

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD Artesia

FORM APPROVED
OMB NO. 1004-0135
Expires: July 31, 2010

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 checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		5. Lease Serial No. NMNM114971
2. Name of Operator MEWBOURNE OIL COMPANY		6. If Indian, Allottee or Tribe Name
Contact: JACKIE LATHAN E-Mail: jlathan@mewbourne.com		7. If Unit or CA/Agreement, Name and/or No.
3a. Address HOBBS, NM 88241	3b. Phone No. (include area code) Ph: 575-393-5905 Fx: 575-397-6252	8. Well Name and No. OWL DRAW 22 AP FED COM 1H
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 15 T26S R27E SESE 200FSL 600FEL 32.020689 N Lat, 104.101515 W Lon		9. API Well No. 30-015-41430-00-X1
		10. Field and Pool, or Exploratory HAY HOLLOW
		11. County or Parish, and State EDDY COUNTY, NM

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 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 checked="" type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	Change to Original A
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	PD

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 recomplete 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 recompletion 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 changes to the name of the well and casing changes. Please see attached document & directional plan. Please call Levi Jackson with any questions.

Accepted for record
NMOCD TEL
2-28-2014

Bonds on file: NM1693 nationwide & NMB000919

RECEIVED
FEB 28 2014
NMOCD ARTESIA

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

14. I hereby certify that the foregoing is true and correct. Electronic Submission #232427 verified by the BLM Well Information System For MEWBOURNE OIL COMPANY, sent to the Carlsbad Committed to AFMSS for processing by JENNIFER MASON on 02/05/2014 (14JAM0106SE)	
Name (Printed/Typed) JACKIE LATHAN	Title AUTHORIZED REPRESENTATIVE
Signature (Electronic Submission)	Date 01/17/2014
THIS SPACE FOR FEDERAL OR STATE OFFICE USE	
Approved By _____	Title _____
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.	Office _____

APPROVED

FEB 24 2014

BUREAU OF LAND MANAGEMENT
CARLSBAD FIELD OFFICE

MEWBOURNE OIL COMPANY

701 S. CECIL
PO BOX 5270
HOBBS, NM 88240
(575) 393-5905
(575) 397-6252 FAX

Mewbourne Oil Company has an approved APD for the Owl Draw 22 AP Fed Com #1H

Mud & casing to remain as approved for 17 1/2" hole.

Currently MOC is approved to drill 12 1/4" hole to 2100' & run 9 5/8" csg & drill 8 3/4" hole through the curve and run 7" casing. Then drill 6 1/8" lateral section and run 4 1/2" liner w/packer & port system.

MOC is requesting to change the following:

Name change to the following: Owl Draw 22/27 B2AP Fed Com #1H

Drill 12 1/4" hole to 5850' & run 9 5/8" csg.

Drill 8 3/4" curve and lateral section.

KOP will remain the same.

5 1/2" 17# HCP110 LTC & BTC casing will be ran from surface to TD.

<u>Hole Size</u>	<u>Casing</u>	<u>Wt/Ft.</u>	<u>Grade</u>	<u>Depth</u>	<u>Jt Type</u>
12 1/4"	9 5/8" (new)	40#	HCL80	0'-5850'	LT&C
8 3/4"	5 1/2" (new)	17#	P110	0-7090' MD	LT&C
8 3/4"	5 1/2" (new)	17#	P110	7090'-7843' MD	BT&C
8 3/4"	5 1/2" (new)	17#	P110	7843'-17811' MD	LT&C

Cmt will consist of:

Intermediate:

1050 sacks Class "C" (35:65:4) light cement w/ salt and LCM additives. Yield at 2.0 cuft/sk. Mix water @ 11.17 gal/sk. 200 sacks Class "C" cement. Yield at 1.33 cuft/sk. Mix water @ 6.33 gal/sk. Cmt circulated to surface w/25% excess.

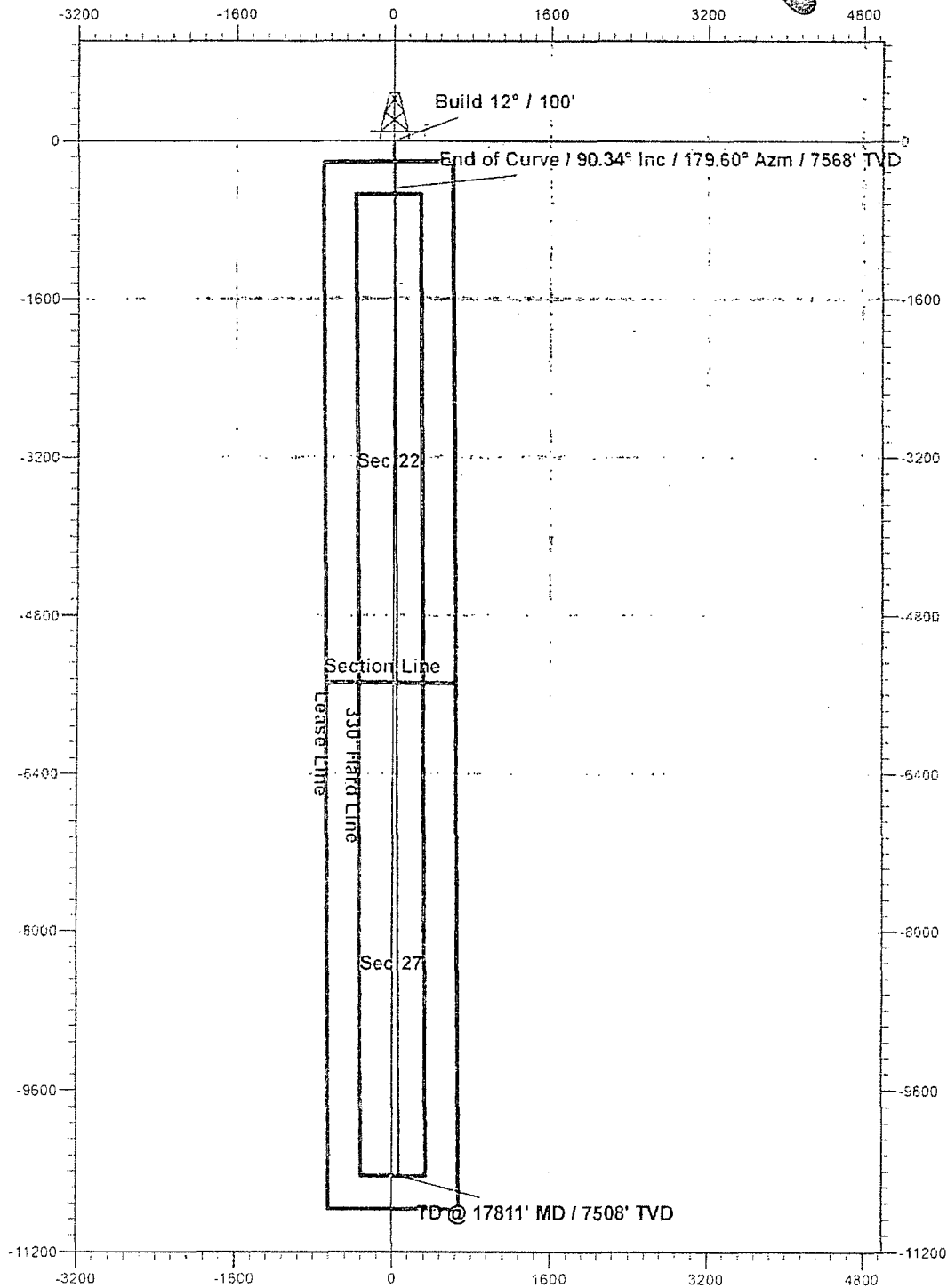
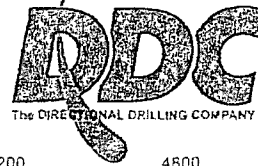
Production:

1100 sacks Class H light cement with fluid loss, LCM, & salt additives. Yield at 3.67 cuft/sk. Mix water @ 21.4 gal/sk. Calculated to tie back 200' into 9 5/8" csg @ 5650' w/25% excess.

