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Form 3160-3 (June 2015) UNITED S	STATES	JUL 0.1 2019	0.C.L	FORM APPROVED OMB No. 1004-0137 Expires: January 31, 2018			
DEPARTMENT OF BUREAU OF LAND	THE INTE	RIOR RICTILARICO		5. Lease Serial No. NMNM018626			
APPLICATION FOR PERMIT				6. If Indian, Allotee or Tri	be Name		
1a. Type of work: Image: Constraint of the second	REENT	ER		7. If Unit or CA Agreeme 8. Lease Name and Well I			
Ic. Type of Completion: Hydraulic Fracturing	Single 2	Zone Multiple Zone		8. Lease Name and Well No. LINDALE 24/25 W1DE FED 1H 332,582 O			
2. Name of Operator MEWBOURNE OIL COMPANY				9 APJ-Well No. ((30 -0.15-	46168		
3a. Address PO Box 5270 Hobbs NM 88240		Phone No. <i>(include area code)</i> 5)393-5905	<u> </u>	10, Field and Pool, of Exp PURPLE-SAGE WOLF	-		
 Location of Well (Report location clearly and in according At surface NWNW / 405 FNL / 565 FWL / LAT At proposed prod. zone SWNW / 2336 FNL / 330 	32.0342407	LONG -103.8414943	\bigcirc	11. Sec., T. R. M. of Blk. SEC 24/, T265/ R30E /			
14. Distance in miles and direction from nearest town or 25 miles	r post office*			12. County or Parish EDDY	13. State NM		
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. 100		7. Spacing 80	g,Unit dedicated to this we			
 Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.)/BLM/B ED: NM1	IA Bond No. in file 1693	1		
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3140 feet	12/1	Approximate date work will star		 23. Estimated duration 60 days 			
(*(24	. Attachments					
 The following, completed in accordance with the require (as applicable) 1. Well plat certified by a registered surveyor. 2. A Drilling Plan. 3. A Surface Use Plan (if the location is on National For SUPO must be filed with the appropriate Forest Service) 	est,System Lar	4. Bond to cover the of Item 20 above). ds, the 5. Operator certification	perations	vdraulic Fracturing rule pe unless covered by an exist nation and/or plans as may b	ing bond on file (see		
25. Signature (Electronic Submission)	>	Name (Printed/Typed) Bradley Bishop / Ph: (575)3	93-5905	Date 09/1	8/2018		
Title (* (7	<u></u>					
Approved by (Signature) (Electronic Submission)		Name (Printed/Typed) Cody Layton / Ph: (575)234	-5959	Date 06/2	6/2019		
Title (Assistant Field Manager Lands) & Minerals		Office CARLSBAD					
Application approval does not warrant or certify that the applicant to conduct operations thereon. Conditions of approval, if any, are attached.	applicant hold	is legal or equitable title to those	e rights in	the subject lease which v	would entitle the		
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section of the United States any false, fictitious or fraudulent sta	n 1212, make i tements or rep	t a crime for any person knowin resentations as to any matter wit	gly and w thin its ju	villfully to make to any de risdiction.	partment or agency		

(Continued on page 2)

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Approval Date: 06/26/2019

COND

*(Instructions on page 2)

Rup 7-2-19,

INSTRUCTIONS

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

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

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

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

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

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

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

OTICES

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(§;6;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.

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Additional Operator Remarks

Location of Well

1. SHL: NWNW / 405 FNL / 565 FWL / TWSP: 26S / RANGE: 30E / SECTION: 24 / LAT: 32.0342407 / LONG: -103.8414943 (TVD: 0 feet, MD: 0 feet) PPP: NWNW / 330 FNL / 330 FWL / TWSP: 26S / RANGE: 30E / SECTION: 24 / LAT: 32.0344492 / LONG: -103.8422503 (-TVD: 10938 feet, MD: 11078 feet) BHL: SWNW / 2336 FNL / 330 FWL / TWSP: 26S / RANGE: 30E / SECTION: 25 / LAT: 32.0142995 / LONG: -103.842265 (TVD: -11017 feet, MD: 18418 feet)

BLM Point of Contact

Name: Candy Vigil Title: Admin Support Assistant Phone: 5752345982 Email: cvigil@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

OPERATOR'S NAME:	Mewbourne Oil Company
LEASE NO.:	NMNM018626
WELL NAME & NO.:	Lindale 24/25 W1DE 1H
SURFACE HOLE FOOTAGE:	405'/N & 565'/W
BOTTOM HOLE FOOTAGE	2336'/N & 330'/W
LOCATION:	Section 24, T.26 S., R.30 E., NMPM
COUNTY:	Eddy County, New Mexico

COA

H2S	C Yes	r No	
Potash	• None	C Secretary	C R-111-P
Cave/Karst Potential	C Low	Medium	C High
Variance	(None	• Flex Hose	C Other
Wellhead	Conventional	Multibowl	🖲 Both
Other	☐4 String Area	Capitan Reef	WIPP
Other	Fluid Filled	Cement Squeeze	F Pilot Hole
Special Requirements	Water Disposal	Г СОМ	Unit

A. HYDROGEN SULFIDE

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

B. CASING

- 1. The 13-3/8 inch surface casing shall be set at approximately 1000 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 <u>8</u> 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 shall be set at approximately 3700 feet is:

Option 1 (Single Stage):

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

Option 2:

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

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

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:
 - Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.

C. PRESSURE CONTROL

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

Option 1:

- a. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **2000 (2M)** psi.
- b. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the intermediate casing shoe shall be **3000 (3M)** psi.
- c. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the production casing shoe shall be **5000 (5M)** psi.

Option 2:

- 1. 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.

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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)

Eddy County

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

Lea County

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

- 1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
 - a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
 - b. When the operator proposes to set surface casing with Spudder Rig
 - Notify the BLM when moving in and removing the Spudder Rig.
 - Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
 - BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 as soon as 2nd Rig is rigged up on well.
- 2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.

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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

- 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.
- <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 <u>24</u> 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.
- 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.

PECOS DISTRICT SURFACE USE CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Mewbourne Oil Company
WELL NAME & NO.:	Lindale 24/25 W1DE 1H
SURFACE HOLE FOOTAGE:	405'/N & 565'/W
BOTTOM HOLE FOOTAGE	2336'/N & 330'/W
LOCATION:	Section 24, T.26 S., R.30 E., NMPM
COUNTY:	Eddy County, New Mexico

TABLE OF CONTENTS

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

General Provisions
Permit Expiration
Archaeology, Paleontology, and Historical Sites
Noxious Weeds
Special Requirements
Wildlife
Hydrology
Cave/Karst
Construction
Notification
Topsoil
Closed Loop System
Federal Mineral Material Pits
Well Pads
Roads
Road Section Diagram
Production (Post Drilling)
Well Structures & Facilities
Pipelines
Electric Lines
Interim Reclamation
Final Abandonment & Reclamation

I. GENERAL PROVISIONS

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

II. PERMIT EXPIRATION

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

III. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES

Any cultural and/or paleontological resource discovered by the operator or by any person working on the operator's behalf shall immediately report such findings to the Authorized Officer. The operator is fully accountable for the actions of their contractors and subcontractors. The operator shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery shall be made by the Authorized Officer to determine the appropriate actions that shall be required to prevent the loss of significant cultural or scientific values of the discovery. The operator shall be held responsible for the cost of the proper mitigation measures that the Authorized Officer assesses after consultation with the operator on the evaluation and decisions of the discovery. Any unauthorized collection or disturbance of cultural or paleontological resources may result in a shutdown order by the Authorized Officer.

IV. NOXIOUS WEEDS

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

V. SPECIAL REQUIREMENT(S)

Wildlife:

Surface disturbance will not be allowed within up to 200 meters of active heronries or by delaying activity for up to 120 days, or a combination of both.

Exhaust noise from engines must be muffled or otherwise controlled so as not to exceed 75 db measured at 30 ft. from the source of the noise.

Hydrology:

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

Tank battery locations will be lined and bermed. A 20 mil permanent liner will be installed with a 4 oz. felt backing to prevent tears or punctures. Tank battery berms must be large enough to contain $1\frac{1}{2}$ times the content of the largest tank or 24 hour production, whichever is greater. Automatic shut off, check valves, or similar systems will be installed for tanks to minimize the effects of catastrophic line failures used in production or drilling.

A leak detection plan will be submitted to the BLM Carlsbad Field Office for approval prior to pipeline installation. The method could incorporate gauges to detect pressure drops, situating valves and lines so they can be visually inspected periodically or installing electronic sensors to alarm when a leak is present. The leak detection plan will incorporate an automatic shut off system that will be installed for proposed pipelines to minimize the effects of an undesirable event.

Electric Lines: Any water erosion that may occur due to the construction of overhead electric line and during the life of the power line will be quickly corrected and proper measures will be taken to prevent future erosion.

Cave/Karst Surface Mitigation

The following stipulations will be applied to minimize impacts during construction, drilling and production:

Construction:

In the advent that any underground voids are opened up during construction activities, construction activities will be halted and the BLM will be notified immediately.

7

No Blasting:

No blasting will be utilized for pad construction. The pad will be constructed and leveled by adding the necessary fill and caliche.

Pad Berming:

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

Tank Battery Liners and Berms:

Tank battery locations and all facilities will be lined and bermed. A 20 mil permanent liner will be installed with a 4 oz. felt backing, or equivalent, to prevent tears or punctures. Tank battery berms must be large enough to contain $1\frac{1}{2}$ times the content of the largest tank.

Leak Detection System:

A method of detecting leaks is required. The method could incorporate gauges to measure loss, situating values and lines so they can be visually inspected, or installing electronic sensors to alarm when a leak is present. Leak detection plan will be submitted to BLM for approval.

Automatic Shut-off Systems:

Automatic shut off, check values, or similar systems will be installed for pipelines and tanks to minimize the effects of catastrophic line failures used in production or drilling.

Cave/Karst Subsurface Mitigation

Page 4 of 19

The following stipulations will be applied to protect cave/karst and ground water concerns:

Rotary Drilling with Fresh Water:

Fresh water will be used as a circulating medium in zones where caves or karst features are expected. SEE ALSO: Drilling COAs for this well.

Directional Drilling:

Kick off for directional drilling will occur at least 100 feet below the bottom of the cave occurrence zone. SEE ALSO: Drilling COAs for this well.

Lost Circulation:

ALL lost circulation zones from the surface to the base of the cave occurrence zone will be logged and reported in the drilling report.

Regardless of the type of drilling machinery used, if a void of four feet or more and circulation losses greater than 70 percent occur simultaneously while drilling in any cavebearing zone, the BLM will be notified immediately by the operator. The BLM will assess the situation and work with the operator on corrective actions to resolve the problem.

Abandonment Cementing:

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

Pressure Testing:

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

FLOWLINES (SURFACE):

- Flowlines will be routed around sinkholes and other karst features to avoid or lessen the possibility of encountering near surface voids and to minimize the possibility of leaks and spills from entering karst systems.
- If a void is encountered alignments may be rerouted to avoid the karst feature and lessen; the potential of subsidence or collapse of karst features, buildup of toxic or combustible gas, or other possible impacts to cave and karst resources from the buried pipeline.
- Regular monitoring is required to quickly identify leaks for their immediate and proper treatment.
- All spills or leaks will be reported to the BLM immediately for their immediate and proper treatment.

Approval Date: 06/26/2019

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VI. CONSTRUCTION

A. NOTIFICATION

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

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

B. TOPSOIL

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

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

C. CLOSED LOOP SYSTEM

Tanks are required for drilling operations: No Pits.

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

D. FEDERAL MINERAL MATERIALS PIT

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

E. WELL PAD SURFACING

Surfacing of the well pad is not required.

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

F. EXCLOSURE FENCING (CELLARS & PITS)

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Exclosure Fencing

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

G. ON LEASE ACCESS ROADS

Road Width

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

Surfacing

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

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

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

Crowning

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

Ditching

Ditching shall be required on both sides of the road.

Turnouts

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

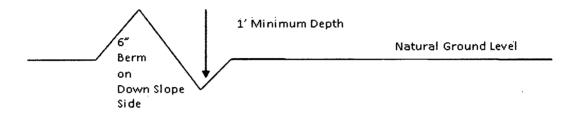
Drainage

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

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

Cross Section of a Typical Lead-off Ditch



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

Formula for Spacing Interval of Lead-off Ditches

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

400 foot road with 4% road slope: 400' + 100' = 200' lead-off ditch interval 4%

Cattle guards

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

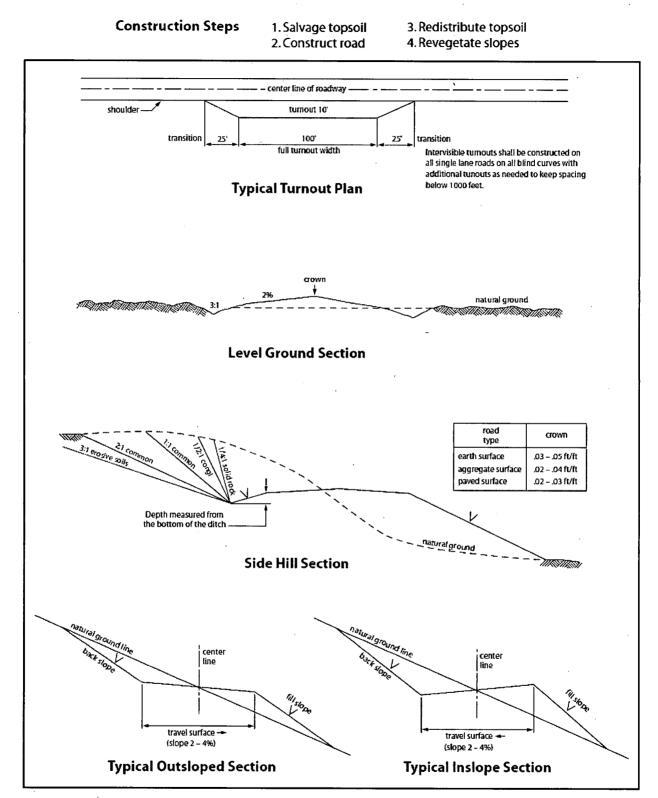
Fence Requirement

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

Public Access

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

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VII. PRODUCTION (POST DRILLING)

A. WELL STRUCTURES & FACILITIES

Placement of Production Facilities

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

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Exclosure Netting (Open-top Tanks)

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

Chemical and Fuel Secondary Containment and Exclosure Screening

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

Open-Vent Exhaust Stack Exclosures

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

Containment Structures

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

Painting Requirement

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

B. PIPELINES

BURIED PIPELINE STIPULATIONS

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

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

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

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

3. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, et seq. or the Resource Conservation and Recovery Act, 42 U.S.C.6901, et seq.) on the Right-of-Way (unless the release or threatened release is wholly unrelated to

the Right-of-Way holder's activity on the Right-of-Way), or resulting from the activity of the Right-of-Way holder on the Right-of-Way. This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.

