

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTNM OIL CONSERVATION
ARTESIA DISTRICTFORM APPROVED
OMB NO. 1004-0135
Expires: July 31, 2010**SUNDRY NOTICES AND REPORTS ON WELLS** JUN 15 2015
*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.**

| | | |
|--|---|--|
| 1. Type of Well <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other | | 5. Lease Serial No. NMNM15295 |
| 2. Name of Operator CIMAREX ENERGY COMPANY OF CO Contact: PAULA BRUNSON E-Mail: pbrunson@cimarex.com | | 6. If Indian, Allottee or Tribe Name |
| 3a. Address 600 NORTH MARIENFELD STREET SUITE 600 MIDLAND, TX 79701 | 3b. Phone No. (include area code) Ph: 432-571-7848 | 7. If Unit or CA/Agreement, Name and/or No. |
| 4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 7 T24S R26E SWNE 2520FNL 1415FEL | | 8. Well Name and No. CK 7 FEDERAL 2 |
| | | 9. API Well No. 30-015-33421-00-S1 |
| | | 10. Field and Pool, or Exploratory WHITE CITY |
| | | 11. County or Parish, and State EDDY 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 type="checkbox"/> Convert to Injection | <input checked="" 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 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.)

Cimarex Energy respectfully requests approval to plug back the CK 7 Federal 2 well to the Atoka as indicated below:

Notify BLM 24 hours prior to start of workover operations.

1. Test anchors prior to moving in rig.
2. Move in rig up pulling unit.
3. Kill well as necessary with 2% KCl.
4. Nipple down wellhead, nipple up 5,000 psi blow out preventer stack.
5. Release AS1-XX pkr @ 11,771 and TOOH w/ tbg, GLVs & packer. Stand back tbg. Send gas lift valves back to Schlumberger.
6. MIRU wireline and 5k short lubricator
7. RIH with 4.6 in. gauge ring and junk basket down to +/- 11,800.

RD 6/17/15
Accepted for record
NMBCD

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

| | |
|--|--------------------------|
| 14. I hereby certify that the foregoing is true and correct. Electronic Submission #304097 verified by the BLM Well Information System For CIMAREX ENERGY COMPANY OF CO, sent to the Carlsbad Committed to AFMSS for processing by CHRISTOPHER WALLS on 06/08/2015 (15CRW0071SE) | |
| Name (Printed/Typed) PAULA BRUNSON | Title REGULATORY ANALYST |
| Signature (Electronic Submission) | Date 06/04/2015 |
| THIS SPACE FOR FEDERAL OR STATE OFFICE USE | |
| APPROVED | |
| Approved By _____ | Title _____ |
| 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. | |

