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.: NMNM0381970

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.: BLACK SHEEP 4/33 B2NC FED COM [331607] 2H

2. Name of Operator: MEWBOURNE OIL COMPANY [14744]

9. API Well No.: 30-025-49436

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

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

10. Field and Pool, or Exploratory: GRAMA RIDGE/BONE SPRING [28430]

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*

At surface: SWSW / 205 FSL / 740 FWL / LAT 32.4140354 / LONG -103.481092

At proposed prod. zone: NENW / 100 FNL / 2200 FWL / LAT 32.4423497 / LONG -103.4762943

11. Sec., T. R. M. or Blk. and Survey or Area: SEC 4/T22S/R34E/NMP

14. Distance in miles and direction from nearest town or post office*: 20 miles

12. County or Parish: LEA

13. State: NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any): 185 feet

16. No of acres in lease:

17. Spacing Unit dedicated to this well: 320.0

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.: 1012 feet

19. Proposed Depth: 10747 feet / 20789 feet

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

21. Elevations (Show whether DF, KDB, RT, GL, etc.): 3610 feet

22. Approximate date work will start*: 06/06/2021

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	04/15/2021

Title: Regulatory

Approved by *(Signature)*	Name *(Printed/Typed)*	Date
(Electronic Submission)	Cody Layton / Ph: (575) 234-5959	09/27/2021

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.

NGMP Rec 09/30/2021

SL

APPROVED WITH CONDITIONS

KZ
10/05/2021

(Continued on page 2)

*(Instructions on page 2)

Approval Date: 09/27/2021

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

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

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number	2 Pool Code	3 Pool Name
30-025-49436	28430	GRAMA RIDGE; BONE SPRING

4 Property Code	5 Property Name	6 Well Number
331607	BLACK SHEEP 4/33 B2NC FED COM	2H

7 OGRID NO.	8 Operator Name	9 Elevation
14744	MEWBOURNE OIL COMPANY	3610'

10 Surface Location

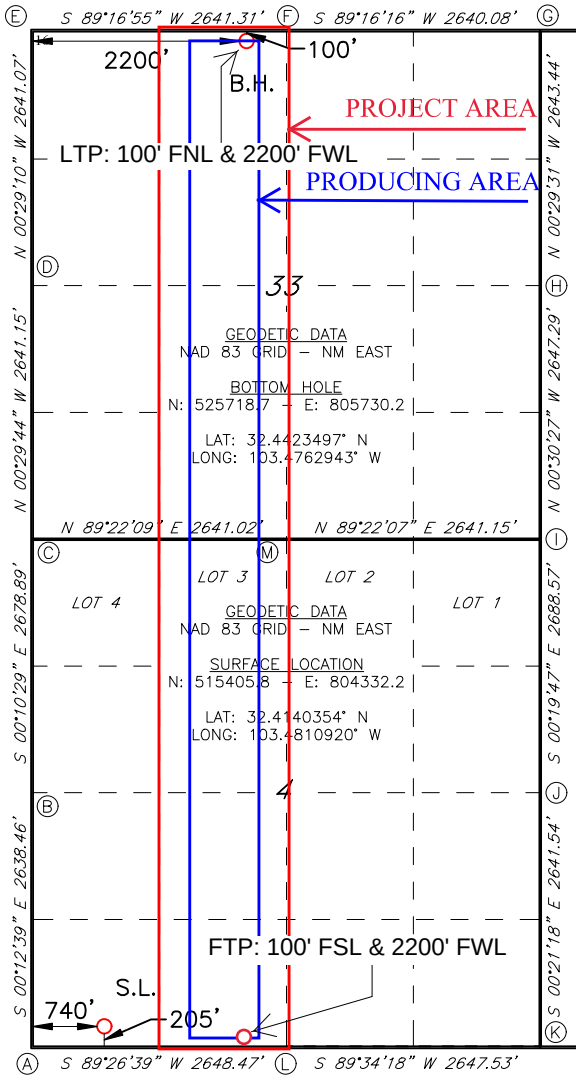
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet From the	East/West line	County
M	4	22S	34E		205	SOUTH	740	WEST	LEA

11 Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	33	21S	34E		100	NORTH	2200	WEST	LEA

12 Dedicated Acres	13 Joint or Infill	14 Consolidation Code	15 Order No.
320			

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



CORNER DATA
NAD 83 GRID – NM EAST

A: FOUND BRASS CAP "1913"
N: 515193.7 – E: 803593.0

B: FOUND BRASS CAP "1913"
N: 517831.6 – E: 803583.3

C: FOUND BRASS CAP "1913"
N: 520510.0 – E: 803575.1

D: FOUND BRASS CAP "1913"
N: 523150.6 – E: 803552.3

E: FOUND BRASS CAP "1913"
N: 525791.1 – E: 803529.9

F: FOUND BRASS CAP "1913"
N: 525824.2 – E: 806170.5

G: FOUND BRASS CAP "1913"
N: 525857.8 – E: 808809.9

H: FOUND BRASS CAP "1913"
N: 523214.9 – E: 808832.6

I: FOUND BRASS CAP "1913"
N: 520568.2 – E: 808856.0

J: FOUND BRASS CAP "1913"
N: 517880.2 – E: 808871.5

K: FOUND BRASS CAP "1913"
N: 515239.1 – E: 808887.9

L: FOUND BRASS CAP "1913"
N: 515219.3 – E: 806240.9

M: FOUND BRASS CAP "1913"
N: 520539.1 – E: 806215.5

17 OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Bradley Bishop 4-8-21
Signature Date

BRADLEY BISHOP
Printed Name

BBISHOP@MEWBOURNE.COM
E-mail Address

18 SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

03-15-2021
Date of Survey

Signature and Seal of Professional Surveyor:

ROBERT M. HOWETT NEW MEXICO 19680 PROFESSIONAL SURVEYOR

19680
Certificate Number

Job No: LS21030224

State of New Mexico
Energy, Minerals and Natural Resources Department

Submit Electronically
Via E-permitting

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

NATURAL GAS MANAGEMENT PLAN

This Natural Gas Management Plan must be submitted with each Application for Permit to Drill (APD) for a new or recompleted well.

Section 1 – Plan Description
Effective May 25, 2021

I. Operator: Mewbourne Oil Co. **OGRID:** 14744 **Date:** 8/13/21

II. Type: ☒ Original ☐ Amendment due to ☐ 19.15.27.9.D(6)(a) NMAC ☐ 19.15.27.9.D(6)(b) NMAC ☐ Other.

If Other, please describe: _____

III. Well(s): Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
Black Sheep 4/33 B2NC Fed Com 2H	30-025-49436	M 4 22S 34E	205' FSL x 740' FWL	2000	3700	2200

IV. Central Delivery Point Name: Black Sheep 4/33 B2NC Fed Com 2H [See 19.15.27.9(D)(1) NMAC]

V. Anticipated Schedule: Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
Black Sheep 4/33 B2NC Fed Com 2H	30-025-49436	10/13/21	11/13/21	12/13/21	12/28/21	12/28/21

VI. Separation Equipment: ☒ Attach a complete description of how Operator will size separation equipment to optimize gas capture.

VII. Operational Practices: ☒ Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F of 19.15.27.8 NMAC.

VIII. Best Management Practices: ☒ Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance.

Section 2 – Enhanced Plan
EFFECTIVE APRIL 1, 2022

Beginning April 1, 2022, an operator that is not in compliance with its statewide natural gas capture requirement for the applicable reporting area must complete this section.

☐ Operator certifies that it is not required to complete this section because Operator is in compliance with its statewide natural gas capture requirement for the applicable reporting area.

IX. Anticipated Natural Gas Production:

Well	API	Anticipated Average Natural Gas Rate MCF/D	Anticipated Volume of Natural Gas for the First Year MCF

X. Natural Gas Gathering System (NGGS):

Operator	System	ULSTR of Tie-in	Anticipated Gathering Start Date	Available Maximum Daily Capacity of System Segment Tie-in

XI. Map. ☐ Attach an accurate and legible map depicting the location of the well(s), the anticipated pipeline route(s) connecting the production operations to the existing or planned interconnect of the natural gas gathering system(s), and the maximum daily capacity of the segment or portion of the natural gas gathering system(s) to which the well(s) will be connected.

XII. Line Capacity. The natural gas gathering system ☐ will ☐ will not have capacity to gather 100% of the anticipated natural gas production volume from the well prior to the date of first production.

XIII. Line Pressure. Operator ☐ does ☐ does not anticipate that its existing well(s) connected to the same segment, or portion, of the natural gas gathering system(s) described above will continue to meet anticipated increases in line pressure caused by the new well(s).

☐ Attach Operator's plan to manage production in response to the increased line pressure.

XIV. Confidentiality: ☐ Operator asserts confidentiality pursuant to Section 71-2-8 NMSA 1978 for the information provided in Section 2 as provided in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and attaches a full description of the specific information for which confidentiality is asserted and the basis for such assertion.

Section 3 - Certifications

Effective May 25, 2021

Operator certifies that, after reasonable inquiry and based on the available information at the time of submittal:

☒ Operator will be able to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system; or

☐ Operator will not be able to connect to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system. ***If Operator checks this box, Operator will select one of the following:***

Well Shut-In. ☐ Operator will shut-in and not produce the well until it submits the certification required by Paragraph (4) of Subsection D of 19.15.27.9 NMAC; or

Venting and Flaring Plan. ☐ Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential alternative beneficial uses for the natural gas until a natural gas gathering system is available, including:

- **(a)** power generation on lease;
- **(b)** power generation for grid;
- **(c)** compression on lease;
- **(d)** liquids removal on lease;
- **(e)** reinjection for underground storage;
- **(f)** reinjection for temporary storage;
- **(g)** reinjection for enhanced oil recovery;
- **(h)** fuel cell production; and
- **(i)** other alternative beneficial uses approved by the division.

Section 4 - Notices

1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:

(a) Operator becomes aware that the natural gas gathering system it planned to connect the well(s) to has become unavailable or will not have capacity to transport one hundred percent of the production from the well(s), no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised venting and flaring plan containing the information specified in Paragraph (5) of Subsection D of 19.15.27.9 NMAC; or

(b) Operator becomes aware that it has, cumulatively for the year, become out of compliance with its baseline natural gas capture rate or natural gas capture requirement, no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised Natural Gas Management Plan for each well it plans to spud during the next 90 days containing the information specified in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and shall file an update for each Natural Gas Management Plan until Operator is back in compliance with its baseline natural gas capture rate or natural gas capture requirement.

2. OCD may deny or conditionally approve an APD if Operator does not make a certification, fails to submit an adequate venting and flaring plan which includes alternative beneficial uses for the anticipated volume of natural gas produced, or if OCD determines that Operator will not have adequate natural gas takeaway capacity at the time a well will be spud.

Mewbourne Oil Company

Natural Gas Management Plan – Attachment

VI. Separation equipment will be sized by construction engineering staff based on stated manufacturer daily throughput capacities and anticipated daily production rates to ensure adequate capacity. Closed vent system piping, compression needs, and VRUs will be sized utilizing ProMax modelling software to ensure adequate capacity for anticipated production volumes and conditions.

VII. Mewbourne Oil Company (MOC) will take following actions to comply with the regulations listed in 19.15.27.8 :

A. MOC will maximize the recovery of natural gas by minimizing the waste, as defined by 19.15.2 NMAC, of natural gas through venting and flaring. MOC will ensure that well(s) will be connected to a natural gas gathering system with sufficient capacity to transport natural gas. If there is no adequate takeaway for the gas, well(s) will be shut in until the natural gas gathering system is available.

B. All drilling operations will be equipped with a rig flare located at least 100 ft from the nearest surface hole. Rig flare will be utilized to combust any natural gas that is brought to surface during normal drilling operations. In the case of emergency venting or flaring the volumes will be estimated and reported appropriately.

C. During completion operations any natural gas brought to surface will be flared. Immediately following the finish of completion operations, all well flow will be directed to permanent separation equipment. Produced natural gas from separation equipment will be sent to sales. It is not anticipated that gas will not meet pipeline standards. However, if natural gas does not meet gathering pipeline quality specifications, MOC will flare the natural gas for 60 days or until the natural gas meets the pipeline quality specifications, whichever is sooner. MOC will ensure that the flare is sized properly and is equipped with automatic igniter or continuous pilot. The gas sample will analyzed twice per week and the gas will be routed into a gathering system as soon as pipeline specifications are met.

D. Natural gas will not be flared with the exceptions and provisions listed in the 19.15.27.8 D.(1) through (4). If there is no adequate takeaway for the separator gas, well(s) will be shut in until the natural gas gathering system is available with exception of emergency or malfunction situations. Venting and/or flaring volumes will be estimated and reported appropriately.

E. MOC will comply with the performance standards requirements and provisions listed in 19.15.27.8 E.(1) through (8). All equipment will be designed and sized to handle maximum anticipated pressures and throughputs in order to minimize the waste. Production storage tanks constructed after May 25, 2021 will be equipped with automatic gauging system. Flares constructed after May 25, 2021 will be equipped with automatic igniter or continuous pilot. Flares will be located at least 100' from the well and storage tanks unless otherwise approved by the division. MOC will conduct AVO inspections as described in 19.15.27.8 E (5) (a) with frequencies specified in 19.15.27.8 E (5) (b) and (c). All emergencies will be resolved as quickly and safely as feasible to minimize waste.

F. The volume of natural gas that is vented or flared as the result of malfunction or emergency during drilling and completions operations will be estimated. The volume of natural gas that is vented, flared or beneficially used during production operations, will be measured or estimated. MOC will install equipment to measure

the volume of natural gas flared from existing process piping or a flowline piped from equipment such as high pressure separators, heater treaters, or vapor recovery units associated with a well or facility associated with a well authorized by an APD issued after May 25, 2021 that has an average daily production greater than 60 Mcf/day. If metering is not practicable due to circumstances such as low flow rate or low pressureventing and flaring, MOC will estimate the volume of vented or flared natural gas. Measuring equipment will conform to industry standards and will not be designed or equipped with a manifold that allows thediversion of natural gas around the metering element except for the sole purpose of inspecting and servicing the measurement equipment.

VIII. For maintenance activities involving production equipment and compression, venting will be limited to the depressurization of the subject equipment to ensure safe working conditions. For maintenance of production and compression equipment the associated producing wells will be shut in to eliminate venting. For maintenance of VRUs all gas normally routed to the VRU will be routed to flare to eliminate venting.

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I certify that, after reasonable inquiry, the statements in and attached to this Natural Gas Management Plan are true and correct to the best of my knowledge and acknowledge that a false statement may be subject to civil and criminal penalties under the Oil and Gas Act.

Signature:	Bradley Bishop
Printed Name:	BRADLEY BISHOP
Title:	REGULATORY MANAGER
E-mail Address:	BBISHOP@MEWBOURNE.COM
Date:	8/13/21
Phone:	575-393-5905

OIL CONSERVATION DIVISION
(Only applicable when submitted as a standalone form)

Approved By:	
Title:	
Approval Date:	
Conditions of Approval:	

Additional Operator Remarks

Location of Well

0. SHL: SWSW / 205 FSL / 740 FWL / TWSP: 22S / RANGE: 34E / SECTION: 4 / LAT: 32.4140354 / LONG: -103.481092 (TVD: 27 feet, MD: 27 feet)

PPP: SESW / 0 FSL / 2200 FWL / TWSP: 21S / RANGE: 34E / SECTION: 33 / LAT: 32.4280989 / LONG: -103.4763288 (TVD: 10562 feet, MD: 15600 feet)

PPP: SENW / 2679 FNL / 2200 FWL / TWSP: 22S / RANGE: 34E / SECTION: 4 / LAT: 32.420727 / LONG: -103.4763464 (TVD: 10466 feet, MD: 12916 feet)

PPP: SESW / 100 FSL / 2200 FWL / TWSP: 22S / RANGE: 34E / SECTION: 4 / LAT: 32.4137537 / LONG: -103.4763629 (TVD: 10127 feet, MD: 10286 feet)

BHL: NENW / 100 FNL / 2200 FWL / TWSP: 21S / RANGE: 34E / SECTION: 33 / LAT: 32.4423497 / LONG: -103.4762943 (TVD: 10747 feet, MD: 20789 feet)

BLM Point of Contact

Name: PAMELLA HERNANDEZ
Title: LIE
Phone: (575) 234-5954
Email: PHERANDEZ@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.:	NMNM 0381970
COUNTY:	Lea

Wells:

Black Sheep 4 B2MD Fed Com 2H
Surface Hole Location: 205' FSL & 680' FWL, Section 4, T. 22 S., R. 34 E.
Bottom Hole Location: 100' FNL & 450' FWL, Section 4, T. 22 S, R 34 E.

Black Sheep 4/33 B2NC Fed Com 1H
Surface Hole Location: 205' FSL & 710' FWL, Section 4, T. 22 S., R. 34 E.
Bottom Hole Location: 100' FNL & 1330' FWL, Section 33, T. 21 S, R 34 E.

Black Sheep 4/33 B2NC Fed Com 2H
Surface Hole Location: 205' FSL & 740' FWL, Section 4, T. 22 S., R. 34 E.
Bottom Hole Location: 100' FNL & 2200' FWL, Section 33, T. 21 S, R 34 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.

 Approval Date: 09/27/2021

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.

V. 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.

Wildlife:

Lesser Prairie Chicken:

Timing Limitation Stipulation/Condition of Approval for Lesser Prairie-Chicken:
Oil and gas activities including 3-D geophysical exploration, and drilling will not be allowed in lesser prairie-chicken habitat during the period from March 1st through June 15th annually. During that period, other activities that produce noise or involve human activity, such as the maintenance of oil and gas facilities, geophysical exploration other than 3-D operations, and pipeline, road, and well pad construction, will be allowed except between 3:00 am and 9:00 am. The 3:00 am to 9:00 am restriction will not apply to normal, around-the-clock operations, such as venting, flaring, or pumping, which do not require a human presence during this period. Additionally, no new drilling will be allowed within up to 200 meters of leks known at the time of permitting. Normal vehicle use on existing roads will not be restricted. Exhaust noise from pump jack engines must be muffled or otherwise controlled so as not to exceed 75 db measured at 30 ft. from the source of the noise.

Timing Limitation Exceptions:
The Carlsbad Field Office will publish an annual map of where the LPC timing and noise stipulations and conditions of approval (Limitations) will apply for the identified year (between March 1 and June 15) based on the latest survey information. The LPC Timing Area map will identify areas which are Habitat Areas (HA), Isolated Population Area (IPA), and Primary Population Area (PPA). The LPC Timing Area map will also have an area in red crosshatch. The red crosshatch area is the only area where an operator is required to submit a request for exception to the LPC Limitations. If an operator is operating outside the red crosshatch area, the LPC Limitations do not apply for that year and an exception to LPC Limitations is not required.

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. For more installation details, contact the Carlsbad Field Office at 575-234-5972.

VRM IV:

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

Short-term mitigation measures include painting all above-ground structures that are not subject to safety requirements (including meter housing) Shale Green, which is a flat non-reflective paint color listed in the BLM Standard Environmental Color Chart (CC-001: June 2013). Long-term mitigation measures include the removal of wells and associated infrastructure following abandonment (end of cost-effective production). Previously impacted areas will be reclaimed by removing structures and caliche pads, returning disturbed areas to natural grade, and revegetating with an approved BLM seed mixture; thereby eliminating visual impacts.

VI. 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.

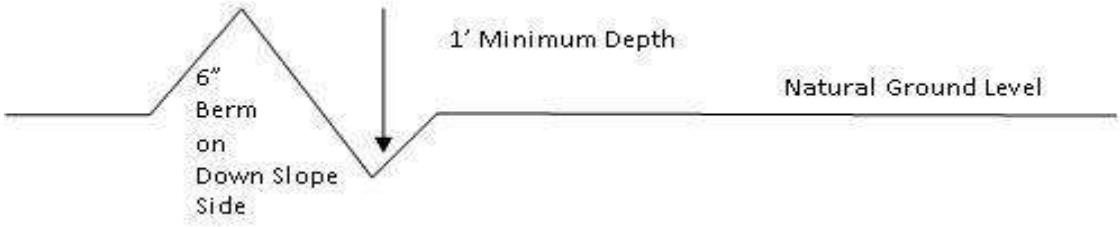
Ditching
Ditching shall be required on both sides of the road.

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:

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

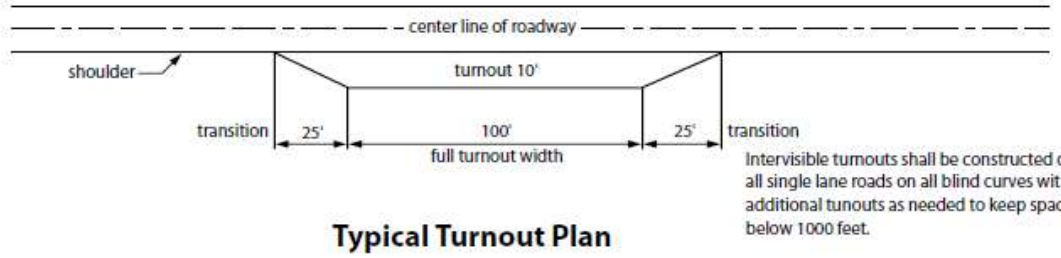
Cattle guards
An appropriately sized cattle guard sufficient to carry out the project shall be installed and maintained at fence/road crossings. Any existing cattle guards on the access road route shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator 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.

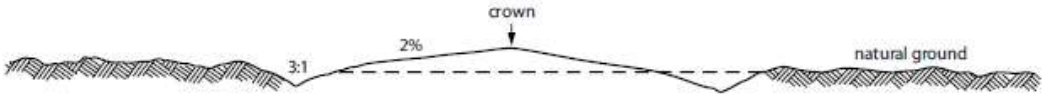
Construction Steps

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

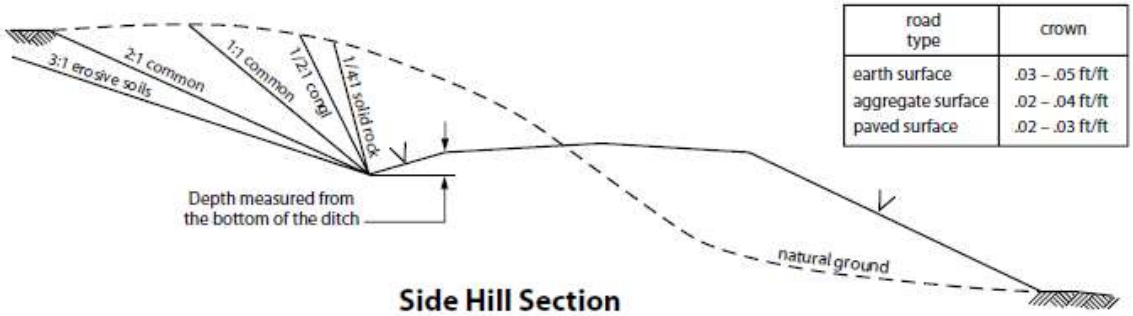


Intervisible turnouts shall be constructed on all single lane roads on all blind curves with additional turnouts as needed to keep spacing below 1000 feet.

Typical Turnout Plan

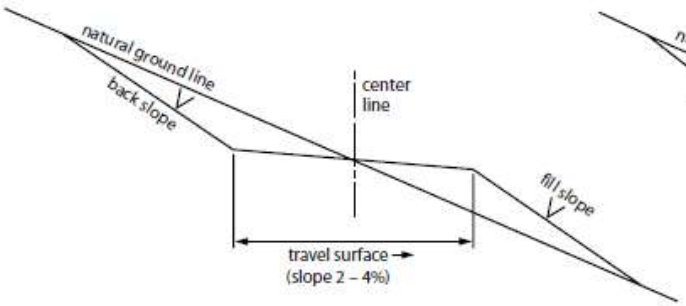


Level Ground Section

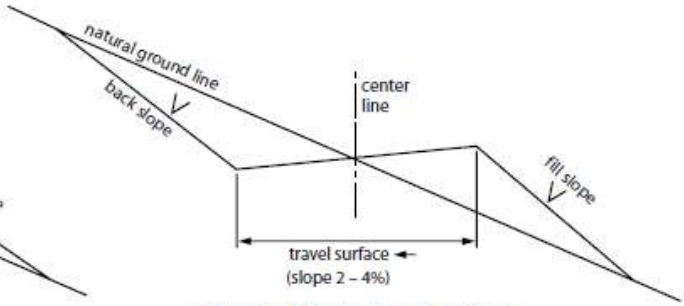


road type	crown
earth surface	.03 – .05 ft/ft
aggregate surface	.02 – .04 ft/ft
paved surface	.02 – .03 ft/ft

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.

VII. 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 2**
☐ **Seed Mixture 2/LPC**
☐ **Seed Mixture 3**
☐ **Seed Mixture 4**
☐ **Seed Mixture 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.

VIII. 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).

IX. 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.

Seed Mixture 2, for Sandy Sites

The holder shall seed all 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
Sand dropseed (Sporobolus cryptandrus)	1.0
Sand love grass (Eragrostis trichodes)	1.0
Plains bristlegrass (Setaria macrostachya)	2.0

*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.:	NMNM0381970
WELL NAME & NO.:	BLACK SHEEP 4-33 B2CN FED COM 2H
SURFACE HOLE FOOTAGE:	205' FSL & 740' FWL
BOTTOM HOLE FOOTAGE	100' FNL & 2200' FWL
LOCATION:	Section 4, T. 22 S., R 34 E., NMP
COUNTY:	Lea County, New Mexico

COA

H2S	(•) Yes	( ) No	
Potash	(•) None	( ) Secretary	( ) R-111-P
Cave/Karst Potential	(•) Low	( ) Medium	( ) High
Variance	( ) None	(•) Flex Hose	( ) Other
Wellhead	( ) Conventional	(•) Multibowl	( ) Both
Other	[ ] 4 String Area	[x] Capitan Reef	[ ] WIPP
Other	[ ] Fluid Filled	[ ] Cement Squeeze	[ ] Pilot Hole
Special Requirements	[ ] Water Disposal	[x] COM	[ ] Unit

A. HYDROGEN SULFIDE

A Hydrogen Sulfide (H2S) Drilling Plan shall be activated 500 feet prior to drilling into the **Undesignated** formation in the Grama Ridge pool. As a result, the Hydrogen Sulfide area must meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.

B. CASING

1. The **13-3/8** inch surface casing shall be set at approximately **1,760 feet** (a minimum of **25 feet (Lea 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)

 Approval Date: 09/27/2021

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 **5,350 feet** is:

Option 1 (Single Stage):

- Cement to surface. If cement does not circulate see B.1.a, c-d above. **Excess cement calculates to -57%, additional cement might be required.**

Option 2:

Operator has proposed DV tool at depth of **3,750'**, but will adjust cement proportionately if moved, the depth may be adjusted as long as the cement is changed proportionally. DV tool shall be set a minimum of 50' below previous shoe and a minimum of 200' above current shoe. Operator shall submit sundry if DV tool depth cannot be set in this range. If an ECP is used, it is to be set a minimum of 50' below the shoe to provide cement across the shoe. If it cannot be set below the shoe, a CBL shall be run to verify cement coverage. 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 to surface. If cement does not circulate, contact the appropriate BLM office.

❖ **Special Capitan Reef requirements.** If lost circulation (50% or greater) occurs below the Base of the Salt, the operator shall do the following:

- Switch to fresh water mud to protect the Capitan Reef and use fresh water mud until setting the intermediate casing. The appropriate BLM office is to be notified for a PET to witness the switch to fresh water.

- Daily drilling reports from the Base of the Salt to the setting of the intermediate casing are to be submitted to the BLM CFO engineering staff via e-mail by 0800 hours each morning. Any lost circulation encountered is to be recorded on these drilling reports. The daily drilling report should show mud volume per shift/tour. Failure to submit these reports will result in an Incidence of Non-

Compliance being issued for failure to comply with the Conditions of Approval. If not already planned, the operator shall run a caliper survey for the intermediate well bore and submit to the appropriate BLM office.

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

    - Cement should tie-back at least **50 feet** above the Capitan Reef. Operator shall provide method of verification.

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.

OTA09232021

AFMSS

U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

Operator Certification Data Report

09/28/2021

Operator Certification

I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

NAME: Bradley Bishop **Signed on:** 04/15/2021

Title: Regulatory

Street Address: PO Box 5270

City: Hobbs **State:** NM **Zip:** 88260

Phone: (575)393-5905

Email address: bbishop@mewbourne.com

Field Representative

Representative Name:

Street Address:

City: **State:** **Zip:**

Phone:

Email address:

AFMSS
U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

Application Data Report
09/28/2021

APD ID: 10400072476
Submission Date: 04/15/2021
Operator Name: MEWBOURNE OIL COMPANY
Well Name: BLACK SHEEP 4/33 B2NC FED COM
Well Number: 2H
Well Type: OIL WELL
Well Work Type: Drill

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - General

APD ID: 10400072476
Tie to previous NOS? N
Submission Date: 04/15/2021
BLM Office: Carlsbad
User: Bradley Bishop
Title: Regulatory
Federal/Indian APD: FED
Is the first lease penetrated for production Federal or Indian? FED
Lease number: NMNM0381970
Lease Acres:
Surface access agreement in place?
Allotted?
Reservation:
Agreement in place? NO
Federal or Indian agreement:
Agreement number:
Agreement name:
Keep application confidential? Y
Permitting Agent? NO
APD Operator: MEWBOURNE OIL COMPANY
Operator letter of designation:

Operator Info

Operator Organization Name: MEWBOURNE OIL COMPANY
Operator Address: PO Box 5270
Zip: 88240
Operator PO Box:
Operator City: Hobbs
State: NM
Operator Phone: (575)393-5905
Operator Internet Address:

Section 2 - Well Information

Well in Master Development Plan? NO
Master Development Plan name:
Well in Master SUPO? NO
Master SUPO name:
Well in Master Drilling Plan? NO
Master Drilling Plan name:
Well Name: BLACK SHEEP 4/33 B2NC FED COM
Well Number: 2H
Well API Number:
Field/Pool or Exploratory? Field and Pool
Field Name: GRAMA RIDGE
Pool Name: BONE SPRING
Is the proposed well in an area containing other mineral resources? USEABLE WATER

Operator Name: MEWBOURNE OIL COMPANY

Well Name: BLACK SHEEP 4/33 B2NC FED COM **Well Number:** 2H

Is the proposed well in an area containing other mineral resources? USEABLE WATER

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:** Black Sheep 4 MD & 4/33 MD & NC Fed Com wells **Number:** 3

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

Well Work Type: Drill

Well Type: OIL WELL

Describe Well Type:

Well sub-Type: APPRAISAL

Describe sub-type:

Distance to town: 20 Miles **Distance to nearest well:** 1012 FT **Distance to lease line:** 185 FT

Reservoir well spacing assigned acres Measurement: 320 Acres

Well plat: BlackSheep4_33B2NCFedCom2H_wellplat_20210408143151.pdf

Well work start Date: 06/06/2021 **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	205	FSL	740	FWL	22S	34E	4	Aliquot SWSW	32.4140354	-103.481092	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 0381970	3610	27	27	Y
KOP Leg #1	10	FSL	2200	FWL	22S	34E	4	Aliquot SESW	32.4135063	-103.4763635	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 0381970	-6209	9961	9819	Y

Operator Name: MEWBOURNE OIL COMPANY

Well Name: BLACK SHEEP 4/33 B2NC 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	100	FSL	2200	FWL	22S	34E	4	Aliquot SESW	32.4137537	-103.4763629	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 0381970	-6517	10286	10127	Y
PPP Leg #1-2	2679	FNL	2200	FWL	22S	34E	4	Aliquot SENW	32.420727	-103.4763464	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 058678	-6856	12916	10466	Y
PPP Leg #1-3	0	FSL	2200	FWL	21S	34E	33	Aliquot SESW	32.4280989	-103.4763288	LEA	NEW MEXICO	NEW MEXICO	S	STATE	-6952	15600	10562	Y
EXIT Leg #1	100	FNL	2200	FWL	21S	34E	33	Aliquot NENW	32.4423497	-103.4762943	LEA	NEW MEXICO	NEW MEXICO	S	STATE	-7137	20789	10747	Y
BHL Leg #1	100	FNL	2200	FWL	21S	34E	33	Aliquot NENW	32.4423497	-103.4762943	LEA	NEW MEXICO	NEW MEXICO	S	STATE	-7137	20789	10747	Y

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

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

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
	28430	GRAMA RIDGE; BONE SPRING

[4] Property Code	[5] Property Name	[6] Well Number
	BLACK SHEEP 4/33 B2NC FED COM	2H

[7] OGRID NO.	[8] Operator Name	[9] Elevation
14744	MEWBOURNE OIL COMPANY	3610'

[10] Surface Location

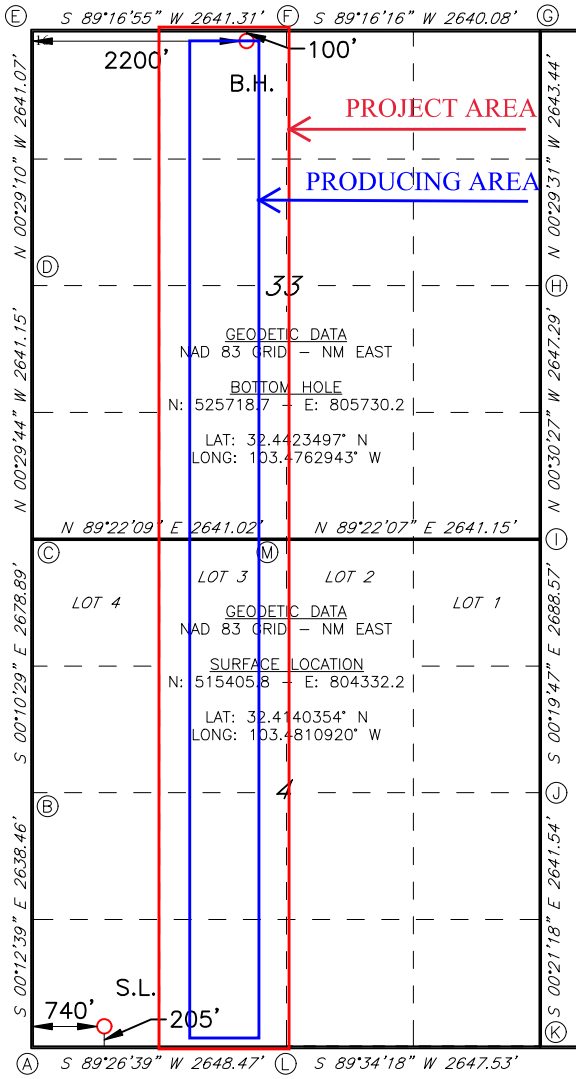
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet From the	East/West line	County
M	4	22S	34E		205	SOUTH	740	WEST	LEA

[11] Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	33	21S	34E		100	NORTH	2200	WEST	LEA

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
320			

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



CORNER DATA
NAD 83 GRID – NM EAST

A: FOUND BRASS CAP "1913"
N: 515193.7 – E: 803593.0

B: FOUND BRASS CAP "1913"
N: 517831.6 – E: 803583.3

C: FOUND BRASS CAP "1913"
N: 520510.0 – E: 803575.1

D: FOUND BRASS CAP "1913"
N: 523150.6 – E: 803552.3

E: FOUND BRASS CAP "1913"
N: 525791.1 – E: 803529.9

F: FOUND BRASS CAP "1913"
N: 525824.2 – E: 806170.5

G: FOUND BRASS CAP "1913"
N: 525857.8 – E: 808809.9

H: FOUND BRASS CAP "1913"
N: 523214.9 – E: 808832.6

I: FOUND BRASS CAP "1913"
N: 520568.2 – E: 808856.0

J: FOUND BRASS CAP "1913"
N: 517880.2 – E: 808871.5

K: FOUND BRASS CAP "1913"
N: 515239.1 – E: 808887.9

L: FOUND BRASS CAP "1913"
N: 515219.3 – E: 806240.9

M: FOUND BRASS CAP "1913"
N: 520539.1 – E: 806215.5

[17] OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Bradley Bishop 4-8-21
Signature Date

BRADLEY BISHOP
Printed Name

BBISHOP@MEWBOURNE.COM
E-mail Address

[18] SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

03-15-2021
Date of Survey

Signature and Seal of Professional Surveyor:

ROBERT M. HOWETT NEW MEXICO 19680 PROFESSIONAL SURVEYOR

19680
Certificate Number

Job No: LS21030224

AFMSS

U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

Drilling Plan Data Report
09/28/2021

APD ID: 10400072476
Submission Date: 04/15/2021
Operator Name: MEWBOURNE OIL COMPANY
Well Name: BLACK SHEEP 4/33 B2NC FED COM
Well Number: 2H
Well Type: OIL 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
3537945	UNKNOWN	3610	28	28	OTHER : Top Soil	NONE	N
3537950	RUSTLER	1843	1767	1767	ANHYDRITE, DOLOMITE	USEABLE WATER	N
3537949	TOP SALT	1348	2262	2262	SALT	NONE	N
3537946	BOTTOM SALT	-127	3737	3750	SALT	NONE	N
3537953	YATES	-352	3962	4000	SANDSTONE	NATURAL GAS, OIL	N
3537954	CAPITAN REEF	-657	4267	4298	DOLOMITE, LIMESTONE	USEABLE WATER	N
3537951	DELAWARE	-1807	5417	5482	LIMESTONE	NATURAL GAS, OIL	N
3537944	BONE SPRINGS	-4937	8547	8680	LIMESTONE, SHALE	NATURAL GAS, OIL	N
3537947	BONE SPRING 1ST	-5960	9570	9707	SANDSTONE	NATURAL GAS, OIL	N
3537948	BONE SPRING 2ND	-6522	10132	10290	SANDSTONE	NATURAL GAS, OIL	Y

Section 2 - Blowout Prevention

Pressure Rating (PSI): 5M
Rating Depth: 20789

Equipment: Annular, Pipe Rams, Blind Ram

Requesting Variance? YES

Variance request: A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. Anchors not required by manufacturer. A multi-bowl wellhead is being 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.
Choke Diagram Attachment:

Operator Name: MEWBOURNE OIL COMPANY

Well Name: BLACK SHEEP 4/33 B2NC FED COM **Well Number:** 2H

Black_Sheep_4_33_B2NC_Fed_Com_2H_5M_BOPE_Choke_Diagram_20210413153802.pdf

Black_Sheep_4_33_B2NC_Fed_Com_2H_Flex_Line_Specs_API_16C_20210413153803.pdf

Black_Sheep_4_33_B2NC_Fed_Com_2H_Flex_Line_Specs_20210413153804.pdf

BOP Diagram Attachment:

Black_Sheep_4_33_B2NC_Fed_Com_2H_Multi_Bowl_WH_20210413153818.pdf

Black_Sheep_4_33_B2NC_Fed_Com_2H_5M_BOPE_Schematic_20210413153818.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	1875	0	1875	3637	1762	1875	J-55	54.5	ST&C	1.32	3.18	DRY	2.03	DRY	8.35
2	INTERMEDIATE	12.25	9.625	NEW	API	Y	0	3452	0	3427	3624	210	3452	J-55	36	LT&C	1.13	1.96	DRY	2.14	DRY	2.67
3	INTERMEDIATE	12.25	9.625	NEW	API	Y	3452	4390	3427	4350	210	-713	938	J-55	40	LT&C	1.13	1.73	DRY	5.95	DRY	7.21
4	INTERMEDIATE	12.25	9.625	NEW	API	Y	4390	5636	4350	5570	-713	-1933	1246	HCL-80	40	LT&C	1.44	1.96	DRY	16.79	DRY	18.38
5	PRODUCTION	8.75	7.0	NEW	API	N	0	10861	0	10393	3635	-6756	10861	P-110	26	LT&C	1.21	1.94	DRY	2.45	DRY	2.94
6	LINER	6.125	4.5	NEW	API	N	9961	20789	9819	10747	-6182	-7110	10828	P-110	13.5	LT&C	1.74	2.02	DRY	2.31	DRY	2.89

Casing Attachments

Operator Name: MEWBOURNE OIL COMPANY

Well Name: BLACK SHEEP 4/33 B2NC 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):

Black_Sheep_4_33_B2NC_Fed_Com_2H__Csg_Assumptions_20210413154123.doc

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

Inspection Document:

Spec Document:

Tapered String Spec:

Black_Sheep_4_33_B2NC_Fed_Com_2H___9.625_TAPERED_STRING_DIAGRAM_20210413154254.xlsx

Casing Design Assumptions and Worksheet(s):

Black_Sheep_4_33_B2NC_Fed_Com_2H__Csg_Assumptions_20210413154323.doc

Casing ID: 3 **String Type:** INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Black_Sheep_4_33_B2NC_Fed_Com_2H___9.625_TAPERED_STRING_DIAGRAM_20210413154708.xlsx

Casing Design Assumptions and Worksheet(s):

Black_Sheep_4_33_B2NC_Fed_Com_2H__Csg_Assumptions_20210413154736.doc

Operator Name: MEWBOURNE OIL COMPANY

Well Name: BLACK SHEEP 4/33 B2NC FED COM **Well Number:** 2H

Casing Attachments

Casing ID: 4 **String Type:** INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Black_Sheep_4_33_B2NC_Fed_Com_2H___9.625_TAPERED_STRING_DIAGRAM_20210413154830.xlsx

Casing Design Assumptions and Worksheet(s):

Black_Sheep_4_33_B2NC_Fed_Com_2H__Csg_Assumptions_20210413154900.doc

Casing ID: 5 **String Type:** PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Black_Sheep_4_33_B2NC_Fed_Com_2H__Csg_Assumptions_20210413154403.doc

Casing ID: 6 **String Type:** LINER

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Black_Sheep_4_33_B2NC_Fed_Com_2H__Csg_Assumptions_20210413154456.doc

Section 4 - Cement

Operator Name: MEWBOURNE OIL COMPANY

Well Name: BLACK SHEEP 4/33 B2NC FED COM **Well Number:** 2H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
INTERMEDIATE	Lead		0	0	0	0	0	0	0	0	0

INTERMEDIATE	Lead		0	0	0	0	0	0	0	0	0

SURFACE	Lead		0	1682	1110	2.12	12.5	2353	100	Class C	Salt, Gel, Extender, LCM
SURFACE	Tail		1682	1875	200	1.34	14.8	268	100	Class C	Retarder
INTERMEDIATE	Lead	3750	0	3439	700	2.12	12.5	1484	25	Class C	Salt, Gel Extender, LCM
INTERMEDIATE	Tail		3439	3750	100	1.34	14.8	134	25	Class C	Retarder
INTERMEDIATE	Lead	3750	3750	4951	230	2.12	12.5	488	25	Class C	Salt, Gel, Extender, LCM
INTERMEDIATE	Tail		4951	5636	200	1.34	14.8	268	25	Class C	Retarder
PRODUCTION	Lead		4210	8349	850	2.12	12.5	1802	25	Class C	Gel, Retarder, Defoamer, Extender
PRODUCTION	Tail		8349	10861	400	1.18	15.6	472	25	Class H	Retarder, Fluid Loss, Defoamer
LINER	Lead		10861	20789	430	2.97	11.2	1277	25	Class C	Salt, Gel, Fluid Loss, Retarder, Dispersant, Defoamer, Anti-Settling Agent

Operator Name: MEWBOURNE OIL COMPANY

Well Name: BLACK SHEEP 4/33 B2NC 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: 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	1875	SPUD MUD	8.6	8.8							
1875	5636	SALT SATURATED	10	10							
5636	10861	WATER-BASED MUD	8.6	9.5							
10861	20789	OIL-BASED MUD	9	11							

Section 6 - Test, Logging, Coring

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

Will run GR/CNL from KOP (9961') to surface

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: BLACK SHEEP 4/33 B2NC FED COM **Well Number:** 2H

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 6147 **Anticipated Surface Pressure:** 3782

Anticipated Bottom Hole Temperature(F): 150

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:

Black_Sheep_4_33_B2NC_Fed_Com_2H_H2S_Plan_20210413155616.pdf

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

Black_Sheep_4_33_B2NC_Fed_Com_2H_Dir_Plan_20210413155639.pdf
Black_Sheep_4_33_B2NC_Fed_Com_2H_Dir_Plot_20210413155641.pdf

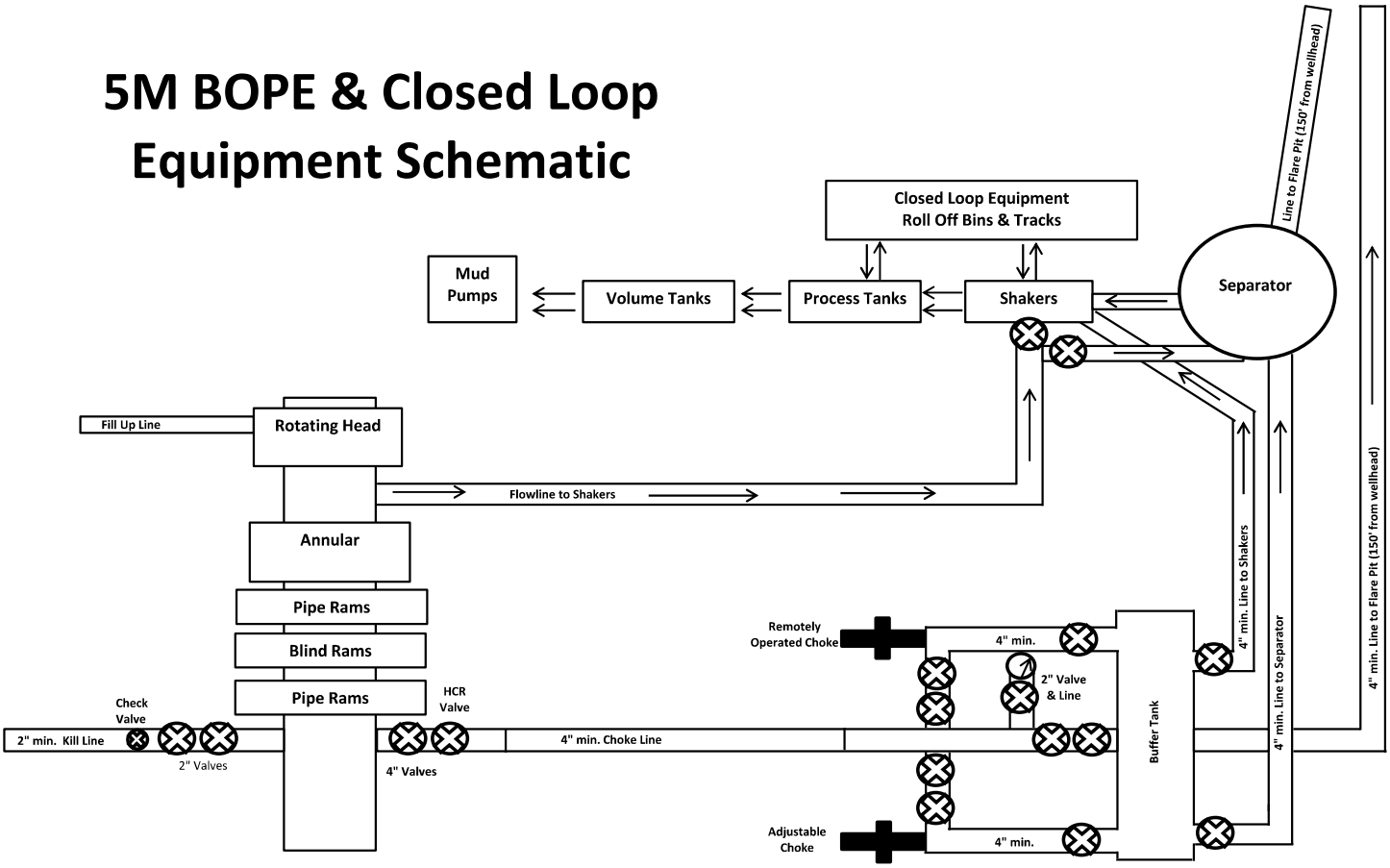
Other proposed operations facets description:

Other proposed operations facets attachment:

Black_Sheep_4_33_B2NC_Fed_Com_2H_Add_Info_20210413155842.pdf

Other Variance attachment:

5M BOPE & Closed Loop Equipment Schematic



Drawing not to scale

Note: All valves & lines on choke manifold are 4" unless otherwise noted. Exact manifold configuration may vary.

GATES ENGINEERING & SERVICES NORTH AMERICA
7603 Prairie Oak Dr.
Houston, TX 77086

PHONE: (281) 602 - 4119
FAX:
EMAIL: Troy.Schmidt@gates.com
WEB: www.gates.com

10K CHOKE & KILL ASSEMBLY PRESSURE TEST CERTIFICATE

Customer:	A-7 AUSTIN INC DBA AUSTIN HOSE	Test Date:	8/20/2018
Customer Ref.:	4101901	Hose Serial No.:	H-082018-10
Invoice No.:	511956	Created By:	Moosa Naqvi

Product Description:	10KF3.035.0CK41/1610KFLGFXDxFLT L/E

End Fitting 1:	4 1/16 in. Fixed Flange	End Fitting 2:	4 1/16 in. Float Flange
Gates Part No.:	68503010-9721632	Assembly Code:	L40695052218H-082018-10
Working Pressure:	10,000 psi.	Test Pressure:	15,000 psi.

Gates Engineering & Services North America certifies that the following hose assembly has successfully passed all pressure testing requirements set forth in Gates specifications: GTS-04-052 (for 5K assemblies) or GTS-04-053 (10K assemblies), which include reference to Specification API 16C (2nd Edition); sections 7.5.4, 7.5.9, and 10.8.7. A test graph will accompany this test certificate to illustrate conformity to test requirements.

Quality:	QUALITY	Production:	PRODUCTION
Date :	8/20/2018	Date :	8/20/2018
Signature :	Moosa Naqvi	Signature :	

Form PTC - 01 Rev.0 2

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

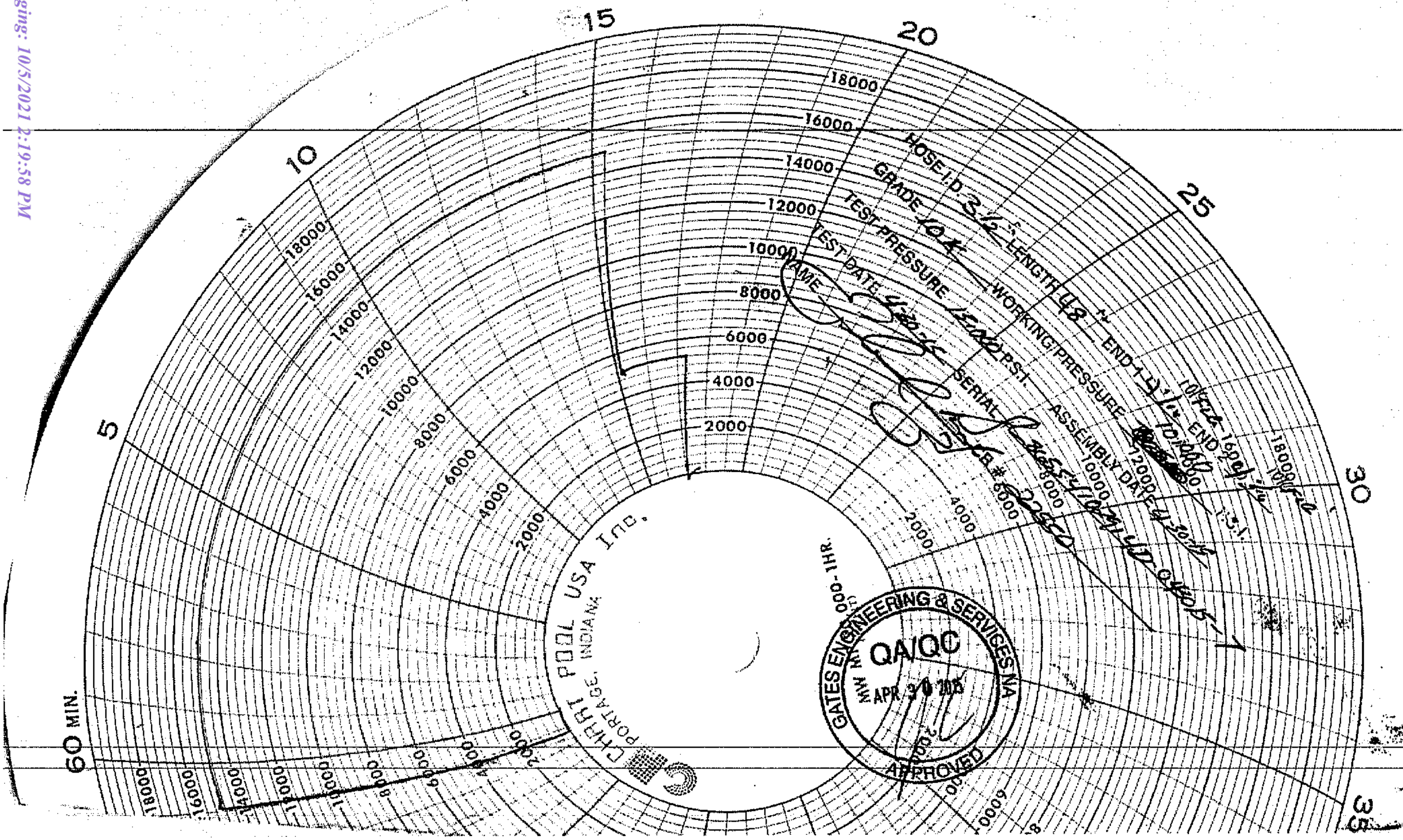
Product Description:	10K3.548.0CK4.1/1610KFLGE/E LE

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.

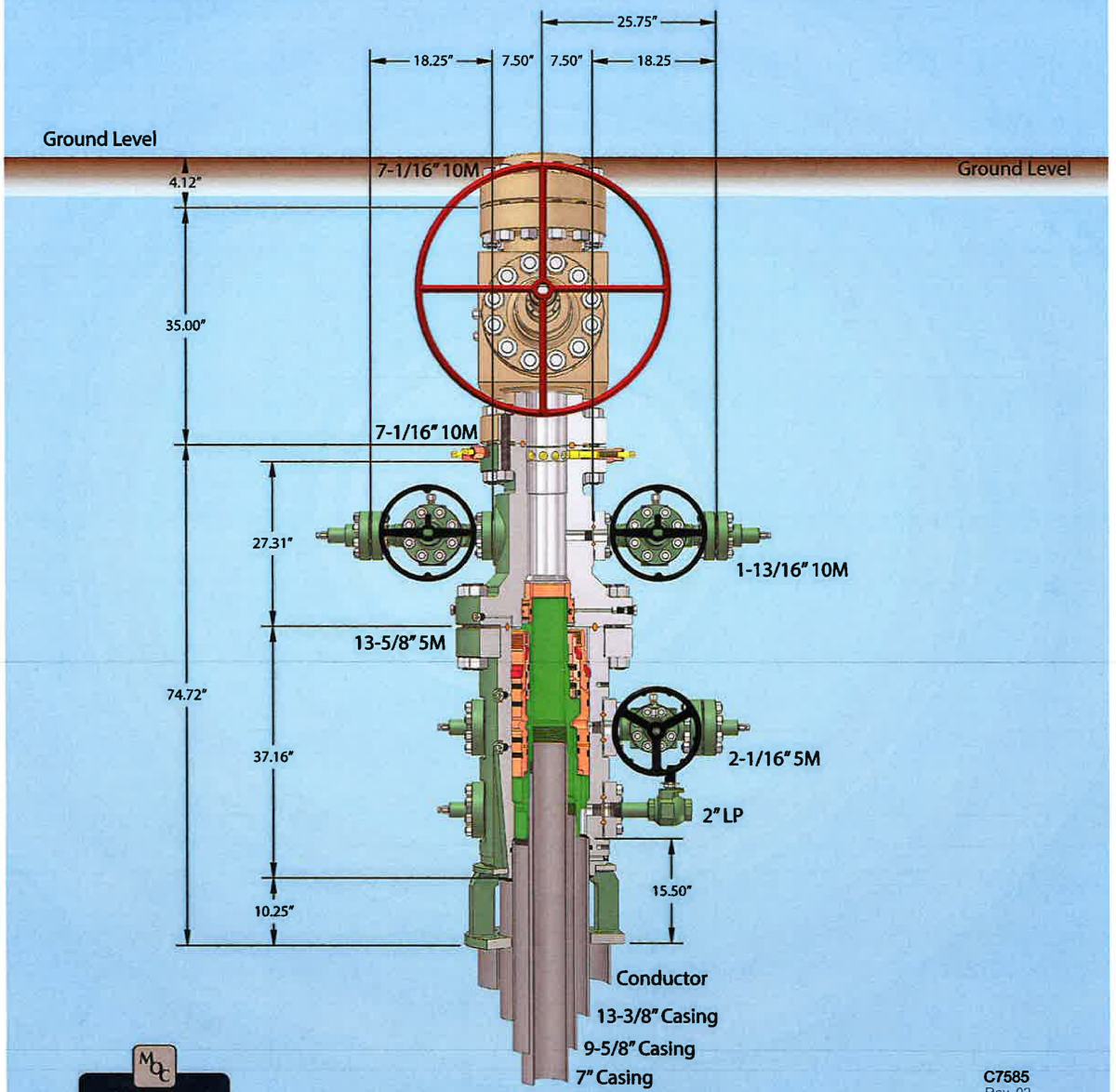
Quality Manager :	QUALITY	Produciton:	PRODUCTION
Date :	4/30/2015	Date :	4/30/2015
Signature :		Signature :	

Form-PTC - 01 Rev.0 2



CAMERON
A Schlumberger Company

13-5/8" MN-DS Wellhead System



MEWBOURNE OIL COMPANY

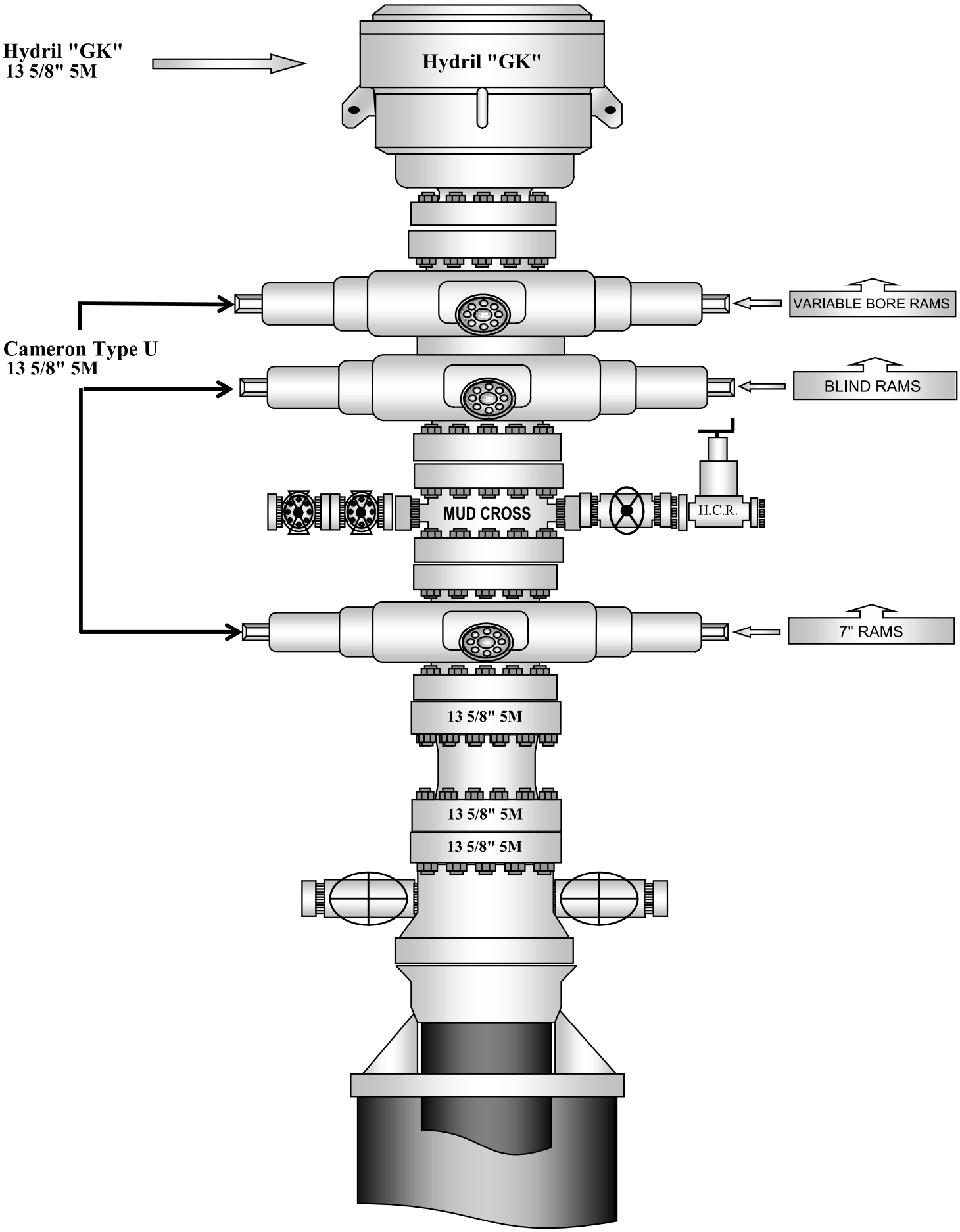
C7585
Rev. 02

NOTE: All dimensions on this drawing are estimated measurements and should be evaluated by engineering.

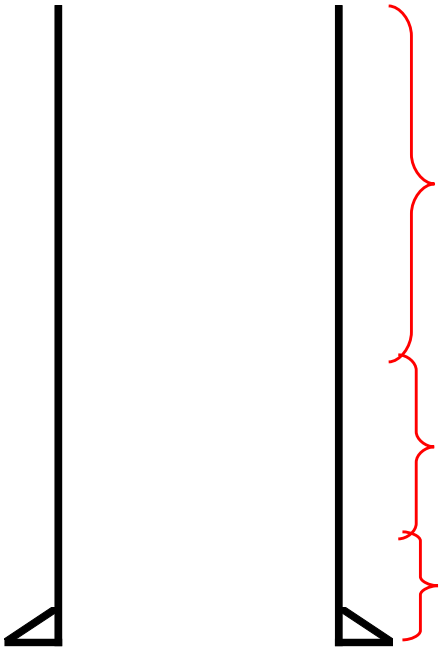
Cutting flange 57" conductor cut-off

79

5M BOPE Schematic

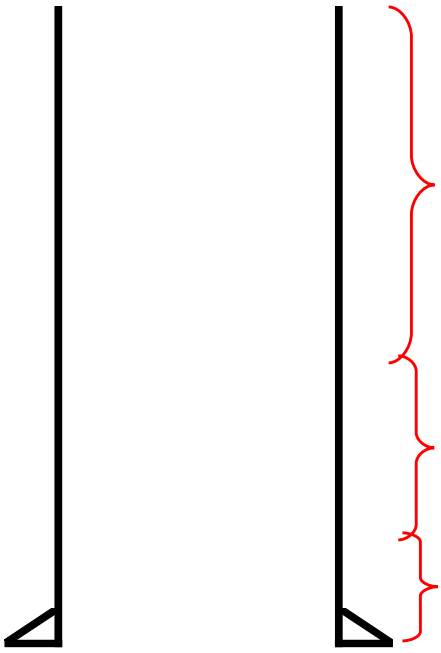


TAPERED STRING DIAGRAM



	COLLAPSE	BURST	JOINT YIELD	BODY YIELD
36#	1.130	1.960	2.140	2.670
40#	1.130	1.730	5.950	7.210
40# HCL80	1.44	1.96	16.79	18.38

TAPERED STRING DIAGRAM



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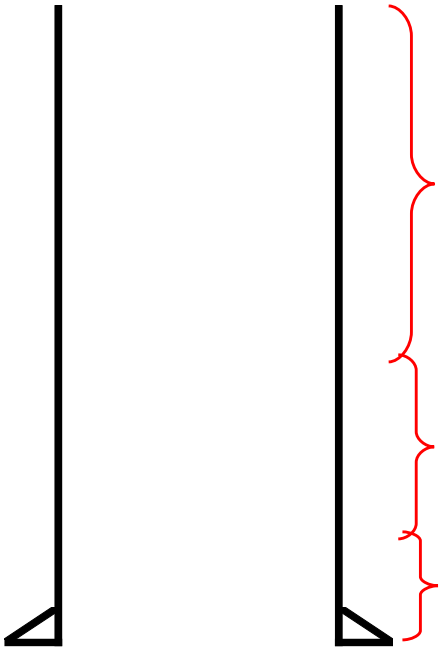
TAPERED STRING DIAGRAM



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Mewbourne Oil Company
Black Sheep 4/33 B2NC Fed Com #2H
Sec 4, T22S, R34E
SL: 205' FSL & 740' FWL (4)
BHL: 100' FNL & 2200' FWL (33)

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'	1875'	13.375"	54.5	J55	STC	1.32	3.18	5.03	8.35
12.25"	0'	3452'	9.625"	36	J55	LTC	1.13	1.96	2.14	2.67
12.25"	3452'	4390'	9.625"	40	J55	LTC	1.13	1.73	5.95	7.21
12.25"	4390'	5636'	9.625"	40	HCL80	LTC	1.44	1.96	16.79	18.38
8.75"	0'	10861'	7"	26	P110	LTC	1.21	1.94	2.45	2.94
6.125"	9961'	20789'	4.5"	13.5	P110	LTC	1.74	2.02	2.31	2.89
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?	Y
If yes, does production casing cement tie back a minimum of 50' above the Reef?	Y
Is well within the designated 4 string boundary.	N
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?	Y
Is well located in high Cave/Karst?	N
If yes, are there two strings cemented to surface?	
(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?	

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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?	Y
If yes, does production casing cement tie back a minimum of 50' above the Reef?	Y
Is well within the designated 4 string boundary.	N
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?	
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Mewbourne Oil Company
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All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h
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Is well located within Capitan Reef?	Y
If yes, does production casing cement tie back a minimum of 50' above the Reef?	Y
Is well within the designated 4 string boundary.	N
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?	Y
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Mewbourne Oil Company
Black Sheep 4/33 B2NC Fed Com #2H
Sec 4, T22S, R34E
SL: 205' FSL & 740' FWL (4)
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Mewbourne Oil Company
Black Sheep 4/33 B2NC Fed Com #2H
Sec 4, T22S, R34E
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BHL: 100' FNL & 2200' FWL (33)

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'	1875'	13.375"	54.5	J55	STC	1.32	3.18	5.03	8.35
12.25"	0'	3452'	9.625"	36	J55	LTC	1.13	1.96	2.14	2.67
12.25"	3452'	4390'	9.625"	40	J55	LTC	1.13	1.73	5.95	7.21
12.25"	4390'	5636'	9.625"	40	HCL80	LTC	1.44	1.96	16.79	18.38
8.75"	0'	10861'	7"	26	P110	LTC	1.21	1.94	2.45	2.94
6.125"	9961'	20789'	4.5"	13.5	P110	LTC	1.74	2.02	2.31	2.89
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?	Y
If yes, does production casing cement tie back a minimum of 50' above the Reef?	Y
Is well within the designated 4 string boundary.	N
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?	Y
Is well located in high Cave/Karst?	N
If yes, are there two strings cemented to surface?	
(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
Black Sheep 4/33 B2NC Fed Com #2H
Sec 4, T22S, R34E
SL: 205' FSL & 740' FWL (4)
BHL: 100' FNL & 2200' FWL (33)

Mewbourne Oil Company
Black Sheep 4/33 B2NC Fed Com #2H
Sec 4, T22S, R34E
SL: 205' FSL & 740' FWL (4)
BHL: 100' FNL & 2200' FWL (33)

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'	1875'	13.375"	54.5	J55	STC	1.32	3.18	5.03	8.35
12.25"	0'	3452'	9.625"	36	J55	LTC	1.13	1.96	2.14	2.67
12.25"	3452'	4390'	9.625"	40	J55	LTC	1.13	1.73	5.95	7.21
12.25"	4390'	5636'	9.625"	40	HCL80	LTC	1.44	1.96	16.79	18.38
8.75"	0'	10861'	7"	26	P110	LTC	1.21	1.94	2.45	2.94
6.125"	9961'	20789'	4.5"	13.5	P110	LTC	1.74	2.02	2.31	2.89
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?	Y
If yes, does production casing cement tie back a minimum of 50' above the Reef?	Y
Is well within the designated 4 string boundary.	N
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?	Y
Is well located in high Cave/Karst?	N
If yes, are there two strings cemented to surface?	
(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
Black Sheep 4/33 B2NC Fed Com #2H
Sec 4, T22S, R34E
SL: 205' FSL & 740' FWL (4)
BHL: 100' FNL & 2200' FWL (33)

Mewbourne Oil Company

Lea County, New Mexico NAD 83
Black Sheep 4/33 B2NC Fed Com #2H
Sec. 4, T22S R34E
SHL: 205' FSL & 740' FWL (4)
BHL: 100' FNL & 2200' FWL (33)

Plan: Design #1

Standard Planning Report

13 April, 2021

Planning Report

Database:	Hobbs	**Local Co-ordinate Reference:**	Site Black Sheep 4/33 B2NC Fed Com #2H
Company:	Mewbourne Oil Company	**TVD Reference:**	WELL @ 3637.0usft (Original Well Elev)
Project:	Lea County, New Mexico NAD 83	**MD Reference:**	WELL @ 3637.0usft (Original Well Elev)
Site:	Black Sheep 4/33 B2NC Fed Com #2H	**North Reference:**	Grid
Well:	Sec. 4, T22S R34E	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	BHL: 100' FNL & 2200' FWL (33)		
Design:	Design #1		

Project Lea County, New Mexico NAD 83

Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site Black Sheep 4/33 B2NC Fed Com #2H

Site Position:		**Northing:**	515,406.00 usft	**Latitude:**	32.4140359
From:	Map	**Easting:**	804,332.00 usft	**Longitude:**	-103.4810928
Position Uncertainty:	0.0 usft	**Slot Radius:**	13-3/16 "		

Well Sec. 4, T22S R34E

Well Position	**+N/-S**	0.0 usft	**Northing:**	515,406.00 usft	**Latitude:**	32.4140359
	+E/-W	0.0 usft	**Easting:**	804,332.00 usft	**Longitude:**	-103.4810928
Position Uncertainty		0.0 usft	**Wellhead Elevation:**	3,637.0 usft	**Ground Level:**	3,609.0 usft
Grid Convergence:		0.46 °				

Wellbore BHL: 100' FNL & 2200' FWL (33)

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	12/31/2014	7.12	60.29	48,384.31375425

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	7.72

Plan Survey Tool Program **Date** 4/13/2021

	Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	0.0	Design #1 (BHL: 100' FNL & 2200		

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	

Planning Report

Database:	Hobbs	**Local Co-ordinate Reference:**	Site Black Sheep 4/33 B2NC Fed Com #2H
Company:	Mewbourne Oil Company	**TVD Reference:**	WELL @ 3637.0usft (Original Well Elev)
Project:	Lea County, New Mexico NAD 83	**MD Reference:**	WELL @ 3637.0usft (Original Well Elev)
Site:	Black Sheep 4/33 B2NC Fed Com #2H	**North Reference:**	Grid
Well:	Sec. 4, T22S R34E	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	BHL: 100' FNL & 2200' FWL (33)		
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: 205' FSL & 740' FWL (4)									
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	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,875.0	0.00	0.00	1,875.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.50	97.06	1,900.0	0.0	0.1	0.0	2.00	2.00	0.00
2,000.0	2.50	97.06	2,000.0	-0.3	2.7	0.0	2.00	2.00	0.00
2,100.0	4.50	97.06	2,099.8	-1.1	8.8	0.1	2.00	2.00	0.00
2,200.0	6.50	97.06	2,199.3	-2.3	18.3	0.2	2.00	2.00	0.00
2,300.0	8.50	97.06	2,298.4	-3.9	31.2	0.4	2.00	2.00	0.00
2,400.0	10.50	97.06	2,397.1	-5.9	47.6	0.6	2.00	2.00	0.00
2,439.2	11.28	97.06	2,435.6	-6.8	55.0	0.6	2.00	2.00	0.00
2,500.0	11.28	97.06	2,495.2	-8.3	66.8	0.8	0.00	0.00	0.00
2,600.0	11.28	97.06	2,593.3	-10.7	86.2	1.0	0.00	0.00	0.00
2,700.0	11.28	97.06	2,691.3	-13.1	105.6	1.2	0.00	0.00	0.00
2,800.0	11.28	97.06	2,789.4	-15.5	125.0	1.4	0.00	0.00	0.00
2,900.0	11.28	97.06	2,887.5	-17.9	144.4	1.7	0.00	0.00	0.00
3,000.0	11.28	97.06	2,985.5	-20.3	163.9	1.9	0.00	0.00	0.00
3,100.0	11.28	97.06	3,083.6	-22.7	183.3	2.1	0.00	0.00	0.00
3,200.0	11.28	97.06	3,181.7	-25.1	202.7	2.3	0.00	0.00	0.00
3,300.0	11.28	97.06	3,279.7	-27.5	222.1	2.6	0.00	0.00	0.00
3,400.0	11.28	97.06	3,377.8	-29.9	241.5	2.8	0.00	0.00	0.00
3,500.0	11.28	97.06	3,475.9	-32.3	261.0	3.0	0.00	0.00	0.00
3,600.0	11.28	97.06	3,573.9	-34.7	280.4	3.2	0.00	0.00	0.00
3,700.0	11.28	97.06	3,672.0	-37.1	299.8	3.5	0.00	0.00	0.00
3,800.0	11.28	97.06	3,770.1	-39.5	319.2	3.7	0.00	0.00	0.00
3,900.0	11.28	97.06	3,868.1	-42.0	338.6	3.9	0.00	0.00	0.00
4,000.0	11.28	97.06	3,966.2	-44.4	358.1	4.1	0.00	0.00	0.00
4,100.0	11.28	97.06	4,064.3	-46.8	377.5	4.4	0.00	0.00	0.00
4,200.0	11.28	97.06	4,162.3	-49.2	396.9	4.6	0.00	0.00	0.00
4,300.0	11.28	97.06	4,260.4	-51.6	416.3	4.8	0.00	0.00	0.00
4,400.0	11.28	97.06	4,358.5	-54.0	435.7	5.0	0.00	0.00	0.00
4,500.0	11.28	97.06	4,456.5	-56.4	455.2	5.3	0.00	0.00	0.00
4,600.0	11.28	97.06	4,554.6	-58.8	474.6	5.5	0.00	0.00	0.00
4,700.0	11.28	97.06	4,652.7	-61.2	494.0	5.7	0.00	0.00	0.00
4,800.0	11.28	97.06	4,750.7	-63.6	513.4	5.9	0.00	0.00	0.00
4,900.0	11.28	97.06	4,848.8	-66.0	532.8	6.2	0.00	0.00	0.00
5,000.0	11.28	97.06	4,946.9	-68.4	552.3	6.4	0.00	0.00	0.00

Planning Report

Database:	Hobbs	**Local Co-ordinate Reference:**	Site Black Sheep 4/33 B2NC Fed Com #2H
Company:	Mewbourne Oil Company	**TVD Reference:**	WELL @ 3637.0usft (Original Well Elev)
Project:	Lea County, New Mexico NAD 83	**MD Reference:**	WELL @ 3637.0usft (Original Well Elev)
Site:	Black Sheep 4/33 B2NC Fed Com #2H	**North Reference:**	Grid
Well:	Sec. 4, T22S R34E	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	BHL: 100' FNL & 2200' FWL (33)		
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)
5,100.0	11.28	97.06	5,044.9	-70.8	571.7	6.6	0.00	0.00	0.00
5,200.0	11.28	97.06	5,143.0	-73.2	591.1	6.8	0.00	0.00	0.00
5,300.0	11.28	97.06	5,241.1	-75.6	610.5	7.1	0.00	0.00	0.00
5,400.0	11.28	97.06	5,339.1	-78.0	629.9	7.3	0.00	0.00	0.00
5,500.0	11.28	97.06	5,437.2	-80.4	649.3	7.5	0.00	0.00	0.00
5,600.0	11.28	97.06	5,535.3	-82.9	668.8	7.7	0.00	0.00	0.00
5,700.0	11.28	97.06	5,633.3	-85.3	688.2	8.0	0.00	0.00	0.00
5,800.0	11.28	97.06	5,731.4	-87.7	707.6	8.2	0.00	0.00	0.00
5,900.0	11.28	97.06	5,829.5	-90.1	727.0	8.4	0.00	0.00	0.00
6,000.0	11.28	97.06	5,927.5	-92.5	746.4	8.6	0.00	0.00	0.00
6,100.0	11.28	97.06	6,025.6	-94.9	765.9	8.9	0.00	0.00	0.00
6,200.0	11.28	97.06	6,123.7	-97.3	785.3	9.1	0.00	0.00	0.00
6,300.0	11.28	97.06	6,221.7	-99.7	804.7	9.3	0.00	0.00	0.00
6,400.0	11.28	97.06	6,319.8	-102.1	824.1	9.5	0.00	0.00	0.00
6,500.0	11.28	97.06	6,417.9	-104.5	843.5	9.8	0.00	0.00	0.00
6,600.0	11.28	97.06	6,515.9	-106.9	863.0	10.0	0.00	0.00	0.00
6,700.0	11.28	97.06	6,614.0	-109.3	882.4	10.2	0.00	0.00	0.00
6,800.0	11.28	97.06	6,712.1	-111.7	901.8	10.4	0.00	0.00	0.00
6,900.0	11.28	97.06	6,810.1	-114.1	921.2	10.7	0.00	0.00	0.00
7,000.0	11.28	97.06	6,908.2	-116.5	940.6	10.9	0.00	0.00	0.00
7,100.0	11.28	97.06	7,006.3	-118.9	960.1	11.1	0.00	0.00	0.00
7,200.0	11.28	97.06	7,104.3	-121.3	979.5	11.3	0.00	0.00	0.00
7,300.0	11.28	97.06	7,202.4	-123.8	998.9	11.6	0.00	0.00	0.00
7,400.0	11.28	97.06	7,300.5	-126.2	1,018.3	11.8	0.00	0.00	0.00
7,500.0	11.28	97.06	7,398.5	-128.6	1,037.7	12.0	0.00	0.00	0.00
7,600.0	11.28	97.06	7,496.6	-131.0	1,057.2	12.2	0.00	0.00	0.00
7,700.0	11.28	97.06	7,594.7	-133.4	1,076.6	12.4	0.00	0.00	0.00
7,800.0	11.28	97.06	7,692.7	-135.8	1,096.0	12.7	0.00	0.00	0.00
7,900.0	11.28	97.06	7,790.8	-138.2	1,115.4	12.9	0.00	0.00	0.00
8,000.0	11.28	97.06	7,888.9	-140.6	1,134.8	13.1	0.00	0.00	0.00
8,100.0	11.28	97.06	7,986.9	-143.0	1,154.3	13.3	0.00	0.00	0.00
8,200.0	11.28	97.06	8,085.0	-145.4	1,173.7	13.6	0.00	0.00	0.00
8,300.0	11.28	97.06	8,183.1	-147.8	1,193.1	13.8	0.00	0.00	0.00
8,400.0	11.28	97.06	8,281.1	-150.2	1,212.5	14.0	0.00	0.00	0.00
8,500.0	11.28	97.06	8,379.2	-152.6	1,231.9	14.2	0.00	0.00	0.00
8,600.0	11.28	97.06	8,477.3	-155.0	1,251.4	14.5	0.00	0.00	0.00
8,700.0	11.28	97.06	8,575.3	-157.4	1,270.8	14.7	0.00	0.00	0.00
8,800.0	11.28	97.06	8,673.4	-159.8	1,290.2	14.9	0.00	0.00	0.00
8,900.0	11.28	97.06	8,771.5	-162.2	1,309.6	15.1	0.00	0.00	0.00
9,000.0	11.28	97.06	8,869.5	-164.7	1,329.0	15.4	0.00	0.00	0.00
9,100.0	11.28	97.06	8,967.6	-167.1	1,348.4	15.6	0.00	0.00	0.00
9,200.0	11.28	97.06	9,065.7	-169.5	1,367.9	15.8	0.00	0.00	0.00
9,300.0	11.28	97.06	9,163.7	-171.9	1,387.3	16.0	0.00	0.00	0.00
9,396.6	11.28	97.06	9,258.4	-174.2	1,406.0	16.3	0.00	0.00	0.00
9,400.0	11.22	97.06	9,261.8	-174.3	1,406.7	16.3	2.00	-2.00	0.00
9,500.0	9.22	97.06	9,360.2	-176.5	1,424.3	16.5	2.00	-2.00	0.00
9,600.0	7.22	97.06	9,459.2	-178.2	1,438.5	16.6	2.00	-2.00	0.00
9,700.0	5.22	97.06	9,558.6	-179.5	1,449.2	16.8	2.00	-2.00	0.00
9,800.0	3.22	97.06	9,658.3	-180.4	1,456.5	16.8	2.00	-2.00	0.00
9,900.0	1.22	97.06	9,758.2	-180.9	1,460.4	16.9	2.00	-2.00	0.00
9,960.8	0.00	0.00	9,819.0	-181.0	1,461.0	16.9	2.00	-2.00	0.00
KOP: 10' FSL & 2200' FWL (4)									
10,000.0	3.92	359.66	9,858.2	-179.7	1,461.0	18.2	9.99	9.99	0.00

Planning Report

Database:	Hobbs	**Local Co-ordinate Reference:**	Site Black Sheep 4/33 B2NC Fed Com #2H
Company:	Mewbourne Oil Company	**TVD Reference:**	WELL @ 3637.0usft (Original Well Elev)
Project:	Lea County, New Mexico NAD 83	**MD Reference:**	WELL @ 3637.0usft (Original Well Elev)
Site:	Black Sheep 4/33 B2NC Fed Com #2H	**North Reference:**	Grid
Well:	Sec. 4, T22S R34E	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	BHL: 100' FNL & 2200' FWL (33)		
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)
10,050.0	8.92	359.66	9,907.9	-174.1	1,461.0	23.8	9.99	9.99	0.00
10,100.0	13.91	359.66	9,956.9	-164.2	1,460.9	33.5	9.99	9.99	0.00
10,150.0	18.91	359.66	10,004.8	-150.1	1,460.8	47.5	9.99	9.99	0.00
10,200.0	23.90	359.66	10,051.3	-131.8	1,460.7	65.6	9.99	9.99	0.00
10,250.0	28.90	359.66	10,096.1	-109.6	1,460.6	87.6	9.99	9.99	0.00
10,286.4	32.54	359.66	10,127.4	-91.0	1,460.5	106.0	9.99	9.99	0.00
FTP: 100' FSL & 2200' FWL (4)									
10,300.0	33.90	359.66	10,138.8	-83.5	1,460.4	113.4	9.99	9.99	0.00
10,350.0	38.89	359.66	10,179.0	-53.9	1,460.2	142.7	9.99	9.99	0.00
10,400.0	43.89	359.66	10,216.5	-20.8	1,460.0	175.5	9.99	9.99	0.00
10,450.0	48.89	359.66	10,251.0	15.3	1,459.8	211.3	9.99	9.99	0.00
10,500.0	53.88	359.66	10,282.2	54.4	1,459.6	250.0	9.99	9.99	0.00
10,550.0	58.88	359.66	10,309.9	96.0	1,459.3	291.2	9.99	9.99	0.00
10,600.0	63.88	359.66	10,333.8	139.9	1,459.1	334.6	9.99	9.99	0.00
10,650.0	68.87	359.66	10,353.8	185.7	1,458.8	380.0	9.99	9.99	0.00
10,700.0	73.87	359.66	10,369.8	233.1	1,458.5	426.9	9.99	9.99	0.00
10,750.0	78.87	359.66	10,381.6	281.6	1,458.2	475.0	9.99	9.99	0.00
10,800.0	83.86	359.66	10,389.1	331.1	1,457.9	523.9	9.99	9.99	0.00
10,841.0	87.95	359.66	10,392.0	371.9	1,457.7	564.3	9.99	9.99	0.00
10,861.1	87.95	359.66	10,392.7	392.0	1,457.6	584.2	0.00	0.00	0.00
LP: 583' FSL & 2200' FWL (4)									
10,900.0	87.95	359.66	10,394.1	430.9	1,457.3	622.8	0.00	0.00	0.00
11,000.0	87.95	359.66	10,397.7	530.8	1,456.7	721.7	0.00	0.00	0.00
11,100.0	87.95	359.66	10,401.2	630.8	1,456.1	820.7	0.00	0.00	0.00
11,200.0	87.95	359.66	10,404.8	730.7	1,455.5	919.6	0.00	0.00	0.00
11,300.0	87.95	359.66	10,408.4	830.6	1,454.9	1,018.5	0.00	0.00	0.00
11,400.0	87.95	359.66	10,412.0	930.6	1,454.3	1,117.5	0.00	0.00	0.00
11,500.0	87.95	359.66	10,415.5	1,030.5	1,453.7	1,216.4	0.00	0.00	0.00
11,600.0	87.95	359.66	10,419.1	1,130.4	1,453.1	1,315.4	0.00	0.00	0.00
11,700.0	87.95	359.66	10,422.7	1,230.4	1,452.5	1,414.3	0.00	0.00	0.00
11,800.0	87.95	359.66	10,426.2	1,330.3	1,451.9	1,513.3	0.00	0.00	0.00
11,900.0	87.95	359.66	10,429.8	1,430.2	1,451.3	1,612.2	0.00	0.00	0.00
12,000.0	87.95	359.66	10,433.4	1,530.2	1,450.7	1,711.2	0.00	0.00	0.00
12,100.0	87.95	359.66	10,436.9	1,630.1	1,450.1	1,810.1	0.00	0.00	0.00
12,200.0	87.95	359.66	10,440.5	1,730.0	1,449.5	1,909.1	0.00	0.00	0.00
12,300.0	87.95	359.66	10,444.1	1,830.0	1,448.9	2,008.0	0.00	0.00	0.00
12,400.0	87.95	359.66	10,447.6	1,929.9	1,448.3	2,107.0	0.00	0.00	0.00
12,500.0	87.95	359.66	10,451.2	2,029.9	1,447.7	2,205.9	0.00	0.00	0.00
12,600.0	87.95	359.66	10,454.8	2,129.8	1,447.1	2,304.9	0.00	0.00	0.00
12,700.0	87.95	359.66	10,458.3	2,229.7	1,446.5	2,403.8	0.00	0.00	0.00
12,800.0	87.95	359.66	10,461.9	2,329.7	1,445.9	2,502.8	0.00	0.00	0.00
12,900.0	87.95	359.66	10,465.5	2,429.6	1,445.3	2,601.7	0.00	0.00	0.00
12,916.4	87.95	359.66	10,466.1	2,446.0	1,445.2	2,618.0	0.00	0.00	0.00
PPP2: 2679' FNL & 2200' FWL (4)									
13,000.0	87.95	359.66	10,469.0	2,529.5	1,444.7	2,700.7	0.00	0.00	0.00
13,100.0	87.95	359.66	10,472.6	2,629.5	1,444.1	2,799.6	0.00	0.00	0.00
13,200.0	87.95	359.66	10,476.2	2,729.4	1,443.5	2,898.6	0.00	0.00	0.00
13,300.0	87.95	359.66	10,479.8	2,829.3	1,442.9	2,997.5	0.00	0.00	0.00
13,400.0	87.95	359.66	10,483.3	2,929.3	1,442.3	3,096.5	0.00	0.00	0.00
13,500.0	87.95	359.66	10,486.9	3,029.2	1,441.7	3,195.4	0.00	0.00	0.00
13,600.0	87.95	359.66	10,490.5	3,129.1	1,441.1	3,294.4	0.00	0.00	0.00
13,700.0	87.95	359.66	10,494.0	3,229.1	1,440.5	3,393.3	0.00	0.00	0.00
13,800.0	87.95	359.66	10,497.6	3,329.0	1,439.9	3,492.3	0.00	0.00	0.00

Planning Report

Database:	Hobbs	**Local Co-ordinate Reference:**	Site Black Sheep 4/33 B2NC Fed Com #2H
Company:	Mewbourne Oil Company	**TVD Reference:**	WELL @ 3637.0usft (Original Well Elev)
Project:	Lea County, New Mexico NAD 83	**MD Reference:**	WELL @ 3637.0usft (Original Well Elev)
Site:	Black Sheep 4/33 B2NC Fed Com #2H	**North Reference:**	Grid
Well:	Sec. 4, T22S R34E	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	BHL: 100' FNL & 2200' FWL (33)		
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)
13,900.0	87.95	359.66	10,501.2	3,428.9	1,439.3	3,591.2	0.00	0.00	0.00
14,000.0	87.95	359.66	10,504.7	3,528.9	1,438.7	3,690.1	0.00	0.00	0.00
14,100.0	87.95	359.66	10,508.3	3,628.8	1,438.1	3,789.1	0.00	0.00	0.00
14,200.0	87.95	359.66	10,511.9	3,728.7	1,437.5	3,888.0	0.00	0.00	0.00
14,300.0	87.95	359.66	10,515.4	3,828.7	1,436.9	3,987.0	0.00	0.00	0.00
14,400.0	87.95	359.66	10,519.0	3,928.6	1,436.3	4,085.9	0.00	0.00	0.00
14,500.0	87.95	359.66	10,522.6	4,028.5	1,435.7	4,184.9	0.00	0.00	0.00
14,600.0	87.95	359.66	10,526.1	4,128.5	1,435.1	4,283.8	0.00	0.00	0.00
14,700.0	87.95	359.66	10,529.7	4,228.4	1,434.5	4,382.8	0.00	0.00	0.00
14,800.0	87.95	359.66	10,533.3	4,328.3	1,433.9	4,481.7	0.00	0.00	0.00
14,900.0	87.95	359.66	10,536.9	4,428.3	1,433.3	4,580.7	0.00	0.00	0.00
15,000.0	87.95	359.66	10,540.4	4,528.2	1,432.7	4,679.6	0.00	0.00	0.00
15,100.0	87.95	359.66	10,544.0	4,628.1	1,432.1	4,778.6	0.00	0.00	0.00
15,200.0	87.95	359.66	10,547.6	4,728.1	1,431.5	4,877.5	0.00	0.00	0.00
15,300.0	87.95	359.66	10,551.1	4,828.0	1,430.9	4,976.5	0.00	0.00	0.00
15,400.0	87.95	359.66	10,554.7	4,928.0	1,430.3	5,075.4	0.00	0.00	0.00
15,500.0	87.95	359.66	10,558.3	5,027.9	1,429.7	5,174.4	0.00	0.00	0.00
15,600.0	87.95	359.66	10,561.8	5,127.8	1,429.1	5,273.3	0.00	0.00	0.00
15,600.2	87.95	359.66	10,561.8	5,128.0	1,429.1	5,273.5	0.00	0.00	0.00
PPP3: 0' FSL & 2200' FWL (33)									
15,700.0	87.95	359.66	10,565.4	5,227.8	1,428.5	5,372.3	0.00	0.00	0.00
15,800.0	87.95	359.66	10,569.0	5,327.7	1,427.9	5,471.2	0.00	0.00	0.00
15,900.0	87.95	359.66	10,572.5	5,427.6	1,427.3	5,570.2	0.00	0.00	0.00
16,000.0	87.95	359.66	10,576.1	5,527.6	1,426.7	5,669.1	0.00	0.00	0.00
16,100.0	87.95	359.66	10,579.7	5,627.5	1,426.1	5,768.1	0.00	0.00	0.00
16,200.0	87.95	359.66	10,583.2	5,727.4	1,425.5	5,867.0	0.00	0.00	0.00
16,300.0	87.95	359.66	10,586.8	5,827.4	1,424.9	5,966.0	0.00	0.00	0.00
16,400.0	87.95	359.66	10,590.4	5,927.3	1,424.3	6,064.9	0.00	0.00	0.00
16,500.0	87.95	359.66	10,594.0	6,027.2	1,423.7	6,163.9	0.00	0.00	0.00
16,600.0	87.95	359.66	10,597.5	6,127.2	1,423.1	6,262.8	0.00	0.00	0.00
16,700.0	87.95	359.66	10,601.1	6,227.1	1,422.5	6,361.8	0.00	0.00	0.00
16,800.0	87.95	359.66	10,604.7	6,327.0	1,421.9	6,460.7	0.00	0.00	0.00
16,900.0	87.95	359.66	10,608.2	6,427.0	1,421.3	6,559.6	0.00	0.00	0.00
17,000.0	87.95	359.66	10,611.8	6,526.9	1,420.7	6,658.6	0.00	0.00	0.00
17,100.0	87.95	359.66	10,615.4	6,626.8	1,420.1	6,757.5	0.00	0.00	0.00
17,200.0	87.95	359.66	10,618.9	6,726.8	1,419.5	6,856.5	0.00	0.00	0.00
17,300.0	87.95	359.66	10,622.5	6,826.7	1,418.9	6,955.4	0.00	0.00	0.00
17,400.0	87.95	359.66	10,626.1	6,926.6	1,418.3	7,054.4	0.00	0.00	0.00
17,500.0	87.95	359.66	10,629.6	7,026.6	1,417.7	7,153.3	0.00	0.00	0.00
17,600.0	87.95	359.66	10,633.2	7,126.5	1,417.1	7,252.3	0.00	0.00	0.00
17,700.0	87.95	359.66	10,636.8	7,226.4	1,416.5	7,351.2	0.00	0.00	0.00
17,800.0	87.95	359.66	10,640.3	7,326.4	1,415.9	7,450.2	0.00	0.00	0.00
17,900.0	87.95	359.66	10,643.9	7,426.3	1,415.3	7,549.1	0.00	0.00	0.00
18,000.0	87.95	359.66	10,647.5	7,526.3	1,414.7	7,648.1	0.00	0.00	0.00
18,100.0	87.95	359.66	10,651.1	7,626.2	1,414.1	7,747.0	0.00	0.00	0.00
18,200.0	87.95	359.66	10,654.6	7,726.1	1,413.5	7,846.0	0.00	0.00	0.00
18,300.0	87.95	359.66	10,658.2	7,826.1	1,412.9	7,944.9	0.00	0.00	0.00
18,400.0	87.95	359.66	10,661.8	7,926.0	1,412.3	8,043.9	0.00	0.00	0.00
18,500.0	87.95	359.66	10,665.3	8,025.9	1,411.7	8,142.8	0.00	0.00	0.00
18,600.0	87.95	359.66	10,668.9	8,125.9	1,411.1	8,241.8	0.00	0.00	0.00
18,700.0	87.95	359.66	10,672.5	8,225.8	1,410.5	8,340.7	0.00	0.00	0.00
18,800.0	87.95	359.66	10,676.0	8,325.7	1,409.9	8,439.7	0.00	0.00	0.00
18,900.0	87.95	359.66	10,679.6	8,425.7	1,409.3	8,538.6	0.00	0.00	0.00
19,000.0	87.95	359.66	10,683.2	8,525.6	1,408.7	8,637.6	0.00	0.00	0.00

Planning Report

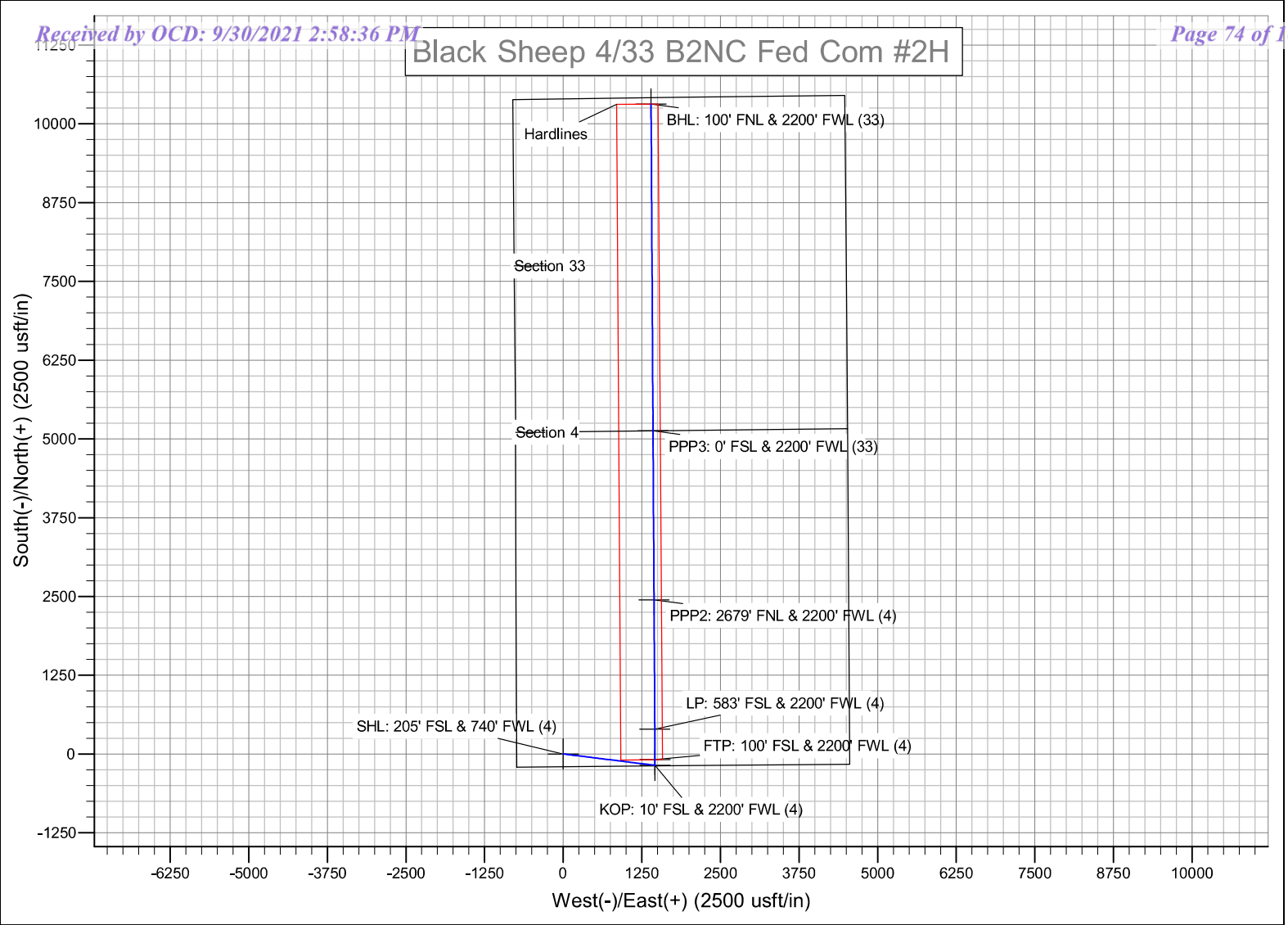
Database:	Hobbs	**Local Co-ordinate Reference:**	Site Black Sheep 4/33 B2NC Fed Com #2H
Company:	Mewbourne Oil Company	**TVD Reference:**	WELL @ 3637.0usft (Original Well Elev)
Project:	Lea County, New Mexico NAD 83	**MD Reference:**	WELL @ 3637.0usft (Original Well Elev)
Site:	Black Sheep 4/33 B2NC Fed Com #2H	**North Reference:**	Grid
Well:	Sec. 4, T22S R34E	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	BHL: 100' FNL & 2200' FWL (33)		
Design:	Design #1		

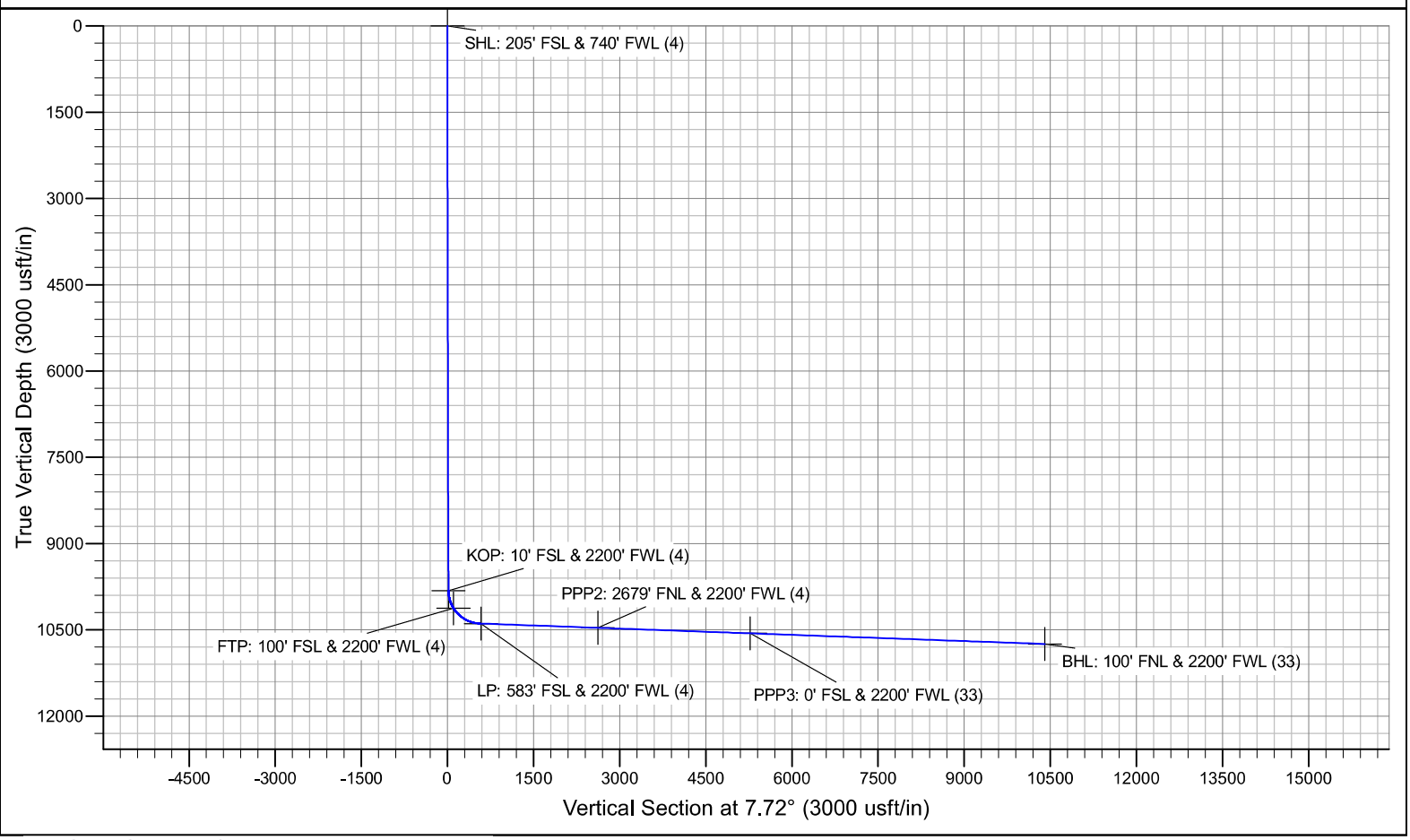
Planned Survey

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)
19,100.0	87.95	359.66	10,686.7	8,625.5	1,408.1	8,736.5	0.00	0.00	0.00
19,200.0	87.95	359.66	10,690.3	8,725.5	1,407.5	8,835.5	0.00	0.00	0.00
19,300.0	87.95	359.66	10,693.9	8,825.4	1,406.9	8,934.4	0.00	0.00	0.00
19,400.0	87.95	359.66	10,697.4	8,925.3	1,406.3	9,033.4	0.00	0.00	0.00
19,500.0	87.95	359.66	10,701.0	9,025.3	1,405.7	9,132.3	0.00	0.00	0.00
19,600.0	87.95	359.66	10,704.6	9,125.2	1,405.1	9,231.2	0.00	0.00	0.00
19,700.0	87.95	359.66	10,708.2	9,225.1	1,404.5	9,330.2	0.00	0.00	0.00
19,800.0	87.95	359.66	10,711.7	9,325.1	1,403.9	9,429.1	0.00	0.00	0.00
19,900.0	87.95	359.66	10,715.3	9,425.0	1,403.3	9,528.1	0.00	0.00	0.00
20,000.0	87.95	359.66	10,718.9	9,524.9	1,402.7	9,627.0	0.00	0.00	0.00
20,100.0	87.95	359.66	10,722.4	9,624.9	1,402.1	9,726.0	0.00	0.00	0.00
20,200.0	87.95	359.66	10,726.0	9,724.8	1,401.5	9,824.9	0.00	0.00	0.00
20,300.0	87.95	359.66	10,729.6	9,824.7	1,400.9	9,923.9	0.00	0.00	0.00
20,400.0	87.95	359.66	10,733.1	9,924.7	1,400.3	10,022.8	0.00	0.00	0.00
20,500.0	87.95	359.66	10,736.7	10,024.6	1,399.7	10,121.8	0.00	0.00	0.00
20,600.0	87.95	359.66	10,740.3	10,124.5	1,399.1	10,220.7	0.00	0.00	0.00
20,700.0	87.95	359.66	10,743.8	10,224.5	1,398.5	10,319.7	0.00	0.00	0.00
20,788.6	87.95	359.66	10,747.0	10,313.0	1,398.0	10,407.3	0.00	0.00	0.00
BHL: 100' FNL & 2200' FWL (33)									

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: 205' FSL & 740' FV - plan hits target center - Point	0.00	0.00	0.0	0.0	0.0	515,406.00	804,332.00	32.4140359	-103.4810928
KOP: 10' FSL & 2200' F\ - plan hits target center - Point	0.00	0.00	9,819.0	-181.0	1,461.0	515,225.00	805,793.00	32.4135063	-103.4763635
FTP: 100' FSL & 2200' F - plan hits target center - Point	0.00	0.00	10,127.4	-91.0	1,460.5	515,315.00	805,792.46	32.4137537	-103.4763629
LP: 583' FSL & 2200' FV - plan hits target center - Point	0.00	0.00	10,392.7	392.0	1,457.6	515,798.00	805,789.56	32.4150813	-103.4763598
PPP2: 2679' FNL & 220(- plan hits target center - Point	0.00	0.00	10,466.1	2,446.0	1,445.2	517,852.00	805,777.23	32.4207270	-103.4763464
PPP3: 0' FSL & 2200' FV - plan hits target center - Point	0.00	0.00	10,561.8	5,128.0	1,429.1	520,534.00	805,761.13	32.4280989	-103.4763288
BHL: 100' FNL & 2200' F - plan hits target center - Point	0.00	0.00	10,747.0	10,313.0	1,398.0	525,719.00	805,730.00	32.4423506	-103.4762949


Black Sheep 4/33 B2NC Fed Com #2H
Hardlines
BHL: 100' FNL & 2200' FWL (33)
Section 33
Section 4
PPP3: 0' FSL & 2200' FWL (33)
PPP2: 2679' FNL & 2200' FWL (4)
LP: 583' FSL & 2200' FWL (4)
SHL: 205' FSL & 740' FWL (4)
FTP: 100' FSL & 2200' FWL (4)
KOP: 10' FSL & 2200' FWL (4)
South(-)/North(+) (2500 usft/in)
West(-)/East(+) (2500 usft/in)
11250
10000
8750
7500
6250
5000
3750
2500
1250
0
-1250
-6250
-5000
-3750
-2500
-1250
0
1250
2500
3750
5000
6250
7500
8750
10000


SHL: 205' FSL & 740' FWL (4)
KOP: 10' FSL & 2200' FWL (4)
PPP2: 2679' FNL & 2200' FWL (4)
FTP: 100' FSL & 2200' FWL (4)
BHL: 100' FNL & 2200' FWL (33)
LP: 583' FSL & 2200' FWL (4)
PPP3: 0' FSL & 2200' FWL (33)
True Vertical Depth (3000 usft/in)
Vertical Section at 7.72° (3000 usft/in)
0
1500
3000
4500
6000
7500
9000
10500
12000
-4500
-3000
-1500
0
1500
3000
4500
6000
7500
9000
10500
12000
13500
15000

Intent [X] As Drilled [ ]

API #

Operator Name:	Property Name:	Well Number
Mewbourne Oil Co.	Black Sheep 4/33 B2NC Fed Com	2H

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
N	4	22S	34E		10	S	2200	W	Lea

Latitude	Longitude	NAD
32.4135063	-103.4763635	83

First Take Point (FTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
N	4	22S	34E		100	S	2200	W	Lea

Latitude	Longitude	NAD
32.4137537	-103.4763629	83

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
C	33	21S	34E		100	N	2200	W	Lea

Latitude	Longitude	NAD
32.4423497	-103.4762943	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

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	**MEWBOURNE OIL COMPANY**
LEASE NO.:	NMNM0381970
WELL NAME & NO.:	BLACK SHEEP 4-33 B2CN FED COM 2H
SURFACE HOLE FOOTAGE:	205' FSL & 740' FWL
BOTTOM HOLE FOOTAGE	100' FNL & 2200' FWL
LOCATION:	Section 4, T. 22 S., R 34 E., NMP
COUNTY:	Lea County, New Mexico

COA

H2S	(•) Yes	( ) No	
Potash	(•) None	( ) Secretary	( ) R-111-P
Cave/Karst Potential	(•) Low	( ) Medium	( ) High
Variance	( ) None	(•) Flex Hose	( ) Other
Wellhead	( ) Conventional	(•) Multibowl	( ) Both
Other	[ ] 4 String Area	[x] Capitan Reef	[ ] WIPP
Other	[ ] Fluid Filled	[ ] Cement Squeeze	[ ] Pilot Hole
Special Requirements	[ ] Water Disposal	[x] COM	[ ] Unit

A. HYDROGEN SULFIDE

A Hydrogen Sulfide (H2S) Drilling Plan shall be activated 500 feet prior to drilling into the **Undesignated** formation in the Grama Ridge pool. As a result, the Hydrogen Sulfide area must meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.

B. CASING

1. The **13-3/8** inch surface casing shall be set at approximately **1,760 feet** (a minimum of **25 feet (Lea 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)

 Approval Date: 09/27/2021

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 **5,350 feet** is:

Option 1 (Single Stage):

- Cement to surface. If cement does not circulate see B.1.a, c-d above. **Excess cement calculates to -57%, additional cement might be required.**

Option 2:

Operator has proposed DV tool at depth of **3,750'**, but will adjust cement proportionately if moved, the depth may be adjusted as long as the cement is changed proportionally. DV tool shall be set a minimum of 50' below previous shoe and a minimum of 200' above current shoe. Operator shall submit sundry if DV tool depth cannot be set in this range. If an ECP is used, it is to be set a minimum of 50' below the shoe to provide cement across the shoe. If it cannot be set below the shoe, a CBL shall be run to verify cement coverage. 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 to surface. If cement does not circulate, contact the appropriate BLM office.

❖ **Special Capitan Reef requirements.** If lost circulation (50% or greater) occurs below the Base of the Salt, the operator shall do the following:

- Switch to fresh water mud to protect the Capitan Reef and use fresh water mud until setting the intermediate casing. The appropriate BLM office is to be notified for a PET to witness the switch to fresh water.

- Daily drilling reports from the Base of the Salt to the setting of the intermediate casing are to be submitted to the BLM CFO engineering staff via e-mail by 0800 hours each morning. Any lost circulation encountered is to be recorded on these drilling reports. The daily drilling report should show mud volume per shift/tour. Failure to submit these reports will result in an Incidence of Non-

Compliance being issued for failure to comply with the Conditions of Approval. If not already planned, the operator shall run a caliper survey for the intermediate well bore and submit to the appropriate BLM office.

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

    - Cement should tie-back at least **50 feet** above the Capitan Reef. Operator shall provide method of verification.

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.

 Approval Date: 09/27/2021

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.

OTA09232021

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**

Operator Name: MEWBOURNE OIL COMPANY

Well Name: BLACK SHEEP 4/33 B2NC FED COM **Well Number:** 2H

Waste type: GARBAGE

Waste content description: Garbage & trash

Amount of waste: 1500 pounds

Waste disposal frequency : One Time Only

Safe containment description: Enclosed trash trailer

Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** PRIVATE

Disposal type description:

Disposal location description: Waste Management facility in Carlsbad.

Reserve Pit

Reserve Pit being used? NO

Temporary disposal of produced water into reserve pit? NO

Reserve pit length (ft.) **Reserve pit width (ft.)**

Reserve pit depth (ft.) **Reserve pit volume (cu. yd.)**

Is at least 50% of the reserve pit in cut?

Reserve pit liner

Reserve pit liner specifications and installation description

Cuttings Area

Cuttings Area being used? NO

Are you storing cuttings on location? N

Description of cuttings location

Cuttings area length (ft.) **Cuttings area width (ft.)**

Cuttings area depth (ft.) **Cuttings area volume (cu. yd.)**

Is at least 50% of the cuttings area in cut?

WCuttings area liner

Cuttings area liner specifications and installation description

Operator Name: MEWBOURNE OIL COMPANY

Well Name: BLACK SHEEP 4/33 B2NC FED COM **Well Number:** 2H

Section 8 - Ancillary Facilities

Are you requesting any Ancillary Facilities?: N

Ancillary Facilities attachment:

Comments:

Section 9 - Well Site Layout

Well Site Layout Diagram:

BlackSheep4_33B2NCFedCom2H_wellsitelayout_20210408143331.pdf

Comments:

Section 10 - Plans for Surface Reclamation

Type of disturbance: New Surface Disturbance

Multiple Well Pad Name: Black Sheep 4 MD & 4/33 MD & NC Fed Com wells
Multiple Well Pad Number: 3

Recontouring attachment:

Drainage/Erosion control construction: None

Drainage/Erosion control reclamation: None

Well pad proposed disturbance (acres): 4.22	**Well pad interim reclamation (acres):** 0.96	**Well pad long term disturbance (acres):** 3.26
Road proposed disturbance (acres):	**Road interim reclamation (acres):** 0	**Road long term disturbance (acres):** 0
Powerline proposed disturbance (acres): 0	**Powerline interim reclamation (acres):** 0	**Powerline long term disturbance (acres):** 0
Pipeline proposed disturbance (acres): 0.91	**Pipeline interim reclamation (acres):** 0	**Pipeline long term disturbance (acres):** 0
Other proposed disturbance (acres): 0	**Other interim reclamation (acres):** 0	**Other long term disturbance (acres):** 0
Total proposed disturbance: 5.13	**Total interim reclamation:** 0.96	**Total long term disturbance:** 3.26

Disturbance Comments: In areas to be heavily disturbed, the top 6 inches of soil material, will be stripped and stockpiled on the perimeter of the well location to keep topsoil viable, and to make redistribution of topsoil more efficient during interim reclamation. Stockpiled topsoil should include vegetative material. Topsoil will be clearly segregated and stored separately from subsoils. Contaminated soil will not be stockpiled, but properly treated and handled prior to topsoil salvaging.
Reconstruction method: The areas planned for interim reclamation will then be recontoured to the original contour if feasible, or if not feasible, to an interim contour that blends with the surrounding topography as much as possible. Where applicable, the fill material of the well pad will be backfilled into the cut to bring the area back to the original contour. The interim cut and fill slopes prior to re-seeding will not be steeper than a 3:1 ratio, unless the adjacent native topography is steeper. Note: Constructed slopes may be much steeper during drilling, but will be recontoured to the above ratios during interim reclamation.
Topsoil redistribution: Topsoil will be evenly respread and aggressively revegetated over the entire disturbed area not needed for all-weather operations including cuts & fills. To seed the area, the proper BLM seed mixture, free of noxious weeds, will be used.

AFMSS

U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

Drilling Plan Data Report
09/28/2021

APD ID: 10400072476 **Submission Date:** 04/15/2021

Operator Name: MEWBOURNE OIL COMPANY

Well Name: BLACK SHEEP 4/33 B2NC FED COM **Well Number:** 2H

Well Type: OIL 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
3537945	UNKNOWN	3610	28	28	OTHER : Top Soil	NONE	N
3537950	RUSTLER	1843	1767	1767	ANHYDRITE, DOLOMITE	USEABLE WATER	N
3537949	TOP SALT	1348	2262	2262	SALT	NONE	N
3537946	BOTTOM SALT	-127	3737	3750	SALT	NONE	N
3537953	YATES	-352	3962	4000	SANDSTONE	NATURAL GAS, OIL	N
3537954	CAPITAN REEF	-657	4267	4298	DOLOMITE, LIMESTONE	USEABLE WATER	N
3537951	DELAWARE	-1807	5417	5482	LIMESTONE	NATURAL GAS, OIL	N
3537944	BONE SPRINGS	-4937	8547	8680	LIMESTONE, SHALE	NATURAL GAS, OIL	N
3537947	BONE SPRING 1ST	-5960	9570	9707	SANDSTONE	NATURAL GAS, OIL	N
3537948	BONE SPRING 2ND	-6522	10132	10290	SANDSTONE	NATURAL GAS, OIL	Y

Section 2 - Blowout Prevention

Pressure Rating (PSI): 5M **Rating Depth:** 20789

Equipment: Annular, Pipe Rams, Blind Ram

Requesting Variance? YES

Variance request: A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. Anchors not required by manufacturer. A multi-bowl wellhead is being 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.
Choke Diagram Attachment:

AFMSS

U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

Drilling Plan Data Report
09/28/2021

APD ID: 10400072476
Submission Date: 04/15/2021
Operator Name: MEWBOURNE OIL COMPANY
Well Name: BLACK SHEEP 4/33 B2NC FED COM
Well Number: 2H
Well Type: OIL 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
3537945	UNKNOWN	3610	28	28	OTHER : Top Soil	NONE	N
3537950	RUSTLER	1843	1767	1767	ANHYDRITE, DOLOMITE	USEABLE WATER	N
3537949	TOP SALT	1348	2262	2262	SALT	NONE	N
3537946	BOTTOM SALT	-127	3737	3750	SALT	NONE	N
3537953	YATES	-352	3962	4000	SANDSTONE	NATURAL GAS, OIL	N
3537954	CAPITAN REEF	-657	4267	4298	DOLOMITE, LIMESTONE	USEABLE WATER	N
3537951	DELAWARE	-1807	5417	5482	LIMESTONE	NATURAL GAS, OIL	N
3537944	BONE SPRINGS	-4937	8547	8680	LIMESTONE, SHALE	NATURAL GAS, OIL	N
3537947	BONE SPRING 1ST	-5960	9570	9707	SANDSTONE	NATURAL GAS, OIL	N
3537948	BONE SPRING 2ND	-6522	10132	10290	SANDSTONE	NATURAL GAS, OIL	Y

Section 2 - Blowout Prevention

Pressure Rating (PSI): 5M
Rating Depth: 20789

Equipment: Annular, Pipe Rams, Blind Ram

Requesting Variance? YES

Variance request: A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. Anchors not required by manufacturer. A multi-bowl wellhead is being 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.
Choke Diagram Attachment:

Operator Name: MEWBOURNE OIL COMPANY

Well Name: BLACK SHEEP 4/33 B2NC FED COM **Well Number:** 2H

Black_Sheep_4_33_B2NC_Fed_Com_2H_5M_BOPE_Choke_Diagram_20210413153802.pdf

Black_Sheep_4_33_B2NC_Fed_Com_2H_Flex_Line_Specs_API_16C_20210413153803.pdf

Black_Sheep_4_33_B2NC_Fed_Com_2H_Flex_Line_Specs_20210413153804.pdf

BOP Diagram Attachment:

Black_Sheep_4_33_B2NC_Fed_Com_2H_Multi_Bowl_WH_20210413153818.pdf

Black_Sheep_4_33_B2NC_Fed_Com_2H_5M_BOPE_Schematic_20210413153818.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	1875	0	1875	3637	1762	1875	J-55	54.5	ST&C	1.32	3.18	DRY	2.03	DRY	8.35
2	INTERMEDIATE	12.25	9.625	NEW	API	Y	0	3452	0	3427	3624	210	3452	J-55	36	LT&C	1.13	1.96	DRY	2.14	DRY	2.67
3	INTERMEDIATE	12.25	9.625	NEW	API	Y	3452	4390	3427	4350	210	-713	938	J-55	40	LT&C	1.13	1.73	DRY	5.95	DRY	7.21
4	INTERMEDIATE	12.25	9.625	NEW	API	Y	4390	5636	4350	5570	-713	-1933	1246	HCL-80	40	LT&C	1.44	1.96	DRY	16.79	DRY	18.38
5	PRODUCTION	8.75	7.0	NEW	API	N	0	10861	0	10393	3635	-6756	10861	P-110	26	LT&C	1.21	1.94	DRY	2.45	DRY	2.94
6	LINER	6.125	4.5	NEW	API	N	9961	20789	9819	10747	-6182	-7110	10828	P-110	13.5	LT&C	1.74	2.02	DRY	2.31	DRY	2.89

Casing Attachments

Operator Name: MEWBOURNE OIL COMPANY

Well Name: BLACK SHEEP 4/33 B2NC 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):

Black_Sheep_4_33_B2NC_Fed_Com_2H__Csg_Assumptions_20210413154123.doc

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

Inspection Document:

Spec Document:

Tapered String Spec:

Black_Sheep_4_33_B2NC_Fed_Com_2H___9.625_TAPERED_STRING_DIAGRAM_20210413154254.xlsx

Casing Design Assumptions and Worksheet(s):

Black_Sheep_4_33_B2NC_Fed_Com_2H__Csg_Assumptions_20210413154323.doc

Casing ID: 3 **String Type:** INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Black_Sheep_4_33_B2NC_Fed_Com_2H___9.625_TAPERED_STRING_DIAGRAM_20210413154708.xlsx

Casing Design Assumptions and Worksheet(s):

Black_Sheep_4_33_B2NC_Fed_Com_2H__Csg_Assumptions_20210413154736.doc

Operator Name: MEWBOURNE OIL COMPANY

Well Name: BLACK SHEEP 4/33 B2NC FED COM **Well Number:** 2H

Casing Attachments

Casing ID: 4 **String Type:** INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Black_Sheep_4_33_B2NC_Fed_Com_2H___9.625_TAPERED_STRING_DIAGRAM_20210413154830.xlsx

Casing Design Assumptions and Worksheet(s):

Black_Sheep_4_33_B2NC_Fed_Com_2H__Csg_Assumptions_20210413154900.doc

Casing ID: 5 **String Type:** PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Black_Sheep_4_33_B2NC_Fed_Com_2H__Csg_Assumptions_20210413154403.doc

Casing ID: 6 **String Type:** LINER

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Black_Sheep_4_33_B2NC_Fed_Com_2H__Csg_Assumptions_20210413154456.doc

Section 4 - Cement

Operator Name: MEWBOURNE OIL COMPANY

Well Name: BLACK SHEEP 4/33 B2NC FED COM **Well Number:** 2H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
INTERMEDIATE	Lead		0	0	0	0	0	0	0	0	0

INTERMEDIATE	Lead		0	0	0	0	0	0	0	0	0

SURFACE	Lead		0	1682	1110	2.12	12.5	2353	100	Class C	Salt, Gel, Extender, LCM
SURFACE	Tail		1682	1875	200	1.34	14.8	268	100	Class C	Retarder
INTERMEDIATE	Lead	3750	0	3439	700	2.12	12.5	1484	25	Class C	Salt, Gel Extender, LCM
INTERMEDIATE	Tail		3439	3750	100	1.34	14.8	134	25	Class C	Retarder
INTERMEDIATE	Lead	3750	3750	4951	230	2.12	12.5	488	25	Class C	Salt, Gel, Extender, LCM
INTERMEDIATE	Tail		4951	5636	200	1.34	14.8	268	25	Class C	Retarder
PRODUCTION	Lead		4210	8349	850	2.12	12.5	1802	25	Class C	Gel, Retarder, Defoamer, Extender
PRODUCTION	Tail		8349	10861	400	1.18	15.6	472	25	Class H	Retarder, Fluid Loss, Defoamer
LINER	Lead		10861	20789	430	2.97	11.2	1277	25	Class C	Salt, Gel, Fluid Loss, Retarder, Dispersant, Defoamer, Anti-Settling Agent

Operator Name: MEWBOURNE OIL COMPANY

Well Name: BLACK SHEEP 4/33 B2NC 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: 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	1875	SPUD MUD	8.6	8.8							
1875	5636	SALT SATURATED	10	10							
5636	10861	WATER-BASED MUD	8.6	9.5							
10861	20789	OIL-BASED MUD	9	11							

Section 6 - Test, Logging, Coring

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

Will run GR/CNL from KOP (9961') to surface

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: BLACK SHEEP 4/33 B2NC FED COM **Well Number:** 2H

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 6147 **Anticipated Surface Pressure:** 3782

Anticipated Bottom Hole Temperature(F): 150

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:

Black_Sheep_4_33_B2NC_Fed_Com_2H_H2S_Plan_20210413155616.pdf

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

Black_Sheep_4_33_B2NC_Fed_Com_2H_Dir_Plan_20210413155639.pdf
Black_Sheep_4_33_B2NC_Fed_Com_2H_Dir_Plot_20210413155641.pdf

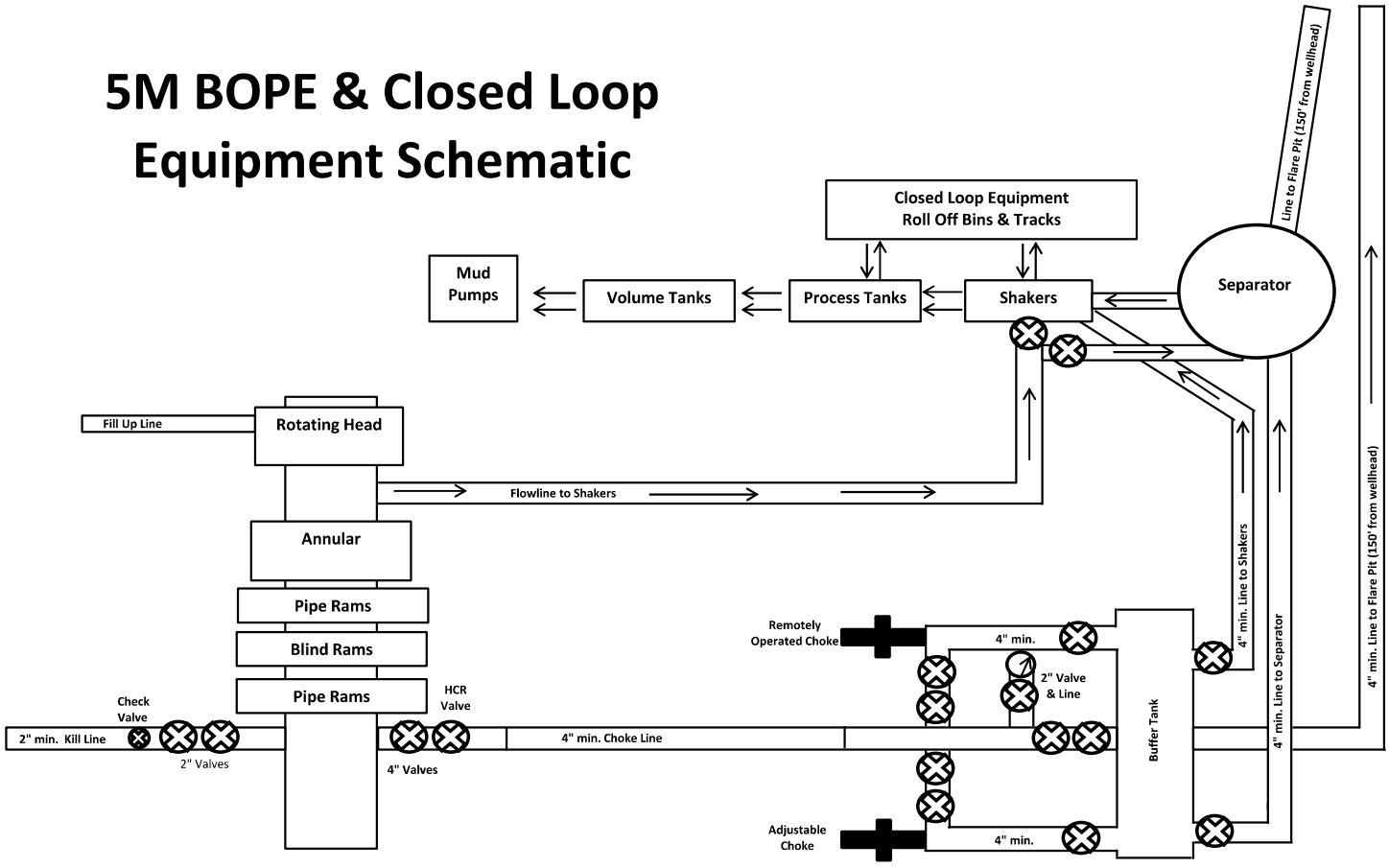
Other proposed operations facets description:

Other proposed operations facets attachment:

Black_Sheep_4_33_B2NC_Fed_Com_2H_Add_Info_20210413155842.pdf

Other Variance attachment:

5M BOPE & Closed Loop Equipment Schematic



Drawing not to scale

Note: All valves & lines on choke manifold are 4" unless otherwise noted. Exact manifold configuration may vary.

GATES ENGINEERING & SERVICES NORTH AMERICA
7603 Prairie Oak Dr.
Houston, TX 77086

PHONE: (281) 602 - 4119
FAX:
EMAIL: Troy.Schmidt@gates.com
WEB: www.gates.com

10K CHOKE & KILL ASSEMBLY PRESSURE TEST CERTIFICATE

Customer:	A-7 AUSTIN INC DBA AUSTIN HOSE	Test Date:	8/20/2018
Customer Ref.:	4101901	Hose Serial No.:	H-082018-10
Invoice No.:	511956	Created By:	Moosa Naqvi

Product Description:	10KF3.035.0CK41/1610KFLGFXDxFLT L/E

End Fitting 1:	4 1/16 in. Fixed Flange	End Fitting 2:	4 1/16 in. Float Flange
Gates Part No.:	68503010-9721632	Assembly Code:	L40695052218H-082018-10
Working Pressure:	10,000 psi.	Test Pressure:	15,000 psi.

Gates Engineering & Services North America certifies that the following hose assembly has successfully passed all pressure testing requirements set forth in Gates specifications: GTS-04-052 (for 5K assemblies) or GTS-04-053 (10K assemblies), which include reference to Specification API 16C (2nd Edition); sections 7.5.4, 7.5.9, and 10.8.7. A test graph will accompany this test certificate to illustrate conformity to test requirements.

Quality:	QUALITY	Production:	PRODUCTION
Date :	8/20/2018	Date :	8/20/2018
Signature :	Moosa Naqvi	Signature :	

Form PTC - 01 Rev.0 2

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

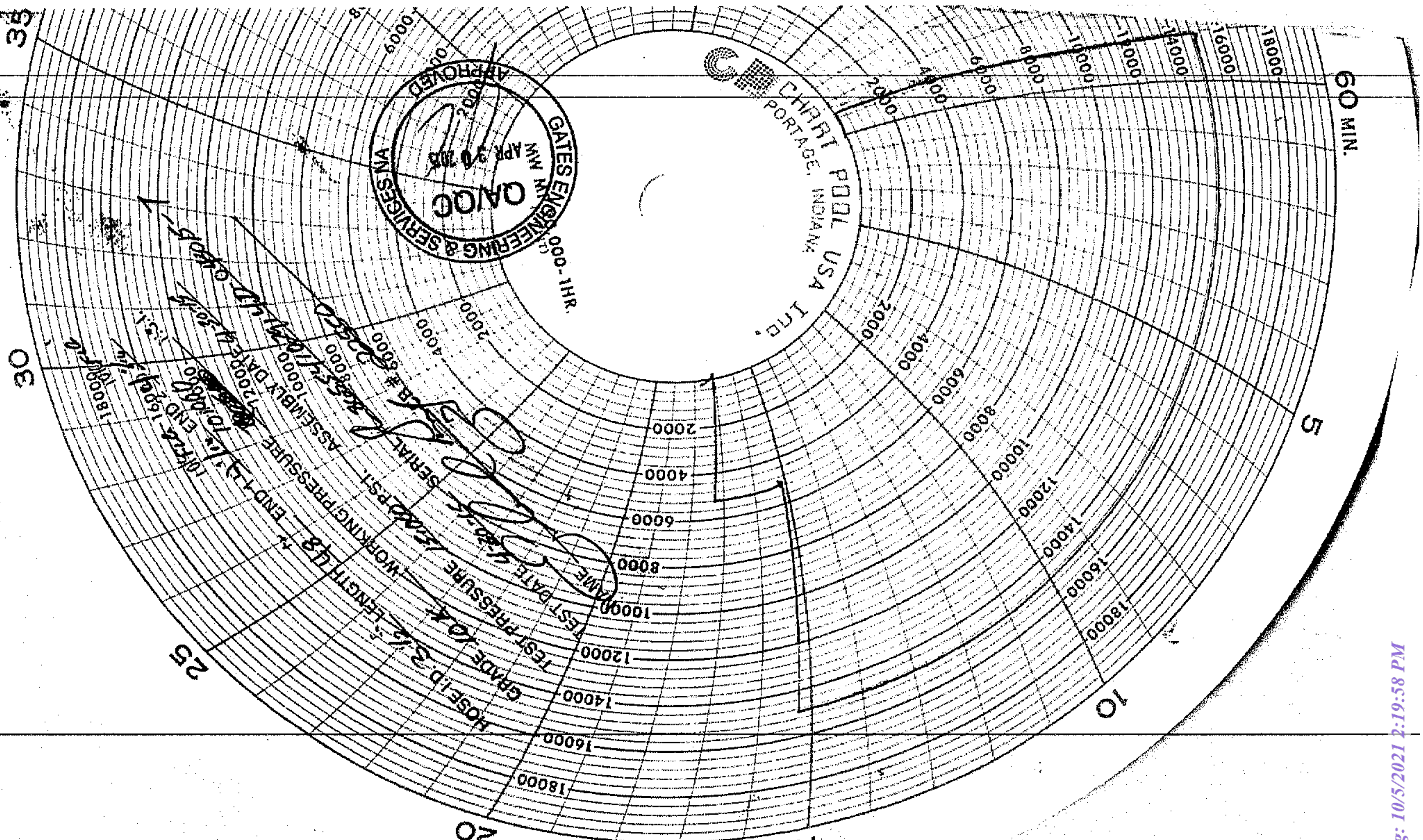
Product Description:	10K3.548.0CK4.1/1610KFLGE/E LE

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.

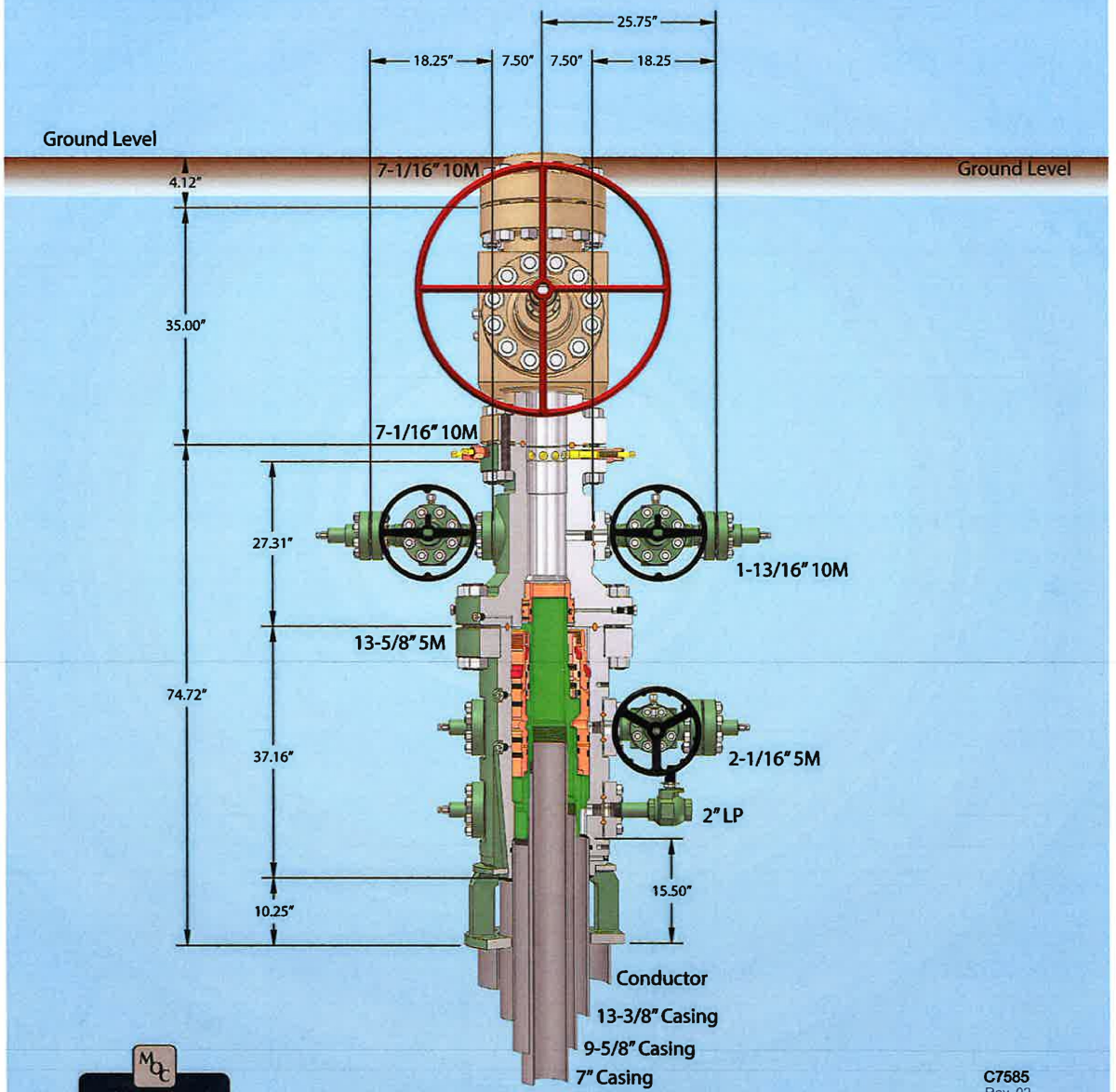
Quality Manager :	QUALITY	Produciton:	PRODUCTION
Date :	4/30/2015	Date :	4/30/2015
Signature :		Signature :	

Form-PTC - 01 Rev.0 2



CAMERON
A Schlumberger Company

13-5/8" MN-DS Wellhead System

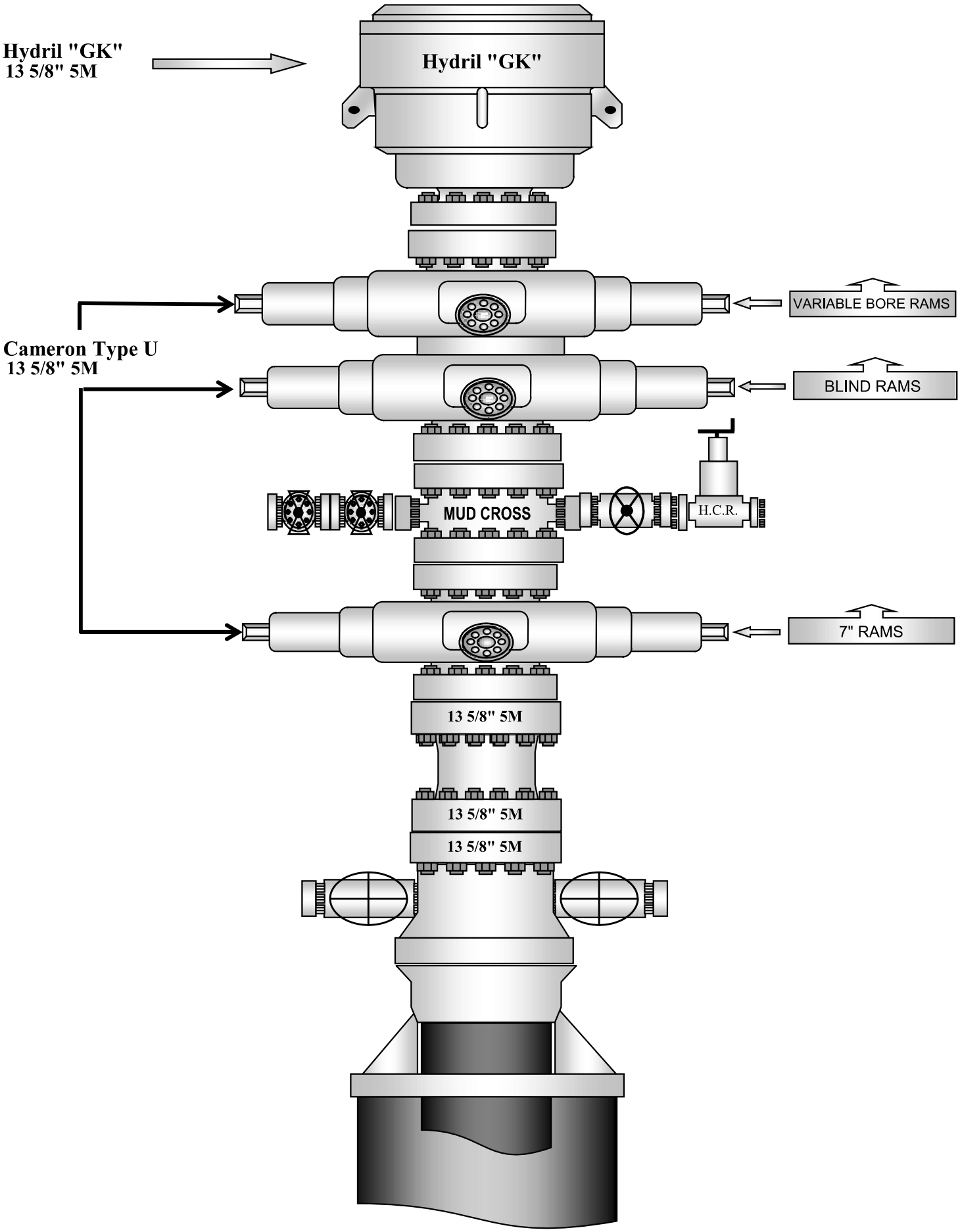


MEWBOURNE OIL COMPANY

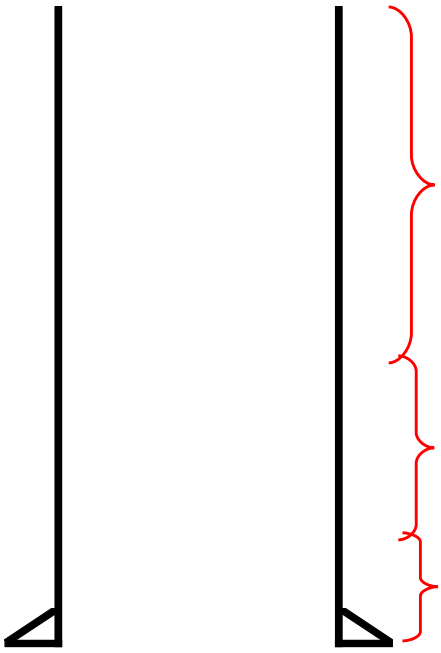
C7585
Rev. 02
NOTE: All dimensions on this drawing are estimated measurements and should be evaluated by engineering.

Cutting flange 57" conductor cut-off
79

5M BOPE Schematic

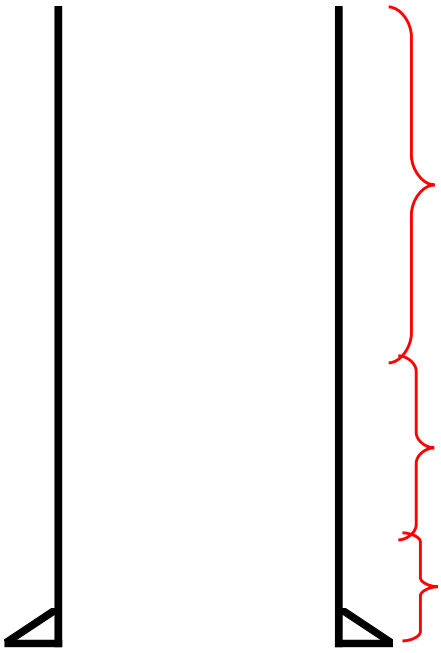


TAPERED STRING DIAGRAM



	COLLAPSE	BURST	JOINT YIELD	BODY YIELD
36#	1.130	1.960	2.140	2.670
40#	1.130	1.730	5.950	7.210
40# HCL80	1.44	1.96	16.79	18.38

TAPERED STRING DIAGRAM



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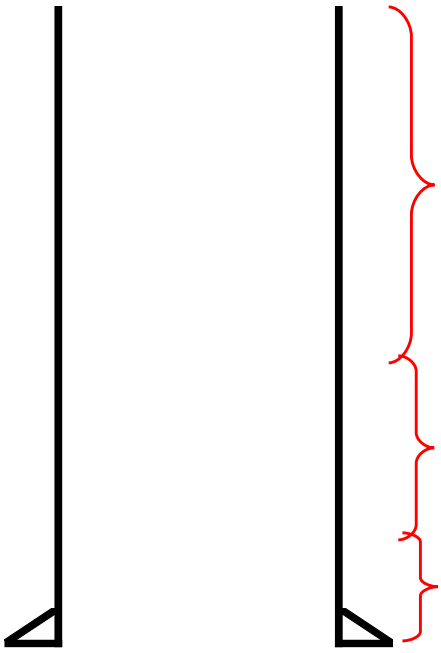

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Phone:(575) 393-6161 Fax:(575) 393-0720
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District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 53324

CONDITIONS

Operator:	OGRID:
MEWBOURNE OIL CO P.O. Box 5270 Hobbs, NM 88241	14744
	Action Number: 53324
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

CONDITIONS

Created By	Condition	Condition Date
pkautz	Will require a File As Drilled C-102 and a Directional Survey with the C-104	10/5/2021
pkautz	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string	10/5/2021
pkautz	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system	10/5/2021
pkautz	Cement is required to circulate on both surface and intermediate1 strings of casing	10/5/2021