Form 3160-5
(June 2015)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

NMOCD
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.

SUBMIT IN TRIPLICATE - Other instructions on page 2

5. Lease Serial No.
NMNM113944

6. If Indian, Allottee or Tribe Name

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

1. Type of Well
☒ Oil Well ☐ Gas Well ☐ Other

8. Well Name and No.
COTTONWOOD 28-33 FED COM WCA 4H

2. Name of Operator
CHISHOLM ENERGY OPERATING, LLC

Contact: JENNIFER ELROD
Mail: jelrod@chisholmenergy.com

9. API Well No.
30-015-43690

3a. Address
801 CHERRY ST., SUITE 1200 - UNIT 20
FORT WORTH, TX 76102

3b. Phone No. (include area code)
Ph: 817-953-3728

10. Field and Pool or Exploratory Area
PURPLE SAGE;WOLFCAMP

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
Sec 21 T26S R26E Mer NMP SESE 200FSL 1030FEL
32.021028 N Lat, 104.292403 W Lon

11. County 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			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other Drilling Operations
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ 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.

**** AMEND INTERMEDIATE CASING DESIGN ****
DEEPEN INTERMEDIATE CASING

UPDATED INTERMEDIATE CASING DESIGN (DEPTH AND GRADE)
HOLE SIZE - 12.25"
CASING INTERVAL - 0' - 7750'TVD,MD
CASING SIZE - 9.625"
WT. (LBS) - 40
GRADE - L-80HC
CONN - BTC
SF COLLAPSE - 1.47
SF BURST - 1.46

NM OIL CONSERVATION
ARTESIA DISTRICT
NOV 29 2017
RECEIVED

OC 11-29-17
Accepted for record - NMOCD

well already drilled

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

Electronic Submission #392026 verified by the BLM Well Information System
For CHISHOLM ENERGY OPERATING, LLC, sent to the Carlsbad
Committed to AFMSS for processing by JENNIFER SANCHEZ on 11/06/2017 ()

Name *(Printed/Typed)* JENNIFER ELROD — Title SENIOR REGULATORY TECH

Signature (Electronic Submission) — Date 10/16/2017

ACCEPTED FOR RECORD
NOV 6 2017
BUREAU OF LAND MANAGEMENT
CARLSBAD FIELD OFFICE

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 ****

Additional data for EC transaction #392026 that would not fit on the form

32. Additional remarks, continued

SF TENSION

UPDATED INTERMEDIATE CEMENT DESIGN
LEAD - 2545 SXS, 2.19 YIELD, 12.7 PPG, 5573 CUBIC FEET, HIGH-YIELD CLASS H BLEND + LCM + DEFOAMER + SODIUM METASILICATE

TAIL - 200 SXS, 1.37 YIELD, 14.8 PPG, 266 CUBIC FEET, CLASS H 50:50 POZ + FLUID LOSS ADDITIVE + DISPERSANT

MUD PROGRAM
0-420' - FW GEL, 8.4-8.8 PPG, 34-36 VISCOSITY, N/C WATER LOSS
420-7750' - BRINE/DIESEL EMULSION, 8.8-9.8 PPG, 28-30 VISCOSITY, N/C WATER LOSS
7750 - PILOT HOLE TD - CUT BRINE, 9.8-12.0 PPG, 35-40 VISCOSITY, >10 WATER LOSS
7920-15821' - OIL BASE; 9.0-9.6 PPG, 35-40 VISCOSITY, N/C WATER LOSS

SEE ATTACHMENTS

26. Eddy NM

Well Name: Cottonwood 28-33 Fed Com WCA

Well Number: 4H

28: a) Intermediate Casing Design (Depth and Grade)

Hole Size	Casing Interval From	Casing Interval To	Csg. Size	Wt. (lbs)	Grade	Conn	SF Collapse	SF Burst	SF Tension
12.25"	0	7750	9.625"	40	L-80 HC	BTC	1.47	1.46	2.76
Intermediate									
Tension	A 1.8 design factor with effects of buoyancy with a fluid equal to a mud weight of:							9.8	ppg
Collapse	A 1.125 design factor with 1/3 TVD internal evacuation and collapse force equal to a mud gradient of:							9.8	ppg
Burst	A 1.125 design factor with full external evacuation and burst force equal to a mud gradient of:							9.8	ppg

i) Update Intermediate Cement Design

Intermediate	Sacks	Yield (cuft/sk)	Weight (ppg)	Cubic Feet	Cement Blend
Lead	2545	2.19	12.7	5573	High-Yield Class H Blend + LCM + Defoamer + Sodium Metasilicate
Tail	200	1.37	14.8	266	Class H 50:50 Poz + Fluid Loss Additive + Dispersant

k) Mud Program

Depth From	Depth To	Type	Weight (ppg)	Viscosity	Water Loss
0	420	FW Gel	8.4-8.8	34-36	N/C
420	7750	Brine/Diesel Emulsion	8.8-9.8	28-30	N/C
7750	Pilot Hole TD	Cut Brine	9.8-12.0	35-40	>10
7920	15821	Oil Base	9.0-9.6	35-40	N/C

Casing Program: **Cottonwood WCA/WCB (13 3/8" x 9 5/8" x 5 1/2")**

Open Hole Size (Inches)	Casing Depth; From (ft)	Casing Setting Depth (ft) MD	Casing Setting Depth (ft) TVD	Casing Size (inches)	Casing Weight (lb/ft)	Casing Grade	Thread	Condition	Anticipated Mud Weight (ppg)	Burst (psi)	Burst SF (1.125)	Collapse (psi)	Collapse SF (1.125)	Tension (klbs)	Air Weight (lbs)	Bouyant Weight (lbs)	Tension SF (1.8)
Surface																	
17.5"	0'	420'	420'	13 3/8"	48.0	H-40	STC	New	8.8	1730	9.00	740	3.85	322,000	20,160	17,449	18.45
Intermediate																	
12.25"	0'	7,750'	7,750'	9 5/8"	40	L-80 HC	BTC	New	9.8	5750	1.46	3870	1.47	727,000	310,000	263,576	2.76
Production																	
8.75"	0'	16,000'	9,500'	5 1/2"	20	P-110	LTC	New	10.5	10640	2.05	7480	1.44	445,000	190,000	159,514	2.79

Casing Design Criteria and Casing Loading Assumptions:

Surface

Tension	A 1.8 design factor with effects of buoyancy with a fluid equal to a mud weight of:	8.8 ppg
Collapse	A 1.125 design factor with full internal evacuation and collapse force equal to a mud gradient of:	8.8 ppg
Burst	A 1.125 design factor with full external evacuation and burst force equal to a mud gradient of:	8.8 ppg

Intermediate

Tension	A 1.8 design factor with effects of buoyancy with a fluid equal to a mud weight of:	9.8 ppg
Collapse	A 1.125 design factor with 1/3 TVD internal evacuation and collapse force equal to a mud gradient of:	9.8 ppg
Burst	A 1.125 design factor with full external evacuation and burst force equal to a mud gradient of:	9.8 ppg

Production

Tension	A 1.8 design factor with effects of buoyancy with a fluid equal to a mud weight of:	10.5 ppg
Collapse	A 1.125 design factor with full internal evacuation and collapse force equal to a mud gradient of:	10.5 ppg
Burst	A 1.125 design factor with full external evacuation and burst force equal to a mud gradient of:	10.5 ppg