to the Carlsbad
Committed to AFMSS for processing by DEBORAH MCKINNEY on 05/30/2017 ()

Name (Printed/Typed) CHANCE BLAND

Title AUTHORIZED REPRESENTATIVE

Signature (Electronic Submission)

Date 05/26/2017

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

APPROVED

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)

**** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ******BUREAU OF LAND MANAGEMENT**
CARLSBAD FIELD OFFICE

Conditions of Approval

**Devon Energy Production Co LP
Todd - 02, API 3001528904
T23S-R31E, Sec 13, 990FNL & 1980FEL
June 08, 2017**

- 1. Operator is required to have the BLM approved NOI procedure with applicable conditions of approval on location for this workover operation.**
2. Due to being within the Lesser Prairie Chicken habitat, this workover activity will be restricted to the hours of 9:00am through 3:00am for the period of March 1 through June 15.
3. Stabilized injection required, delay the test until disposal volume rates and injection pressures have leveled out for about 3 months.
4. Subject to like approval by the New Mexico Oil Conservation Division.
5. Notify BLM 575-200-7902 Eddy Co. as work begins. Some procedures witnessed. If there is no response, call 575-361-2822, leave a voice mail with the API#, workover purpose, and a call back phone number. Note the contact, time, & date in your subsequent report.
6. Select a **targeted** maximum bbl/day injection rate. **The objective is to avoid fracturing the injection formation.**
7. **Take a charted record of shut in psig for no less than 48 hours. If the wellhead shut in psig is not less than the approved injection pressure, bleed the wellhead pressure below that approved injection pressure before beginning the Step Rate Test.**
8. The Step Rate Test fluid used should be the same as the proposed injection fluid.
9. Flow rates controlled with a constant flow regulator, measured with a turbine flow meter calibrated within 0.1 bbl/min, and recorded on the SRT data sheet.
10. Use a device (located within 50ft above the top injection interval) to transmit formation pressures to the surface and a surface pressure device with accuracies of ± 10 psig. The five minute values are to be recorded on the data sheet at the surface during the SRT.
11. **Record in the input cell(s) of the attached "STEP RATE TEST DATA for BLM, CFO" (SRT data sheet) the data information as indicated. Include the completed data information with a subsequent sundry and request a wellhead pressure change for BLM approval.**
12. **Perform a minimum of seven steps, recording rates to ± 0.1 bpm, surface pressures and formation pressures collected to ± 10 psig in five minute intervals. Record the bpm rate changes with the formation pressure and surface pressure readings in real time at the surface during the field operations.**

13. The last two five minute surface pressure readings of each step (minimum of 30 minutes) are to be within 15psig of each other. If not, hold that step injection rate past the 30 minute step until two consecutive pressure readings are within 15psig. Record the average of those last two pressure readings and the average of the last two rates as the "Data Point" for that Step #.
14. When formation breakdown pressure is not achieved at the **targeted barrels per day rate**, the formation is accepting the injection fluid without fracturing, which is the **objective**.
15. Record surface and formation pressures at the instant of shut in, at five, ten, and fifteen minutes at the surface after the rate pumps are stopped. Post SRT instant formation shut-in pressure is vital to determining permitted pressures after a fracture does occur.
16. The surface pressure transducer should be located between the rate pump shut off valve and the wellhead for these readings.
17. When the formation fracture pressure has been exceeded it may be evidenced by two rate-pressure combinations graphed with a slope less than the previous steps' slope of data.
18. Record the bottom hole Instantaneous Shut-in Pressure. After a fracture this ISIP is the minimum pressure that will hold this formation open, at this well. The maximum surface pressure BLM will approve is fifty psig less than the wellhead fracture pressure.
19. Provide BLM with the tabulated "STEP RATE TEST DATA for BLM, CFO" data. Submit a (BLM Form 3160-5 subsequent report (dated daily) via BLM's Well Information System;
20. Submit an electronic copy (Adobe, .pdf , or .tiff formats) of an injection profile survey for the well for review by BLM after the increased rate and pressure has stabilized.

STEP RATE TEST DATA for BLM. CFO

Operator:

Well:

API#:

Lease:

Data Collection Date:

Sfc Loc:

< Input cell(s)

Tbg O.D.:

Tbg Wt.:

Grade:

Coupling:

Packer at:

Top Injection Depth: X 0.20psig/ft = Expected Surface Fracture psig: 0

With Mud Wt Scale: lbs/gal Msrd No Flow Formation psig: at Depth: 0

Injection fluid lbs/gal: Hydrostatic Pressure of fluid at top depth of injection:

Beginning Wellhead psig:

Target Maximum Rate - bpd(barrels per day):

1. Take a charted record of shut in psig for no less than 48 hours. If the wellhead shut in psig is not less than the approved injection pressure, bled the wellhead pressure below 0.2psig/ft x depth at top of injection before beginning the Step Rate Test.
2. Perform a minimum of 7 steps, recording rate to ± 0.1 bpm, surface and down hole pressures to ± 10 psig in five minute intervals. The first 2 step rate pressures must be below 0.2psig/ft x depth at top of injection.
3. The last two five minute surface pressure readings of each (minimum 30 minute) step are to be within 15psig of each other. If not, hold that step injection rate past the 30 minute step until two consecutive 5 minute pressure readings are within 15psig. Record the average of those two readings as the Data Point for that Step #.

