		RECEIVED			
Form 3160-3 (June 2015) UNITED STA	TES	JUN 0 4 2019		FORM APPI OMB No. 100 Expires: Januar	04-0137
DEPARTMENT OF TH BUREAU OF LAND M		TRICT II-ARTESIA	0.C.D. 5. Lo	ease Serial No. IM027919	
APPLICATION FOR PERMIT TO	D DRILL OR	REENTER	6. lf	Indian, Allotee or Tr	ribe Name
1a. Type of work:	REENTER		7. If	Unit or CA Agreeme	ent, Name and No.
1b. Type of Well: Oil Well 🖌 Gas Well	Other		8.1.8	ease Name and Well	No
Ic. Type of Completion: Hydraulic Fracturing	Single Zone	Multiple Zone		EN-23/24 WOULFE 325 749	
2. Name of Operator MEWBOURNE OIL COMPANY			9/AI	PI-Well No.	46090
3a. Address PO Box 5270 Hobbs NM 88240	3b. Phone (575)393-	No. (include area code) 5905	人 いの.オ	ield and Pool, or Ex	ploratory CAMP GAS / WOL
4. Location of Well (Report location clearly and in accordan	nce with any Stat	te requirements.*)			and Survey or Area
At surface NESW / 2250 FSL / 2150 FWL / LAT 32	2.2021302 / LOI	NG -104.059936	SEC	23 / T245, 7 R28E	/ NMP
At proposed prod. zone NESE / 2300 FSL / 330 FEL	/ LAT 32.2020	884 / LONG -104,033	2434 🔪		
<ul><li>14. Distance in miles and direction from nearest town or post</li><li>7 miles</li></ul>	t office*		12. C EDD	County or Parish Y	13. State NM
<ul> <li>15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)</li> </ul>	16. No of a 280		7. Spacing,Uni	t dedicated to this w	ell
<ol> <li>Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.</li> </ol>	19. Propos 9778 feet		0./BLM/BIA B ED: NM1693	ond No. in file	
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	1 1 32	kimate date work will sta	art* 23. E	Estimated duration	<u> </u>
2981 feet	04/11/201	/ !	60 d	ays	
	24. Atta	chments			
<ul> <li>The following, completed in accordance with the requirement (as applicable)</li> <li>1. Well plat certified by a registered surveyor.</li> <li>2. A Drilling Plan.</li> <li>3. A Surface Use Plan (if the location is on National Forest Structure of SUPO must be filed with the appropriate Forest Service Of Suport Service of Suport Service of Structure Service of Service Service of Service Service of Service Service of Service Service Service of Service Serv</li></ul>	ystem Lands, the	4. Bond to cover the o Item 20 above).	operations unles	ss covered by an exis	ting bond on file (see
25. Signature	Nam	e (Printed/Typed)		Date	<u> </u>
(Electronic Submission)	Brad	ley Bishop / Ph: (575)	393-5905	02/1	12/2019
Title ( ( ))					
Approved by (Signature) (Electronic Submission)	Cody	e (Printed/Typed) / Layton / Ph: (575)23/	4-5959	Date 05/3	30/2019
Title Assistanti Field Manager Lands & Minerals		LSBAD			
Application approval does not warrant or certify that the appl applicant to conduct operations thereon.	licant holds legal	or equitable title to those	se rights in the	subject lease which	would entitle the

98K)

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.



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## **INSTRUCTIONS**

 $i \in \frac{1}{2}$ 

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

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

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

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

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

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

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

NOTICES

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

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

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

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

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

The Paperwork Reduction Act of 1995 requires us to inform you that:

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

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

## **Additional Operator Remarks**

#### Location of Well

SHL: NESW / 2250 FSL / 2150 FWL / TWSP: 24S / RANGE: 28E / SECTION: 23 / LAT: 32.2021302 / LONG: -104.059936 (TVD: 9614 feet, MD: 0feet)
 PPP: NWSE / 2300 FSL / 2351 FEL / TWSP: 24S / RANGE: 28E / SECTION: 23 / LAT: 32.1967011 / LONG: -104.0565138 (TVD: 9614 feet, MD: 10368 feet)
 PPP: NESW / 2300 FSL / 1318 FWL / TWSP: 24S / RANGE: 28E / SECTION: 24 / LAT: 32.2021721 / LONG: -104.0450836 (TVD: 9626 feet, MD: 13993 feet)
 PPP: NWSE / 2300 FSL / 2635 FWL / TWSP: 24S / RANGE: 28E / SECTION: 24 / LAT: 32.2021425 / LONG: -104.0450836 (TVD: 9725 feet, MD: 15311 feet)
 PPP: NESE / 2300 FSL / 1316 FEL / TWSP: 24S / RANGE: 28E / SECTION: 24 / LAT: 32.2021118 / LONG: -104.0364064 (TVD: 9778 feet, MD: 16677 feet)
 BHL: NESE / 2300 FSL / 330 FEL / TWSP: 24S / RANGE: 28E / SECTION: 24 / LAT: 32.2020884 / LONG: -104.0332434 (TVD: 9778 feet, MD: 17656 feet)

## **BLM Point of Contact**

Name: Priscilla Perez Title: Legal Instruments Examiner Phone: 5752345934 Email: pperez@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 DRILLING CONDITIONS OF APPROVAL

<b>OPERATOR'S NAME:</b>	Mewbourne Oil Company	
LEASE NO.:	NMNM27919	
WELL NAME & NO.:	Queen 23/24 W0JI Federal Com 2H	
SURFACE HOLE FOOTAGE:	2250'/S & 2150'/W	
<b>BOTTOM HOLE FOOTAGE</b>	2300'/S & 330'/E	
LOCATION:	Section 23, T.24 S., R.28 E., NMPM	
COUNTY:	Eddy County, New Mexico	

## COA

H2S	C Yes	• No	
Potash	None	C Secretary	C R-111-P
Cave/Karst Potential	C Low	• Medium	C High
Variance	C None	Flex Hose	COther
Wellhead	C Conventional	Multibowl	○ Both
Other	☐ 4 String Area	Capitan Reef	<b>T</b> WIPP
Other	Fluid Filled		☐ Pilot Hole
Special Requirements		COM	<b>U</b> nit

## A. HYDROGEN SULFIDE

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

## **B.** CASING

- 1. The 13-3/8 inch surface casing shall be set at approximately 350 feet (a minimum of 70 feet (Eddy County) into the Rustler Anhydrite and above the salt) and cemented to the surface.
  - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
  - b. Wait on cement (WOC) time for a primary cement job will be a minimum of  $\underline{8}$ hours or 500 pounds compressive strength, whichever is greater. (This is to

include the lead cement)

- c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
- d. If cement falls back, remedial cementing will be done prior to drilling out that string.
- 2. The minimum required fill of cement behind the 9-5/8 inch intermediate casing is:
  - Cement to surface. If cement does not circulate see B.1.a, c-d above.

Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.

- In <u>Medium Cave/Karst Areas</u> if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.
- 3. The minimum required fill of cement behind the 7 inch production casing is:

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

- a. First stage to DV tool: Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.
- b. Second stage above DV tool:Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.
- 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. <u>When the Communitization Agreement number is known, it shall also be on the sign.</u>

## 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)

# Chaves and Roosevelt Counties Call the Roswell Field Office, 2909 West Second St., Roswell NM 88201. During office hours call (575) 627-0272. After office hours call (575)

 $\boxtimes$  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 2<sup>nd</sup> 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. <u>Wait on cement (WOC) for Potash Areas:</u> 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  $\underline{24}$  hours. WOC time will be recorded in the driller's log.

- <u>Wait on cement (WOC) for Water Basin:</u> 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 <u>8 hours</u>. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements.
- 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: 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.
  - 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.

#### ZS 051419



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

## **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.

perator Certification Data Report

05/30/2019

NAME: Bradley Bishop	o	Signed on: 02/12/2019
Title: Regulatory		
Street Address: PO B	Box 5270	
City: Hobbs	State: NM	<b>Zip:</b> 88240
Phone: (575)393-5905	5	
Email address: bbisho	op@mewbourne.com	
Field Repre	sentative	
Representative Nar	me:	
Street Address:		
City:	State:	Zip:
Phone:		
Email address:		



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

# Application Data Report

05/30/2019

APD ID: 10400039013
Operator Name: MEWBOURNE OIL COMPANY
Well Name: QUEEN 23/24 W0JI FEDERAL COM
Well Type: CONVENTIONAL GAS WELL

Submission Date: 02/12/2019

Well Number: 2H Well Work Type: Drill Highlighted data reflects the most recent changes

Show Final Text

Section 1 - General			
APD ID: 10400039013	Tie to previous NOS?	10400006191	Submission Date: 02/12/2019
BLM Office: CARLSBAD	User: Bradley Bishop	Tit	e: Regulatory
Federal/Indian APD: FED	Is the first lease penet	rated for product	ion Federal or Indian? FED
Lease number: NMNM027919	Lease Acres: 280		
Surface access agreement in place?	Allotted?	Reservation:	
Agreement in place? NO	Federal or Indian agree	ement:	
Agreement number:			
Agreement name:			
Keep application confidential? YES			
Permitting Agent? NO	APD Operator: MEWBO	DURNE OIL COM	PANY
Operator letter of designation:			
Operator Info			
Operator Organization Name: MEWBOUR	RNE OIL COMPANY		
Operator Address: PO Box 5270 Operator PO Box:		, <b>Zip:</b> 88240	)

Operator City: Hobbs State: NM

**Operator Phone:** (575)393-5905

**Operator Internet Address:** 

## **Section 2 - Well Information**

Well in Master Development Plan? NO

Well in Master SUPO? NO

Well in Master Drilling Plan? NO

Well Name: QUEEN 23/24 W0JI FEDERAL COM

Field/Pool or Exploratory? Field and Pool

Master SUPO name:

Master Development Plan name:

Master Drilling Plan name:

Well Number: 2H

Well API Number:

Field Name: PURPLE SAGE Poo WOLFCAMP GAS

Pool Name: WOLFCAMP

is the proposed well in an area containing other mineral resources? LISEARLE WATED

Operator Name: MEWBOURNE OIL COMPANY Well Name: QUEEN 23/24 W0JI FEDERAL COM

Well Number: 2H

Describe other minerals:		
Is the proposed well in a Helium production area? N	Use Existing Well Pad? NO	New surface disturbance?
Type of Well Pad: MULTIPLE WELL	Multiple Well Pad Name:	Number: 2
Well Class: HORIZONTAL	QUEEN 23/24 JI FED COM Number of Legs:	
Well Work Type: Drill		
Well Type: CONVENTIONAL GAS WELL		
Describe Well Type:		
Well sub-Type: APPRAISAL		
Describe sub-type:		
Distance to town: 7 Miles Distance to ne	arest well: 60 FT Dis	stance to lease line: 330 FT
Reservoir well spacing assigned acres Measurement	: 480 Acres	
Well plat: QUEEN23_24W0JIFEDERALCOM2H_well	lplat_20190211104010.pdf	
Well work start Date: 04/11/2019	Duration: 60 DAYS	
Section 3 - Well Location Table		

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83

Vertical Datum: NAVD88

,

Survey number:

	NS-Foot	KS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Ļatitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	QW	TVD
SHL Leg #1	225 0	FSL	215 0	FWL	24S	28E	23	Aliquot NESW	32.20213 02	- 104.0599 36	EDD Y	NEW MEXI CO	NEW MEXI CO	F	FEE	298 1	0	0
KOP Leg #1	230 0	FSL	215 0	FWL	24S	28E	23	Aliquot NESW	32.20227 39	- 104.0599 326	EDD Y	NEW MEXI CO	NEW MEXI CO	F	FEE	- 614 5	912 6	912 6
PPP Leg #1	230 0	FSL	235 1	FEL	24S	28E	23	Aliquot NWSE	32.19670 11	- 104.0565 138		NEW MEXI CO		F	FEE	- 663 3	103 68	961 4

# **WAFMSS**

APD ID: 10400039013

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

Submission Date: 02/12/2019

Highlighted data reflects the most recent changes

Show Final Text

05/30/2019

Drilling Plan Data Report

Operator Name: MEWBOURNE OIL COMPANY

Well Name: QUEEN 23/24 W0JI FEDERAL COM

Well Type: CONVENTIONAL GAS WELL

Well Work Type: Drill

Well Number: 2H

## Section 1 - Geologic Formations

ormation			True Vertical	Measured			Producing
ID 🚽	Formation Name	Elevation	Depth	Depth	Lithologies	Mineral Resources	Formation
1	UNKNOWN	3008	27	27		NONE	No
2	TOP SALT	1818	1190	1190	SALT	NONE	No
3	BOTTOM SALT	608	2400	2400	SALT	NONE	No
4	LAMAR	408	2600	2600	LIMESTONE	NATURAL GAS,OIL	No
5	MANZANITA	-642	3650	3650	LIMESTONE	NATURAL GAS,OIL	No
6	BONE SPRING LIME	-3292	6300-	6300	LIMESTONE,SHALE	NATURAL GAS,OIL	No
7	BONE SPRING 1ST	-4192	7200	7200	SANDSTONE	NATURAL GAS,OIL	No
8	BONE SPRING 2ND	-5042	8050	8050	SANDSTONE	NATURAL GAS,OIL	No
9	BONE SPRING 3RD	-6165	9120	9120	SANDSTONE	NATURAL GAS,OIL	. No
10	WOLFCAMP	-6472	9480	9480	LIMESTONE,SHALE,SA NDSTONE	NATURAL GAS,OIL	Yes

## Section 2 - Blowout Prevention

ressure Rating (PSI): 5M

Rating Depth: 17656

quipment: Annular, Pipe Ram, Blind Ram

## equesting Variance? YES

'ariance request: A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. Anchors not equired by manufacturer. A multi-bowl wellhead is being used. See attached schematic

esting Procedure: BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure idicated above per Onshore Order 2 requirements. The System may be upgraded to a higher pressure but still tested to the orking pressure listed in the table above. If the system is upgraded all the components installed will be functional and sted. Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out f the hole. These checks will be noted on the daily tour sheets. Other accessories to the BOP equipment will include a Kelly ock and floor safety valve (inside BOP) and choke lines and choke manifold. Well Number: 2H

Queen\_23\_24\_W0JI\_Fed\_Com\_2H\_5M\_BOPE\_Choke\_Diagram\_20190211162116.pdf

 $Queen\_23\_24\_W0JI\_Fed\_Com\_2H\_Flex\_Line\_Specs\_20190211162116.pdf$ 

#### **BOP Diagram Attachment:**

Queen\_23\_24\_W0JI\_Fed\_Com\_2H\_5M\_BOPE\_Schematic\_20190211162129.pdf

Queen\_23\_24\_W0JI\_Fed\_Com\_2H\_Multi\_BowI\_WH\_20190211162130.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	670	0	670	3008		670	H-40	48	STC	2.51	5.64	DRY	10.0 1	DRY	16.8 2
	INTERMED IATE	12.2 5	9.625	NEW	API	N	0	2550	0	2550	3008		2550	J-55	36	LTC	1.52	2.65	DRY	4.93	DRY	6.14
3	PRODUCTI ON	8.75	7.0	NEW	API	N	0	9865	0	9603	3008		9865	Р- 110	26	LTC	1.31	2.1	DRY	2.49	DRY	3.24
4		6.12 5	4.5	NEW	API	N	9126	17656	9126	9778			8530	P- 110	13.5	LTC	1.62	1.88	DRY	2.93	DRY	3.6€

#### **Casing Attachments**

Casing ID: 1 String Type: SURFACE

**Inspection Document:** 

Spec Document:

**Tapered String Spec:** 

## Casing Design Assumptions and Worksheet(s):

Queen 23 24\_W0JI\_Fed\_Com\_2H\_Csg\_Assumptions\_20190211163200.pdf

Well Name: QUEEN 23/24 W0JI FEDERAL COM

Well Number: 2H

## **Casing Attachments**

Casing ID: 2	String Type:INTERMEDIATE
Inspection Document:	

Spec Document:

**Tapered String Spec:** 

Casing Design Assumptions and Worksheet(s):

Queen\_23\_24\_W0JI\_Fed\_Com\_2H\_Csg\_Ássumptions\_20190211163255.pdf

Casing ID: 3 String Type: PRODUCTION Inspection Document:

Spec Document:

**Tapered String Spec:** 

Casing Design Assumptions and Worksheet(s):

Queen\_23\_24\_W0JI\_Fed\_Com\_2H\_Csg\_Assumptions\_20190211163405.pdf

Casing ID: 4 String Type:LINER

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Queen\_23\_24\_W0JI\_Fed\_Com\_2H\_Csg\_Assumptions\_20190211163454.pdf

**Section 4 - Cement** 

#### Operator Name: MEWBOURNE OIL COMPANY

#### Well Name: QUEEN 23/24 W0JI FEDERAL 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
JURFACE	Lead		0	480	320	2.12	12.5	678	100	Class C	Salt, Gel, Extender, LCM
SURFACE	Tail		480	370	200	1.34	14.8	268	100	Class C	Retarder
NTERMEDIATE	Lead		0	1903	375	2.12	12.5	795	25	Class C	Salt, Gel, Extender, LCM
NTERMEDIATE	Tail		1903	2550	200	1.34	14.8	268	25	Class C	Retarder
RODUCTION	Lead	3650	2350	3031	70	2.12	12.5	148	25	Class C	Gel, Retarder, Defoamer, Extender
RODUCTION	Tail		3031	3650	100	1.34	14.8	134	25	Class C	Retarder
RODUCTION	Lead	3650	3650	7470	355	2.12	12.5	753	25	Class C	Gel, Retarder, Defoamer, Extender
PRODUCTION	Tail		7470	9865	400	1.18	15.6	472	25	Class H	Retarder, Fluid Loss, Defoamer
INER	Lead		9126	1765 6	340	2.97	11.2	1010	25	Class C	Salt, Gel, Fluid Loss, Retarder, Dispersant, Defoamer, Anti-Settling Agent

## Section 5 - Circulating Medium

lud System Type: Closed

Vill an air or gas system be Used? NO

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

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

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

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

**Circulating Medium Table** 

## Operator Name: MEWBOURNE OIL COMPANY

## Well Name: QUEEN 23/24 W0JI FEDERAL COM

#### Well Number: 2H

-												
	Top Depth	Bottom Depth	Mud Type	Min Weight (İbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	Hd	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
	0	670	SPUD MUD	8.6	8.8							
	670	2550	SALT SATURATED	10	10							
	2550	9603	WATER-BASED MUD	8.6	9.5							
	9603	9778	OIL-BASED MUD	10	12							MW up to 13.0 ppg may be required for shale control. The highest MW needed to balance formation pressure is expected to be 12.0 ppg.

## Section 6 - Test, Logging, Coring

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

/ill run GR/CNL in offset Queen 23/24 W0JI Fed Com #1H

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

NL,DS,GR,MWD,MUDLOG

oring operation description for the well:

lone

## **Section 7 - Pressure**

Inticipated Bottom Hole Pressure: 6610

Anticipated Surface Pressure: 4458.84

Inticipated Bottom Hole Temperature(F): 165

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

escribe:

ontingency Plans geoharzards description:

ontingency Plans geohazards attachment:

lydrogen Sulfide drilling operations plan required? YES

lydrogen sulfide drilling operations plan:

Queen\_23\_24\_W0JI\_Fed\_Com\_2H\_H2S\_Plan\_20190211164228.pdf

Operator Name: MEWBOURNE OIL COMPANY

Well Name: QUEEN 23/24 W0JI FEDERAL COM

Well Number: 2H

## Section 8 - Other Information

roposed horizontal/directional/multi-lateral plan submission:

Queen\_23\_24\_W0JI\_Fed\_Com\_2H\_Dir\_Plot\_20190211164525.pdf Queen\_23\_24\_W0JI\_Fed\_Com\_2H\_Dir\_Plan\_20190211164529.pdf

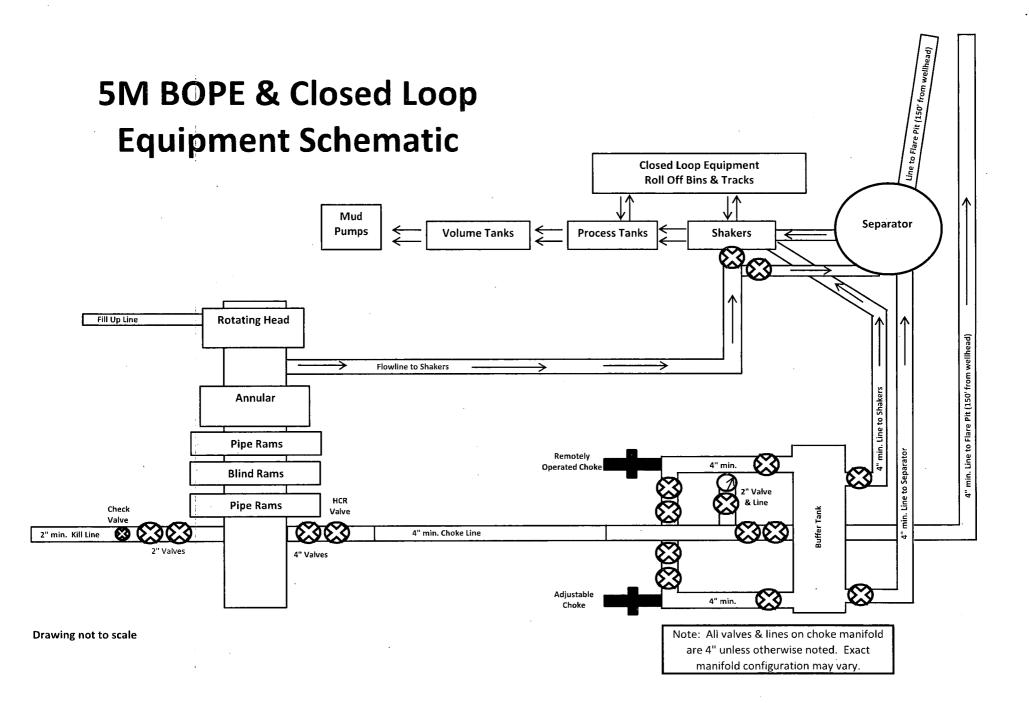
ther proposed operations facets description:

#### ther proposed operations facets attachment:

Queen\_23\_24\_W0JI\_Fed\_Com\_2H\_Drlg\_Program\_20190211164620.doc

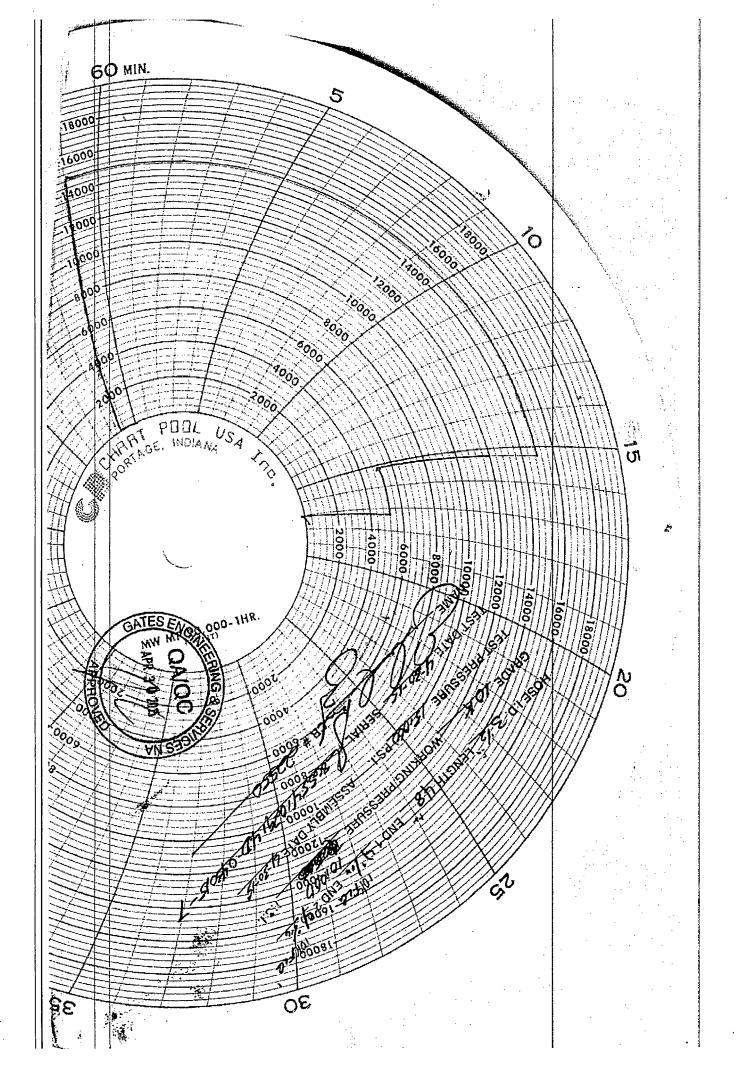
Queen\_23\_24\_W0JI\_Fed\_Com\_2H\_Add\_Info\_20190211164628.pdf

Ither Variance attachment:

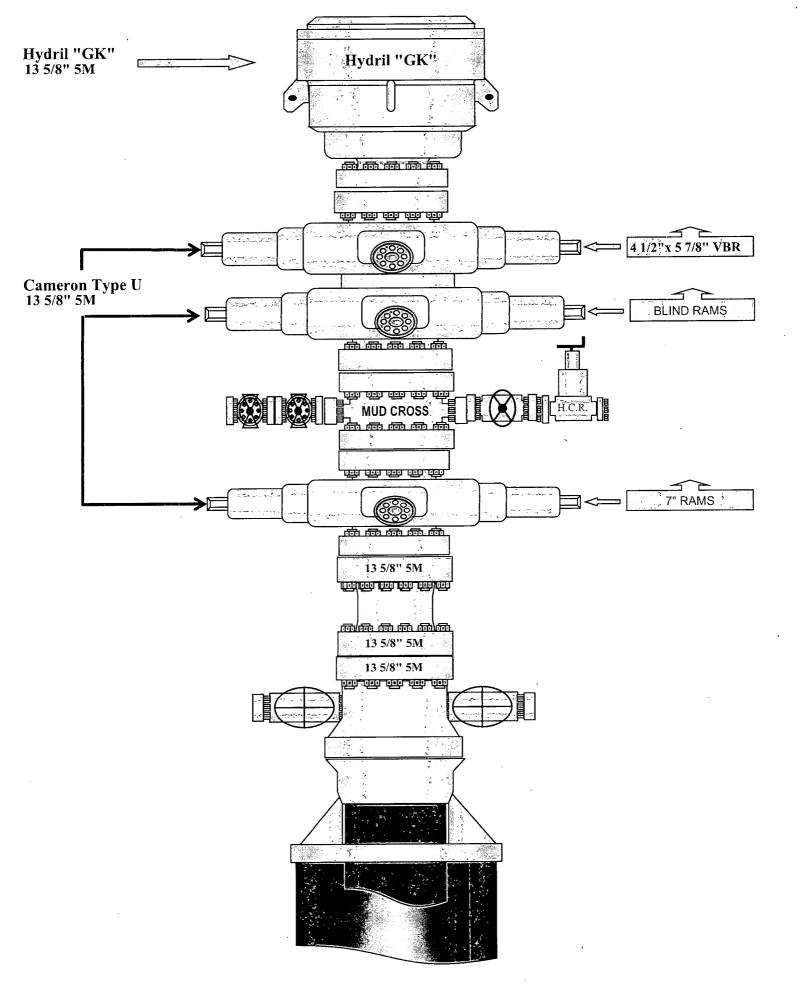


TES E & S NORTH 44TH STREET RPUS CHRISTI, 1	I AMERICA, INC. TEXAS 78405		PHONE: 361-887-9807 FAX: 361-887-0812 EMAIL: <i>Tim.Cantu@gates.com</i> WEB: www.gates.com
10K CE	MENTING ASSEMBL	Y PRESSURE TE	ST CERTIFICATE
Istomer : Istomer Ref. : Ivoice No. :	AUSTIN DISTRIBUTING 4060578 500506	Test Date: Hose Serial No.: Created By:	4/30/2015 D-043015-7 JUSTIN CROPPER
oduct Description:		10K3.548.0CK4.1/1610KFLGE/	TE LE
nd Fitting 1 :	4 1/16 10K FLG	End Fitting 2 :	4 1/16 10K FLG
ites Part No. : orking Pressure :	4773-6290 10,000 PSI orth America, Inc. certifie:	Assembly Code : Test Pressure : s that the following ho	L36554102914D-043015-7 15,000 PSI se assembly has been tested to
Gates E & S No. the Gates C iffic	10,000 PSI Drth America, Inc. certifie: eld Roughneck Agreement/S per API Spec 7K/O1, Fifth Ed	Test Pressure : s that the following ho Specification requireme dition, June 2010, Test uct number. Hose burs	15,000 PSI se assembly has been tested to ints and passed the 15 minute pressure 9.6.7 and per Table 9 t pressure 9.6.7.2 exceeds the
ates Part No. : orking Pressure : Gates E & S No the Gates Oilfie hydrostatic test t	10,000 PSI Dorth America, Inc. certifle: eld Roughneck Agreement/S Der API Spec 7K/Q1, Fifth Ec n accordance with this produ	Test Pressure : s that the following ho Specification requireme dition, June 2010, Test uct number. Hose burs	15,000 PSI se assembly has been tested to ints and passed the 15 minute pressure 9.6.7 and per Table 9 t pressure 9.6.7.2 exceeds the

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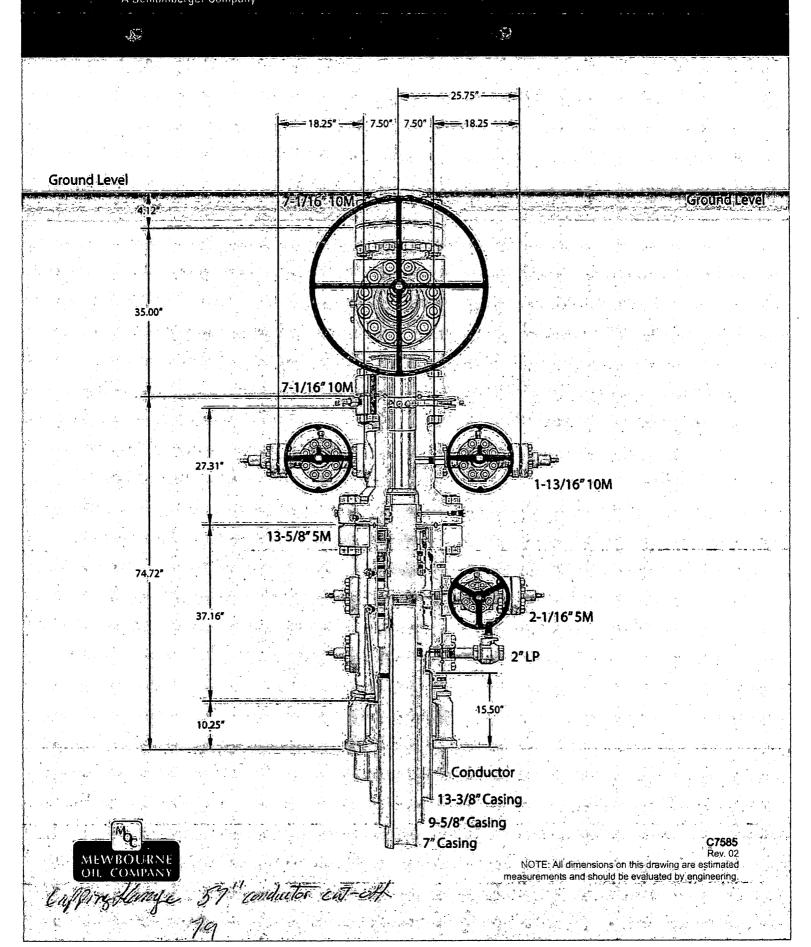


.





## 13-5/8" MN-DS Wellhead System



## 2. Casing Program

Hole	Casing	Interval	Csg.	Weight	Grade	Conn.	SF	SF	_ SF Jt	SF Body
Size	From	То	Size	(lbs)			Colläpse	Burst-	Tension	Tension
17.5"	0'	670'	13.375"	48	H40	STC	2.51	5.64	10.01	16.82
12.25"	0'	2550'	9.625"	36	J55	LTC	1.52	2.65	4.93	6.14
8.75"	0'	9865'	7"	26	P110	LTC	1.31	2.10	2.49	3.24
6.125"	9126'	17664'	4.5"	13.5	P110	LTC	1.62	1.88	2.93	3.66
BLM Minimum Safety Factor					y Factor	1.125	1	1.6 Dry	1.6 Dry	
									1.8 Wet	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.	
	<b></b>
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3 <sup>rd</sup> 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 2 <sup>nd</sup> string set 100' to 600' below the base of salt?	
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?	an ann an the second
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

.

## 2. Casing Program

Hole Size	Casing From	Interval To	Csg. Size	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	SF Jt Tension	SF Body Tension
17.5"	0'	670'	13.375"	48	H40	STC	2.51	5.64	10.01	16.82
12.25"	0'	2550'	9.625"	36	J55	LTC	1.52	2.65	4.93	6.14
8.75"	0'	9865'	7"	26	P110	LTC	1.31	2.10	2.49	3.24
6.125"	9126'	17664'	4.5"	13.5	P110	LTC	1.62	1.88	2.93	3.66
	1	······		BLM Min	imum Safet	y Factor	1.125	1	1.6 Dry	1.6 Dry
						-			1.8 Wet	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
	N
Is well located within Capitan Reef?	<u></u>
If yes, does production casing cement tie back a minimum of 50' above the Reef?	
Is well within the designated 4 string boundary.	a de la compañía de l
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3 <sup>rd</sup> 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 2 <sup>nd</sup> string set 100' to 600' below the base of salt?	
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?	1
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

## 2. Casing Program

Hole Size	Casing	Interval To	Csg. Size	Weight (lbs)	Grade	Conn.	SF Collapse	SF 'Burst	SF Jt Tension	SF Body Tension
17.5"	0'	670'	13.375"	48	H40	STC	2.51	5.64	10.01	16.82
12.25"	0'	2550'	9.625"	36	J55	LTC	1.52	2.65	4.93	6.14
8.75"	0'	9865'	7"	26	P110	LTC	1.31	2.10	2.49	3.24
6.125"	9126'	17664'	4.5"	13.5	P110	LTC	1.62	1.88	2.93	3.66
		· · ·		BLM Min	imum Safet	y Factor	1.125	1 ·	1.6 Dry	1.6 Dry
r						-			1.8 Wet	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 3 <sup>rd</sup> 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 2 <sup>nd</sup> string set 100' to 600' below the base of salt?	• •
Is well located in high Cave/Karst?	<u>N</u>
If yes, are there two strings cemented to surface?	
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	1
Is well located in critical Cave/Karst?	N
If yes, are three strings cemented to surface?	

## 2. Casing Program

Hole Size	Casing Interval From To		Csg. Size	Weight (lbs)	Grade	Cónn.	SF Collapse	SF Burst	SF Jt Tension	SF Body Tension
17.5"	0'	670'	13.375"	48	H40	STC	2.51	5.64	10.01	16.82
12.25"	0'	2550'	9.625"	36	J55	LTC	1.52	2.65	4.93	6.14
8.75"	0'	9865'	7"	26	P110	LTC	1.31	2.10	2.49	3.24
6.125"	9126'	17664'	4.5"	13.5	P110	LTC	1.62	1.88	2.93	3.66
· · · · · · · · · · · · · · · · · · ·			BLM Minimum Safety Factor				1.125	1	1.6 Dry	1.6 Dry
					`				1.8 Wet	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 3 <sup>rd</sup> 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 2 <sup>nd</sup> string set 100' to 600' below the base of salt?	
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?	مرود بر مرود بر مرود بر مرود بر مرود مرود مرود مرود مرود مرود مرود مرو
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

## <u>Hydrogen Sulfide Drilling Operations Plan</u> 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. <u>Protective Equipment for Essential Personnel</u> 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.

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. <u>Visual Warning Systems</u>

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

3.

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.

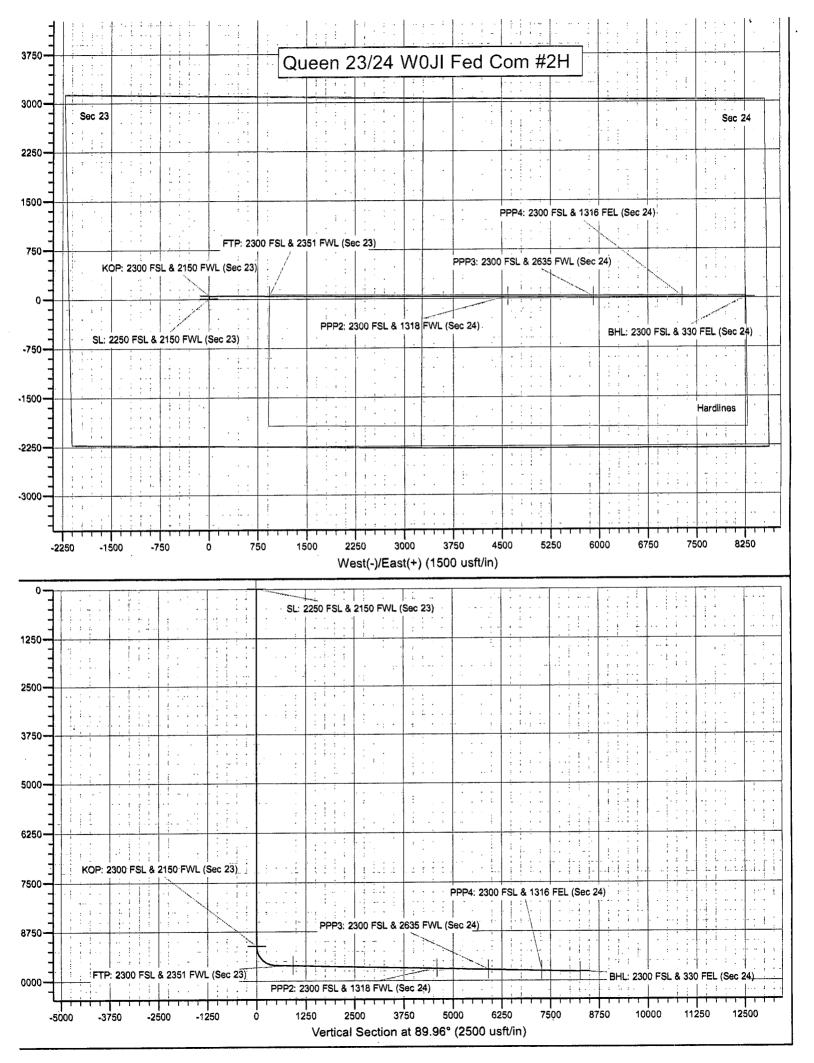
#### 7. Well Testing

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 Office911 or 575-887-7551Ambulance Service911 or 575-885-2111Carlsbad Fire Dept911 or 575-885-2111Loco Hills Volunteer Fire Dept.911 or 575-677-3266Closest Medical Facility - Columbia Medical Center of Carlsbad575-492-5000

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



# Mewbourne Oil Company

Eddy County, New Mexico NAD 83 Queen 23/24 W0JI Fed Com #2H SL: 2250 FSL & 2150 FWL (Sec 23) Sec 23, T24S, R28E BHL: 2300 FSL & 330 FEL (Sec 24)

Plan: Design #1

# **Standard Planning Report**

12.