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

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

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

7. The maximum allowable disturbance for construction in this right-of-way will be $\underline{30}$ feet:

- Blading of vegetation within the right-of-way will be allowed: maximum width of blading operations will not exceed <u>20</u> feet. The trench is included in this area. (*Blading is defined as the complete removal of brush and ground vegetation.*)
- Clearing of brush species within the right-of-way will be allowed: maximum width of clearing operations will not exceed <u>30</u> feet. The trench and bladed area are included in this area. (*Clearing is defined as the removal of brush while leaving ground vegetation (grasses, weeds, etc.) intact. Clearing is best accomplished by holding the blade 4 to 6 inches above the ground surface.*)
- The remaining area of the right-of-way (if any) shall only be disturbed by compressing the vegetation. (*Compressing can be caused by vehicle tires, placement of equipment, etc.*)

8. The holder shall stockpile an adequate amount of topsoil where blading is allowed. The topsoil to be stripped is approximately ____6___ inches in depth. The topsoil will be

segregated from other spoil piles from trench construction. The topsoil will be evenly distributed over the bladed area for the preparation of seeding.

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

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

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

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

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

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

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

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

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

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

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

- a. Any trench left open for eight (8) hours or less is not required to have escape ramps; however, before the trench is backfilled, the contractor/operator shall inspect the trench for wildlife, remove all trapped wildlife, and release them at least 100 yards from the trench.
- b. For trenches left open for eight (8) hours or more, earthen escape ramps (built at no more than a 30 degree slope and spaced no more than 500 feet apart) shall be placed in the trench.
- The BLM, Carlsbad Field Office, will be informed immediately if any subsurface drainage channels, passages, or voids are intersected by trenching, and no pipe will be laid in the trench at that point until clearance has been issued by the Authorized Officer.
- If a void is encountered alignments may be rerouted to avoid the karst feature and

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lessen; the potential of subsidence or collapse of karst features, buildup of toxic or combustible gas, or other possible impacts to cave and karst resources from the buried pipeline.

- Special restoration stipulations or realignment may be required at such intersections, if any.
- <u>A leak detection plan will be submitted to the BLM Carlsbad Field Office for</u> <u>approval prior to pipeline installation</u>. The method could incorporate gauges to detect pressure drops, situating values and lines so they can be visually inspected periodically or installing electronic sensors to alarm when a leak is present. The leak detection plan will incorporate an automatic shut off system that will be installed for proposed pipelines to minimize the effects of an undesirable event.
- Regular monitoring is required to quickly identify leaks for their immediate and proper treatment.
- All spills or leaks will be reported to the BLM immediately for their immediate and proper treatment.

C. ELECTRIC LINES

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STANDARD STIPULATIONS FOR OVERHEAD ELECTRIC DISTRIBUTION LINES

A copy of the grant and attachments, including stipulations, survey plat and/or map, will be on location during construction. BLM personnel may request to you a copy of your permit during construction to ensure compliance with all stipulations.

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

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

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

3. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the

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Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, <u>et seq</u>. or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, <u>et seq</u>.) on the Right-of-Way (unless the release or threatened release is wholly unrelated to the Right-of-Way holder's activity on the Right-of-Way), or resulting from the activity of the Right-of-Way holder on the Right-of-Way. This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.

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4. There will be no clearing or blading of the right-of-way unless otherwise agreed to in writing by the Authorized Officer.

5. Power lines shall be constructed and designed in accordance to standards outlined in "Suggested Practices for Avian Protection on Power lines: The State of the Art in 2006" Edison Electric Institute, APLIC, and the California Energy Commission 2006. The holder shall assume the burden and expense of proving that pole designs not shown in the above publication deter raptor perching, roosting, and nesting. Such proof shall be provided by a raptor expert approved by the Authorized Officer. The BLM reserves the right to require modification or additions to all powerline structures placed on this right-of-way, should they be necessary to ensure the safety of large perching birds. Such modifications and/or additions shall be made by the holder without liability or expense to the United States.

Raptor deterrence will consist of but not limited to the following: triangle perch discouragers shall be placed on each side of the cross arms and a nonconductive perching deterrence shall be placed on all vertical poles that extend past the cross arms.

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

7. The BLM serial number assigned to this authorization shall be posted in a permanent, conspicuous manner where the power line crosses roads and at all serviced facilities. Numbers will be at least two inches high and will be affixed to the pole nearest the road crossing and at the facilities served.

8. Upon cancellation, relinquishment, or expiration of this grant, the holder shall comply with those abandonment procedures as prescribed by the Authorized Officer.

9. All surface structures (poles, lines, transformers, etc.) shall be removed within 180 days of abandonment, relinquishment, or termination of use of the serviced facility or facilities or within 180 days of abandonment, relinquishment, cancellation, or expiration of this grant, whichever comes first. This will not apply where the power line extends service to an active, adjoining facility or facilities.

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

11. Special Stipulations:

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- For reclamation remove poles, lines, transformer, etc. and dispose of properly.
- Fill in any holes from the poles removed.
- Smaller powerlines will be routed around sinkholes and other karst features to avoid or lessen the possibility of encountering near surface voids and to minimize changes to runoff or possible leaks and spills from entering karst systems. Larger powerlines will adjust their pole spacing to avoid cave and karst features.
- The BLM, Carlsbad Field Office, will be informed immediately if any subsurface drainage channels, cave passages, or voids are penetrated during construction.
- No further construction will be done until clearance has been issued by the Authorized Officer.
- Special restoration stipulations or realignment may be required.

VIII. INTERIM RECLAMATION

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

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

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

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

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

IX. FINAL ABANDONMENT & RECLAMATION

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

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

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

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

Seed Mixture 3, for Shallow Sites

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

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

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

Species	<u>lb/acre</u>
Plains Bristlegrass (Setaria macrostachya)	1.0
Green Sprangletop (Leptochloa dubia)	2.0
Sideoats Grama (Bouteloua curtipendula)	5.0

*Pounds of pure live seed:

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



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.

Operator Certification Data Report

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.06/27/2019

Signed on: 09/18/2018 NAME: Bradley Bishop Title: Regulatory Street Address: PO Box 5270 Zip: 88240 City: Hobbs State: NM Phone: (575)393-5905 Email address: bbishop@mewbourne.com **Field Representative Representative Name:** Street Address: State: Zip: City: Phone: Email address:

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

Application Data Report

APD ID: 10400033962

Operator Name: MEWBOURNE OIL COMPANY

Well Name: LINDALE 24/25 W1DE FED

Well Type: CONVENTIONAL GAS WELL

Well Number: 1H Well Work Type: Drill

Submission Date: 09/18/2018

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Highlighted data reflects the most recent changes

Show Final Text

Section 1 - General		
APD ID: 10400033962	Tie to previous NOS?	Submission Date: 09/18/2018
BLM Office: CARLSBAD	User: Bradley Bishop	Title: Regulatory
Federal/Indian APD: FED	Is the first lease penetra	ated for production Federal or Indian? FED
Lease number: NMNM018626	Lease Acres: 1000	
Surface access agreement in place?	Allotted?	Reservation:
Agreement in place? NO	Federal or Indian agree	ment:
Agreement number:		
Agreement name:	• · · ·	
Keep application confidential? YES	· .	
Permitting Agent? NO	APD Operator: MEWBO	URNE OIL COMPANY
Operator letter of designation: Linda	le24_25W1DEFed1H_operate	orletterofdesignation_20180911104700.pdf
Operator InfoOperator Organization Name: MEWBOUROperator Address: PO Box 5270Operator PO Box:Operator City: HobbsOperator City: HobbsOperator Phone: (575)393-5905Operator Internet Address:		Zip: 88240
Section 2 - Well Informa	ation	
Well in Master Development Plan? NO	Master Develo	pment Plan name:
Well in Master SUPO? NO	Master SUPO r	name:
Well in Master Drilling Plan? NO	Master Drilling	Plan name:
Well Name: LINDALE 24/25 W1DE FED	Well Number:	1H Well API Number:
Field/Pool or Exploratory? Field and Pool	Field Name: Pl WOLFCAMP G	

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

Operator Name: MEWBOURNE OIL COMPANY
Well Name: LINDALE 24/25 W1DE FED

Well I	Number		IH
--------	--------	--	----

Describe other minerals:		
Is the proposed well in a Helium production a	ea? N Use Existing Well Pad?	NO New surface disturbance?
Type of Well Pad: MULTIPLE WELL	Multiple Well Pad Name	
Well Class: HORIZONTAL	LINDALE 24/25 DE WEL Number of Legs:	LS
Well Work Type: Drill		
Well Type: CONVENTIONAL GAS WELL		
Describe Well Type:		
Well sub-Type: APPRAISAL		
Describe sub-type:		
Distance to town: 25 Miles Distar	e to nearest well: 200 FT	Distance to lease line: 185 FT
Reservoir well spacing assigned acres Meas	rement: 480 Acres	
Well plat: Lindale24_25W1DEFed1H_wellpl	t_20180911105718.pdf	
Well work start Date: 12/11/2017	Duration: 60 DAYS	

Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83

Vertical Datum: NAVD88

Survey number:

	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD
SHL Leg #1	405	FNL	565	FWL	26S	30E	24	Aliquot NWN W	32.03424 07	- 103.8414 943	EDD Y	NEW MEXI CO	NEW MEXI CO	F	NMNM 018626	314 0	0	0
KOP Leg #1	10	FNL	330	FWL	26S	30E	24	Aliquot NWN W	32.03532 89	- 103.8422 496	EDD Y	NEW MEXI CO	NEW MEXI CO	F	NMNM 018626	- 730 0	104 40	104 40
PPP Leg #1	330	FNL	330	FWL	26S	30E	24	Aliquot NWN W	32.03444 92	- 103.8422 503	EDD · Y	NEW MEXI CO	NEW MEXI CO	F	NMNM 018626	- 779 8	110 78	109 38

1

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Operator Name: MEWBOURNE OIL COMPANY

Well Name: LINDALE 24/25 W1DE FED

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Well Number: 1H

	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD
EXIT	233	FNL	330	FWL	26S	30E	25	Aliquot	32.01429	-	EDD	NEW	NEW	F	NMNM		184	110
Leg	6							SWN	95	103.8422	Y	MEXI	MEXI		018626	787	18	17 /
#1								w	ĺ	65		co	со			7		
BHL	233	FNL	330	FWL	26S	30E	25	Aliquot	32.01429	-	EDD	NEW	NEW	F	NMNM	-	184	110
Leg	6							SWN	95	103.8422	Y	MEXI	MEXI		018626	787	18	17
#1					і 1			w		65		co	со			7		

Page 3 of 3

United States Department of the Interior Bureau of Land Management Carlsbad Field Office 620 E Greene Street Carlsbad, New Mexico 88201-1287

Statement Accepting Responsibility for Operations

Operator Name:	Mewbourne Oil Company					
Street or Box:	P.O. Box 5270					
City, State:	Hobbs, New Mexico					
Zip Code:	88241					

The undersigned accepts all applicable terms, conditions, stipulations, and restrictions concerning operations conducted of the leased land or portion thereof, as described below.

Lease Number:

NMNM 018626

Wolfcamp

\$150,000

Legal Description of Land:

Section 24, T-26S, R-30E Eddy County, New Mexico. Location @ 405' FNL & 565' FWL

Formation (if applicable):

Bond Coverage:

BLM Bond File:

NM1693 nationwide, NMB000919

Snally C'

Authorized Signature:

Name: Bradley Bishop Title: Regulatory Manager

Date: <u>9-10-18</u>

Well Name: LINDALE 24/25 W1DE FED

Well Number: 1H

cock and floor safety valve (inside BOP) and choke lines and choke manifold.

Choke Diagram Attachment:

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 $Lindale_24_25_W1DE_Fed_1H_5M_BOPE_Choke_Diagram_20180917154239.pdf$

Lindale_24_25_W1DE_Fed_1H_Flex_Line_Specs_20180917154240.pdf

BOP Diagram Attachment:

Lindale_24_25_W1DE_Fed_1H_5M_BOPE_Schematic_20180917154251.pdf

Lindale_24_25_W1DE_Fed_1H_Multi_Bowl_WH_20180917154251.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	1000	0	1000	3167		1000	H-40	48	STC	1.68	3.78	DRY	6.71	DRY	11.2 7
	INTERMED IATE	12.2 5	9.625	NEW	API	Y	0	3700	0	3700	3167		3700	J-55	40	LTC	1.12 5	1.96	DRY	3.38	DRY	4.2
	PRODUCTI ON	8.75	7.0	NEW	ΑΡΙ	N	0	11150	0	10963	3167		11150	Р- 110	26	LTC	1.34	1.83	DRY	2.25	DRY	2.86
4	LINER	6.12 5	4.5	NEW	API	N	10440	18418	10440	11017				P- 110	13.5	LTC	1.43	1.67	DRY	3.14	DRY	3.92

Casing Attachments

Casing ID: 1 String Type:SURFACE

Inspection Document:

.

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Lindale_24_25_W1DE_Fed_1H_Csg_Assumptions_20180917154811.pdf

Page 2 of 6

Operator Name: MEWBOURNE OIL COMPANY Well Name: LINDALE 24/25 W1DE FED

Well Number: 1H

Casing Attachments

Casing ID: 2

String Type: INTERMEDIATE Inspection Document:

Spec Document:

Tapered String Spec:

Lindale_24_25_W1DE_Fed_1H_TaperedCsg_20180917154751.pdf

Casing Design Assumptions and Worksheet(s):

Lindale_24_25_W1DE_Fed_1H_Csg_Assumptions_20180917154859.pdf

String Type: PRODUCTION Casing ID: 3

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Lindale_24_25_W1DE_Fed_1H_Csg_Assumptions_20180917154942.pdf

String Type:LINER Casing ID: 4 Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Lindale_24_25_W1DE_Fed_1H_Csg_Assumptions_20180917155020.pdf

Section 4 - Cement

Page 3 of 6

Well Name: LINDALE 24/25 W1DE FED

Well Number: 1H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives .
SURFACE	Lead		0	809	530	2.12	12.5	1123	100	Class C	Salt, Gel, Extender, LCM
SURFACE	Tail		809	1000	200	1.34	14.8	268	100	Class C	Retarder
INTERMEDIATE	Lead		0	3051	595	2.12	12.5	1261	25	Class C	Salt, Gel, Extender, LCM
INTERMEDIATE	Tail		3051	3700	200	1.34	14.8	268	25	Class C	Retarder
PRODUCTION	Lead	4858	3500	4188	65	2.12	12.5	138	25	Class C	Gel, Retarder, Defoamer, Extender
PRODUCTION	Tail		4188	4858	100	1.34	14.8	134	25	Class C	Retarder
PRODUCTION	Lead	4858	4858	8660	340	2.12	12.5	721	25	Class H	Gel, Retarder, Defoamer, Extender
PRODUCTION	Tail		8660	1115 0	400	1.18	15.6	472	25	Class H	Retarder, Fluid Loss, Defoamer
LINER	Lead		1044 0	1841 8	325	2.97	11.2	965	25	Class H	Salt, Gel, Fluid Loss, Retarder, Dispersant, Defoamer, Anti-Settling Agent

Section 5 - Circulating Medium

Mud System Type: Closed

Will an air or gas system be Used? NO

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

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

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

Describe the mud monitoring system utilized: Visual Monitoring

Circulating Medium Table

Page 4 of 6

Well Name: LINDALE 24/25 W1DE FED

Well Number: 1H

							· · · ·				
Top Depth	Bottom Depth	Mud Type	Min Weight (Ibs/gal)	Max Weight (İbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	Н	Viscosity (CP)	Satinity (ppm)	Filtration (cc)	Additional Characteristics
0	1000	SPUD MUD	8.6	8.8							
1000	3700	SALT SATURATED	10	10						-	
3700	1069 3	WATER-BASED MUD	8.6	9.5							
1069 3	1101 7	OIL-BASED MUD	10	12							

Section 6 - Test, Logging, Coring

List of production tests including testing procedures, equipment and safety measures: Will run GR/CNL from KOP (10440') to surface