Step 1 Target Test Rate (5% of maximum bpd/1440 = _____ bpm pmp'd for Step 1 bpm (barrels per minute) for Step 1							
Time:	5 min	10 min	15 min	20 min	25 min	30 min	Start Time: _____ End Time: _____ Point #1
Surface (psig):							
Formation (psig):							
bpm:							Sfc psig: _____ F psig: _____ bpm: _____ bpd: _____ target bpd: _____
Time:	35 min	40 min	45 min	50 min	25 min	60 min	
Surface (psig):							
Formation (psig):							
bpm:							

Step 2 Target Test Rate (10% of maximum bpd/1440 = _____ bpm pmp'd for Step 2 bpm for Step 2							
Time:	5 min	10 min	15 min	20 min	25 min	30 min	Start Time: _____ End Time: _____ Point #2
Surface (psig):							
Formation (psig):							
bpm:							Sfc psig: _____ F psig: _____ bpm: _____ bpd: _____ target bpd: _____
Time:	35 min	40 min	45 min	50 min	25 min	60 min	
Surface (psig):							
Formation (psig):							
bpm:							

Step 3 Target Test Rate (20% of maximum bpd/1440 = _____ bpm pmp'd for Step 3 bpm for Step 3							
Time:	5 min	10 min	15 min	20 min	25 min	30 min	Start Time: _____ End Time: _____ Point #3
Surface (psig):							
Formation (psig):							
bpm:							Sfc psig: _____ F psig: _____ bpm: _____ bpd: _____ target bpd: _____
Time:	35 min	40 min	45 min	50 min	25 min	60 min	
Surface (psig):							
Formation (psig):							
bpm:							

STEP RATE TEST DATA for BLM. CFO

Operator: 0

Well: 0

API#:

Lease:

0

Data Collection Date:

Sfc Loc: 0

Step 4							bpm pmp'd for Step 4	
Target Test Rate (40% of maximum bpd/1440 =							bpm for Step 4	
Time:	5 min	10 min	15 min	20 min	25 min	30 min	Start Time:	
Surface (psig):							End Time:	
Formation (psig):							Point #4	
Rate bbl/min:							Sfc psig:	
Time:	35 min	40 min	45 min	50 min	25 min	60 min	F psig:	
Surface (psig):							bpm:	
Formation (psig):							bpd:	
bpm:							target bpd:	

Step 5							bpm pmp'd for Step 5	
Target Test Rate (60% of maximum bpd/1440 =							bpm for Step 5	
Time:	5 min	10 min	15 min	20 min	25 min	30 min	Start Time:	
Surface (psig):							End Time:	
Formation (psig):							Point #5	
bpm:							Sfc psig:	
Time:	35 min	40 min	45 min	50 min	25 min	60 min	F psig:	
Surface (psig):							bpm:	
Formation (psig):							bpd:	
bpm:							target bpd:	

Step 6							bpm pmp'd for Step 6	
Target Test Rate (80% of maximum bpd/1440 =							bpm for Step 6	
Time:	5 min	10 min	15 min	20 min	25 min	30 min	Start Time:	
Surface (psig):							End Time:	
Formation (psig):							Point #6	
Rate bbl/min:							Sfc psig:	
Time:	35 min	40 min	45 min	50 min	25 min	60 min	F psig:	
Surface (psig):							bpm:	
Formation (psig):							bpd:	
bpm:							target bpd:	

Step 7							bpm pmp'd for Step 7	
Target Test Rate (100% of maximum bpd/1440 =							bpm for Step 7	
Time:	5 min	10 min	15 min	20 min	25 min	30 min	Start Time:	
Surface (psig):							End Time:	
Formation (psig):							Point #7	
bpm:							Sfc psig:	
Time:	35 min	40 min	45 min	50 min	25 min	60 min	F psig:	
Surface (psig):							bpm:	
Formation (psig):							bpd:	
bpm:							target bpd:	

Instant Shut In Pressure:
 5 minute Shut In Pressure:
 10 minute Shut In Pressure:
 15 minute Shut In Pressure: