Form 3160-5
(June 2019)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires: October 31, 2021

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE *- Other instructions on page 2*

5. Lease Serial No. NMNM104965

6. If Indian, Allottee or Tribe Name

7. If Unit of CA/Agreement, Name and/or No. FORTY NINER RIDGE UNIT/NMNM70951X

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

8. Well Name and No. FORTY NINER RIDGE UNIT/131H

2. Name of Operator MEWBOURNE OIL COMPANY

9. API Well No. 3001549435

3a. Address P O BOX 5270, HOBBS, NM 88241

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

10. Field and Pool or Exploratory Area PURPLE SAGE/Wolfcamp

4. Location of Well *(Footage, Sec., T.,R.,M., or Survey Description)* SEC 16/T23S/R30E/NMP

11. Country or Parish, State EDDY/NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☑ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Subsequent Report	☐ Casing Repair	☐ New Construction	☐ Recomplete	☐ Other
	☑ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
☐ Final Abandonment Notice	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be perfonned or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has detennined that the site is ready for final inspection.)

Mewbourne Oil Company requests approval to make the following changes to the approved APD:

1) Change SHL from 2575' FNL & 1395' FWL, Sec 16, T23S, R30E to 2575' FNL & 1455' FWL, Sec 16, T23S, R30E
2) Change pool from Wildcat Wolfcamp (98268) to Forty Niner Ridge Bone Spring (24720) and target zone from Wolfcamp to Harkey shale
3) Change casing and cement design as detailed in the attachment
4) Variance requested to cement production casing with an open annulus below the 9 5/8" casing shoe, according to R-111-Q, to be braden-head squeezed after completion.

No new surface disturbance is required.

14. I hereby certify that the foregoing is true and correct. Name *(Printed/Typed)* ANDY TAYLOR / Ph: (575) 393-5905

Title Engineer

Signature (Electronic Submission)

Date 04/12/2024

THE SPACE FOR FEDERAL OR STATE OFICE USE

Approved by CHRISTOPHER WALLS / Ph: (575) 234-2234 / Approved

Title Petroleum Engineer

Date 04/22/2024

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office CARLSBAD

Title 18 U.S.C Section 1001 and Title 43 U.S.C Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

GENERAL INSTRUCTIONS

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

SPECIFIC INSTRUCTIONS

Item 4 - Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult the local Federal office for specific instructions.

Item 13: Proposals to abandon a well and subsequent reports of abandonment should include such special information as is required by the local Federal office. In addition, such proposals and reports should include reasons for the abandonment; data on any former or present productive zones or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, method of parting of any casing, liner or tubing pulled and the depth to the top of any tubing left in the hole; method of closing top of well and date well site conditioned for final inspection looking for approval of the abandonment. If the proposal will involve **hydraulic fracturing operations**, you must comply with 43 CFR 3162.3-3, including providing information about the protection of usable water. Operators should provide the best available information about all formations containing water and their depths. This information could include data and interpretation of resistivity logs run on nearby wells. Information may also be obtained from state or tribal regulatory agencies and from local BLM offices.

NOTICES

The privacy Act of 1974 and the regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.
AUTHORITY: 30 U.S.C. 181 et seq., 351 et seq., 25 U.S.C. 396; 43 CFR 3160.
PRINCIPAL PURPOSE: The information is used to: (1) Evaluate, when appropriate, approve applications, and report completion of subsequent well operations, on a Federal or Indian lease; and (2) document for administrative use, information for the management, disposal and use of National Resource lands and resources, such as: (a) evaluating the equipment and procedures to be used during a proposed subsequent well operation and reviewing the completed well operations for compliance with the approved plan; (b) requesting and granting approval to perform those actions covered by 43 CFR 3162.3-2, 3162.3-3, and 3162.3-4; (c) reporting the beginning or resumption of production, as required by 43 CFR 3162.4-1(c)and (d) analyzing future applications to drill or modify operations in light of data obtained and methods used.
ROUTINE USES: Information from the record and/or the record will be transferred to appropriate Federal, State, local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecutions in connection with congressional inquiries or to consumer reporting agencies to facilitate collection of debts owed the Government.
EFFECT OF NOT PROVIDING THE INFORMATION: Filing of this notice and report and disclosure of the information is mandatory for those subsequent well operations specified in 43 CFR 3162.3-2, 3162.3-3, 3162.3-4.

The Paperwork Reduction Act of 1995 requires us to inform you that:
The BLM collects this information to evaluate proposed and/or completed subsequent well operations on Federal or Indian oil and gas leases.
Response to this request is mandatory.
The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

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

Additional Information

Location of Well

0. SHL: SENW / 2575 FNL / 1395 FWL / TWSP: 23S / RANGE: 30E / SECTION: 16 / LAT: 32.3053 / LONG: -103.8903374 (TVD: 0 feet, MD: 0 feet)

PPP: NWSW / 2557 FSL / 440 FWL / TWSP: 23S / RANGE: 30E / SECTION: 16 / LAT: 32.3042378 / LONG: -103.8934407 (TVD: 11705 feet, MD: 12095 feet)

PPP: NWNW / 0 FNL / 440 FWL / TWSP: 23S / RANGE: 30E / SECTION: 21 / LAT: 32.2978386 / LONG: -103.8934668 (TVD: 11705 feet, MD: 14423 feet)

PPP: SWSW / 1328 FSL / 440 FWL / TWSP: 23S / RANGE: 30E / SECTION: 21 / LAT: 32.2868983 / LONG: -103.8935114 (TVD: 11705 feet, MD: 18403 feet)

PPP: NWSW / 2655 FSL / 440 FWL / TWSP: 23S / RANGE: 30E / SECTION: 21 / LAT: 32.290546 / LONG: -103.8934965 (TVD: 11705 feet, MD: 17076 feet)

BHL: SWSW / 330 FSL / 440 FWL / TWSP: 23S / RANGE: 30E / SECTION: 21 / LAT: 32.2841538 / LONG: -103.8935241 (TVD: 11705 feet, MD: 19401 feet)

FORTY NINER RIDGE UNIT 131H

Surface Casing

13 3/8 in. surface casing in a 17 1/2 inch hole. Design Factors

Segment	#/ft	Grade	Coupling	Joint	Collapse	Burst	Length	B@s	a-B	a-C	Weight
"A"	48.00	H 40	STC	17.42	4.58	1.05	385	10	1.99	9.24	18,480
"B"			STC				0				0
			Tail Cement	does	circ to sfc.	Totals:	385				18,480

Comparison of Proposed to Minimum Required Cement Volumes

Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	Drilling Mud Wt	Calc MASP	Req'd BOPE	Minimum Clearance b/w Hole & Couplings
17 1/2	0.6946	330	544	306	77	8.40	869	2M	1.56

5M BOPE below surface.

Int 1 Casing

9 5/8 inch casing inside the 13 3/8 inch casing. Design Factors

Segment	#/ft	Grade	Coupling	Joint	Collapse	Burst	Length	B@s	a-B	a-C	Weight
"A"	40.00	J 55	LTC	3.70	1.57	0.76	3,510	2	1.32	2.96	140,400
"B"							0				0
						Totals:	3,510				140,400

The top of cement is intended to be at 0 ft. from the surface or have a 385 ft. overlap with previous casing.

Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	Drilling Mud Wt	Calc MASP	Req'd BOPE	Minimum Clearance b/w Hole & Couplings
12 1/4	0.3132	740	1413	1124	26	9.00	2993	5M	0.81

Burst Frac Gradient(s) for Segment(s): A, B, C, D = 1.13, b, c, d All > 0.70, OK.

