OCD - REC'D 9/10/2020

Form 3160-3
(June 2015)

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
NMNM036975

6. If Indian, Allotee or Tribe Name

1a. Type of work: ☑ DRILL ☐ REENTER

1b. Type of Well: ☐ Oil Well ☑ Gas Well ☐ Other

1c. Type of Completion: ☐ Hydraulic Fracturing ☑ Single Zone ☐ Multiple Zone

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

8. Lease Name and Well No.
CREEDENCE 21/16 W0OB FED COM 2H

2. Name of Operator
MEWBOURNE OIL COMPANY

9. API Well No.
30-015-47434

3a. Address
PO Box 5270, Hobbs, NM 88240

3b. Phone No. *(include area code)*
(575) 393-5905

10. Field and Pool, or Exploratory
PURPLE SAGE WOLFCAMP GAS/WOLF

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*
At surface SESE / 100 FSL / 1205 FEL / LAT 32.1962663 / LONG -104.0879889
At proposed prod. zone NWNE / 330 FNL / 1650 FEL / LAT 32.2244573 / LONG -104.0894137

11. Sec., T. R. M. or Blk. and Survey or Area
SEC 21/T24S/R28E/NMP

14. Distance in miles and direction from nearest town or post office*
30 miles

12. County or Parish
EDDY

13. State
NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)
320 feet

16. No of acres in lease
920

17. Spacing Unit dedicated to this well
160.0

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.
50 feet

19. Proposed Depth
9473 feet / 19695 feet

20. BLM/BIA Bond No. in file
FED: NM1693

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
3005 feet

22. Approximate date work will start*
05/16/2020

23. Estimated duration
60 days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable)

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification.
6. Such other site specific information and/or plans as may be requested by the BLM.

25. Signature	Name *(Printed/Typed)*	Date
(Electronic Submission)	BRADLEY BISHOP / Ph: (575) 393-5905	03/30/2020

Title
Regulatory

Approved by *(Signature)*	Name *(Printed/Typed)*	Date
(Electronic Submission)	Cody Layton / Ph: (575) 234-5959	08/31/2020

Title	Office
Assistant Field Manager Lands & Minerals	Carlsbad Field Office

Application approval 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.
Conditions of approval, if any, are attached.

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.

APPROVED WITH CONDITIONS

Entered 9/10/2020 - JAg

(Continued on page 2)

*(Instructions on page 2)

Approval Date: 08/31/2020

INSTRUCTIONS

GENERAL: This form is designed for submitting proposals to perform certain well operations, as indicated on Federal and Indian lands and leases for action by appropriate Federal agencies, pursuant to applicable Federal laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from local Federal offices.

ITEM I: If the proposal is to redrill to the same reservoir at a different subsurface location or to a new reservoir, use this form with appropriate notations. Consult applicable Federal regulations concerning subsequent work proposals or reports on the well.

ITEM 4: Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local Federal offices for specific instructions.

ITEM 14: Needed only when location of well cannot readily be found by road from the land or lease description. A plat, or plats, separate or on the reverse side, showing the roads to, and the surveyed location of, the wen, and any other required information, should be furnished when required by Federal agency offices.

ITEMS 15 AND 18: If well is to be, or has been directionany drilled, give distances for subsurface location of hole in any present or objective productive zone.

ITEM 22: Consult applicable Federal regulations, or appropriate officials, concerning approval of the proposal before operations are started.

ITEM 24: If the proposal will involve hydraulic fracturing operations, you must comply with 43 CFR 3162.3-3, including providing information about the protection of usable water. Operators should provide the best available information about all formations containing water and their depths. This information could include data and interpretation of resistivity logs run on nearby wells. Information may also be obtained from state or tribal regulatory agencies and from local BLM offices.

NOTICES

The Privacy Act of 1974 and regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

AUTHORITY: 30 U.S.C. 181 et seq., 25 U.S.C. 396; 43 CFR 3160

PRINCIPAL PURPOSES: The information will be used to: (1) process and evaluate your application for a permit to drill a new oil, gas, or service wen or to reenter a plugged and abandoned well; and (2) document, for administrative use, information for the management, disposal and use of National Resource Lands and resources including (a) analyzing your proposal to discover and extract the Federal or Indian resources encountered; (b) reviewing procedures and equipment and the projected impact on the land involved; and (c) evaluating the effects of the proposed operation on the surface and subsurface water and other environmental impacts.

ROUTINE USE: Information from the record and/or the record win be transferred to appropriate Federal, State, and local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecution, in connection with congressional inquiries and for regulatory responsibilities.

EFFECT OF NOT PROVIDING INFORMATION: Filing of this application and disclosure of the information is mandatory only if you elect to initiate a drilling or reentry operation on an oil and gas lease.

The Paperwork Reduction Act of 1995 requires us to inform you that:
The BLM conects this information to anow evaluation of the technical, safety, and environmental factors involved with drilling for oil and/or gas on Federal and Indian oil and gas leases. This information will be used to analyze and approve applications. Response to this request is mandatory only if the operator elects to initiate drilling or reentry operations on an oil and gas lease. The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

BURDEN HOURS STATEMENT: Public reporting burden for this form is estimated to average 8 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0137), Bureau Information Conection Clearance Officer (WO-630), 1849 C Street, N.W., Mail Stop 401 LS, Washington, D.C. 20240.

(Continued on page 3)

Additional Operator Remarks

Location of Well

0. SHL: SESE / 100 FSL / 1205 FEL / TWSP: 24S / RANGE: 28E / SECTION: 21 / LAT: 32.1962663 / LONG: -104.0879889 (TVD: 0 feet, MD: 0 feet)

PPP: SWNE / 2668 FNL / 1650 FEL / TWSP: 24S / RANGE: 28E / SECTION: 21 / LAT: 32.2033568 / LONG: -104.089422 (TVD: 9523 feet, MD: 12018 feet)

PPP: SWSE / 330 FSL / 1650 FEL / TWSP: 24S / RANGE: 28E / SECTION: 21 / LAT: 32.1968859 / LONG: -104.0894246 (TVD: 9511 feet, MD: 9661 feet)

BHL: NWNE / 330 FNL / 1650 FEL / TWSP: 24S / RANGE: 28E / SECTION: 16 / LAT: 32.2244573 / LONG: -104.0894137 (TVD: 9473 feet, MD: 19695 feet)

BLM Point of Contact

Name: Pamella Hernandez
Title:
Phone: (575) 234-5954
Email: phermandez@blm.gov

Review and Appeal Rights

A person contesting a decision shall request a State Director review. This request must be filed within 20 working days of receipt of the Notice with the appropriate State Director (see 43 CFR 3165.3). The State Director review decision may be appealed to the Interior Board of Land Appeals, 801 North Quincy Street, Suite 300, Arlington, VA 22203 (see 43 CFR 3165.4). Contact the above listed Bureau of Land Management office for further information.

PECOS DISTRICT
SURFACE USE
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Mewbourne Oil Company
LEASE NO.:	NMNM036975
COUNTY:	Eddy

Wells:

Creedence 21/16 W1OB Fed Com 1H
Surface Hole Location: 100' FSL & 1235' FEL, Section 21, T. 24 S., R. 28 E.
Bottom Hole Location: 330' FNL & 2310' FEL, Section 16, T. 24 S, R 28 E.

Creedence 21/16 W0OB Fed Com 2H
Surface Hole Location: 100' FSL & 1205' FEL, Section 21, T. 24 S., R. 28 E.
Bottom Hole Location: 330' FNL & 1650' FEL, Section 16, T. 24 S, R 28 E.

Creedence 21/16 W1PA Fed Com 2H
Surface Hole Location: 100' FSL & 1175' FEL, Section 21, T. 24 S., R. 28 E.
Bottom Hole Location: 330' FNL & 990' FEL, Section 16, T. 24 S, R 28 E.

Creedence 21/16 W0PA Fed Com 1H
Surface Hole Location: 100' FSL & 1145' FEL, Section 21, T. 24 S., R. 28 E.
Bottom Hole Location: 330' FNL & 330' FEL, Section 16, T. 24 S, R 28 E.

TABLE OF CONTENTS

Standard Conditions of Approval (COA) apply to this APD. If any deviations to these standards exist or special COAs are required, the section with the deviation or requirement will be checked below.

I. GENERAL PROVISIONS

The approval of the Application For Permit To Drill (APD) is in compliance with all applicable laws and regulations: 43 Code of Federal Regulations 3160, the lease terms, Onshore Oil and Gas Orders, Notices To Lessees, New Mexico Oil Conservation Division (NMOCD) Rules, National Historical Preservation Act As Amended, and instructions and orders of the Authorized Officer. Any request for a variance shall be submitted to the Authorized Officer on Form 3160-5, Sundry Notices and Report on Wells.

II. PERMIT EXPIRATION

If the permit terminates prior to drilling and drilling cannot be commenced within 60 days after expiration, an operator is required to submit Form 3160-5, Sundry Notices and Reports on Wells, requesting surface reclamation requirements for any surface disturbance. However, if the operator will be able to initiate drilling within 60 days after the expiration of the permit, the operator must have set the conductor pipe in order to allow for an extension of 60 days beyond the expiration date of the APD. (Filing of a Sundry Notice is required for this 60 day extension.)

III. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES

Any cultural resource (historic or prehistoric site or object) discovered by the holder, or any person working on the holder's behalf, on public or Federal land shall be immediately reported to the Authorized Officer. The holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to the proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

OR

If the entire project is covered under the Permian Basin Programmatic Agreement (cultural resources only):

The proponent has contributed funds commensurate to the undertaking into an account for offsite mitigation. Participation in the PA serves as mitigation for the effects of this project on cultural resources. If any human skeletal remains, funerary objects, sacred objects, or objects of cultural patrimony are discovered at any time during construction, all construction activities shall halt and the BLM will be notified as soon as possible within 24 hours. Work shall not resume until a Notice to Proceed is issued by the BLM. See information below discussing NAGPRA.

If the proposed project is split between a Class III inventory and a Permian Basin Programmatic Agreement contribution, the portion of the project covered under Class III inventory should default to the first paragraph stipulations.

The holder is hereby obligated to comply with procedures established in the Native American Graves Protection and Repatriation Act (NAGPRA) to protect such cultural items as human remains, associated funerary objects, sacred objects, and objects of cultural patrimony discovered inadvertently during the course of project implementation. In the event that any of the cultural items listed above are discovered during the course of project work, the proponent shall immediately halt the disturbance and contact the BLM within 24 hours for instructions. The proponent or initiator of any project shall be held responsible for protecting, evaluating, reporting, excavating, treating, and disposing of these cultural items according to the procedures established by the BLM in consultation with Indian Tribes."

Any paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on the holder's behalf, on public or Federal land shall be immediately reported to the Authorized Officer. The holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to the proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

IV. NOXIOUS WEEDS

The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipeline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

SPECIAL REQUIREMENT(S)

Watershed:
The entire well pad(s) will be bermed to prevent oil, salt, and other chemical contaminants from leaving the well pad. The compacted berm shall be constructed at a minimum of 12 inches with impermeable mineral material (e.g. caliche). Topsoil shall not be used to construct the berm. No water flow from the uphill side(s) of the pad shall be allowed to enter the well pad. The integrity of the berm shall be maintained around the surfaced pad throughout the life of the well and around the downsized pad after interim reclamation has been completed. Any water erosion that may occur due to the construction of the well pad during the life of the well will be quickly corrected and proper measures will be taken to prevent future erosion. Stockpiling of topsoil is required. The topsoil shall be stockpiled in an appropriate location to prevent loss of soil due to water or wind erosion and not used for berming or erosion control. If fluid collects within the bermed area, the fluid must be vacuumed into a safe container and disposed of properly at a state approved facility.

BURIED/SURFACE LINE(S):
When crossing ephemeral drainages the pipeline(s) will be buried to a minimum depth of 48 inches from the top of pipe to ground level. Erosion control methods such as gabions and/or rock aprons should be placed on both up and downstream sides of the pipeline crossing. In addition, curled (weed free) wood/straw fiber wattles/logs and/or silt fences should be placed on the downstream side for sediment control during construction and maintained until soils and vegetation have stabilized. Water bars should be placed within the ROW to divert and dissipate surface runoff. A pipeline access road is not permitted to cross these ephemeral drainages. Traffic should be diverted to a preexisting route. Additional seeding may be required in floodplains and drainages to restore energy dissipating vegetation.

Prior to pipeline installation/construction a leak detection plan will be developed. The method(s) could incorporate gauges to detect pressure drops, situating valves and lines so they can be visually inspected periodically or installing electronic sensors to alarm when a leak is present. The leak detection plan will incorporate an automatic shut off system that will be installed for proposed pipelines to minimize the effects of an undesirable event.

Cave/Karst:

Construction Mitigation

In order to mitigate the impacts from construction activities on cave and karst resources, the following Conditions of Approval will apply to this APD or project:

General Construction:

- No blasting
- The BLM, Carlsbad Field Office, will be informed immediately if any subsurface drainage channels, cave passages, or voids are penetrated during construction, and no additional construction shall occur until clearance has been issued by the Authorized Officer.
- All linear surface disturbance activities will avoid sinkholes and other karst features to lessen the possibility of encountering near surface voids during construction, minimize changes to runoff, and prevent untimely leaks and spills from entering the karst drainage system.
- All spills or leaks will be reported to the BLM immediately for their immediate and proper treatment.

Pad Construction:

- The pad will be constructed and leveled by adding the necessary fill and caliche – no blasting.
- The entire perimeter of the well pad will be bermed to prevent oil, salt, and other chemical contaminants from leaving the well pad.
- The compacted berm shall be constructed at a minimum of 12 inches high with impermeable mineral material (e.g., caliche).
- No water flow from the uphill side(s) of the pad shall be allowed to enter the well pad.
- The topsoil stockpile shall be located outside the bermed well pad.
- Topsoil, either from the well pad or surrounding area, shall not be used to construct the berm.
- No storm drains, tubing or openings shall be placed in the berm.
- If fluid collects within the bermed area, the fluid must be vacuumed into a safe container and disposed of properly at a state approved facility.
- The integrity of the berm shall be maintained around the surfaced pad throughout the life of the well and around the downsized pad after interim reclamation has been completed.
- Any access road entering the well pad shall be constructed so that the integrity of the berm height surrounding the well pad is not compromised (i.e. an access road crossing the berm cannot be lower than the berm height).
- Following a rain event, all fluids will vacuumed off of the pad and hauled off-site and disposed at a proper disposal facility.