Cased hole logs will be ran in 5 1/2" casing during completion process.

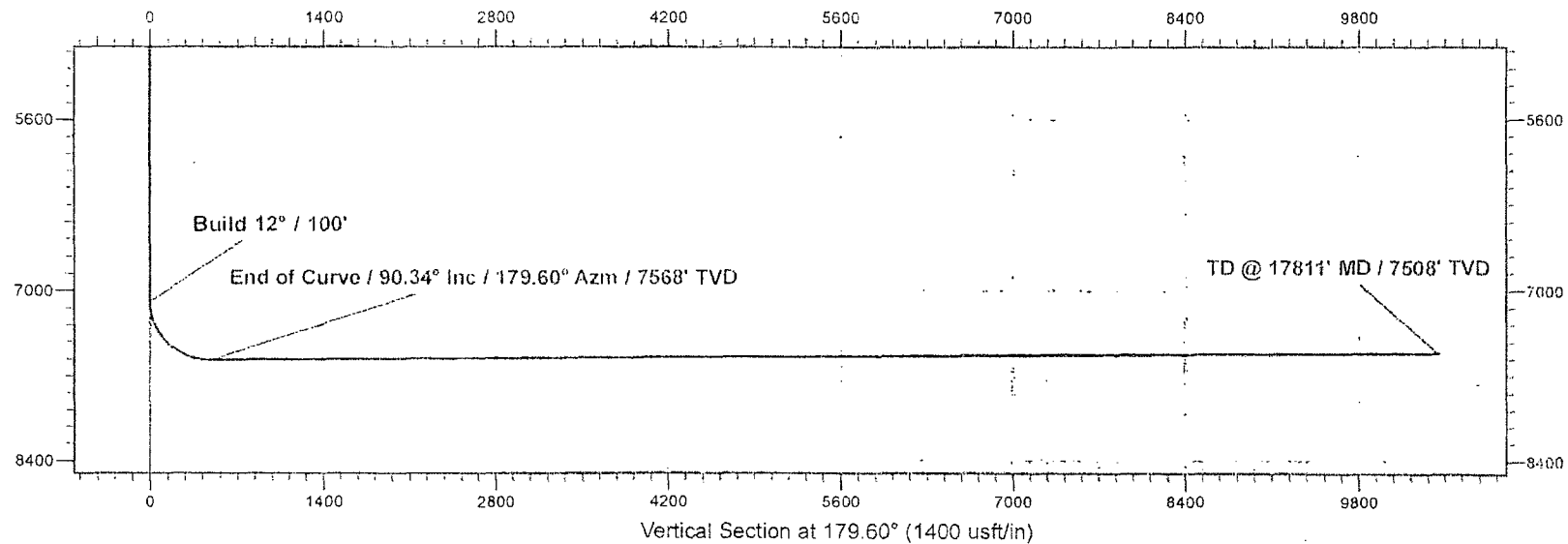
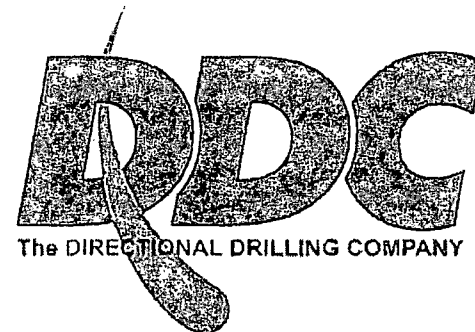
Mewbourne Oil Co

Eddy County, New Mexico
Owl Draw 22 / 27 B2AP Fed Com #1H
Quote 130195
Design #3



Mewbourne Oil Company

Eddy County, New Mexico
Owl Draw 22 / 27 B2AP Fed Com #1H
Design #3
Quote 130195



Mewbourne Oil Co

Eddy County, New Mexico

Sec 15, T26,R27E (NEW SHL)

Owl Draw 22 / 27 B2AP Fed Com #1H

Wellbore #1

Plan: Design #3

DDC Well Planning Report

30 December, 2013



DDC
Well Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Owl Draw 22 / 27 52AP Fed Com #1H
Company:	Mewbourne Oil Co	TVD Reference:	WELL @ 3168.0usft (Patterson)
Project:	Eddy County, New Mexico	MD Reference:	WELL @ 3168.0usft (Patterson)
Site:	Sec 15, T26,R27E (NEW SHL)	North Reference:	Grid
Well:	Owl Draw 22 / 27 52AP Fed Com #1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #3		

Project:	Eddy County, New Mexico		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site:	Sec 15, T26,R27E (NEW SHL)				
Site Position:	Northing:	376,588.30 usft	Latitude:	32° 2' 6.906 N	
From:	Map	Easting:	550,339.50 usft	Longitude:	104° 10' 15.179 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.09 °

Well:	Owl Draw 22 / 27 52AP Fed Com #1H					
Well Position	+N/-S	0.0 usft	Northing:	376,588.30 usft	Latitude:	32° 2' 6.906 N
	+E/-W	0.0 usft	Easting:	550,339.50 usft	Longitude:	104° 10' 15.179 W
Position Uncertainty	0.0 usft	Wellhead Elevation:		Ground Level:	3,148.0 usft	

Wellbore:	Wellbore #1					
Magnetics:	Model Name:	Sample Date	Declination	Dip Angle	Field Strength	
	IGRF2010	6/12/2013	(°)	(°)	(nT)	
			7.60	59.86	48,239	

Design:	Design #3			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(usft)	(usft)	(usft)	(°)
	0.0	0.0	0.0	179.60

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg 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	
7,090.5	0.00	0.00	7,090.5	0.0	0.0	0.00	0.00	0.00	0.00	
7,843.4	90.34	179.60	7,568.0	-480.3	3.4	12.00	12.00	23.86	179.60	
17,810.8	90.34	179.60	7,508.0	-10,447.3	73.1	0.00	0.00	0.00	0.00	PBHL Owl Draw 22 / :

DDC Well Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Owl Draw 22 / 27 B2AP Fed Com #1H
Company:	Mewbourne Oil Co	TVD Reference:	WELL @ 3158.0usft (Patterson)
Project:	Eddy County, New Mexico	MD Reference:	WELL @ 3158.0usft (Patterson)
Site:	Sec 15, T25,R27E (NEW SHL)	North Reference:	Grid
Well:	Owl Draw 22 / 27 B2AP Fed Com #1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #3		

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)
Build 12° / 100'									
7,090.5	0.00	0.00	7,090.5	0.0	0.0	0.0	0.00	0.00	0.00
7,100.0	1.14	179.60	7,100.0	-0.1	0.0	0.1	12.00	12.00	0.00
7,200.0	13.14	179.60	7,199.0	-12.5	0.1	12.5	12.00	12.00	0.00
7,300.0	25.14	179.60	7,293.3	-45.2	0.3	45.2	12.00	12.00	0.00
7,400.0	37.14	179.60	7,378.8	-96.8	0.7	96.8	12.00	12.00	0.00
7,500.0	49.14	179.60	7,451.6	-165.1	1.2	165.1	12.00	12.00	0.00
7,600.0	61.14	179.60	7,508.7	-247.0	1.7	247.0	12.00	12.00	0.00
7,700.0	73.14	179.60	7,547.4	-339.0	2.4	339.0	12.00	12.00	0.00
7,800.0	85.14	179.60	7,566.2	-437.0	3.1	437.0	12.00	12.00	0.00
End of Curve / 90.34° Inc / 179.60° Azm / 7568' TVD									
7,843.4	90.34	179.60	7,568.0	-480.3	3.4	480.3	12.00	12.00	0.00
7,900.0	90.34	179.60	7,567.6	-537.0	3.8	537.0	0.00	0.00	0.00
8,000.0	90.34	179.60	7,567.0	-636.9	4.5	637.0	0.00	0.00	0.00
8,100.0	90.34	179.60	7,566.4	-736.9	5.2	737.0	0.00	0.00	0.00
8,200.0	90.34	179.60	7,565.8	-836.9	5.9	837.0	0.00	0.00	0.00
8,300.0	90.34	179.60	7,565.2	-936.9	6.6	937.0	0.00	0.00	0.00
8,400.0	90.34	179.60	7,564.6	-1,036.9	7.3	1,037.0	0.00	0.00	0.00
8,500.0	90.34	179.60	7,564.0	-1,136.9	8.0	1,137.0	0.00	0.00	0.00
8,600.0	90.34	179.60	7,563.4	-1,236.9	8.7	1,237.0	0.00	0.00	0.00
8,700.0	90.34	179.60	7,562.8	-1,336.9	9.4	1,336.9	0.00	0.00	0.00
8,800.0	90.34	179.60	7,562.2	-1,436.9	10.1	1,436.9	0.00	0.00	0.00
8,900.0	90.34	179.60	7,561.6	-1,536.9	10.8	1,536.9	0.00	0.00	0.00
9,000.0	90.34	179.60	7,561.0	-1,636.9	11.5	1,636.9	0.00	0.00	0.00
9,100.0	90.34	179.60	7,560.4	-1,736.9	12.2	1,736.9	0.00	0.00	0.00
9,200.0	90.34	179.60	7,559.8	-1,836.9	12.9	1,836.9	0.00	0.00	0.00
9,300.0	90.34	179.60	7,559.2	-1,936.9	13.6	1,936.9	0.00	0.00	0.00
9,400.0	90.34	179.60	7,558.6	-2,036.9	14.3	2,036.9	0.00	0.00	0.00
9,500.0	90.34	179.60	7,558.0	-2,136.9	15.0	2,136.9	0.00	0.00	0.00
9,600.0	90.34	179.60	7,557.4	-2,236.9	15.7	2,236.9	0.00	0.00	0.00
9,700.0	90.34	179.60	7,556.8	-2,336.9	16.4	2,336.9	0.00	0.00	0.00
9,800.0	90.34	179.60	7,556.2	-2,436.9	17.1	2,436.9	0.00	0.00	0.00
9,900.0	90.34	179.60	7,555.6	-2,536.9	17.8	2,536.9	0.00	0.00	0.00
10,000.0	90.34	179.60	7,555.0	-2,636.9	18.5	2,636.9	0.00	0.00	0.00
10,100.0	90.34	179.60	7,554.4	-2,736.9	19.1	2,736.9	0.00	0.00	0.00
10,200.0	90.34	179.60	7,553.8	-2,836.9	19.8	2,836.9	0.00	0.00	0.00
10,300.0	90.34	179.60	7,553.2	-2,936.8	20.5	2,936.9	0.00	0.00	0.00
10,400.0	90.34	179.60	7,552.6	-3,036.8	21.2	3,036.9	0.00	0.00	0.00
10,500.0	90.34	179.60	7,552.0	-3,136.8	21.9	3,136.9	0.00	0.00	0.00
10,600.0	90.34	179.60	7,551.4	-3,236.8	22.6	3,236.9	0.00	0.00	0.00
10,700.0	90.34	179.60	7,550.8	-3,336.8	23.3	3,336.9	0.00	0.00	0.00
10,800.0	90.34	179.60	7,550.2	-3,436.8	24.0	3,436.9	0.00	0.00	0.00
10,900.0	90.34	179.60	7,549.6	-3,536.8	24.7	3,536.9	0.00	0.00	0.00
11,000.0	90.34	179.60	7,549.0	-3,636.8	25.4	3,636.9	0.00	0.00	0.00
11,100.0	90.34	179.60	7,548.4	-3,736.8	26.1	3,736.9	0.00	0.00	0.00
11,200.0	90.34	179.60	7,547.8	-3,836.8	26.8	3,836.9	0.00	0.00	0.00
11,300.0	90.34	179.60	7,547.2	-3,936.8	27.5	3,936.9	0.00	0.00	0.00
11,400.0	90.34	179.60	7,546.6	-4,036.8	28.2	4,036.9	0.00	0.00	0.00
11,500.0	90.34	179.60	7,546.0	-4,136.8	28.9	4,136.9	0.00	0.00	0.00
11,600.0	90.34	179.60	7,545.4	-4,236.8	29.6	4,236.9	0.00	0.00	0.00
11,700.0	90.34	179.60	7,544.8	-4,336.8	30.3	4,336.9	0.00	0.00	0.00
11,800.0	90.34	179.60	7,544.2	-4,436.8	31.0	4,436.9	0.00	0.00	0.00
11,900.0	90.34	179.60	7,543.6	-4,536.8	31.7	4,536.9	0.00	0.00	0.00
12,000.0	90.34	179.60	7,543.0	-4,636.8	32.4	4,636.9	0.00	0.00	0.00

DDC
Well Planning Report



Database: EDM 5000.1 Single User Db
Company: Mewbourne Oil Co
Project: Eddy County, New Mexico
Site: Sec 15, T26,R27E (NEW SHL)
Well: Owl Draw 22 / 27 B2AP Fed Com #1H
Wellbore: Wellbore #1
Design: Design #3

Local Co-ordinate Reference: Well Owl Draw 22 / 27 B2AP Fed Com #1H
TVD Reference: WELL @ 3168.0usft (Patterson)
MD Reference: WELL @ 3168.0usft (Patterson)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

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)
12,100.0	90.34	179.60	7,542.4	-4,736.8	33.1	4,736.9	0.00	0.00	0.00
12,200.0	90.34	179.60	7,541.7	-4,836.8	33.8	4,836.9	0.00	0.00	0.00
12,300.0	90.34	179.60	7,541.1	-4,936.8	34.5	4,936.9	0.00	0.00	0.00
12,400.0	90.34	179.60	7,540.5	-5,036.8	35.2	5,036.9	0.00	0.00	0.00
12,500.0	90.34	179.60	7,539.9	-5,136.8	35.9	5,136.9	0.00	0.00	0.00
12,600.0	90.34	179.60	7,539.3	-5,236.8	36.6	5,236.9	0.00	0.00	0.00
12,700.0	90.34	179.60	7,538.7	-5,336.7	37.3	5,336.9	0.00	0.00	0.00
12,800.0	90.34	179.60	7,538.1	-5,436.7	38.0	5,436.9	0.00	0.00	0.00
12,900.0	90.34	179.60	7,537.5	-5,536.7	38.7	5,536.9	0.00	0.00	0.00
13,000.0	90.34	179.60	7,536.9	-5,636.7	39.4	5,636.9	0.00	0.00	0.00
13,100.0	90.34	179.60	7,536.3	-5,736.7	40.1	5,736.9	0.00	0.00	0.00
13,200.0	90.34	179.60	7,535.7	-5,836.7	40.8	5,836.9	0.00	0.00	0.00
13,300.0	90.34	179.60	7,535.1	-5,936.7	41.5	5,936.9	0.00	0.00	0.00
13,400.0	90.34	179.60	7,534.5	-6,036.7	42.2	6,036.9	0.00	0.00	0.00
13,500.0	90.34	179.60	7,533.9	-6,136.7	42.9	6,136.9	0.00	0.00	0.00
13,600.0	90.34	179.60	7,533.3	-6,236.7	43.6	6,236.9	0.00	0.00	0.00
13,700.0	90.34	179.60	7,532.7	-6,336.7	44.3	6,336.9	0.00	0.00	0.00
13,800.0	90.34	179.60	7,532.1	-6,436.7	45.0	6,436.9	0.00	0.00	0.00
13,900.0	90.34	179.60	7,531.5	-6,536.7	45.7	6,536.9	0.00	0.00	0.00
14,000.0	90.34	179.60	7,530.9	-6,636.7	46.4	6,636.9	0.00	0.00	0.00
14,100.0	90.34	179.60	7,530.3	-6,736.7	47.1	6,736.9	0.00	0.00	0.00
14,200.0	90.34	179.60	7,529.7	-6,836.7	47.8	6,836.8	0.00	0.00	0.00
14,300.0	90.34	179.60	7,529.1	-6,936.7	48.5	6,936.8	0.00	0.00	0.00
14,400.0	90.34	179.60	7,528.5	-7,036.7	49.2	7,036.8	0.00	0.00	0.00
14,500.0	90.34	179.60	7,527.9	-7,136.7	49.9	7,136.8	0.00	0.00	0.00
14,600.0	90.34	179.60	7,527.3	-7,236.7	50.6	7,236.8	0.00	0.00	0.00
14,700.0	90.34	179.60	7,526.7	-7,336.7	51.3	7,336.8	0.00	0.00	0.00
14,800.0	90.34	179.60	7,526.1	-7,436.7	52.0	7,436.8	0.00	0.00	0.00
14,900.0	90.34	179.60	7,525.5	-7,536.7	52.7	7,536.8	0.00	0.00	0.00
15,000.0	90.34	179.60	7,524.9	-7,636.6	53.4	7,636.8	0.00	0.00	0.00
15,100.0	90.34	179.60	7,524.3	-7,736.6	54.1	7,736.8	0.00	0.00	0.00
15,200.0	90.34	179.60	7,523.7	-7,836.6	54.8	7,836.8	0.00	0.00	0.00
15,300.0	90.34	179.60	7,523.1	-7,936.6	55.5	7,936.8	0.00	0.00	0.00
15,400.0	90.34	179.60	7,522.5	-8,036.6	56.2	8,036.8	0.00	0.00	0.00
15,500.0	90.34	179.60	7,521.9	-8,136.6	56.9	8,136.8	0.00	0.00	0.00
15,600.0	90.34	179.60	7,521.3	-8,236.6	57.6	8,236.8	0.00	0.00	0.00
15,700.0	90.34	179.60	7,520.7	-8,336.6	58.3	8,336.8	0.00	0.00	0.00
15,800.0	90.34	179.60	7,520.1	-8,436.6	59.0	8,436.8	0.00	0.00	0.00
15,900.0	90.34	179.60	7,519.5	-8,536.6	59.7	8,536.8	0.00	0.00	0.00
16,000.0	90.34	179.60	7,518.9	-8,636.6	60.4	8,636.8	0.00	0.00	0.00
16,100.0	90.34	179.60	7,518.3	-8,736.6	61.1	8,736.8	0.00	0.00	0.00
16,200.0	90.34	179.60	7,517.7	-8,836.6	61.8	8,836.8	0.00	0.00	0.00
16,300.0	90.34	179.60	7,517.1	-8,936.6	62.5	8,936.8	0.00	0.00	0.00
16,400.0	90.34	179.60	7,516.5	-9,036.6	63.2	9,036.8	0.00	0.00	0.00
16,500.0	90.34	179.60	7,515.9	-9,136.6	63.9	9,136.8	0.00	0.00	0.00
16,600.0	90.34	179.60	7,515.3	-9,236.6	64.6	9,236.8	0.00	0.00	0.00
16,700.0	90.34	179.60	7,514.7	-9,336.6	65.3	9,336.8	0.00	0.00	0.00
16,800.0	90.34	179.60	7,514.1	-9,436.6	66.0	9,436.8	0.00	0.00	0.00
16,900.0	90.34	179.60	7,513.5	-9,536.6	66.7	9,536.8	0.00	0.00	0.00
17,000.0	90.34	179.60	7,512.9	-9,636.6	67.4	9,636.8	0.00	0.00	0.00
17,100.0	90.34	179.60	7,512.3	-9,736.6	68.1	9,736.8	0.00	0.00	0.00
17,200.0	90.34	179.60	7,511.7	-9,836.6	68.8	9,836.8	0.00	0.00	0.00
17,300.0	90.34	179.60	7,511.1	-9,936.6	69.5	9,936.8	0.00	0.00	0.00
17,400.0	90.34	179.60	7,510.5	-10,036.6	70.2	10,036.8	0.00	0.00	0.00

DDC
Well Planning Report



Database: EDM 5000.1 Single User Db
Company: Mawbourne Oil Co
Project: Eddy County, New Mexico
Site: Sec 15, T26,R27E (NEW-SHL)
Well: Owl Draw 22 / 27 B2AP Fed Com #1H
Wellbore: Wellbore #1
Design: Design #3

Local Co-ordinate Reference:
TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:

Well Owl Draw 22 / 27 B2AP Fed Com #1H
WELL @ 3168.0usft (Patterson)
WELL @ 3168.0usft (Patterson)
Grid
Minimum Curvature

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)
17,500.0	90.34	179.60	7,509.9	-10,136.5	70.9	10,136.8	0.00	0.00	0.00
17,600.0	90.34	179.60	7,509.3	-10,236.5	71.6	10,236.8	0.00	0.00	0.00
17,700.0	90.34	179.60	7,508.7	-10,336.5	72.3	10,336.8	0.00	0.00	0.00
17,800.0	90.34	179.60	7,508.1	-10,436.5	73.0	10,436.8	0.00	0.00	0.00
TD @ 17811' MD / 7508' TVD									
17,810.8	90.34	179.60	7,508.0	-10,447.3	73.1	10,447.6	0.00	0.00	0.00

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
hit/miss target									
Shape									
PBHL Owl Draw 22 / 27	0.00	0.00	7,508.0	-10,447.3	73.1	366,141.00	550,412.60	32° 0' 23.512 N	104° 10' 14.512 W
- plan hits target center									
- Point									

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
7,090.5	7,090.5	0.0	0.0	Build 12° / 100'
7,843.4	7,568.0	-480.3	3.4	End of Curve / 90.34° Inc / 179.60° Azm / 7568' TVD
17,810.8	7,508.0	-10,447.3	73.1	TD @ 17811' MD / 7508' TVD

**PECOS DISTRICT
CONDITIONS OF APPROVAL**

OPERATOR'S NAME:	Mewbourne Oil Company
LEASE NO.:	NMNM-114971
WELL NAME & NO.:	Owl Draw 22/27 B2AP Fed Com 1H
SURFACE HOLE FOOTAGE:	0200' FSL & 0600' FEL
BOTTOM HOLE FOOTAGE	0330' FSL & 0500' FWL Sec 22, T. 26 S., R 27 E.
LOCATION:	Section 15, T. 26 S., R 27 E., NMPM
COUNTY:	Eddy County, New Mexico
API:	30-015-41430

I. DRILLING

A. 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. **Although Hydrogen Sulfide has not been reported in the area, it is always a potential hazard. If Hydrogen Sulfide is encountered, report measured amounts 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.

B. CASING

Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size. 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.).

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

Wait on cement (WOC) time prior to drilling out for a primary cement job will be a minimum 18 hours for a water basin, 24 hours in the potash area, or 500 pounds compressive strength, whichever is greater for all casing strings. DURING THIS WOC TIME, NO DRILL PIPE, ETC. SHALL BE RUN IN THE HOLE. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. IF OPERATOR DOES NOT HAVE THE WELL SPECIFIC CEMENT DETAILS ONSITE PRIOR TO PUMPING THE CEMENT FOR EACH CASING STRING, THE WOC WILL BE 30 HOURS. 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.

Possibility of lost circulation in the Delaware.

1. The 13-3/8 inch surface casing shall be set at approximately **400** 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.**
 - 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 is to include the lead cement slurry.**

c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.

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

2. The minimum required fill of cement behind the **9-5/8** inch intermediate casing is:

☒ Cement to surface. If cement does not circulate see B.1.a, c-d above.

If 75% or greater lost circulation occurs while drilling the intermediate casing hole, the cement on the production casing must come to surface.

Centralizers required on horizontal leg, must be type for horizontal service and a minimum of one every other joint.

3. The minimum required fill of cement behind the **5-1/2** inch production casing is:

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

4. 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.

C. 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. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **2000 (2M)** psi.

a. **For surface casing only:** If the BOP/BOPE is to be tested against casing, the wait on cement (WOC) time for that casing is to be met (see WOC statement at start of casing section). Independent service company required.

3. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the 9-5/8 intermediate casing shoe shall be **3000 (3M) psi**.
4. 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. 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).
 - c. 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.
 - d. The results of the test shall be reported to the appropriate BLM office.
 - e. 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.**
 - f. 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.

D. DRILL STEM TEST

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

E. 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.

JAM 022014