BUREAU OF LAND MANAGEMENT
CARLSBAD FIELD OFFICE

Additional data for EC transaction #304097 that would not fit on the form

32. Additional remarks, continued

8. RIH w/ CIBP and set at +/- 11,770.
9. RD wireline and 5k short lubricator
10. TIH w/ 2-3/8 in. 4.7 lb L-80 collar, 1.875 in. seat nipple, and 2-3/8 in. tbg to tag bridge plug. Hydrotest tbg to 9,000 psi while going in hole. From downhole up:
 - a. 2-3/8 in. 4.7 lb L-80 collar to protect threads of bottom 2-3/8 in. 4.7 lb L-80 tubing joint and to provide more surface area to set down on cement after it is pumped.
 - b. 1 joint of 2-3/8 in. 4.7 lb L-80 tbg
 - c. 1.875 in. seat nipple in case it becomes necessary to run a gauge ring, swab bar, etc.
 - d. 2-3/8 in. 4.7 lb L-80 tbg until bridge plug is tagged at +/- 11,770.
11. Fill annulus with 2% KCl prior to pumping cement to avoid U-tubing.
12. Pump 25 sx Class H cmt on top of CIBP.
13. POOH slowly to 1,000 ft. above TOC. Reverse circulate 50 bbls 2% KCl (tubing volume +10 bbls). WOC at least 6-8 hours.
14. RU pump truck and test csg to 500 psi. We should have more than enough tubing weight to hold back the force of the pressure.
15. TIH w/ 2-3/8 in. tbg to tag TOC @ +/- 11,470 ft. as per BLM requirements.
16. Circulate 2 tubing volumes 2% KCl.
17. POOH and stand back tbg.
18. RU wireline and 10K lubricator. Use PU to lift lubricator.
19. RIH w/ 4.6 in. gauge ring and junk basket to 10,900 ft.
20. RIH w/ 3-1/8 in. casing guns and perforate Atoka (10,880-10,892) w/ 6 SPF at 120 degree phasing, total of 36 holes. Depth reference Halliburton Spectral Density Dual Neutron Log dated 5/28/2004. Make sure that hole is full when guns are shot. Note change in pressure on report. Expected reservoir pressure = 4,000 psi.
21. RIH w/ 2-3/8 in. pump out plug, 1.875 in. XN nipple, 10 ft. x 2-3/8 in. tbg sub, 5-1/2 in. AS1-X pkr, set pkr @ +/- 10,848. From downhole up:
 - a. 2-3/8 in. WEG
 - b. 2-3/8 in. pump out plug
 - c. 1.875 in. XN seating nipple w/ 1.791 in. no-go
 - d. 10 ft. x 2-3/8 in. 4.7# L-80 tubing sub
 - e. 5-1/2 in. AS1-X pkr set at 10,848 ft.
22. RD WL.
23. TIH w/ on/off tool with 1.875 in. X nipple on 2-3/8 in. tbg string, latch into packer, and pull 15K over string weight. Release from on/off tool and install tubing subs for 10 lb compression on packer.
24. RU pump truck to tubing sub and shear pump out plug. Pump out plug should shear at 3,000 psi differential pressure (2,240 psi should be seen at surface if 4,000 psi expected reservoir pressure is seen because a 10,848 ft. column of 2% KCl with a density of 8.44 ppg will yield a 4,760 psi column of fluid).
25. MIRU Basic Energy Services Acid.
26. Acidize Atoka perms (10,880-10,892) w/ 15% HCl acid down 2-3/8 in. tubing, per Basic Energy Services recommendation.
27. Flush w/ 84 bbls (2 tbg volumes) of 2% KCl.
28. RDMO Basic Energy Services Acid.
29. ND BOP, NU WH.
30. RDMO PU.
31. Flow back well and return to production.
32. Swab well to battery as necessary in order to return well to production (to 6,410 ft. for 3,000 psi).

Attachments:

C-102

Current WBD

Proposed WBD



Proposed WBD

KB - 18' above GL

Cimarex Energy Co. of Colorado

C K 7 Federal #2

SHL - 2520' FNL & 1415' FEL

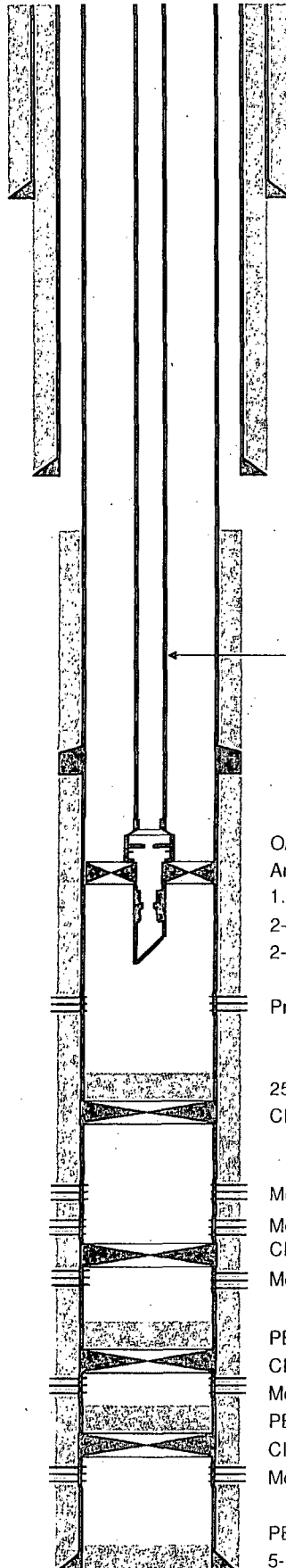
BHL - 1526' FSL & 1238' FEL

Sec. 7, T-24-S, R-26-E, Eddy Co., NM

M. Karner

04/21/2015

Note: well is deviated 1246' SSE:
Ramp=10-18 deg from 8300 to TD



13-3/8", 54.5# J-55 csg @ 397'
cmtd w/ 765 sx, 1" to surface

9-5/8", 40# NS-110 csg @ 1912'
cmtd w/ 1200 sx, 1" to surface

TOC @ 2295' by TS

jts 2-3/8" 4.7# L-80 Tbg

DV Tool @ 7014'
cmtd w/ 1450 sx

O/O Tool w/ 1.875" X @ +/- 10842'
Arrowset Pkr @ +/- 10,848"
1.875" XN Nipple @ +/- 10,056'
2-3/8" Pump Out Plug
2-3/8" WEG @ 10,057'

Proposed Atoka Perfs (10,880' - 10,892')

