Form 3160-5 June 2015) DE	UNITED STATES PARTMENT OF THE IN	TERIOR			FORM OMB N	APPROVED 0. 1004-0137
BUDDEN	JREAU OF LAND MANAG	EMENT			5. Lease Serial No.	anuary 51, 2018
Do not use thi	s form for proposals to d	rill or to re	enter an		6 If Indian Allottee o	Tribe Name
abandoned wel	I. Use form 3160-3 (APD)) for such p	HOBB	S OCI		
SUBMIT IN 1	RIPLICATE - Other instru	uctions on	page 2 ∆∐G 9	1 2010	7. If Unit or CA/Agree	ement, Name and/or No.
 Type of Well Oil Well S Gas Well Oth 	er		DEOE		8. Well Name and No. PADUCA 7/6 W1	FC FED COM 2H
2. Name of Operator MEWBOURNE OIL COMPAN	ر Contact: J Y E-Mail: jlathan@mev	ACKIE LAT			9. API Well No. 30-025-46187-0	00-X1
3a. Address P O BOX 5270 HOBBS, NM 88241		3b. Phone No Ph: 575-39	. (include area code) 3-5905		10. Field and Pool or 1 WOLFCAMP	Exploratory Area
4. Location of Well (Footage, Sec., T.	, R., M., or Survey Description)		,		11. County or Parish,	State
Sec 7 T26S R32E SENW 250 32.058010 N Lat, 103.717339	0FNL 1775FWL W Lon				LEA COUNTY,	NM
12. CHECK THE AF	PROPRIATE BOX(ES) T	O INDICA	TE NATURE OI	F NOTICE,	REPORT, OR OTH	IER DATA
TYPE OF SUBMISSION			TYPE OF	ACTION		
R Notice of Intent		🗖 Dee	pen	Product	tion (Start/Resume)	UWater Shut-Off
	Alter Casing	🗖 Hyd	raulic Fracturing	🗖 Reclam	ation	Well Integrity
	Casing Repair	🗖 Nev	Construction	C Recom	plete	Other Change to Original A
Final Abandonment Notice	Change Plans	🖸 Plug	and Abandon		rarily Abandon	PD
Mewbourne Oil Company requ	lests approval to make the	following cl	hanges to the an	ir isb	d Field (JITICE
Remove 9 5/8" intermediate ca attachment. Change 7" production casing s	asing from casing design & setting depth to 11,600' (top	adjust cerr p of Wolfcar	ent design as de np) & adjust cem	tailed (h) t	CD Hobb	5
-As a contingency, if lost circu 9 5/8" intermediate casing will	ation occurs, the hole will I be run per original approve	be enlarged ed APD.	to 12 1/4" to 448	85'. Then	SEE ATT	ACHED FOR
Please contact Andy Taylor wi	th any questions. $A = S = \frac{1}{2} $	st r	xcent I	for the	te Edla	
4. I hereby certify that the foregoing is	true and correct. Electronic Submission #47 For MEWBOUF	72714 verifie RNE OIL COL	d by the BLM Wel	I Information	n System	
Name (Printed/Typed) ANDY TA	YLOR		Title ENGINE	ER	(1311 240302)	
Signature (Electronic S	ubmission)		Date 07/09/20	019		
	THIS SPACE FOR	R FEDERA		OFFICE U	SE	
			TitlePETROLE	UM ENGIN	EER	Date 07/10/2019
onditions of approval, if any, are attached rtify that the applicant holds legal or equinich would entitle the applicant to condu	 Approval of this notice does n itable title to those rights in the s ct operations thereon. 	ot warrant or subject lease	Office Hobbs			
tle 18 U.S.C. Section 1001 and Title 43 States any false, fictitious or fraudulent s	U.S.C. Section 1212, make it a cr tatements or representations as to	rime for any po o any matter w	rson knowingly and ithin its jurisdiction.	willfully to m	ake to any department or	agency of the United
nstructions on page 2) ** BLM REV	SED ** BLM REVISED	** BLM RI	EVISED ** BLN	I REVISEI	O ** BLM REVISE	D** KZ

Revisions to Operator-Submitted EC Data for Sundry Notice #472714

	Operator Submitted	BLM Revised (AFMSS)
Sundry Type:	APDCH NOI	APDCH NOI
Lease:	NMNM128929	NMNM128929
Agreement:		
Operator:	MEWBOURNE OIL COMPANY PO BOX 5270 HOBBS, NM 88241 Ph: 575-393-5905	MEWBOURNE OIL COMPANY P O BOX 5270 HOBBS, NM 88241 Ph: 575.393.5905
Admin Contact:	JACKIE LATHAN AUTHORIZED REPRESENTATIVE E-Mail: jlathan@mewbourne.com	JACKIE LATHAN REGULATORY E-Mail: jlathan@mewbourne.com
	Ph: 575-393-5905	Ph: 575-393-5905
Tech Contact:	ANDY TAYLOR ENGINEER E-Mail: ataylor@mewbourne.com	ANDY TAYLOR ENGINEER E-Mail: ataylor@mewbourne.com
	Ph: 575-393-5905	Ph: 575.393.5905
Location: State: County:	NM LEA	NM LEA
Field/Pool:	98065	WOLFCAMP
Well/Facility:	PADUCA 7/6 W1FC FED COM 2H Sec 7 T26S R32E Mer NMP SENW 2500FNL 1775FWL	PADUCA 7/6 W1FC FED COM 2H Sec 7 T26S R32E SENW 2500FNL 1775FW 32.058010 N Lat, 103.717339 W Lon

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Geologic Formations

TVD of target	11,800'	Pilot hole depth	NA
MD at TD:	19,222'	Deepest expected fresh water:	275'

Basin

Formation	Depth (TVD)	Water/Mineral Bearing/	Hazards*
	from KB	Target Zone?	
Quaternary Fill	Surface		
Rustler	1057		_
Top of Salt	1397		
Castile			
Base of Salt	4152		
Lamar	4359	Oil	
Bell Canyon	4431		
Cherry Canyon	5390		
Manzanita Marker	5537		
Brushy Canyon	6882		
Bone Spring	8345	Oil/Gas	-
1 st Bone Spring Sand	9323		
2 nd Bone Spring Sand	10,022		
3 rd Bone Spring Sand	11,182		
Abo			
Wolfcamp	11,596	Target Zone	
Devonian			
Fusselman			
Ellenburger			
Granite Wash			

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

Casing Program

Hole	Casin	g Interval	Csg.	Weight	t Grade	Conn.	SF	SF	SF Jt	SF Body
Size	From	То	Size	(lbs)			Collapse	Burst	Tension	Tension
17.5"	0'	1135'	13.375	48	H40	STC	1.45	3.26	5.91	9.93
8.75"	0'	11,600'	7"	26	HCP110) LTC	1.29	1.71	2.20	2.74
6.125"	11,230'	19,222'	4.5"	13.5	P110	LTC	1.34	1.56	3.13	3.91
	BLM Min	imum Safety	Factor	1.125	1	1.6 Dry	1.6 Dry			
						1 8 Wet	1.8 Wet			

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

Must have table for contingency casing

	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	Y
Is casing API approved? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	N
Does the above casing design meet or exceed BLM's minimum standards? If not provide	Y
justification (loading assumptions, casing design criteria).	
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?	<u>{`</u> }
Is 2 nd string set 100' to 600' below the base of salt?	
Is well located in high Cave/Karst?	N
If yes, are there two strings cemented to surface?	
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	

Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

Cementing Program

Casing	# Sks	Wt. lb/	Yld ft3/	H ₂ 0 gal/	500# Comp.	Slurry Description
• • •		gal 🛛	sack	sk	Strength	
				<u> </u>	(hours)	
Surf.	620	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.	315	12.5	2.12	11	9	Lead: Class C + Gel + Retarder + Defoamer +
Stg 1						Extender
•	400	15.6	1.18	5.2	13	Tail: Class H + Retarder + Fluid Loss + Defoamer
			-		ECP/DV 1	'ool @ 5537'
Prod.	670	12.5	2.12	11	16	Lead: Class C + Gel + Retarder + Defoamer +
Stg 2						Extender
	200	14.8	1.34	6.3	8	Tail: Class C + Retarder
Liner	350	11.2	2.97	18	16	Class C + Salt + Gel + Fluid Loss + Retarder +
						Dispersant + Defoamer + Anti-Settling Agent

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

Casing String	TOC	% Excess
Surface	0'	100%
Production	0'	25%
Liner	11,230'	25%

Mud Program

TVD		Туре	Type Weight (ppg)		Water Loss	
From	То					
0	1135	FW Gel	8.6-8.8	28-34	N/C	
1135	11,227	Saturated Brine	10.0	28-34	N/C	

Drilling Plan

3

11,227	11,800	OBM	10.0-13.0	30-40	<10cc
Sufficient mud materials to maintain mud properties and meet minimum lost circulation and					

weight increase requirements will be kept on location at all times.

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

PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

MEWBOURNE OIL COMPANY
NMNM128929
PADUCA 7/6 W1FC FED COM 2H
2500' FNL & 1775' FWL
330' FNL & 1661' FWL
Section 7, T. 26 S., R 32 E., NMPM
LEA County, New Mexico

COA

H2S	C Yes	@ No	
Potash	• None	C Secretary	⊂ R-111-P
Cave/Karst Potential	CLow	Medium	⊂ High
Variance	∩ None	Flex Hose	○ Other
Wellhead	Conventional	Multibowl	⊂ Both
Other	☐4 String Area	Capitan Reef	└ WIPP
Other	Fluid Filled	Cement Squeeze	Pilot Hole
Special Requirements	✓ Water Disposal	ГСОМ	└ Unit

A. CASING

- 1. The 13-3/8 inch surface casing shall be set at approximately 1,135 feet (a minimum of 25 feet (Lea County) into the Rustler Anhydrite and above the salt) and cemented to the surface.
 - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
 - b. Wait on cement (WOC) time for a primary cement job will be a minimum of <u>8</u> <u>hours</u> or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
 - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
 - d. If cement falls back, remedial cementing will be done prior to drilling out that string.

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

Operator has proposed DV tool at depth of **5537**', 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. If an ECP is used, it is to be set a minimum of 50' below the shoe to provide cement across the shoe. If it cannot be set below the shoe, a CBL shall be run to verify cement coverage.

- a. First stage to DV tool: Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.
- b. Second stage above DV tool:
 - Cement to surface. If cement does not circulate, contact the appropriate BLM office. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.
- In <u>Medium Cave/Karst Areas</u> if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.
- 3. The minimum required fill of cement behind the 4-1/2 inch production liner is:
 - Cement should tie-back **100 feet** into the previous casing. Operator shall provide method of verification.

B. PRESSURE CONTROL

- 1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).'
- Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be 10,000 (10M) psi. Variance is approved to use a 5000 (5M) Annular which shall be tested to 5000 (5M) psi.
 - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
 - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
 - c. Manufacturer representative shall install the test plug for the initial BOP test.

- d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
- e. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.

Original APD Casing Plan will be utilized as a contingency. JJP07102019

GENERAL REQUIREMENTS

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

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

Chaves and Roosevelt Counties

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

\boxtimes Eddy County

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

Lea County

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

- 1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
 - a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).

b. When the operator proposes to set surface casing with Spudder Rig

- Notify the BLM when moving in and removing the Spudder Rig.
- Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
- BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 as soon as 2nd Rig is rigged up on well.

- 2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.
- 3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

A. CASING

- 1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.
- <u>Wait on cement (WOC) for Potash Areas:</u> After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least <u>24</u> hours. WOC time will be recorded in the driller's log.
- <u>Wait on cement (WOC) for Water Basin:</u> After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least <u>8 hours</u>. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements.
- 4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.
- 5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
- 6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the

formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.

- 7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
- 8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

B. PRESSURE CONTROL

- 1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.
- 2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.
- 3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.
- 4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
 - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
 - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
 - c. Manufacturer representative shall install the test plug for the initial BOP test.
 - d. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.
 - e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.

- 5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
 - a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
 - b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the plug. However, no tests shall commence until the cement has had a minimum of 24 hours setup time.
 - c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
 - d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.
 - e. The results of the test shall be reported to the appropriate BLM office.
 - f. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
 - g. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.
 - h. BOP/BOPE must be tested by an independent service company within 500

feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

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