Road Construction:

- Turnout ditches and drainage leadoffs will not be constructed in such a manner as to alter the natural flow of water into or out of cave or karst features.
- Special restoration stipulations or realignment may be required if subsurface features are discovered during construction.

Buried Pipeline/Cable Construction:

- Rerouting of the buried line(s) may be required if a subsurface void is encountered during construction to minimize the potential subsidence/collapse of the feature(s) as well as the possibility of leaks/spills entering the karst drainage system.

Powerline Construction:

- Smaller powerlines will be routed around sinkholes and other karst features to avoid or lessen the possibility of encountering near surface voids and to minimize changes to runoff or possible leaks and spills from entering karst systems.
- Larger powerlines will adjust their pole spacing to avoid cave and karst features.
- Special restoration stipulations or realignment may be required if subsurface voids are encountered.

Surface Flowlines Installation:

- Flowlines will be routed around sinkholes and other karst features to minimize the possibility of leaks/spills from entering the karst drainage system.

Drilling Mitigation

Federal regulations and standard Conditions of Approval applied to all APDs require that adequate measures are taken to prevent contamination to the environment. Due to the extreme sensitivity of the cave and karst resources in this project area, the following additional Conditions of Approval will be added to this APD.

To prevent cave and karst resource contamination the following will be required:

- Closed loop system using steel tanks - all fluids and cuttings will be hauled off-site and disposed of properly at an authorized site
- Rotary drilling with fresh water where cave or karst features are expected to prevent contamination of freshwater aquifers.
- Directional drilling is only allowed at depths greater than 100 feet below the cave occurrence zone to prevent additional impacts resulting from directional drilling.
- Lost circulation zones will be logged and reported in the drilling report so BLM can assess the situation and work with the operator on corrective actions.
- Additional drilling, casing, and cementing procedures to protect cave zones and fresh water aquifers. See drilling COAs.

Production Mitigation

In order to mitigate the impacts from production activities and due to the nature of karst terrane, the following Conditions of Approval will apply to this APD:

- Tank battery locations and facilities will be bermed and lined with a 20 mil thick permanent liner that has a 4 oz. felt backing, or equivalent, to prevent tears or punctures. Tank battery berms must be large enough to contain 1 ½ times the content of the largest tank.
- Development and implementation of a leak detection system to provide an early alert to operators when a leak has occurred.
- Automatic shut off, check values, or similar systems will be installed for pipelines and tanks to minimize the effects of catastrophic line failures used in production or drilling.

Residual and Cumulative Mitigation

The operator will perform annual pressure monitoring on all casing annuli and reported in a sundry notice. If the test results indicated a casing failure has occurred, remedial action will be taken to correct the problem to the BLM's approval.

Plugging and Abandonment Mitigation

Upon well abandonment in high cave karst areas additional plugging conditions of approval may be required. The BLM will assess the situation and work with the operator to ensure proper plugging of the wellbore.

V. CONSTRUCTION

A. NOTIFICATION

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Carlsbad Field Office at (575) 234-5909 at least 3 working days prior to commencing construction of the access road and/or well pad.

When construction operations are being conducted on this well, the operator shall have the approved APD and Conditions of Approval (COA) on the well site and they shall be made available upon request by the Authorized Officer.

B. TOPSOIL

The operator shall strip the top portion of the soil (root zone) from the entire well pad area and stockpile the topsoil along the edge of the well pad as depicted in the APD. The root zone is typically six (6) inches in depth. All the stockpiled topsoil will be redistributed over the interim reclamation areas. Topsoil shall not be used for berming the pad or facilities. For final reclamation, the topsoil shall be spread over the entire pad area for seeding preparation.

Other subsoil (below six inches) stockpiles must be completely segregated from the topsoil stockpile. Large rocks or subsoil clods (not evident in the surrounding terrain) must be buried within the approved area for interim and final reclamation.

C. CLOSED LOOP SYSTEM

Tanks are required for drilling operations: No Pits.

The operator shall properly dispose of drilling contents at an authorized disposal site.

D. FEDERAL MINERAL MATERIALS PIT

Payment shall be made to the BLM prior to removal of any federal mineral materials. Call the Carlsbad Field Office at (575) 234-5972.

E. WELL PAD SURFACING

Surfacing of the well pad is not required.

If the operator elects to surface the well pad, the surfacing material may be required to be removed at the time of reclamation. The well pad shall be constructed in a manner which creates the smallest possible surface disturbance, consistent with safety and operational needs.

F. EXCLOSURE FENCING (CELLARS & PITS)

Exclosure Fencing
The operator will install and maintain exclosure fencing for all open well cellars to prevent access to public, livestock, and large forms of wildlife before and after drilling operations until the pit is free of fluids and the operator initiates backfilling. (For examples of exclosure fencing design, refer to BLM's Oil and Gas Gold Book, Exclosure Fence Illustrations, Figure 1, Page 18.)

G. ON LEASE ACCESS ROADS

Road Width
The access road shall have a driving surface that creates the smallest possible surface disturbance and does not exceed fourteen (14) feet in width. The maximum width of surface disturbance, when constructing the access road, shall not exceed twenty-five (25) feet.

Surfacing
Surfacing material is not required on the new access road driving surface. If the operator elects to surface the new access road or pad, the surfacing material may be required to be removed at the time of reclamation.

Where possible, no improvements should be made on the unsurfaced access road other than to remove vegetation as necessary, road irregularities, safety issues, or to fill low areas that may sustain standing water.

The Authorized Officer reserves the right to require surfacing of any portion of the access road at any time deemed necessary. Surfacing may be required in the event the road deteriorates, erodes, road traffic increases, or it is determined to be beneficial for future field development. The surfacing depth and type of material will be determined at the time of notification.

Crowning
Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

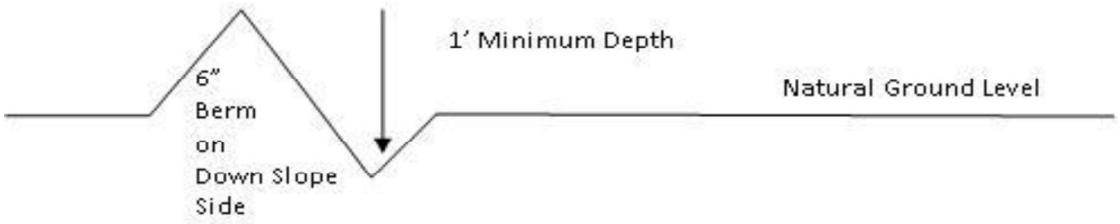
Ditching
Ditching shall be required on both sides of the road.

Turnouts
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall conform to Figure 1; cross section and plans for typical road construction.

Drainage
Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill outsloping and insloping, lead-off ditches, culvert installation, and low water crossings).

A typical lead-off ditch has a minimum depth of 1 foot below and a berm of 6 inches above natural ground level. The berm shall be on the down-slope side of the lead-off ditch.

Cross Section of a Typical Lead-off Ditch



All lead-off ditches shall be graded to drain water with a 1 percent minimum to 3 percent maximum ditch slope. The spacing interval are variable for lead-off ditches and shall be determined according to the formula for spacing intervals of lead-off ditches, but may be amended depending upon existing soil types and centerline road slope (in %);

Formula for Spacing Interval of Lead-off Ditches

Example - On a 4% road slope that is 400 feet long, the water flow shall drain water into a lead-off ditch. Spacing interval shall be determined by the following formula:

$$\text{400 foot road with 4\% road slope: } \frac{400'}{4\%} + 100' = 200' \text{ lead-off ditch interval}$$

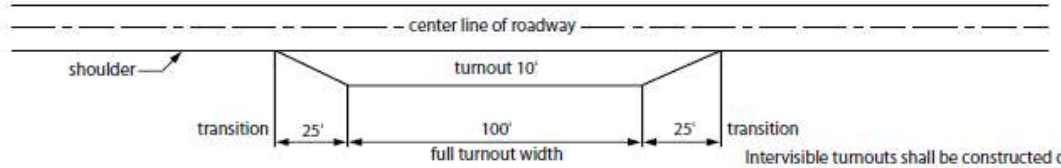
Cattle guards
An appropriately sized cattle guard sufficient to carry out the project shall be installed and maintained at fence/road crossings. Any existing cattle guards on the access road route shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattle guards that are in place and are utilized during lease operations.

Fence Requirement
Where entry is granted across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting. The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fences.

Public Access
Public access on this road shall not be restricted by the operator without specific written approval granted by the Authorized Officer.

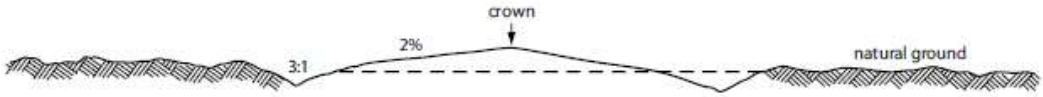
Construction Steps

1. Salvage topsoil
2. Construct road
3. Redistribute topsoil
4. Revegetate slopes

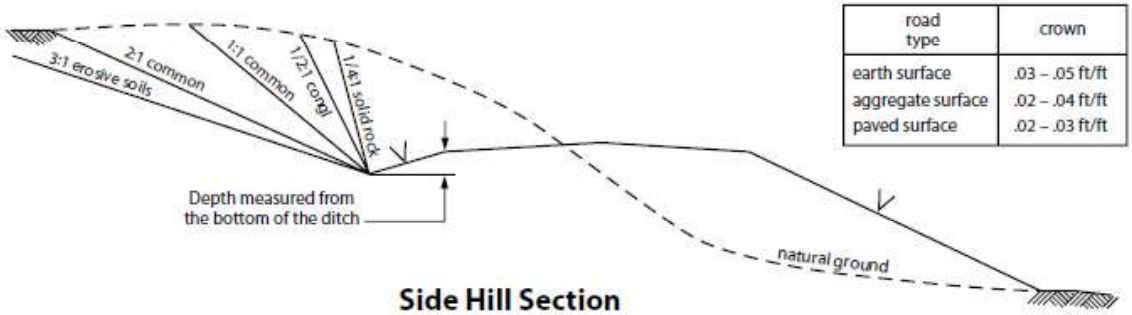


Intervisible turnouts shall be constructed on all single lane roads on all blind curves with additional tunouts as needed to keep spacing below 1000 feet.

Typical Turnout Plan

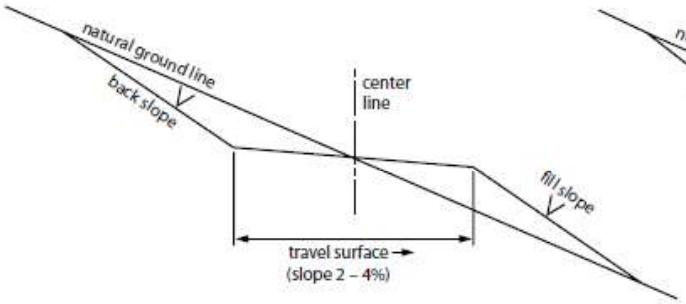


Level Ground Section

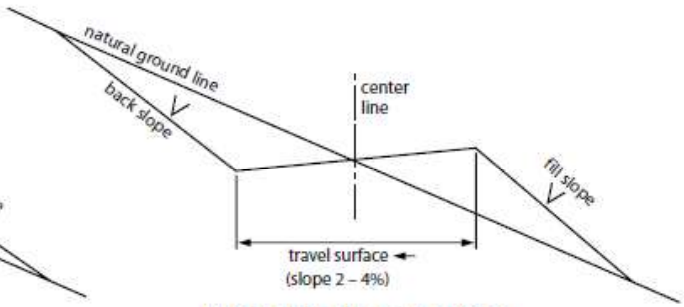


road type	crown
earth surface	.03 – .05 ft/ft
aggregate surface	.02 – .04 ft/ft
paved surface	.02 – .03 ft/ft

Side Hill Section



Typical Outsloped Section



Typical Inslope Section

Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

VI. PRODUCTION (POST DRILLING)

A. WELL STRUCTURES & FACILITIES

Placement of Production Facilities
Production facilities should be placed on the well pad to allow for maximum interim recontouring and revegetation of the well location.

Exclosure Netting (Open-top Tanks)
Immediately following active drilling or completion operations, the operator will take actions necessary to prevent wildlife and livestock access, including avian wildlife, to all open-topped tanks that contain or have the potential to contain salinity sufficient to cause harm to wildlife or livestock, hydrocarbons, or Resource Conservation and Recovery Act of 1976-exempt hazardous substances. At a minimum, the operator will net, screen, or cover open-topped tanks to exclude wildlife and livestock and prevent mortality. If the operator uses netting, the operator will cover and secure the open portion of the tank to prevent wildlife entry. The operator will net, screen, or cover the tanks until the operator removes the tanks from the location or the tanks no longer contain substances that could be harmful to wildlife or livestock. Use a maximum netting mesh size of 1 ½ inches. The netting must not be in contact with fluids and must not have holes or gaps.

Chemical and Fuel Secondary Containment and Exclosure Screening
The operator will prevent all hazardous, poisonous, flammable, and toxic substances from coming into contact with soil and water. At a minimum, the operator will install and maintain an impervious secondary containment system for any tank or barrel containing hazardous, poisonous, flammable, or toxic substances sufficient to contain the contents of the tank or barrel and any drips, leaks, and anticipated precipitation. The operator will dispose of fluids within the containment system that do not meet applicable state or U. S. Environmental Protection Agency livestock water standards in accordance with state law; the operator must not drain the fluids to the soil or ground. The operator will design, construct, and maintain all secondary containment systems to prevent wildlife and livestock exposure to harmful substances. At a minimum, the operator will install effective wildlife and livestock exclosure systems such as fencing, netting, expanded metal mesh, lids, and grate covers. Use a maximum netting mesh size of 1 ½ inches.

Open-Vent Exhaust Stack Exclosures
The operator will construct, modify, equip, and maintain all open-vent exhaust stacks on production equipment to prevent birds and bats from entering, and to discourage perching, roosting, and nesting. (*Recommended exclosure structures on open-vent exhaust stacks are in the shape of a cone*.) Production equipment includes, but may not be limited to, tanks, heater-treaters, separators, dehydrators, flare stacks, in-line units, and compressor mufflers.

Containment Structures
Proposed production facilities such as storage tanks and other vessels will have a secondary containment structure that is constructed to hold the capacity of 1.5 times the largest tank, plus freeboard to account for precipitation, unless more stringent protective requirements are deemed necessary.

Painting Requirement
All above-ground structures including meter housing that are not subject to safety requirements shall be painted a flat non-reflective paint color, **Shale Green** from the BLM Standard Environmental Color Chart (CC-001: June 2008).

B. PIPELINES

- The BLM, Carlsbad Field Office, will be informed immediately if any subsurface drainage channels, passages, or voids are intersected by trenching, and no pipe will be laid in the trench at that point until clearance has been issued by the Authorized Officer.
- If a void is encountered alignments may be rerouted to avoid the karst feature and lessen; the potential of subsidence or collapse of karst features, buildup of toxic or combustible gas, or other possible impacts to cave and karst resources from the buried pipeline.
- Special restoration stipulations or realignment may be required at such intersections, if any.
- A leak detection plan **will be submitted to the BLM Carlsbad Field Office for approval** prior to pipeline installation. The method could incorporate gauges to detect pressure drops, situating values and lines so they can be visually inspected periodically or installing electronic sensors to alarm when a leak is present. The leak detection plan will incorporate an automatic shut off system that will be installed for proposed pipelines to minimize the effects of an undesirable event.
- Regular monitoring is required to quickly identify leaks for their immediate and proper treatment.
- All spills or leaks will be reported to the BLM immediately for their immediate and proper treatment.

BURIED PIPELINE STIPULATIONS

A copy of the application (Grant, APD, or Sundry Notice) and attachments, including conditions of approval, survey plat and/or map, will be on location during construction. BLM personnel may request to you a copy of your permit during construction to ensure compliance with all stipulations.

Holder agrees to comply with the following stipulations to the satisfaction of the Authorized Officer:

1. The Holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.

2. The Holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC 2601 et seq. (1982) with regards to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant. (See 40 CFR Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.

3. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C.

9601, et seq. or the Resource Conservation and Recovery Act, 42 U.S.C.6901, et seq.) on the Right-of-Way (unless the release or threatened release is wholly unrelated to the Right-of-Way holder's activity on the Right-of-Way), or resulting from the activity of the Right-of-Way holder on the Right-of-Way. This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.

4. If, during any phase of the construction, operation, maintenance, or termination of the pipeline, any oil or other pollutant should be discharged from the pipeline system, impacting Federal lands, the control and total removal, disposal, and cleaning up of such oil or other pollutant, wherever found, shall be the responsibility of holder, regardless of fault. Upon failure of holder to control, dispose of, or clean up such discharge on or affecting Federal lands, or to repair all damages resulting therefrom, on the Federal lands, the Authorized Officer may take such measures as he deems necessary to control and clean up the discharge and restore the area, including where appropriate, the aquatic environment and fish and wildlife habitats, at the full expense of the holder. Such action by the Authorized Officer shall not relieve holder of any responsibility as provided herein.

5. All construction and maintenance activity will be confined to the authorized right-of-way.

6. The pipeline will be buried with a minimum cover of **36** inches between the top of the pipe and ground level.

7. The maximum allowable disturbance for construction in this right-of-way will be **30** feet:

- Blading of vegetation within the right-of-way will be allowed: maximum width of blading operations will not exceed **20** feet. The trench is included in this area. (*Blading is defined as the complete removal of brush and ground vegetation*.)

- Clearing of brush species within the right-of-way will be allowed: maximum width of clearing operations will not exceed **30** feet. The trench and bladed area are included in this area. (*Clearing is defined as the removal of brush while leaving ground vegetation (grasses, weeds, etc.) intact. Clearing is best accomplished by holding the blade 4 to 6 inches above the ground surface.*)

- The remaining area of the right-of-way (if any) shall only be disturbed by compressing the vegetation. (*Compressing can be caused by vehicle tires, placement of equipment, etc.*)

8. The holder shall stockpile an adequate amount of topsoil where blading is allowed. The topsoil to be stripped is approximately ___6___ inches in depth. The topsoil will be segregated from other spoil piles from trench construction. The topsoil will be evenly distributed over the bladed area for the preparation of seeding.

9. The holder shall minimize disturbance to existing fences and other improvements on public lands. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The holder will contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting of the fence. No permanent gates will be allowed unless approved by the Authorized Officer.

10. Vegetation, soil, and rocks left as a result of construction or maintenance activity will be randomly scattered on this right-of-way and will not be left in rows, piles, or berms, unless otherwise approved by the Authorized Officer. The entire right-of-way shall be recontoured to match the surrounding landscape. The backfilled soil shall be compacted and a 6 inch berm will be left over the ditch line to allow for settling back to grade.

11. In those areas where erosion control structures are required to stabilize soil conditions, the holder will install such structures as are suitable for the specific soil conditions being encountered and which are in accordance with sound resource management practices.

12. The holder will reseed all disturbed areas. Seeding will be done according to the attached seeding requirements, using the following seed mix.

( ) seed mixture 1	( ) seed mixture 3
( ) seed mixture 2	(X) seed mixture 4
( ) seed mixture 2/LPC	( ) Aplomado Falcon Mixture

13. All above-ground structures not subject to safety requirements shall be painted by the holder to blend with the natural color of the landscape. The paint used shall be color which simulates "Standard Environmental Colors" **– Shale Green**, Munsell Soil Color No. 5Y 4/2.

14. The pipeline will be identified by signs at the point of origin and completion of the right-of-way and at all road crossings. At a minimum, signs will state the holder's name, BLM serial number, and the product being transported. All signs and information thereon will be posted in a permanent, conspicuous manner, and will be maintained in a legible condition for the life of the pipeline.

15. The holder shall not use the pipeline route as a road for purposes other than routine maintenance as determined necessary by the Authorized Officer in consultation with the holder before maintenance begins. The holder will take whatever steps are necessary to ensure that the pipeline route is not used as a roadway. As determined necessary during the life of the pipeline, the Authorized Officer may ask the holder to construct temporary deterrence structures.

16. Any cultural resource (historic or prehistoric site or object) discovered by the holder, or any person working on the holder's behalf, on public or Federal land shall be immediately reported to the Authorized Officer. The holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to the proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

OR

If the entire project is covered under the Permian Basin Programmatic Agreement (cultural resources only):

The proponent has contributed funds commensurate to the undertaking into an account for offsite mitigation. Participation in the PA serves as mitigation for the effects of this project on cultural resources. If any human skeletal remains, funerary objects, sacred objects, or objects of cultural patrimony are discovered at any time during construction, all construction activities shall halt and the BLM will be notified as soon as possible within 24 hours. Work shall not resume until a Notice to Proceed is issued by the BLM. See Stipulation 17 for more information.

If the proposed project is split between a Class III inventory and a Permian Basin Programmatic Agreement contribution, the portion of the project covered under Class III inventory should default to the first paragraph stipulations.

17. The holder is hereby obligated to comply with procedures established in the Native American Graves Protection and Repatriation Act (NAGPRA) to protect such cultural items as human remains, associated funerary objects, sacred objects, and objects of cultural patrimony discovered inadvertently during the course of project implementation. In the event that any of the cultural items listed above are discovered during the course of project work, the proponent shall immediately halt the disturbance and contact the BLM within 24 hours for instructions. The proponent or initiator of any project shall be held responsible for protecting, evaluating, reporting, excavating, treating, and disposing of these cultural items according to the procedures established by the BLM in consultation with Indian Tribes."

18. Any paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on the holder's behalf, on public or Federal land shall be immediately reported to the Authorized Officer. The holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to the proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

19. The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes associated roads, pipeline corridor and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

20. Escape Ramps - The operator will construct and maintain pipeline/utility trenches [that are not otherwise fenced, screened, or netted] to prevent livestock, wildlife, and humans from becoming entrapped. At a minimum, the operator will construct and maintain escape ramps, ladders, or other methods of avian and terrestrial wildlife escape in the trenches according to the following criteria:

a. Any trench left open for eight (8) hours or less is not required to have escape ramps; however, before the trench is backfilled, the contractor/operator shall inspect the trench for wildlife, remove all trapped wildlife, and release them at least 100 yards from the trench.

b. For trenches left open for eight (8) hours or more, earthen escape ramps (built at no more than a 30 degree slope and spaced no more than 500 feet apart) shall be placed in the trench.

21. Special Stipulations:

Karst:

- The BLM, Carlsbad Field Office, will be informed immediately if any subsurface drainage channels, passages, or voids are intersected by trenching, and no pipe will be laid in the trench at that point until clearance has been issued by the Authorized Officer.
- If a void is encountered alignments may be rerouted to avoid the karst feature and lessen; the potential of subsidence or collapse of karst features, buildup of toxic or combustible gas, or other possible impacts to cave and karst resources from the buried pipeline.
- Special restoration stipulations or realignment may be required at such intersections, if any.
- A leak detection plan **will be submitted to the BLM Carlsbad Field Office for approval** prior to pipeline installation. The method could incorporate gauges to detect pressure drops, situating values and lines so they can be visually inspected periodically or installing electronic sensors to alarm when a leak is present. The leak detection plan will incorporate an automatic shut off system that will be installed for proposed pipelines to minimize the effects of an undesirable event.
- Regular monitoring is required to quickly identify leaks for their immediate and proper treatment.
- All spills or leaks will be reported to the BLM immediately for their immediate and proper treatment.

VII. INTERIM RECLAMATION

During the life of the development, all disturbed areas not needed for active support of production operations should undergo interim reclamation in order to minimize the environmental impacts of development on other resources and uses.

Within six (6) months of well completion, operators should work with BLM surface management specialists (Jim Amos: 575-234-5909) to devise the best strategies to reduce the size of the location. Interim reclamation should allow for remedial well operations, as well as safe and efficient removal of oil and gas.

During reclamation, the removal of caliche is important to increasing the success of revegetating the site. Removed caliche that is free of contaminants may be used for road repairs, fire walls or for building other roads and locations. In order to operate the well or complete workover operations, it may be necessary to drive, park and operate on restored interim vegetation within the previously disturbed area. Disturbing revegetated areas for production or workover operations will be allowed. If there is significant disturbance and loss of vegetation, the area will need to be revegetated. Communicate with the appropriate BLM office for any exceptions/exemptions if needed.

All disturbed areas after they have been satisfactorily prepared need to be reseeded with the seed mixture provided below.

Upon completion of interim reclamation, the operator shall submit a Sundry Notices and Reports on Wells, Subsequent Report of Reclamation (Form 3160-5).

VIII. FINAL ABANDONMENT & RECLAMATION

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

Earthwork for final reclamation must be completed within six (6) months of well plugging. All pads, pits, facility locations and roads must be reclaimed to a satisfactory revegetated, safe, and stable condition, unless an agreement is made with the landowner or BLM to keep the road and/or pad intact.

After all disturbed areas have been satisfactorily prepared, these areas need to be revegetated with the seed mixture provided below. Seeding should be accomplished by drilling on the contour whenever practical or by other approved methods. Seeding may need to be repeated until revegetation is successful, as determined by the BLM.

Operators shall contact a BLM surface protection specialist prior to surface abandonment operations for site specific objectives (Jim Amos: 575-234-5909).

Ground-level Abandoned Well Marker to avoid raptor perching: Upon the plugging and subsequent abandonment of the well, the well marker will be installed at ground level on a plate containing the pertinent information for the plugged well.

Mixture 4, for Gypsum Sites

The holder shall seed all the disturbed areas with the seed mixture listed below. The seed mixture shall be planted in the amounts specified in pounds of pure live seed (PLS)* per acre. There shall be no primary or secondary noxious weeds in the seed mixture. Seed will be tested and the viability testing of seed will be done in accordance with State law(s) and within nine (9) months prior to purchase. Commercial seed will be either certified or registered seed. The seed container will be tagged in accordance with State law(s) and available for inspection by the authorized officer.

Seed will be planted using a drill equipped with a depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture will be evenly and uniformly planted over the disturbed area (smaller/heavier seeds have a tendency to drop the bottom of the drill and are planted first). The holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed will be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre are to be doubled. The seeding will be repeated until a satisfactory stand is established as determined by the authorized officer. Evaluation of growth will not be made before completion of at least one full growing season after seeding.

Species to be planted in pounds of pure live seed* per acre:

Species	lb/acre
Alkali Sacaton (*Sporobolus airoides*)	1.5
DWS~ Four-wing saltbush (*Atriplex canescens*)	8.0

~DWS: DeWinged Seed

*Pounds of pure live seed:

Pounds of seed **x** percent purity **x** percent germination = pounds pure live seed

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	**MEWBOURNE OIL COMPANY**
LEASE NO.:	**NMNM036975**
WELL NAME & NO.:	CREEDENCE 21-16 W0OB FED COM 2H
SURFACE HOLE FOOTAGE:	100'/S & 1205'/E
BOTTOM HOLE FOOTAGE	330'/N & 1650'/E
LOCATION:	Section 21, T.24 S., R.28 E., NMP
COUNTY:	Eddy County, New Mexico

COA

H2S	○ Yes	◉ No	
Potash	◉ None	○ Secretary	○ R-111-P
Cave/Karst Potential	○ Low	○ Medium	◉ High
Cave/Karst Potential	○ Critical		
Variance	○ None	◉ Flex Hose	○ Other
Wellhead	○ Conventional	◉ Multibowl	○ Both
Other	☐ 4 String Area	☐ Capitan Reef	☐ WIPP
Other	☐ Fluid Filled	☐ Cement Squeeze	☐ Pilot Hole
Special Requirements	☐ Water Disposal	☑ COM	☐ Unit

A. HYDROGEN SULFIDE

Hydrogen Sulfide (H2S) monitors shall be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, provide measured values and formations to the BLM.

B. CASING

Casing Design:

1. The **13-3/8** inch surface casing shall be set at approximately **400 feet** (a minimum of **70 feet (Eddy County)** into the Rustler Anhydrite and above the salt) and cemented to the surface.

    a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
    b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8**

hours or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)

c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
d. If cement falls back, remedial cementing will be done prior to drilling out that string.

2. The minimum required fill of cement behind the **9-5/8** inch intermediate casing which shall be set at approximately **2465 feet** is:

- Cement to surface. If cement does not circulate see B.1.a, c-d above. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash. Excess cement calculates to 21%, additional cement might be required.**

❖ In High Cave/Karst Areas if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.

3. The minimum required fill of cement behind the **7** inch production casing is:

Option 1 (Single Stage):

- Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification. **Excess cement calculates to 6%, additional cement might be required.**

Option 2:

Operator has proposed a DV tool, the depth may be adjusted as long as the cement is changed proportionally. The DV tool may be cancelled if cement circulates to surface on the first stage.

a. First stage to DV tool: Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.

b. Second stage above DV tool:

Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification. **Excess cement calculates to 23%, additional cement might be required.**

4. The minimum required fill of cement behind the **4-1/2** inch production liner is:

    - Cement should tie-back **100 feet** into the previous casing. Operator shall provide method of verification.

C. PRESSURE CONTROL

1. **Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).**'

2. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000 (5M)** psi.

    a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
    b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
    c. Manufacturer representative shall install the test plug for the initial BOP test.
    d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
    e. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.

D. SPECIAL REQUIREMENT (S)

Communitization Agreement

- The operator will submit a Communitization Agreement to the Carlsbad Field Office, 620 E Greene St. Carlsbad, New Mexico 88220, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.
- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

GENERAL REQUIREMENTS

The BLM is to be notified in advance for a representative to witness:

a. Spudding well (minimum of 24 hours)
b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
c. BOPE tests (minimum of 4 hours)

☒ Eddy County
Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (575) 361-2822

☒ Lea County
Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575) 393-3612

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.

   a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
   b. When the operator proposes to set surface casing with Spudder Rig
      - Notify the BLM when moving in and removing the Spudder Rig.
      - Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
      - BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 as soon as 2nd Rig is rigged up on well.

2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.

3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.

2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.

3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.

4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.

5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.

7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

B. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.

2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.

3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.

4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:

    a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
    b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
    c. Manufacturer representative shall install the test plug for the initial BOP test.
    d. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.
    e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.

5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.

    a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not

hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).

b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time, except the casing pressure test can be initiated immediately after bumping the plug (only applies to single stage cement jobs).

c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).

d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.

e. The results of the test shall be reported to the appropriate BLM office.

f. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.

g. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.

h. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

C. DRILLING MUD

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the Wolfcamp formation, and shall be used until production casing is run and cemented.

D. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion 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.

OTA08272020

Operator Name: MEWBOURNE OIL COMPANY

Well Name: CREEDENCE 21/16 W0OB FED COM **Well Number:** 2H

Is the proposed well in an area containing other mineral resources? USEABLE WATER,NATURAL GAS,OIL

Is the proposed well in a Helium production area? N **Use Existing Well Pad?** N **New surface disturbance?**

Type of Well Pad: MULTIPLE WELL **Multiple Well Pad Name:** Creedence 21/16 OB/PA Fed Com wells **Number:** 4

Well Class: HORIZONTAL **Number of Legs:** 1

Well Work Type: Drill

Well Type: CONVENTIONAL GAS WELL

Describe Well Type:

Well sub-Type: APPRAISAL

Describe sub-type:

Distance to town: 30 Miles **Distance to nearest well:** 50 FT **Distance to lease line:** 320 FT

Reservoir well spacing assigned acres Measurement: 160 Acres

Well plat: Creedence21_16W0OBFedCom2H_wellplat_20200316101126.pdf

Well work start Date: 05/16/2020 **Duration:** 60 DAYS

Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83 **Vertical Datum:** NAVD88

Survey number: **Reference Datum:** GROUND LEVEL

Wellbore	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD	Will this well produce from this lease?
SHL Leg #1	100	FSL	1205	FEL	24S	28E	21	Aliquot SESE	32.1962663	-104.0879889	EDDY	NEW MEXICO	NEW MEXICO	F	NMNM 036975	3005	0	0	Y
KOP Leg #1	10	FSL	1650	FEL	24S	28E	21	Aliquot SWSE	32.196009	-104.0894249	EDDY	NEW MEXICO	NEW MEXICO	F	NMNM 036975	-6056	9073	9061	Y

Operator Name: MEWBOURNE OIL COMPANY

Well Name: CREEDENCE 21/16 W0OB FED COM **Well Number:** 2H

Wellbore	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD	Will this well produce from this lease?
PPP Leg #1-1	330	FSL	1650	FEL	24S	28E	21	Aliquot SWSE	32.1968859	-104.0894246	EDDY	NEW MEXICO	NEW MEXICO	F	NMNM 036975	-6506	9661	9511	Y
PPP Leg #1-2	2668	FNL	1650	FEL	24S	28E	21	Aliquot SWNE	32.2033568	-104.089422	EDDY	NEW MEXICO	NEW MEXICO	F	FEE	-6518	12018	9523	Y
EXIT Leg #1	330	FNL	1650	FEL	24S	28E	16	Aliquot NWNE	32.2244573	-104.0894137	EDDY	NEW MEXICO	NEW MEXICO	F	FEE	-6468	19695	9473	Y
BHL Leg #1	330	FNL	1650	FEL	24S	28E	16	Aliquot NWNE	32.2244573	-104.0894137	EDDY	NEW MEXICO	NEW MEXICO	F	FEE	-6468	19695	9473	Y

APD ID: 10400055189 **Submission Date:** 03/30/2020

Operator Name: MEWBOURNE OIL COMPANY

Well Name: CREEDENCE 21/16 W0OB FED COM **Well Number:** 2H

Well Type: CONVENTIONAL GAS WELL **Well Work Type:** Drill

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
691035	UNKNOWN	3005	28	28	OTHER : Top Soil	NONE	N
691047	TOP SALT	1925	1080	1080	SALT	NONE	N
691036	BOTTOM SALT	630	2375	2375	SALT	NONE	N
691043	LAMAR	490	2515	2515	LIMESTONE	NATURAL GAS, OIL	N
691039	BELL CANYON	400	2605	2605	SANDSTONE	NATURAL GAS, OIL	N
691040	CHERRY CANYON	-220	3225	3225	SANDSTONE	NATURAL GAS, OIL	N
691041	MANZANITA	-535	3540	3540	LIMESTONE	NATURAL GAS, OIL	N
691034	BONE SPRING	-3080	6085	6085	LIMESTONE, SHALE	NATURAL GAS, OIL	N
691037	BONE SPRING 1ST	-4045	7050	7050	SANDSTONE	NATURAL GAS, OIL	N
691038	BONE SPRING 2ND	-4845	7850	7850	SANDSTONE	NATURAL GAS, OIL	N
691045	BONE SPRING 3RD	-5960	8965	8965	SANDSTONE	NATURAL GAS, OIL	N
691042	WOLFCAMP	-6415	9420	9420	LIMESTONE, SANDSTONE, SHALE	NATURAL GAS, OIL	Y

Section 2 - Blowout Prevention

Pressure Rating (PSI): 5M **Rating Depth:** 19695

Equipment: Annular, Pipe Rams, Blind Rams

Requesting Variance? YES

Variance request: Request variance for the use of a flexible choke line from the BOP to Choke Manifold. Anchors not required by manufacturer. A multi-bowl wellhead will be used. See attached schematic.
Testing Procedure: BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and

tested. Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. Other accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold. See attached schematics.

Choke Diagram Attachment:

Creedence_21_16_W0OB_Fed_Com_2H_Flex_Line_Specs_20200330130554.pdf

Creedence_21_16_W0OB_Fed_Com_2H_5M_BOPE_Choke_Diagram_20200330130554.pdf

Creedence_21_16_W0OB_Fed_Com_2H_Flex_Line_Specs_API_16C_20200330130554.pdf

BOP Diagram Attachment:

Creedence_21_16_W0OB_Fed_Com_2H_Multi_Bowl_WH_20200330130606.pdf

Creedence_21_16_W0OB_Fed_Com_2H_5M_BOPE_Schematic_20200330130606.pdf

Section 3 - Casing

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	SURFACE	17.5	13.375	NEW	API	N	0	400	0	400	3005	2605	400	H-40	48	ST&C	4.21	9.45	DRY	16.77	DRY	28.18
2	INTERMEDIATE	12.25	9.625	NEW	API	N	0	2465	0	2465	3111	540	2465	J-55	36	LT&C	1.58	2.75	DRY	5.1	DRY	6.36
3	PRODUCTION	8.75	7.0	NEW	API	N	0	9661	0	9511	3111	-6506	9661	HCP-110	26	LT&C	1.33	2.12	DRY	2.76	DRY	3.3
4	LINER	6.125	4.5	NEW	API	N	9073	19695	9061	9538	-6056	-6533	10622	P-110	13.5	LT&C	1.79	2.09	DRY	2.36	DRY	2.94

Casing Attachments

Operator Name: MEWBOURNE OIL COMPANY

Well Name: CREEDENCE 21/16 W0OB FED COM **Well Number:** 2H

Casing Attachments

Casing ID: 1 **String Type:** SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Creedence_21_16_W0OB_Fed_Com_2H_Csg_assumptions_20200330130648.pdf

Casing ID: 2 **String Type:** INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Creedence_21_16_W0OB_Fed_Com_2H_Csg_assumptions_20200330130715.pdf

Casing ID: 3 **String Type:** PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Creedence_21_16_W0OB_Fed_Com_2H_Csg_assumptions_20200330130801.pdf

Operator Name: MEWBOURNE OIL COMPANY

Well Name: CREEDENCE 21/16 W0OB FED COM **Well Number:** 2H

Casing Attachments

Casing ID: 4 **String Type:** LINER

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Creedence_21_16_W0OB_Fed_Com_2H_Csg_assumptions_20200330130855.pdf

Section 4 - Cement

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	210	140	2.12	12.5	297	100	Class C	Salt, Gel, Extender, LCM
SURFACE	Tail		210	400	200	1.34	14.8	268	100	Class C	Retarder
INTERMEDIATE	Lead		0	1782	330	2.12	12.5	700	25	Class C	Salt, Gel, Extender, LCM
INTERMEDIATE	Tail		1782	2465	200	1.34	14.8	268	25	Class C	Retarder
PRODUCTION	Lead	3540	2265	2828	50	2.12	12.5	106	25	Class C	Gel, Retarder, Defoamer, Extender
PRODUCTION	Tail		2828	3540	100	1.34	14.8	134	25	Class C	Retarder
PRODUCTION	Lead	3540	3540	7149	320	2.12	12.5	678	25	Class C	Gel, Retarder, Defoamer, Extender
PRODUCTION	Tail		7149	9661	400	1.18	15.6	472	25	Class H	Retarder, Fluid Loss, Defoamer
LINER	Lead		9073	19695	420	2.97	11.2	1247	25	Class C	Salt, Gel, Fluid Loss, Retarder, Dispersant, Defoamer, Anti-Settling Agent

Operator Name: MEWBOURNE OIL COMPANY

Well Name: CREEDENCE 21/16 W0OB FED COM **Well Number:** 2H

Section 5 - Circulating Medium

Mud System Type: Closed

Will an air or gas system be Used? NO

Description of the equipment for the circulating system in accordance with Onshore Order #2:

Diagram of the equipment for the circulating system in accordance with Onshore Order #2:

Describe what will be on location to control well or mitigate other conditions: Lost circulation material Sweeps Mud scavengers in surface hole

Describe the mud monitoring system utilized: Pason/PVT/Visual Monitoring

Circulating Medium Table

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
0	400	SPUD MUD	8.6	8.8							
400	2465	SALT SATURATED	10	10							
2465	9511	WATER-BASED MUD	8.6	9.5							
9511	9538	OIL-BASED MUD	10	12							

Section 6 - Test, Logging, Coring

List of production tests including testing procedures, equipment and safety measures:

Will run GR/CNL in deeper offset Creedence 21/16 W1PA Fed Com #2H.

List of open and cased hole logs run in the well:

COMPENSATED NEUTRON LOG,DIRECTIONAL SURVEY,GAMMA RAY LOG,MEASUREMENT WHILE DRILLING,MUD LOG/GEOLOGIC LITHOLOGY LOG,MUD LOG/GEOLOGICAL LITHOLOGY LOG,

Coring operation description for the well:

None

Operator Name: MEWBOURNE OIL COMPANY

Well Name: CREEDENCE 21/16 W0OB FED COM **Well Number:** 2H

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 5952 **Anticipated Surface Pressure:** 3856

Anticipated Bottom Hole Temperature(F): 165

Anticipated abnormal pressures, temperatures, or potential geologic hazards? NO

Describe:

Contingency Plans geoharzards description:

Contingency Plans geohazards attachment:

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations plan:

Creedence_21_16_W0OB_Fed_Com_2H_H2S_Plan_20200330131332.pdf

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

Creedence_21_16_W0OB_Fed_Com_2H_Dir_plot_20200330131348.pdf
Creedence_21_16_W0OB_Fed_Com_2H_Dir_plan_20200330131348.pdf

Other proposed operations facets description:

Other proposed operations facets attachment:

Creedence_21_16_W0OB_Fed_Com_2H_Add_Info_20200330131405.pdf

Other Variance attachment:

ENGINEERING & SERVICES

GATES E & S NORTH AMERICA, INC.
134 44TH STREET
CORPUS CHRISTI, TEXAS 78405

PHONE: 361-887-9807
FAX: 361-887-0812
EMAIL: *Tim.Cantu@gates.com*
WEB: www.gates.com

10K CEMENTING ASSEMBLY PRESSURE TEST CERTIFICATE

Customer :	AUSTIN DISTRIBUTING	Test Date:	4/30/2015
Customer Ref. :	4060578	Hose Serial No.:	D-043015-7
Invoice No. :	500506	Created By:	JUSTIN CROPPER

Product Description:	10K3.548.0CK4.1/1610KFLGE/E LE

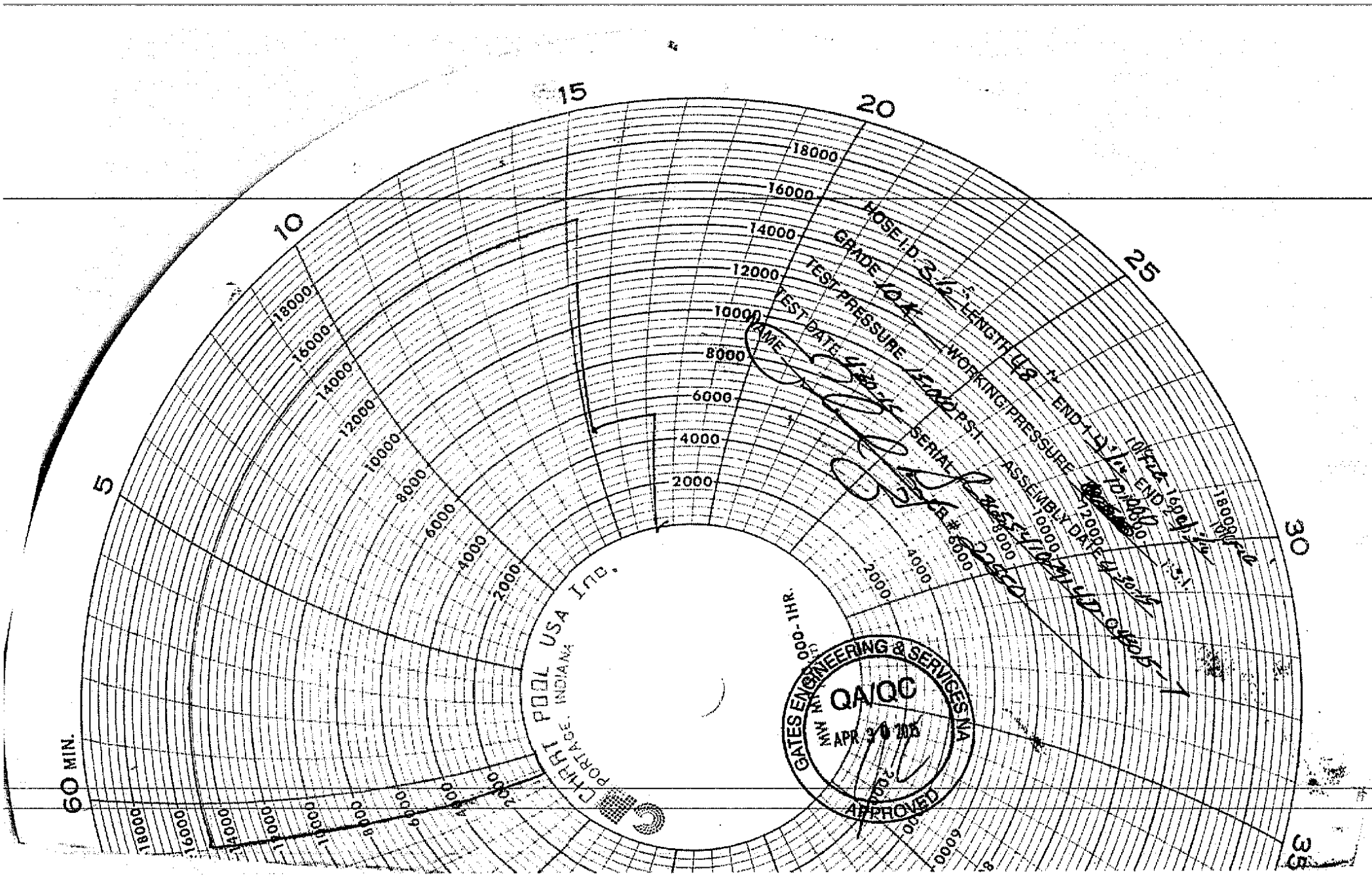
End Fitting 1 :	4 1/16 10K FLG	End Fitting 2 :	4 1/16 10K FLG
Gates Part No. :	4773-6290	Assembly Code :	L36554102914D-043015-7
Working Pressure :	10,000 PSI	Test Pressure :	15,000 PSI

Gates E & S North America, Inc. certifies that the following hose assembly has been tested to the Gates Oilfield Roughneck Agreement/Specification requirements and passed the 15 minute hydrostatic test per API Spec 7K/Q1, Fifth Edition, June 2010, Test pressure 9.6.7 and per Table 9 to 15,000 psi in accordance with this product number. Hose burst pressure 9.6.7.2 exceeds the minimum of 2.5 times the working pressure per Table 9.

Quality Manager :	QUALITY	Produciton:	PRODUCTION
Date :	4/30/2015	Date :	4/30/2015
Signature :	Justin Cropper	Signature :	

Form-PTC - 01 Rev.0 2

Gates BLACK GOLD


5
10
15
20
25
30
35
60 MIN.
18000
16000
14000
12000
10000
8000
6000
4000
2000
HOSE I.D.
GRADE
TEST PRESSURE
TEST DATE
WORKING PRESSURE
LENGTH
END 1
END 2
ASSEMBLY DATE
SERIAL #
P.S.I.
CHARLIE POOL USA Inc.
PORTAGE, INDIANA
GATES ENGINEERING & SERVICES NA
QA/QC
APR 30 2015
APPROVED
MW MAX 1,000-1HR.

Mewbourne Oil Company
Creedence 21/16 W0OB Fed Com #2H
Sec 21, T24S, R28E
SL: 100' FSL & 1205' FEL
BHL: 330' FNL & 1650' FEL

Hole Size	Casing Interval From	Casing Interval To	Csg. Size	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	SF Jt Tension	SF Body Tension
17.5"	0'	400'	13.375"	48	H40	STC	4.21	9.45	16.77	28.18
12.25"	0'	2465'	9.625"	36	J55	LTC	1.58	2.75	5.10	6.36
8.75"	0'	9661'	7"	26	P110	LTC	1.33	2.12	2.76	3.30
6.125"	9073'	19695'	4.5"	13.5	P110	LTC	1.79	2.09	2.36	2.94
				BLM Minimum Safety Factor			1.125	1	1.6 Dry 1.8 Wet	1.6 Dry 1.8 Wet

All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h
Must have table for contingency casing

	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	Y
Is casing API approved? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	N
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
Is well located within Capitan Reef?	N
If yes, does production casing cement tie back a minimum of 50' above the Reef?	
Is well within the designated 4 string boundary.	
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3rd string cement tied back 500' into previous casing?	
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	
Is 2nd string set 100' to 600' below the base of salt?	
Is well located in high Cave/Karst?	Y
If yes, are there two strings cemented to surface?	Y
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

Mewbourne Oil Company
Creedence 21/16 W0OB Fed Com #2H
Sec 21, T24S, R28E
SL: 100' FSL & 1205' FEL
BHL: 330' FNL & 1650' FEL

Hole Size	Casing Interval From	Casing Interval To	Csg. Size	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	SF Jt Tension	SF Body Tension
17.5"	0'	400'	13.375"	48	H40	STC	4.21	9.45	16.77	28.18
12.25"	0'	2465'	9.625"	36	J55	LTC	1.58	2.75	5.10	6.36
8.75"	0'	9661'	7"	26	P110	LTC	1.33	2.12	2.76	3.30
6.125"	9073'	19695'	4.5"	13.5	P110	LTC	1.79	2.09	2.36	2.94
				BLM Minimum Safety Factor			1.125	1	1.6 Dry 1.8 Wet	1.6 Dry 1.8 Wet

All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h
Must have table for contingency casing

	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	Y
Is casing API approved? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	N
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
Is well located within Capitan Reef?	N
If yes, does production casing cement tie back a minimum of 50' above the Reef?	
Is well within the designated 4 string boundary.	
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3rd string cement tied back 500' into previous casing?	
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	
Is 2nd string set 100' to 600' below the base of salt?	
Is well located in high Cave/Karst?	Y
If yes, are there two strings cemented to surface?	Y
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

Mewbourne Oil Company
Creedence 21/16 W0OB Fed Com #2H
Sec 21, T24S, R28E
SL: 100' FSL & 1205' FEL
BHL: 330' FNL & 1650' FEL

Hole Size	Casing Interval From	Casing Interval To	Csg. Size	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	SF Jt Tension	SF Body Tension
17.5"	0'	400'	13.375"	48	H40	STC	4.21	9.45	16.77	28.18
12.25"	0'	2465'	9.625"	36	J55	LTC	1.58	2.75	5.10	6.36
8.75"	0'	9661'	7"	26	P110	LTC	1.33	2.12	2.76	3.30
6.125"	9073'	19695'	4.5"	13.5	P110	LTC	1.79	2.09	2.36	2.94
				BLM Minimum Safety Factor			1.125	1	1.6 Dry 1.8 Wet	1.6 Dry 1.8 Wet

All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h
Must have table for contingency casing

	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	Y
Is casing API approved? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	N
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
Is well located within Capitan Reef?	N
If yes, does production casing cement tie back a minimum of 50' above the Reef?	
Is well within the designated 4 string boundary.	
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3rd string cement tied back 500' into previous casing?	
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	
Is 2nd string set 100' to 600' below the base of salt?	
Is well located in high Cave/Karst?	Y
If yes, are there two strings cemented to surface?	Y
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

Mewbourne Oil Company
Creedence 21/16 W0OB Fed Com #2H
Sec 21, T24S, R28E
SL: 100' FSL & 1205' FEL
BHL: 330' FNL & 1650' FEL

Hole Size	Casing Interval From	Casing Interval To	Csg. Size	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	SF Jt Tension	SF Body Tension
17.5"	0'	400'	13.375"	48	H40	STC	4.21	9.45	16.77	28.18
12.25"	0'	2465'	9.625"	36	J55	LTC	1.58	2.75	5.10	6.36
8.75"	0'	9661'	7"	26	P110	LTC	1.33	2.12	2.76	3.30
6.125"	9073'	19695'	4.5"	13.5	P110	LTC	1.79	2.09	2.36	2.94
				BLM Minimum Safety Factor			1.125	1	1.6 Dry 1.8 Wet	1.6 Dry 1.8 Wet

All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h
Must have table for contingency casing

	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	Y
Is casing API approved? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	N
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
Is well located within Capitan Reef?	N
If yes, does production casing cement tie back a minimum of 50' above the Reef?	
Is well within the designated 4 string boundary.	
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3rd string cement tied back 500' into previous casing?	
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	
Is 2nd string set 100' to 600' below the base of salt?	
Is well located in high Cave/Karst?	Y
If yes, are there two strings cemented to surface?	Y
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

Hydrogen Sulfide Drilling Operations Plan
Mewbourne Oil Company

1. General Requirements

Rule 118 does not apply to this well because MOC has researched this area and no high concentrations of H2S were found. MOC will have on location and working all H2S safety equipment before the Delaware formation for purposes of safety and insurance requirements.

2. Hydrogen Sulfide Training

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will have received training from a qualified instructor in the following areas prior to entering the drilling pad area of the well:

1. The hazards and characteristics of hydrogen sulfide gas.
2. The proper use of personal protective equipment and life support systems.
3. The proper use of hydrogen sulfide detectors, alarms, warning systems, briefing areas, evacuation procedures.
4. The proper techniques for first aid and rescue operations.

Additionally, supervisory personnel will be trained in the following areas:

1 The effects of hydrogen sulfide on metal components. If high tensile tubular systems are utilized, supervisory personnel will be trained in their special maintenance requirements.
2 Corrective action and shut in procedures, blowout prevention, and well control procedures while drilling a well.
3 The contents of the Hydrogen Sulfide Drilling Operations Plan.

There will be an initial training session prior to encountering a know hydrogen sulfide source. The initial training session shall include a review of the site specific Hydrogen Sulfide Drilling Operations Plan.

3. Hydrogen Sulfide Safety Equipment and Systems

All hydrogen sulfide safety equipment and systems will be installed, tested, and operational prior to drilling below the 9 5/8" intermediate casing.

1. Well Control Equipment
   - A. Choke manifold with minimum of one adjustable choke/remote choke.
   - B. Blowout preventers equipped with blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit
   - C. Auxiliary equipment including annular type blowout preventer.
2. Protective Equipment for Essential Personnel
   Thirty minute self contained work unit located in the dog house and at briefing areas.

Additionally: If H2S is encountered in concentrations less than 10 ppm, fans will be placed in work areas to prevent the accumulation of hazardous amounts of poisonous gas. If higher concentrations of H2S are detected the well will be shut in and a rotating head, mud/gas separator, remote choke and flare line with igniter will be installed.

3. Hydrogen Sulfide Protection and Monitoring Equipment

Two portable hydrogen sulfide monitors positioned on location for optimum coverage and detection. The units shall have audible sirens to notify personnel when hydrogen sulfide levels exceed 20 PPM.

4. Visual Warning Systems

A. Wind direction indicators as indicated on the wellsite diagram.

B. Caution signs shall be posted on roads providing access to location. Signs shall be painted a high visibility color with lettering of sufficient size to be readable at reasonable distances from potentially contaminated areas.

4. Mud Program

The mud program has been designed to minimize the amount of hydrogen sulfide entrained in the mud system. Proper mud weight, safe drilling practices, and the use of hydrogen sulfide scavengers will minimize hazards while drilling the well.

5. Metallurgy

All tubular systems, wellheads, blowout preventers, drilling spools, kill lines, choke manifolds, and valves shall be suitable for service in a hydrogen sulfide environment when chemically treated.

6. Communications

State & County Officials phone numbers are posted on rig floor and supervisors trailer. Communications in company vehicles and toolpushers are either two way radios or cellular phones.

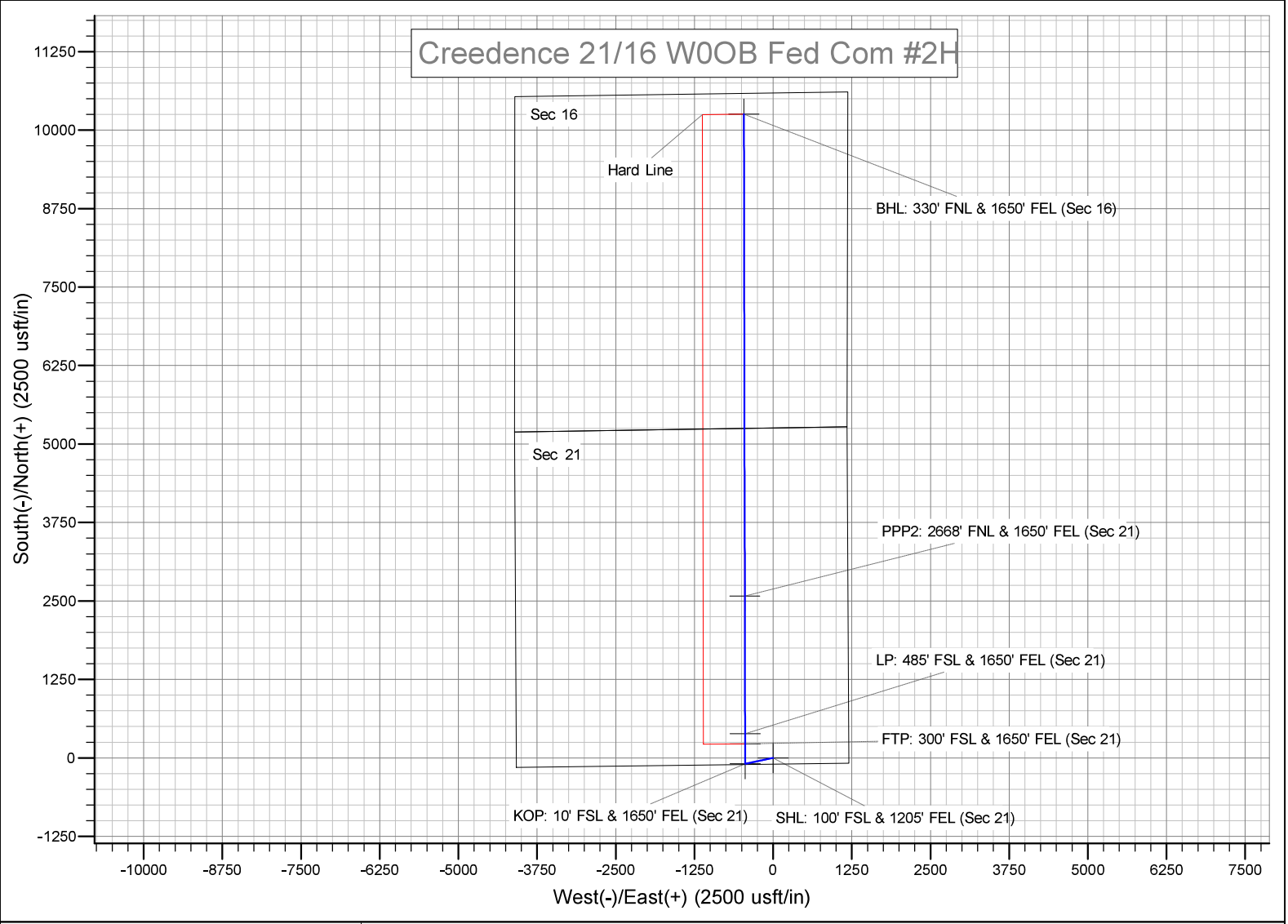
7. Well Testing

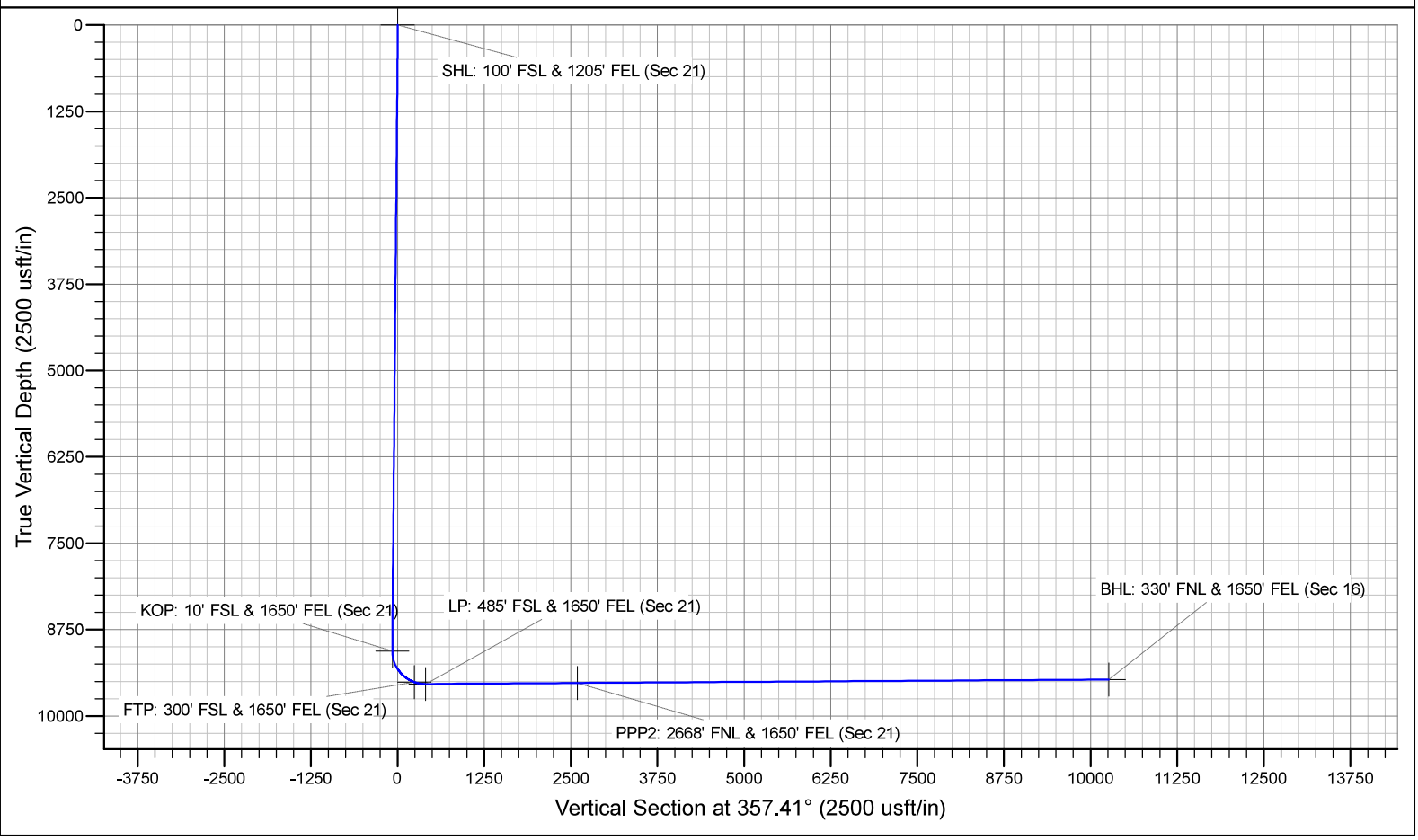
Drill stem testing is not an anticipated requirement for evaluation of this well. If a drill stem test is required, it will be conducted with a minimum number of personnel in the immediate vicinity. The test will be conducted during daylight hours only.

8. Emergency Phone Numbers

Eddy County Sheriff's Office	**911 or 575-887-7551**
Ambulance Service	**911 or 575-885-2111**
Carlsbad Fire Dept	**911 or 575-885-2111**
Loco Hills Volunteer Fire Dept.	**911 or 575-677-3266**
Closest Medical Facility - Columbia Medical Center of Carlsbad	**575-492-5000**

Mewbourne Oil Company	**Hobbs District Office**	**575-393-5905**
	Fax	**575-397-6252**
	2nd Fax	**575-393-7259**
District Manager	**Robin Terrell**	**575-390-4816**
Drilling Superintendent	**Frosty Lathan**	**575-390-4103**
	Bradley Bishop	**575-390-6838**
Drilling Foreman	**Wesley Noseff**	**575-441-0729**


Creedence 21/16 W0OB Fed Com #2H
Sec 16
Hard Line
BHL: 330' FNL & 1650' FEL (Sec 16)
Sec 21
PPP2: 2668' FNL & 1650' FEL (Sec 21)
LP: 485' FSL & 1650' FEL (Sec 21)
FTP: 300' FSL & 1650' FEL (Sec 21)
KOP: 10' FSL & 1650' FEL (Sec 21)
SHL: 100' FSL & 1205' FEL (Sec 21)
South(-)/North(+) (2500 usft/in)
West(-)/East(+) (2500 usft/in)
11250
10000
8750
7500
6250
5000
3750
2500
1250
0
-1250
-10000
-8750
-7500
-6250
-5000
-3750
-2500
-1250
0
1250
2500
3750
5000
6250
7500


SHL: 100' FSL & 1205' FEL (Sec 21)
KOP: 10' FSL & 1650' FEL (Sec 21)
LP: 485' FSL & 1650' FEL (Sec 21)
BHL: 330' FNL & 1650' FEL (Sec 16)
FTP: 300' FSL & 1650' FEL (Sec 21)
PPP2: 2668' FNL & 1650' FEL (Sec 21)
True Vertical Depth (2500 usft/in)
Vertical Section at 357.41° (2500 usft/in)
0
1250
2500
3750
5000
6250
7500
8750
10000
-3750
-2500
-1250
0
1250
2500
3750
5000
6250
7500
8750
10000
11250
12500
13750

Mewbourne Oil Company

Eddy County, New Mexico NAD 83
Creedence 21/16 W0OB Fed Com #2H
Sec 21, T24S, R28E
SHL: 100' FSL & 1205' FEL, Sec 21
BHL: 330' FNL & 1650' FEL, Sec 16

Plan: Design #1

Standard Planning Report

30 March, 2020

Database:	Hobbs	**Local Co-ordinate Reference:**	Site Creedence 21/16 W0OB Fed Com #2H
Company:	Mewbourne Oil Company	**TVD Reference:**	WELL @ 3033.0usft (Original Well Elev)
Project:	Eddy County, New Mexico NAD 83	**MD Reference:**	WELL @ 3033.0usft (Original Well Elev)
Site:	Creedence 21/16 W0OB Fed Com #2H	**North Reference:**	Grid
Well:	Sec 21, T24S, R28E	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	BHL: 330' FNL & 1650' FEL, Sec 16		
Design:	Design #1		

Project	Eddy County, New Mexico NAD 83		
Map System:	US State Plane 1983	**System Datum:**	Ground Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Creedence 21/16 W0OB Fed Com #2H				
Site Position:		**Northing:**	435,223.00 usft	**Latitude:**	32.1962673
From:	Map	**Easting:**	617,229.00 usft	**Longitude:**	-104.0879889
Position Uncertainty:	0.0 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.13 °

Well	Sec 21, T24S, R28E					
Well Position	**+N/-S**	0.0 usft	**Northing:**	435,223.00 usft	**Latitude:**	32.1962673
	+E/-W	0.0 usft	**Easting:**	617,229.00 usft	**Longitude:**	-104.0879889
Position Uncertainty		0.0 usft	**Wellhead Elevation:**	3,033.0 usft	**Ground Level:**	3,005.0 usft

Wellbore	BHL: 330' FNL & 1650' FEL, Sec 16				
Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	IGRF2010	12/31/2014	7.38	59.99	48,167

Design	Design #1				
Audit Notes:					
Version:		**Phase:**	PROTOTYPE	**Tie On Depth:**	0.0
Vertical Section:	**Depth From (TVD) (usft)**	**+N/-S (usft)**	**+E/-W (usft)**	**Direction (°)**	
	0.0	0.0	0.0	357.41	

Plan Sections

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
400.0	0.00	0.00	400.0	0.0	0.0	0.00	0.00	0.00	0.00	
604.9	3.07	257.92	604.8	-1.1	-5.4	1.50	1.50	0.00	257.92	
8,868.2	3.07	257.92	8,856.2	-93.9	-438.6	0.00	0.00	0.00	0.00	
9,073.1	0.00	0.00	9,061.0	-95.0	-444.0	1.50	-1.50	0.00	180.00	KOP: 10' FSL & 1650'
9,825.5	90.38	359.89	9,538.0	385.2	-444.9	12.01	12.01	0.00	-0.11	
19,694.6	90.38	359.89	9,473.0	10,254.0	-464.0	0.00	0.00	0.00	0.00	BHL: 330' FNL & 165(

Database:	Hobbs	**Local Co-ordinate Reference:**	Site Creedence 21/16 W0OB Fed Com #2H
Company:	Mewbourne Oil Company	**TVD Reference:**	WELL @ 3033.0usft (Original Well Elev)
Project:	Eddy County, New Mexico NAD 83	**MD Reference:**	WELL @ 3033.0usft (Original Well Elev)
Site:	Creedence 21/16 W0OB Fed Com #2H	**North Reference:**	Grid
Well:	Sec 21, T24S, R28E	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	BHL: 330' FNL & 1650' FEL, Sec 16		
Design:	Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
SHL: 100' FSL & 1205' FEL (Sec 21)									
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	1.50	257.92	500.0	-0.3	-1.3	-0.2	1.50	1.50	0.00
600.0	3.00	257.92	599.9	-1.1	-5.1	-0.9	1.50	1.50	0.00
604.9	3.07	257.92	604.8	-1.1	-5.4	-0.9	1.50	1.50	0.00
700.0	3.07	257.92	699.8	-2.2	-10.4	-1.7	0.00	0.00	0.00
800.0	3.07	257.92	799.6	-3.3	-15.6	-2.6	0.00	0.00	0.00
900.0	3.07	257.92	899.5	-4.5	-20.8	-3.5	0.00	0.00	0.00
1,000.0	3.07	257.92	999.3	-5.6	-26.1	-4.4	0.00	0.00	0.00
1,100.0	3.07	257.92	1,099.2	-6.7	-31.3	-5.3	0.00	0.00	0.00
1,200.0	3.07	257.92	1,199.0	-7.8	-36.6	-6.2	0.00	0.00	0.00
1,300.0	3.07	257.92	1,298.9	-8.9	-41.8	-7.0	0.00	0.00	0.00
1,400.0	3.07	257.92	1,398.8	-10.1	-47.1	-7.9	0.00	0.00	0.00
1,500.0	3.07	257.92	1,498.6	-11.2	-52.3	-8.8	0.00	0.00	0.00
1,600.0	3.07	257.92	1,598.5	-12.3	-57.5	-9.7	0.00	0.00	0.00
1,700.0	3.07	257.92	1,698.3	-13.4	-62.8	-10.6	0.00	0.00	0.00
1,800.0	3.07	257.92	1,798.2	-14.6	-68.0	-11.5	0.00	0.00	0.00
1,900.0	3.07	257.92	1,898.0	-15.7	-73.3	-12.4	0.00	0.00	0.00
2,000.0	3.07	257.92	1,997.9	-16.8	-78.5	-13.2	0.00	0.00	0.00
2,100.0	3.07	257.92	2,097.8	-17.9	-83.8	-14.1	0.00	0.00	0.00
2,200.0	3.07	257.92	2,197.6	-19.0	-89.0	-15.0	0.00	0.00	0.00
2,300.0	3.07	257.92	2,297.5	-20.2	-94.2	-15.9	0.00	0.00	0.00
2,400.0	3.07	257.92	2,397.3	-21.3	-99.5	-16.8	0.00	0.00	0.00
2,500.0	3.07	257.92	2,497.2	-22.4	-104.7	-17.7	0.00	0.00	0.00
2,600.0	3.07	257.92	2,597.0	-23.5	-110.0	-18.5	0.00	0.00	0.00
2,700.0	3.07	257.92	2,696.9	-24.7	-115.2	-19.4	0.00	0.00	0.00
2,800.0	3.07	257.92	2,796.7	-25.8	-120.5	-20.3	0.00	0.00	0.00
2,900.0	3.07	257.92	2,896.6	-26.9	-125.7	-21.2	0.00	0.00	0.00
3,000.0	3.07	257.92	2,996.5	-28.0	-131.0	-22.1	0.00	0.00	0.00
3,100.0	3.07	257.92	3,096.3	-29.1	-136.2	-23.0	0.00	0.00	0.00
3,200.0	3.07	257.92	3,196.2	-30.3	-141.4	-23.8	0.00	0.00	0.00
3,300.0	3.07	257.92	3,296.0	-31.4	-146.7	-24.7	0.00	0.00	0.00
3,400.0	3.07	257.92	3,395.9	-32.5	-151.9	-25.6	0.00	0.00	0.00
3,500.0	3.07	257.92	3,495.7	-33.6	-157.2	-26.5	0.00	0.00	0.00
3,600.0	3.07	257.92	3,595.6	-34.7	-162.4	-27.4	0.00	0.00	0.00
3,700.0	3.07	257.92	3,695.4	-35.9	-167.7	-28.3	0.00	0.00	0.00
3,800.0	3.07	257.92	3,795.3	-37.0	-172.9	-29.1	0.00	0.00	0.00
3,900.0	3.07	257.92	3,895.2	-38.1	-178.1	-30.0	0.00	0.00	0.00
4,000.0	3.07	257.92	3,995.0	-39.2	-183.4	-30.9	0.00	0.00	0.00
4,100.0	3.07	257.92	4,094.9	-40.4	-188.6	-31.8	0.00	0.00	0.00
4,200.0	3.07	257.92	4,194.7	-41.5	-193.9	-32.7	0.00	0.00	0.00
4,300.0	3.07	257.92	4,294.6	-42.6	-199.1	-33.6	0.00	0.00	0.00
4,400.0	3.07	257.92	4,394.4	-43.7	-204.4	-34.4	0.00	0.00	0.00
4,500.0	3.07	257.92	4,494.3	-44.8	-209.6	-35.3	0.00	0.00	0.00
4,600.0	3.07	257.92	4,594.2	-46.0	-214.8	-36.2	0.00	0.00	0.00
4,700.0	3.07	257.92	4,694.0	-47.1	-220.1	-37.1	0.00	0.00	0.00
4,800.0	3.07	257.92	4,793.9	-48.2	-225.3	-38.0	0.00	0.00	0.00
4,900.0	3.07	257.92	4,893.7	-49.3	-230.6	-38.9	0.00	0.00	0.00
5,000.0	3.07	257.92	4,993.6	-50.5	-235.8	-39.7	0.00	0.00	0.00
5,100.0	3.07	257.92	5,093.4	-51.6	-241.1	-40.6	0.00	0.00	0.00

Database:	Hobbs	**Local Co-ordinate Reference:**	Site Creedence 21/16 W0OB Fed Com #2H
Company:	Mewbourne Oil Company	**TVD Reference:**	WELL @ 3033.0usft (Original Well Elev)
Project:	Eddy County, New Mexico NAD 83	**MD Reference:**	WELL @ 3033.0usft (Original Well Elev)
Site:	Creedence 21/16 W0OB Fed Com #2H	**North Reference:**	Grid
Well:	Sec 21, T24S, R28E	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	BHL: 330' FNL & 1650' FEL, Sec 16		
Design:	Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,200.0	3.07	257.92	5,193.3	-52.7	-246.3	-41.5	0.00	0.00	0.00
5,300.0	3.07	257.92	5,293.1	-53.8	-251.5	-42.4	0.00	0.00	0.00
5,400.0	3.07	257.92	5,393.0	-54.9	-256.8	-43.3	0.00	0.00	0.00
5,500.0	3.07	257.92	5,492.9	-56.1	-262.0	-44.2	0.00	0.00	0.00
5,600.0	3.07	257.92	5,592.7	-57.2	-267.3	-45.0	0.00	0.00	0.00
5,700.0	3.07	257.92	5,692.6	-58.3	-272.5	-45.9	0.00	0.00	0.00
5,800.0	3.07	257.92	5,792.4	-59.4	-277.8	-46.8	0.00	0.00	0.00
5,900.0	3.07	257.92	5,892.3	-60.6	-283.0	-47.7	0.00	0.00	0.00
6,000.0	3.07	257.92	5,992.1	-61.7	-288.2	-48.6	0.00	0.00	0.00
6,100.0	3.07	257.92	6,092.0	-62.8	-293.5	-49.5	0.00	0.00	0.00
6,200.0	3.07	257.92	6,191.9	-63.9	-298.7	-50.3	0.00	0.00	0.00
6,300.0	3.07	257.92	6,291.7	-65.0	-304.0	-51.2	0.00	0.00	0.00
6,400.0	3.07	257.92	6,391.6	-66.2	-309.2	-52.1	0.00	0.00	0.00
6,500.0	3.07	257.92	6,491.4	-67.3	-314.5	-53.0	0.00	0.00	0.00
6,600.0	3.07	257.92	6,591.3	-68.4	-319.7	-53.9	0.00	0.00	0.00
6,700.0	3.07	257.92	6,691.1	-69.5	-324.9	-54.8	0.00	0.00	0.00
6,800.0	3.07	257.92	6,791.0	-70.6	-330.2	-55.7	0.00	0.00	0.00
6,900.0	3.07	257.92	6,890.8	-71.8	-335.4	-56.5	0.00	0.00	0.00
7,000.0	3.07	257.92	6,990.7	-72.9	-340.7	-57.4	0.00	0.00	0.00
7,100.0	3.07	257.92	7,090.6	-74.0	-345.9	-58.3	0.00	0.00	0.00
7,200.0	3.07	257.92	7,190.4	-75.1	-351.2	-59.2	0.00	0.00	0.00
7,300.0	3.07	257.92	7,290.3	-76.3	-356.4	-60.1	0.00	0.00	0.00
7,400.0	3.07	257.92	7,390.1	-77.4	-361.6	-61.0	0.00	0.00	0.00
7,500.0	3.07	257.92	7,490.0	-78.5	-366.9	-61.8	0.00	0.00	0.00
7,600.0	3.07	257.92	7,589.8	-79.6	-372.1	-62.7	0.00	0.00	0.00
7,700.0	3.07	257.92	7,689.7	-80.7	-377.4	-63.6	0.00	0.00	0.00
7,800.0	3.07	257.92	7,789.6	-81.9	-382.6	-64.5	0.00	0.00	0.00
7,900.0	3.07	257.92	7,889.4	-83.0	-387.9	-65.4	0.00	0.00	0.00
8,000.0	3.07	257.92	7,989.3	-84.1	-393.1	-66.3	0.00	0.00	0.00
8,100.0	3.07	257.92	8,089.1	-85.2	-398.4	-67.1	0.00	0.00	0.00
8,200.0	3.07	257.92	8,189.0	-86.4	-403.6	-68.0	0.00	0.00	0.00
8,300.0	3.07	257.92	8,288.8	-87.5	-408.8	-68.9	0.00	0.00	0.00
8,400.0	3.07	257.92	8,388.7	-88.6	-414.1	-69.8	0.00	0.00	0.00
8,500.0	3.07	257.92	8,488.5	-89.7	-419.3	-70.7	0.00	0.00	0.00
8,600.0	3.07	257.92	8,588.4	-90.8	-424.6	-71.6	0.00	0.00	0.00
8,700.0	3.07	257.92	8,688.3	-92.0	-429.8	-72.4	0.00	0.00	0.00
8,800.0	3.07	257.92	8,788.1	-93.1	-435.1	-73.3	0.00	0.00	0.00
8,868.2	3.07	257.92	8,856.2	-93.9	-438.6	-73.9	0.00	0.00	0.00
8,900.0	2.60	257.92	8,888.0	-94.2	-440.2	-74.2	1.50	-1.50	0.00
9,000.0	1.10	257.92	8,987.9	-94.9	-443.3	-74.7	1.50	-1.50	0.00
9,073.1	0.00	0.00	9,061.0	-95.0	-444.0	-74.8	1.50	-1.50	0.00
KOP: 10' FSL & 1650' FEL (Sec 21)									
9,100.0	3.23	359.89	9,087.9	-94.2	-444.0	-74.1	12.01	12.01	0.00
9,200.0	15.24	359.89	9,186.4	-78.2	-444.0	-58.1	12.01	12.01	0.00
9,300.0	27.26	359.89	9,279.5	-42.0	-444.1	-21.9	12.01	12.01	0.00
9,400.0	39.27	359.89	9,362.9	12.7	-444.2	32.8	12.01	12.01	0.00
9,500.0	51.28	359.89	9,433.2	83.6	-444.3	103.6	12.01	12.01	0.00
9,600.0	63.29	359.89	9,487.1	167.6	-444.5	187.5	12.01	12.01	0.00
9,661.3	70.66	359.89	9,511.1	224.0	-444.6	243.9	12.01	12.01	0.00
FTP: 300' FSL & 1650' FEL (Sec 21)									
9,700.0	75.30	359.89	9,522.4	261.0	-444.7	280.8	12.01	12.01	0.00
9,800.0	87.31	359.89	9,537.5	359.6	-444.9	379.4	12.01	12.01	0.00
9,825.6	90.38	359.89	9,538.0	385.2	-444.9	404.9	11.99	11.99	0.00

Database:	Hobbs	**Local Co-ordinate Reference:**	Site Creedence 21/16 W0OB Fed Com #2H
Company:	Mewbourne Oil Company	**TVD Reference:**	WELL @ 3033.0usft (Original Well Elev)
Project:	Eddy County, New Mexico NAD 83	**MD Reference:**	WELL @ 3033.0usft (Original Well Elev)
Site:	Creedence 21/16 W0OB Fed Com #2H	**North Reference:**	Grid
Well:	Sec 21, T24S, R28E	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	BHL: 330' FNL & 1650' FEL, Sec 16		
Design:	Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
LP: 485' FSL & 1650' FEL (Sec 21)									
9,900.0	90.38	359.89	9,537.5	459.6	-445.1	479.3	0.00	0.00	0.00
10,000.0	90.38	359.89	9,536.9	559.6	-445.3	579.2	0.00	0.00	0.00
10,100.0	90.38	359.89	9,536.2	659.6	-445.5	679.1	0.00	0.00	0.00
10,200.0	90.38	359.89	9,535.5	759.6	-445.7	779.0	0.00	0.00	0.00
10,300.0	90.38	359.89	9,534.9	859.6	-445.8	878.9	0.00	0.00	0.00
10,400.0	90.38	359.89	9,534.2	959.6	-446.0	978.8	0.00	0.00	0.00
10,500.0	90.38	359.89	9,533.6	1,059.6	-446.2	1,078.7	0.00	0.00	0.00
10,600.0	90.38	359.89	9,532.9	1,159.6	-446.4	1,178.6	0.00	0.00	0.00
10,700.0	90.38	359.89	9,532.2	1,259.6	-446.6	1,278.5	0.00	0.00	0.00
10,800.0	90.38	359.89	9,531.6	1,359.6	-446.8	1,378.4	0.00	0.00	0.00
10,900.0	90.38	359.89	9,530.9	1,459.6	-447.0	1,478.3	0.00	0.00	0.00
11,000.0	90.38	359.89	9,530.3	1,559.6	-447.2	1,578.2	0.00	0.00	0.00
11,100.0	90.38	359.89	9,529.6	1,659.6	-447.4	1,678.1	0.00	0.00	0.00
11,200.0	90.38	359.89	9,528.9	1,759.6	-447.6	1,778.0	0.00	0.00	0.00
11,300.0	90.38	359.89	9,528.3	1,859.6	-447.8	1,877.9	0.00	0.00	0.00
11,400.0	90.38	359.89	9,527.6	1,959.6	-448.0	1,977.9	0.00	0.00	0.00
11,500.0	90.38	359.89	9,527.0	2,059.6	-448.2	2,077.8	0.00	0.00	0.00
11,600.0	90.38	359.89	9,526.3	2,159.6	-448.4	2,177.7	0.00	0.00	0.00
11,700.0	90.38	359.89	9,525.7	2,259.6	-448.6	2,277.6	0.00	0.00	0.00
11,800.0	90.38	359.89	9,525.0	2,359.6	-448.7	2,377.5	0.00	0.00	0.00
11,900.0	90.38	359.89	9,524.3	2,459.6	-448.9	2,477.4	0.00	0.00	0.00
12,000.0	90.38	359.89	9,523.7	2,559.6	-449.1	2,577.3	0.00	0.00	0.00
12,018.4	90.38	359.89	9,523.6	2,578.0	-449.2	2,595.7	0.00	0.00	0.00
PPP2: 2668' FNL & 1650' FEL (Sec 21)									
12,100.0	90.38	359.89	9,523.0	2,659.6	-449.3	2,677.2	0.00	0.00	0.00
12,200.0	90.38	359.89	9,522.4	2,759.6	-449.5	2,777.1	0.00	0.00	0.00
12,300.0	90.38	359.89	9,521.7	2,859.6	-449.7	2,877.0	0.00	0.00	0.00
12,400.0	90.38	359.89	9,521.0	2,959.6	-449.9	2,976.9	0.00	0.00	0.00
12,500.0	90.38	359.89	9,520.4	3,059.6	-450.1	3,076.8	0.00	0.00	0.00
12,600.0	90.38	359.89	9,519.7	3,159.6	-450.3	3,176.7	0.00	0.00	0.00
12,700.0	90.38	359.89	9,519.1	3,259.6	-450.5	3,276.6	0.00	0.00	0.00
12,800.0	90.38	359.89	9,518.4	3,359.6	-450.7	3,376.5	0.00	0.00	0.00
12,900.0	90.38	359.89	9,517.8	3,459.6	-450.9	3,476.4	0.00	0.00	0.00
13,000.0	90.38	359.89	9,517.1	3,559.6	-451.1	3,576.3	0.00	0.00	0.00
13,100.0	90.38	359.89	9,516.4	3,659.6	-451.3	3,676.2	0.00	0.00	0.00
13,200.0	90.38	359.89	9,515.8	3,759.6	-451.4	3,776.1	0.00	0.00	0.00
13,300.0	90.38	359.89	9,515.1	3,859.6	-451.6	3,876.0	0.00	0.00	0.00
13,400.0	90.38	359.89	9,514.5	3,959.6	-451.8	3,975.9	0.00	0.00	0.00
13,500.0	90.38	359.89	9,513.8	4,059.6	-452.0	4,075.8	0.00	0.00	0.00
13,600.0	90.38	359.89	9,513.1	4,159.6	-452.2	4,175.7	0.00	0.00	0.00
13,700.0	90.38	359.89	9,512.5	4,259.5	-452.4	4,275.6	0.00	0.00	0.00
13,800.0	90.38	359.89	9,511.8	4,359.5	-452.6	4,375.5	0.00	0.00	0.00
13,900.0	90.38	359.89	9,511.2	4,459.5	-452.8	4,475.5	0.00	0.00	0.00
14,000.0	90.38	359.89	9,510.5	4,559.5	-453.0	4,575.4	0.00	0.00	0.00
14,100.0	90.38	359.89	9,509.8	4,659.5	-453.2	4,675.3	0.00	0.00	0.00
14,200.0	90.38	359.89	9,509.2	4,759.5	-453.4	4,775.2	0.00	0.00	0.00
14,300.0	90.38	359.89	9,508.5	4,859.5	-453.6	4,875.1	0.00	0.00	0.00
14,400.0	90.38	359.89	9,507.9	4,959.5	-453.8	4,975.0	0.00	0.00	0.00
14,500.0	90.38	359.89	9,507.2	5,059.5	-454.0	5,074.9	0.00	0.00	0.00
14,600.0	90.38	359.89	9,506.6	5,159.5	-454.2	5,174.8	0.00	0.00	0.00
14,700.0	90.38	359.89	9,505.9	5,259.5	-454.3	5,274.7	0.00	0.00	0.00
14,800.0	90.38	359.89	9,505.2	5,359.5	-454.5	5,374.6	0.00	0.00	0.00

