

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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 <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other		5. Lease Serial No. NMNM84647 ✓
2. Name of Operator CIMAREX ENERGY CO OF COLORADO		6. If Indian, Allottee or Tribe Name
3a. Address 202 S. CHEYENNE AVE STE 1000 TULSA, OK 74103		7. If Unit or CA/Agreement, Name and/or No. NM709842
3b. Phone No. (include area code) Ph: 432.620.1909		8. Well Name and No. MADURO UNIT 8 ✓
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) ✓ Sec 28 T19S R33E 1740FSL 660FWL ✓		9. API Well No. 30-025-38240 ✓
		10. Field and Pool or Exploratory Area TONTOK ATOKA GAS
		11. County or Parish, State LEA 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"/> 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 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 recompleate 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 recompleation 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.

Cimarex respectfully requests to plugback the Morrow formation and recompleate into the Atoka.

Notify BLM 24 hours prior to starting operations
12,500' of 3-1/2" 12.95# L-80 needed for Acid Job (Rental String)

1. Hold operational safety meeting on location; discuss all risk and potential dangers.
2. MIRU Pulling unit.
3. Release PSL packer and TOH.
4. LD Packer. PU 4-3/4" bit and 5-1/2" casing scraper. RIH to 13,150'.
5. TOOH. LD bit and scraper. PU 5-1-2" CIBP.
6. TIH to 13,140' and set CIBP.
7. Release from the CIBP and PU 1 joint and circulate the well w/ 400 bbls of 2% KCL.

**SEE ATTACHED FOR
CONDITIONS OF APPROVAL**

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

Electronic Submission #369646 verified by the BLM Well Information System
For CIMAREX ENERGY CO OF COLORADO, sent to the Hobbs
Committed to AFMSS for processing by PRISCILLA PEREZ on 03/15/2017 ()

Name (Printed/Typed) AMITHY CRAWFORD

Title REGULATORY ANALYST

Signature (Electronic Submission)

Date 03/13/2017

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)

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

MSS/OCD 5/17/2017



Additional data for EC transaction #369646 that would not fit on the form

32. Additional remarks, continued

8. Pressure Test casing and CIBP to 500 PSI. Ensure pressure holds for 30 min.
9. RIH to 13,139' and spot balanced plug w/ 35 sxs of class H cement on top of the CIBP and across the top of the Morrow formation.
10. PU tbg to 12,600'. Reverse circulate 73 bbls of 2% KCL.
11. Allow proper time for cement to set up.
12. TIH and tag cement plug @ 12,687'.
13. PU tbg to 12,567' and spot 500 gals of 15% HCL. TOO H, LD 2-3/8 Tbg.
14. RU WL. TIH w/ Select fire perforating guns w/ gamma ray gun.
 - a. Correlate gamma ray back to Halliburton "Radial Cement Bond and Gamma Ray Log" dated 19-MAR-2007 @12:30 PM.
15. Perforate 12,561' - 12,567' w/ 3 SPF (18 Holes), 0.41" EH size, and 120-degree phasing.
16. RD WL. TIH w/ 12,500' of 3-1/2" 12.95# L-80 Tbg, 3-1/2" x 2-7/8" XO, and 2-7/8" x 5-1/2" treating packer to 12,500'.
 - a. Hydrotest 3-1/2" tbg to 10,000 psi while TIH
17. Set Packer in 20 Pts Compression at 12,500'.
18. RU Acid Company. Test lines to MOP: 10,000 psi.
19. Treat perforations with 5,000 gals 15% NEFE HCL @ 5-7 BPM (whichever formation allows).
 - a. Drop 3 ball sealers every 555 gals. 27 ball sealers total.
 - b. Flush tbg with 100 bbls 2% KCL at same rate.
20. Flow back well for 1 week.
21. After enough data is gathered, kill well using 2% KCL.
22. TOO H w/ 3-1/2" tbg and treating packer.
23. RIH w/ 12,500' of 2-3/8" 4.7# L-80 w/ 2-3/8" x 5-1/2" AS1X packer.
24. Set packer at 12,500'.
25. Swab well back until it flows. Resume production.



AFE No:

Procedure Sheet – Hobbs District

PLEASE COMMENCE WITH WORK PER PROCEDURE

Maduro Unit 8

Recomplete Well in Atoka Sand

Current Well Data:

KB 25' above GL
TVD/PBTD 13,845'/13,210'
KOP N/A Vertical Well
Perfs Morrow (13,158' - 13,292')

Casing

Size	Weight	Grade	Thread	Set at	Cmt	Remarks
13 3/8"	54.5#	J-55	ST&C	1,302'	990 sx	cmt circ
9 5/8"	40#	N-80	LT&C	5,030'	2790 sx	cmt circ
5 1/2"	17#	P-110	LT&C	13,845'	1950 sx	

Tubing

Quantity	Description	Length	Setting Depth
1	KB	24.00	24.00
282	2-3/8" 4.7# L-80 8rd EUE Tbg	9494.00	9518.00
1	Gas Lift Valve #6; SOP=945	4.10	9522.10
28	2-3/8" 4.7# L-80 8rd EUE Tbg	911.33	10433.43
1	Gas Lift Valve #5; SOP=925	4.10	10437.53
23	2-3/8" 4.7# L-80 8rd EUE Tbg	750.95	11188.48
1	Gas Lift Valve #4; SOP=910	4.10	11192.58
20	2-3/8" 4.7# L-80 8rd EUE Tbg	644.99	11837.57
1	Gas Lift Valve #3; SOP=895	4.10	11841.67
20	2-3/8" 4.7# L-80 8rd EUE Tbg	653.01	12494.68
1	Gas Lift Valve #2; SOP=880	4.10	12498.78
17	2-3/8" 4.7# L-80 8rd EUE Tbg	555.04	13053.82
1	Gas Lift Valve #1; SOP=870	4.10	13057.92
1	2-3/8" 4.7# L-80 8rd EUE Tbg	32.70	13090.62
1	Seating Nipple	1.10	13091.72
1	Packer 2-3/8" x 5-1/2"	7.20	13098.92
1	2-3/8" 4.7# L-80 8rd EUE Tbg	32.70	13131.62
1	Perf Tbg Sub	4.15	13135.77
1	2-3/8" 4.7# L-80 8rd EUE Tbg	32.66	13168.43
1	Tbg Sub 2-3/8"	10.00	13178.43
1	Bull Plug	0.75	13179.18

Packer PSL Packer @ 13,038'
Gas Lift 6 Gas Lift Valves



AFE No:

Procedure:

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5. TOOH. LD bit and scraper. PU 5-1/2" CIBP.
6. TIH to 13,140' and set CIBP.
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15. Perforate 12,561' – 12,567' w/ 3 SPF (18 Holes), 0.41" EH size, and 120-degree phasing.
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17. Set Packer in 20 Pts Compression at 12,500'.
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19. Treat perforations with 5,000 gals 15% NEFE HCL @ 5-7 BPM (whichever formation allows).
 - a. Drop 3 ball sealers every 555 gals. 27 ball sealers total.
 - b. Flush tbg with 100 bbls 2% KCL at same rate.
20. Flow back well for 1 week.



AFE No:

21. After enough data is gathered, kill well using 2% KCL.
22. TOOH w/ 3-1/2" tbg and treating packer.
23. RIH w/ 12,500' of 2-3/8" 4.7# L-80 w/ 2-3/8" x 5-1/2" AS1X packer.
24. Set packer at 12,500'.
25. Swab well back until it flows. Resume production.



KB - 24' above GL

20" Conductor @ 40'

Cimarex Energy Co. of Colorado

Maduro Unit 8

1740' FSL & 660' FWL

Sec. 28, T-19-S, R-33-E, Lea Co., NM

K. Murphy

2/23/2017

Current

13-3/8", 54.5# J-55 csg @ 1,302'
cmtd w/ 990 sx, cmt circ

393 jts 2-3/8" 4.7# 8rd EUE Tbg
6 Gas lift Valves

TOC 3320' CBL
9-5/8", 40# N-80 csg @ 5,030'
cmtd w/ 2790 sx, cmt circ

PSL Packer @ 13,038'

Morrow perfs (13,158' - 13,292')

PBTD @ 13,210'
5-1/2", 17#P-110 @ 13,845' cmtd w/ 1950 sx
TD @ 13,845'



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20" Conductor @ 40'

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Maduro Unit 8

1740' FSL & 660' FWL

Sec. 28, T-19-S, R-33-E, Lea Co., NM

K. Murphy

2/23/2017

Proposed

13-3/8", 54.5# J-55 csg @ 1,302'
cmtd w/ 990 sx, cmt circ

393 jts 2-3/8" 4.7# 8rd EUE Tbg
6 Gas lift Valves

TOC 3320' CBL
9-5/8", 40# N-80 csg @ 5,030'
cmtd w/ 2790 sx, cmt circ

35 Sxs Class H, TOC @ 12,687'
CIBP @ 13,140'

Atoka Perfs @ 12561' - 12567'
Top of Morrow @ 12,917'

Morrow perfs (13,158' - 13,292')

PBTD @ 13,210'
5-1/2", 17#P-110 @ 13,845' cmtd w/ 1950 sx
TD @ 13,845'

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-025-38240		² Pool Code 86300	³ Pool Name Tonto; Atoka (Gas)
⁴ Property Code 300531	⁵ Property Name Maduro Unit		⁶ Well Number 8
⁷ OGRID No. 162683	⁸ Operator Name Cimarex Energy Co. of Colorado		⁹ Elevation 3583'

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	28	19S	33E		1740	South	660	West	Lea

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
¹² Dedicated Acres 320		¹³ Joint or Infill		¹⁴ Consolidation Code		¹⁵ Order No.			