11 February, 2019

## Planning Report

Database: Company: Project: Site: Well: Wellbore: Design:	Eddy Cou Queen 23 SL: 2250 BHL: 230 Design #1		co NAD 83 Com #2H VL (Sec 23) EL (Sec 24)		TVD Referen MD Referend North Refere	:0:	V V C	ite Queen 23/2 /ÆLL @ 3007.0 /ÆLL @ 3007.0 rid Ilnimum Ĉurvat	usft (Original V Jusft (Original V	Vell Elev)
Project	US State Pla	ty, New Mexico	O NAU 83		System Datur		Me	an Sea Level		
Map System: Geo Datum: Map Zone:	North Ameri	can Datum 198 Eastern Zone	3							
Site	Queen 23/	24 W0JI Fed C	om #2H						الانتها الميني معادلة المحالي المحالية المحالية المحالية المحالية المحالية المحالية المحالية المحالية المحالية والمرية الإلاكاني المريكي المحالية المحالية المحالية المحالية المحالية المحالية المحالية المحالية المحالية الم المحالية المحالية الم	
Site Position: From: Position Uncertainty	Map :	0.0 us	Northi Eastin ift Slot Ri	g:	625,90	3.00 usft Le	atitude: ongitude: rid Converge	nce:		32,2021364 -104,0599298 0,15 °
Well	SI 2250 F	SL & 2150 FW	L (Sec 23)					and a second		
Well Position	+N/-S +E/-W	-2.0 u -2.0 u	isft No	rthing: sting:	and in a second s	437,377.00 us 625,901.00 us		ude: jitude:		32,2021310 -104.0599363
Position Uncertainty		0.0 t		lihead Elevatior	:	3,007.0 us		ind Level:		2,980.0 usft
Wellbore	BHL: 230	0 FSL & 330 FE	L (Sec 24)							
Magnetics	Model	Name	Sample	9 Date	Declinatio (°)	on F	Dip Al (°)			itrength hT)
		IGRF2010	<u>.</u>	2/5/2019		6.87		59.89		47,793
Design	Design #1									
Audit Notes: Version:			Phase	: PR	OTOTYPE	Tie O	n Depth:		0.0	
Vertical Section:			th From (TV (usft)		+N/-S (usft)	+E/-V (usfi -2.0	)		ection (°)	
			0.0		-2.0	-2,0	and the state of the			
Plan Sections	Ļ								وبارتد جنديها مريد بيدين وي	
	nation A (°)	zimuth	ertical Depth (usft)	+N/-S (usft)	+E/-Ŵ (usft) (	Dogleg Rate °/100usft)	Build Rate (*/100usft)	Turn Rate (°/100usft)	(°)	Target
0.0	0.00	0.00	0.0	-2.0	-2.0	0.00	0.00	0.00	0,00	
21.8	0.33	1.10	21.8	-1.9	-2.0	1.50	1.50	0.00	1.10	
9,104,3	0.33	1,10	9,104.2	49.9	-1.0	0.00	0.00	0,00	0.00	KOP: 2300 FSL & 215
9,126.1	0.00	0,00	9,126.0	50.0	-1.0	1,50	-1.50	0,00 0,00	90,31	
9,864.9	88.71	90.31 90.31	9,603,0 9,778.0	47.5 5.0	465.4 8,254.0	12.01 0.00	12.01 0.00	0,00		BHL: 2300 FSL & 330
17,655.6	88,71	00.01	0,000	0.0	A1					

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## Planning Report

Database:	Hobbs		Local Co	-ordinate Refer	ence:	Site Queen 23/24 W0JI Fed Com #2H			
			TVD Refe			WELL @ 3007 Ousit (Original Well Elev)			
	Mewbourne Oll Company Eddy County, New Mexico NAD 83				and the second				
Project:				MD Refe	rence:	1.1.1.1		7:0usft (Original V	Vell Elev)
Site:	Queen 23/24 W	OJI Fed Com#	2H	North Re	ference:	1 - E	Grid	· · · · ·	
Well:						hod:	Minimum Cu	vature	•
Wellbore:	BHL: 2300 FSL				a di se				
Design:	Design #1						·		
		aris Paratianan an Sinda Manasarian an		and the second		د منه ومنطقه می می شوند. منطق می معلم می از این از ا منطق می از این	lagers as an exception of the second		
Planned Survey									
	지않는 친구가?		No Carlos	1. 20 M	19 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Star Carl			A Bar Same
Measured			Vertical			Vertical	Dogleg	Build	Turn
Depth	Inclination	Azimuth	Depth	+N/-S		Section	Rate	Rate	Rate
			(usft)			(usft)	(°/100usft)		(*/100usft)
(usft)	(*)	(°)	(usit)	(usft)	(usft)	(0510)	( / TOOUSTL)	( / loousity	( / IOOUSIL)
0.0	0.00	0,00	0.0	-2.0	-2.0	0.0	0.00	0.00	0,00
	& 2150 FWL (Se		•						
21.8	0.33	1,10	21.8	-1.9	-2,0	0.0	1,50	1.50	0,00
100.0	0.33	1,10	100.0	-1.5	-2.0	0.0	0.00	0.00	0.00
200.0	0.33	1.10	200.0	-0.9	-2.0	0.0	0.00	0.00	0.00
									0.00
. 300.0	0.33	1,10	300.0	-0.3	-2.0	0,0	0,00	0,00	0.00
400.0	0.33	1,10	400,0	0.2	-2,0	0.0	0.00	0,00	0.00
500.0	0.33	1,10	500.0	0.8	-1.9	0,1	0,00	0.00	0.00
600.0	0.33	1,10	600.0	1.4	-1.9	0,1	0,00	0.00	0,00
700.0	0.33	1,10	700.0	1.9	-1.9	0.1	0.00	0.00	0.00
				2,5	-1.9			0.00	0.00
800.0	0.33	1.10	800.0	2,0	-1.0	0,1	0,00	0.00	
900.0	0.33	1.10	900.0	3.1	-1,9	0.1	0.00	0.00	0,00
1,000.0	0.33	1.10	1,000.0	3.6	-1,9	0.1	0.00	0.00	0,00
1,100.0	0.33	1.10	1,100.0	4.2	-1,9	0.1	0.00	0,00	0.00
,				4.8	-1.9	0.1	0,00	0.00	0.00
1,200.0	0.33	1.10	1,200.0					0.00	0.00
1,300.0	0.33	1,10	1,300.0	5.4	-1.9	0.1	0.00	0.00	0.00
1,400.0	0,33	1,10	1,400.0	5,9	-1,8	0.2	0,00	0,00	0.00
1,500.0	0.33	1,10	1,500.0	6.5	-1,8	0.2	0,00	0.00	0.00
1,600.0	0.33	1,10	1,600.0	7.1	-1.8	0.2	0.00	0.00	0.00
1,700.0	0.33	1.10	1,700.0	7.6	-1.8	0.2	0.00	0.00	0.00
1,800,0	0,33	1,10	1,800.0	8.2	-1.8	0.2	0,00	0.00	0.00
1,900.0	0.33	1.10	1,900.0	8.8	-1.8	0.2	0,00	0.00	0.00
2,000.0	0.33	1.10	2,000.0	9.4	-1.8	0.2	0.00	0.00	0.00
			2,100.0	9,9	-1.8	0.2	0.00	0.00	0.00
2,100.0	0.33	1.10							
2,200.0	0.33	1.10	2,200.0	10.5	-1.8	0.3	0.00	0.00	0.00
2,300.0	0.33	1.10	2,300.0	11.1	-1.7	0.3	0.00	0.00	0,00
2,400.0	0.33	1.10	2,400,0	11.6	-1.7	0.3	0.00	0.00	0.00
2,500.0	0.33	1,10	2,500.0	12.2	-1,7	0.3	0,00	0.00	0,00
	0.33	1,10	2,600.0	12.8	-1.7	0,3	0,00	0.00	0.00
2,600.0									
2,700.0	0.33	1.10	2,700.0	13.4	-1.7	0.3	0.00	0.00	0.00
2,800.0	0.33	1,10	2,800.0	13.9	-1.7	0,3	0.00	0.00	0.00
2,900.0	0.33	1.10	2,900.0	14.5	-1.7	0.3	0.00	0.00	0.00
3,000.0	0.33	1.10	3,000.0	15.1	-1.7	0.3	0.00	0.00	0.00
3,100.0	0.33	1.10	3,099.9	15.6	-1.7	0,4	0.00	0.00	0,00
	0,00				-1.6	0,4	0.00	0.00	0.00
3,200.0	0.33	1.10	3,199.9	16.2					
3,300.0	0.33	1.10	3,299.9	16.8	-1.6	0.4	0.00	0.00	0.00
3,400.0	0.33	1.10	3,399.9	17.4	-1,6	0.4	0.00	0,00	0.00
3,500.0	0.33	1.10	3,499.9	17.9	-1,6	0,4	0.00	0.00	0.00
3,600.0	0.33	1,10	3,599.9	18.5	-1.6	0.4	0.00	0.00	0.00
			3,599.9	19,1	-1.6	0.4	0.00	0.00	0,00
3,700.0	0.33	1.10							
3,800,0	0.33	1.10	3,799,9	19.6	-1,6	0.4	0,00	0.00	0.00
3,900.0	0.33	1,10	3,899,9	20.2	-1.6	0.4	0.00	0.00	0.00
4,000.0	0.33	1.10	3,999.9	20.8	-1.6	0.5	J 0.00	0.00	0.00
4,100.0	0.33	1.10	4,099.9	21.4	-1.6	0.5	0.00	0.00	0.00
								0.00	0.00
4,200.0	0,33	1,10	4,199.9	21.9	-1.5	0.5	0.00		
4,300.0	0.33	1,10	4,299.9	22.5	-1.5	0.5	0.00	0.00	0.00
4,400.0	0.33	1,10	4,399.9	23.1	-1.5	0,5	0.00	0.00	0,00
	0.33	1.10	4,499.9	23.6	-1.5	0.5	0.00	0.00	0.00
4,500.0									
4,600.0	0.33	1.10	4,599.9	24.2	-1.5	0.5	0.00	0.00	0.00
4,700,0	0.33	1.10	4,699.9	24.8	-1.5	0.5	0.00	0.00	0.00
4,800.0	0.33	1,10	4,799.9	25.4	-1,5	0.5	0,00	0,00	0.00
4,900.0	0.33	1.10	4,899.9	25.9	-1.5	0.6	0.00	0,00	0.00
•					-1.5	0.6	0.00	0.00	0.00
5,000.0	0.33	1,10	4,999.9	26.5					
5,100.0	0.33	1,10	5,099.9	27.1	-1.4	0.6	0.00	0.00	0.00

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## Planning Report

Database: Company: Project: Site: Well:	Hobbs Mewbourne Oll Eddy County, N Queen 23/24 W SL: 2250 FSL &	TVD.F MD R North	Co-ordinate Re Reference: eference: Reference: y Calculation M		Site Queen 23/24 W0JI Fed Com #2H WELL @ 3007.0usft (Original Well Elev) WELL @ 3007.0usft (Original Well Elev) Grid Minimum Curvature						
Wellbore: Design:	BHL: 2300 FSL & 330 FEL (Sec 24) Design #1										
Planned Survey											
Measured Depth (usit)	Inclination	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Bulld Rate (°/100usft)	Turn Rate (°/100usft)		
5,200.0 5,300.0	0,33 0,33	1.10	5,199.9 5,299.9	27.6 28.2	-1.4 -1,4	0,6 0,6	0.00 0,00	0.00 0.00	0.00 0.00		
5,400.0	0.33	1,10	5,399.9	28,8	-1,4	0.6	0.00	0.00	0.00		
5,500.0	0.33	1,10	5,499.9	29.4	-1.4	0,6	0.00	0.00	0,00		
5,600.0	0.33	1,10	5,599,9	29.9	-1.4	0.6	0,00	0.00	0.00		
5,700.0	0.33	1.10	5,699.9	30.5	-1,4	0.7	0.00	0.00	0.00		
5,800.0	0,33	1,10	5,799.9	31,1	-1.4	0.7	0.00	0,00	0.00		
5,900.0	0,33	1.10	5,899.9	31.6	-1,4	0.7	0.00	0.00	0.00		
6,000.0	0,33	1,10	5,999.9	32.2	-1.3	0.7	0,00	0.00	0.00		
6,100.0	0.33	1,10	6,099.9	32.8	-1.3	0.7	0.00	0.00	0.00		
6,200.0	0.33	1.10	6,199.9	33,3	-1.3	0.7 0.7	0.00 0.00	0.00 0.00	0.00 0.00		
6,300.0	0.33	1.10	6,299.9	33.9	-1.3						
6,400.0	0.33	1.10	6,399.9	34.5	-1,3	0.7	0.00	0.00	0.00		
6,500.0	0.33	1,10	6,499.9	35.1	-1.3	0.7	0.00	0.00	0.00 0.00		
6,600.0	0.33	1.10	6,599.9	35.6	-1.3 -1.3	8,0 8,0	0.00 0.00	0,00 0,00	0.00		
6,700.0	0.33 0,33	1.10 1.10	6,699.9 6,799.9	36.2 36.8	-1.3	0.8	0.00	0.00	0.00		
6,800.0											
6,900.0	0,33	1,10	6,899,9	37.3	-1.2	0,8	0.00	0.00	0.00		
7,000.0	0.33	1,10	6,999.9	37.9	-1.2	8.0	0,00 0,00	0.00 0.00	0,00 0.00		
7,100.0	0.33	1.10	7,099.9	38.5	-1,2 -1.2	0.8 0.8	0.00	0.00	0.00		
7,200.0 7,300.0	0.33 0.33	1.10 1.10	7,199.9 7,299.9	39.1 39.6	-1.2	0.8	0.00	0,00	0,00		
									0.00		
7,400.0	0.33	1.10	7,399.9	40.2	-1.2	0.8	0.00 0.00	0.00 0.00	0.00		
7,500.0	0.33	1.10	7,499.9	40.8	-1.2 -1.2	0.9 0.9	0.00	0.00	0.00		
7,600,0	0.33	1.10 1.10	7,599.9 7,699,9	41.3 41.9	-1.2	0.9	0.00	0.00	0.00		
7,700.0 7,800.0	0.33	1.10	7,799.9	42.5	-1,1	0.9	0.00	0.00	0,00		
							0,00	0.00	0.00		
7,900.0	0,33	1,10	7,899.9	43.1 43.6	-1.1 -1.1	0.9 0,9	0,00	0.00	0.00		
8,000.0 8,100.0	0.33 0.33	1,10 1,10	7,999.9 8,099.9	43.8	-1.1	0,9	0,00	0.00	0,00		
8,200.0	0.33	1.10	8,199.9	44.8	-1,1	0.9	0,00	0.00	0.00		
8,300.0	0.33	1.10	8,299.9	45,3	-1,1	1.0	0,00	0.00	0.00		
			8,399.9	45.9	-1,1	1.0	0.00	0.00	0.00		
8,400.0 8,500.0	0.33 0.33	1.10 1.10	8,399.9 8,499.9	45.9 46.5	-1,1	1.0	0.00	0.00	0.00		
8,500.0	0.33	1.10	8,599.9	40.0	-1.1	1.0	0.00	0.00	0.00		
8,700.0	0.33	1.10	8,699.9	47.6	-1.0	1.0	0.00	0.00	0.00		
8,800.0	0.33	1.10	8,799.9	48.2	-1.0	1.0	0.00	0.00	0.00		
8,900.0	0,33	1,10	8,899.9	48,8	-1.0	1.0	0,00	0,00	0.00		
9,000,0	0.33	1,10	8,999.9	40,0	-1.0	1.0	0,00	0.00	0.00		
9,000,0	0.33	1,10	9,099.9	49,9	-1.0	1.0	0.00	0.00	0.00		
9,104.3	0.33	1,10	9,104.2	49,9	-1.0	1,0	0.00	0.00	0.00		
9,126,1	0.00	0,00	9,126.0	50.0	-1.0	1,0	1,50	-1.50	0.00		
KOP: 2300 F	SL & 2150 FWL (S	lec:23)		· · · ·				· ;	e .		
9,200.0	8.87	90.31	.9,199.6	50.0	4.7	6.7	12.01	12.01	0.00		
9,200.0	20.88	90.31	9,296.0	49.8	30.3	32.4	12.01	12.01	0.00		
9,400.0	32.89	90.31	9,385.1	49.6	75.5	77.5	12.01	12.01	0.00		
9,500.0	44.89	90.31	9,462.8	49.2	138.1	140.2	12.01	12.01	0.00		
9,600.0	56.90	90.31	9,525.7	48.8	215.6	217.6	12.01	12.01	0.00		
	68,91	90.31	9,571.2	48.3	304.4	306.5	12,01	12,01	0.00		
9,700.0 9,800.0	80,92	90.31	9,571.2	40.3	400.8	402,9	12.01	12.01	0,00		
9,800.0 9,864.9	88.71	90.31	9,603.0	47.5	465,4	467.4	12.01	12.01	0.00		
9,900.0	88.71	90.31	9,603.8	47.3	500,5	502.5	0.00	0,00	0.00		
10,000.0	88,71	90.31	9,606.0	46,7	600.5	602,5	0.00	0.00	0,00		

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### Planning Report

Database: Company: Project: Site:	Hobbs Méwbourne Oli C Eddy County, Ne Quéen 23/24 Wo	w Mexico NAI	2H	TVD Ref MD Refe North R	oforence:		Site Queen 23/2 WELL @ 3007.0 WELL @ 3007.0 Grid	usft (Original W usft (Original W	ell Ele∨)
Well: Wellbore:	SL: 2250 FSL & 2 BHL: 2300 FSL &			Survey	Calculation M	lethod:	Minimum Curva	ure	•
Design:	Design #1				.27 				
Planned Survey Measured Depth (usft)	Inclination	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft) (°	Bulld Rate /100usft) (	Turn Rate /100usft)
10,100.0	88.71	90.31	9,608,3	46,2	700.4	702.5	0.00	0.00	0.00
10,200.0	88.71	90.31	9,610.5	45.6	800.4	802,5	0.00	0.00	0.00
10,300,0	· 88,71 88,71	90,31 90,31	9,612.8 9,614.3	45,1 44.7	900,4 968,0	902.4 970.0	0,00 0,00	0.00 0.00	0,00 0,00
10,367,6			9,014.3	44.7	900,0	970.0	0.00	0.00	0.00
FTP: 2300 FS 10,400.0	L & 2361 FWL (Se 88.71	90.31	9,615.0	44.5	1,000.4	1,002.4	0.00	0.00	0.00
10,400.0									
10,500.0	88,71	90.31	9,617.3	44.0	1,100.3	1,102.4	0.00	0.00	0.00
10,600.0	88.71	90.31	9,619.5	43.5	1,200.3	1,202.3	0.00	0.00	0.00
10,700.0	88.71	90,31	9,621.8	42.9 42.4	1,300.3 1,400.3	1,302.3 1,402.3	0.00 0.00	0.00 0.00	0.00 0.00
10,800.0 10,900.0	88.71 88.71	90.31 90.31	9,624.0 9,626,3	42.4 41.8	1,400.3	1,402.3	0,00	0.00	0.00
11,000.0	88.71	90.31	9,628.5	41.3	1,600.2	1,602.2	0.00	0.00	0.00
11,100.0	88.71	90.31	9,630.7	40.7	1,700.2	1,702.2	0.00	0.00	0.00
11,200.0	88.71	90.31	9,633,0 9,635,2	40,2 39,6	1,800,2 1,900.1	1,802.2 1,902.2	0.00 0.00	0,00 0.00	· 0.00 0.00
11,300.0 11,400.0	88.71 88.71	90,31 90,31	9,635.2	39.0	2,000.1	2,002.1	0.00	0.00	0.00
,									
11,500.0	88.71	90,31	9,639.7	38.5	2,100.1	2,102,1	0.00	0.00	0.00
11,600.0	88.71	90,31	9,642.0	38.0	2,200.0	2,202.1	0.00	0,00	0,00
11,700.0	88.71	90.31	9,644.2	37.5	2,300.0	2,302.0	0.00	0.00 0.00	0.00 0.00
11,800.0 11,900.0	88.71 88.71	90.31 90.31	9,646.5 9,648.7	36,9 36,4	2,400.0 2,500.0	2,402.0 2,502.0	0,00 0,00	0.00	0.00
12,000.0	88.71	90.31	9,651.0	35.8	2,599.9	2,602.0	0.00	0.00	0.00
12,100.0	88.71	90.31	9,653.2	35.3	2,699.9	2,701.9	0.00	0.00	0.00
12,200.0	88.71	90.31	9,655.5	34.7	2,799.9	2,801.9 2,901.9	0.00 0.00	0.00 0.00	0.00 0.00
12,300.0 12,400.0	88.71 88.71	90.31 90.31	9,657.7 9,659.9	34.2 33.6	2,899.9 2,999.8	2,901.9	0.00	0.00	0.00
12,500.0	88.71	90.31	9,662.2	33,1	3,099.8	3,101.8	0.00	0.00	0.00
12,600.0	88,71	90,31	9,664.4	32.6	3,199.8	3,201.8	0.00	0.00	0.00
12,700.0	88,71	90.31	9,666.7	32.0	3,299.7	3,301.8 3,401.7	0.00 0.00	0.00 0.00	0.00 0.00
12,800.0 12,900.0	88,71 88,71	90.31 90.31	9,668.9 9,671.2	31.5 30.9	3,399.7 3,499.7	3,401.7	0.00	0.00	0.00
13,000.0	88.71	90.31	9,673.4	30.4	3,599.7	3,601.7	0.00	0.00	0.00
13,100.0	88.71	90.31	9,675.7	29.8	3,699.6	3,701.7	0.00	0,00	0.00
13,200.0 13,300.0	88.71 88.71	90.31 90.31	9,677.9 9,680.2	29.3 28.7	3,799.6 3,899.6	3,801.6 3,901.6	0.00 0.00	0.00 0.00	0.00 0.00
13,400.0	88.71	90.31	9,682.4	28.2	3,999.6	4,001.6	0.00	0.00	0.00
13,500.0	88.71	90.31	9,684.7	27.6	4,099.5	4,101.6	0.00 0.00	0.00 0.00	0.00
13,600.0 13,700.0	88.71 88.71	90.31 90.31	9,686.9 9,689.1	27.1 26.6	4,199.5 4,299.5	4,201.5 4,301.5	0.00	0.00	0.00
13,700.0	88.71	90.31	9,691.4	26.0	4,299.5	4,301.5	0.00	0.00	0.00
13,900.0	88.71	90.31	9,693.6	25.5	4,499.4	4,501.5	0.00	0.00	0.00
13,992.6	88,71	90.31	9,695.7	25.0	4,592.0	4,594.0	0.00	0.00	0.00
	SL & 1318 FWL (S 88.71		9,695.9	24.9	4,599.4	4,601.4	0.00	0.00	0.00
14,000.0 14,100.0	88.71	90.31 90.31	9,695,9 9,698.1	24.9 24.4	4,599.4 4,699.4	4,001.4	0.00	0.00	0.00
14,100.0	88.71	90.31	9,700.4	23.8	4,799.3	4,801.4	0.00	0.00	0.00
14,300.0	88.71	90.31	9,702.6	23.3	4,899.3	4,901.3	0.00	0.00	0.00
14,400.0	88.71	90.31	9,704.9 9,707.1	22.7 22.2	4,999.3 5,099.3	5,001.3 5,101.3	0.00 0.00	0.00 0.00	0.00 0.00
14,500.0 14,600.0	88.71 88.71	90.31 90.31	9,709.4	22.2	5,099.3 5,199.2	5,201.3	0.00	0.00	0.00
14,600,0	88,71	90.31	9,711.6	21.7	5,299.2	5,301.2	0.00	0.00	0.00
14,700,0	88.71	90.31	9,713.9	20.6	5,399.2	5,401.2	0,00	0,00	0,00
14,900.0	88.71	90.31	9,716.1	20.0	5,499.2	5,501.2	0.00	0.00	0.00
15,000.0	88.71	90.31	9,718.3	19.5	5,599.1	5,601,2	0.00	0.00	0.00

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## Planning Report

Database: Company: Project:	Hobbs				o-ordinate Refe	7101100.		4 W0JI Fed Com	177411
그는 그는 것 같은 것 같	Mewbourne Oil C	ompany			ference:		WELL @ 3007.0	usft (Original We	all Elev)
	Eddy County, Ne		D 83	MD Ref			WELL @ 3007.0		
· · · 프로그램에는 것 수도 명령 학생님께서 있는 것 ***	Queen 23/24 W0				leference:	Sec. 1	Grid		
Site:	465	(See 1.2)			经资料的 建氯化化 化二乙烯酸化化		Minimum Curvat		· · · ·
Well:	SL: 2250 FSL & 2			Survey	Calculation Me	thoa:	withintum Curva	ure	
Wellbore:	BHL: 2300 FSL &	330 FEL (Se	c 24)						•
Design:	Design #1							an a	
Planned Survey									
Measured			Vertical			Vertical	Dogleg	Build	Turn
Depth	Inclination	zimuth	Depth	+N/-S	+E/-W	Section	Rate	Rate	Rate
(usft)	(°)	ມ (°) ເຊິ່ງ	(usft)	(usft)	(usft)	(usft)	°(°/100usft) (°	/100usft) (*	/100usft)
in the second		Li Zito in market to the second							0.00
15,100.0	88.71	90,31	9,720.6	18.9	5,699.1 5,799.1	5,701.1 5,801.1	0.00 0.00	0.00 0.00	0.00
15,200.0	88.71	90.31	9,722.8	18,4 17,8	5,799.1	5,901.1	0,00	0.00	0.00
15,300,0	88.71	90,31	9,725.1						
15,310.9	88.71	90,31	9,725.3	17.8	5,910.0	5,912.0	0.00	0.00	0.00
	SL & 2635 FWL (S		,						
15,400.0	88.71	90.31	9,727.3	17.3	5,999.0	6,001.0	0:00	0.00	0.00
15,500.0	88,71	90,31	9,729,6	16.7	6,099,0	6,101.0	0.00	0.00	0.00
15,600.0	88.71	90.31	9,731.8	16.2	6,199.0	6,201.0	0.00	0.00	0.00
15,700.0	88.71	90,31	9,734.1	15.7	6,298.9	6,301.0	0.00	0.00	0.00
15,800.0	88.71	90.31	9,736.3	15.1	6,398.9	6,400.9	0.00	0.00	0,00
15,900.0	88.71	90.31	9,738.6	14.6	6,498.9	6,500.9	0.00	0.00	0.00
16,000.0	88.71	90.31	9,740.8	14.0	6,598,9	6,600.9	0.00	0.00	0.00
16,100.0	88.71	90.31	9,743.1	13.5	6,698,8	6,700.9	0.00	0.00	0.00
16,200.0	88.71	90.31	9,745,3	12.9	6,798.8	6,800.8	0.00	0.00	0.00
16,300.0	88.71	90,31	9,747,5	12.4	6,898,8	6,900.8	0.00	0.00	0.00
16,400.0	88,71	90,31	9,749.8	11.8	6,998.8	7,000.8	0.00	0.00	0.00
16,500,0	88,71	90.31	9,752.0	11,3	7,098.7	7,100,7	0,00	0.00	0.00
16,600.0	88.71	90,31	9,754.3	10.8	7,198.7	7,200.7	0.00	0.00	0.00
16,677.3	88,71	90,31	9,756.0	10.3	7,276.0	7,278.0	0.00	0.00	0.00
PPP4: 2300 FS	SL & 1316 FEL (Se	ec 24)			•				
16,700.0	88.71	90.31	9,756.5	10.2	7,298.7	7,300.7	0.00	0.00	0.00
16,800.0	88.71	90.31	9,758.8	9.7	7,398.7	7,400.7	0.00	0.00	0.00
16,900.0	88.71	90.31	9,761.0	9.1	7,498.6	7,500.6	0.00	0.00	0.00
17,000.0	88.71	90.31	9,763,3	8.6	7,598.6	7,600.6	0.00	0.00	0.00
17,100.0	88.71	90.31	9,765.5	8,0	7,698.6	7,700.6	0.00	0.00	0.00
17,200.0	88,71	90.31	9,767.8	7.5	7,798.5	7,800.6	0.00	0.00	0.00
17,300,0	88.71	90.31	9,770,0	6,9	7,898,5	7,900,5	0.00	0.00	0.00
17,400.0	88.71	90,31	9,772.3	6.4	7,998,5	8,000,5	0,00	0,00	0.00
17,500.0	88,71	90.31	9,774.5	5,8	8,098.5	8,100,5	0,00	0.00	0.00
17,600.0	88.71	90,31	9,776.8	5,3	8,198.4	8,200.4	0.00	0.00	0.00
17,655.6	88.71	90.31	9,778.0	5,0	8,254.0	8,256.0	0.00	0.00	0.00
	L & 330 FEL (Sec								

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## Planning Report

Company: Project: Site: Well: Wellbore:	Höbbs Mewbourne ( Eddy County Queen 23/24 SL: 2250 FSL BHL: 2300 FS Design #1	New Mexico W0JI Fed Co & 2150 FWL	m #2H . (Sec 23).		TVD Referen MD Referen North Refere	ce: ence: ulation Method:	WELL @ 30	23/24 W0UI Féd Com 07.0usft (Original Wel 07.0usft (Original Wel 17.0usft (Original Wel	Elev)
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
SL: 2250 FSL & 2150 FV - plan hits target cer - Point		0.00	0.0	-2.0	-2.0	437,377.00	625,901.00	32.2021310	-104.0599363
KOP: 2300 FSL & 2150 - plan hits target cer - Point	0.00 Iter	0.00	9,126.0	50,0	-1,0	437,429.00	625,902.00	32.2022739	-104.0599326
FTP: 2300 FSL & 2351 F - plan hits target cer - Point	÷	0.00	9,614.3	44,7	968,0	437,423.72	626,871.00	32,2022526	-104.0567999
PPP2: 2300 FSL & 1318 - plan hits target cer - Point		0.00	9,695.7	25.0	4,592.0	437,403.96	630,495.00	32.2021721	-104.0450836
PPP3: 2300 FSL & 2635 - plan hits target cer - Point		0.00	9,725.3	17,8	5,910.0	437,396.78	631,813.00	32.2021425	-104.0408226
PPP4: 2300 FSL & 1316 - plan hits target cer - Point		0.00	9,756.0	10,3	7,276.0	437,389.33	633,179.00	32.2021118	-104.0364064
BHL: 2300 FSL & 330 Fi - plan hits target cer - Point		0.00	9,778.0	5.0	8,254.0	437,384.00	634,157.00	32.2020897	-104.0332446

# 1. Geologic Formations

TVD of target	9,778'	Pilot hole depth	NA
MD at TD:	17,664'	Deepest expected fresh water:	30'

Basin

Formation	Depth (TVD)	Water/Mineral Bearing/	Hazards*
rormation	from KB	Target Zone?	1102.0.00
Quaternary Fill	Surface		
Rustler			
Top of Salt	1190		
Base of Salt	2400		
Delaware (Lamar)	2600		
Bell Canyon			
Cherry Canyon			
Manzanita Marker	3650		
Brushy Canyon		·	
Bone Spring	6300	Oil/Gas	
1 <sup>st</sup> Bone Spring Sand	7200		
2 <sup>nd</sup> Bone Spring Sand	8050		
3rd Bone Spring Sand	9120		
Abo			
Wolfcamp	9480	Target Zone	
Devonian			i
Fusselman		·	
Ellenburger			
Granite Wash		<u> </u>	

\*H2S, water flows, loss of circulation, abnormal pressures, etc.

1

# 2. Casing Program

Hole	Casing Interval		Csg.	Weight	t Grade	Conn.	SF	SF	SF Jt	SF Body
Size	From	То	Size	(lbs)			Collapse	Burst	Tension	Tension
17.5"	0'	670'	13.375'	48	H40	STC	2.51	5.64	10.01	16.82
12.25"	0'	2550'	9.625"	36	J55	LTC	1.52	2.65	4.93	6.14
8.75"	0'	9865'	7"	26	P110	LTC	1.31	2.10	2.49	3.24
6.125"	9126'	17664'	4.5"	13.5	P110	LTC	1.62	1.88	2.93	3.66
	BLM Min	imum Safety	Factor 1	.125	1	1.6 Dry	1.6 Dry			
		·				1.8 Wet	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?	
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 3 <sup>rd</sup> 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 2 <sup>nd</sup> string set 100' to 600' below the base of salt?	
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?	

## 3. Cementing Program

Casing	# Sks	Wt. lb/ gal	Yld ft3/ sack	H20 gal⁄ sk	500# Comp. Strength (hours)	Slurry Description		
Surf.	320	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.	375	12.5	2.12	11	1 10 Lead: Class C + Salt + Gel + Extender + LCM			
	200	14.8	1.34	6.3	8	Tail: Class C + Retarder		
Prod. Stg 1	355	12.5	2.12	11	9	Lead: Class C + Gel + Retarder + Defoamer + Extender		
5.5 1	400	15.6	1.18	5.2	10	Tail: Class H + Retarder + Fluid Loss + Defoamer		
					ECP/DV T	ool @ 3650'		
Prod.	70	12.5	2.12	11	10	Lead: Class C + Salt + Gel + Extender + LCM		
Stg 2	100	14.8	1.34	6.3	8	Tail: Class C + Retarder		
Liner	340	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	2350'	25%
Liner	9126'	. 25%

#### 4. Pressure Control Equipment

Y

Variance: A variance is requested for use of a 5000 psi annular BOP with the 10,000 psi BOP stack. Please see attached description and procedure.

BOP installed and tested before drilling which hole?	Size?	System Rated WP		Гуре	<b>v</b> .	Tested to:
·			A	nnular	X	2,500#
			Blin	nd Ram	X	
12-1/4"	13-5/8"	5M	Pip	e Ram	X	5 000#
			Dou	ble Ram		5,000#
			Other*			

\*Specify if additional ram is utilized.

BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested.

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

X Formation integrity test will be performed per Onshore Order #2.
 On Exploratory wells or 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. Will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.i.

Y		ance is requested for the use of a flexible choke line from the BOP to Choke for the specs and hydrostatic test chart.
	Ν	Are anchors required by manufacturer?
Y	install	tibowl wellhead is being used. The BOP will be tested per Onshore Order #2 after ation on the surface casing which will cover testing requirements for a maximum of ys. If any seal subject to test pressure is broken the system must be tested.
	•	Provide description here: See attached schematic.

## 5. Mud Program

T	VD	Туре	Weight (ppg)	Viscosity	Water Loss
From	То				
0	670	FW Gel	8.6-8.8	28-34	N/C
670	2550	Saturated Brine	10.0	28-34	N/C
2550	9603	Cut Brine	8.6-9.5	28-34	N/C
9603	9778	OBM	10.0-13.0	30-40	<10cc

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times.

What will be used to monitor the loss or gain	Pason/PVT/Visual Monitoring
of fluid?	

## 6. Logging and Testing Procedures

	ing, Coring and Testing.
X	Will run GR/CNL from KOP (9,126') to surface (horizontal well – vertical portion of
	hole). Stated logs run will be in the Completion Report and submitted to the BLM.
-	No Logs are planned based on well control or offset log information.
	Drill stem test? If yes, explain
	Coring? If yes, explain

Additional logs planned Interval

.

X	Gamma Ray	9,126' (KOP) to TD
	Density	
	CBL	
	Mud log	
	PEX	

### 7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	6610 psi
Abnormal Temperature	No

Mitigation measure for abnormal conditions. Describe. Lost circulation material/sweeps/mud scavengers in surface hole. Weighted mud for possible over-pressure in Wolfcamp formation.

Hydrogen Sulfide (H2S) monitors will be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the operator will comply with the provisions of Onshore Oil and Gas Order #6. If Hydrogen Sulfide is encountered, measured values and formations will be provided to the BLM.

	H2S is present	
Χ	H2S Plan attached	

### 8. Other facets of operation

Is this a walking operation? If yes, describe. Will be pre-setting casing? If yes, describe.

6

Attachments

\_\_\_\_ Directional Plan \_\_\_\_ Other, describe

7

Well Number: 2H

**Existing Wells description:** 

# Section 4 - Location of Existing and/or Proposed Production Facilities

Submit or defer a Proposed Production Facilities plan? SUBMIT

Production Facilities description: 2-7/8" surface flow line with working pressure of 100# laid from well site to Queen 23/24 OP Battery.

**Production Facilities map:** 

Queen23 24W0JIFederalCom2H productionfacilitymap 20190211104200.pdf Queen23\_24W0JIFederalCom2H\_productionfacilitymap2\_20190211104208.pdf

## Section 5 - Location and Types of Water Supply

Water	Source	Table
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Water source use type: DUST CONTROL, Water source type: IRRIGATION INTERMEDIATE/PRODUCTION CASING, STIMULATION, SURFACE CASING Describe type: Source longitude: -103.902405 Source latitude: 32.194504 Source datum: NAD83 Water source permit type: WATER WELL Source land ownership: PRIVATE Water source transport method: TRUCKING Source transportation land ownership: COMMERCIAL

Water source volume (barrels): 2152

Source volume (gal): 90384

Water source use type: DUST CONTROL, Water source type: IRRIGATION INTERMEDIATE/PRODUCTION CASING, STIMULATION, SURFACE CASING Describe type:

Source longitude: -104.04341

Source volume (acre-feet): 0.27737793

Source latitude: 32.193806

Source datum: NAD83

Water source permit type: WATER WELL

Source land ownership: FEDERAL

Water source transport method: TRUCKING

Source transportation land ownership: COMMERCIAL

Water source volume (barrels): 2152

Operator Name: MEWBOURNE OIL COMPANY Well Name: QUEEN 23/24 W0JI FEDERAL COM

Well Number: 2H

Water source and transportation map:

QUEEN23\_24W0JIFEDERALCOM2H\_watersourceandtransmap\_20190211104234.pdf

Water source comments: Both sources shown on one map.

New water well? NO

## **New Water Well Info**

Well latitude:	Well Longitude:	Well datum:
Well target aquifer:		
Est. depth to top of aquifer(ft):	Est thickness of aquifer:	
Aquifer comments:		
Aquifer documentation:		
Well depth (ft):	Well casing type:	
Well casing outside diameter (in.):	Well casing inside diameter	r (in.):
New water well casing?	Used casing source:	
Drilling method:	Drill material:	
Grout material:	Grout depth:	
Casing length (ft.):	Casing top depth (ft.):	
Well Production type:	<b>Completion Method:</b>	
Water well additional information:		
State appropriation permit:		
Additional information attachment:		

## **Section 6 - Construction Materials**

Construction Materials description: Caliche

#### **Construction Materials source location attachment:**

QUEEN23\_24W0JIFEDERALCOM2H\_calichesourceandtransmap\_20190211104249.pdf

# Section 7 - Methods for Handling Waste

Waste type: DRILLING

Waste content description: Drill cuttings

Amount of waste: 940 barrels

Waste disposal frequency : One Time Only

Well Name: QUEEN 23/24 V	IRNE OIL COMPANY W0JI FEDERAL COM Well Number: 2H
Safe containmant attachme	ent:
<b>Vaste disposal type:</b> HAUL FACILITY Disposal type description:	TO COMMERCIAL Disposal location ownership: PRIVATE
Disposal location description HWY 62/180, Sec. 27 T20	on: NMOCD approved waste disposal locations are CRI or Lea Land, both facilities are locate DS R32E.
<b>Waste type:</b> SEWAGE	
Naste content description:	Human waste & grey water
Amount of waste: 1500	gallons
Waste disposal frequency :	: Weekly
Safe containment description	ion: 2,000 gallon plastic container
Safe containmant attachme	ent:
Waste disposal type: HAUL FACILITY Disposal type description:	TO COMMERCIAL Disposal location ownership: PRIVATE
Disposal location description	on: City of Carlsbad Water Treatment facility
Waste type: GARBAGE	
Waste content description:	Garbage & trash
Amount of waste: 1500	pounds
Waste disposal frequency :	: One Time Only
Safe containment description	ion: Enclosed trash trailer
Safe containmant attachme	ent:
Waste disposal type: HAUL FACILITY Disposal type description:	
	ion: Waste Management facility in Carlsbad.
	Reserve Pit
•	
Reserve Pit being used? NO	
Reserve Pit being used? No	0

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

Reserve pit liner

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Operator Name: MEWBOURNE OIL COMPANY Well Name: QUEEN 23/24 W0JI FEDERAL COM

Well Number: 2H

### **Cuttings Area**

Cuttings Area being used? NO

Are you storing cuttings on location? NO

**Description of cuttings location** 

Cuttings area length (ft.)

Cuttings area depth (ft.)

Cuttings area width (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

### **Section 8 - Ancillary Facilities**

Are you requesting any Ancillary Facilities?: NO

**Ancillary Facilities attachment:** 

Comments:

Section 9 - Well Site Layout

Well Site Layout Diagram:

QUEEN23 24W0JIFEDERALCOM2H\_wellsitelayout\_20190211104328.pdf

**Comments:** 

# Section 10 - Plans for Surface Reclamation

Type of disturbance: New Surface Disturbance

Multiple Well Pad Name: QUEEN 23/24 JI FED COM Multiple Well Pad Number: 2

**Recontouring attachment:** 

Drainage/Erosion control construction: None

Drainage/Erosion control reclamation: None

Operator	Name: MEWBOURNE	OIL COMPANY
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Well Name: QUEEN 23/24 W0JI FEDERAL COM

Well Number: 2H

Well pad proposed disturbance (acres): 4.132	Well pad interim reclamation (acres): 1.663	Well pad long term disturbance (acres): 2.469
Road proposed disturbance (acres): 0.724	Road interim reclamation (acres): 0	Road long term disturbance (acres): 0.087
Powerline proposed disturbance (acres): 0	Powerline interim reclamation (acres):	Powerline long term disturbance (acres): 0
Pipeline proposed disturbance	Pipeline interim reclamation (acres): 0	Pipeline long term disturbance
(acres): 0 Other proposed disturbance (acres): 0	Other interim reclamation (acres): 0	(acres): 0 Other long term disturbance (acres): 0
Total proposed disturbance: 4.856	Total interim reclamation: 1.663	Total long term disturbance: 2.556

**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.

Soil treatment: NA

Existing Vegetation at the well pad: Various brush & grasses

Existing Vegetation at the well pad attachment:

Existing Vegetation Community at the road: Various brush & grasses

Existing Vegetation Community at the road attachment:

Existing Vegetation Community at the pipeline: NA

Existing Vegetation Community at the pipeline attachment:

Existing Vegetation Community at other disturbances: NA

Existing Vegetation Community at other disturbances attachment:

Non native seed used? NO

Non native seed description:

Seedling transplant description:

Will seedlings be transplanted for this project? NO

Seedling transplant description attachment:

Operator Name: MEWBOURNE OIL COMPANY

Well Name: QUEEN 23/24 W0JI FEDERAL COM

Well Number: 2H

Will seed be harvested for use in site reclamation? NO

Seed harvest description:

Seed harvest description attachment:

Seed Management	
Seed Table	
Seed type:	Seed source:
Seed name:	
Source name:	Source address
Source phone:	
Seed cultivar:	
Seed use location:	
PLS pounds per acre:	Proposed seed

ng season:

Seed S	Total pounds/Acre	
Seed Type	Pounds/Acre	

Seed reclamation attachment:

# **Operator Contact/Responsible Official Contact Info**

First Name: Bradley

Last Name: Bishop

Phone: (575)393-5905

Email: bbishop@mewbourne.com

Seedbed prep: Final seedbed preparation will consist of contour cultivating to a depth of 4 to 6 inches within 24 hours prior to seeding, dozer tracking, or other imprinting in order to break the soil crust and create seed germination micro-sites. Seed BMP: To seed the area, the proper BLM seed mixture, free of noxious weeds, will be used.

Seed method: drilling or broadcasting seed over entire reclaimed area.

Existing invasive species? NO

Existing invasive species treatment description:

Existing invasive species treatment attachment:

Weed treatment plan description: NA

Weed treatment plan attachment:

Monitoring plan description: vii. All reclaimed areas will be monitored periodically to ensure that revegetation occurs, that the area is not redisturbed, and that erosion and invasive/noxious weeds are controlled. Monitoring plan attachment:

Operator Name: MEWBOURNE OIL COMPANY

Well Name: QUEEN 23/24 W0JI FEDERAL COM

Well Number: 2H

Pit closure description: NA

Pit closure attachment:

### Section 11 - Surface Ownership

Disturbance type: NEW ACCESS ROAD

**Describe:** 

Surface Owner: PRIVATE OWNERSHIP

Other surface owner description:

**BIA Local Office:** 

**BOR Local Office:** 

**COE Local Office:** 

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

**USFWS Local Office:** 

**Other Local Office:** 

**USFS Region:** 

USFS Forest/Grassland:

#### **USFS Ranger District:**

NM 88220

Email:

Fee Owner Address: 1501 Mountain Shadow Dr. Carlsbad,

Fee Owner: Scott Branson

Phone: (575)885-2066

Surface use plan certification: NO

Surface use plan certification document:

Surface access agreement or bond: Agreement

Surface Access Agreement Need description: SUA in place

Surface Access Bond BLM or Forest Service:

BLM Surface Access Bond number:

USFS Surface access bond number:

**Operator Name:** MEWBOURNE OIL COMPANY **Well Name:** QUEEN 23/24 W0JI FEDERAL COM

Well Number: 2H

Disturbance type: EXISTING ACCESS ROAD Describe: Surface Owner: OTHER Other surface owner description: Eddy County Road Dept. BIA Local Office: BOR Local Office: COE Local Office: DOD Local Office: NPS Local Office: State Local Office: USFWS Local Office: USFWS Local Office: USFS Region: USFS Forest/Grassland:

**USFS Ranger District:** 

Disturbance type: WELL PAD Describe: Surface Owner: PRIVATE OWNERSHIP Other surface owner description: BIA Local Office: BOR Local Office: COE Local Office: DOD Local Office: NPS Local Office: State Local Office: Wilitary Local Office: USFWS Local Office: USFS Region: USFS Forest/Grassland:

**USFS Ranger District:** 

Operator Name: MEWBOURNE OIL COMPANY Well Name: QUEEN 23/24 W0JI FEDERAL COM

Well Number: 2H

Fee Owner: Scott Branson

Phone: (575)885-2066

Fee Owner Address: 1501 Mountain Shadow Dr. Carlsbad, NM 88220 Email:

Surface use plan certification: NO

Surface use plan certification document:

Surface access agreement or bond: Agreement

Surface Access Agreement Need description: SUA in place

Surface Access Bond BLM or Forest Service:

**BLM Surface Access Bond number:** 

USFS Surface access bond number:

Section 12 - Other Information

Right of Way needed? NO

Use APD as ROW?

ROW Type(s):

**ROW Applications** 

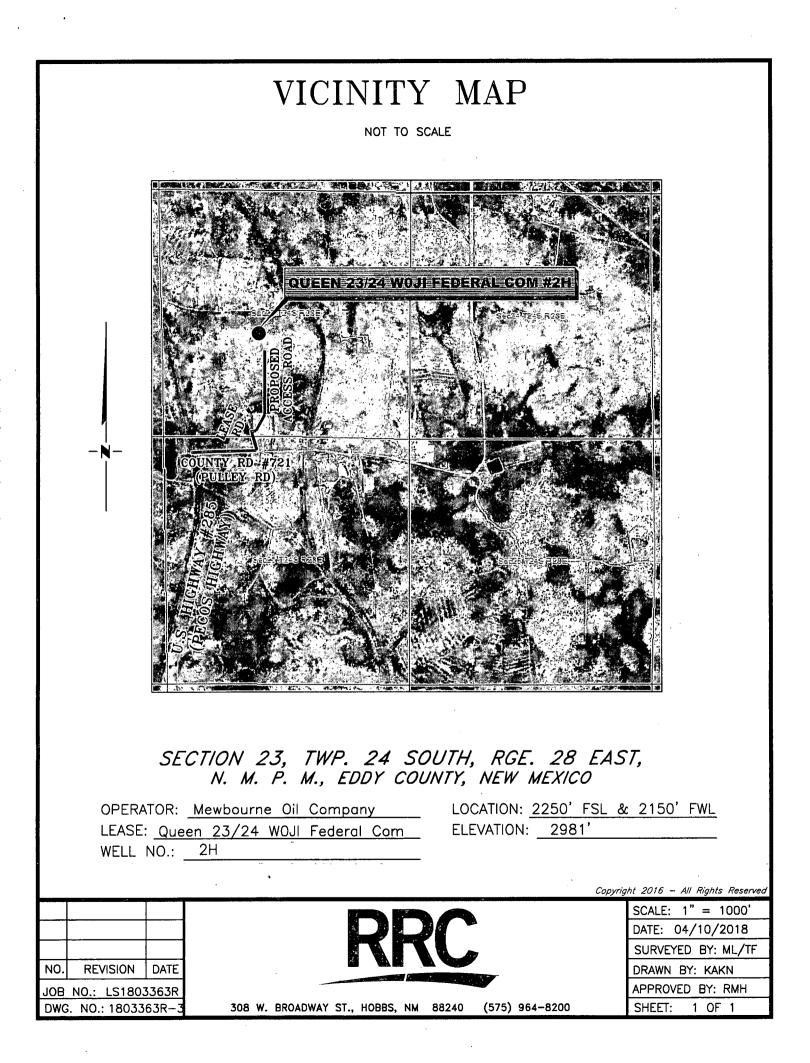
SUPO Additional Information: NONE

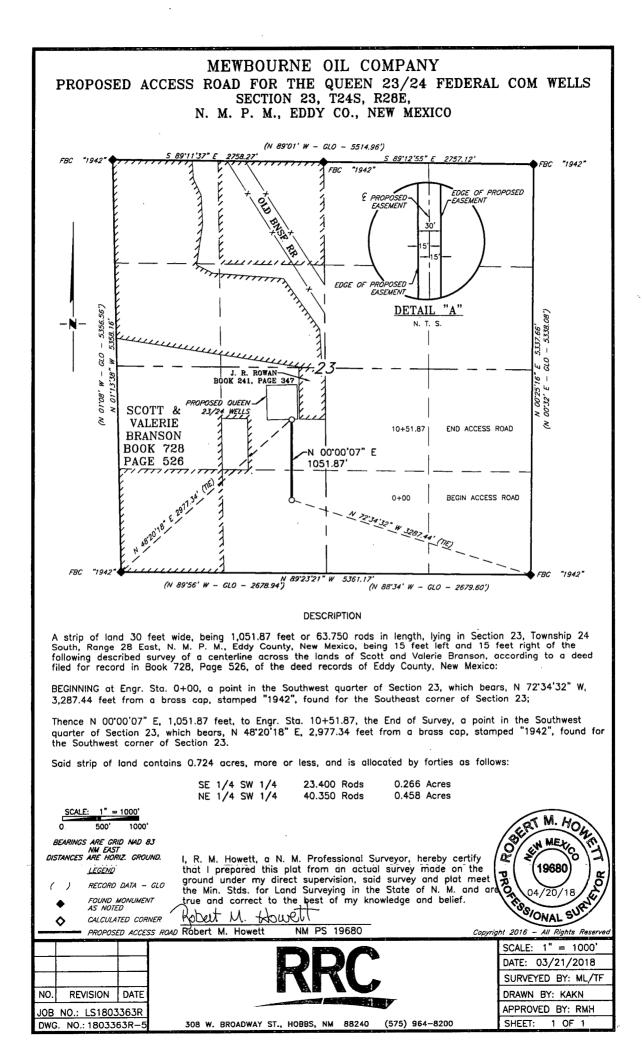
#### Use a previously conducted onsite? YES

**Previous Onsite information:** APR 11 2018 - Name change from Queen 23/24 W2JI Federal Com #2H to Queen 23/24 W0JI Federal Com #2H. Met with BLM, RRC Surveying & Scott Branson (landowner) and staked location @ 2250' FSL & 2450' FWL, Sec 23, T24S, R28E, Eddy Co., NM. This location was denied by landowner. Re-staked location @ 2250' FSL & 2150' FWL, Sec 23, T24S R28E, Eddy Co., NM. (Elevation @ 2980'). This is a drillable location with same stipulations as previously staked. BLM & landowner approved this location. Lat: 32.20213023 N, Long -104.05993601 W NAD 83. Will need SUA with Scott & Valerie Branson

