

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.*

HOBBS OCD

JUN 21 2012

**SUBMIT IN TRIPLICATE - Other instructions on reverse side.**

1. Type of Well <input type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input checked="" type="checkbox"/> Other: INJECTION		5. Lease Serial No. NMNM81274 ✓
2. Name of Operator CIMAREX ENERGY COMPANY		6. If Indian, Allottee or Tribe Name
3a. Address 600 NORTH MARIENFELD STREET SUITE 600 MIDLAND, TX 79701		7. If Unit or CA/Agreement, Name and/or No.
3b. Phone No. (include area code) Ph: 432-620-1936		8. Well Name and No. THYME APY FEDERAL 11 ✓
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 1 T23S R32E Mer NMP NWSW 1/4 50FSL 990FWL		9. API Well No. 30-025-36192 ✓
		10. Field and Pool, or Exploratory <del>RED TANK BONE SPRING</del> (96100) SWD: Delaware
		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			
<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 type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input checked="" 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 recompletable 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 recompletable 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.)

Cimarex Energy Company of Colorado respectfully request approval to add an additional CIBP @ 6150 (above balance plugs) when converting the Thyme APY Federal #11 well to injection.

SWD-1305

Please find attached the approved sundry to convert the well to injection, COA of sundry and a proposed wellbore diagram for your review and approval.

**AFTER RECOMPLETION AND TESTING  
PLEASE SUBMIT 3160-4 COMPLETION  
REPORT FOR THE INJECTION  
INTERVAL(S) WITHIN 30 DAYS**

**SEE ATTACHED FOR  
CONDITIONS OF APPROVAL**

approve  
05/01/2012 *ALL*

14. I hereby certify that the foregoing is true and correct. Electronic Submission #136303 verified by the BLM Well Information System For CIMAREX ENERGY COMPANY, sent to the Hobbs	
Name (Printed/Typed) TERRI STATHEM	Title REGULATORY ANALYST
Signature (Electronic Submission)	Date 04/25/2012

## THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By <i>J. W. Little</i>	Title <i>LPET</i>	Date <i>6/19/12</i>
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 <i>CFO</i>

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.

**\*\* OPERATOR-SUBMITTED \*\* OPERATOR-SUBMITTED \*\* OPERATOR-SUBMITTED \*\***

FEB 20 2013



Proposed  
KB - 18' above GL

Cimarex Energy Co. of Colorado  
Thyme APY Federal #11  
1650' FSL & 990' FWL  
Sec. 1, T-23-S, R-32-E, Lea Co., NM  
S. Gengler 04/24/2012

DV Tool @ 4821'  
cmtd w/ 600 sx, cmt circ

11-3/4", 42# H-40 csg @ 1280'  
cmtd w/ 700 sx, cmt circ

8-5/8", 32# J-55 csg @ 4850'  
cmtd w/ 1350 sx, cmt circ

3-1/2" 9.3# L-80 Tbg

Pkr @ 5400'

Delaware perms (5468' - 6092')

CIBP @ 6150'  
60 sx cmt plug (6200' - 6790')

Squeezed Delaware perms (6724' - 8068')  
30 sx cmt plug (7100' - 7300')

50 sx cmt plug (8550' - 8950')  
Delaware perms (8608' - 8825')

CIBP @ 8950'  
Bone Springs perms (8992' - 9020')

PBTD @ 9107'  
5 1/2" 15.5 & 17# J-55 & L-80 @ 9150' cmtd w/ 760 sx  
TD @ 9150'

**Thyme APY Federal #11  
Convert to SWD Procedure**

Well Data:

KB	18' above GL
TD	9150'
PBTD	9107'
Casing	11-3/4" 42# H-40 @ 1280'. Cmtd w/ 700 sx. Cmt circ. 8-5/8" 32# J-55 @ 4850'. Cmtd w/ 1350 sx. Cmt circ. 5-1/2" 15.5 & 17# J-55 & L-80 @ 9150'. Cmtd w/ 760 sx. Cmt circ. DV Tool @ 4821'. Cmtd w/ 600 sx. Cmt circ.
Current Perfs	Bone Springs - (8992' – 9020') Delaware - (8608' – 8825')

Procedure:

1. MIRU pulling unit. TOOH w/ rods & pump. ND WH, NU BOP. Release TAC, TOOH w/ tbg and TAC.
2. RU wireline. Set CIBP @ 8950'. Pressure csg to 1000 psig. Run Radial CBL/GR from PBTD to 4000'. Email copy of CBL to BLM – Paul Swartz ([pswartz@blm.gov](mailto:pswartz@blm.gov)). RIH w/ tbg. Tag CIBP & spot 50 sx 15.6# Class "H" cmt. PU to ~ 8000'. WOC 4 hrs. RIH & tag cement top. Set additional plugs as needed to achieve cement top of 8550' or above.
3. Test csg to 500 psi for leaks. FIH w/ tbg to 8550'. Mix and spot 60 bbls mud containing 15 sacks salt water gel in 9 ppg brine wtr from 8550' to 6200'. Spot 30 sx Class "H" cement from 7300' to 7100' (tag this plug if csg pressure test leaks). Spot 60 sx 14.8# Class "C" cmt from 6790 to 6200. (+/- 50'). Chart record pressure test of no more than 700 psi and submit to BLM upon completion of job. POOH.
4. MIRU Wireline. Set CIBP @ approx. 6150'. Perforate Delaware (5470' – 76', 80' – 84', 88' – 5510', 30' – 72', 5625' – 41', 78' – 84', 5706' – 10', 5860' – 66', 5901' – 19', 65' – 6003', 28' – 92') 2 SPF, total of 452 holes. Depth reference log Schlumberger Platform Express Three Detector Litho Density Compensated Neutron log dated July 10, 2003.
6. TIH w/ treating pkr on 2-7/8" tbg. Set pkr @  $\pm$  5800', and acidize Delaware perfs (5860' – 6092') w/ 13,000 gals 15% Ne Fe HCl utilizing 250 ball sealers. Flush w/ brine wtr. Release pkr and TOOH w/ tbg and pkr. TIH w/ RBP w/ ball catcher and treating pkr on 2-7/8" tbg, and set RBP @  $\pm$  5800' and pkr @  $\pm$  5350'. Acidize Delaware perfs (5470' – 5710') w/ 9,000 gals 15% Ne Fe HCl utilizing 200 ball sealers. Flush w/ brine wtr. Release pkr, TIH and retrieve RBP. TOOH and LD tbg, RBP, and pkr.

## Convert to SWD Procedure

Page 2

7. TIH w/ injection pkr on 3-1/2" Tuboscope Fiberline II lined tubing to  $\pm 5400'$ . RU pump truck and circ hole w/ packer fluid. Set pkr @  $\pm 5400'$ . ND BOP, NU WH.
8. Pressure test backside to 500 psi and run chart.
9. Set 3 frac tanks and fill with produced water. RU pump truck and do injectivity test as follows:

0.5 BPM for 1 hour	30 bbls
1.0 BPM for 1 hour	60 bbls
1.5 BPM for 1 hour	90 bbls
2.0 BPM for 1 hour	120 bbls
3.0 BPM for 1 hour	180 bbls
5.0 BPM for 1 hour	300 bbls
7.0 BPM for 1 hour	420 bbls
Total	1200 bbls

Record initial and final rates and pressures for each interval. RD pump truck and release frac tanks.

## Conditions of Approval

Cimarex Energy Company

Thyme APY Federal 11

API 3002536192

March 15, 2012

1. BLM-Hobbs contact phone numbers: 575-393-3612 or 575-631-5801. If no answer, leave a voice mail with the API#, workover purpose, and a call back phone number. Make arrangements 24 hours before plug back procedures to be witnessed.
2. Surface disturbance beyond the existing pad must have prior approval.
3. A closed loop system is required. The operator shall properly dispose of drilling contents at an authorized disposal site. Tanks are required for all operations, no excavated pits.
4. H<sub>2</sub>S monitoring equipment to be used on location and functional.
5. A minimum of 3000 (3M) BOPE is to be used. All blowout preventer (BOP) and related equipment (BOPE) shall comply with reasonable well control requirements. A two ram system with a blind ram and a pipe ram designed for the size of the work string shall be adequate. Tapered work strings will require an additional pipe ram. The manifold shall comply with Onshore Oil and Gas Order #2 Attachment I (3M) Diagrams of Choke Manifold Equipment). The accumulator system shall have an immediately available power source to close the rams and retain 200 psi above pre-charge. The pre-charge test shall follow requirements in Onshore Order #2.
6. All waste (i.e. trash, salts, chemicals, sewage, gray water, etc.) created as a result of work over 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.
7. Minimum requirement for mud placed between plugs is 25 sacks of salt water gel per 100 barrels of 9 lb/gal brine.
8. The BLM PET witness is to run tbg tally and agree to cement mix and placement. Sample each plug for cement curing time and tag and/or pressure test as requested by BLM PET witness.
9. Provide BLM with an electronic copy (Adobe Acrobat Document) cement bond log record from 7800 or below to surface. Attach the log to an email to "Paul Swartz" <[pswartz@blm.gov](mailto:pswartz@blm.gov)>. The CBL is to prove cement is behind pipe up to the DV Tool at 4821 and above or establish the need to place additional cement. The BLM on call engineer may be reached at 575-706-2779.
10. Replace STEP 2 and 3 of the Procedure with: Set CIBP at 8950, tag w/tbg, establish circulation, and pump a balanced plug of at least 50sx Class "H" mixed 15.6lb/gal, 1.18 ft<sup>3</sup>/sx, and 5.2g/sx water. WOC 4 hours and tag TOC. Set additional plug(s) until a TOC at or above 8550 is achieved.
11. Replace STEP 4 of the Procedure with: Test casing to 500psig for leaks. Set a 30sx class "H" balanced cement plug or plugs from a minimum depth of 7300 to 7100 or above. Should the casing pressure test indicate a leak, the plug(s) will need to be tagged.
12. Set a 60sx Class "C" mixed 14.8lb/gal, 1.32 ft<sup>3</sup>/sx, and 6.3gal/sx water balanced cement plug or plugs from a depth of 6790 to 6200 (±50ft).
13. After setting the top plug and before perforating, chart a BLM PET witnessed casing integrity test of no more than 700psig. Greater than a 10% leakoff may require correction. Include a copy of the chart in the subsequent sundry for this workover.

14. File a subsequent sundry Form 3160-5 within 30 days of the plug back and acid treatment. Include an updated wellbore diagram and documentation from the casing integrity and step rate tests.
15. Submit the BLM Form 3160-4 Recompletion Report within 30 days of the date all BLM approved procedures are complete.
16. Workover approval is good for 90 days (completion to be within 90 days of approval).

NM Fed Regs & Forms - [http://www.blm.gov/nm/st/en/prog/energy/oil\\_and\\_gas.html](http://www.blm.gov/nm/st/en/prog/energy/oil_and_gas.html)

**Thyme APY Federal #11  
Convert to SWD Procedure**

Well Data:

KB	18' above GL
TD	9150'
PBTD	9107'
Casing	11-3/4" 42# H-40 @ 1280'. Cmtd w/ 700 sx. Cmt clrc. 8-5/8" 32# J-55 @ 4850'. Cmtd w/ 1350 sx. Cmt clrc. 5-1/2" 15.5 & 17# J-55 & L-80 @ 9160'. Cmtd w/ 760 sx. Cmt clrc. DV Tool @ 4821'. Cmtd w/ 600 sx. Cmt clrc.
Current Perfs	Bone Springs - (8992' - 9020') Delaware - (8608' - 8825')

Procedure:

- modified by COA*
1. MIRU pulling unit. TOOH w/ rods & pump. ND WH, NU BOP. Release TAC, TOOH w/ tbg and TAC.
  2. RU wireline and set CIBP @ 8950'. Run dump baller and dump 35' of cmt on top of CIBP. RD wireline.
  3. TIH w/ cmt retainer on 2-7/8" tbg. Set retainer @ 8550' and sqz Delaware perfs (8608' - 8825') as per cement company recommendation. Sting out of retainer and reverse clrc any excess cmt to surface. TOOH w/ tbg.
  4. RU wireline and set CIBP @ 8670'. RD wireline. RU dump baller and dump 35' cmt on top of CIBP @ 8670'. RIH and set CIBP @ 6290'. RU dump baller and dump 35' cmt on top of CIBP @ 6290'.
  5. RU wireline. Pressure csg to 1000 psig. Run Radial CBL/GR from PBTD to 4000'. Perforate Delaware (5470' - 76', 80' - 84', 88' - 5510', 30' - 72', 5625' - 41', 76' - 84', 5706' - 10', 5860' - 66', 5901' - 19', 65' - 6003', 28' - 92') 2 SPF, total of 452 holes. Depth reference log Schlumberger Platform Express Three Detector Litho Density Compensated Neutron log dated July 10, 2003.
  6. TIH w/ treating pkr on 2-7/8" tbg. Set pkr @  $\pm 5800'$ , and acidize Delaware perfs (5860' - 6092') w/ 13,000 gals 15% Ne Fe HCl utilizing 250 ball sealers. Flush w/ brine wtr. Release pkr and TOOH w/ tbg and pkr. TIH w/ RBP w/ ball catcher and treating pkr on 2-7/8" tbg, and set RBP @  $\pm 5800'$  and pkr @  $\pm 5350'$ . Acidize Delaware perfs (5470' - 5710') w/ 9,000 gals 15% Ne Fe HCl utilizing 200 ball sealers. Flush w/ brine wtr. Release pkr, TIH and retrieve RBP. TOOH and LD tbg, RBP, and pkr.

Thyme APY Federal #11  
Convert to SWD Procedure  
Page 2

7. TIH w/ Injection pkr on 3-1/2" Tuboscope Fiberline II lined tubing to  $\pm 5400'$ . RU pump truck and circ hole w/ packer fluid. Set pkr @  $\pm 5400'$ . ND BOP, NU WH.
8. Pressure test backside to 500 psi and run chart.
9. Set 3 frac tanks and fill with produced water. RU pump truck and do injectivity test as follows:

0.5 BPM for 1 hour	30 bbls
1.0 BPM for 1 hour	60 bbls
1.5 BPM for 1 hour	90 bbls
2.0 BPM for 1 hour	120 bbls
3.0 BPM for 1 hour	180 bbls
5.0 BPM for 1 hour	300 bbls
7.0 BPM for 1 hour	420 bbls
Total	1200 bbls

Record initial and final rates and pressures for each interval. RD pump truck and release frac tanks.





Proposed  
KB - 16' above GL

Cintarex Energy Co. of Colorado  
Thyme APY Federal #11  
1650' FSL & 990' FWL  
Sec. 1, T-23-S, R-32-E, Lea Co., NM  
S. Gengler 12/20/2011

DV Tool @ 4821'  
cml d w/ 600 sx, cml drc

11-3/4", 42# H-40 csg @ 1280'  
cml d w/ 700 sx, cml drc

8-5/8", 32# J-55 csg @ 4850'  
cml d w/ 1350 sx, cml drc

3-1/2" 9.3# L-80 Tbg

Pkr @ 5400'

Delaware perfs (5468' - 6092')

PBTD @ 6255'

CIRP @ 6280'

PBTD @ 6835'

CIRP @ 6870'

Squeezed Delaware perfs (6724' - 6868')

Cml Retainer 8550'

Delaware perfs (8608' - 8825')

PBTD @ 8915'

CIRP @ 8950'

Bone Springs perfs (8992' - 9020')

PBTD @ 9107'

5 1/2" 15.5 & 17# J-55 & L-80 @ 9150' cml d w/ 760 sx  
TD @ 9150'



Current  
KB - 18' above GL

Cimarex Energy Co. of Colorado

Thyme APY Federal #11

1650' FSL & 990' FWL

Sec. 1, T-23-S, R-32-E, Lea Co., NM

S. Gengler

08/31/2011

DV Tool @ 4821'  
cml d w/ 600 ex, cmt clrc

11-3/4", 42# H-40 csg @ 1280'  
cml d w/ 700 ex, cmt clrc

8-5/8", 32# J-55 csg @ 4850'  
cml d w/ 1350 ex, cmt clrc

Squeezed Delaware perfs (6724' - 8068')

Delaware perfs (8608' - 8825')

Bone Springs perfs (8992' - 9020')

PBTD @ 9107'

5 1/2" 15.5 & 17# J-55 & L-80 @ 9150' cml d w/ 760 ex  
TD @ 9150'