

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTCarlsbad Field Office
OCD Artesia
FORM APPROVED
OMB NO. 1004-0135
E.O. 12812, 12958
Serial No.
NM 146927**SUNDRY NOTICES AND REPORTS ON WELLS**
*Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.***SUBMIT IN TRIPLICATE - Other instructions on reverse side.**

1. Type of Well <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other		7. If Unit or CA/Agreement, Name and/or No.
2. Name of Operator MEWBOURNE OIL COMPANY Contact: JACKIE LATHAN E-Mail: jlathan@mewbourne.com		8. Well Name and No. COMMODORE 30 W2PA FEDERAL 1H
3a. Address P O BOX 5270 HOBBS, NM 88241	3b. Phone (include area code) Ph: 575-393-5905	9. API Well No. 30-015-43296-00-X1
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 31 T24S R27E NENE 175FNL 606FEL		10. Field and Pool, or Exploratory WILDCAT Willow Lake, Bone Spring West
11. County or Parish, and State EDDY COUNTY, NM		

RECEIVED
JUN 06 2016

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

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input checked="" type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

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

Mewbourne Oil Company would like to make the following change to the approved APD:

The approved production casing has a stage tool at 4100'. MOC would like to move the stage tool to 3150'. This will change the cement as follows:

Stage 1

Lead: 430 sx Class C w/ gel, retarder, defoamer & extender. Yield 2.12 cu ft/sk @ 12.5 ppg.
Tail: 400 sx Class H w/ retarder, fluid loss & defoamer. Yield 1.18 cu ft/sk @ 15.6 ppg.
3150' (25% excess)

Stage 2

Lead 50 sx Class C w/ gel, retarder, defoamer & extender. Yield 2.12 cu ft/sk @ 12.5 ppg.

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

14. I hereby certify that the foregoing is true and correct. Electronic Submission #340170 verified by the BLM Well Information System For MEWBOURNE OIL COMPANY, sent to the Carlsbad Committed to AFMSS for processing by PRISCILLA PEREZ on 05/24/2016 (16PP1253SE)	
Name (Printed/Typed) JACKIE LATHAN	Title AUTHORIZED REPRESENTATIVE
Signature (Electronic Submission)	Date 05/24/2016
THIS SPACE FOR FEDERAL OR STATE OFFICE USE	
Approved By <u>Teungku Muchlis Krueng</u>	Title <u>PETROLEUM ENGINEER</u>
Office BUREAU OF LAND MANAGEMENT CARLSBAD FIELD OFFICE	

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

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

** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED **

Accepted for record - NMOC

KJ
6/13/16

Additional data for EC transaction #340170 that would not fit on the form

32. Additional remarks, continued

Tail: 100 sx Class C w/ retarder. Yield 1.34 cu ft/sk @ 14.8 ppg. TOC @ 2050' (25% excess)

Please see attached drilling plan for details.

Mewbourne Oil Company, Commodore 30 W2PA Fed #1H

Sec 31, T24S, R27E

SL: 175' FNL & 606' FEL, Sec 31

BHL: 330' FNL & 330' FEL, Sec 30

1. Geologic Formations

TVD of target	10125'	Pilot hole depth	NA
MD at TD:	15050'	Deepest expected fresh water:	350'

Basin

Formation	Depth (TVD) from KB	Water/Mineral Bearing/ Target Zone?	Hazards*
Quaternary Fill	Surface		
Rustler	0	Water	
Top of Salt			
Castile			
Base Salt			
Lamar			
Bell Canyon	2324	Water	
Cherry Canyon	3085	Oil/Gas	
Manzanita Marker			
Brushy Canyon	4197	Oil/Gas	
Bone Spring	5774	Oil/Gas	
1 st Bone Spring Sand	7153		
2 nd Bone Spring Sand	7360		
3 rd Bone Spring Sand			
Abo			
Wolfcamp	8930	Target Zone	
Devonian			
Fusselman			
Ellenburger			
Granite Wash			

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

Mewbourne Oil Company, Commodore 30 W2PA Fed #1H
Sec 31, T24S, R27E
SL: 175' FNL & 606' FEL, Sec 31
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2. Casing Program

Hole Size	Casing Interval		Csg. Size	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	SF Tension
	From	To							
17.5"	0'	450'	13.375"	48	H40	STC	3.16	7.39	14.91
12.25"	0'	2250'	9.625"	36	J55	LTC	1.73	3.01	5.59
8.75"	0'	9552'	7"	26	HCP110	LTC	1.21	1.54	2.55
8.75"	9552'	10452'	7"	26	HCP110	BTC	1.14	1.46	35.47
6.125"	9552'	15050'	4.5"	13.5	P110	LTC	1.56	1.81	4.54
BLM Minimum Safety Factor			1.125	1	1.6 Dry 1.8 Wet				

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

	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	Y
Is casing API approved? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	N
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
Is well located within Capitan Reef?	N
If yes, does production casing cement tie back a minimum of 50' above the Reef?	
Is well within the designated 4 string boundary.	
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 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?	

Mewbourne Oil Company, Commodore 30 W2PA Fed #1H

Sec 31, T24S, R27E

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3. Cementing Program

Casing	# Sk	Wt. lb/ gal	Yld ft ³ / sack	H ₂ O gal/ sk	500# Comp. Strength (hours)	Slurry-Description
Surf.	175	12.5	2.12	11	10	Lead: Class C + 4.0% Bentonite + 0.6% CD-32 + 5% Sodium Chloride + 0.25lb/sk Cello-Flake
	200	14.8	1.34	6.3	8	Class C + 0.005pps Static Free + 1% CaCl ₂ + 0.25 pps CelloFlake + 0.005 gps FP-6L
Inter.	315	12.5	2.12	11	10	Lead: Class C (35:65:4) + 5% Sodium Chloride + 5#/sk LCM + 0.25lb/sk Cello-Flake
	200	14.8	1.34	6.3	8	Tail: Class C + 0.25 lb/sk Cello Flake + 0.005 lb/sk Static Free
Prod. Stg 1	430	12.5	2.12	11	9	Lead: Class C (60:40:0) + 15.00 lb/sk BA-90 + 4.00% MPS-5 + 3.00% SMS + 5.00% A-10 + 1.00% BA-10A + 0.80% ASA-301 + 2.90% R-21 + 8.00 lb/sk LCM-1 + 0.005 lb/sk Static Free
	400	15.6	1.18	5.2	10	Tail: Class H + 0.65% FL-52 + 0.10% R-3 + 0.005 lb/sk Static Free
ECP/DV Tool @ 3150'						
Prod. Stg 2	50	12.5	2.12	11	10	Lead: Class C (35:65:4) + 5% Sodium Chloride + 5#/sk LCM + 0.25lb/sk Cello-Flake
	100	14.8	1.34	6.3	8	Tail: Class C + 0.25 lb/sk Cello Flake + 0.005 lb/sk Static Free
Liner	230	11.2	2.97	17	16	Class C (60:40:0) + 4% MPA5 + 1.2% BA10A + 10#/sk BA90 + 5%A10 + 0.65%ASA301 + 1.5% SMS + 1.2%R21

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	2050'	25%
Liner	9552'	25%

Mewbourne Oil Company, Commodore 30 W2PA Fed #1H
Sec 31, T24S, R27E
SL: 175' FNL & 606' FEL, Sec 31
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4. Pressure Control Equipment

	Variance: None
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BOP installed and tested before drilling which hole?	Size?	System Rated WP	Type	✓	Tested to:
12-1/4"	13-5/8"	3M	Annular	X	1250#
			Blind Ram		
			Pipe Ram		
			Double Ram		
			Other*		
8-3/4"	13 5/8"	10M	Annular	X	5000#
			Blind Ram	X	10000#
			Pipe Ram	X	
			Double Ram		
			Other*		
6-1/8"	13 5/8"	10M	Annular	X	5000#
			Blind Ram	X	10000#
			Pipe Ram	X	
			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.

Mewbourne Oil Company, Commodore 30 W2PA Fed #1H**Sec 31, T24S, R27E****SL: 175' FNL & 606' FEL, Sec 31****BHL: 330' FNL & 330' FEL, Sec 30**

X	Formation integrity test will be performed per Onshore Order #2. On Exploratory wells or on that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.i.
Y	A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. See attached for specs and hydrostatic test chart.
N	Are anchors required by manufacturer?
N	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. <ul style="list-style-type: none"> Provide description here See attached schematic.

5. Mud Program

Depth		Type	Weight (ppg)	Viscosity	Water Loss
From	To				
0'	450'	FW Gel	8.6-8.8	28-34	N/C
450'	2250'	Saturated Brine	10.0	28-34	N/C
2250'	9552'	Cut Brine	8.6-9.5	28-34	N/C
9552'	15050'	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 of fluid?	Pason/PVT/Visual Monitoring
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6. Logging and Testing Procedures

Logging, Coring and Testing.	
X	Will run GR/CNL from KOP (9552') 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	9552' (KOP) to TD

Mewbourne Oil Company, Commodore 30 W2PA Fed #1H
Sec 31, T24S, R27E
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	Density	
	CBL	
	Mud log	
	PEX	

7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	6845 psi
Abnormal Temperature	No

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

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

	H ₂ S is present
X	H ₂ S 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

Medium Cave Karst: two casing strings, both to circulate cement to surface.

13 3/8 surface csg in a 17 1/2 inch hole.				Design Factors			SURFACE		
Segment	#/ft.	Grade	Coupling	Joint	Collapse	Burst	Length	Weight	
"A"	48.00	H 40	ST&C	14.91	3.74	1.48	450	21,600	
"B"							0	0	
w/8.4#/g mud, 30min Sfc Csg Test psig: 1,015				Tail Cmt	does not	circ to sfc.	Totals:	450 21,600	
Comparison of Proposed to Minimum Required Cement Volumes									
Hole	Annular	1 Stage	1 Stage	Min	1 Stage	Drilling	Calc	Req'd	Min Dist
Size	Volume	Cmt Sx	CuFt Cmt	CuFt	% Excess	Mud Wt	MASP	BOPE	Hole-Cplg
17 1/2	0.6946	375	639	367	74	8.80	674	2M	1.56

9 5/8 casing inside the 13 3/8			Design Factors				INTERMEDIATE		
Segment	#/ft	Grade	Coupling	Joint	Collapse	Burst	Length	Weight	
"A"	36.00	J 55	LT&C	5.59	1.73	0.68	2,250	81,000	
"B"							0	0	
w/8.4#/g mud, 30min Sfc Csg Test psig:							Totals:	2,250 81,000	
The cement volume(s) are intended to achieve a top of					0	ft from surface or a		450	overlap.
Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min CuFt	1 Stage % Excess	Drilling Mud Wt	Calc MASP	Req'd BOPE	Min Dist Hole-Cplg
12 1/4	0.3132	515	936	752	24	10.00	2859	3M	0.81
Burst Frac Gradient(s) for Segment(s): A, B, C, D = 1.56, b, c, d									
All > 0.70, OK.									

7 casing inside the 9 5/8					Design Factors		PRODUCTION		
Segment	#/ft	Grade	Coupling	Joint	Collapse	Burst	Length	Weight	
"A"	26.00	HCP 110	LT&C	2.55	1.65	1.93	9,552	248,352	
"B"	26.00	HCP 110	BUTT	6.01	1.39	1.93	900	23,400	
w/8.4#/g mud, 30min Sfc Csg Test psig: 2,101							Totals:	10,452 271,752	
B would be:					35.49	1.51	if it were a vertical wellbore.		
No Pilot Hole Planned			MTD	Max VTD	Csg VD	Curve KOP	Dogleg°	Severity° MEOC	
			10452	10452	10452	9552	90	10 10452	
The cement volume(s) are intended to achieve a top of					2050	ft from surface or a		200 overlap.	
Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min CuFt	1 Stage % Excess	Drilling Mud Wt	Calc MASP	Req'd BOPE	Min Dist Hole-Cplg
8 3/4	0.1503	look	0	1276		9.50	4759	5M	0.55
Setting Depths for D V Tool(s):					3150	sum of sx		Σ CuFt	Σ%excess
% excess cmt by stage:			25	42			980	1624	27
MASP is within 10% of 5000psig, need exrta equip?									

Tail cmt									
4 1/2		Liner w/top @		9552		Design Factors		LINER	
Segment	#/ft	Grade	Coupling	Joint	Collapse	Burst	Length	Weight	
"A"	13.50	P 110	LT&C	6.70	1.4	1.76	5,498	74,223	
"B"							0	0	
w/8.4#/g mud, 30min Sfc Csg Test psig: 2,299,							Totals:	5,498 74,223	
A egment Design Factors would be:				4.55	1.51	if it were a vertical wellbore.			
No Pilot Hole Planned		MTD	Max VTD	Csg VD	Curve KOP	Dogleg°	Severity°	MEOC	
		15050	10452	10452	9552	90	10	10452	
The cement volume(s) are intended to achieve a top of				9552	ft from surface or a		900	overlap.	
Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	Drilling Mud Wt	Calc MASP	Req'd BOPE	Min Dist Hole-Cplg
6 1/8	0.0942	230	683	531	29	13.00			0.56
Class 'H' tail cmt yld > 1.20			Capitan Reef est top XXXX.			MASP is within 10% of 5000psig, need exrta equip?			

COMMODORE 30 W2PA FEDERAL 1H / 30-015-43296-00-X1

All previous COA still apply except the following:

I. DRILLING

A. CASING

Minimum required fill of cement behind the 7 inch production casing is:

Operator has proposed DV tool at depth of 3150'. Operator is to submit sundry if DV tool depth varies by more than 100' from approved depth.

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

Formation below the 9-5/8" shoe to be tested according to Onshore Order 2.III.B.1.i. Test to be done as a mud equivalency test using the mud weight necessary for the pore pressure of the formation below the shoe (not the mud weight required to prevent dissolving the salt formation) and the mud weight for the bottom of the hole. Report results to BLM office.