25 sx Class H cmt (Calc TOC +/- 11,470') *Morrow*
CIBP set at +/- 11,770'

Morrow perfs (11820' - 11832')
Morrow perfs (11884' - 11898')
CIBP @ 11920'
Morrow perfs (11926' - 11932') *PL showed to be their zone

PBTD @ 12000'
CIBP @ 12020'
Morrow perfs (12028' - 12044')
PBTD @ 12073'
CIBP @ 12090'
Morrow perfs (12132' - 12220')

PBTD @ 12227'
5-1/2" 17# N-80 & P-110 @ 12329' cmtd w/ 995 sx
TD @ 12329'

11,560'



KB - 18' above GL

Cimarex Energy Co. of Colorado

C K 7 Federal #2

SHL - 2520' FNL & 1415' FEL

BHL - 1526' FSL & 1238' FEL

Sec. 7, T-24-S, R-26-E, Eddy Co., NM

H. Hubbard

05/13/2014

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9-5/8", 40# NS-110 csg @ 1912'
cmted w/ 1200 sx, 1" to surface

TOC @ 2295' by TS

367 jts 2-3/8" 4.7# L-80 Tbg

DV Tool @ 7014'
cmted w/ 1450 sx

Gas Lift Valves: 1802', 3389', 4727',
5935', 6955', 7745', 8482', 9165',
9781', 10430', 11117' & 11729'

O/O Tool w/ 1.875" X @ 11764'
Arrowset Pkr @ 11771'
1.875" XN Nipple @ 11779'

*bp of morrow
11,563'*

Morrow perfs (11820' - 11832')

Morrow perfs (11884' - 11898')

CIBP @ 11920'

Morrow perfs (11926' - 11932') *PL showed to be their zone

PBTD @ 12000'

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PBTD @ 12227'

5-1/2" 17# N-80 & P-110 @ 12329' cmted w/ 995 sx

TD @ 12329'

BUREAU OF LAND MANAGEMENT
Carlsbad Field Office
620 East Greene Street
Carlsbad, New Mexico 88220
575-234-5972

Permanent Abandonment of Production Zone Conditions of Approval

Failure to comply with the following Conditions of Approval may result in a Notice of Incidents of Noncompliance (INC) in accordance with 43 CFR 3163.1.

1. Plugging operations shall commence within ninety (90) days from this approval.

If you are unable to plug back the well by the 90th day provide this office, prior to the 90th day, with the reason for not meeting the deadline and a date when we can expect the well to be plugged back. Failure to do so will result in enforcement action.

2. Notification: Contact the appropriate BLM office at least 24 hours prior to the commencing of any plug back operations. For wells in Eddy County, call 575-361-2822. For wells in Lea County, call 575-393-3612.

3. Blowout Preventers: A blowout preventer (BOP), as appropriate, shall be installed before commencing any plugging operation. The BOP must be installed and maintained as per API and manufacturer recommendations. The minimum BOP requirement is a 2M system for a well not deeper than 9,090 feet; a 3M system for a well not deeper than 13,636 feet; and a 5M system for a well not deeper than 22,727 feet.

4. Mud Requirement: Mud shall be placed between all plugs. Minimum consistency of plugging mud shall be obtained by mixing at the rate of 25 sacks (50 pounds each) of gel per 100 barrels of brine water. Minimum nine (9) pounds per gallon.

5. Cement Requirement: Sufficient cement shall be used to bring any required plug to the specified depth and length. Any given cement volumes on the proposed plugging procedure are merely estimates and are not final. Unless specific approval is received, no plug except the surface plug shall be less than 25 sacks of cement. Any plug that requires a tag will have a minimum WOC time of 4 hours.

In lieu of a cement plug across perforations in a cased hole (not for any other plugs), a bridge plug set within 50 feet to 100 feet above the perforations shall be capped with 25 sacks of cement. If a bailer is used to cap this plug, 35 feet of cement shall be sufficient. **Before pumping or bailing cement on top of CIBP, tag will be required to verify depth.**

Unless otherwise specified in the approved procedure, the cement plug shall consist of either **Neat Class "C"**, for up to 7,500 feet of depth or **Neat Class "H"**, for deeper than 7,500 feet plugs.

6. Subsequent Plug back Reporting: Within 30 days after plug back work is completed, file one original and three copies of the Subsequent Report, Form 3160-5 to BLM. The report should give in detail the manner in which the plug back work was carried out, the extent (by depths) of cement plugs placed, and the size and location (by depths) of casing left in the well. **Show date work was completed.**

7. Trash: All trash, junk and other waste material shall be contained in trash cages or bins to prevent scattering and will be removed and deposited in an approved sanitary landfill. Burial on site is not permitted.