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

CNL,DS,GR,MWD,MUDLOG

Coring operation description for the well:

None

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 6875

Anticipated Surface Pressure: 4451.26

Anticipated Bottom Hole Temperature(F): 165

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

Describe:

Contingency Plans geoharzards description:

Contingency Plans geohazards attachment:

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations plan:

Lindale_24_25_W1DE_Fed_1H_H2S_Plan_20180917155529.pdf

Page 5 of 6

Well Name: LINDALE 24/25 W1DE FED

Well Number: 1H

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

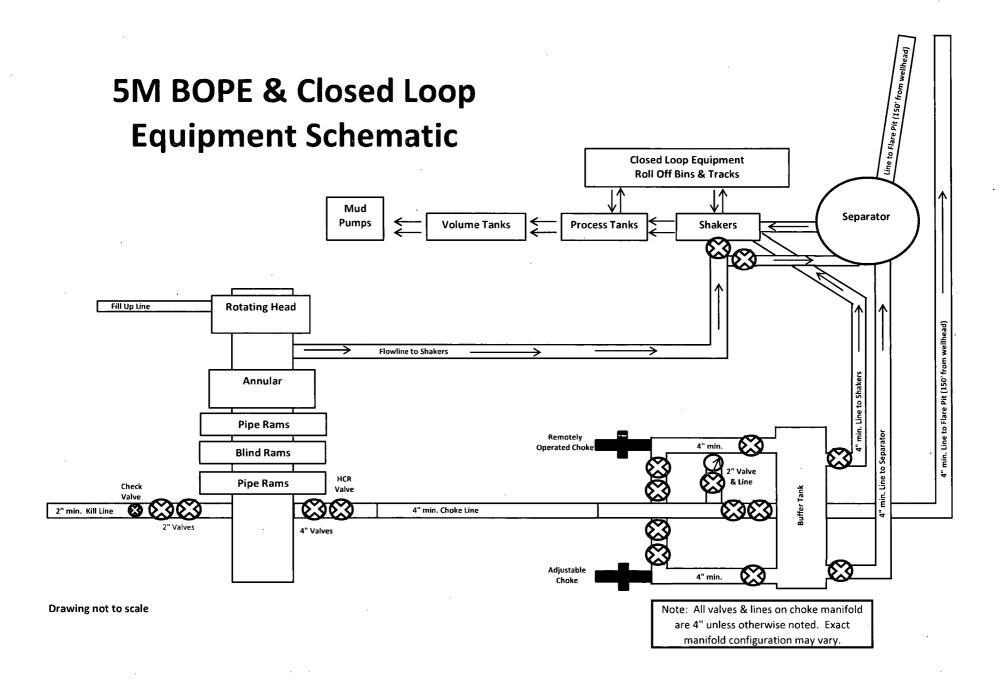
Lindale_24_25_W1DE_Fed_1H_Dir_Plot_20180917155603.pdf Lindale_24_25_W1DE_Fed_1H_Dir_Plan_20180917155604.pdf Other proposed operations facets description:

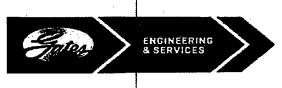
Other proposed operations facets attachment:

Lindale_24_25_W1DE_Fed_1H_Drlg_Program_20180917155638.doc

Other Variance attachment:

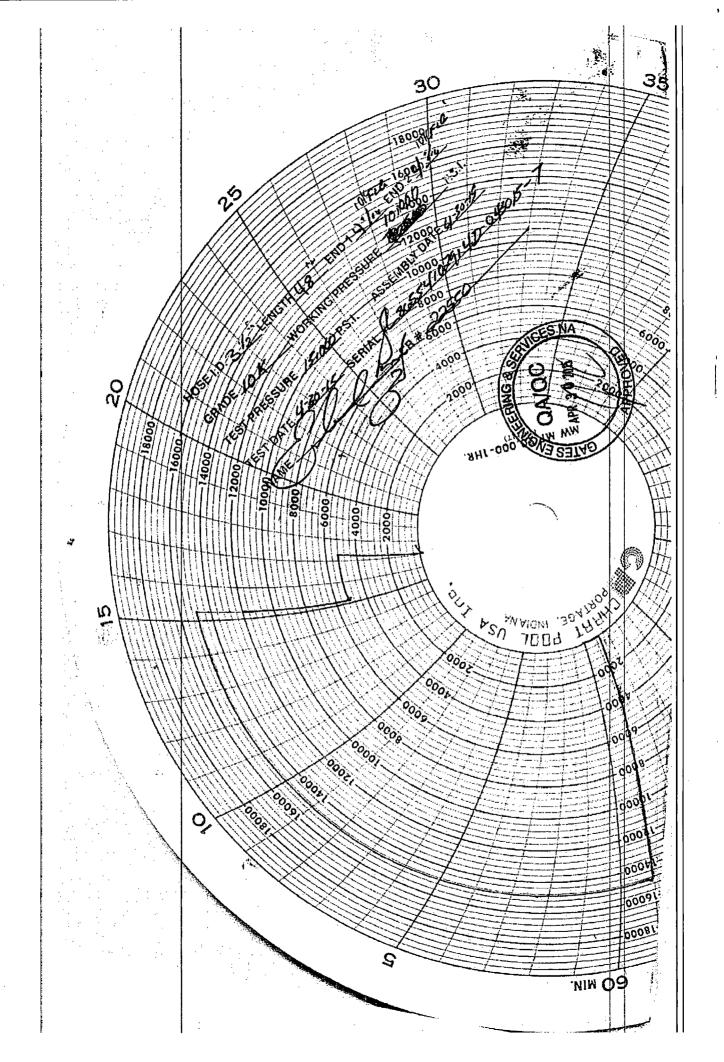
Page 6 of 6

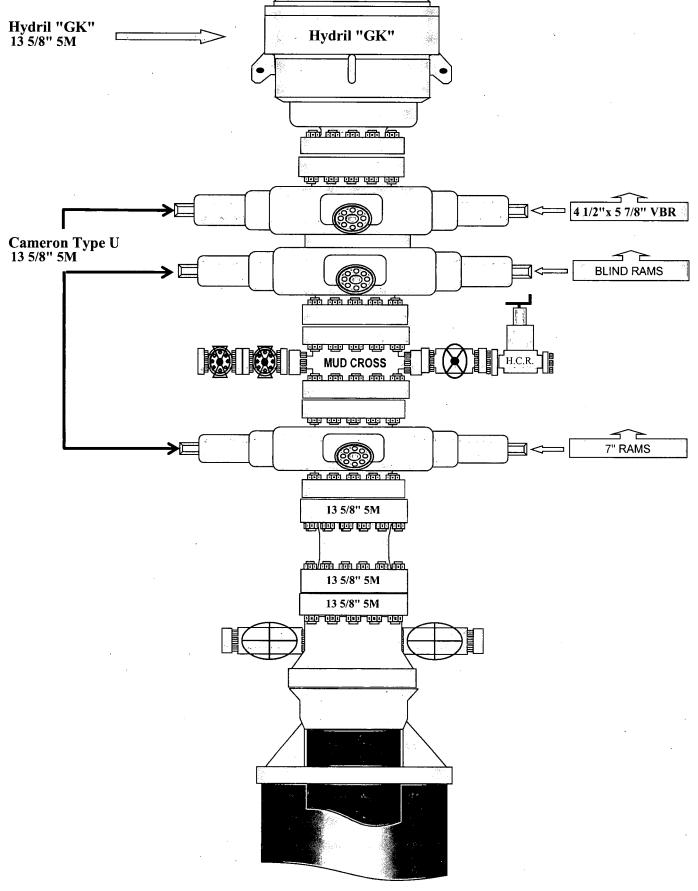




GATES E & S NORTH AMERICA, INC. 134 44TH STREET CORPUS CHRISTI, TEXAS 78405 PHONE: 361-887-9807 FAX: 361-887-0812 EMAIL: *Tim.Cantu@gates.com* WEB: www.gates.com

			<u> </u>
Customer :	AUSTIN DISTRIBUTING	Test Date:	4/30/2015
Customer Ref. :	4060578	Hose Serial No.:	D-043015-7
Invoice No. :	500506	Created By:	JUSTIN CROPPER
Product Description:		10K3.548.0CK4.1/1610KFLGE/E	LE
End Fitting 1 :	4 1/16 10K FLG	End Fitting 2 :	4 1/16 10K FLG
Gates Part No. :	4773-6290	Assembly Code :	L36554102914D-043015-7
Working Pressure :	10,000 PSI	Test Pressure :	15,000 PSI
		the working pressure pe	pressure 9.6.7.2 exceeds the r Table 9.
Quality Manager :	minimum of 2.5 times	Produciton:	PRODUCTION
Quality Manager : Date :	minimum of 2.5 times	the working pressure pe	r Table 9.
	minimum of 2.5 times	Produciton:	PRODUCTION 4/30/2015
Quality Manager : Date :	minimum of 2.5 times	Produciton:	PRODUCTION 4/30/2015
Quality Manager : Date :	minimum of 2.5 times	Produciton:	PRODUCTION 4/30/2015





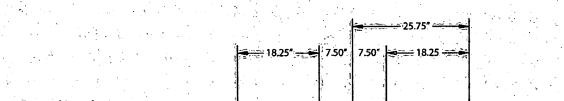
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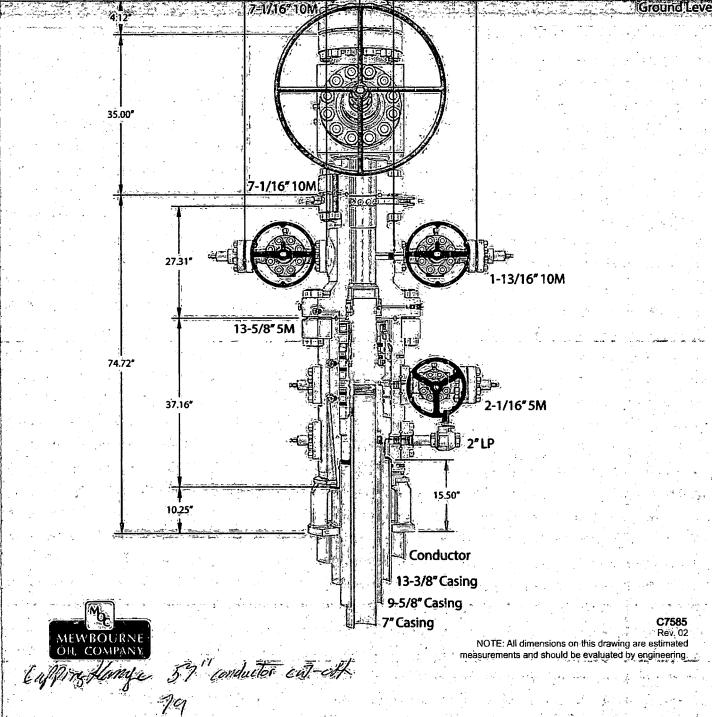


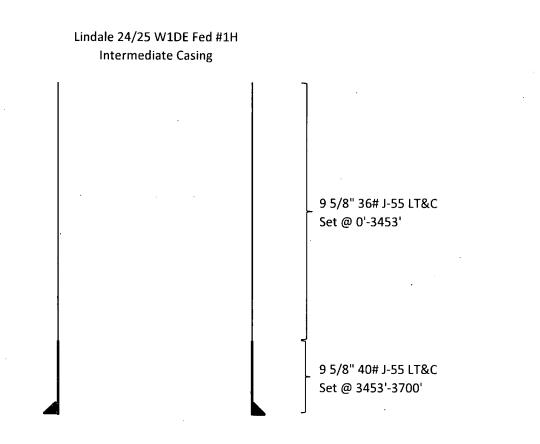
13-5/8" MN-DS Wellhead System

A Schulmberger company



Ground Level





Casing	SF Collapse	SF Burst	SF Jt Tension	SF Body Tension
36# J-55	1.13	1.96	3.38	4.20
40# J-55	1.34	2.05	52.63	63.76

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Casing Program

Hole	Casing	Interval	Csg.	Weight	Grade	Conn.	SF	SF	SF Jt	SF Body
Size	From	То	Size	(lbs)			Collapse	Burst	Tension	Tension
17.5"	0'	1000'	13.375"	48	H40	STC	1.68	3.78	6.71	11.27
12.25"	0'	3453'	9.625"	36	J55	LTC	1.13	1.96	3.38	4.20
12.25"	3453'	3700'	9.625"	40	J55	LTC	1.34	2.05	52.63	63.76
8.75"	0'	11,150'	7"	26	HCP110	LTC	1.37	1.83	2.25	2.86
6.125"	10,440'	18,418'	4.5"	13.5	P110	LTC	1.43	1.67	3.14	3.92
					BLM Minimum Safety			1	1.6 Dry	1.6 Dry
						Factor			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	Y
justification (loading assumptions, casing design criteria).	
Will the pipe be kept at a minimum 1/3 fluid filled to avoid approaching the	Y
collapse pressure rating of the casing?	
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 rd string cement tied back	
500' into previous casing?	· · · ·
Is well located in R-111-P and SOPA?	N
	1
If yes, are the first three strings cemented to surface?	
Is 2 nd string set 100' to 600' below the base of salt?	
	Y
Is well located in high Cave/Karst?	
If yes, are there two strings cemented to surface?	Y
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	<u>N</u>
If yes, are there three strings cemented to surface?	

Casing Program

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Hole	Casing Interval		Csg.	Weight	Grade	Conn.	SF	SF	SF Jt	SF Body	
Size	From	То	Size	(lbs)			Collapse	Burst	Tension	Tension	
17.5"	0'	1000'	13.375"	48	H40	STC	1.68	3.78	6.71	11.27	
12.25"	0'	3453'	9.625"	36	J55	LTC	1.13	1.96	3.38	4.20	
12.25"	3453'	3700'	9.625"	40	J55	LTC	1.34	2.05	52.63	63.76	
8.75"	0'	11,150'	7"	26	HCP110	LTC	1.37	1.83	2.25	2.86	
6.125"	10,440'	18,418'	4.5"	13.5	P110	LTC	1.43	1.67	3.14	3.92	
-		,		BL	M Minimu	m Safety	1.125	1	1.6 Dry	1.6 Dry	
						Factor			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	Y
justification (loading assumptions, casing design criteria).	
Will the pipe be kept at a minimum 1/3 fluid filled to avoid approaching the	Y
collapse pressure rating of the casing?	
	1 ./ 3. ¹ /
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 rd 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 nd string set 100' to 600' below the base of salt?	•
Is well located in high Cave/Karst?	Y
If yes, are there two strings cemented to surface?	Y
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
	•
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

Casing Program

Hole	+Casing	Interval	Csg.	Weight	Grade	Conn.	•••• SF	SF	SF Jt	SF Body
Size	From	То	Size	(lbs)			Collapse	Burst	Tension	Tension
17.5"	0'	1000'	13.375"	48	H40	STC	1.68	3.78	6.71	11.27
12.25"	0'	3453'	9.625"	36	J55	LTC	1.13	1:96	3.38	4.20
12.25"	3453'	3700'	9.625"	40	J55	LTC	1.34	2.05	52.63	63.76
8.75"	0'	11,150'	7"	26	HCP110	LTC	1.37	1.83	2.25	2.86
6.125"	10,440'	18,418'	4.5"	13.5	P110	LTC	1.43	1.67	3.14	3.92
		BLM Minimum Sa		m Safety	1.125	1	1.6 Dry	1.6 Dry		
						Factor			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	Y
justification (loading assumptions, casing design criteria).	
Will the pipe be kept at a minimum 1/3 fluid filled to avoid approaching the	Y
collapse pressure rating of the casing?	
contapse pressure rating of the casing:	
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.	
	1.2.4 1 3.4
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3 rd string cement tied back	
500' into previous casing?	
化合物 医内心 法公司 法法法 化硫酸钙 医结合 医骨髓炎 医结合 化合物 机合成分子 法法律的 化乙酰乙烯	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	
Is 2 nd string set 100' to 600' below the base of salt?	
	- **).
Is well located in high Cave/Karst?	Y
If yes, are there two strings cemented to surface?	Y
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
	• • • • • • • • •
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

2

Casing Program

Hole	Casing Interval		Csg.	Weight	Grade		SF	SF	SF Jt	SF Body
Size	From	То	Size	(lbs)		7.00	Collapse	Burst	Tension	Tension
17.5"	0'	1000'	13.375"	48	H40	STC	1.68	3.78	6.71	11.27
12.25"	0'	3453'	9.625"	36	J55	LTC ·	1.13	1.96	3.38	4.20
12.25"	3453'	3700'	9.625"	40	J55	LTC	1.34	2.05	52.63	63.76
8.75"	0'	11,150'	7"	26	HCP110	LTC	1.37	1.83	2.25	2.86
6.125"	10,440'	18,418'	4.5"	13.5	P110	LTC	1.43	1.67	3.14	3.92
				BL	M Minimu	m Safety	1.125	1	1.6 Dry	1.6 Dry
						Factor			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	Y
justification (loading assumptions, casing design criteria).	
Will the pipe be kept at a minimum 1/3 fluid filled to avoid approaching the	Y
collapse pressure rating of the casing?	
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 rd string cement tied back	,
500' into previous casing?	
If yes, are the first 2 strings cemented to surface and 3 rd string cement field back 500' into previous casing? Is well located in R-111-P and SOPA?	N T
	N
If yes, are the first three strings cemented to surface?	
Is 2 nd string set 100' to 600' below the base of salt?	_
Is well located in high Cave/Karst?	Y
If yes, are there two strings cemented to surface?	
	Y
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	NI
	<u>N</u>
If yes, are there three strings cemented to surface?	

Hydrogen Sulfide Drilling Operations Plan Mewbourne Oil Company

1. General Requirements

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

2. Hydrogen Sulfide Training

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

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

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

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

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

3. Hydrogen Sulfide Safety Equipment and Systems

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

- 1. <u>Well Control Equipment</u>
 - 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.

<u>Hydrogen Sulfide Protection and Monitoring Equipment</u> 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.

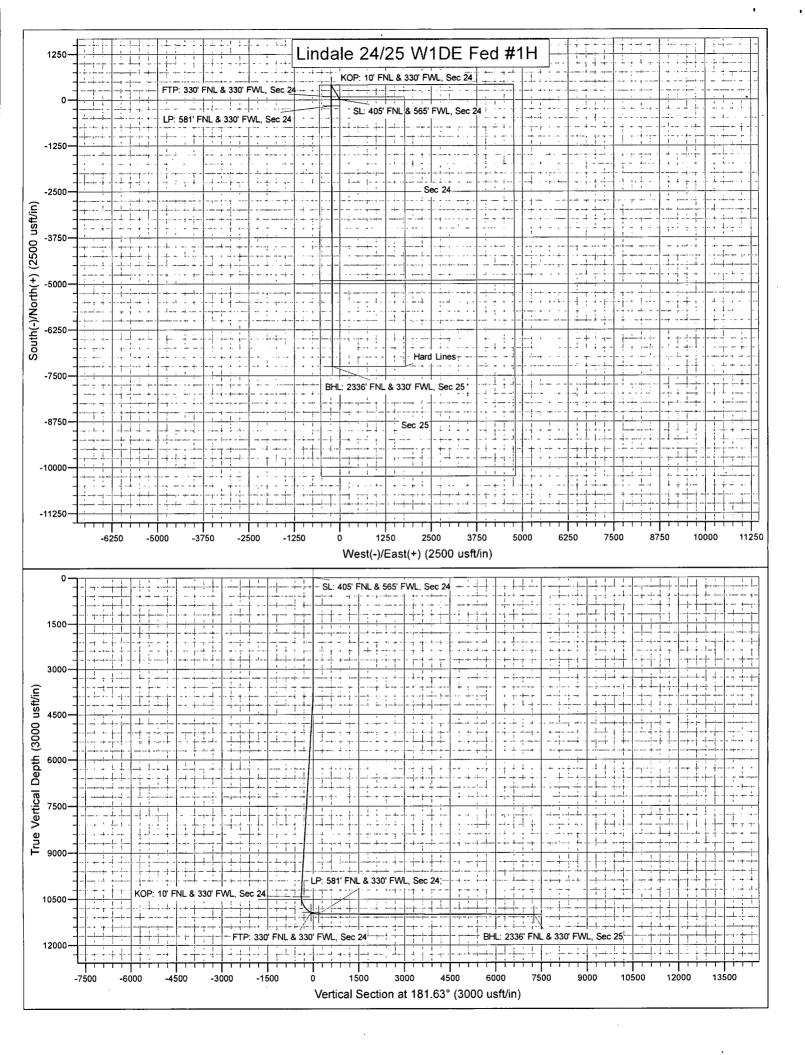
7. Well Testing

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



Mewbourne Oil Company

Eddy County, New Mexico NAD 83 Lindale 24/25 W1DE Fed #1H Sec 24, T26S, R30E SL: 405' FNL & 565' FWL, Sec 24 BHL: 2336' FNL & 330' FWL, Sec 25

Plan: Design #1

Standard Planning Report

14 September, 2018

Database: Company: Project: Site: Well: Well: Wellbore: Design: Project:	Eddy Cou Lindale 2 Sec 24, 1 BHL: 233 Design #	nty, New Mexi	kico NAD 83 ed #1H FWL, Sec 2	5	TVD Refer MD Refer North Ref Survey Ca	nce: erence: Iculation Metho	d: Wi	e Lindale 24/25 ELL @ 3167.0us ELL @ 3167.0us id nimum Curvatur n Sea Level	sft (Original V sft (Original V	Vell Elev)
Geo Datum:	North Ameri	ican Datum 19 5 Eastern Zone			System Dat					
Site	Lindale 24	/25 W1DE Fe	d #1H							
Site Position: From: Position Uncertainty:	Мар	0.0 נ	Northi Eastir Isft Slot R	-		746.00 usft Lo	atitude: ongitude: rid Convergen	ce:		32.0342401 -103.8414939 0.26 °
Well	Sec 24, T2	26S, R30E					•	ini din Anseer , islan		
Well Position	+N/-S +E/-W			orthing: sting:		376,542.00 us 693,746.00 us				32.0342401 -103.8414939
Position Uncertainty Wellbore	BHI - 233	6' FNL & 330'		ellhead Elevat		3,167.0 us		id Level:	nan taan taan taa	3,140.0 usft
Magnetics	· · · · · · · · · · · · · · · · · · ·	I Name	Sampl		Declina	tion	Dip Ang		Field S	renath
		IGRF2010		9/14/2018	(°)	6.80	(°)	59.78	(n	· · · · · · · · · · · · · · · · · · ·
Design	Design #1						میں ہے ۔ سام میں 'تی طبقہ ہے۔ اس است است میں میں اس میں اس			
Audit Notes: Version:			Phase	e: F	PROTOTYPE	Tie O	n Depth:	0.	0	
Vertical Section:		Dej	oth From (T\ (usft)	/D)	+N/-S (usft)	+E/-V (usft		(°)	tion	
			0.0		0.0	0.0		181.	63	- CR 8
Plan Sections Measured Depth Inclin (usft) (ation A	.zimuth (°)	/ertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft) (Build Rate °/100usft) (Turn Rate ?/100usft)	TFO (°)	Target
0.0 3,750.0 4,024.2	0.00 0.00 4.11	0.00 0.00 329.14	0.0 3,750.0 4,023.9	0.0 0.0 8.4	0.0 0.0 -5.0	0.00 0.00 1.50	0.00 0.00 1.50	0.00 0.00 0.00	0.00 0.00 329.14	
10,166.2 10,440.3	4.11 0.00	329.14 0.00	10,150.1 10,424.0	386.6 395.0	-231.0 -236.0	0.00 1.50	0.00 -1.50	0.00 0.00	0.00 180.00 k	(OP: 10' FNL & 330' I
11,338.7 18,417.5	89.84 89.84	179.78 179.78	10,997.0 11,017.0	-176.3 -7,255.0	-233.8 -206.0	10.00 0.00	10.00 0.00	0.00 0.00	179.78 0.00 E	3HL: 2336' FNL & 33(

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Database:	Hobbs	Local Co-ordinate Reference:	Site Lindale 24/25 W1DE Fed #1H
Company:	Mewbourne Oil Company	TVD Reference:	WELL @ 3167.0usft (Original Well Elev)
Project:	Eddy County, New Mexico NAD 83	MD Reference:	WELL @ 3167.0usft (Original Well Elev)
Site:	Lindale 24/25 W1DE Fed #1H	North Reference:	Grid
Well:	Sec 24, T26S, R30E	Survey Calculation Method:	Minimum Curvature
Wellbore:	BHL: 2336' FNL & 330' FWL, Sec 25		
Design:	Design #1		

يستريست بالاستهر ومتصاعد مالد إنهوتا التحابيات كالرقاق

Planned Survey

	Measured Depth (usft)	Inclination	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (%100usft)	
. .	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00	
•	SL: 405' FNI	& 565' FWL, Se		· · · ·	•						
	100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00	
	200.0	0.00	0.00	200.0	. 0.0	0.0	0.0	0.00	0.00	0.00	
	300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00	
	400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00	
				400.0	0.0	0.0	0.0	0.00	0.00	0.00	
	500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00	
	600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00	
	700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00	
	800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00	
	900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00	•
	1 000 0	0.00	0.00								
	1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00	
	1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00	
	1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00	
	1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00	
	1,400.0	0,00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00	
	1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00	
	1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00	
	1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00	
	1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00	
	1,900.0	0.00	0.00	1,900.0	0.0	. 0.0	0.0	0.00	0.00		
	1,000.0	0.00	0.00	1,300.0	0.0	. 0.0	0.0	0.00	0.00	0.00	
	2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00	
	2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00	
	2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00	
	2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00	
	2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00	
	2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00	
	2,600.0	0,00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00	
	2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00	
	2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00	
	2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00	
	3,000.0	0.00	0.00	3 000 0			• •				
			0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00	
	3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00	
	3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00	
	3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	0.00	
	3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00	
	3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	0.00	
	3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00	
	3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	0.00	
	3,750.0	0.00	0.00	3,750.0	0.0	0.0	0.0	0.00	0.00	0.00	
	3,800.0	0.75	329.14	3,800.0	0.3	-0.2	-0.3	1.50	1.50	0.00	
										0.00	
	3,900.0	2.25	329.14	3,900.0	2.5	-1.5	-2.5	1.50	1.50	0.00	
	4,000.0	3.75	329,14	3,999.8	7.0	-4.2	-6.9	1.50	1.50	0,00	
	4,024.2	4.11	329.14	4,023.9	8.4	-5.0	-8.3	1.50	1.50	0.00	
	4,100.0	4.11	329.14	4,099.6	13.1	-7.8	-12.9	0.00	0.00	0.00	
	4,200.0	4.11	329.14	4,199.3	19.3	-11.5	-18.9	0.00	0.00	0.00	
	4,300.0	4.11	329.14	4,299.1	25.4	-15.2	-25.0	0.00	0.00	0.00	
•	4,400.0	4.11	329.14	4,398.8	31.6	-18.9	-31.0	0.00	0.00	0.00	
	4,500.0	4.11	329.14	4,498.5	37.7	-22.5	-37.1	0.00	0.00	0.00	
	4,600.0	4.11	329.14	4,598.3	43.9	-26.2	-43.1	0.00	0.00	. 0.00	
	4,700.0	4.11	329,14	4,698.0	50.0	-29.9	-49.2	0.00	0.00	0.00	
		•									
	4,800.0	4.11	329.14	4,797.8	56.2	-33.6	-55.2	0.00	0.00	0.00	
	4,900.0	4.11	329.14	4,897.5	62,4	-37.3	-61.3	0.00	0.00	0.00	
	5,000.0	4.11	329.14	4,997.3	68.5	-40.9	-67.3	0.00	0.00	0.00	

COMPASS 5000.1 Build 72

Database:	Local Co-ordinate Reference: Site Lindale 24/25 W1DE Fed #1H
Company: Mewbourne Oil Company	TVD Reference: WELL @ 3167.0usft (Original Well Elev)
Project: Eddy County, New Mexico NAD 83	MD Reference: WELL @ 3167.0usft (Original Well Elev)
Site: Lindale 24/25 W1DE Fed #1H	North Reference:
Well: Sec 24, T26S, R30E	Survey Calculation Method: Minimum Curvature
Wellbore: BHL: 2336' FNL & 330' FWL, Sec 25	
Design:	

Planned Survey									
Measured			Vertical			Vertical	Dogleg	, Build	Turn
Depth	Inclination	Azimuth	Depth	+N/-S	+E/-W	Section (usft)	Rate (°/100usft)	Rate (°/100usft)	Rate (°/100usft)
(usft)	(°)	(°)	(usft)	(usft)	(usft)				
5,100.0	4.11	329.14	5,097.0	74.7	-44.6	-73.4	0.00	0.00	0.00
5,200.0	4.11	329.14	5,196.7	80.8	-48.3	-79.4	0.00	0.00	0.00
5,300.0	4.11	329.14	5,296.5	87.0	-52.0	-85.5	0.00	0.00	0.00
5,400.0	4.11	329.14	5,396.2	.93.1	-55.6	-91.5	0.00	. 0.00	0.00
5,500.0 5,600.0	4.11 4.11	329.14 329.14	5,496.0 5,595.7	99.3 105.5	-59.3 -63.0	-97.6 -103.6	0.00 0.00	0.00 0.00	0.00 0.00
5,700.0	4.11	329.14	5,695.4	111.6	-66.7	-109.7	0.00	0.00	0.00
							0.00	0.00	0.00
5,800.0 5,900.0	4.11 4.11	329.14 329.14	5,795.2 5,894.9	117.8 123.9	-70.4 -74.0	-115.7 -121.8	0.00	0.00	0.00
6,000.0	4.11	329.14	5,994.7	130.1	-77.7	-127.8	0.00	0.00	0.00
6,100.0	4.11	329.14	6,094.4	136.2	-81.4	-133.9	0.00	0.00	0.00
6,200.0	4.11	329.14	6,194.2	142.4	-85.1	-139.9	0.00	0.00	0.00
6,300.0	4.11	329.14	6,293.9	148.5	-88.8	-146.0	0.00	0.00	0.00
6,400.0	4.11	329,14	6,393.6	154.7	-92.4	-152.0	0.00	0.00	0.00
6,500.0	4.11	329.14	6,493.4	160.9	-96.1	-158.1	0.00	0.00	0.00
6,600.0	4.11	329.14	6,593.1	167.0	-99.8	-164.1	0.00	0.00	0.00
6,700.0	4.11	329.14	6,692.9	173.2	-103.5	-170.2	0.00	0.00	0.00
6,800.0	4.11	329.14	6,792.6	179.3	-107.1	-176.2	0.00	0.00	0.00
6,900.0	4.11	329.14	6,892.4	185.5	-110.8	-182.3	0.00	0.00	0.00
7,000.0	4.11	329.14	6,992.1	191.6	-114.5	-188.3	0.00	0.00	0.00
7,100.0	4.11	329.14	7,091.8	197.8	-118.2	-194.4	0.00	0.00	0.00
7,200.0	4.11	329.14	7,191.6	204.0	-121.9	-200.4	0.00	0.00	0.00
7,300.0	4.11	329.14	7,291.3	210.1	-125.5	-206.5	0.00	0.00	0.00
7,400.0	4.11	329.14	7,391.1	216.3	-129.2	-212.5	0.00	0.00	0.00
7,500.0	4.11	329.14	7,490.8	222.4	-132.9	-218.6	0.00	0.00	0.00
7,600.0	4.11	329.14	7,590.6	228.6	-136.6	-224.6	0.00	0.00	0.00
7,700.0	4.11	329.14	7,690.3	234.7	-140.2	-230.7	0.00	0.00	0.00
7,800.0	4.11	329.14	7,790.0	240.9	-143.9	-236.7	0.00	0.00	0.00
7,900.0	4.11	329.14	7,889.8	247.0	-147.6	-242.8	0.00	0.00	0.00
8,000.0	4.11	329.14 329.14	7,989.5 8,089.3	253.2 259.4	-151.3 -155.0	-248.8 -254.9	0.00 0.00	0.00 0.00	0.00 0.00
8,100.0 8,200.0	4.11 4.11	329.14	8,189.0	265.5	-158.6	-260.9	0.00	0.00	0.00
8,300.0	4.11	329.14	8,288.8	271.7 277.8	-162.3 -166.0	-267.0 -273.0	0.00 0.00	0.00 0.00	0.00 0.00
8,400.0 8,500.0	4.11 4.11	329.14 329.14	8,388.5 8,488.2	284.0	-166.0	-273.0	0.00	0.00	0.00
8,600.0	4.11	329.14	8,588.0	290.1	-173.4	-285.1	0.00	0.00	0.00
8,700.0	4.11	329.14	8,687.7	296.3	-177.0	-291.2	0.00	0.00	0.00
8,800.0	4.11	329.14	8,787.5	302.5	-180.7	-297.2	0.00	0.00	0.00
8,900.0	4,11	329.14	8,887.2	308.6	-184.4	-303.3	0.00	0.00	0.00
9,000.0	4.11	329.14	8,987.0	314.8	-188.1	-309.3	0.00	0.00	0.00
9,100.0	4.11	329.14	9,086.7	320.9	-191.7	-315.4	0.00	0.00	0.00
9,200.0	4.11	329.14	9,186.4	327.1	-195.4	-321.4	0.00	0.00	0.00
9,300.0	4.11	329.14	9,286.2	333.2	-199.1	-327.4	0.00	0.00	0.00
9,400.0	4.11	329.14	9,385.9	339.4	-202.8	-333.5	0.00	0.00	0.00
9,500.0	4.11	329.14	9,485.7	345.5	-206.5	-339.5	0.00	0.00	0.00
9,600.0	4.11	329.14	9,585.4	351.7	-210.1	-345.6	0.00	0.00	0.00
9,700.0	4.11	329.14	9,685.2	357.9	-213.8	-351.6	0.00	0.00	0.00
9,800.0	4.11	329.14	9,784.9	364.0	-217.5	-357.7	0.00	0.00	0.00
9,900.0	4.11	329.14	9,884.6	370.2	-221.2	-363.7	0.00	0.00	0.00
10,000.0	· 4.11	329.14	9,984.4	376.3	-224.8	-369.8	0.00	0.00	0.00
10,100.0	4.11	329.14	10,084.1	382.5	-228.5	-375.8	0.00	0.00	0.00
10,166.2	4.11	329.14	10,150.1	386.6	-231.0	-379.8	0.00	0.00	0.00
10,200.0	3.60	329.14	10,183.9	388.5	-232.1	-381.8	1.50	-1.50	0.00
10,300.0	2.10	329.14	10,283.7	392.8	-234.7	-386.0	1.50	-1.50	0.00

COMPASS 5000.1 Build 72

Database:	Hobbs	Local Co-ordinate Reference:	Site Lindale 24/25 W1DE Fed #1H
Company:	Mewbourne Oil Company	TVD Reference:	WELL @ 3167.0usft (Original Well Elev)
Project:	Eddy County, New Mexico NAD 83	MD Reference:	WELL @ 3167.0usft (Original Well Elev)
Site:	Lindale 24/25 W1DE Fed #1H	North Reference:	Grid
Well:	Sec 24, T26S, R30E	Survey Calculation Method:	Minimum Curvature
Wellbore:	BHL: 2336' FNL & 330' FWL, Sec 25		
Design:	Design #1		

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Planned Survey

Measured Depth	Inclination	Azimuth	Vertical Depth	+N/-S	+E/-W	Vertical Section	Dogleg Rate	Build Rate	Turn Rate
(usft)	incination (१) ्र्रेन्ट्र	Azimuun (°)	(usft)	+n/-S (usft)	+E/-W (usft)	(usft)	(?/100usft)	(°/100usft)	(°/100usft)
10,400.0	0.60	329.14	10,383.7	394.8	-235.9	-388.0	1.50	-1.50	0.00
10,440.3	0.00	0.00	10,424.0	395.0	-236.0	-388.1	1.50	-1.50	0.00
KOP: 10' FNL	& 330' FWL, Se	c 24							
10,500.0	5.97	179.78	10,483.6	391.9	-236.0	-385.0	10.00	10.00	0.00
10,600.0	15.97	179.78	10,581.7	372.9	-235.9	-366.0			
10,700.0	25.97	. 179.78	10,581.7	372.9	-235.9 -235.8	-366.0 -330.3	10.00	10.00	0.00
10,800.0	35.97	179.78	10,760.6	285.8	-235.6		10.00	10.00	0.00
10,900.0	45.97	179.78	10,780.8	205.0		-279.0	10.00	10.00	0.00
11,000.0	55.97	179.78	10,838.9	142.7	-235.3 -235.0	-213.5 -136.0	10.00	10.00	0.00
					-235.0	-136.0	10.00	10.00	0.00
11,078.4	63.80	179.78	10,938.1	75.0	-234.7	-68.3	10.00	10.00	0.00
	& 330' FWL, Se	c 24						· · ·	
11,100.0	65.97	179.78	10,947.3	55.4	-234.7	-48.7	10.00	10.00	0.00
11,200.0	75.97	179.78	10,979.9	-39.0	-234.3	45.7	10.00	10.00	0.00
11,300.0	85.97	179.78	10,995.6	-137.7	-233.9	144.2	10.00	10.00	0.00
11,338.7	89.83	179.78	10,997.0	-176.3	-233.8	182.9	10.00	10.00	0.00
LP: 581' FNL 8	330' FWL, Sec	: 24				• •			•
11,400.0	89.84	179.78	10,997.2	-237.6	-233.5	244.2	0.01	0.01	0.00
11,500.0	89.84	179.78	10,997.5	-337.6	-233.1	344.1	0.00	0.00	0.00
11,600.0	89.84	179.78	10,997.7	-437.6	-232.7	444.1	0.00	0.00	0.00
11,700.0	89.84	179.78	10,998.0	-537.6	-232.3	544.0	0.00	0.00	0.00
11,800.0	89.84	179.78	10,998.3	-637.6	-232.0	643.9	0.00	0.00	0.00
11,900.0	89.84	179.78	10,998.6	-737.6	-231.6	743.9	0.00	0.00	0.00
12,000.0	89.84	179.78	10,998.9	-837.6	-231.8	743.9 843.8			
12,100.0	89.84	179.78	10,999.2	-937.6	-231.2	843.8 943.8	0.00 0.00	0.00 0.00	0.00
12,200.0	89.84	179.78	10,999.4	-1,037.6	-230.8	943.8 1,043.7	0.00		0.00
12,300.0	89.84	179.78	10,999.7	-1,137.6	-230.4	1,043.7	0.00	0.00 0.00	0.00 0.00
12,400.0	89.84	179.78	11,000.0	-1,237.6	-229.6	1,243.6	0.00	0.00	0.00
12,500.0	89.84	179.78	11,000.3	-1,337.6	-229.2	1,343.6	0.00	0.00	0.00
12,600.0	89.84	179.78	11,000.6	-1,437.6	-228.8	1,443.5	0.00	0.00	0.00
12,700.0	89.84	179.78	11,000.8	-1,537.6	-228.4	1,543.5	0.00	0.00	0.00
12,800.0	89.84	179.78	11,001.1	-1,637.6	-228.0	. 1,643.4	0.00	0.00	Ó.00
12,900.0	89.84	179.78							
12,900.0	89.84 89.84	179.78 179.78	11,001.4	-1,737.6	-227.6	1,743.4	0.00	0.00	0.00
13,100.0	89.84	179.78	11,001.7 11,002.0	-1,837.6 -1,937.6	-227.2 -226.9	1,843.3	0.00	0.00	0.00
13,200.0	89.84	179.78	11,002.0	-2,037.6	-226.9	1,943.3 2,043.2	0.00	0.00	0.00
13,300.0	89.84	179.78	11,002.5	-2,037.6	-226.5	2,043.2	0.00 0.00	0.00 0.00	0.00 0.00
13,400.0	89.84	179.78	11,002.8	-2,237.6	-225.7	2,243.1	0.00	0.00	0.00
13,500.0	89.84	179.78	11,003.1	-2,337.6	-225.3	2,343.1	0.00	0.00	0.00
13,600.0	89.84	179.78	11,003.4	-2,437.6	-224.9	2,443.0	0.00	0.00	0.00
13,700.0 13,800.0	89.84	179.78	11,003.7	-2,537.6	-224.5	2,542.9	0.00	0.00	0.00
13,800.0	89.84	179.78	11,004.0	-2,637.6	-224.1	2,642.9	0.00	0.00	0.00
13,900.0	89.84	179.78	11,004.2	-2,737.6	-223.7	2,742.8	0.00	0.00	0.00
14,000.0	89.84	179.78	11,004.5	-2,837.6	-223.3	2,842.8	0.00	0.00	0.00
14,100.0	89.84	179.78	11,004.8	-2,937.6	-222.9	2,942.7	0.00	0.00	0.00
14,200.0	89.84	179.78	11,005.1	-3,037.6	-222.5	3,042.7	0.00	0.00	0.00
14,300.0	89.84	179.78	11,005.4	-3,137.6	-222.1	3,142.6	0.00	0.00	0.00
14,400.0	89.84	179.78	, 11,005.6	-3,237.6	-221,8	3,242.6	. 0.00	0.00	0.00
14,500.0	89.84	179.78	11,005.9	-3,337.6	-221.4	3,342.5	0.00	0.00	0.00
14,600.0	89.84	179.78	11,006.2	-3,437.6	-221.0	3,442.5	0.00	0.00	0.00
14,700.0	89.84	179.78	11,006.5	-3,537.6	-220.6	3,542.4	0.00	0.00	0.00
14,800.0	89.84	179.78	11,006.8	-3,637.6	-220.2	3,642.4	0.00	0.00	0.00
14,900.0	89.84	179.78	11,007.1	-3,737.6	-219.8	3,742.3	0.00	0.00	0.00
,	89.84	179.78		0,101.0	-213,0	5,142.3	0.00	0.00	0.00

COMPASS 5000.1 Build 72

Local Co-ordinate Reference: Site Lindale 24/25 W1DE Fed #1H
TVD Reference: WELL @ 3167.0usft (Original Well Elev)
MD Reference: WELL @ 3167.0usft (Original Well Elev)
North Reference:
Survey Calculation Method: Minimum Curvature

lanned Survey Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
15,100.0	89.84	179.78	11,007.6	-3,937.6	-219.0	3,942.2	0.00	0.00	0.00
15,200.0	89.84	179.78	11,007.9	-4,037.6	-218.6	4,042.2	0.00	0.00	0.00
15,300.0	89.84	179.78	11,008.2	-4,137.6	-218.2	4,142.1	0.00	0.00	0.00
15,400.0	89.84	179.78	11,008.5	-4,237.6	-217.8	4,242.1	0.00	0.00	0.00
15,500.0	89,84	179.78	11,008.8	-4,337.6	-217.4	4,342.0	0.00	0.00	0.00
15,600.0	89.84	179.78	11,009.0	-4,437.6	-217.0	4,441.9	0.00	0.00	0.00
15,700.0	89.84	179.78	11,009.3	-4,537.6	-216.7	4,541.9	0.00	0.00	0.00
15,800.0	89.84	179.78	11,009.6	-4,637.6	-216.3	4,641.8	0.00	0.00	0.00
15,900.0	89.84	179.78	11,009.9	-4,737.6	-215.9	4,741.8	0.00	0.00	0.00
16,000.0	89.84	179.78	11,010,2	-4,837.6	-215.5	4,841.7	0.00	0.00	0.00
16,100.0	89.84	179.78	11,010.5	-4,937.6	-215.1	4,941.7	0.00	0.00	0.00
16,200.0	89.84	179.78	11,010.7	-5,037.6	-214.7	5,041.6	0.00	0.00	0.00
16,300.0	89.84	179.78	11,011.0	-5,137.6	-214.3	5,141.6	0.00	0.00	0.00.
16,400.0	89.84	179.78	11.011.3	-5,237.6	-213.9	5,241.5	0.00	0.00	0.00
16,500.0	89.84	179.78	11,011.6	-5,337.6	-213.5	5,341.5	0.00	0.00	0.00
16,600.0	89.84	179.78	11,011.9	-5,437.6	-213.1	5,441.4	0.00	0.00	0.00
16,700.0	89.84	179.78	11,012.1	-5,537.6	-212.7	5,541.4	0.00	0.00	0.00
16,800.0	89.84	179.78	11,012.4	-5,637.6	-212.3	5,641.3	0.00	0.00	0.00
16,900.0	89,84	179,78	11,012.7	-5,737.6	-212.0	5,741.3	0.00	0.00	0.00
17,000.0	89,84	179,78	11,013.0	-5,837.6	-211.6	5,841.2	0.00	0.00	0.00
17,100.0	89.84	179.78	11,013.3	-5,937.6	-211.2	5,941.2	0.00	0.00	0.00
17,200.0	89.84	179.78	11,013.6	-6,037.6	-210.8	6,041.1	0.00	0.00	0.00
17,300.0	89.84	179.78	11,013.8	-6,137.6	-210.4	6,141.1	0.00	0.00	0.00
17,400.0	89.84	179.78	11,014.1	-6,237.6	-210.0	6,241.0	0.00	0.00	0.00
17,500.0	89.84	179.78	11,014.4	-6,337.6	-209.6	6,341.0	0.00	0.00	0.00
17,600.0	89.84	179.78	11,014.7	-6,437.6	-209.2	6,440.9	0.00	0.00	0.00
17,700.0	89,84	179.78	11,015.0	-6,537.6	-208,8	6,540.8	0.00	0.00	0.00
17,800.0	89.84	179.78	11,015.3	-6,637.6	-208.4	6,640.8	0.00	0.00	0.00
17,900.0	89.84	179.78	11,015.5	-6,737.5	-208.0	6,740.7	0.00	0.00	0.00
18,000.0	89.84	179.78	11,015.8	-6,837.5	-207.6	6,840.7	0.00	0.00	0.00
18,100.0	89.84	179.78	11,016.1	-6,937.5	-207.2	6,940.6	0.00	0.00	0.00
18,200.0	89.84	179.78	11,016.4	-7,037.5	-206.9	7,040.6	0.00	0.00	0.00
18,300.0	89.84	179.78	11,016.7	-7,137.5	-206.5	7,140.5	0.00	0.00	0.00
18,400.0	89.84	179.78	11,017.0	-7,237.5	-206.1	7,240.5	0.00	0.00	0.00
18,417.5	89.84	179.78	11,017.0	-7,255.0	-206.0	7,257.9	0.00	0.00	0.00

1

Project: Site: Well: Sec 24	ourne Oil (County, Ne 24/25 W I, T26S, R 336' FNL	ew Mexico 1DE Fed #	1H		TVD Referen MD Referenc North Refere	e:	WELL @ 316	24/25 W1DE Fed #11 7.0usft (Original Wel 7.0usft (Original Wel vature	l Elev)
Design,Targets Target Name - hit/miss target Dip A - Shape (*	ungle C	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
SL: 405' FNL & 565' FWI - plan hits target center - Point	0.00	0.00	0.0	0.0	0.0	376,542.00	693,746.00	32.0342401	-103.8414939
KOP: 10' FNL & 330' FV - plan hits target center - Point	0.00	0.00	10,424.0	395.0	-236.0	376,937.00	693,510.00	32.0353289	-103.8422496
FTP: 330' FNL & 330' FV - plan hits target center - Point	0.00	0.00	10,938.1	75.0	-234.7	376,617.00	693,511.25	32.0344492	-103.8422503
LP: 581' FNL & 330' FWI - plan hits target center - Point	0.00	0.00	10,997.0	-176.3	-233.8	376,365.70	693,512.20	32.0337584	-103.8422509
BHL: 2336' FNL & 330' F - plan hits target center - Point	0.00	0.00	11,017.0	-7,255.0	-206.0	369,287.00	693,540.00	32.0142995	-103.8422650

1. Geologic Formations

TVD of target	11,017'	Pilot hole depth	NA
MD at TD:	18,418'	Deepest expected fresh water:	225'

Basin			
Formation	Depth (TVD)		
	from KB	Target Zone?	
Quaternary Fill	Surface		
Rustler	919	Water	
Top Salt			
Castille	2301		
Base Salt	3639		
Lamar	3754	Oil/Gas	
Bell Canyon	3789	Oil/Gas	
Cherry Canyon	4682	Oil/Gas	
Manzanita Marker	4858		
Brushy Canyon	5876	Oil/Gas	
Bone Spring	7687	Oil/Gas	· · · · · · · · · · · · · · · · · · ·
1 st Bone Spring Sand			
2 nd Bone Spring Sand			
3 rd Bone Spring Sand			
Abo			
Wolfcamp	10950	Target Zone	
Devonian			
Fusselman			
Ellenburger			
Granite Wash			

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

2. Casing Program

Hole	Casing	Interval	Csg.	Weight	Grade	Conn.	SF	SF	SF Jt	SF Body
Size	From	То	Size	🗧 (lbs)		na star ita	Collapse	Burst	Tension	Tension
17.5"	0'	1000'	13.375"	48	H40	STC	1.68	3.78	6.71	11.27
12.25"	0'	3453'	9.625"	36	J55	LTC	1.13	1.96	3.38	4.20
12.25"	3453'	3700'	9.625"	40	J55	LTC	1.34	2.05	52.63	63.76
8.75"	0'	11,150'	7"	26	HCP110	LTC	1.37	1.83	2.25	2.86
6.125"	10,440'	18,418'	4.5"	13.5	P110	LTC	1.43	1.67	3.14	3.92
В	LM Minir	num Safet	ty 1.125	1	1.6 Dr	y 1.6 D	ry			
		Facto	nr l		1 8 We	18W	Vet			

 Factor
 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			
Is casing API approved? If no, attach casing specification sheet.	Y		
Is premium or uncommon casing planned? If yes attach casing specification sheet.	Ν		
Does the above casing design meet or exceed BLM's minimum standards? If not provide	Y		
justification (loading assumptions, casing design criteria).			
Will the pipe be kept at a minimum 1/3 fluid filled to avoid approaching the	Y		
collapse pressure rating of the casing?			
Is well located within Capitan Reef?	Ν		
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?	Ν		
If yes, are the first 2 strings cemented to surface and 3 rd string cement tied back			
500' into previous casing? Is well located in R-111-P and SOPA?			
Is well located in R-111-P and SOPA?	Ν		
If yes, are the first three strings cemented to surface?			
Is 2 nd string set 100' to 600' below the base of salt?			
Is well located in high Cave/Karst?	Y		
If yes, are there two strings cemented to surface?	Y		

(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
	м ^х
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

3. Cementing Program

Casing	# Sks	Wt.	Yld	H ₂ 0	500#	Slurry Description
	ай _{те} –	lb/	ft3/	gal/	Comp.	
		gal	sack	sk	Strength	
a and a second	1. ja 7. t		م هند		(hours)	and the second secon
Surf.	530	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.	595	12.5	2.12	11	10	Lead: Class C + Salt + Gel + Extender + LCM
	200	14.8	1.34	6.3	8	Tail: Class C + Retarder
Prod.	340	12.5	2.12	11	9	Lead: Class C + Gel + Retarder + Defoamer +
Stg 1						Extender
Ŭ	400	15.6	1.18	5.2	10	Tail: Class H + Retarder + Fluid Loss + Defoamer
					ECP/DV T	'ool @ 4858'
Prod.	65	12.5	2.12	11	9	Lead: Class C + Gel + Retarder + Defoamer +
Stg 2						Extender
Ũ	100	14.8	1.34	6.3	8	Tail: Class C + Retarder
Liner	325	11.2	2.97	17	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, etc.

Casing String	TOC	% Excess
Surface	0'	100%
Intermediate	0'	25%
Production	3500'	25%
Liner	10440'	.25%

4. Pressure Control Equipment

Variance: None

BOP installed and tested before drilling which hole?	Size?	System Rated WP		Гуре	*	Tested to:
		5M	Annular		Χ.	2500#
			Blind Ram		X	
12-1/4"	13-5/8"		Pipe Ram		X	5000#
			Double Ram			5000#
			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
 A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. See attached for specs and hydrostatic test chart.

 Y
 A re anchors required by manufacturer?

 Y
 A multibowl wellhead is being used. The BOP will be tested per Onshore Order #2 after installation on the surface casing which will cover testing requirements for a maximum of 30 days. If any seal subject to test pressure is broken the system must be tested.

 •
 Provide description here: See attached schematic.

5. Mud Program

T.	۷ D .	Туре	Weight (ppg)	Viscosity	Water Loss
From	То				
0'	1000'	Spud Mud	8.6-8.8	28-34	N/C
1000'	3700'	BW	10.0	28-34	N/C
3700'	10,963'	FW w/ Polymer	8.6-9.7	28-34	N/C
10,963'	11,017'	OBM	10.0-12.0	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. MW up to 13.0 ppg may be required for shale control. The highest mud weight needed to balance formation is expected to be 12.0 ppg.

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

6. Logging and Testing Procedures

Log	ing, Coring and Testing.			
X	Will run GR/CNL from KOP (10,440') 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

Add	litional logs planned	Interval
Χ	Gamma Ray	10,440' (KOP) to TD
	Density	
	CBL	
	Mud log	
	PEX	

7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	6875 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	g out the surface shoe. If H2S
is detected in concentrations greater than 100 ppm, the operator w	ill comply with the provisions
of Onshore Oil and Gas Order #6. If Hydrogen Sulfide is encount	ered, 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.

Attachments Directional Plan Other, describe

Drilling Plan

WAFMSS

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

SUPO Data Report

06/27/2019

APD ID: 10400033962

Operator Name: MEWBOURNE OIL COMPANY

Well Name: LINDALE 24/25 W1DE FED

Well Type: CONVENTIONAL GAS WELL

.

Well Number: 1H

Well Work Type: Drill

Submission Date: 09/18/2018

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - Existing Roads

Will existing roads be used? YES

Existing Road Map:

Lindale24_25W1DEFed1H_existingroadmap_20180911105750.pdf

Existing Road Purpose: ACCESS, FLUID TRANSPORT

Row(s) Exist? NO

ROW ID(s)

ID:

Do the existing roads need to be improved? NO

Existing Road Improvement Description:

Existing Road Improvement Attachment:

Section 2 - New or Reconstructed Access Roads

Will new roads be needed? YES

New Road Map:

Lindale24_25W1DEFed1H_newroadmap_20180911111148.pdf Lindale24_25W1DEFed1H_newroadmap2_20180914105726.pdf

New road type: RESOURCE

Length: 192.89 Feet Width (ft.): 30

Max slope (%): 3 Max grade (%): 3

Army Corp of Engineers (ACOE) permit required? NO

ACOE Permit Number(s):

New road travel width: 14

New road access erosion control: None

New road access plan or profile prepared? NO

New road access plan attachment:

Well Name: LINDALE 24/25 W1DE FED

Access road engineering design? NO

Access road engineering design attachment:

Access surfacing type: OTHER

Access topsoil source: OFFSITE

Access surfacing type description: Caliche

Access onsite topsoil source depth:

Offsite topsoil source description: Topsoil will be on edge of lease road.

Onsite topsoil removal process:

Access other construction information: None

Access miscellaneous information: None

Number of access turnouts: 6

Access turnout map:

Drainage Control

New road drainage crossing: OTHER

Drainage Control comments: None

Road Drainage Control Structures (DCS) description: None

Road Drainage Control Structures (DCS) attachment:

Access Additional Attachments

Additional Attachment(s):

Section 3 - Location of Existing Wells

Existing Wells Map? YES

Attach Well map:

Lindale24_25W1DEFed1H_existingwellmap_20180911111215.pdf

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: 4" steel buried gas line 12" buried poly SWD pipeline Overhead elec line

Production Facilities map:

Lindale24_25W1DEFed1H_productionfacilitymap1_20180912090327.pdf Lindale24_25W1DEFed1H_productionfacilitymap2_20180912090350.pdf

Well Name: LINDALE 24/25 W1DE FED Well Num	Vell Number: 1H		
ndale24_25W1DEFed1H_productionfacilitymap3_20180912090408.pc	if ·		
Section 5 - Location and Types of Water Sup	ply		
Water Source Table			
Water source use type: DUST CONTROL, INTERMEDIATE/PRODUCTION CASING, STIMULATION, SURFACE CASING Describe type:	· · ·		
Source latitude: 32.15701	Source longitude: -103.525604		
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): 2014	Source volume (acre-feet): 0.2595907		
Source volume (gal): 84588			
Water source use type: DUST CONTROL, INTERMEDIATE/PRODUCTION CASING, STIMULATION, SURFACI CASING Describe type:			
Source latitude: 32.05537	Source longitude: -103.8013		
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): 2014	Source volume (acre-feet): 0.2595907		
Source volume (gal): 84588			
later source and transportation map:			
indale24_25W1DEFed1H_WATERSOURCEANDTRANSmap_2018091	1111335.pdf		
later source comments: Both Sources shown on one map			

New water well? NO

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New Water Well Info

Well latitude:

Well Longitude:

Well target aquifer:

Well datum:

Well Name: LINDALE 24/25 W1DE FED

Est.	depth	to	top	of	aquifer(ft):
------	-------	----	-----	----	--------------

Aquifer comments:

Aquifer documentation:

Well depth (ft):

Well casing outside diameter (in.):

New water well casing?

Drilling method:

Grout material:

Casing length (ft.):

Well Production type:

Water well additional information:

State appropriation permit:

Additional information attachment:

Section 6 - Construction Materials

Construction Materials description: Caliche - both sources shown on one map.

Construction Materials source location attachment:

Lindale24_25W1DEFed1H_CALICHESOURCEANDTRANSmap_20180911111356.pdf

Section 7 - Methods for Handling Waste

Waste type: SEWAGE

Waste content description: Human waste & grey water

Amount of waste: 1500 gallons

Waste disposal frequency : Weekly

Safe containment description: 2,000 gallon plastic container

Safe containmant attachment:

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

Disposal type description:

Disposal location description: 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: Enclosed trash trailer

Well Number: 1H

Est thickness of aquifer:

Well casing type: Well casing inside diameter (in.): Used casing source: Drill material: Grout depth: Casing top depth (ft.): Completion Method:

Well Name: LINDALE 24/25 W1DE FED

Well Number: 1H

Safe containmant attachment:

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

Disposal type description:

Disposal location description: Waste Management facility in Carlsbad.

Waste type: DRILLING

Waste content description: Drill cuttings

Amount of waste: 940 barrels

Waste disposal frequency : One Time Only

Safe containment description: Drill cuttings will be properly contained in steel tanks (20 yard roll off bins.)

Safe containmant attachment:

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

Disposal type description:

Disposal location description: NMOCD approved waste disposal locations are CRI or Lea Land, both facilities are located on HWY 62/180, Sec. 27 T20S R32E.

Reserve Pit

Reserve Pit being used? NO

Temporary disposal of produced water into reserve pit?

Reserve pit length (ft.)

Reserve pit depth (ft.)

Reserve pit volume (cu. yd.)

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

Reserve pit liner

Reserve pit liner specifications and installation description

Cuttings Area

Reserve pit width (ft.)

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

Well Name: LINDALE 24/25 W1DE FED

Well Number: 1H

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:

Lindale24_25W1DEFed1H_wellsitelayout_20180911111426.pdf

Comments:

Section 10 - Plans for Surface Reclamation

Type of disturbance: New Surface Disturbance

Multiple Well Pad Name: LINDALE 24/25 DE WELLS

Multiple Well Pad Number: 4

Recontouring attachment:

Drainage/Erosion control construction: None

Drainage/Erosion control reclamation: None

Well pad proposed disturbance (acres): 4.05	Well pad interim reclamation (acres): 1.088	Well pad long term disturbance (acres): 2.962
Road proposed disturbance (acres): 0.133	Road interim reclamation (acres): 0	Road long term disturbance (acres): 0
Powerline proposed disturbance (acres): 0	Powerline interim reclamation (acres): 0	Powerline long term disturbance (acres): 0
Pipeline proposed disturbance	Pipeline interim reclamation (acres): 0	Pipeline long term disturbance (acres): 0
(acres): 0 Other proposed disturbance (acres): (Other long term disturbance (acres): 0
Total proposed disturbance: 4.183	Total interim reclamation: 1.088	Total long term disturbance: 2.962

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.

Well Name: LINDALE 24/25 W1DE FED

Well Number: 1H

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:

Will seed be harvested for use in site reclamation? NO

Seed harvest description:

Seed harvest description attachment:

Seed Management

Seed Table

Seed type:

Seed name:

Source name:

Source phone:

Seed cultivar:

Seed use location:

PLS pounds per acre:

Seed source:

Source address:

Proposed seeding season:

Well Name: LINDALE 24/25 W1DE FED

Well Number: 1H

Seed Summary		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:**

Success standards: regrowth within 1 full growing season of reclamation.

Pit closure description: NA

Pit closure attachment:

Section 11 - Surface Ownership

Disturbance type: EXISTING ACCESS ROAD

Describe:

Surface Owner: BUREAU OF LAND MANAGEMENT

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Operator Name: MEWBOURNE OIL COMPANY Well Name: LINDALE 24/25 W1DE FED	Well Number: 1H
Military Local Office:	·
USFWS Local Office:	
Other Local Office:	
USFS Region:	
USFS Forest/Grassland:	USFS Ranger District:
Fee Owner: Pecos Valley Artesian Convservation	Fee Owner Address: PO Box 1346 Roswell NM 88202
District Phone: (575)622-7000	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:

Disturbance type: WELL PAD

Describe:

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Surface Owner: BUREAU OF LAND MANAGEMENT

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:

Well Name: LINDALE 24/25 W1DE FED

Well Number: 1H

Fee Owner: Pecos Valley Artesian Conservation District Phone: (575)622-7000 Fee Owner Address: PO Box 1346 Roswell NM 88202 Email: ٢

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:

Disturbance type: NEW ACCESS ROAD

Describe: Surface Owner: BUREAU OF LAND MANAGEMENT Other surface owner description: 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:

Well Name: LINDALE 24/25 W1DE FED

Well Number: 1H

Section 12 - Other Information

Right of Way needed? NO

Use APD as ROW?

ROW Type(s):

1

ROW Applications

SUPO Additional Information: AUG 28 2018 Met w/RRC Surveying & staked location @ 205' FNL & 615' FWL, Sec 24, T26S, R30E, Eddy Co., NM. This location was unacceptable due to buried gas pipelines to E. Re-staked location @ 405' FNL & 565' FWL, Sec 24, T26S, R30E, Eddy Co., NM. (Elevation @ 3139'). Pit area will be to the S. Topsoil N. Pad will be 340 x 490. Reclaim 60 N & W. Approx. 100 of new road off the SE corner. Battery TBD. Location is in MOA. Lat: 32.03424075 N, Long: -103.84149431 W NAD 83

Use a previously conducted onsite? NO

Previous Onsite information:

Other SUPO Attachment

Lindale24_25W1DEFed1H_gascaptureplan_20180911112052.pdf Lindale24_25W1DEFed1H_interimreclaimationdiagram_20180911112105.pdf

VICINITY MAP

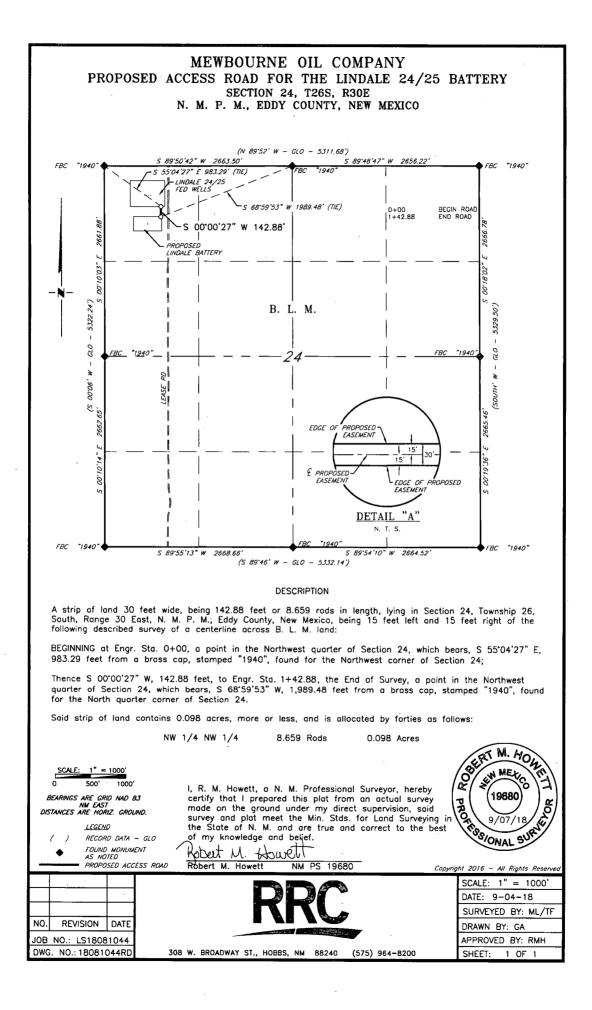
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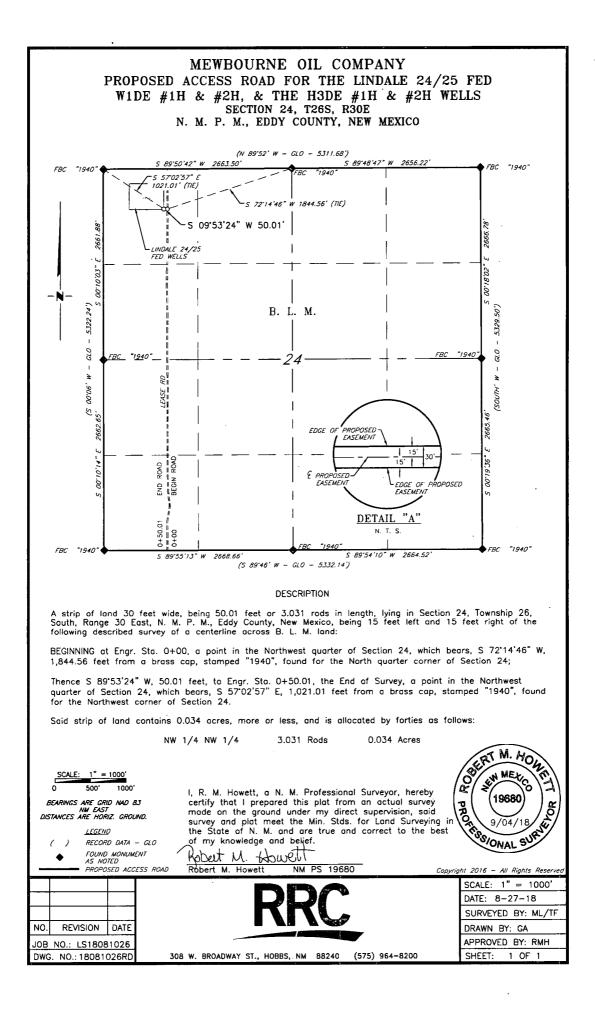
SECTION 24, TWP. 26 SOUTH, RGE. 30 EAST, N. M. P. M., EDDY COUNTY, NEW MEXICO

	Mewbourne Oil Company Idale 24/25 W1DE Fed 1H	LOCATION: <u>405' FNL & 565' FWL</u> ELEVATION: <u>3140'</u>
		Copyright 2016 — All Rights Reserved
		SCALE: N. T. S.
		DATE: 8–27–18
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DWG. NO.: 18081029VM	308 W. BROADWAY ST., HOBBS, NM	88240 (575) 964-8200 SHEET: 1 OF 1



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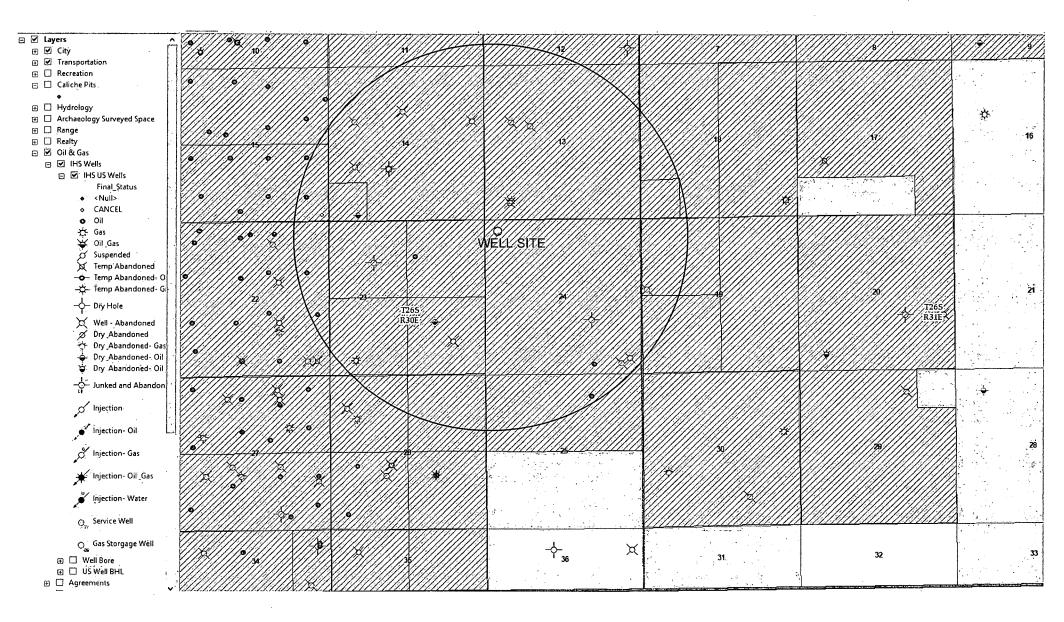
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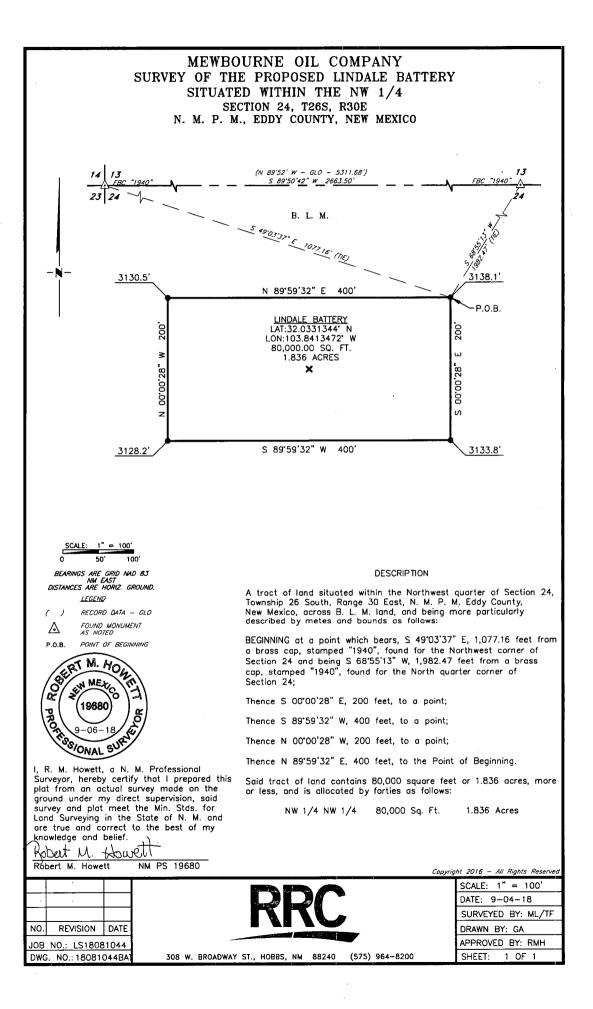


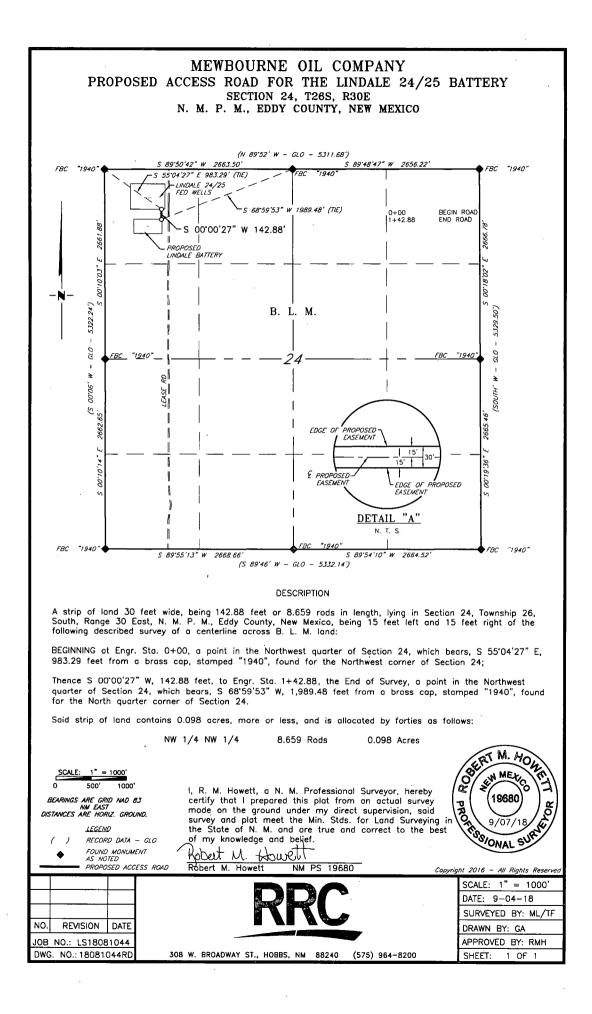
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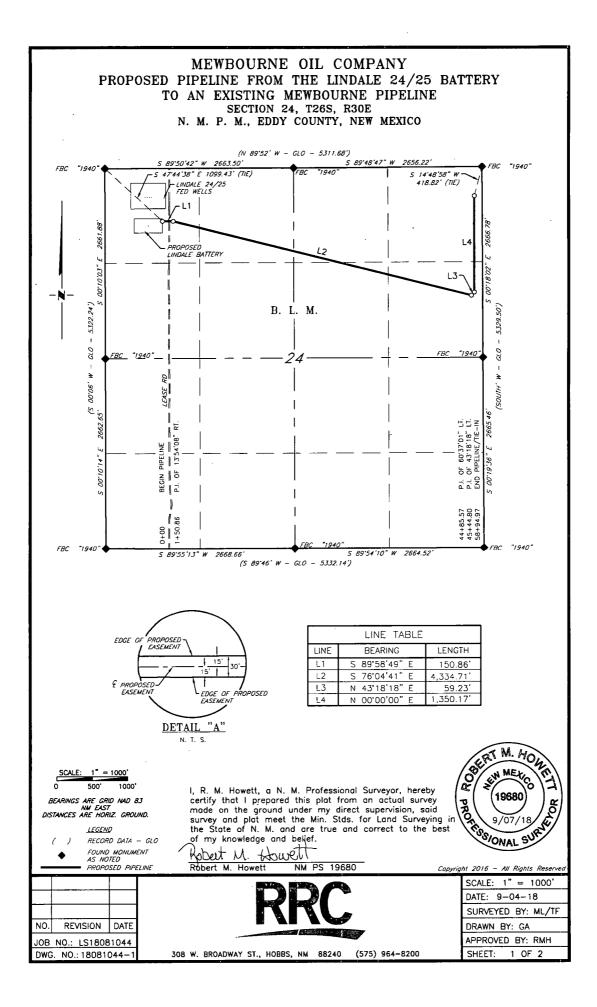
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EXISTING WELL MAP LINDALE 24/25 W1DE FED #1H









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MEWBOURNE OIL COMPANY PROPOSED PIPELINE FROM THE LINDALE 24/25 BATTERY TO AN EXISTING MEWBOURNE PIPELINE SECTION 24, T265, R30E N. M. P. M., EDDY COUNTY, NEW MEXICO

DESCRIPTION

A strip of land 30 feet wide, being 5,894.97 feet or 357.271 rods in length, lying in Section 24, Township 26, South, Range 30 East, N. M. P. M., Eddy County, New Mexico, being 15 feet left and 15 feet right of the following described survey of a centerline across B. L. M. land:

BEGINNING at Engr. Sta. 0+00, a point in the Northwest quarter of Section 24, which bears, S 47°44'38" E, 1,099.43 feet from a brass cap, stamped "1940", found for the Northwest corner of Section 24;

Thence S 89'58'49" E, 150.86 feet, to Engr. Sta. 1+50.86, a P. I. of 13'54'08" right;

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Thence S 76'04'41" E, 4,334.71 feet, to Engr. Sta. 44+85.57, a P. I. of 60'37'01" left;

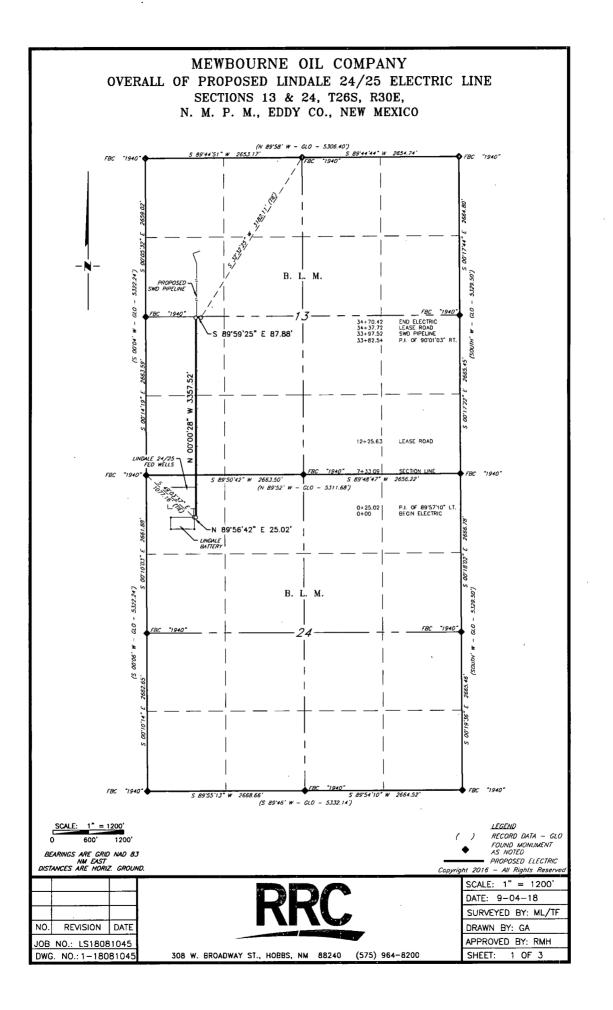
Thence N 43°18'18" E, 59.23 feet, to Engr. Sta. 45+44.80, a P. I. of 43°18'18" left;

Thence N 00'00'00" E, 1,350.17 feet, to Engr. Sta. 58+94.97, the End of Survey, a point in the Northeast quarter of Section 24, which bears, S 14'48'58" W, 418.82 feet from a brass cap, stamped "1940", found for the Northeast corner of Section 24.

Said strip of land contains 4.060 acres, more or less, and is allocated by forties as follows:

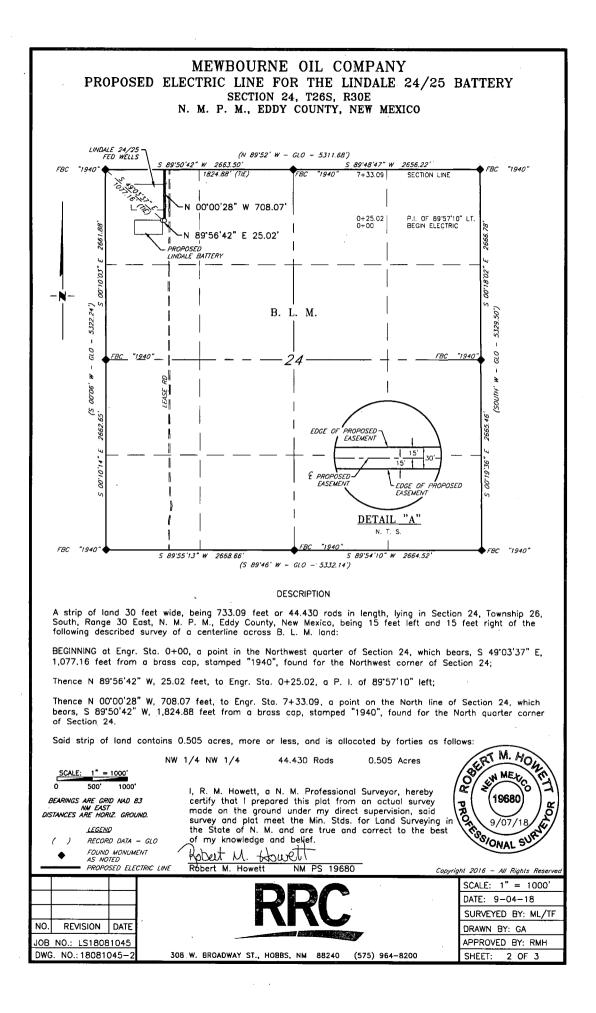
			1/4	32.246	Rods	0.366	Acres
NE	1/4	NW	1/4	83.262	Rods	0.946	Acres
			1/4	40.543	Rods	0.461	Acres
SW	1/4	NE	1/4	42.529	Rods	0.483	Acres
SE	1/4	NE	1/4	102.402	Rods	1.164	Acres
NE	1/4	NE	1/4	56.289	Rods	0.640	Acres

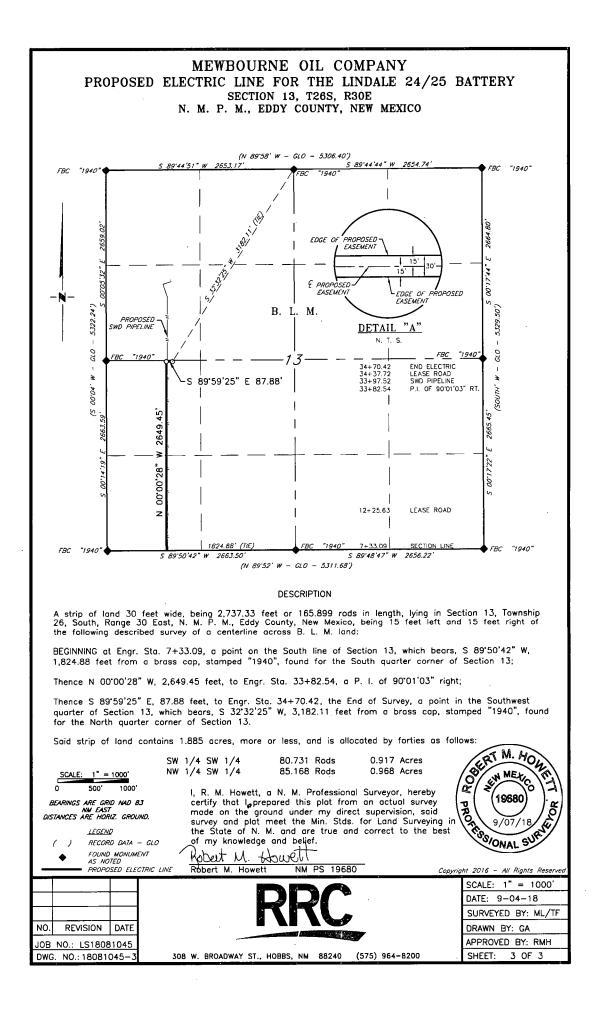
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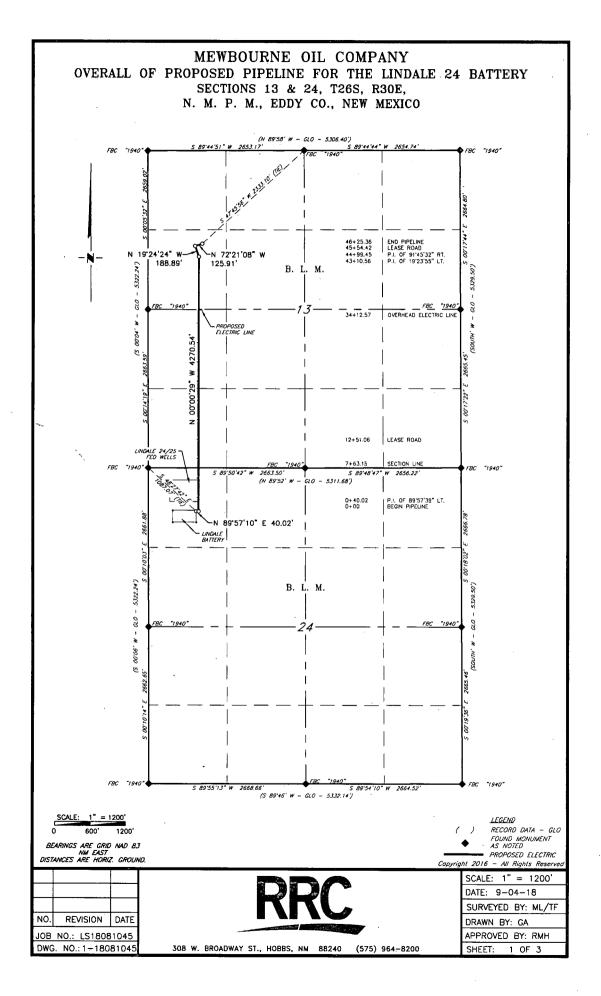


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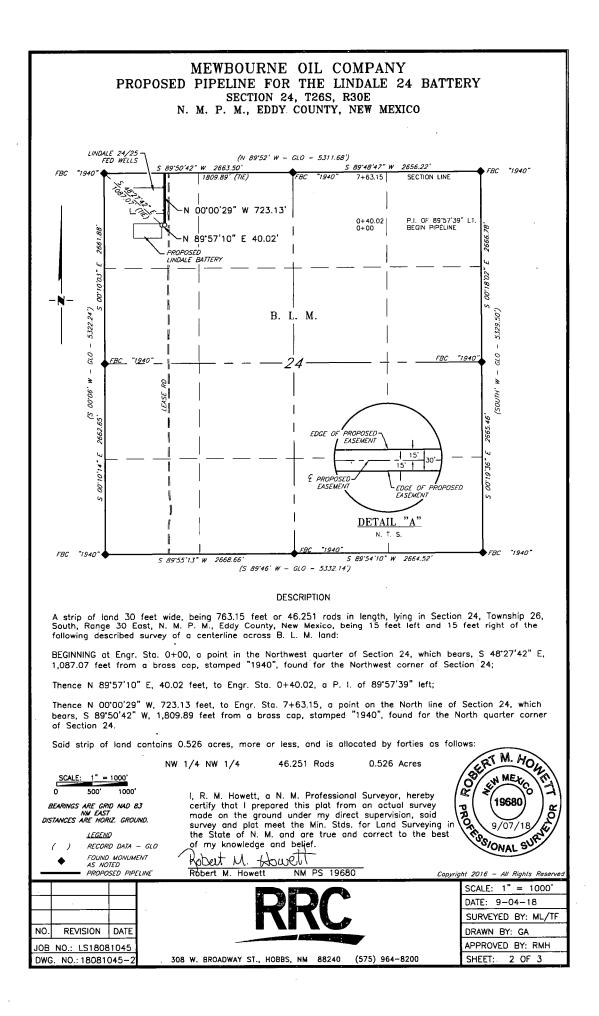


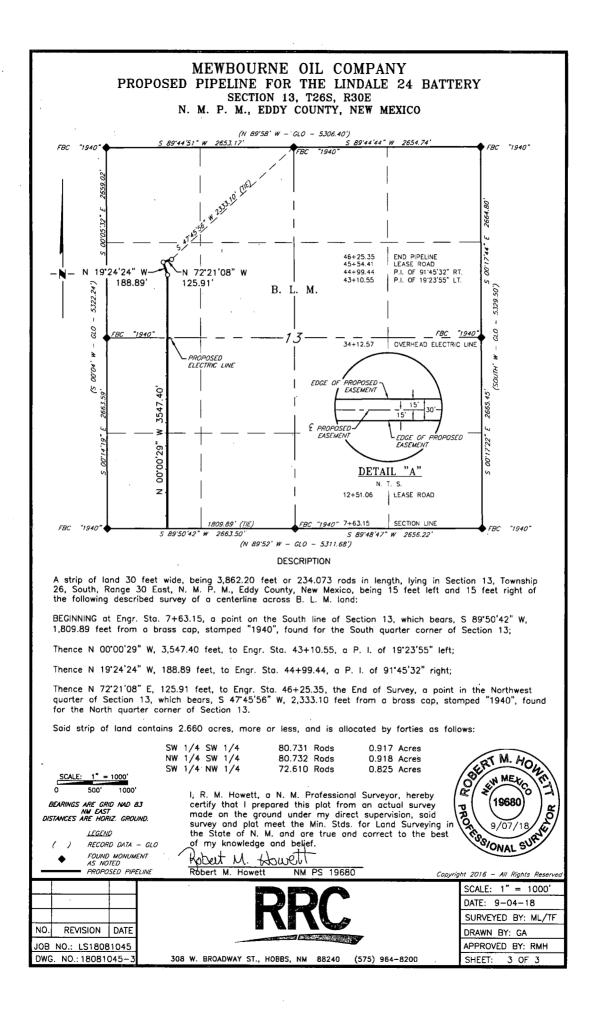




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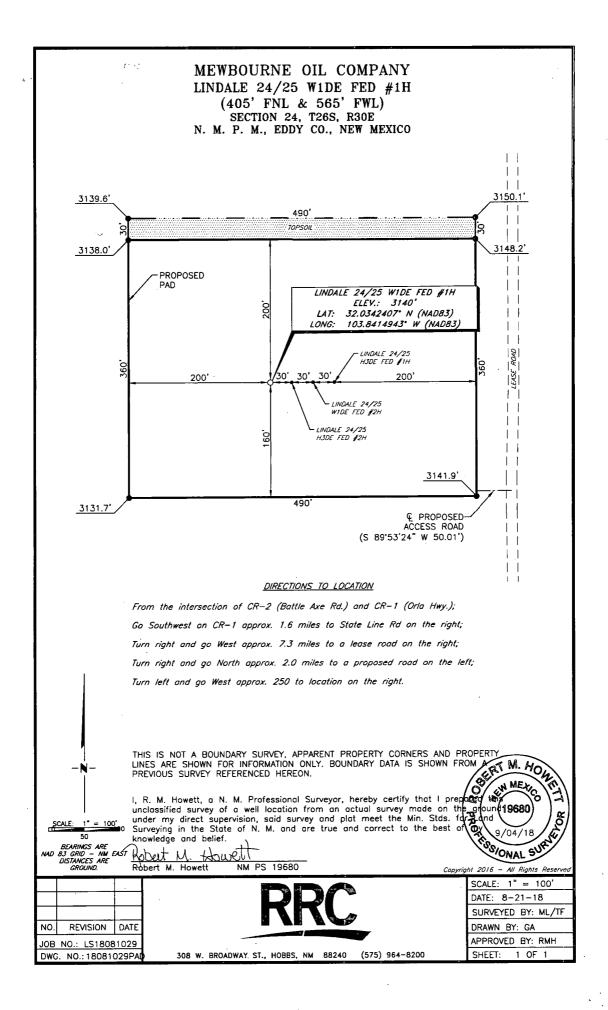
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FMSS

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

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:

Lined pit bond amount:

Additional bond information attachment:

PWD disturbance (acres):

PWD Data Report

06/27/2019

Section 3 - Unlined Pits

Would you like to utilize Unlined Pit PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

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:

Injection PWD discharge volume (bbl/day):

Injection well mineral owner:

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):

FAFMSS

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?

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:

Bond Info Data Report 06/27/2019