Database:	Hobbs	**Local Co-ordinate Reference:**	Site Creedence 21/16 W0OB Fed Com #2H
Company:	Mewbourne Oil Company	**TVD Reference:**	WELL @ 3033.0usft (Original Well Elev)
Project:	Eddy County, New Mexico NAD 83	**MD Reference:**	WELL @ 3033.0usft (Original Well Elev)
Site:	Creedence 21/16 W0OB Fed Com #2H	**North Reference:**	Grid
Well:	Sec 21, T24S, R28E	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	BHL: 330' FNL & 1650' FEL, Sec 16		
Design:	Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
14,900.0	90.38	359.89	9,504.6	5,459.5	-454.7	5,474.5	0.00	0.00	0.00
15,000.0	90.38	359.89	9,503.9	5,559.5	-454.9	5,574.4	0.00	0.00	0.00
15,100.0	90.38	359.89	9,503.3	5,659.5	-455.1	5,674.3	0.00	0.00	0.00
15,200.0	90.38	359.89	9,502.6	5,759.5	-455.3	5,774.2	0.00	0.00	0.00
15,300.0	90.38	359.89	9,501.9	5,859.5	-455.5	5,874.1	0.00	0.00	0.00
15,400.0	90.38	359.89	9,501.3	5,959.5	-455.7	5,974.0	0.00	0.00	0.00
15,500.0	90.38	359.89	9,500.6	6,059.5	-455.9	6,073.9	0.00	0.00	0.00
15,600.0	90.38	359.89	9,500.0	6,159.5	-456.1	6,173.8	0.00	0.00	0.00
15,700.0	90.38	359.89	9,499.3	6,259.5	-456.3	6,273.7	0.00	0.00	0.00
15,800.0	90.38	359.89	9,498.7	6,359.5	-456.5	6,373.6	0.00	0.00	0.00
15,900.0	90.38	359.89	9,498.0	6,459.5	-456.7	6,473.5	0.00	0.00	0.00
16,000.0	90.38	359.89	9,497.3	6,559.5	-456.9	6,573.4	0.00	0.00	0.00
16,100.0	90.38	359.89	9,496.7	6,659.5	-457.1	6,673.3	0.00	0.00	0.00
16,200.0	90.38	359.89	9,496.0	6,759.5	-457.2	6,773.2	0.00	0.00	0.00
16,300.0	90.38	359.89	9,495.4	6,859.5	-457.4	6,873.2	0.00	0.00	0.00
16,400.0	90.38	359.89	9,494.7	6,959.5	-457.6	6,973.1	0.00	0.00	0.00
16,500.0	90.38	359.89	9,494.0	7,059.5	-457.8	7,073.0	0.00	0.00	0.00
16,600.0	90.38	359.89	9,493.4	7,159.5	-458.0	7,172.9	0.00	0.00	0.00
16,700.0	90.38	359.89	9,492.7	7,259.5	-458.2	7,272.8	0.00	0.00	0.00
16,800.0	90.38	359.89	9,492.1	7,359.5	-458.4	7,372.7	0.00	0.00	0.00
16,900.0	90.38	359.89	9,491.4	7,459.5	-458.6	7,472.6	0.00	0.00	0.00
17,000.0	90.38	359.89	9,490.7	7,559.5	-458.8	7,572.5	0.00	0.00	0.00
17,100.0	90.38	359.89	9,490.1	7,659.5	-459.0	7,672.4	0.00	0.00	0.00
17,200.0	90.38	359.89	9,489.4	7,759.5	-459.2	7,772.3	0.00	0.00	0.00
17,300.0	90.38	359.89	9,488.8	7,859.5	-459.4	7,872.2	0.00	0.00	0.00
17,400.0	90.38	359.89	9,488.1	7,959.5	-459.6	7,972.1	0.00	0.00	0.00
17,500.0	90.38	359.89	9,487.5	8,059.5	-459.8	8,072.0	0.00	0.00	0.00
17,600.0	90.38	359.89	9,486.8	8,159.5	-460.0	8,171.9	0.00	0.00	0.00
17,700.0	90.38	359.89	9,486.1	8,259.5	-460.1	8,271.8	0.00	0.00	0.00
17,800.0	90.38	359.89	9,485.5	8,359.5	-460.3	8,371.7	0.00	0.00	0.00
17,900.0	90.38	359.89	9,484.8	8,459.4	-460.5	8,471.6	0.00	0.00	0.00
18,000.0	90.38	359.89	9,484.2	8,559.4	-460.7	8,571.5	0.00	0.00	0.00
18,100.0	90.38	359.89	9,483.5	8,659.4	-460.9	8,671.4	0.00	0.00	0.00
18,200.0	90.38	359.89	9,482.8	8,759.4	-461.1	8,771.3	0.00	0.00	0.00
18,300.0	90.38	359.89	9,482.2	8,859.4	-461.3	8,871.2	0.00	0.00	0.00
18,400.0	90.38	359.89	9,481.5	8,959.4	-461.5	8,971.1	0.00	0.00	0.00
18,500.0	90.38	359.89	9,480.9	9,059.4	-461.7	9,071.0	0.00	0.00	0.00
18,600.0	90.38	359.89	9,480.2	9,159.4	-461.9	9,170.9	0.00	0.00	0.00
18,700.0	90.38	359.89	9,479.6	9,259.4	-462.1	9,270.9	0.00	0.00	0.00
18,800.0	90.38	359.89	9,478.9	9,359.4	-462.3	9,370.8	0.00	0.00	0.00
18,900.0	90.38	359.89	9,478.2	9,459.4	-462.5	9,470.7	0.00	0.00	0.00
19,000.0	90.38	359.89	9,477.6	9,559.4	-462.7	9,570.6	0.00	0.00	0.00
19,100.0	90.38	359.89	9,476.9	9,659.4	-462.9	9,670.5	0.00	0.00	0.00
19,200.0	90.38	359.89	9,476.3	9,759.4	-463.0	9,770.4	0.00	0.00	0.00
19,300.0	90.38	359.89	9,475.6	9,859.4	-463.2	9,870.3	0.00	0.00	0.00
19,400.0	90.38	359.89	9,474.9	9,959.4	-463.4	9,970.2	0.00	0.00	0.00
19,500.0	90.38	359.89	9,474.3	10,059.4	-463.6	10,070.1	0.00	0.00	0.00
19,600.0	90.38	359.89	9,473.6	10,159.4	-463.8	10,170.0	0.00	0.00	0.00
19,694.6	90.38	359.89	9,473.0	10,254.0	-464.0	10,264.5	0.00	0.00	0.00
BHL: 330' FNL & 1650' FEL (Sec 16)									

Database:	Hobbs	**Local Co-ordinate Reference:**	Site Creedence 21/16 W0OB Fed Com #2H
Company:	Mewbourne Oil Company	**TVD Reference:**	WELL @ 3033.0usft (Original Well Elev)
Project:	Eddy County, New Mexico NAD 83	**MD Reference:**	WELL @ 3033.0usft (Original Well Elev)
Site:	Creedence 21/16 W0OB Fed Com #2H	**North Reference:**	Grid
Well:	Sec 21, T24S, R28E	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	BHL: 330' FNL & 1650' FEL, Sec 16		
Design:	Design #1		

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
SHL: 100' FSL & 1205' F - plan hits target center - Point	0.00	0.00	0.0	0.0	0.0	435,223.00	617,229.00	32.1962673	-104.0879889
KOP: 10' FSL & 1650' FI - plan hits target center - Point	0.00	0.00	9,061.0	-95.0	-444.0	435,128.00	616,785.00	32.1960090	-104.0894249
BHL: 330' FNL & 1650' F - plan hits target center - Point	0.00	0.00	9,473.0	10,254.0	-464.0	445,477.00	616,765.00	32.2244573	-104.0894137
FTP: 300' FSL & 1650' F - plan hits target center - Point	0.00	0.00	9,511.1	224.0	-444.6	435,447.00	616,784.39	32.1968859	-104.0894246
PPP2: 2668' FNL & 165(- plan hits target center - Point	0.00	0.00	9,523.6	2,578.0	-449.2	437,801.00	616,779.84	32.2033568	-104.0894220
LP: 485' FSL & 1650' FE - plan hits target center - Point	0.00	0.00	9,538.0	385.2	-444.9	435,608.20	616,784.10	32.1973290	-104.0894243

Intent [X] As Drilled [ ]

API #

Operator Name:	Property Name:	Well Number
Mewbourne Oil Co.	Creedence 21/16 W0OB Fed Com	2H

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
O	21	24S	28E		10	S	1650	E	Eddy

Latitude	Longitude	NAD
32.1960090	-104.0894249	83

First Take Point (FTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
O	21	24S	28E		330	S	1650	E	Eddy

Latitude	Longitude	NAD
32.1968859	-104.0894246	83

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
B	16	24S	28E		330	N	1650	E	Eddy

Latitude	Longitude	NAD
32.2244573	-104.0894137	83

Is this well the defining well for the Horizontal Spacing Unit? [Y]

Is this well an infill well? [N]

If infill is yes please provide API if available, Operator Name and well number for Defining well for Horizontal Spacing Unit.

API #

Operator Name:	Property Name:	Well Number

KZ 06/29/2018

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Submit Original
to Appropriate
District Office

GAS CAPTURE PLAN

Date: 3-13-20

☒ Original
☐ Amended - Reason for Amendment:

Operator & OGRID No.: Mewbourne Oil Company - 14744

This Gas Capture Plan outlines actions to be taken by the Operator to reduce well/production facility flaring/venting for new completion (new drill, recomplete to new zone, re-frac) activity.

Note: Form C-129 must be submitted and approved prior to exceeding 60 days allowed by Rule (Subsection A of 19.15.18.12 NMAC).

Well(s)/Production Facility – Name of facility

The well(s) that will be located at the production facility are shown in the table below.

Well Name	API	Well Location (ULSTR)	Footages	Expected MCF/D	Flared or Vented	Comments
Creedence 21/16 W0OB Fed Com #2H		P - 21 - 24S-28E	100' FSL & 1205' FEL	0	N/A	ON LINE AFTER FRAC

Gathering System and Pipeline Notification

Well(s) will be connected to a production facility after flowback operations are complete, if gas transporter system is in place. The gas produced from production facility is dedicated to Sendero Midstream and will be connected to Sendero Midstream low/high pressure gathering system located in Eddy County, New Mexico. It will require _____' of pipeline to connect the facility to low/high pressure gathering system. Mewbourne Oil Company provides (periodically) to Sendero Midstream a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, Mewbourne Oil Company and Sendero Midstream have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at Sendero Midstream Processing Plant located in Sec. 31, Twn. 23S, Rng. 28E, Lea County, New Mexico. The actual flow of the gas will be based on compression operating parameters and gathering system pressures.

Flowback Strategy

After the fracture treatment/completion operations, well(s) will be produced to temporary production tanks and gas will be flared or vented. During flowback, the fluids and sand content will be monitored. When the produced fluids contain minimal sand, the wells will be turned to production facilities. Gas sales should start as soon as the wells start flowing through the production facilities, unless there are operational issues on Sendero Midstream system at that time. Based on current information, it is Operator's belief the system can take this gas upon completion of the well(s).

Safety requirements during cleanout operations from the use of underbalanced air cleanout systems may necessitate that sand and non-pipeline quality gas be vented and/or flared rather than sold on a temporary basis.

Alternatives to Reduce Flaring

Below are alternatives considered from a conceptual standpoint to reduce the amount of gas flared.

- Power Generation – On lease
  - Only a portion of gas is consumed operating the generator, remainder of gas will be flared
- Compressed Natural Gas – On lease
  - Gas flared would be minimal, but might be uneconomical to operate when gas volume declines
- NGL Removal – On lease
  - Plants are expensive, residue gas is still flared, and uneconomical to operate when gas volume declines