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

			<p>¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest or to a voluntary pooling agreement or a compulsory pooling order previously entered by the Division.</p> <p><i>Amithy Crawford</i> 3/13/2017 Signature Date</p> <p>Amithy Crawford Printed Name</p> <p>acrawford@cimarex.com E-mail Address</p>
			<p>¹⁸ SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</p>
			<p>Date of Survey</p> <p>Signature and Seal of Professional Surveyor:</p>
			<p>Certificate Number</p>

Conditions of Approval

**Cimarex Energy Co of Colorado
MADURO UNIT - 08, API 3002538240
T19S-R33E Sec 28, 1740FSL & 660FWL
May 05, 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. Before casing or a liner added, replaced, or repaired prior BLM approval of the design is required. Use notice of intent Form 3160-5.
4. Subject to like approval by the New Mexico Oil Conservation Division.
5. Surface disturbance beyond the existing pad must have prior approval.
6. A closed loop system is required. The operator shall properly dispose of drilling/circulating contents at an authorized disposal site. Tanks are required, no excavated pits.
7. Functional H₂S monitoring equipment shall be on location.
8. Blow Out Prevention Equipment 5000 (5M) to be used. All BOPE and workover procedures shall establish fail safe well control. Ram(s) for the work string(s) used is required equipment. Manual BOP closure system including a blind ram and pipe ram(s) designed to close on all (hand wheels) equipment installed regardless of BOP design. Function test the installed BOPE to 500psig when well conditions allow. Related equipment, (choke manifolds, kill trucks, gas vent or flare lines, etc.) employed when needed for reasonable well control requirements.
9. All waste (i.e. trash, salts, chemicals, sewage, gray water, etc.) created by 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. Portojohns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.
- 10. On the 13140' CIBP set Class H formation isolation plug mixed 16.4#/gal, 1.06ft³/sx, 4.3gal/sx water to cover the Morrow. WOC 8 hours minimum & tag the plug with tubing at 12900 or higher.**
- 11. Provide BLM with an electronic copy (Adobe Acrobat Document) record of the cement bond log dated 19-MAR-2007 @12:30PM. Attach the CBL to a pswartz@blm.gov email. Verify production csg cement covers 50 feet above the Capitan Reef Top.**

Operations for a Well with Packer

- 1) Conduct a Mechanical Integrity Test of the packer/tubing/casing annulus prior to producing the well.

- 2) The minimum test pressure should be 500 psig for 30 minutes or 300 psig for 60 minutes, with a minimum 200 psig differential between tubing and casing pressure (at test time) but no more than 70% of casing burst pressure as described by Onshore Order 2.III.B.1.h. (The tubing or reservoir pressure may need reduced). **Verify all annular casing vents plumbed to surface and open during this pressure test.**
- 3) Document the pressure test on a one hour full rotation calibrated (within 6 months) recorder chart registering within 35 to 75 per cent of its full range. Greater than 10% pressure leakoff viewed as a failed MIT. Less than 10% pressure leakoff will be evaluated site specifically and may restrict injection approval.
- 4) Arrange 24 hours before the test for BLM to witness. In Lea County phone 575-393-3612. Leave a voice mail or email with the API#, workover purpose, and your phone number.
- 5) "Best Practice" is installation of equipment that daily displays corrosion inhibited fluid level open to atmosphere above the annular vent.
- 6) The subsequent report is to describe ball action and stimulation pressures. Report maximum/minimum injection rate (BPM) and max/min stimulation injection pressures (psig).
- 7) File intermediate **subsequent sundry** Form 3160-5 within 30 days of any interrupted workover activity.
- 8) Submit within 30 days of completion the full workover subsequent report (dated daily) via BLM's Well Information System; <https://www.blm.gov/wispermits/wis/SP> with the Mechanical Integrity Test chart document.
- 9) Submit the BLM Form 3160-4 **Recompletion Report** within 30 days of the date all BLM approved procedures are complete.
- 10) BLM compliance requires sundry notice of a wellbore inactive/idle over 90 days.