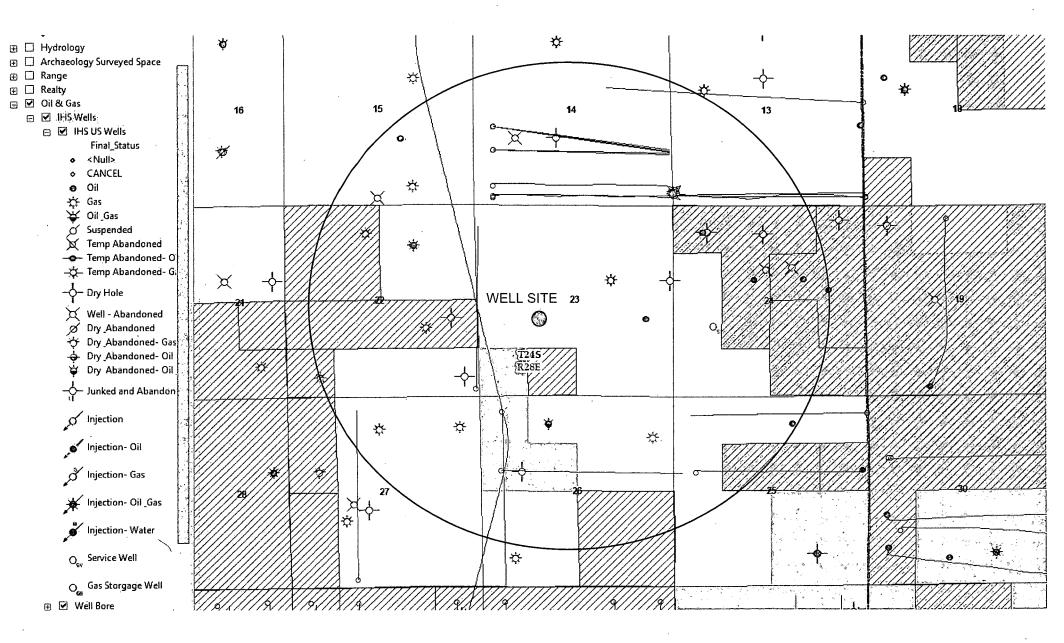
# Other SUPO Attachment

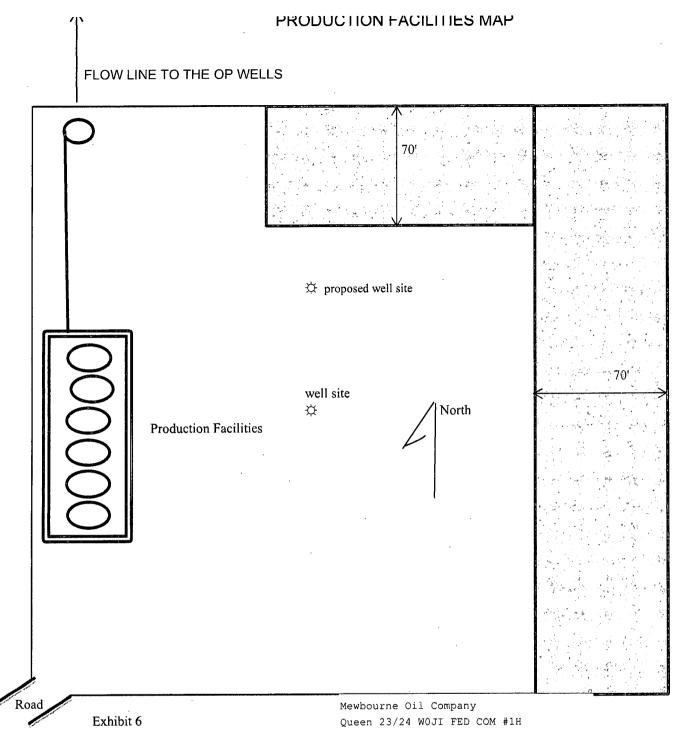
QUEEN23\_24W0JIFEDERALCOM2H\_interimreclamationdiagram\_20190211104928.pdf QUEEN23\_24W0JIFEDERALCOM2H\_gascaptureplan\_20190211110649.pdf



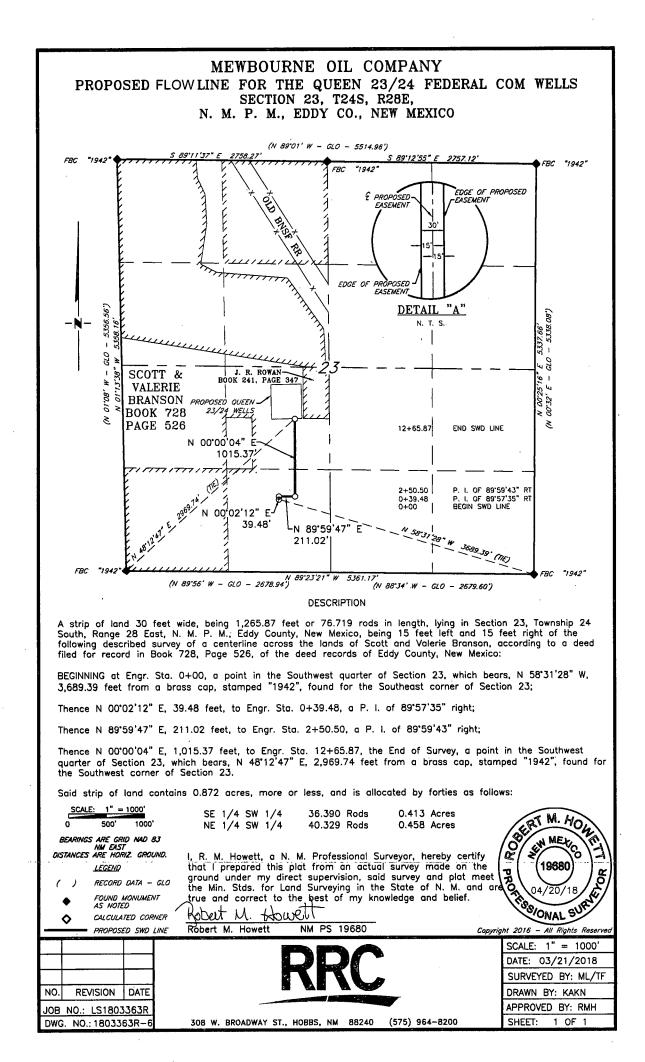


EXISTING WELL MAP QUEEN 23/24 W0JI FEDERAL COM #2H



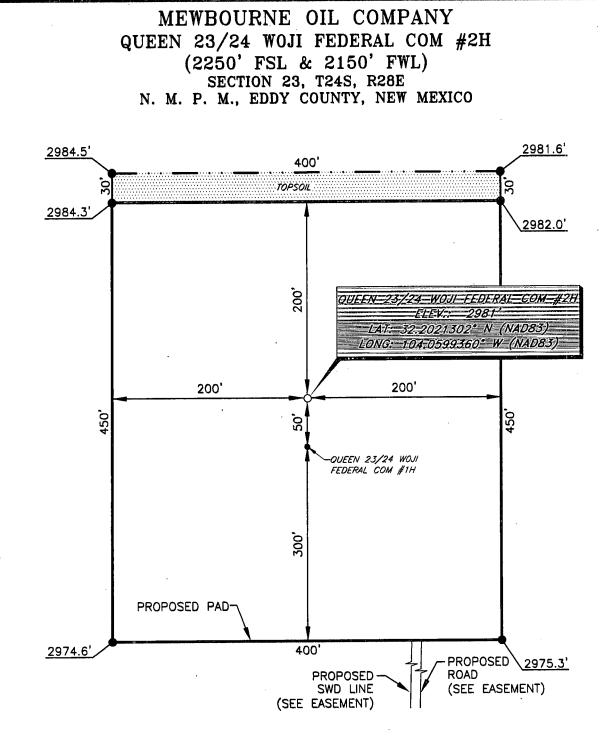


Queen 23/24 W0JI FED COM #11 2200 FSL & 2150 FWL Sec 23 T24S R28E Eddy Co NM







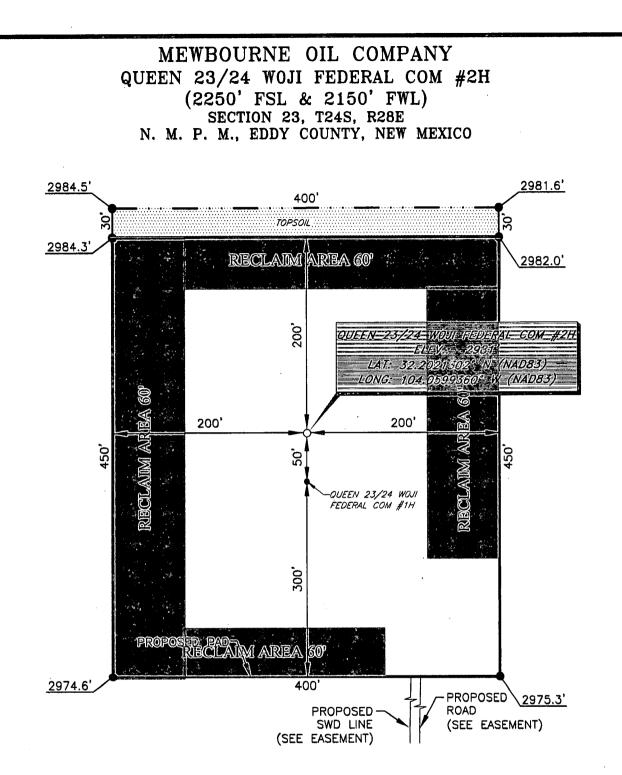


#### DIRECTIONS TO LOCATION

From the intersection of HWY – 285 and CR–721 (Pulley Rd), Go East on CR–721 approx. 0.2 miles to lease road on left; Turn left and go North approx. 0.2 miles to a lease road on the right; Turn right and go East approx. 0.1 miles to existing pad; Turn left and go Northwest on existing pad to proposed road on North side of pad to proposed lease road on left; Turn left onto proposed lease road approx 0.2 miles to proposed well.

THIS IS NOT A BOUNDARY SURVEY, APPARENT PROPERTY CORNERS AND PROPERTY LINES ARE SHOWN FOR INFORMATION ONLY, BOUNDARY DATA IS SHOWN FROM A PREMOUS SURVEY REFERENCED HEREON.

RT M. HO



#### DIRECTIONS TO LOCATION

From the intersection of HWY – 285 and CR-721 (Pulley Rd), Go East on CR-721 approx. 0.2 miles to lease road on left; Turn left and go North approx. 0.2 miles to a lease road on the right; Turn right and go East approx. 0.1 miles to existing pad; Turn left and go Northwest on existing pad to proposed road on North side of pad to proposed lease road on left; Turn left onto proposed lease road approx 0.2 miles to proposed well.

THIS IS NOT A BOUNDARY SURVEY, APPARENT PROPERTY CORNERS AND PROPERTY LINES ARE SHOWN FOR INFORMATION ONLY, BOUNDARY DATA IS SHOWN FROM A PREVIOUS SURVEY REFERENCED HEREON.

AT M. HO

-N-

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

#### GAS CAPTURE PLAN

Date: 2-6-19

 $\boxtimes$  Original

Operator & OGRID No.: Mewbourne Oil Company - 14744

□ Amended - Reason for Amendment:

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

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

#### Well(s)/Production Facility - Name of facility

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

 Well Name	API	Well Location (ULSTR)	Footages	Expected MCF/D	Flared or Vented	Comments
Queen 23/24 W0JI Federal Com #2H	K - 23 -T24S-28E	2200 FSL & 2150 FWL		0	NA	ONLINE AFTER FRAC

#### **Gathering System and Pipeline Notification**

#### Flowback Strategy

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

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

#### **Alternatives to Reduce Flaring**

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

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



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

# PWD Data Report 05/30/2019

### **Section 1 - General**

Would you like to address long-term produced water disposal? NO

### **Section 2 - Lined Pits**

Would you like to utilize Lined Pit PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner:

Lined pit PWD on or off channel:

Lined pit PWD discharge volume (bbl/day):

Lined pit specifications:

Pit liner description:

Pit liner manufacturers information:

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal permit:

Lined pit precipitated solids disposal schedule:

Lined pit precipitated solids disposal schedule attachment:

Lined pit reclamation description:

Lined pit reclamation attachment:

Leak detection system description:

Leak detection system attachment:

Lined pit Monitor description:

Lined pit Monitor attachment:

Lined pit: do you have a reclamation bond for the pit?

Is the reclamation bond a rider under the BLM bond?

Lined pit bond number:

**PWD disturbance (acres):** 

## **Section 3 - Unlined Pits**

#### Would you like to utilize Unlined Pit PWD options? NO

Produced Water Disposal (PWD) Location:

**PWD surface owner:** 

Unlined pit PWD on or off channel:

Unlined pit PWD discharge volume (bbl/day):

Unlined pit specifications:

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal permit:

Unlined pit precipitated solids disposal schedule:

Unlined pit precipitated solids disposal schedule attachment:

Unlined pit reclamation description:

Unlined pit reclamation attachment:

Unlined pit Monitor description:

Unlined pit Monitor attachment:

Do you propose to put the produced water to beneficial use?

Beneficial use user confirmation:

Estimated depth of the shallowest aquifer (feet):

Does the produced water have an annual average Total Dissolved Solids (TDS) concentration equal to or less than that of the existing water to be protected?

TDS lab results:

Geologic and hydrologic evidence:

State authorization:

Unlined Produced Water Pit Estimated percolation:

Unlined pit: do you have a reclamation bond for the pit?

Is the reclamation bond a rider under the BLM bond?

Unlined pit bond number:

Unlined pit bond amount:

Additional bond information attachment:

### Section 4 - Injection

Would you like to utilize Injection PWD options? NO

Produced Water Disposal (PWD) Location:

#### PWD surface owner:

**PWD** disturbance (acres):

#### **PWD** disturbance (acres):

Injection well type:

- Injection well number:
- Assigned injection well API number?
- Injection well new surface disturbance (acres):
- Minerals protection information:
- Mineral protection attachment:
- **Underground Injection Control (UIC) Permit?**
- **UIC Permit attachment:**

# Section 5 - Surface Discharge

Would you like to utilize Surface Discharge PWD options? NO

Produced Water Disposal (PWD) Location:

**PWD surface owner:** 

Surface discharge PWD discharge volume (bbl/day):

- Surface Discharge NPDES Permit?
- Surface Discharge NPDES Permit attachment:

Surface Discharge site facilities information:

Surface discharge site facilities map:

# **Section 6 - Other**

Would you like to utilize Other PWD options? NO

Produced Water Disposal (PWD) Location:

**PWD surface owner:** 

Other PWD discharge volume (bbl/day):

Other PWD type description:

Other PWD type attachment:

Have other regulatory requirements been met?

Other regulatory requirements attachment:

Injection well name:

## Injection well API number:

PWD disturbance (acres):

PWD disturbance (acres):



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

## **Bond Information**

Federal/Indian APD: FED

BLM Bond number: NM1693

**BIA Bond number:** 

Do you have a reclamation bond? NO

Is the reclamation bond a rider under the BLM bond?

Bond Info Data Report

05/30/2019

Is the reclamation bond BLM or Forest Service?

BLM reclamation bond number:

Forest Service reclamation bond number:

Forest Service reclamation bond attachment:

**Reclamation bond number:** 

**Reclamation bond amount:** 

**Reclamation bond rider amount:** 

Additional reclamation bond information attachment: