Form 3160 -3 (March 2012)				OMB	APPROVED No. 1004-0137			
UNITED STATES				5. Lease Serial No.	October 31. 2014			
DEPARTMENT OF THE I BUREAU OF LAND MAN				NMNM 11038				
APPLICATION FOR PERMIT TO	DRILL OF	REENTER		6. If Indian, Allotee	or Tribe Name			
la. Type of work: DRILL REENTE	R			7. If Unit or CA Agr	eement, Name and No.			
lb. Type of Well: Oil Well Gas Well Other	Sin	ngle Zone 🔽 Multi	ple Zone	8. Lease Name and FULLER 14/11 B2				
2. Name of Operator MEWBOURNE OIL COMPANY		1417-	44	9. API Well No. 30 - O	15-44543			
3a. Address PO Box 5270 Hobbs NM 88240	3b. Phone No (575)393-5	. (include area code) 905		10. Field and Pool, or CORRAL CANYO	Exploratory N SOUTH BONE SPRI			
4. Location of Well (Report location clearly and in accordance with an	y State requirem	ents.*)		11. Sec., T. R. M. or I	Blk. and Survey or Area			
At surface SWNW / 2600 FNL / 550 FWL / LAT 32.0422	776 / LONG	-103.9612813		SEC 14 / T26S / R	29E / NMP			
At proposed prod. zone NWNW / 330 FNL / 550 FWL / LAT	32.063227	7 / LONG -103 .961	1053					
 Distance in miles and direction from nearest town or post office* 25 miles 				12. County or Parish EDDY	13. State NM			
 15. Distance from proposed* location to nearest 330 feet property or lease line, ft. (Also to nearest drig. unit line, if any) 	16. No. of a 1240	cres in lease	17, Spacir 240	ng Unit dedicated to this	well			
18. Distance from proposed location*	19. Proposed	1 Depth	20. BLM	BIA Bond No. on file				
to nearest well, drilling, completed, 50 feet applied for, on this lease, ft.	8789 feet	/ 16178 feet	FED: N	M1693				
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 2938 feet	22. Approxi 10/07/201	mate date work will sta 7	1 urt*	23. Estimated duration 60 days	on			
	24. Attac	chments		den de la composition				
The following, completed in accordance with the requirements of Onshor	e Oil and Gas	Order No.1. must be a	ittached to th	uis form:				
 Well plat certified by a registered surveyor. A Drilling Plan. A Surface Use Plan (if the location is on National Forest System SUPO must be filed with the appropriate Forest Service Office). 	Lands, the	Item 20 above). 5. Operator certifie	cation		n existing bond on file (see as may be required by the			
25. Signature		(Printed/Typed)			Date			
(Electronic Submission)	Bradi	ey Bishop / Ph: (57	75)393-59	05	07/28/2017			
Regulatory								
Approved by (Signature)	Name	(Printed Typed)			Date			
(Electronic Submission)	Cody	Layton / Ph: (575)	234-5959		10/31/2017			
Title	Office							
Supervisor Multiple Resources Application approval does not warrant or certify that the applicant hold		LSBAD	ate in the cul	high the south of would	antitle the applicant to			
conduct operations thereon. Conditions of approval, if any, are attached.	s legaror equi	lable the lothose righ	ns in the su	ojecticase which would	entitle the applicant to			
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a cr States any false, fictitious or fraudulent statements or representations as	rime for any p to any matter v	erson knowingly and vithin its jurisdiction.	willfully to 1	nake to any department	or agency of the United			
(Continued on page 2)			-	*(Ins	tructions on page 2)			
				X				
		TONDIT	INNS					
NM OIL CONSTR		TH CONVIL	N.C.					
NM OIL CONSERVATION	EDWI	11.0						
NOV 07		TH CONDIT						
NOV 07 2017								
PEOP-					Wr			
RECEIVED					\mathcal{O}			
È.				RW,	11-09-17			

. . .



Application for Permit to Drill

APD Package Report

APD ID: 10400017096 APD Received Date: 07/28/2017 12:56 PM Operator: MEWBOURNE OIL COMPANY

- APD Package Report Contents
 - Form 3160-3
 - Operator Certification Report
 - Application Report
 - Application Attachments
 - -- Operator Letter of Designation: 1 file(s)
 - -- Well Plat: 1 file(s)
 - Drilling Plan Report
 - Drilling Plan Attachments
 - -- Blowout Prevention Choke Diagram Attachment: 2 file(s)
 - -- Blowout Prevention BOP Diagram Attachment: 2 file(s)
 - -- Casing Design Assumptions and Worksheet(s): 4 file(s)
 - -- Hydrogen sulfide drilling operations plan: 1 file(s)
 - -- Proposed horizontal/directional/multi-lateral plan submission: 2 file(s)
 - -- Other Facets: 1 file(s)
 - SUPO Report
 - SUPO Attachments
 - -- Existing Road Map: 1 file(s)
 - -- Attach Well map: 1 file(s)
 - -- Production Facilities map: 1 file(s)
 - -- Water source and transportation map: 1 file(s)
 - -- Construction Materials source location attachment: 1 file(s)
 - -- Well Site Layout Diagram: 1 file(s)
 - -- Other SUPO Attachment: 3 file(s)
 - PWD Report
 - PWD Attachments
 - -- None
 - Bond Report

OCD Artesia 7-717 U.S. Department of the Interior **Bureau of Land Management**

Date Printed: 11/01/2017 08:15 AM

Well Status: AAPD Well Name: FULLER 14/11 B2ED FED Well Number: 1H

> NM OIL CONSERVATION ARTESIA DISTRICT

NOV 07 2017

RECEIVED

PECOS DISTRICT DRILLING OPERATIONS CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Mewbourne Oil Co
LEASE NO.:	NM011038
WELL NAME & NO.:	Fuller 14-11 B2ED Federal – 1H
SURFACE HOLE FOOTAGE:	2600'/N & 550'/W
BOTTOM HOLE FOOTAGE	330'/N & 550'/W, sec. 11
LOCATION:	Sec. 14, T. 26 S, R. 29 E
COUNTY:	Eddy County

I. SPECIAL REQUIREMENT(S)

Communitization Agreement

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

Waste Minimization Plan (WMP)

In the interest of resource development, submission of additional well gas capture development plan information is deferred but may be required by the BLM Authorized Officer at a later date.

II. DRILLING OPERATIONS REQUIREMENTS

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

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

Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220,

(575) 361-2822

- 1. 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.
- 2. 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. If the drilling rig is removed without approval an Incident of Non-Compliance will be written and will be a "Major" violation.
- 3. 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 is located, this does not include the dog house or stairway area.
- 4. 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.

III. 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.

Centralizers required on surface casing per Onshore Order 2.III.B.1.f.

Wait on cement (WOC) for Water Basin:

After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least <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.

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

Medium Cave/Karst Possibility of water flows in the Salado and Castile. Possibility of lost circulation in the Red Beds, Rustler, and Delaware.

- A. The 13-3/8 inch surface casing shall be set at approximately 560 feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt) and cemented to the surface. If salt is encountered, set casing at least 25 feet above the salt.
 - 1. 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.

2. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.

- 3. 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.
- 4. If cement falls back, remedial cementing will be done prior to drilling out that string.

Medium Cave/Karst: If cement does not circulate to surface on the intermediate casing, the cement on the production casing must come to surface.

- B. The minimum required fill of cement behind the 9-5/8 inch intermediate casing is:
 - Cement to surface. If cement does not circulate see B.1.a, c-d above. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst. Excess calculates to 25% Additional cement may be required.

Centralizers required through the curve and a minimum of one every other joint.

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

Operator has proposed DV tool at depth of 4105', but will adjust cement proportionately if moved. DV tool shall be set a minimum of 50' below previous shoe and a minimum of 200' above current shoe. Operator shall submit sundry if DV tool depth cannot be set in this range.

- a. First stage to DV tool:
- Cement to circulate. If cement does not circulate, contact the appropriate BLM office before proceeding with second stage cement job. Operator should have plans as to how they will achieve approved top of cement on the next stage.
- b. Second stage above DV tool:
- Cement to surface. If cement does not circulate, contact the appropriate BLM office.
- D. The minimum required fill of cement behind the 4-1/2 inch production Liner is:

E. 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.

IV. PRESSURE CONTROL

- A. 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.
- B. Variance approved to use flex line from BOP to choke manifold. 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. If the BLM inspector questions the straightness of the hose, a BLM engineer will be contacted and will review in the field or via picture supplied by inspector to determine if changes are required (operator shall expect delays if this occurs).

Cement as proposed by operator. Operator shall provide method of verification.

- C. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **3000 (3M)** psi.
- D. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
 - 1. 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).
 - 2. 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 (18 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).
 - 3. 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.
 - 4. The results of the test shall be reported to the appropriate BLM office.
 - 5. 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.
 - 6. 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.

V. DRILL STEM TEST

If drill stem tests are performed, Onshore Order 2.III.D shall be followed.

VI. 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.

CLN 10302017

PECOS DISTRICT SURFACE USE CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Mewbourne Oil Co
LEASE NO.:	NM011038
WELL NAME & NO.:	Fuller 14-11 B2ED Federal – 1H
SURFACE HOLE FOOTAGE:	2600'/N & 550'/W
BOTTOM HOLE FOOTAGE	330'/N & 550'/W, sec. 11
LOCATION:	Section 14, T. 26 S., R. 29 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
Phantom Bank Heronries
Cave/Karst
Watershed
Construction
Notification
Topsoil
Closed Loop System
Federal Mineral Material Pits
Well Pads
Roads
Road Section Diagram
Production (Post Drilling)
Well Structures & Facilities
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)

Phantom Bank Heronries

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.

Cave Karst

** Depending on location, additional Drilling, Casing, and Cementing procedures may be required by engineering to protect critical karst groundwater recharge areas.

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.

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.)

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 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

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

Pressure Testing:

Annual pressure monitoring will be performed by the operator 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.

Watershed

- The entire well pad will be bermed to prevent oil, salt, and other chemical contaminants from leaving the well pad. 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 berm shall be maintained through the life of the well and 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.

VI. CONSTRUCTION

A. NOTIFICATION

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

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

B. TOPSOIL

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

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

C. CLOSED LOOP SYSTEM

Tanks are required for drilling operations: No Pits.

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

D. FEDERAL MINERAL MATERIALS PIT

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

E. WELL PAD SURFACING

Surfacing of the well pad is not required.

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

F. EXCLOSURE FENCING (CELLARS & PITS)

Exclosure Fencing

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

G. ON LEASE ACCESS ROADS

Road Width

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

Surfacing

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

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

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

Crowning

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

Ditching

Ditching shall be required on both sides of the road.

Turnouts

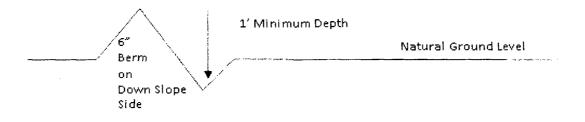
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall conform to Figure 1; cross section and plans for typical road construction.

Drainage

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

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

Cross Section of a Typical Lead-off Ditch



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

Formula for Spacing Interval of Lead-off Ditches

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

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

Cattle guards

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

Fence Requirement

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

Public Access

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

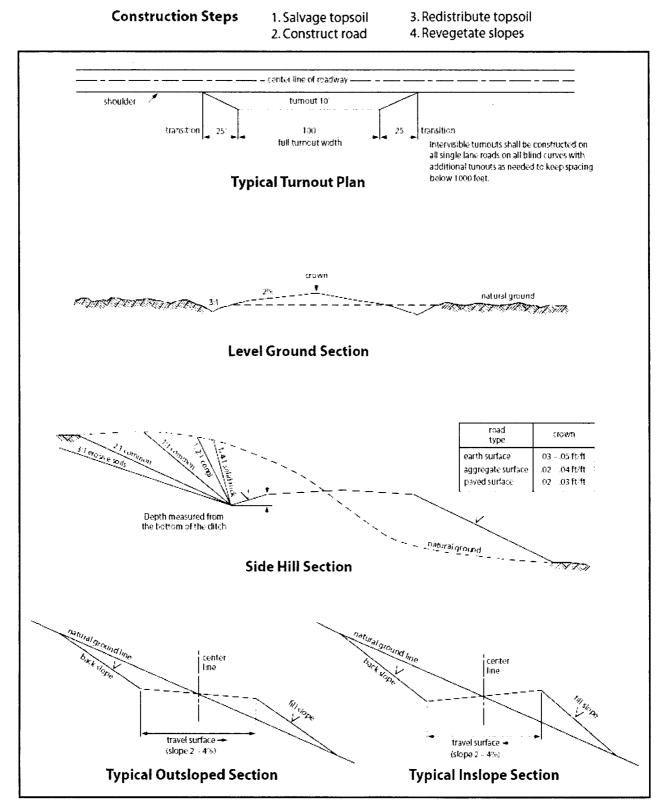


Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

VII. PRODUCTION (POST DRILLING)

A. WELL STRUCTURES & FACILITIES

Placement of Production Facilities

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

Exclosure Netting (Open-top Tanks)

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

Chemical and Fuel Secondary Containment and Exclosure Screening

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

Open-Vent Exhaust Stack Exclosures

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

Containment Structures

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

Painting Requirement

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

VIII. INTERIM RECLAMATION

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

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

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

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

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

IX. FINAL ABANDONMENT & RECLAMATION

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

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

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

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

Seed Mixture 3, for Shallow Sites

The holder shall seed all disturbed areas with the seed mixture listed below. The seed mixture shall be planted in the amounts specified in pounds of pure live seed (PLS)* per acre. There shall be <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 \mathbf{x} percent purity \mathbf{x} percent germination = pounds pure live seed





Operator Certification

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

NAME: Bradley Bishop		Signed on: 07/28/2017
Title: Regulatory		
Street Address: PO Box 5270		
City: Hobbs	State: NM	Zip : 88240
Phone: (575)393-5905		
Email address: bbishop@mewbou	rne.com	
Field Representative		
Representative Name:		
Street Address:		
City:	State:	Zip:
Phone:		
Email address:		

AFMSS

APD ID: 10400017096

Well Type: OIL WELL

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



Submission Date: 07/28/2017

Well Number: 1H

Well Work Type: Drill

Highlighted data reflects the most recent changes

Show Final Text

·····

Section 1 - General

Well Name: FULLER 14/11 B2ED FED

Operator Name: MEWBOURNE OIL COMPANY

-				
APD ID:	10400017096		Tie to previous NOS?	Submission Date: 07/28/2017
BLM Office:	CARLSBAD		User: Bradley Bishop	Title: Regulatory
Federal/Indi	an APD: FED		Is the first lease penetra	ated for production Federal or Indian? FED
Lease numb	ber: NMNM 11038		Lease Acres: 1240	
Surface acc	ess agreement in place?	?	Allotted?	Reservation:
Agreement	in place? NO		Federal or Indian agree	ment:
Agreement	number:			
Agreement	name:			
Keep applic	ation confidential? YES			
Permitting A	Agent? NO		APD Operator: MEWBO	URNE OIL COMPANY
Operator let	ter of designation:	Fuller14	11B2EDFed1H operator	etterofdesignation 07-28-2017.pdf

Operator Info

Operator Organization Name: MEW	BOURNE OIL COMPANY	
Operator Address: PO Box 5270		Zip: 88240
Operator PO Box:		21µ . 00240
Operator City: Hobbs	State: NM	
Operator Phone: (575)393-5905		
Operator Internet Address:		

Section 2 - Well Information

Well in Master Development Plan? NO	Mater Development Plan name:						
Well in Master SUPO? NO	Master SUPO name:						
Well in Master Drilling Plan? NO	Master Drilling Plan name:						
Well Name: FULLER 14/11 B2ED FED	Well Number: 1H	Well API Number:					
Field/Pool or Exploratory? Field and Pool	Field Name: CORRAL CANYON SOUTH BONE SPRING						

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

Well Number: 1H

Describe other minerals:			
Is the proposed well in a Helium production	area? N Use Existing Well P	ad? YES New surface disturbance?	Y
Type of Well Pad: MULTIPLE WELL	Multiple Well Pad N		
Well Class: HORIZONTAL	FULLER 14/11 ED & 23 HA WELL PAD Number of Legs :	FULLER 14/	
Well Work Type: Drill			
Well Type: OIL WELL			
Describe Well Type:			
Well sub-Type: APPRAISAL			
Describe sub-type:			
Distance to town: 25 Miles Dista	ance to nearest well: 50 FT	Distance to lease line: 330 FT	
Reservoir well spacing assigned acres Meas	surement: 240 Acres		
Well plat: Fuller14_11B2EDFed1H_wellpla	it_07-28-2017.pdf		
Well work start Date: 10/07/2017	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	DW	۵۷T
SHL	260	FNL	550	FWL	26S	29E	14	Aliquot	32.04227	-	EDD	NEW	NEW	F	NMNM	293	0	0
Leg	0							SWN	76	103.9612	Y	-	MEXI		11038	8		
#1								W		813		со	co					
KOP	260	FNL	550	FWL	26S	29E	14	Aliquot	32.04227	-	EDD	NEW	NEW	F	NMNM	-	828	828
Leg	0							SWN	76	103.9612	Y	MEXI	MEXI		11038	534	5	5
#1						ł		W		813		co	co			7		
PPP	236	FNL	550	FWL	26S	29E	14	Aliquot	32.043	-	EDD	NEW	NEW	F	NMNM	-	880	870
Leg	1							SWN		103.9618	Y	MEXI	MEXI		11038	576	0	5
#1								w		95		co	со			7		

Operator Name: MEWBOURNE OIL COMPANY

Well Name: FULLER 14/11 B2ED FED

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
PPP	0	FSL	550	FWL	26S	29E	11	Aliquot	32.04943	-	EDD	NEW	NEW	F	NMNM	-	112	877
Leg								sws	3	103.9618	Y		MEXI		121953	583	00	0
#1								W		25		co	со			2		
EXIT	330	FNL	550	FWL	26S	29E	11	Aliquot	32.06322	-	EDD	NEW	NEW	F	NMNM	-	161	878
Leg	ļ							NWN	77	103.9611	Y	MEXI			121953	585	78	9
#1			_					w		053		со	со			1	1	
BHL	330	FNL	550	FWL	26S	29E	11	Aliquot	32.06322	-	EDD	NEW	NEW	F	NMNM	-	161	878
Leg								NWN	77		Y	MEXI	MEXI		121953	585	78	9
#1			1				1	w		053		со	со			1		

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 11038, NMNM 121953
Legal Description of Land:	Section 14, T-26S, R-29E Eddy County, New Mexico. Location @ 2600' FNL & 550' FWL
Formation (if applicable):	Bone Spring
Bond Coverage:	\$150,000
BLM Bond File:	NM1693 Nationwide, NMB - 000919

Approved by:

Name: Robin Terrell Title: District Manager Date: <u>07-28-2017</u>



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



APD ID: 10400017096

Submission Date: 07/28/2017

Operator Name: MEWBOURNE OIL COMPANY

Well Name: FULLER 14/11 B2ED FED

Well Number: 1H

Highlighted data reflects the most recent changes

Show Final Text

Well Type: OIL WELL

Well Work Type: Drill

Section 1 - Geologic Formations

Formation			True Vertical	Measured			Producing
ID	Formation Name	Elevation	Depth	Depth	Lithologies	Mineral Resources	Formation
1	UNKNOWN	2938	27	27		NONE	No
2	RUSTLER	2403	535	535	DOLOMITE,ANHY DRITE	USEABLE WATER	No
3	TOP SALT	1608	1330	1330	SALT	NONE	No
4	CASTILE	1418	1520	1520	SALT	NONE	No
5	BASE OF SALT	108	2830	2830	SALT	NONE	No
6	LAMAR	-92	3030	3030	LIMESTONE	NATURAL GAS,OIL	No
7	BELL CANYON	-122	3060	3060	SANDSTONE	NATURAL GAS,OIL	. No
8	CHERRY CANYON	-997	3935	3935	SANDSTONE	NATURAL GAS,OIL	. No
9	MANZANITA	-1167	4105	4105		NONE	No
10	BRUSHY CANYON	-2257	5195	5195	SANDSTONE	NATURAL GAS,OIL	. Yes
11	BONE SPRING	-3822	6760	6760	LIMESTONE,SHAL E	NATURAL GAS,OIL	No
12	BONE SPRING 1ST	-4787	7725	7725	SANDSTONE	NATURAL GAS,OIL	. No
13	BONE SPRING 2ND	-5337	8275	8275	SANDSTONE	NATURAL GAS,OIL	Yes

Section 2 - Blowout Prevention

Operator Name: MEWBOURNE OIL COMPANY

Well Name: FULLER 14/11 B2ED FED

.

Well Number: 1H

Pressure Rating (PSI): 3M Rating

Rating Depth: 16180

Equipment: Annular, Pipe Ram, Blind Ram

Requesting Variance? YES

,

Variance request: A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. Anchors are not required by manufacturer. A multibowl wellhead is being used. See attached schematic. Testing Procedure: Test Annular to 1500# Test BOPE to 3000#

Choke Diagram Attachment:

Fuller_14_11_B2ED_Fed_1H_3M_BOPE_Choke_Diagram_08-22-2017.pdf

Fuller_14_11_B2ED_Fed_1H_Flex_Line_Specs_08-22-2017.pdf

BOP Diagram Attachment:

Fuller_14_11_B2ED_Fed_1H_3M_BOPE_Schematic_07-25-2017.pdf

Fuller_14_11_B2ED_Fed_1H_Multi_Bowl_WH_07-25-2017.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	560	0	560	-5347	-5907	560	H-40	48	STC	2.94	6.6	DRY	11.9 8	DRY	20.1 3
	INTERMED IATE	12.2 5	9.625	NEW	API	N	0	2955	0	2955	-5347	-8302	2955	J-55	36	LTC	1.31	2.29	DRY	4.26	DRY	5.3
1	PRODUCTI ON	8.75	7.0	NEW	API	N	0	9033	0	8762	-5347	- 14109		P- 110	26	LTC	1.81	2.31	DRY	2.72	DRY	3.53
4	()	6.12 5	4.5	NEW	API	N	8284	16180	8284	8789	- 13631	- 14136		P- 110	13.5	LTC	2.33	2.72	DRY	3.17	DRY	3.96

Casing Attachments

Casing Attachments

Casing ID: 1 String Type: SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Fuller_14_11_B2ED_Fed_1H_Csg_Assumptions_07-25-2017.pdf

Casing ID: 2 String Type: INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Fuller_14_11_B2ED_Fed_1H_Csg_Assumptions_07-25-2017.pdf

Casing ID: 3 String Type: PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Fuller_14_11_B2ED_Fed_1H_Csg_Assumptions_07-25-2017.pdf

Operator Name: MEWBOURNE OIL COMPANY Well Name: FULLER 14/11 B2ED FED

Well Number: 1H

Casing Attachments

Casing ID: 4

String Type:LINER

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Fuller_14_11_B2ED_Fed_1H_Csg_Assumptions_07-25-2017.pdf

Section 4 - Cement

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	372	250	2.12	12.5	530	100	Class C	Salt, Gel, Extender, LCM
SURFACE	Tail		372	560	200	1.34	14.8	268	100	Class C	Retarder
INTERMEDIATE	Lead		0	2306	450	2.12	12.5	954	25	Class C	Salt, Gel, Extender, LCM
INTERMEDIATE	Tail		2306	2955	200	1.34	14.8	268	25	Class C	Retarder
PRODUCTION	Lead	4105	2755	3440	65	2.12	12.5	138	25	Class C	Gel, Retarder, Defoamer, Extender
PRODUCTION	Tail		3440	4105	100	1.34	14.8	134	25	Class C	Retarder
PRODUCTION	Lead	4105	4105	6554	220	2.12	12.5	466	25	Class C	Gel, Retarder, Defoamer, Extender
PRODUCTION	Tail		6554	9033	400	1.18	15.6	472	25	Class H	Retarder, Fluid Loss, Defoamer
LINER	Lead		8284	1618 0	325	2.97	11.2	965	25	Class C	Salt, Gel, Fluid Loss, Retarder, Dispersant, Defoamer, Anti-Settling Agent

Well Number: 1H

Section 5 - Circulating Medium

Mud System Type: Closed

Will an air or gas system be Used? NO

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

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

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

Describe the mud monitoring system utilized: Visual Monitoring

Circulating Medium Table

Top Depth	Bottom Depth	Mud Type	Min Weight (Ibs/gal)	Max Weight (Ibs/gal)	Density (lbs/cu ft)	Gel Strength (Ibs/100 sqft)	Hd	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
0	560	SPUD MUD	8.6	8.8							
560	2955	SALT SATURATED	10	10							
2955	8284	WATER-BASED MUD	8.6	9.7							
8284	8789	OIL-BASED MUD	8.6	9.7							

Section 6 - Test, Logging, Coring

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

Will run GR/CNL from KOP (8284') 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

Operator Name: MEWBOURNE OIL COMPANY Well Name: FULLER 14/11 B2ED FED

Well Number: 1H

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 4571 Anticipated Surface Pressure: 2271.56

Anticipated Bottom Hole Temperature(F): 140

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:

Fuller_14_11_B2ED_Fed_1H_H2S_Plan_07-25-2017.pdf

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

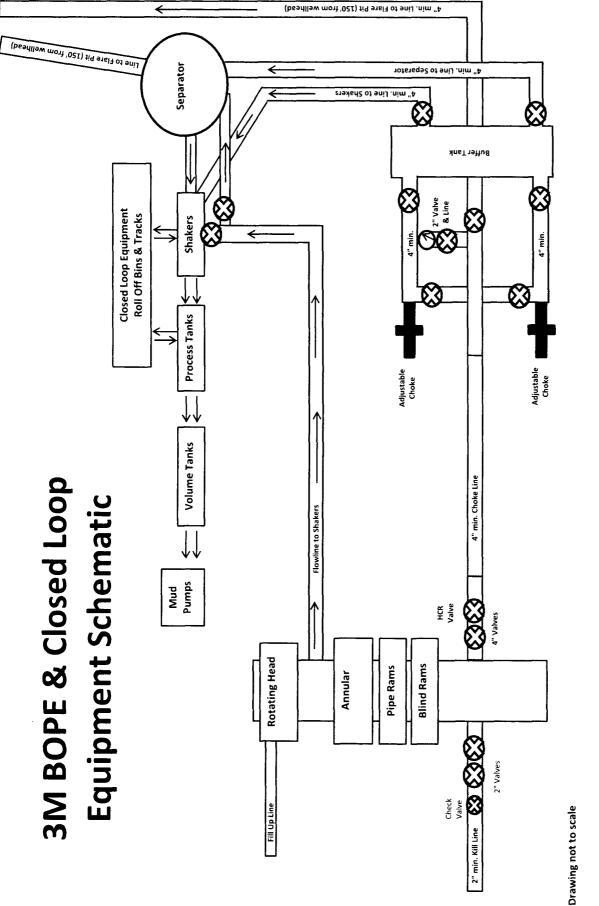
Fuller_14_11_B2ED_Fed_1H_Dir_Plot_07-25-2017.pdf Fuller_14_11_B2ED_Fed_1H_Dir_Plan_07-25-2017.pdf

Other proposed operations facets description:

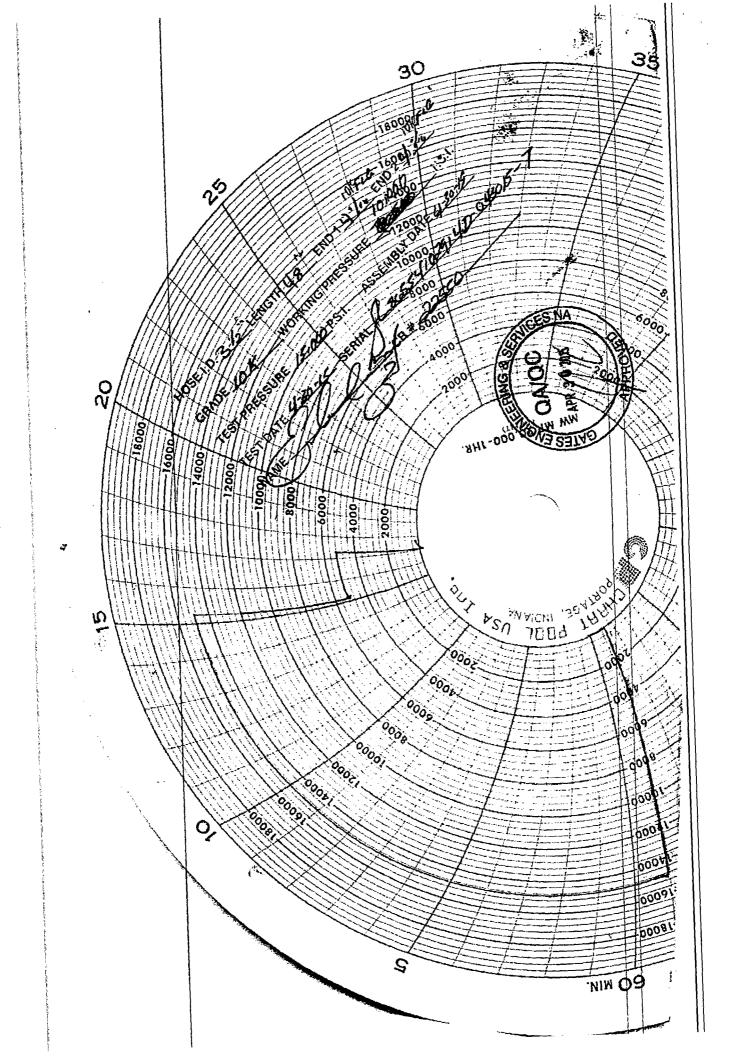
Other proposed operations facets attachment:

Fuller_14_11_B2ED_Fed_1H_Drlg_Program_07-25-2017.doc

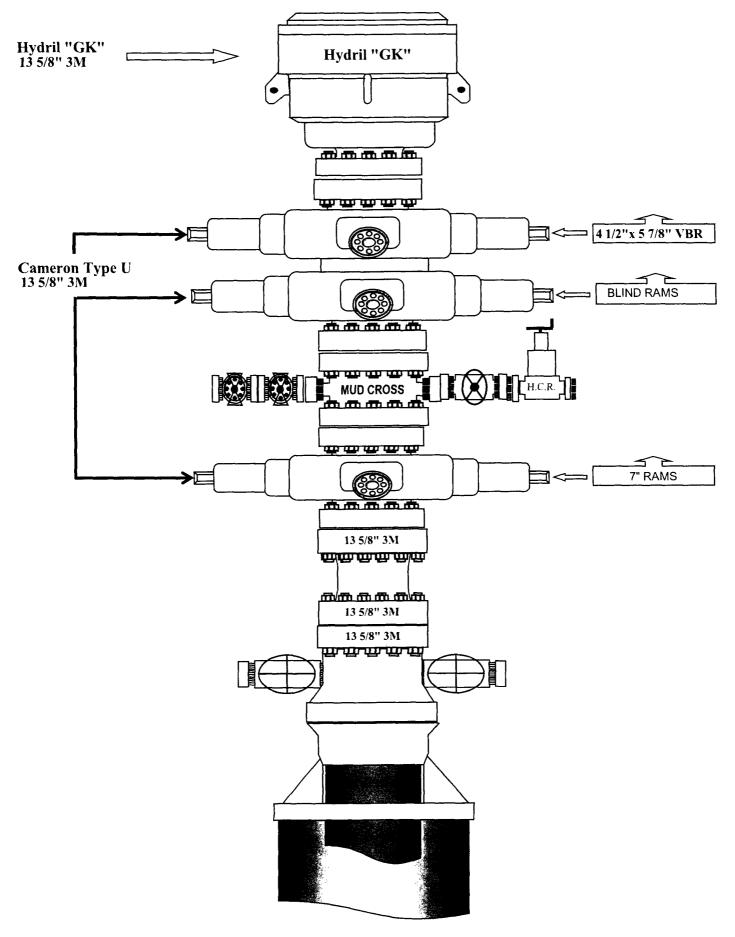
Other Variance attachment:



Jaton,	٤	NGINEERING	•	
TES E & S NOR 4 44TH STREET RPUS CHRISTI	г			PHONE: 361-887-9807 FAX: 361-887-0812 EMAIL: <i>Tim.Cantu@gates.com</i> WEB: www.gates.com
10K C	EMEN	TING ASSEMBLY	Y PRESSURE T	EST CERTIFICATE
Istomer : Istomer Ref. : Voice No. :	A	USTIN DISTRIBUTING 4060578 500506	Test Date: Hose Serial No.: Created By:	4/30/2015 D-043015-7 JUSTIN CROPPER
			5 	
roduct Description:		1	10K3.548.0CK4.1/1610KFLGE	
nd Fitting 1 : lates Part No. :		4 1/16 10K FLG 4773-6290	End Fitting 2 : Assembly Code :	4 1/16 10K FLG L36554102914D-043015-7
orking Pressure :		10,000 PSI	Test Pressure :	15,000 PSI
	i in accor		t number. Hose bur	st pressure 9.6.7 and per Table 9 st pressure 9.6.7.2 exceeds the
Quality Manager : Date :		7 QUALITY 4/30/2015	Produciton:	
-	- 		Produciton:	PRODUCTION
Date :			Produciton: Date :	PRODUCTION
Date :			Produciton: Date :	PRODUCTION 4/30/2015
Date :			Produciton: Date :	PRODUCTION 4/30/2015
Date :			Produciton: Date :	PRODUCTION 4/30/2015 Form PTC - 01 Rev.D2
Date :			Produciton: Date :	PRODUCTION 4/30/2015 Form PTC - 01 Rev.D2
)ate :			Produciton: Date :	PRODUCTION 4/30/2015 Form PTC - 01 Rev.D2



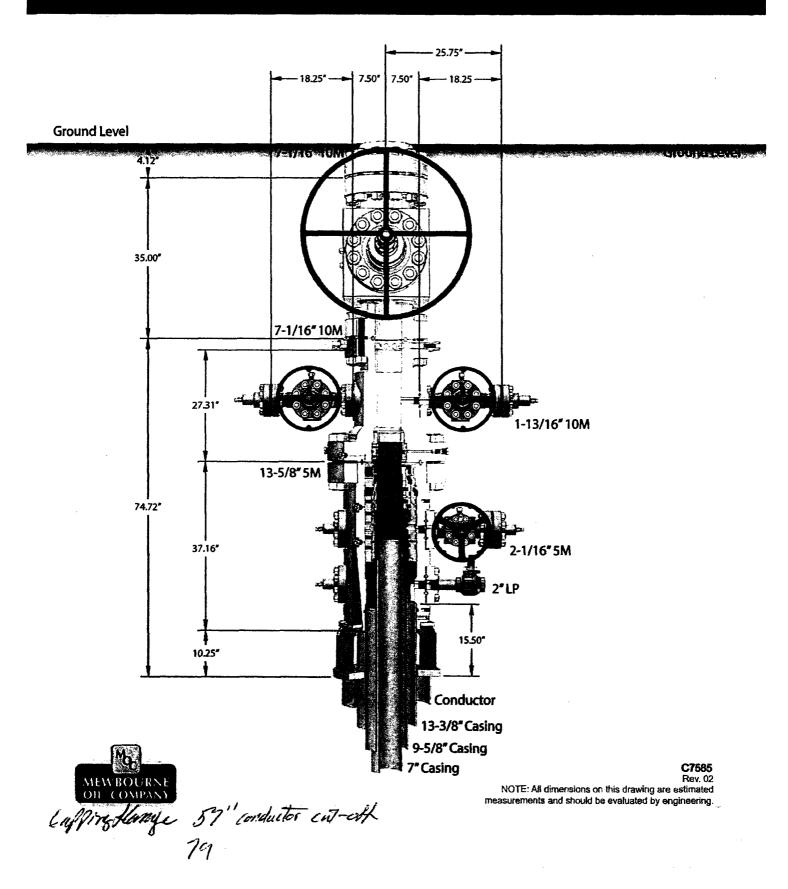






13-5/8" MN-DS Wellhead System

Å.



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'	560'	13.375"	48	H40	STC	2.94	6.60	11.98	20.13
12.25"	0'	2955'	9.625"	36	J55	LTC	1.31	2.29	4.26	5.30
8.75"	0'	9033'	7"	26	HCP110	LTC	1.81	2.31	2.72	3.53
6.125"	8284'	16180'	4.5"	13.5	P110	LTC	2.33	2.72	3.17	3.96
		1	.1	BLM Minimum Safe		m Safety	1.125	1	1.6 Dry	1.6 Dry
						Factor			1.8 Wet	1.8 Wet

 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 justification (loading assumptions, casing design criteria).	Y
Will the pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
Is well located within Capitan Reef?	N
If yes, does production casing cement tie back a minimum of 50' above the Reef?	
Is well within the designated 4 string boundary.	
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3 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?	

Hydrogen Sulfide Drilling Operations Plan Mewbourne Oil Company

1. General Requirements

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

2. Hydrogen Sulfide Training

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

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

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

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

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

3. Hydrogen Sulfide Safety Equipment and Systems

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

- 1. Well Control Equipment
 - A. Choke manifold with minimum of one adjustable choke/remote choke.
 - B. Blowout preventers equipped with blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit
 - C. Auxiliary equipment including annular type blowout preventer.
- 2. <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.

3. <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. Visual Warning Systems

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

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

4. Mud Program

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

5. Metallurgy

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

6. Communications

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

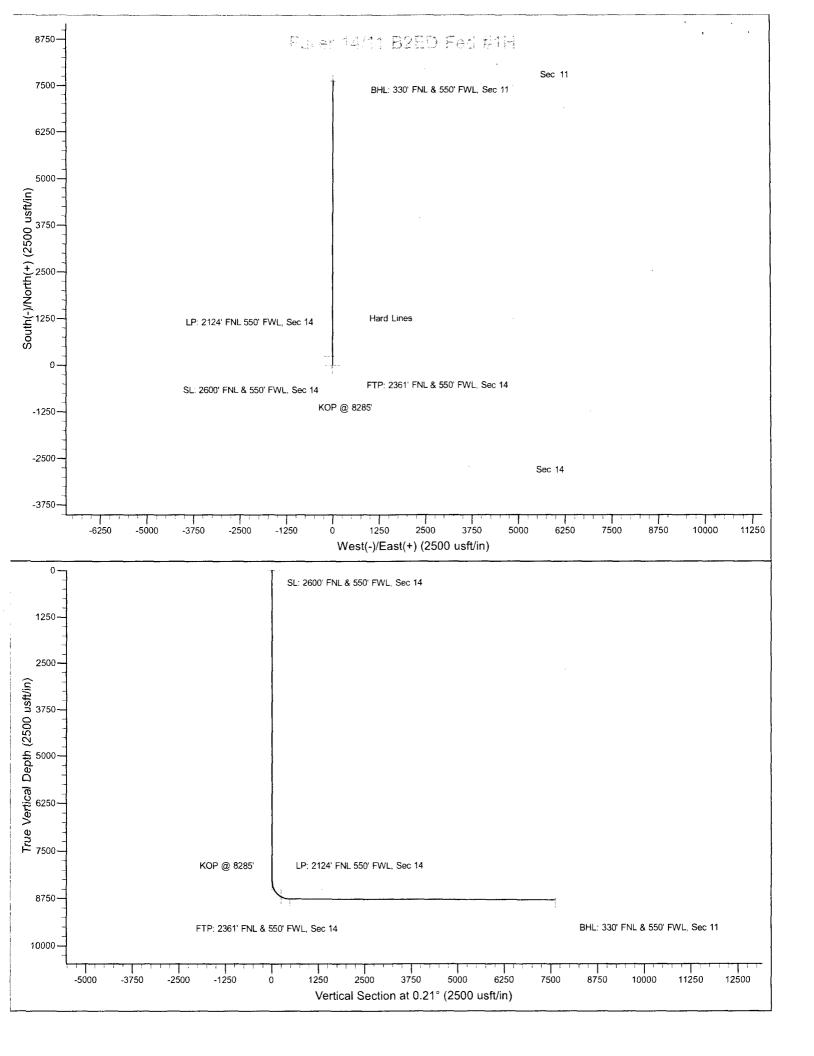
7. Well Testing

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

8. Emergency Phone Numbers

Eddy County Sheriff's 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 Fax 2 nd Fax	575-393-5905 575-397-6252 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 Fuller 14/11 B2ED Fed #1H Sec 14, T26S, R29E SL: 2600' FNL & 550' FEL, Sec 14 BHL: 330' FNL & 550' FWL, Sec 11

Plan: Design #1

. . .

Standard Planning Report

21 July, 2017

Database: Company: Project: Site: Well: Wellbore: Design:	Mewt Eddy Fuller Sec 1 BHL:	Hobbs Mewbourne Oil Company Eddy County, New Mexico NAD 83 Fuller 14/11 B2ED Fed #1H Sec 14. T26S, R29E BHL: 330' FNL & 550' FWL, Sec 11 Design #1			Local Co-ordinate Reference:Site Fuller 14/11 B2ED Fed #1HTVD Reference:WELL @ 2965.0usft (Original Well ElevMD Reference:WELL @ 2965.0usft (Original Well ElevNorth Reference:GridSurvey Calculation Method:Minimum Curvature					(ell Elev)
Project	Eddy (County, New Me	exico NAD 83							
Map System: Geo Datum: Map Zone:	North A	e Plane 1983 merican Datum xico Eastern Zo			System Dat	tum:	Ma	ean Sea Level		
Site	Fuller	14/11 B2ED Fe	d #1H							
Site Position: From: Position Uncer	Ma tainty:		North Eastin 0 usft Slot F	-		,317.00 usft ,617.00 usft 13-3/16 "	Latitude: Longitude: Grid Converç	jence:		32° 2' 32.195 N 103° 57' 40.608 W 0.20 °
Well	Sec 14	, T26S. R29E								
Well Position	+N/-S +E/-W			orthing: asting:		379,317.00 656,617.00		itude: ngitude:		32° 2' 32.195 N 103° 57' 40.608 W
Position Uncer	tainty	().0 usft 🛛 ₩	ellhead Eleva	tion:	2,965.	Dusft Gro	ound Level:		2,938.0 usft
Wellbore	BHL:	330' FNL & 550	' FWL, Sec 11							
Magnetics	м	odel Name	Samp	e Date	Declina (°)		-	Angle °)	Field Sf (n	-
		IGRF2010		7/21/2017		7.00		59.80		47.861
Design	Desig	n #1								
Audit Notes:						T :			0.0	
Version: Vertical Sectio	n:	ſ	Phas Depth From (T (usft)		PROTOTYPE +N/-S (usft)	+	e On Depth: E/-W usft)	Dire	ection (°)	
			0.0		0.0	-	0.0		.21	
Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogieg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
8,284.5		0.00	8.284.5	0.0	0.0	0.00				(OP @ 8285'
9,032.7 16,178.9	89.78 89.78	0.21 0.21	8,762.0 8,789.0	475.7 7,621.7	1.7 27.9	12.00 0.00			0.21	3HL: 330' FNL & 550'
10,170.9	03.10	0.21	0.703.0	1,021.1	27.9	0.00	0.00	0.00	0.00 1	51E. 330 T ME & 330

н — . .

Database: Company: Project: Site: Well: Wellbore:	Hobbs Mewbourne Oil Company Eddy County, New Mexico NAD 83 Fuller 14/11 B2ED Fed #1H Sec 14, T26S, R29E BHL: 330' FNL & 550' FWL, Sec 11	Local Co-ordinate Reference: TVD Reference: MD Reference: North Reference: Survey Calculation Method:	Site Fuller 14/11 B2ED Fed #1H WELL @ 2965.0usft (Original Well Elev) WELL @ 2965.0usft (Original Well Elev) Grid Minimum Curvature
Design:	Design #1		

Planned Survey

0.0 0.00 0.00 0.00 0.00 0.00 0.00 SL:2000 FNL 8.507 FML 0.00 <th>Measured Depth (usft)</th> <th>Inclination (°)</th> <th>Azimuth (°)</th> <th>Vertical Depth (usft)</th> <th>+N/-S (usft)</th> <th>+E/-W (usft)</th> <th>Vertical Section (usft)</th> <th>Dogleg Rate (°/100usft)</th> <th>Build Rate (°/100usft)</th> <th>Turn Rate (°/100usft)</th>	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)
100.0 100.0 100.0 0.0 0.0 0.0 0.00 <th< th=""><th>0.0</th><th>0.00</th><th>0.00</th><th>0.0</th><th>0.0</th><th>0.0</th><th>0.0</th><th>0.00</th><th>0.00</th><th>0.00</th></th<>	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0 100.0 100.0 0.0 0.0 0.0 0.00 <th< td=""><td>SL: 2600' FN</td><td>L & 550' FWL, S</td><td>ec 14</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<>	SL: 2600' FN	L & 550' FWL, S	ec 14							
200.0 0.00 0.00 200.0 0.0 0.00 <t< td=""><td></td><td></td><td></td><td>100.0</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.00</td><td>0.00</td><td>0.00</td></t<>				100.0	0.0	0.0	0.0	0.00	0.00	0.00
3000 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 500.0 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 500.0 0.00 0.00 600.0 0.00 600.0 0.00 0										
400.0 0.00 400.0 0.0 0.0 0.00 0.00 0.00 500.0 0.00 0.00 500.0 0.0 0.0 0.00 0.00 0.00 700.0 0.00 0.00 700.0 0.0	300.0	0.00								
600.0 0.00 600.0 600.0 0.0 0.00 0.00 0.00 0.00 800.0 0.00 0.00 800.0 0.00 <t< td=""><td>400.0</td><td>0.00</td><td></td><td>400.0</td><td></td><td></td><td>0.0</td><td></td><td></td><td></td></t<>	400.0	0.00		400.0			0.0			
700.0 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 900.0 0.00	500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 1000.0 0.00 0.00 1.000.0 0.00	600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0 0.00 0.00 0.0 0.0 0.00 0.00 0.00 1,000.0 0.00 1,000.0 0.0 0.0 0.0 0.00	700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
1.000.0 0.00 0.00 0.0 0.0 0.0 0.00 <th< td=""><td>800.0</td><td>0.00</td><td>0.00</td><td>800.0</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.00</td><td>0.00</td><td>0.00</td></th<>	800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
1 0	900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0 0.00 1,200.0 0.0 0.0 0.00	1,000.0		0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 1,400.0 0.00 0.00 1,400.0 0.0 0.00	1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0 0.00 1,400.0 0.0 0.0 0.00 0.00 0.00 0.00 1,500.0 0.00 0.00 1,500.0 0.00	1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1500.0 0.00 1500.0 0.00 1600.0 0.00 0.00 0.00 0.00 1,600.0 0.00 0.00 1,600.0 0.00	1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1.600.0 0.00 1.600.0 0.0 0.0 0.0 0.00 0.00 1.700.0 0.00 0.00 1.800.0 0.00	1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0 0.00 1,700.0 0.0 0.0 0.00 0.00 0.00 1,800.0 0.00 1,900.0 0.0 0.0 0.00	1,500.0	0.00		1,500.0	0.0	0.0	0.0		0.00	0.00
1 800.0 0.00 0.00 1,800.0 0.00									0.00	
1,900.0 0.00 1,900.0 0.0 0.0 0.00 0.00 0.00 2,000.0 0.00 0.00 2,000.0 0.00										
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$										
2,100.0 0.00 2,100.0 0.0 0.0 0.00 0.00 0.00 0.00 2,200.0 0.00 0.00 2,300.0 0.00	1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2 0.00 0.00 2.200.0 0.0 0.0 0.00 0.00 0.00 2.300.0 0.00 0.00 2.300.0 0.0 0.0 0.00	2,000.0	0.00	0.00	2,000.0	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	2,100.0	0.00	0.00	2,100.0	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 0.00	2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2500.0 0.00 2,500.0 0.0 0.0 0.00 0.00 0.00 0.00 2,600.0 0.00 0.00 2,700.0 0.0 0.0 0.00 0.00 0.00 2,700.0 0.00 0.00 2,700.0 0.0 0.0 0.00 0.00 0.00 2,800.0 0.00 2,800.0 0.0 0.0 0.00	2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2.600.0 0.00 0.00 2.600.0 0.0 0.0 0.00 0.00 0.00 2.700.0 0.00 0.00 2.700.0 0.0 0.00 0.00 0.00 0.00 2.800.0 0.00 0.00 2.800.0 0.0 0.0 0.00 0.00 0.00 2.900.0 0.00 0.00 2.900.0 0.0 0.0 0.00 0.00 0.00 3.000.0 0.00 3.000.0 0.0 0.0 0.00 0.00 0.00 0.00 3.000.0 0.00 3.200.0 0.0 0.0 0.00	2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0 0.00 0.00 2,700.0 0.0 0.00				2,500.0	0.0				0.00	0.00
2 800.0 0.00 0.00 2,800.0 0.0 0.0 0.0 0.00										
2,900.0 0.00 2,900.0 0.0 0.0 0.00 0.00 0.00 0.00 3,000.0 0.00 0.00 3,000.0 0.0 0.0 0.00										
3,000.0 0.00 0.00 3,000.0 0.0 0.0 0.00 0.00 0.00 3,100.0 0.00 0.00 3,100.0 0.0 0.0 0.00										
3,100.0 0.00 0.00 3,100.0 0.0 0.0 0.0 0.00	2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3.200.0 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 0.00	3,000.0		0.00	3,000.0	0.0		0.0	0.00	0.00	0.00
3,300.0 0.00 0.00 3,300.0 0.0 0.0 0.00									0.00	0.00
3,400.0 0.00 0.00 3,400.0 0.0 0.0 0.00 0.00 0.00 0.00 3,500.0 0.00 0.00 3,500.0 0.0 0.00										
3,500.0 0.00 0.00 3,500.0 0.0 0.0 0.00										
3,600.0 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 0.00	3,400.0			3,400.0					0.00	
3,700.0 0.00 0.00 3,700.0 0.0 0.0 0.00										
3,800.0 0.00 0.00 3,800.0 0.0 0.0 0.0 0.00										
3,900.0 0.00 0.00 3,900.0 0.0 0.0 0.00										
4,000.0 0.00 0.00 4,000.0 0.0 0.0 0.0 0.00										
4,100.0 0.00 0.00 4,100.0 0.0 0.0 0.0 0.00										
4,200.0 0.00 0.00 4,200.0 0.0 0.0 0.00										
4,300.0 0.00 0.00 4,300.0 0.0 0.0 0.00 0.00 0.00 4,400.0 0.00 0.00 4,400.0 0.00										
4,400.0 0.00 0.00 4,400.0 0.0 0.0 0.00 0.00 0.00 4,500.0 0.00 0.00 4,500.0 0.0 0.0 0.00										
4,500.0 0.00 0.00 4,500.0 0.0 0.0 0.0 0.00										
4,600.0 0.00 0.00 4,600.0 0.0 0.0 0.0 0.00									0.00	
4,700.0 0.00 0.00 4,700.0 0.0 0.0 0.00 0.00 0.00 4,800.0 0.00 0.00 4,800.0 0.00										
4,800.0 0.00 0.00 4,800.0 0.0 0.0 0.0 0.00	,									
4,900.00.000.004,900.00.00.00.00.000.005,000.00.000.005,000.00.00.00.00.000.000.005,100.00.000.005,100.00.00.00.00.000.000.00										
5,000.0 0.00 0.00 5,000.0 0.0 0.0 0.0 0.00										
5,100.0 0.00 5,100.0 0.0 0.0 0.0 0.00 0.00 0.00	4,900.0	0.00	0.00	4,900.0	0.0	0.0	0.0	0.00	0.00	0.00
					0.0			0.00	0.00	
5,200.0 0.00 0.00 5,200.0 0.0 0.0 0.0 0.00 0.00 0.00 0.00										
	5,200.0	0.00	0.00	5,200.0	0.0	0.0	0.0	0.00	0.00	0.00

Database: Company: Project: Site:	Hobbs Mewbourne Oil Company Eddy County, New Mexico NAD 83 Fuller 14/11 B2ED Fed #1H	Local Co-ordinate Reference: TVD Reference: MD Reference: North Reference:	Site Fuller 14/11 B2ED Fed #1H WELL @ 2965.0usft (Original Well Elev) WELL @ 2965.0usft (Original Well Elev) Grid
Well:	Sec 14, T26S, R29E	Survey Calculation Method:	Minimum Curvature
Wellbore:	BHL: 330' FNL & 550' FWL, Sec 11		
Design:	Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,300.0	0.00	0.00	5,300.0	0.0	0.0	0.0	0.00	0.00	0.00
5,400.0	0.00	0.00	5,400.0	0.0	0.0	0.0	0.00	0.00	0.00
5,500.0	0.00	0.00	5,500.0	0.0	0.0	0.0	0.00	0.00	0.00
5,600.0	0.00	0.00	5,600.0	0.0	0.0	0.0	0.00	0.00	0.00
5,700.0	0.00	0.00	5,700.0	0.0	0.0	0.0	0.00	0.00	0.00
5,800.0	0.00	0.00	5,800.0	0.0	0.0	0.0	0.00	0.00	0.00
5,900.0	0.00	0.00	5,900.0	0.0	0.0	0.0	0.00	0.00	0.00
6,000.0	0.00	0.00	6,000.0	0.0	0.0	0.0	0.00	0.00	0.00
6,100.0	0.00	0.00	6,100.0	0.0	0.0	0.0	0.00	0.00	0.00
6,200.0	0.00	0.00	6,200.0	0.0	0.0	0.0	0.00	0.00	0.00
6,300.0	0.00	0.00	6,300.0	0.0	0.0	0.0	0.00	0.00	0.00
6,400.0	0.00	0.00	6,400.0	0.0	0.0	0.0	0.00	0.00	0.00
6,500.0	0.00	0.00	6,500.0	0.0	0.0	0.0	0.00	0.00	0.00
6,600.0	0.00	0.00	6,600.0	0.0	0.0	0.0	0.00	0.00	0.00
6,700.0	0.00	0.00	6,700.0	0.0	0.0	0.0	0.00	0.00	0.00
6,800.0	0.00	0.00	6,800.0	0.0	0.0	0.0	0.00	0.00	0.00
6,900.0	0.00	0.00	6,900.0	0.0	0.0	0.0	0.00	0.00	0.00
7,000.0	0.00	0.00	7,000.0	0.0	0.0	0.0	0.00	0.00	0.00
7,100.0	0.00	0.00	7,100.0	0.0	0.0	0.0	0.00	0.00	0.00
7,200.0	0.00	0.00	7,200.0	0.0	0.0	0.0	0.00	0.00	0.00
7,300.0	0.00	0.00	7,300.0	0.0	0.0	0.0	0.00	0.00	0.00
7,400.0	0.00	0.00	7,400.0	0.0	0.0	0.0	0.00	0.00	0.00
7,500.0	0.00	0.00	7,500.0	0.0	0.0	0.0	0.00	0.00	0.00
7,600.0	0.00	0.00	7,600.0	0.0	0.0	0.0	0.00	0.00	0.00
7,700.0	0.00	0.00	7,700.0	0.0	0.0	0.0	0.00	0.00	0.00
7,800.0	0.00	0.00	7,800.0	0.0	0.0	0.0	0.00	0.00	0.00
7.900.0	0.00	0.00	7,900.0	0.0	0.0	0.0	0.00	0.00	0.00
8,000.0	0.00	0.00	8,000.0	0.0	0.0	0.0	0.00	0.00	0.00
8,100.0	0.00	0.00	8,100.0	0.0	0.0	0.0	0.00	0.00	0.00
8,200.0	0.00	0.00	8,200.0	0.0	0.0	0.0	0.00	0.00	0.00
8,284.5	0.00	0.00	8,284.5	0.0	0.0	0.0	0.00	0.00	0.00
KOP @ 8285 8,300.0	1.86	0.21	8,300.0	0.3	0.0	0.3	12.00	12.00	0.00
8,400.0	13.86	0.21	8,398.9	13.9	0.1	13.9	12.00	12.00	0.00
8.500.0 8,600.0	25.86 37.86	0.21 0.21	8,492.8	47.8	0.2 0.4	47.8 100.5	12.00 12.00	12.00	0.00
8,700.0	49.86	0.21	8,577.5 8,649.5	100.5 169 <i>.</i> 6	0.4	169.6	12.00	12.00 12.00	0.00 0.00
8,784.9	60.04	0.21	8,698.2	239.0	0.9	239.0	12.00	12.00	0.00
	NL & 550' FWL,		0,000.2	200.0	0.0	200.0	12.00	12.00	0.00
8,800.0	61.86	0.21	8,705.5	252.2	0.9	252.2	12.00	12.00	0.00
8.900.0	73.86	0.21	8,743.2	344.7	1.3	344.7	12.00	12.00	0.00
9,000.0	85.86	0.21	8,760.8	443.0	1.6	443.0	12.00	12.00	0.00
9,032.8	89.78	0.21	8,762.0	475.7	1.0	475.7	11.98	11.98	0.00
	L 550' FWL, Sec		0,702.0	415.1		470.7	11.50	11.50	0.00
9,100.0	89.78	0.21	8,762.3	542.9	2.0	542.9	0.00	0.00	0.00
9,200.0	89.78	0.21	8,762.6	642.9	2.4	642.9	0.00	0.00	0.00
9,300.0	89.78	0.21	8,763.0	742.9	2.7	742.9	0.00	0.00	0.00
9,400.0	89.78	0.21	8,763.4	842.9	3.1	842.9	0.00	0.00	0.00
9,500.0	89.78	0.21	8,763.8	942.9	3.5	942.9	0.00	0.00	0.00
9,600.0	89.78	0.21	8,764.1	1,042.9	3.8	1,042.9	0.00	0.00	0.00
9,700.0	89.78	0.21	8,764.5	1.142.9	4.2	1,142.9	0.00	0.00	0.00
9,800.0	89.78	0.21	8,764.9	1,242.9	4.5	1,242.9	0.00	0.00	0.00
9,900.0	89.78	0.21	8,765.3	1,342.9	4.9	1,342.9	0.00	0.00	0.00

• •

Database:	Hobbs	Lo
Company:	Mewbourne Oil Company	ти
Project:	Eddy County, New Mexico NAD 83	ME
Site:	Fuller 14/11 B2ED Fed #1H	No
Well:	Sec 14, T26S, R29E	Su
Wellbore:	BHL: 330' FNL & 550' FWL, Sec 11	
Design:	Design #1	
•	-	

Planned Survey

Local Co-ordinate Reference: TVD Reference: MD Reference: North Reference: Survey Calculation Method: Site Fuller 14/11 B2ED Fed #1H WELL @ 2965.0usft (Original Well Elev) WELL @ 2965.0usft (Original Well Elev) Grid Minimum Curvature

$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Turn Rate (°/100usft)
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	0.00
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	0.00
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	0.00
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	0.00
11,100.0 89.78 0.21 $8.769.8$ $2.542.9$ 9.3 $2.542.9$ 0.00 0.0 11,200.0 89.78 0.21 $8.770.2$ $2.642.9$ 9.7 $2.642.9$ 0.00 0.0 11,300.0 89.78 0.21 $8.770.6$ $2.742.9$ 10.0 $2.742.9$ 0.00 0.0 11,400.0 89.78 0.21 $8.770.9$ $2.842.9$ 10.4 $2.842.9$ 0.00 0.0 11,500.0 89.78 0.21 $8.771.3$ $2.942.9$ 10.8 $2.942.9$ 0.00 0.0 11,600.0 89.78 0.21 $8.771.7$ $3.042.9$ 11.1 $3.042.9$ 0.00 0.0 11,600.0 89.78 0.21 $8.772.1$ $3.142.9$ 11.5 $3.142.9$ 0.00 0.0 11,700.0 89.78 0.21 $8.772.5$ $3.242.9$ 11.9 $3.242.9$ 0.00 0.0 11,800.0 89.78 0.21 $8.772.8$ $3.342.9$ 12.2 $3.342.9$ 0.00 0.0 11,900.0 89.78 0.21 $8.773.6$ $3.542.9$ 13.0 $3.542.9$ 0.00 0.0 12,000.0 89.78 0.21 $8.774.7$ $3.842.9$ 13.3 $3.642.9$ 0.00 0.0 12,200.0 89.78 0.21 $8.774.7$ $3.842.9$ 13.3 $3.642.9$ 0.00 0.0 12,200.0 89.78 0.21 $8.774.7$ $3.842.9$ 13.1 $3.842.9$ 0.00 0.0 12,200.0 <td< td=""><td>0.00</td></td<>	0.00
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	
11,600.089.780.218,771.73,042.911.13,042.90.000.011,700.089.780.218,772.13,142.911.53,142.90.000.011,800.089.780.218,772.53,242.911.93,242.90.000.011,900.089.780.218,772.83,342.912.23,342.90.000.012,000.089.780.218,773.23,442.912.63,442.90.000.012,000.089.780.218,773.63,542.913.03,542.90.000.012,200.089.780.218,774.03,642.913.33,642.90.000.012,200.089.780.218,774.73,842.913.73,742.90.000.012,200.089.780.218,774.73,842.914.13,842.90.000.012,400.089.780.218,775.13,942.914.43,942.90.000.012,500.089.780.218,775.54,042.914.84,042.90.000.012,600.089.780.218,775.94,142.915.24,142.90.000.012,700.089.780.218,775.94,142.915.54,242.90.000.012,800.089.780.218,775.94,142.915.54,242.90.000.0	
11,700.0 89,78 0.21 8,772.1 3,142.9 11.5 3,142.9 0.00 0.0 11,800.0 89,78 0.21 8,772.5 3,242.9 11.9 3,242.9 0.00 0.0 11,900.0 89,78 0.21 8,772.5 3,242.9 11.9 3,242.9 0.00 0.0 11,900.0 89,78 0.21 8,772.8 3,342.9 12.2 3,342.9 0.00 0.0 12,000.0 89,78 0.21 8,773.2 3,442.9 12.6 3,442.9 0.00 0.0 12,100.0 89,78 0.21 8,773.6 3,542.9 13.0 3,542.9 0.00 0.0 12,200.0 89,78 0.21 8,774.0 3,642.9 13.3 3,642.9 0.00 0.0 12,200.0 89,78 0.21 8,774.7 3,842.9 13.7 3,742.9 0.00 0.0 12,400.0 89,78 0.21 8,775.1 3,942.9 14.1 3,842.9 0.00 0.0 12,500.0 89,78 0.21 8,775.5 4,042.9	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	
11,900.089.780.218,772.83,342.912.23,342.90.000.012,000.089.780.218,773.23,442.912.63,442.90.000.012,100.089.780.218,773.63,542.913.03,542.90.000.012,200.089.780.218,774.03,642.913.33,642.90.000.012,200.089.780.218,774.33,742.913.73,742.90.000.012,300.089.780.218,774.73,842.914.13,842.90.000.012,400.089.780.218,775.13,942.914.13,842.90.000.012,500.089.780.218,775.54,042.914.43,942.90.000.012,600.089.780.218,775.54,042.914.84,042.90.000.012,700.089.780.218,775.94,142.915.24,142.90.000.012,800.089.780.218,775.94,242.915.54,242.90.000.0	
12,000.089.780.218,773.23,442.912.63,442.90.000.012,100.089.780.218,773.63,542.913.03,542.90.000.012,200.089.780.218,774.03,642.913.33,642.90.000.012,300.089.780.218,774.33,742.913.73,742.90.000.012,400.089.780.218,774.73,842.914.13,842.90.000.012,500.089.780.218,775.13,942.914.43,942.90.000.012,600.089.780.218,775.54,042.914.84,042.90.000.012,700.089.780.218,775.94,142.915.24,142.90.000.012,800.089.780.218,776.24,242.915.54,242.90.000.0	
12,100.089.780.218,773.63,542.913.03,542.90.000.012,200.089.780.218,774.03,642.913.33,642.90.000.012,300.089.780.218,774.33,742.913.73,742.90.000.012,400.089.780.218,774.73,842.914.13,842.90.000.012,500.089.780.218,775.13,942.914.43,942.90.000.012,600.089.780.218,775.54,042.914.84,042.90.000.012,700.089.780.218,775.94,142.915.24,142.90.000.012,800.089.780.218,776.24,242.915.54,242.90.000.0	
12,200.089,780.218,774.03,642.913.33,642.90.000.012,300.089,780.218,774.33,742.913.73,742.90.000.012,400.089,780.218,774.73,842.914.13,842.90.000.012,500.089,780.218,775.13,942.914.43,942.90.000.012,600.089,780.218,775.54,042.914.84,042.90.000.012,700.089,780.218,775.94,142.915.24,142.90.000.012,800.089,780.218,776.24,242.915.54,242.90.000.0	
12.300.089.780.218.774.33.742.913.73.742.90.000.012,400.089.780.218.774.73.842.914.13.842.90.000.012,500.089.780.218.775.13.942.914.43.942.90.000.012,600.089.780.218.775.54.042.914.84.042.90.000.012,700.089.780.218.775.94.142.915.24.142.90.000.012,800.089.780.218.776.24.242.915.54.242.90.000.0	
12,400.0 89.78 0.21 8,774.7 3,842.9 14.1 3,842.9 0.00 0.0 12,500.0 89.78 0.21 8,775.1 3,942.9 14.4 3,942.9 0.00 0.0 12,600.0 89.78 0.21 8,775.5 4,042.9 14.8 4,042.9 0.00 0.0 12,700.0 89.78 0.21 8,775.9 4,142.9 15.2 4,142.9 0.00 0.0 12,800.0 89.78 0.21 8,776.2 4,242.9 15.5 4,242.9 0.00 0.0	
12,500.0 89.78 0.21 8,775.1 3,942.9 14.4 3,942.9 0.00 0.0 12,600.0 89.78 0.21 8,775.5 4,042.9 14.8 4,042.9 0.00 0.0 12,700.0 89.78 0.21 8,775.9 4,142.9 15.2 4,142.9 0.00 0.0 12,800.0 89.78 0.21 8,776.2 4,242.9 15.5 4,242.9 0.00 0.0	
12,600.089.780.218,775.54,042.914.84,042.90.000.012,700.089.780.218,775.94,142.915.24,142.90.000.012,800.089.780.218,776.24,242.915.54,242.90.000.0	
12,700.089.780.218,775.94,142.915.24,142.90.000.012,800.089.780.218,776.24,242.915.54,242.90.000.0	
12,800.0 89.78 0.21 8,776.2 4,242.9 15.5 4,242.9 0.00 0.0	0.00
12,800.0 89.78 0.21 8,776.2 4,242.9 15.5 4,242.9 0.00 0.0	0.00
13,000.0 89.78 0.21 8,777.0 4,442.9 16.3 4,442.9 0.00 0.0	0.00
13,100.0 89.78 0.21 8,777.4 4.542.9 16.6 4,542.9 0.00 0.0	0.00
13,200.0 89,78 0.21 8,777,7 4,642,9 17.0 4,642.9 0.00 0.0	0.00
13,300.0 89.78 0.21 8,778.1 4,742.9 17.4 4,742.9 0.00 0.0	
13,400.0 89.78 0.21 8,778.5 4,842.9 17.7 4,842.9 0.00 0.0	
13,500.0 89.78 0.21 8,778.9 4,942.9 18.1 4,942.9 0.00 0.0	
13,600.0 89.78 0.21 8,779.3 5,042.9 18.5 5,042.9 0.00 0.0	
13,700.0 89.78 0.21 8,779.6 5.142.9 18.8 5,142.9 0.00 0.0	
13,800.0 89.78 0.21 8,780.0 5,242.9 19.2 5,242.9 0.00 0.0 10,000.0 0.01 0.700.0 0.700.0 0.00 0	
13,900.0 89.78 0.21 8,780.4 5,342.9 19.6 5,342.9 0.00 0.0 14,000.0 89.78 0.21 8,780.8 5,442.9 19.9 5,442.9 0.00 0.0	
14,000.0 89.78 0.21 8,780.8 5,442.9 19.9 5,442.9 0.00 0.0 14,100.0 89.78 0.21 8,781.1 5,542.9 20.3 5,542.9 0.00 0.0	
14,200.0 89.78 0.21 8,781.5 5,642.9 20.7 5,642.9 0.00 0.0	
14,300.0 89.78 0.21 8,781.9 5,742.8 21.0 5,742.9 0.00 0.0	
14,400.0 89.78 0.21 8,782.3 5,842.8 21.4 5,842.9 0.00 0.0	
14,500.0 89.78 0.21 8,782.7 5,942.8 21.8 5,942.9 0.00 0.0	
14,600.0 89.78 0.21 8,783.0 6,042.8 22.1 6,042.9 0.00 0.0	0.00
14,700.0 89.78 0.21 8,783.4 6,142.8 22.5 6,142.9 0.00 0.0	0.00
14,800.0 89.78 0.21 8,783.8 6,242.8 22.9 6,242.9 0.00 0.0	
14,900.0 89.78 0.21 8,784.2 6,342.8 23.2 6,342.9 0.00 0.0	
15,000.0 89.78 0.21 8,784.5 6,442.8 23.6 6,442.9 0.00 0.0	
15,100.0 89.78 0.21 8,784.9 6,542.8 24.0 6,542.9 0.00 0.0	
15,200.0 89.78 0.21 8,785.3 6,642.8 24.3 6,642.9 0.00 0.0	
<u>15,300.0</u> <u>89.78</u> <u>0.21</u> <u>8,785.7</u> <u>6,742.8</u> <u>24.7</u> <u>6,742.9</u> <u>0.00</u> <u>0.0</u>	0.00

⁻ ed #1H iginal Well Elev)
iginal Well Elev)

Planned Survey

Measured			Vertical			Vertical	Dogleg	Build	Turn
Depth	Inclination	Azimuth	Depth	+N/-S	+E/-W	Section	Rate	Rate	Rate
(usft)	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(°/100usft)	(°/100usft)	(°/100usft)
15,400.0	89.78	0.21	8,786,1	6,842.8	25.0	6,842,9	0.00	0.00	0.00
15,500.0	89,78	0.21	8,786.4	6,942.8	25.4	6,942.9	0.00	0.00	0.00
15.600.0	89.78	0.21	8,786.8	7,042.8	25.8	7,042.9	0.00	0.00	0.00
15,700.0	89.78	0.21	8,787.2	7,142.8	26.1	7,142.9	0.00	0.00	0.00
15,800.0	89.78	0.21	8,787.6	7,242.8	26.5	7,242.9	0.00	0.00	0.00
15,900.0	89.78	0.21	8,787.9	7,342.8	26.9	7,342.9	0.00	0.00	0.00
16,000.0	89.78	0.21	8,788.3	7,442.8	27.2	7,442.9	0.00	0.00	0.00
16,100.0	89.78	0.21	8,788.7	7,542.8	27.6	7,542.9	0.00	0.00	0.00
16,178.9	89.78	0.21	8,789.0	7.621.7	27.9	7,621.8	0.00	0.00	0.00
BHL: 330' FM	NL & 550' FWL, S	Sec 11							

Design Targets

Target Name									
	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
SL: 2600' FNL & 550' FV - plan hits target cente - Point	0.00 er	0.00	0.0	0.0	0.0	379,317.00	656,617.00	32° 2' 32.195 N	103° 57' 40.608 W
KOP @ 8285' - plan hits target cente - Point	0.00 er	0.00	8,284.5	0.0	0.0	379.317.00	656,617.00	32° 2' 32.195 N	103° 57' 40.608 W
FTP: 2361' FNL & 550' F - plan hits target cente - Point	0.00 er	0.00	8,698.2	239.0	0.9	379,556.00	656,617.88	32° 2' 34.561 N	103° 57' 40.588 W
LP: 2124' FNL 550' FWL - plan hits target cente - Point	0.00 er	0.00	8,762.0	475.7	1.7	379.792.70	656,618.70	32° 2' 36.903 N	103° 57' 40.569 W
BHL: 330' FNL & 550' F\ - plan hits target cente	0.00 er	0.00	8,789.0	7,621.7	27.9	386,938.70	656,644.90	32° 3' 47.620 N	103° 57' 39.979 W

- Point

· · ·

1. Geologic Formations

ана страна Алана страна

TVD of target	8789'	Pilot hole depth	NA
MD at TD:	16180'	Deepest expected fresh water:	125'

Basin			
Formation	Depth (TVD) from KB	Water/Mineral Bearing/ Target Zone?	Hazards*
Quaternary Fill	Surface		
Rustler	535	Water	
Top Salt	1330		
Castile	1520		
Base Salt	2830		
Lamar	3030	Oil/Gas	
Bell Canyon	3060	Oil/Gas	
Cherry Canyon	3935	Oil/Gas	
Manzanita Marker	4105		
Brushy Canyon	5195	Oil/Gas	
Bone Spring	6760	Oil/Gas	
1st Bone Spring Sand	7725		
2 nd Bone Spring Sand	8275	Target Zone	
3 rd Bone Spring Sand			· · · · · · · · · · · · · · · · · · ·
Abo			
Wolfcamp			
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	To	Size	(lbs)			Collapse	Burst	Tension	Tension
17.5"	0'	560'	13.375"	48	H40	STC	2.94	6.60	11.98	20.13
12.25"	0'	2955'	9.625"	36	J55	LTC	1.31	2.29	4.26	5.30
8.75"	0'	9033'	7"	26	HCP110	LTC	1.81	2.31	2.72	3.53
6.125"	8284'	16180'	4.5"	13.5	P110	LTC	2.33	2.72	3.17	3.96
В	LM Mini	mum Safet	ty 1.125	1	1.6 Dr	y 1.6 E)ry		• • • • • • • • • • • • • • • • • • •	

 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 justification (loading assumptions, casing design criteria).	Y
Will the pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
Is well located within Capitan Reef?	N
If yes, does production casing cement tie back a minimum of 50' above the Reef?	
Is well within the designated 4 string boundary.	
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3 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?	

3. Cementing Program

Casing	# Sks	Wt. lb/ gal	Yld ft3/ sack	H20 gal/ sk	500# Comp. Strength (hours)	Slurry Description	
Surf.	250	12.5	2.12	11	10	Lead: Class C + Salt + Gel + Extender + LCM	
1	200	14.8	1.34	6.3	8	Tail: Class C + Retarder	
Inter.	450	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.	220	12.5	2.12	11	9	Lead: Class C + Gel + Retarder + Defoamer +	
Stg 1						Extender	
Ū	400	15.6	1.18	5.2	13	Tail: Class H + Retarder + Fluid Loss + Defoamer	
	•				ECP/DV T	'ool @ 4105'	
Prod.	65	12.5	2.12	11	16	Lead: Class C + Gel + Retarder + Defoamer +	
Stg 2						Extender	
0	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 +	
	Į			ļ	1	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	2755'	25%
Liner	8284'	25%

4. Pressure Control Equipment

Variance: None

BOP installed and tested before drilling which hole?	Size?	System Rated WP	Туре		1	Tested to:
			A	nnular	X	1500#
	ł		Bli	nd Ram	X	
12-1/4"	13-5/8"	3M	Pir	be Ram	Χ	3000#
			Double Ram			
			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	Forma	Formation integrity test will be performed per Onshore Order #2.					
	On Ex	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.						
	A variance is requested for the use of a flexible choke line from the BOP to Choke						
Y	Manifold. See attached for specs and hydrostatic test chart.						
	Ν	Are 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

Depth		Туре	Weight (ppg)	Viscosity	Water Loss	
From	То			_		
0'	560'	Spud Mud	8.6-8.8	28-34	N/C	
560'	2955'	BW	10.0	28-34	N/C	
2955'	8284'	FW w/ Polymer	8.6-9.7	28-34	N/C	
8284'	16180'	OBM	8.6-10.0	30-40	<10cc	

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

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

6. Logging and Testing Procedures

Logg	Logging, Coring and Testing.					
X	Will run GR/CNL from KOP (8284') to surface (horizontal well – vertical portion of					
	hole). Stated logs run will be in the Completion Report and submitted to the BLM.					
	No Logs are planned based on well control or offset log information.					
	Drill stem test? If yes, explain					
	Coring? If yes, explain					

Additional logs planned		Interval	
X	Gamma Ray	8284' (KOP) to TD	
	Density		
	CBL		
	Mud log		
	PEX		

7. Drilling Conditions

Condition	Specify what type and where?	
BH Pressure at deepest TVD	4571 psi	
Abnormal Temperature	No	

Mitigation measure for abnormal conditions. Describe. Lost circulation material/sweeps/mud scavengers in surface hole.

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

H2S is present

X 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



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



APD ID: 10400017096 Operator Name: MEWBOURNE OIL COMPANY Well Name: FULLER 14/11 B2ED FED Well Type: OIL WELL Submission Date: 07/28/2017

Well Number: 1H Well Work Type: Drill Highlighted data reflects the most recent changes

Show Final Text

Section 1 - Existing Roads

Will existing roads be used? YES

Existing Road Map:

Fuller14_11B2EDFed1H_existingroadmap_07-28-2017.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? NO

Section 3 - Location of Existing Wells

Existing Wells Map? YES

Attach Well map:

Fuller14_11B2EDFed1H_existingwellmap_07-28-2017.pdf

Well Number: 1H

Existing Wells description:

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

Submit or defer a Proposed Production Facilities plan? SUBMIT

Estimated Production Facilities description:

Production Facilities description: This will be an offsite battery. Location has been approved during drilling previous Fuller 14/11 wells.

Production Facilities map:

Fuller14_11B2EDFed1H_PRODUCTIONFACILITYMAP_07-28-2017.pdf

Section 5 - Location and Types of Water Supply

Water Source Table

Water source use type: DUST CONTROL, INTERMEDIATE/PRODUCTION CASING, STIMULATION, SURFACE CASING	
Describe type:	Source longitude: -104.05763
Source latitude: 32.04928	
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	
Water source use type: DUST CONTROL, INTERMEDIATE/PRODUCTION CASING, STIMULATION, SURFACE CASING Describe type:	
	Source longitude: -103.94242
Source latitude: 31.998123	
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

Operator Name: MEWBOURNE OIL COMPANY

Well Name: FULLER 14/11 B2ED FED

Well Number: 1H

Water source and transportation map:

Fuller14_11B2EDFed1H_watersourceandtransportationmap_07-28-2017.pdf

Water source comments: BOTH SOURCES SHOWN ON ONE MAP

New water well? NO

New Water Well Info

Well latitude:	Well Longitude:	Well datum:
Well target aquifer:		
Est. depth to top of aquifer(ft):	Est thickness of aquifer:	
Aquifer comments:		
Aguifer documentation:		
Well depth (ft):	Well casing type:	
Well casing outside diameter (in.):	Well casing inside diamete	r (in.):
New water well casing?	Used casing source:	
Drilling method:	Drill material:	
Grout material:	Grout depth:	
Casing length (ft.):	Casing top depth (ft.):	
Well Production type:	Completion Method:	
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: Fuller14_11B2EDFed1H_calichesourceandtransportationmap_07-28-2017.pdf

Section 7 - Methods for Handling Waste

Waste type: SEWAGEWaste content description: Human waste & grey waterAmount of waste: 1500gallonsWaste disposal frequency : WeeklySafe containment description: 2,000 gallon plastic containerSafe containmant attachment:

Operator Name: MEWBOURNE OIL COMPANY Well Name: FULLER 14/11 B2ED FED

Well Number: 1H

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

Safe containmant attachment:

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 width (ft.)

Reserve pit depth (ft.)

Reserve pit volume (cu. yd.)

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

Reserve pit liner

Reserve pit liner specifications and installation description

Well Number: 1H

Cuttings Area

Cuttings Area being used? NO Are you storing cuttings on location? NO Description of cuttings location Cuttings area length (ft.) Cuttings area depth (ft.) Is at least 50% of the cuttings area in cut? WCuttings area liner Cuttings area liner specifications and installation description

Section 8 - Ancillary Facilities

Are you requesting any Ancillary Facilities?: NO Ancillary Facilities attachment:

Comments:

Section 9 - Well Site Layout

Well Site Layout Diagram: Fuller14_11B2EDFed1H_wellsitelayout_07-28-2017.pdf Comments:

Section 10 - Plans for Surface Reclamation

Type of disturbance: NEWRecontouring attachment:Drainage/Erosion control construction: NoneDrainage/Erosion control reclamation: NoneWellpad long term disturbance (acres): 1.414Wellpad short term disturbance (acres): 2.65Access road long term disturbance (acres): 0Pipeline long term disturbance (acres): 0Pipeline long term disturbance (acres): 0Other long term disturbance (acres): 0Other short term disturbance (acres): 0Total long term disturbance: 1.414Total short term disturbance: 2.65

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

Operator Name: MEWBOURNE OIL COMPANY

Well Name: FULLER 14/11 B2ED FED

Well Number: 1H

applicable, the fill material of the well pad will be backfilled into the cut to bring the area back to the original contour. The interim cut and fill slopes prior to re-seeding will not be steeper than a 3:1 ratio, unless the adjacent native topography is steeper. Note: Constructed slopes may be much steeper during drilling, but will be recontoured to the above ratios during interim reclamation.

Topsoil redistribution: Topsoil will be evenly respread and aggressively revegetated over the entire disturbed area not needed for all-weather operations including cuts & fills. To seed the area, the proper BLM seed mixture, free of noxious weeds, will be used.

Soil treatment: NA

Existing Vegetation at the well pad: Various brush & grasses

Existing Vegetation at the well pad attachment:

Existing Vegetation Community at the road: Various brush & grasses

Existing Vegetation Community at the road attachment:

Existing Vegetation Community at the pipeline: NA

Existing Vegetation Community at the pipeline attachment:

Existing Vegetation Community at other disturbances: NA

Existing Vegetation Community at other disturbances attachment:

Non native seed used? NO

Non native seed description:

Seedling transplant description:

Will seedlings be transplanted for this project? NO

Seedling transplant description attachment:

Will seed be harvested for use in site reclamation? NO

Seed harvest description:

Seed harvest description attachment:

Seed Management

Seed Table

Seed type:	Seed source:
Seed name:	
Source name:	Source address:
Source phone:	
Seed cultivar:	
Seed use location:	
PLS pounds per acre:	Proposed seeding season:
	Total a sup data and

Pounds/Acre

Seed Summary

Total pounds/Acre:

Seed Type

Well Number: 1H

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:

Military Local Office:

USFWS Local Office:

Other Local Office:

Operator Name: MEWBOURNE OIL COMPANY			
Well !	Name: FULLER 14/11 B2ED FED	Well Number: 1H	
USFS	Region:	/	
USFS Forest/Grassland:		USFS Ranger District:	
	Fee Owner: Pecos Valley Artesian Convservation District Phone: (575)622-7000	Fee Owner Address: PO Box 1346 Roswell NM 88202 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:		

•

•

Well Number: 1H

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

Email:

Surface use plan certification: NO Surface use plan certification document:

Surface access agreement or bond: Agreement

Surface Access Agreement Need description: SUA in place

Surface Access Bond BLM or Forest Service:

BLM Surface Access Bond number:

USFS Surface access bond number:

Section 12 - Other Information

Right of Way needed? NO

ROW Type(s):

Use APD as ROW?

ROW Applications

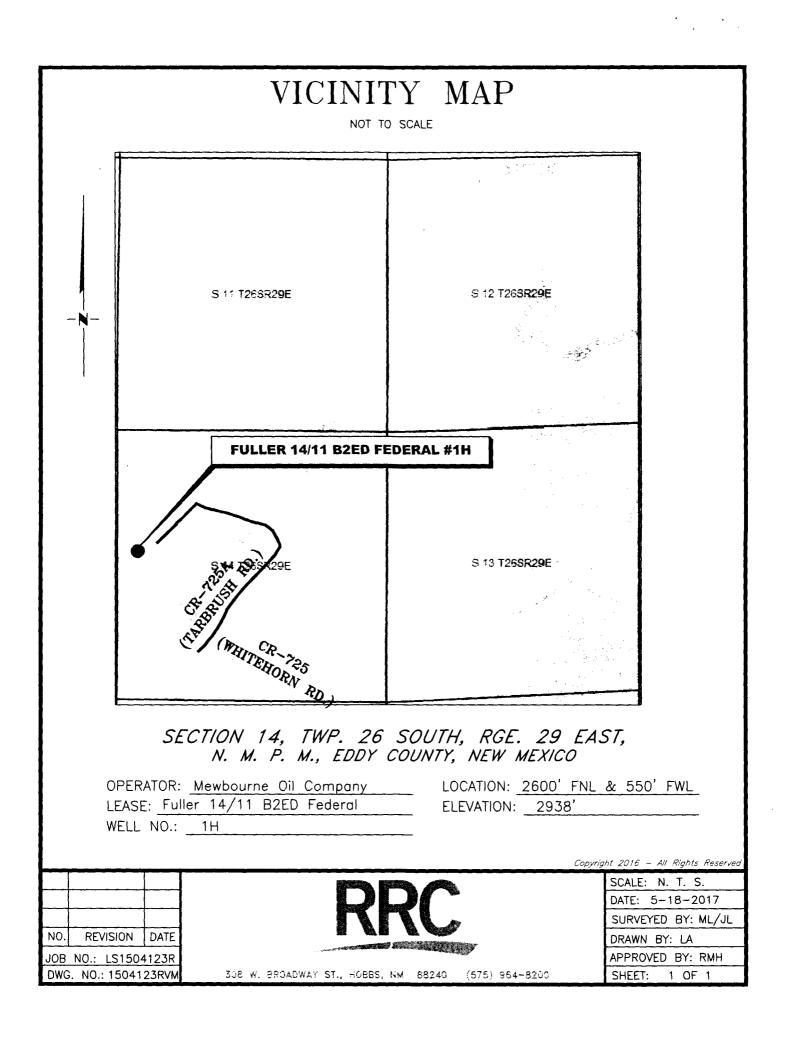
SUPO Additional Information: NONE

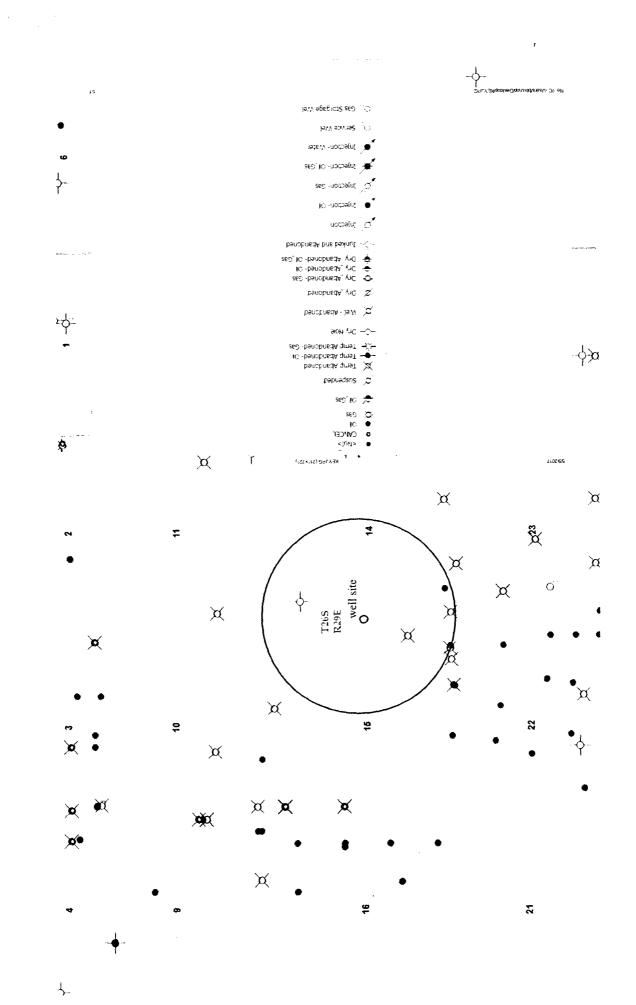
Use a previously conducted onsite? YES

Previous Onsite information: MAY 22 2017 Met with Brooke Wilson (BLM) & RRC Surveying and staked location @ 2600' FNL & 550' FWL, Sec 14, T26S, R29E, Eddy Co., NM. (Elevation @ 2938'). This appears to be a drillable location with pit area to N. Topsoil S. Location will be on existing pad. Pad will need to be extended. Will go to existing battery to NE of pad. Lat 32.0422775 N, Long 103.961281 W NAD83. Locations are MOA. (BPS)

Other SUPO Attachment

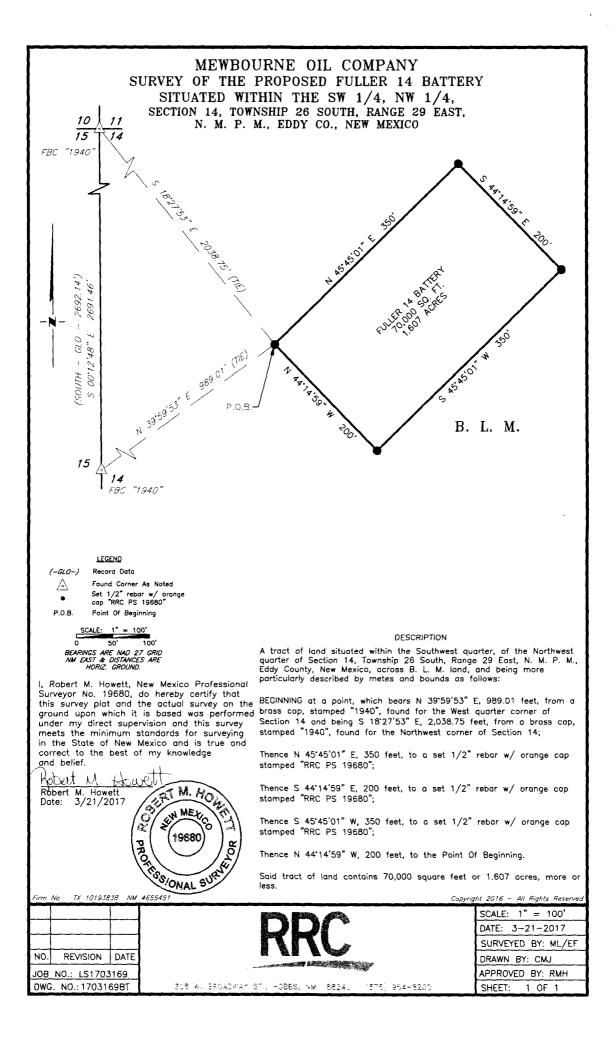
Fuller14_11B2EDFed1H_gascaptureplan_08-16-2017.pdf Fuller14_11B2EDFed1H_gascaptureplan_08-16-2017.pdf Fuller14_11B2EDFed1H_interimreclamationarea_20170914111052.pdf





1 mile.bmp (1594×874)

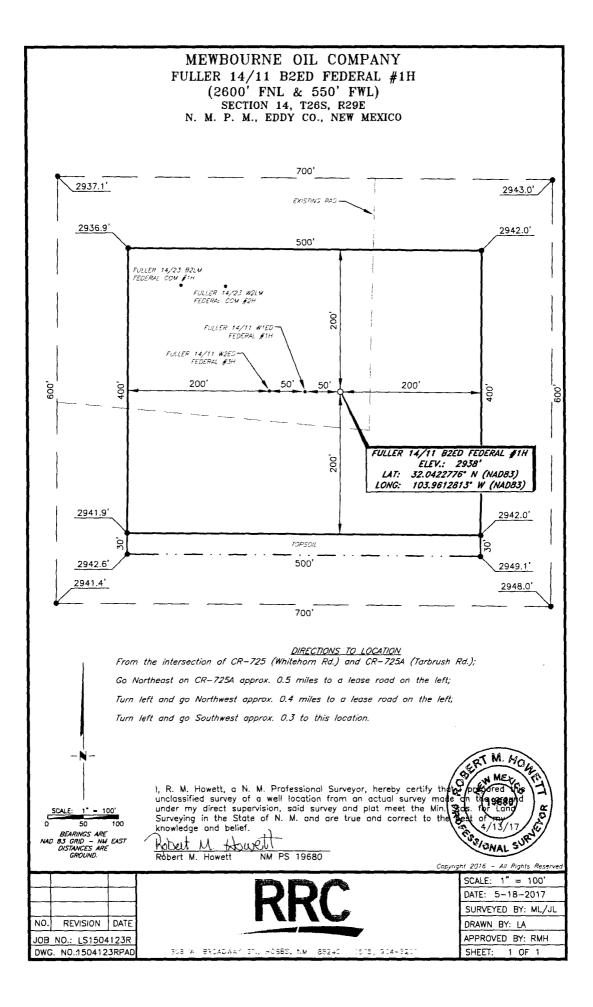
7/28/2017

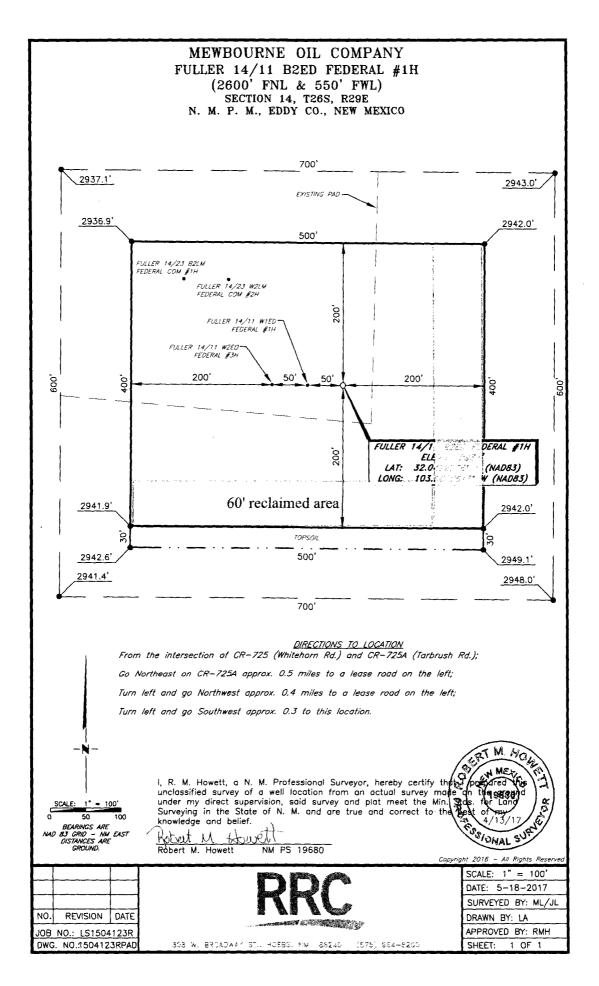




file:///C:/Data/APD's/Fuller%2014_11%20B2ED%20Fed%20%231H/water%20source.jpg









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):

Section 3 - Unlined Pits

Would you like to utilize Unlined Pit PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner:

Unlined pit PWD on or off channel:

Unlined pit PWD discharge volume (bbl/day):

Unlined pit specifications:

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal permit:

Unlined pit precipitated solids disposal schedule:

Unlined pit precipitated solids disposal schedule attachment:

Unlined pit reclamation description:

Unlined pit reclamation attachment:

Unlined pit Monitor description:

Unlined pit Monitor attachment:

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

Beneficial use user confirmation:

Estimated depth of the shallowest aquifer (feet):

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

TDS lab results:

Geologic and hydrologic evidence:

State authorization:

Unlined Produced Water Pit Estimated percolation:

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

Is the reclamation bond a rider under the BLM bond?

Unlined pit bond number:

Unlined pit bond amount:

Additional bond information attachment:

Section 4 - Injection

Would you like to utilize Injection PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner:

Injection PWD discharge volume (bbl/day):

Injection well mineral owner:

PWD disturbance (acres):

PWD disturbance (acres):

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

Section 5 - Surface Discharge

Would you like to utilize Surface Discharge PWD options? NO

Produced Water Disposal (PWD) Location: PWD surface owner: **PWD** disturbance (acres): 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):

AFMSS

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:

