OCD-HOBBS

Form 3160-5
(June 2015)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 2018

HOBBS OCD
MAR 12 2018
RECEIVED

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.
NMNM86147

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.
EMERALD FEDERAL 1

2. Name of Operator
COG OPERATING, LLC
Contact: ABIGAIL MONTGOMERY
E-Mail: Abbym@bcmandassociates.com

9. API Well No.
30-025-31976

3a. Address
600 W. ILLINOIS
MIDLAND, TX 79701

3b. Phone No. (include area code)
Ph: 432-580-7161

10. Field and Pool or Exploratory Area
LIVINGSTON RIDGE; E DEL

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
Sec 10 T22S R32E 660FSL 660FWL
32.400737 N Lat, 103.669036 W Lon

11. County or Parish, State
LEA CO 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 (S
☐ Subsequent Report	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete
	☐ Change Plans	☒ Plug and Abandon	☐ Temporarily
	☐ Convert to Injection	☐ Plug Back	☐ Water Dispos

INT TO PA pm
P&A NR
P&A R

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.

Follow COA procedure

1. Tag RBP @ 7200' .
2. Set 5 1/2" CIBP @ 6845'. Circulate hole w/ MLF. Pressure test csg. Spot 25 sx cmt @ 6845-6745'.
3. Spot 25 sx cmt @ 4570-4470'. WOC & Tag (8 5/8" Shoe)
4. Perf & Sqz @ 2800-2700'.
5. Perf & Sqz @ 1365-1255'. WOC & Tag (T/Salt).
6. Perf & Sqz @ 907-807'. WOC & Tag (1 33/8" Shoe)
7. Perf & Sqz 100 @ 200'-Surface.
8. Cut off Wellhead, verify cmt to surface, install Dry Hole Marker

APPROVED

SEE ATTACHED FOR CONDITIONS OF APPROVAL

SUBJECT TO LIKE APPROVAL BY STATE

WITNESS

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

Electronic Submission #384349 verified by the BLM Well Information System
For COG OPERATING, LLC, sent to the Hobbs
Committed to AFMSS for processing by PRISCILLA PEREZ on 10/25/2017 ()

Name *(Printed/Typed)* ABIGAIL MONTGOMERY — Title AGENT

Signature (Electronic Submission) — Date 08/10/2017

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By Paul R. Swartz 02/14/2018 — Title TPET — 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 BUREAU OF LAND MANAGEMENT CARLSBAD FIELD 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 ****

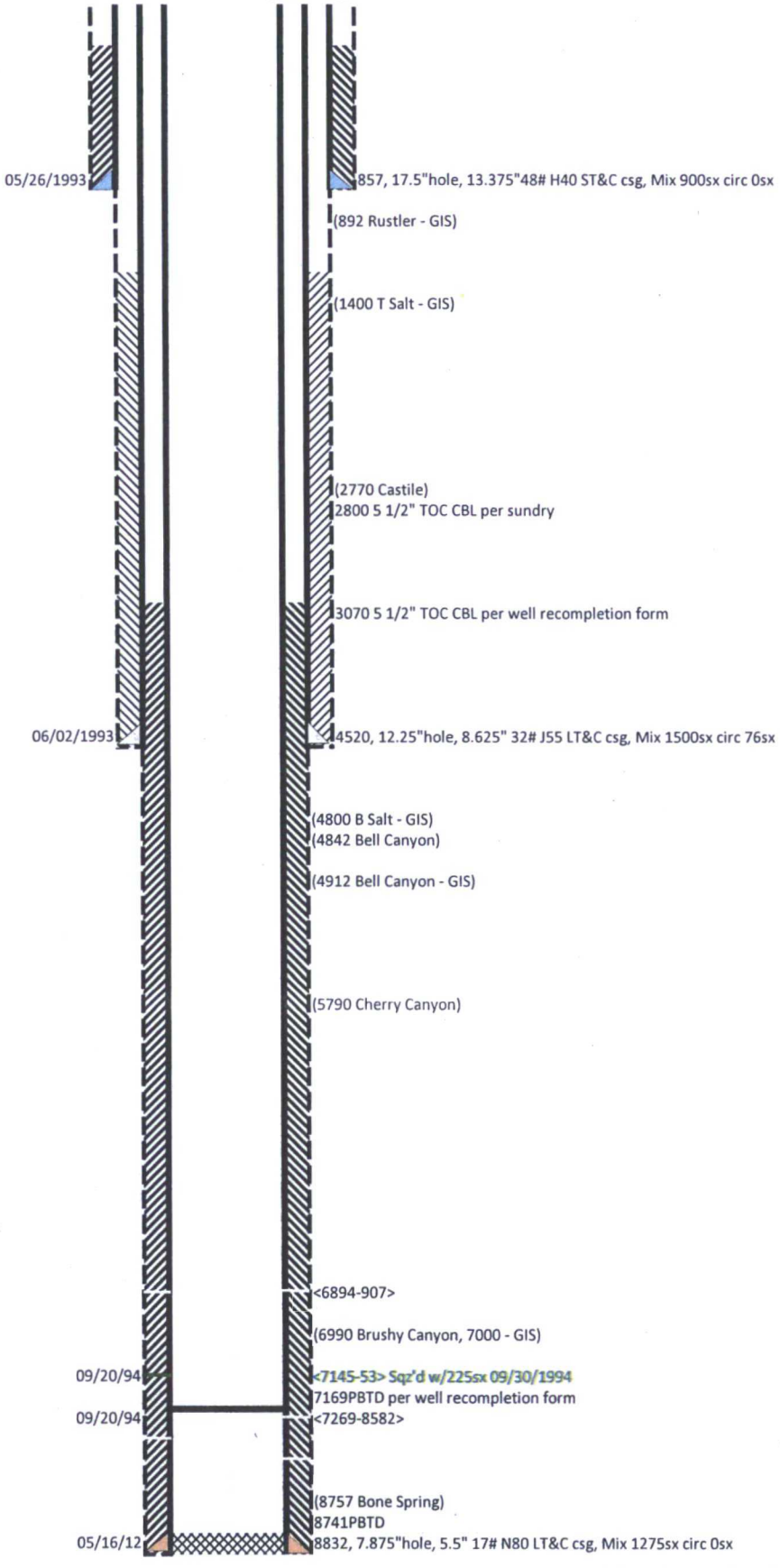
FOR RECORD ONLY
MW/OCD 03/12/2018

Operator: COG Operating, LLC
Surface Lease: NM86147
Case No: NM86147
Subsurface Concerns for Casing Designs: Sec P KFC
Well Status: POW
Spud date: 5/24/1993
Plug'd Date: 6/11/1993
Reentry Date: 09/01/94

BHL: NM86147
Lease Agreement

Well: EMERALD FEDERAL-1
API: 3002531976
@ Srfce: T22S-R32E,10.660s660w
@ M TD: T22S-R32E,10.660s660w
Estate: F\F\F

KB: 3805
GL: 3793
Corr: 12



last updated: 02/12/2018

_WB Rcd (6.07 Emerald-01 2531976

Conditions of Approval

COG Operating, LLC
Emerald - 01, API 3002531976
T22S-R32E, Sec 10, 660FSL & 660FWL
February 14, 2018

1. **Within 90 days of these conditions of approval for the processed Electronic Submission #384349 notice of intent begin wellbore operations or request an extension.**
2. **Operator is required to have the BLM approved NOI procedure with applicable conditions of approval on location during this workover operation.**
3. **Conditions of Approval reflect a procedure based on available documentation for this wellbore. The BLM workover witness and NOI approver may adjust operations so as not to hinder achievable abandonment requirements.**
4. 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.
5. Subject to like approval by the New Mexico Oil Conservation Division.
6. Notify 575-393-3612 Lea Co as work begins. If there is no response leave a voice mail with the API#, workover purpose, and a call back phone number.
7. Surface disturbance beyond the existing pad must have prior approval.
8. A closed loop system is required. The operator shall properly dispose of drilling/circulating contents at an authorized disposal site. Tanks are required for all operations, no excavated pits.
9. Functional H_2S monitoring equipment shall be on location.
10. Use Blow Out Prevention Equipment 3000 (3M). 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 or automatic locking devices) 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.
11. Created operation waste (i.e. trash, salts, chemicals, sewage, gray water, etc.) 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 any other crew-intensive operations.
12. The BLM PET is to run tbg tally and agree to cement volumes and placement. Sample each plug for cement curing time and tag and/or pressure test as requested by BLM PET witness.
13. **Cementing procedure is subject to the next four numbered paragraphs.**
14. Mix cement plugs to cover a minimum of 100ft plus 10ft for every 1,000ft to the bottom of the plug, rounding the number of necessary sacks up to the nearest 5 sacks. Never use less than 25sx. Examples: A cement plug set at 8000 in 7" casing would require a min of 35sx. A 25sx plug in 5 ½" casing should cover 250ft, which may exceed 100ft plus 10ft per 1000ft.

15. Below 7500ft Class "H" and above 7500ft Class "C" neat cement plugs(s) will be necessary. Isolation plugs of Class "C" neat cement to be mixed 14.8#/gal, 1.32 ft³/sx, 6.3gal/sx water and Class "H" neat cement to be mixed 16.4#/gal, 1.06ft³/sx, 4.3gal/sx water.
16. A minimum WOC time of 4 hours(C) & 8 hours(H) is recommended for plugs that require a tag or pressure test.
17. Minimum requirement for mud placed between plugs is 25 sacks of saltwater gel per 100 barrels in 9 lb/gal brine.
18. **Remove the CIBP at 7169' and tag the PBTD (about 8741'). Set a min 25sx balanced "H" cmt plug on the PBTD. WOC, and tag the plug with tbg at 8527' or above covering the Bone Spring formation top of 8757'.**
19. **Set a CIBP within 100' of the top Brushy Canyon perf of 7269'. Set a min 35sx balanced "C" cmt plug on the CIBP set above top perf 7269'. WOC, and tag the plug with tbg at 6920' or above covering the Brushy Canyon formation top of 6990'.**
20. **Set a CIBP within 100' of the top Cherry Canyon perf of 6894'.**
21. **Pressure test the casing to 500psig after a CIBP is set within 100' of the top Cherry Canyon perf of 6894'.**
22. **Set a min 25sx balanced "C" cmt plug on the CIBP set above top perf 6894'. WOC, and tag the plug with tbg at 6650' or above.**
23. **Set a min 25sx balanced "C" cmt plug from 5860' or below across the Cherry Canyon formation top. WOC, and tag the plug with tbg at 5600' or above.**
24. In Secretary Potash Area (outside the R-111-P area), isolate the salt section by placing a cmt plug from 50ft or more below to 50ft or more above the base of salt and the top of salt section.
25. **Set a min 45sx balanced "C" cmt plug from 4960' or below across the Bell Canyon formation top, Base of Salt, and the 4570' 8 5/8" csg shoe. WOC, and tag the plug with tbg at 4500' or above.**
26. **Perforate at 1500' (below Top of Salt). Open the 5 ½" x 8 5/8" x 13 3/8" csg vents and establish circulation out the csg vents to surface.**
27. **Sqz the 1500' perforations with 50sx "C" cmt, displacing the plug slurry to 1300' in the 5 ½" csg. Close the cmtg tbg valve and csg vents at the surface and hold the slurry in place. WOC, and tag the plug with tbg at 1300' or higher in the 5 ½" csg.**
28. **Perforate at 920' (below 13 3/8" shoe). Open the 5 ½" x 8 5/8" x 13 3/8" csg vents and establish circulation out the csg vents to surface.**
29. **Sqz the 920' perforations with 40sx "C" cmt, displacing the plug slurry to 760' in the 5 ½" csg. Close the cmtg tbg valve and csg vents at the surface and hold the slurry in place. WOC, and tag the plug with tbg at 760' or higher in the 5 ½" csg.**
30. **Perf at 60' or below. Establish circulation through the 5 1/2" x 8 5/8" annulus. Fill with (±20sx) balanced "C" cmt plug and verify the 5 1/2" x 8 5/8" annulus and 13 3/8" csg from 60' cemented to surface.**
31. File **subsequent sundry** Form 3160-**5** within 30 days of workover procedures. Include (dated daily) descriptions of the well work, i.e. procedure descriptions and setting depths of each plug in the subsequent sundry.

Lesser Prairie Chicken Habitat Area Dry Hole Markers

Stamp or engrave (3/8" letters) information for the plugged well on 8"x 8"aluminum plate of 1/8", 12 gauge, or .080 sign material similar to this example:

Ajax Operating Company
Tailspin – 22
1980FNL & 660FWL - Sec 16 - T22S-R31E
Lease LC029567 API 3001534567
Plugged July 17, 2017

1. Center a 3 to 4 foot pipe at a right angles on a 8"x8"x 1/8" or 3/16" steel plate and weld the pipe to the plate.
2. Cement the pipe vertically inside the abandoned surface casing. Leave the steel plate about 2" above and horizontal to ground level.
3. Fix the well information plate to the steel plate with ¼ inch bolts and locking nuts or self-tapping fine threaded screws (one in each corner).
4. On the BLM Form 3160-5 subsequent report of abandonment state that a ground level dry hole marker installed as required by BLM and NMOCD Order No. R-12965.

Reclamation Objectives and Procedures

In Reply Refer To: 1310

Reclamation Objective: At final abandonment, well locations, production facilities, and access roads must undergo "final" reclamation so that the character and productivity of the land and water are restored.

The long-term objective of final reclamation is to set the course for eventual ecosystem restoration, including the restoration of the natural vegetation community, hydrology, and wildlife habitats. In most cases this means returning the land to a condition approximating or equal to that which existed prior to the disturbance. The final goal of reclamation is to restore the character of the land and water to its pre-disturbance condition. The operator is generally not responsible for achieving full ecological restoration of the site. Instead, the operator must achieve the short-term stability, visual, hydrological, and productivity objectives of the surface management agency and take steps necessary to ensure that long-term objectives will be reached through natural processes.

To achieve these objectives, remove any and all contaminants, scrap/trash, equipment, pipelines and powerlines. Strip and remove caliche, contour the location to blend with the surrounding landscape, re-distribute the native soils, provide erosion control as needed, rip and seed as needed. This will apply to well pads, facilities, and access roads. Barricade all access road(s) at the starting point. If reserve pits have not been adequately reclaimed due to salts or other contaminants, propose a plan for BLM approval to provide restoration of the pit area.

1. The Application for Permit to Drill or Reenter (APD, Form 3160-3), Surface Use Plan of Operations should have included adequate measures for stabilization and reclamation of disturbed lands. Oil and Gas operators must plan for reclamation, both interim and final, up front in the APD process as per Onshore Oil and Gas Order No. 1.
2. For locations and/or access roads not having an approved plan, or an inadequate plan for surface reclamation the operator must submit a proposal describing the procedures for reclamation. The appropriate time for submittal would be when filing the Notice of Intent, or with the Subsequent Sundry Report of Abandonment on Form 3160-5. The final reclamation goal is to be completed within 6 months of wellbore abandonment.
3. With an approved Surface Use Plan of Operation and/or an approved Sundry Notice, you are free to proceed with reclamation as per approved APD. If you have issues or concerns, contact a BLM specialist to assist you. It may be in your interest to have a BLM specialist look at the location and access road prior to the removal of reclamation equipment to ensure that it meets BLM objectives.
4. Upon reclamation conclusion submit a Form 3160-5, Subsequent Report of Reclamation. This will prompt a BLM specialist to inspect the location to verify work was completed as per approved plans.
5. The BLM approved Subsequent Report of Reclamation will be your notice that the native soils, contour and seedbed have been tentatively reestablished. If the objectives have not been met BLM will be notify the operator of the required corrective actions.
6. It is the responsibility of the operator to monitor these locations and/or access roads until such time the full BLM objective has been met. If after two growing seasons the location and/or access roads are not showing the potential for successful revegetation, additional actions may be needed. When you feel the full BLM objectives have been met, submit a Final Abandonment Notice (FAN) Form 3160-5, stating that all reclamation requirements have been achieved and the location and/or access road is ready for a final abandonment inspection.
7. At this time a BLM specialist will again inspect the location and/or access road. If the native soils and contour have been restored, and the revegetation is successful, the FAN will be approved, releasing the operator of any further liability for the location and/or access road. If the location and/or access road have not achieved the objective, you will be notified as to additional work needed or additional time being needed to achieve the objective.

If there are any questions, please feel free to contact any of the following specialists:

Jim Amos
Supervisory Environmental Protection Specialist
575-234-5909, 575-361-2648 (Cell)

Trishia Bad Bear
Natural Resource Specialist
575-393-3612, 575-390-2258 (Cell)

Jesse Bassett
Natural Resource Specialist
575-234-5913, 575-499-5114 (Cell)

Robertson, Jeffery
Natural Resource Specialist
575-234-2230, 575-706-1920 (Cell)

Vance Wolf
Natural Resource Specialist
575-234-5979

Brooke Wilson
Natural Resource Specialist
575-234-6237

Paul Murphy
Natural Resource Specialist
757-234-5975, 575-885-9264 (Cell)

Arthur Arias
Environmental Protection Specialist
575-234-6230, 575-499-3378 (Cell)

Henryetta Price
Environmental Protection Specialist
575-234-5951, 575-706-2780 (Cell)

Shelly Tucker
Environmental Protection Specialist
575-234-5905, 575-361-0084 (Cell)