Prod 1 Casing

7 inch casing inside the 9 5/8 inch casing. Design Factors

Segment	#/ft	Grade	Coupling	Joint	Collapse	Burst	Length	B@s	a-B	a-C	Weight
"A"	26.00	HCP 110	LTC	2.45	1.48	1.92	10,337	2	3.32	2.61	268,762
"B"							0				0
						Totals:	10,337				268,762

The top of cement is intended to be at 4500 ft. from the surface or have a -990 ft. overlap with previous casing.

Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	Drilling Mud Wt	Calc MASP	Req'd BOPE	Minimum Clearance b/w Hole & Couplings
8 3/4	0.1503	595	885	877	1	10.00	3772	5M	0.55

Class 'C' tail cmt yld > 1.35

Operator is proposing to use R-111-Q guidelines for cementing production casing. 2nd stage will be Bradenhead within 180 days after well completion. Production casing must be kept fluid-filled to meet collapse design requirements.

Liner

4 1/2 inch Liner w/top @ 9437 ft. from the surface. Design Factors

Segment	#/ft	Grade	Coupling	Joint	Collapse	Burst	Length	B@s	a-B	a-C	Weight
"A"	13.50	P 110	LTC	7.38	1.63	2.08	8,663	2	3.29	2.83	116,951
"B"			0.00				0				0
						Totals:	8,663				116,951

The top of cement is intended to be at 9437 ft. from the surface or have a 900 ft. overlap with previous casing.

Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	Drilling Mud Wt	Calc MASP	Req'd BOPE	Minimum Clearance b/w Hole & Couplings
6 1/8	0.0942	350	1040	741	40	11.50			0.56

Class 'H' tail cmt yld > 1.20

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	MEWBOURNE OIL COMPANY
WELL NAME & NO.:	FORTY NINER RIDGE UNIT 131H
APD ID	10400068398
SURFACE HOLE FOOTAGE:	2575'/N & 1455'/W
BOTTOM HOLE FOOTAGE	100'/S & 1420'/W
SURFACE LOCATION:	Section 16, T.23 S., R.30 E. NMP.
COUNTY:	Eddy County, New Mexico

COA

H_2S	(•) Yes	( ) No	
Potash	( ) None	( ) Secretary	(•) R-111-P
Cave/Karst Potential	( ) Low	( ) Medium	(•) High
Cave/Karst Potential	( ) Critical		
Variance	( ) None	(•) Flex Hose	( ) Other
Wellhead	( ) Conventional	(•) Multibowl	( ) Both
Other	[ ] 4 String	[ ] Capitan Reef	[ ] WIPP
Other	[x] Fluid Filled	[ ] Pilot Hole	[ ] Open Annulus
Other Variances	[ ] Offline cementing	[x] Squeeze cement	[ ] Break testing
Special Requirements	[ ] Water Disposal	[ ] COM	[x] Unit

SEE ORIGINAL COA FOR ALL OTHER REQUIREMENTS.

A. HYDROGEN SULFIDE

A Hydrogen Sulfide (H_2S) Drilling Plan shall be activated **AT SPUD**. As a result, the Hydrogen Sulfide area must meet **43 CFR 3176** 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 DESIGN

1. The **13-3/8** inch surface casing shall be set at approximately **385 ft.** (a minimum of 70 feet (Eddy County) into the Rustler Anhydrite and above the salt) and cemented to the surface. **If salt is encountered, set casing at least 25 ft. above the salt.**
    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 **24 hours** or **500 psi compressive strength**, whichever is greater. (This is to include the lead cement)
c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 psi compressive strength, whichever is greater.
d. If cement falls back, remedial cementing will be done prior to drilling out that string.

2. The **9-5/8** inch intermediate casing shall be set in a competent bed at approximately **3,510 ft.** The minimum required fill of cement behind the **9-5/8** inch intermediate casing is:

- **Cement to surface.** If cement does not circulate see B.1.a, c-d above. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to **Potash and cave/karst**.

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

❖ In Secretary Potash Areas if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.

❖ In R111 Potash Areas if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.

3. Operator has proposed to set **7-inch 26# HCP-110** production casing at approximately **10,337 ft.** (9,995 ft. TVD). The minimum required fill of cement behind the **7-inch** production casing is:

Option 1 (Single Stage): Cement to surface. If cement does not circulate see B.1.a, c-d above. Wait on cement (WOC) time for a primary cement job is to include the **lead** cement slurry due to **cave/karst, and potash.**

Option 2 (Two Stage): Operator has proposed to cement in two stages by conventionally cementing the first stage and performing a bradenhead squeeze on the second stage within 180 days after well completion in accordance with R-111-Q guidelines.

a. First stage: Operator will cement production casing with intent to bring cement to top of Brushy Canyon formation. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst and Potash.

b. Second stage: Operator will perform bradenhead squeeze **within 180 days** after completion. Cement shall be tie-back **at least 500 ft.** into intermediate

casing and below the Marker Bed 126. If cement does not circulate, the appropriate BLM office shall be notified.

Note: Operator has proposed to pump down 9-5/8" X 7" annulus within 180 days after well completion in accordance with R-111-Q guidelines. Operator must run Echo-meter to verify Cement Slurry/Fluid top in the annulus AND/OR operator shall run a CBL from TD of the 7" casing to top of the salt after the second stage bradenhead to verify cement bond quality and TOC. Submit results to the BLM. Operator must run one CBL per Well Pad.

Casing test must be conducted in accordance with title 43 CFR 3172. Surface pressure applied will vary based on fluid in the casing and burst conditions.

4. The minimum required fill of cement behind the **4-1/2 in.** production liner is:
   - Cement should tie-back **at least 100 feet** into previous casing string. 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. Before drilling the surface casing shoe out, the BOP/BOPE and annular preventer shall be pressure-tested in accordance with **title 43 CFR 3172 and API Standard 53.**

   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 the **title 43 CFR 3172.6(b)(9)** must be followed.

D. SPECIAL REQUIREMENT (S)

Unit Wells

The well sign for a unit well shall include the unit number in addition to the surface and bottom hole lease numbers. This also applies to participating area numbers. If a participating area has not been established, the operator can use the general unit designation, but will replace the unit number with the participating area number when the sign is replaced.

Commercial Well Determination

A commercial well determination shall be submitted after production has been established for at least six months. (This is not necessary for secondary recovery unit wells)

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
EMAIL or call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220,
BLM_NM_CFO_DrillingNotifications@BLM.GOV
(575) 361-2822

☒ Lea County
Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575) 689-5981

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 **title 43 CFR 3172**
      - 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 integrity 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 integrity 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 the **title 43 CFR 3172** and **API STD 53 Sec. 5.3**.

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 the **title 43 CFR 3172.6(b)(9)** 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 cement), 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 cement plug. The BOPE test can be initiated after bumping the cement plug with the casing valve open. (only applies to single stage cement jobs, prior to the cement setting up.)

c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer and can be initiated immediately with the casing valve open. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to **43 CFR 3172** 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 **43 CFR 3172**.

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.

SA 04/20/2024

Mewbourne Oil Company
Variance Request

Mewbourne Oil Company request a variance for the production string per R-111P guidelines to be implemented as follows:

Production String

a) The Production string shall consist new oil field casing in good condition that meets API specifications, rated for the loads expected over the lifecycle of the well.

b) For wells within the KPLA where a 2nd intermediate string will not be utilized resulting in a 3 String Design (Surface, Salt or Salt/Capitan Reef, Production), the following safeguard shall apply to safely divert flow of wellbore fluids away from the Salt Interval in the event of a catastrophic production casing failure. The Surface Equipment utilized during stimulation operations should be designed to relieve pressure from the production x intermediate casing annulus below the burst threshold of the casing string components.

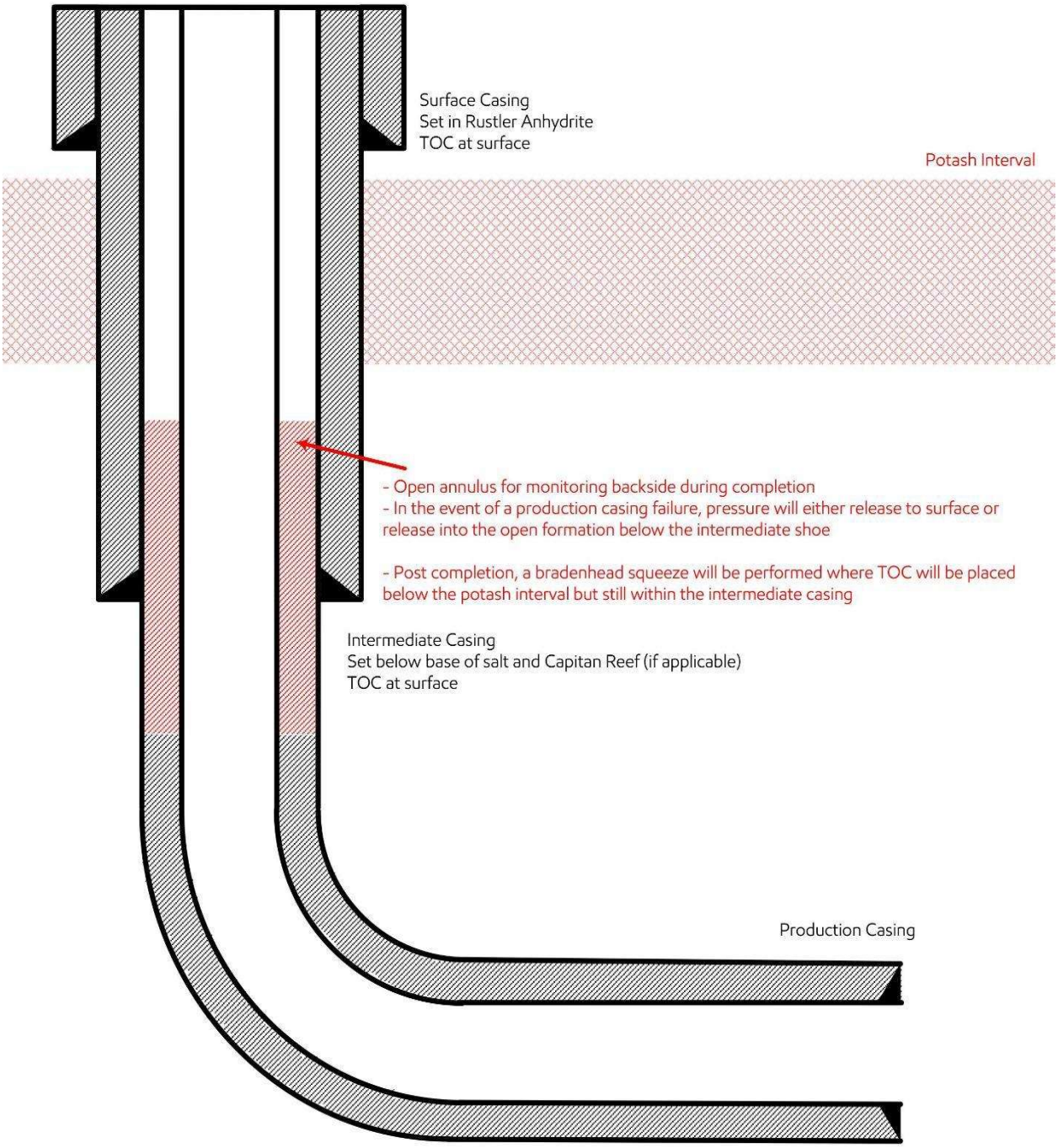
i. A monitored open annulus will be incorporated during completion by leaving the 1st Intermediate Casing x Production Casing annulus un-cemented and monitored inside the 1st Intermediate String. Reference wellbore diagram.

i. The top of cement in the Production Casing x 1st Intermediate Casing Annulus shall stand uncemented at least 500’ below the 1st Intermediate Casing Shoe. Zero percent excess shall be pumped on the Production Cementing Slurry to ensure no tie-back into the 1st Intermediate Casing Shoe.

ii. After Stimulation Operations have been concluded and no longer than 180 days after the well is brought online, the operator will be responsible for Bradenheading cement to ensure at least a 500’ tie back has been established inside the 1st Intermediate (Salt String / Capitan String) but not higher than Marker Bed No. 126 (base of the Potash mining interval).

iii. The top of cement may be estimated through pumped displacement volumes or with the use of a fluid shot tool prior to filling backside with fluid.

3-String Design – Open Production Casing Annulus



Mewbourne Oil Company, Forty Niner Ridge Unit #131H
Sec 16, T23S, R30E
SHL: 2575' FNL & 1455' FWL (16)
BHL: 100' FSL & 1420' FWL (21)

Casing Program

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'	385'	13.375"	48	H40	STC	4.37	9.82	17.42	29.27
12.25"	0'	3510'	9.625"	40	J55	LTC	1.41	2.16	3.70	4.49
8.75"	0'	10,337'	7"	26	HCP110	LTC	1.56	1.99	2.58	3.46
6.125"	9437'	18,100'	4.5"	13.5	P110	LTC	2.05	2.39	2.89	3.61
				BLM Minimum Safety Factor			1.125	1	1.6 Dry 1.8 Wet	1.6 Dry 1.8 Wet

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

	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	Y
Is casing API approved? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	N
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
Is well located within Capitan Reef?	N
If yes, does production casing cement tie back a minimum of 50' above the Reef?	
Is well within the designated 4 string boundary.	
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3rd string cement tied back 500' into previous casing?	
Is well located in R-111-P and SOPA?	Y
If yes, are the first three strings cemented to surface?	N
Is 2nd string set 100' to 600' below the base of salt?	Y
Is an open annulus used to satisfy R-111-Q? If yes, see cement design	Y
Is an engineered weak point used to satisfy R-111-Q?	N
If yes, at what depth is the weak point planned?	
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, Forty Niner Ridge Unit #131H
Sec 16, T23S, R30E
SHL: 2575' FNL & 1455' FWL (16)
BHL: 100' FSL & 1420' FWL (21)

Cementing Program

Casing	# Sks	Wt. lb/ gal	Yld ft3/ sack	H_20 gal/ sk	500# Comp. Strength (hours)	Slurry Description
Surf.	130	12.5	2.12	11	10	Lead: Class C + Salt + Gel + Extender + LCM
	200	14.8	1.34	6.3	8	Tail: Class C + Retarder
Inter.	540	12.5	2.12	11	10	Lead: Class C + Salt + Gel + Extender + LCM
	200	14.8	1.34	6.3	8	Tail: Class C + Retarder
Prod.	195	12.5	2.12	11	9	Lead: Class C + Gel + Retarder + Defoamer + Extender
	400	15.6	1.18	5.2	10	Tail: Class C + Retarder
Liner	350	11.2	2.97	18	16	Class C + Salt + Gel + Fluid Loss + Retarder + Dispersant + Defoamer + Anti-Settling Agent

A copy of cement test will be available on location at time of cement job providing pump times & compressive strengths.

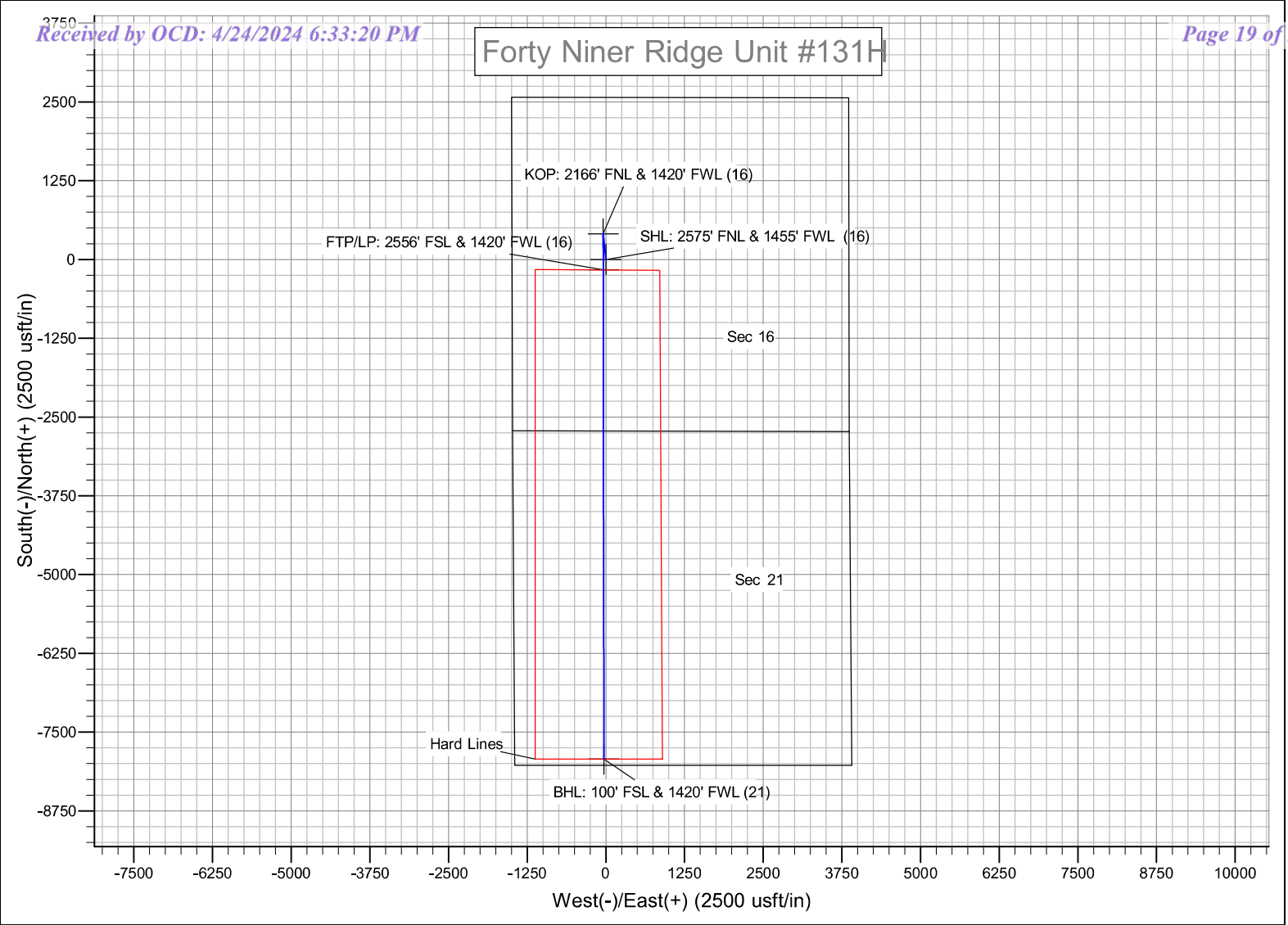
Casing String	TOC	% Excess
Surface	0'	100%
Intermediate	0'	25%
Production	4500'	0%
Liner	9437'	25%

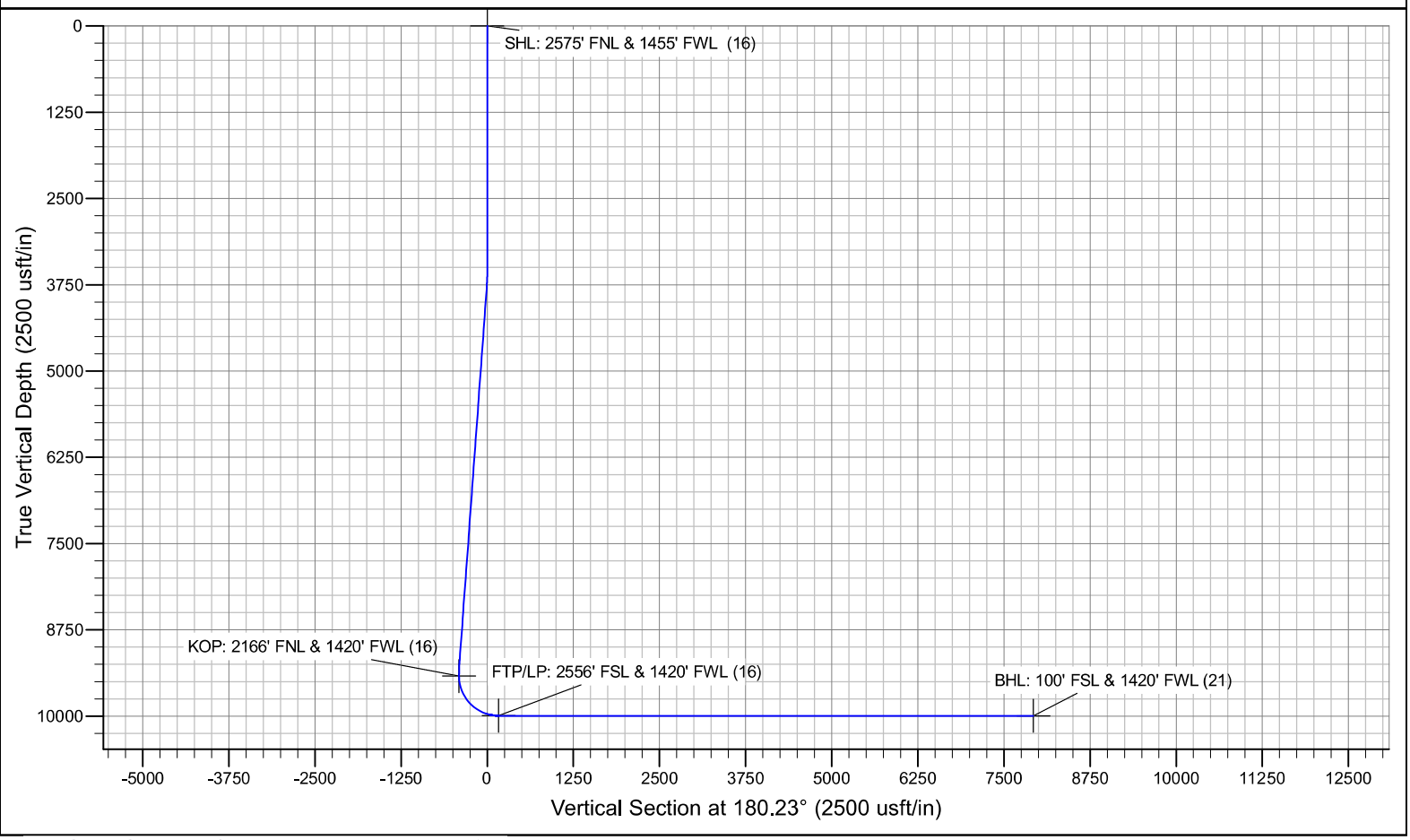
Casing	# Sks	Wt. lb/ gal	Yld ft3/ sack	H_20 gal/ sk	500# Comp. Strength (hours)	Slurry Description
Braden head	130	14.8	1.34	6.3	8	Class C

Casing String	TOC	% Excess
Production	3370'	0%

Mewbourne Oil Company, Forty Niner Ridge Unit #131H
Sec 16, T23S, R30E
SHL: 2575' FNL & 1455' FWL (16)
BHL: 100' FSL & 1420' FWL (21)

Formation	Depth (TVD) from KB
Quaternary Fill	Surface
Rustler	
Top of Salt	435
Castile	
Base of Salt	3370
Yates	
Capitan	
Lamar	3590
Bell Canyon	3620
Cherry Canyon	4250
Manzanita Marker	4480
Brushy Canyon	5855
Bone Spring	7150
1st Bone Spring Sand	8170
2nd Bone Spring Sand	8540
3rd Bone Spring Sand	9300
Abo	
Wolfcamp	10450
Devonian	
Ellenburger	
Granite Wash	


Forty Niner Ridge Unit #131H
KOP: 2166' FNL & 1420' FWL (16)
FTP/LP: 2556' FSL & 1420' FWL (16)
SHL: 2575' FNL & 1455' FWL (16)
Sec 16
Sec 21
Hard Lines
BHL: 100' FSL & 1420' FWL (21)
South(-)/North(+) (2500 usft/in)
West(-)/East(+) (2500 usft/in)


SHL: 2575' FNL & 1455' FWL (16)
KOP: 2166' FNL & 1420' FWL (16)
FTP/LP: 2556' FSL & 1420' FWL (16)
BHL: 100' FSL & 1420' FWL (21)
True Vertical Depth (2500 usft/in)
Vertical Section at 180.23° (2500 usft/in)

Mewbourne Oil Company

Eddy County, New Mexico NAD 83
Forty Niner Ridge Unit #131H
Sec 16, T23S, R30E
SHL: 2575' FNL & 1455' FWL, Sec 16
BHL: 100' FSL & 1420' FWL, Sec 21

Plan: Design #1

Standard Planning Report

11 April, 2024

Planning Report

Database:	Hobbs	**Local Co-ordinate Reference:**	Site Forty Niner Ridge Unit #131H
Company:	Mewbourne Oil Company	**TVD Reference:**	WELL @ 3163.0usft (Original Well Elev)
Project:	Eddy County, New Mexico NAD 83	**MD Reference:**	WELL @ 3163.0usft (Original Well Elev)
Site:	Forty Niner Ridge Unit #131H	**North Reference:**	Grid
Well:	Sec 16, T23S, R30E	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	BHL: 100' FSL & 1420' FWL, Sec 21		
Design:	Design #1		

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

Site	Forty Niner Ridge Unit #131H				
Site Position:		**Northing:**	475,083.30 usft	**Latitude:**	32.3052991
From:	Map	**Easting:**	678,264.50 usft	**Longitude:**	-103.8901434
Position Uncertainty:	0.0 usft	**Slot Radius:**	13-3/16 "		

Well	Sec 16, T23S, R30E					
Well Position	**+N/-S**	0.0 usft	**Northing:**	475,083.30 usft	**Latitude:**	32.3052991
	+E/-W	0.0 usft	**Easting:**	678,264.50 usft	**Longitude:**	-103.8901434
Position Uncertainty		0.0 usft	**Wellhead Elevation:**	3,163.0 usft	**Ground Level:**	3,135.0 usft
Grid Convergence:		0.24 °				

Wellbore	BHL: 100' FSL & 1420' FWL, Sec 21				
Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	IGRF2010	12/31/2014	7.30	60.12	48,253.58202059

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	180.23

Plan Survey Tool Program **Date** 4/11/2024

	Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	18,099.2	Design #1 (BHL: 100' FSL & 1420		

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	
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.00	0.00	0.00	0.00	
3,809.0	4.18	354.16	3,808.8	7.6	-0.8	2.00	2.00	0.00	354.16	
9,227.8	4.18	354.16	9,213.2	400.4	-40.9	0.00	0.00	0.00	0.00	
9,436.8	0.00	0.00	9,422.0	408.0	-41.7	2.00	-2.00	0.00	180.00	KOP: 2166' FNL & 14
10,336.8	90.00	179.93	9,995.0	-165.0	-41.0	10.00	10.00	0.00	179.93	
18,099.2	90.00	179.93	9,995.0	-7,927.3	-31.8	0.00	0.00	0.00	0.00	BHL: 100' FSL & 142(

Planning Report

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Site:	Forty Niner Ridge Unit #131H	**North Reference:**	Grid
Well:	Sec 16, T23S, R30E	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	BHL: 100' FSL & 1420' FWL, Sec 21		
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: 2575' FNL & 1455' FWL (16)									
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
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	0.00
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	0.00
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00
3,700.0	2.00	354.16	3,700.0	1.7	-0.2	-1.7	2.00	2.00	0.00
3,809.0	4.18	354.16	3,808.8	7.6	-0.8	-7.6	2.00	2.00	0.00
3,900.0	4.18	354.16	3,899.6	14.2	-1.4	-14.2	0.00	0.00	0.00
4,000.0	4.18	354.16	3,999.3	21.4	-2.2	-21.4	0.00	0.00	0.00
4,100.0	4.18	354.16	4,099.0	28.7	-2.9	-28.7	0.00	0.00	0.00
4,200.0	4.18	354.16	4,198.8	35.9	-3.7	-35.9	0.00	0.00	0.00
4,300.0	4.18	354.16	4,298.5	43.2	-4.4	-43.2	0.00	0.00	0.00
4,400.0	4.18	354.16	4,398.2	50.4	-5.2	-50.4	0.00	0.00	0.00
4,500.0	4.18	354.16	4,498.0	57.7	-5.9	-57.7	0.00	0.00	0.00
4,600.0	4.18	354.16	4,597.7	64.9	-6.6	-64.9	0.00	0.00	0.00
4,700.0	4.18	354.16	4,697.4	72.2	-7.4	-72.1	0.00	0.00	0.00
4,800.0	4.18	354.16	4,797.2	79.4	-8.1	-79.4	0.00	0.00	0.00
4,900.0	4.18	354.16	4,896.9	86.7	-8.9	-86.6	0.00	0.00	0.00
5,000.0	4.18	354.16	4,996.6	93.9	-9.6	-93.9	0.00	0.00	0.00
5,100.0	4.18	354.16	5,096.4	101.2	-10.3	-101.1	0.00	0.00	0.00
5,200.0	4.18	354.16	5,196.1	108.4	-11.1	-108.4	0.00	0.00	0.00

Planning Report

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Wellbore:	BHL: 100' FSL & 1420' FWL, Sec 21		
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)
5,300.0	4.18	354.16	5,295.9	115.7	-11.8	-115.6	0.00	0.00	0.00
5,400.0	4.18	354.16	5,395.6	122.9	-12.6	-122.9	0.00	0.00	0.00
5,500.0	4.18	354.16	5,495.3	130.2	-13.3	-130.1	0.00	0.00	0.00
5,600.0	4.18	354.16	5,595.1	137.4	-14.0	-137.4	0.00	0.00	0.00
5,700.0	4.18	354.16	5,694.8	144.7	-14.8	-144.6	0.00	0.00	0.00
5,800.0	4.18	354.16	5,794.5	151.9	-15.5	-151.9	0.00	0.00	0.00
5,900.0	4.18	354.16	5,894.3	159.2	-16.3	-159.1	0.00	0.00	0.00
6,000.0	4.18	354.16	5,994.0	166.4	-17.0	-166.3	0.00	0.00	0.00
6,100.0	4.18	354.16	6,093.7	173.7	-17.7	-173.6	0.00	0.00	0.00
6,200.0	4.18	354.16	6,193.5	180.9	-18.5	-180.8	0.00	0.00	0.00
6,300.0	4.18	354.16	6,293.2	188.2	-19.2	-188.1	0.00	0.00	0.00
6,400.0	4.18	354.16	6,392.9	195.4	-20.0	-195.3	0.00	0.00	0.00
6,500.0	4.18	354.16	6,492.7	202.7	-20.7	-202.6	0.00	0.00	0.00
6,600.0	4.18	354.16	6,592.4	209.9	-21.5	-209.8	0.00	0.00	0.00
6,700.0	4.18	354.16	6,692.1	217.2	-22.2	-217.1	0.00	0.00	0.00
6,800.0	4.18	354.16	6,791.9	224.4	-22.9	-224.3	0.00	0.00	0.00
6,900.0	4.18	354.16	6,891.6	231.7	-23.7	-231.6	0.00	0.00	0.00
7,000.0	4.18	354.16	6,991.3	238.9	-24.4	-238.8	0.00	0.00	0.00
7,100.0	4.18	354.16	7,091.1	246.2	-25.2	-246.1	0.00	0.00	0.00
7,200.0	4.18	354.16	7,190.8	253.4	-25.9	-253.3	0.00	0.00	0.00
7,300.0	4.18	354.16	7,290.5	260.7	-26.6	-260.6	0.00	0.00	0.00
7,400.0	4.18	354.16	7,390.3	267.9	-27.4	-267.8	0.00	0.00	0.00
7,500.0	4.18	354.16	7,490.0	275.2	-28.1	-275.0	0.00	0.00	0.00
7,600.0	4.18	354.16	7,589.7	282.4	-28.9	-282.3	0.00	0.00	0.00
7,700.0	4.18	354.16	7,689.5	289.7	-29.6	-289.5	0.00	0.00	0.00
7,800.0	4.18	354.16	7,789.2	296.9	-30.3	-296.8	0.00	0.00	0.00
7,900.0	4.18	354.16	7,888.9	304.2	-31.1	-304.0	0.00	0.00	0.00
8,000.0	4.18	354.16	7,988.7	311.4	-31.8	-311.3	0.00	0.00	0.00
8,100.0	4.18	354.16	8,088.4	318.7	-32.6	-318.5	0.00	0.00	0.00
8,200.0	4.18	354.16	8,188.1	325.9	-33.3	-325.8	0.00	0.00	0.00
8,300.0	4.18	354.16	8,287.9	333.2	-34.1	-333.0	0.00	0.00	0.00
8,400.0	4.18	354.16	8,387.6	340.4	-34.8	-340.3	0.00	0.00	0.00
8,500.0	4.18	354.16	8,487.3	347.7	-35.5	-347.5	0.00	0.00	0.00
8,600.0	4.18	354.16	8,587.1	354.9	-36.3	-354.8	0.00	0.00	0.00
8,700.0	4.18	354.16	8,686.8	362.2	-37.0	-362.0	0.00	0.00	0.00
8,800.0	4.18	354.16	8,786.5	369.4	-37.8	-369.3	0.00	0.00	0.00
8,900.0	4.18	354.16	8,886.3	376.7	-38.5	-376.5	0.00	0.00	0.00
9,000.0	4.18	354.16	8,986.0	383.9	-39.2	-383.7	0.00	0.00	0.00
9,100.0	4.18	354.16	9,085.7	391.2	-40.0	-391.0	0.00	0.00	0.00
9,200.0	4.18	354.16	9,185.5	398.4	-40.7	-398.2	0.00	0.00	0.00
9,227.8	4.18	354.16	9,213.2	400.4	-40.9	-400.3	0.00	0.00	0.00
9,300.0	2.74	354.16	9,285.3	404.8	-41.4	-404.6	2.00	-2.00	0.00
9,400.0	0.74	354.16	9,385.2	407.8	-41.7	-407.6	2.00	-2.00	0.00
9,436.8	0.00	0.00	9,422.0	408.0	-41.7	-407.8	2.00	-2.00	0.00
KOP: 2166' FNL & 1420' FWL (16)									
9,450.0	1.32	179.93	9,435.2	407.8	-41.7	-407.7	10.00	10.00	0.00
9,500.0	6.32	179.93	9,485.1	404.5	-41.7	-404.3	10.00	10.00	0.00
9,550.0	11.32	179.93	9,534.5	396.9	-41.7	-396.7	10.00	10.00	0.00
9,600.0	16.32	179.93	9,583.0	384.9	-41.7	-384.7	10.00	10.00	0.00
9,650.0	21.32	179.93	9,630.3	368.8	-41.7	-368.6	10.00	10.00	0.00
9,700.0	26.32	179.93	9,676.1	348.6	-41.6	-348.4	10.00	10.00	0.00
9,750.0	31.32	179.93	9,719.9	324.5	-41.6	-324.3	10.00	10.00	0.00
9,800.0	36.32	179.93	9,761.4	296.7	-41.6	-296.5	10.00	10.00	0.00

Planning Report

Database:	Hobbs	**Local Co-ordinate Reference:**	Site Forty Niner Ridge Unit #131H
Company:	Mewbourne Oil Company	**TVD Reference:**	WELL @ 3163.0usft (Original Well Elev)
Project:	Eddy County, New Mexico NAD 83	**MD Reference:**	WELL @ 3163.0usft (Original Well Elev)
Site:	Forty Niner Ridge Unit #131H	**North Reference:**	Grid
Well:	Sec 16, T23S, R30E	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	BHL: 100' FSL & 1420' FWL, Sec 21		
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)
9,850.0	41.32	179.93	9,800.3	265.3	-41.5	-265.2	10.00	10.00	0.00
9,900.0	46.32	179.93	9,836.4	230.7	-41.5	-230.6	10.00	10.00	0.00
9,950.0	51.32	179.93	9,869.3	193.1	-41.4	-193.0	10.00	10.00	0.00
10,000.0	56.32	179.93	9,898.8	152.8	-41.4	-152.6	10.00	10.00	0.00
10,050.0	61.32	179.93	9,924.7	110.0	-41.3	-109.8	10.00	10.00	0.00
10,100.0	66.32	179.93	9,946.7	65.2	-41.3	-65.0	10.00	10.00	0.00
10,150.0	71.32	179.93	9,964.8	18.6	-41.2	-18.4	10.00	10.00	0.00
10,200.0	76.32	179.93	9,978.7	-29.5	-41.2	29.6	10.00	10.00	0.00
10,250.0	81.32	179.93	9,988.4	-78.5	-41.1	78.7	10.00	10.00	0.00
10,300.0	86.32	179.93	9,993.8	-128.2	-41.1	128.3	10.00	10.00	0.00
10,336.8	90.00	179.93	9,995.0	-165.0	-41.0	165.2	10.00	10.00	0.00
FTP/LP: 2556' FSL & 1420' FWL (16)									
10,400.0	90.00	179.93	9,995.0	-228.2	-40.9	228.3	0.00	0.00	0.00
10,500.0	90.00	179.93	9,995.0	-328.2	-40.8	328.3	0.00	0.00	0.00
10,600.0	90.00	179.93	9,995.0	-428.2	-40.7	428.3	0.00	0.00	0.00
10,700.0	90.00	179.93	9,995.0	-528.2	-40.6	528.3	0.00	0.00	0.00
10,800.0	90.00	179.93	9,995.0	-628.2	-40.5	628.3	0.00	0.00	0.00
10,900.0	90.00	179.93	9,995.0	-728.2	-40.4	728.3	0.00	0.00	0.00
11,000.0	90.00	179.93	9,995.0	-828.2	-40.2	828.3	0.00	0.00	0.00
11,100.0	90.00	179.93	9,995.0	-928.2	-40.1	928.3	0.00	0.00	0.00
11,200.0	90.00	179.93	9,995.0	-1,028.2	-40.0	1,028.3	0.00	0.00	0.00
11,300.0	90.00	179.93	9,995.0	-1,128.2	-39.9	1,128.3	0.00	0.00	0.00
11,400.0	90.00	179.93	9,995.0	-1,228.2	-39.8	1,228.3	0.00	0.00	0.00
11,500.0	90.00	179.93	9,995.0	-1,328.2	-39.6	1,328.3	0.00	0.00	0.00
11,600.0	90.00	179.93	9,995.0	-1,428.2	-39.5	1,428.3	0.00	0.00	0.00
11,700.0	90.00	179.93	9,995.0	-1,528.2	-39.4	1,528.3	0.00	0.00	0.00
11,800.0	90.00	179.93	9,995.0	-1,628.2	-39.3	1,628.3	0.00	0.00	0.00
11,900.0	90.00	179.93	9,995.0	-1,728.2	-39.2	1,728.3	0.00	0.00	0.00
12,000.0	90.00	179.93	9,995.0	-1,828.2	-39.0	1,828.3	0.00	0.00	0.00
12,100.0	90.00	179.93	9,995.0	-1,928.2	-38.9	1,928.3	0.00	0.00	0.00
12,200.0	90.00	179.93	9,995.0	-2,028.2	-38.8	2,028.3	0.00	0.00	0.00
12,300.0	90.00	179.93	9,995.0	-2,128.2	-38.7	2,128.3	0.00	0.00	0.00
12,400.0	90.00	179.93	9,995.0	-2,228.2	-38.6	2,228.3	0.00	0.00	0.00
12,500.0	90.00	179.93	9,995.0	-2,328.2	-38.5	2,328.3	0.00	0.00	0.00
12,600.0	90.00	179.93	9,995.0	-2,428.2	-38.3	2,428.3	0.00	0.00	0.00
12,700.0	90.00	179.93	9,995.0	-2,528.2	-38.2	2,528.3	0.00	0.00	0.00
12,800.0	90.00	179.93	9,995.0	-2,628.2	-38.1	2,628.3	0.00	0.00	0.00
12,900.0	90.00	179.93	9,995.0	-2,728.2	-38.0	2,728.3	0.00	0.00	0.00
13,000.0	90.00	179.93	9,995.0	-2,828.2	-37.9	2,828.3	0.00	0.00	0.00
13,100.0	90.00	179.93	9,995.0	-2,928.2	-37.7	2,928.3	0.00	0.00	0.00
13,200.0	90.00	179.93	9,995.0	-3,028.2	-37.6	3,028.3	0.00	0.00	0.00
13,300.0	90.00	179.93	9,995.0	-3,128.2	-37.5	3,128.3	0.00	0.00	0.00
13,400.0	90.00	179.93	9,995.0	-3,228.2	-37.4	3,228.3	0.00	0.00	0.00
13,500.0	90.00	179.93	9,995.0	-3,328.2	-37.3	3,328.3	0.00	0.00	0.00
13,600.0	90.00	179.93	9,995.0	-3,428.2	-37.1	3,428.3	0.00	0.00	0.00
13,700.0	90.00	179.93	9,995.0	-3,528.2	-37.0	3,528.3	0.00	0.00	0.00
13,800.0	90.00	179.93	9,995.0	-3,628.2	-36.9	3,628.3	0.00	0.00	0.00
13,900.0	90.00	179.93	9,995.0	-3,728.2	-36.8	3,728.3	0.00	0.00	0.00
14,000.0	90.00	179.93	9,995.0	-3,828.2	-36.7	3,828.3	0.00	0.00	0.00
14,100.0	90.00	179.93	9,995.0	-3,928.2	-36.5	3,928.3	0.00	0.00	0.00
14,200.0	90.00	179.93	9,995.0	-4,028.2	-36.4	4,028.3	0.00	0.00	0.00
14,300.0	90.00	179.93	9,995.0	-4,128.2	-36.3	4,128.3	0.00	0.00	0.00
14,400.0	90.00	179.93	9,995.0	-4,228.2	-36.2	4,228.3	0.00	0.00	0.00
14,500.0	90.00	179.93	9,995.0	-4,328.2	-36.1	4,328.3	0.00	0.00	0.00

Planning Report

Database:	Hobbs	**Local Co-ordinate Reference:**	Site Forty Niner Ridge Unit #131H
Company:	Mewbourne Oil Company	**TVD Reference:**	WELL @ 3163.0usft (Original Well Elev)
Project:	Eddy County, New Mexico NAD 83	**MD Reference:**	WELL @ 3163.0usft (Original Well Elev)
Site:	Forty Niner Ridge Unit #131H	**North Reference:**	Grid
Well:	Sec 16, T23S, R30E	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	BHL: 100' FSL & 1420' FWL, Sec 21		
Design:	Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
14,600.0	90.00	179.93	9,995.0	-4,428.2	-36.0	4,428.3	0.00	0.00	0.00
14,700.0	90.00	179.93	9,995.0	-4,528.2	-35.8	4,528.3	0.00	0.00	0.00
14,800.0	90.00	179.93	9,995.0	-4,628.2	-35.7	4,628.3	0.00	0.00	0.00
14,900.0	90.00	179.93	9,995.0	-4,728.2	-35.6	4,728.3	0.00	0.00	0.00
15,000.0	90.00	179.93	9,995.0	-4,828.2	-35.5	4,828.3	0.00	0.00	0.00
15,100.0	90.00	179.93	9,995.0	-4,928.2	-35.4	4,928.3	0.00	0.00	0.00
15,200.0	90.00	179.93	9,995.0	-5,028.2	-35.2	5,028.3	0.00	0.00	0.00
15,300.0	90.00	179.93	9,995.0	-5,128.2	-35.1	5,128.3	0.00	0.00	0.00
15,400.0	90.00	179.93	9,995.0	-5,228.2	-35.0	5,228.2	0.00	0.00	0.00
15,500.0	90.00	179.93	9,995.0	-5,328.2	-34.9	5,328.2	0.00	0.00	0.00
15,600.0	90.00	179.93	9,995.0	-5,428.2	-34.8	5,428.2	0.00	0.00	0.00
15,700.0	90.00	179.93	9,995.0	-5,528.2	-34.6	5,528.2	0.00	0.00	0.00
15,800.0	90.00	179.93	9,995.0	-5,628.2	-34.5	5,628.2	0.00	0.00	0.00
15,900.0	90.00	179.93	9,995.0	-5,728.2	-34.4	5,728.2	0.00	0.00	0.00
16,000.0	90.00	179.93	9,995.0	-5,828.2	-34.3	5,828.2	0.00	0.00	0.00
16,100.0	90.00	179.93	9,995.0	-5,928.2	-34.2	5,928.2	0.00	0.00	0.00
16,200.0	90.00	179.93	9,995.0	-6,028.2	-34.1	6,028.2	0.00	0.00	0.00
16,300.0	90.00	179.93	9,995.0	-6,128.2	-33.9	6,128.2	0.00	0.00	0.00
16,400.0	90.00	179.93	9,995.0	-6,228.2	-33.8	6,228.2	0.00	0.00	0.00
16,500.0	90.00	179.93	9,995.0	-6,328.2	-33.7	6,328.2	0.00	0.00	0.00
16,600.0	90.00	179.93	9,995.0	-6,428.2	-33.6	6,428.2	0.00	0.00	0.00
16,700.0	90.00	179.93	9,995.0	-6,528.2	-33.5	6,528.2	0.00	0.00	0.00
16,800.0	90.00	179.93	9,995.0	-6,628.2	-33.3	6,628.2	0.00	0.00	0.00
16,900.0	90.00	179.93	9,995.0	-6,728.2	-33.2	6,728.2	0.00	0.00	0.00
17,000.0	90.00	179.93	9,995.0	-6,828.2	-33.1	6,828.2	0.00	0.00	0.00
17,100.0	90.00	179.93	9,995.0	-6,928.2	-33.0	6,928.2	0.00	0.00	0.00
17,200.0	90.00	179.93	9,995.0	-7,028.2	-32.9	7,028.2	0.00	0.00	0.00
17,300.0	90.00	179.93	9,995.0	-7,128.2	-32.7	7,128.2	0.00	0.00	0.00
17,400.0	90.00	179.93	9,995.0	-7,228.2	-32.6	7,228.2	0.00	0.00	0.00
17,500.0	90.00	179.93	9,995.0	-7,328.1	-32.5	7,328.2	0.00	0.00	0.00
17,600.0	90.00	179.93	9,995.0	-7,428.1	-32.4	7,428.2	0.00	0.00	0.00
17,700.0	90.00	179.93	9,995.0	-7,528.1	-32.3	7,528.2	0.00	0.00	0.00
17,800.0	90.00	179.93	9,995.0	-7,628.1	-32.2	7,628.2	0.00	0.00	0.00
17,900.0	90.00	179.93	9,995.0	-7,728.1	-32.0	7,728.2	0.00	0.00	0.00
18,000.0	90.00	179.93	9,995.0	-7,828.1	-31.9	7,828.2	0.00	0.00	0.00
18,099.2	90.00	179.93	9,995.0	-7,927.3	-31.8	7,927.4	0.00	0.00	0.00
BHL: 100' FSL & 1420' FWL (21)									

Planning Report

Database:	Hobbs	**Local Co-ordinate Reference:**	Site Forty Niner Ridge Unit #131H
Company:	Mewbourne Oil Company	**TVD Reference:**	WELL @ 3163.0usft (Original Well Elev)
Project:	Eddy County, New Mexico NAD 83	**MD Reference:**	WELL @ 3163.0usft (Original Well Elev)
Site:	Forty Niner Ridge Unit #131H	**North Reference:**	Grid
Well:	Sec 16, T23S, R30E	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	BHL: 100' FSL & 1420' FWL, Sec 21		
Design:	Design #1		

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
SHL: 2575' FNL & 1455' - plan hits target center - Point	0.00	0.00	0.0	0.0	0.0	475,083.30	678,264.50	32.3052991	-103.8901434
KOP: 2166' FNL & 1420' - plan hits target center - Point	0.00	0.00	9,422.0	408.0	-41.7	475,491.30	678,222.80	32.3064211	-103.8902729
BHL: 100' FSL & 1420' F - plan hits target center - Point	0.00	0.00	9,995.0	-7,927.3	-31.8	467,156.00	678,232.70	32.2835090	-103.8903523
FTP/LP: 2556' FSL & 14 - plan hits target center - Point	0.00	0.00	9,995.0	-165.0	-41.0	474,918.30	678,223.48	32.3048460	-103.8902784

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
30-015-49435	24720	FORTY NINER RIDGE; BONE SPRING

4 Property Code	5 Property Name	6 Well Number
35090	FORTY NINER RIDGE UNIT	131H

7 OGRID NO.	8 Operator Name	9 Elevation
14744	MEWBOURNE OIL COMPANY	3135'

10 Surface Location

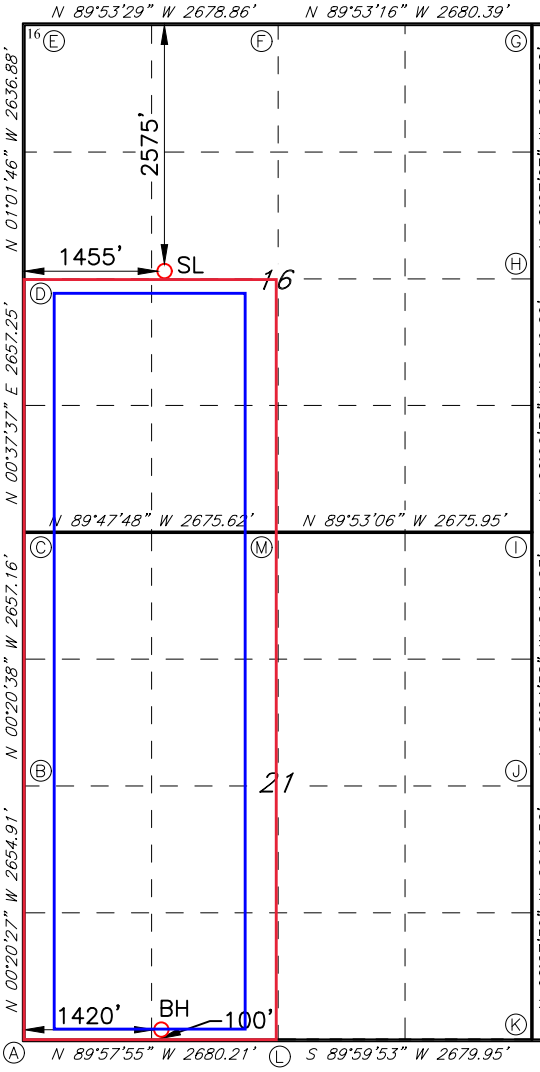
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet From the	East/West line	County
F	16	23S	30E		2575	NORTH	1455	WEST	EDDY

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
N	21	23S	30E		100	SOUTH	1420	WEST	EDDY

12 Dedicated Acres	13 Joint or Infill	14 Consolidation Code	15 Order No.
480			

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.



GEODETIC DATA
NAD 83 GRID – NM EAST

SURFACE LOCATION (SL)
N: 475083.3 – E: 678264.5

LAT: 32.3052991° N
LONG: 103.8901433° W

BOTTOM HOLE (BH)
N: 467156.0 – E: 678232.7

LAT: 32.2835090° N
LONG: 103.8903523° W

CORNER DATA
NAD 83 GRID – NM EAST

A: FOUND BRASS CAP "1942"
N: 467056.9 – E: 676813.6

B: FOUND BRASS CAP "1942"
N: 469711.2 – E: 676797.8

C: FOUND BRASS CAP "1942"
N: 472367.7 – E: 676781.9

D: FOUND BRASS CAP "1942"
N: 475024.2 – E: 676811.0

E: FOUND BRASS CAP "1942"
N: 477660.1 – E: 676763.6

F: FOUND BRASS CAP "1942"
N: 477655.0 – E: 679441.9

G: FOUND BRASS CAP "1942"
N: 477649.8 – E: 682121.7

H: FOUND BRASS CAP "1942"
N: 475001.9 – E: 682127.2

I: FOUND BRASS CAP "1942"
N: 472352.8 – E: 682132.3

J: FOUND BRASS CAP "1942"
N: 469704.3 – E: 682151.4

K: FOUND BRASS CAP "1942"
N: 467055.4 – E: 682172.6

L: FOUND BRASS CAP "1942"
N: 467055.3 – E: 679493.2

M: FOUND BRASS CAP "1942"
N: 472358.2 – E: 679456.9

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.

Andrew W Taylor 3/28/2024
Signature Date

Andrew Taylor
Printed Name

ataylor@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.

3/13/2024
Date of Survey

Signature and Seal of Professional Surveyor

ROBERT M. HOWETT
NEW MEXICO
19680
PROFESSIONAL SURVEYOR

19680
Certificate Number

Job No.: LS24030212

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
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Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
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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 337404

CONDITIONS

Operator: MEWBOURNE OIL CO P.O. Box 5270 Hobbs, NM 88241	OGRID: 14744
	Action Number: 337404
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
ward.rikala	All original COA's still apply. Additionally if cement is not circulated to surface during cementing operations, then a CBL is required.	7/26/2024
ward.rikala	All requirements of the R-111-Q must be met.	7/26/2024