

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTNMOCD
ArtesiaFORM 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 ☐ Oil Well ☒ Gas Well ☐ Other		5. Lease Serial No. NMNM114971
2. Name of Operator MEWBOURNE OIL COMPANY Contact: JACKIE LATHAN E-Mail: jlathan@mewbourne.com		6. If Indian, Allottee or Tribe Name
3a. Address P O BOX 5270 HOBBS, NM 88241	3b. Phone No. (include area code) Ph: 575.393.5905 Fx: 575.397.6252	7. If Unit or CA/Agreement, Name and/or No.
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 27 T26S R27E SESW 170FSL 2230FWL		8. Well Name and No. OWL DRAW 27 W2NC FED-COM 2H
		9. API Well No. 30-015-43684-00-X1
		10. Field and Pool, or Exploratory WILDCAT 98017 WC -015 526 27 28A, wolfcamp
		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			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	Change to Original A
	☐ Convert to Injection	☐ Plug Back	☐ 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.)

MOC has an approved APD for the subject well. MOC would like to extend the lateral into Sec 22 T26S R27E. MOC would also like to change the well name to OWL DRAW 27/22 W2NC FED COM #2H. Please see attached drilling program for the casing & cmt changes. Please call Bradley Bishop or Andy Taylor with any questions.

Bond on file: NM1693 nationwide & NMB000919

Bond on file: 22015694 nationwide & 022041703 Statewide

NM OIL CONSERVATION

ARTESIA DISTRICT

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

MAY 03 2016

RECEIVED

Change of Plans will require DHC of pools 98017 and 98140.
Please submit Form C-102 for pool 98140. NSP orders will
need to be in place prior to producing well for both pools.

14. I hereby c

Electronic Submission received by the BLM Well Information System
For MEWBOURNE OIL COMPANY, sent to the Carlsbad
Committed to AFMSS for processing by PRISCILLA PEREZ on 04/21/2016 (16PP0978SE)

Name (Printed/Typed) BRADLEY BISHOP

Title

Signature (Electronic Submission)

Date 04/21/2016

THIS SPACE FOR FEDERAL OR STATE OFFICE USER 22/2016

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

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 - NMOCD

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0770
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

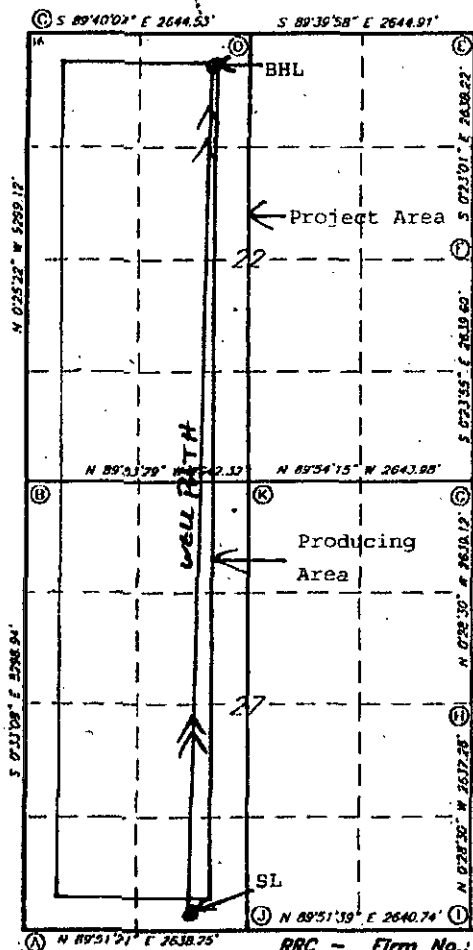
Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number 30-015-43684		2 Pool Code 98017 + 98140		3 Pool Name Wildcat Wolfcamp	
4 Property Code 316329		5 Property Name Owl Draw 27/22 W2NC Fed Com			6 Well Number 2H
7 GRID NO. 14744		8 Operator Name MEWBOURNE OIL COMPANY			9 Elevation 3176'
10 Surface Location					
UL or lot no. N	Section 27	Township 26-S	Range 27-E	Lot Idn	Feet from the 170
		North/South line SOUTH	Feet from the 2230	East/West line WEST	County EDDY
11 Bottom Hole Location If Different From Surface					
UL or lot no. C	Section 22	Township 26-S	Range 27-E	Lot Idn	Feet from the 330
		North/South line NORTH	Feet from the 2310	East/West line WEST	County EDDY
12 Dedicated Acres 640		13 Joint or Infill		14 Consolidation Code	
15 Order No.					

No allowable will be assigned to this completion until all interest have been consolidated or a non-standard unit has been approved by the division.



17 OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or in a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division

[Signature] 4-21-16
Date
BRADLEY BISHOP
Printed Name

E-mail Address

18 SURVEYOR CERTIFICATION

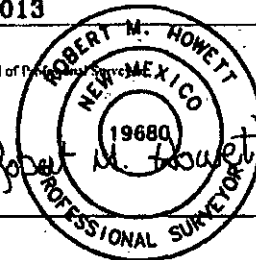
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

9/19/2013

Date of Survey

Signature and Seal of

19680
Certificate Number



Mewbourne Oil Company, Owl Draw 27/22 W2NC Fed Com #2H

Sec 27, T26S, R27E

SL: 170' FSL & 2230' FWL, Sec 27

BHL: 330' FNL & 2310' FWL, Sec 22

1. Geologic Formations

TVD of target	10050'	Pilot hole depth	NA
MD at TD:	19825'	Deepest expected fresh water:	50'

Basin

Formation	Depth (TVD) from KB	Water/Mineral Bearing/ Target Zone?	Hazards*
Quaternary Fill	Surface		
Rustler	350	Water	
Top of Salt	475	Salt	
Tansill	2100		
Lamar	2180	Oil	
Bell Canyon	2215	Oil	
Cherry Canyon			
Manzanita Marker			
Brushy Canyon			
Bone Spring	5760	Oil/Gas	
1 st Bone Spring Sand			
2 nd Bone Spring Sand			
3 rd Bone Spring Sand			
Abo			
Wolfcamp	8805	Target Zone	
Devonian			
Fusselman			
Ellenburger			
Granite Wash			

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

Mewbourne Oil Company, Owl Draw 27/22 W2NC Fed Com-#2H

Sec 27, T26S, R27E

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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'	375'	13.375"	48	H40	STC	3.79	8.87	17.89
12.25"	0'	2040'	9.625"	36	J55	LTC	1.90	3.32	6.17
8.75"	0'	9417'	7"	26	HCP110	LTC	1.23	1.56	2.58
8.75"	9417'	10313'	7"	26	HCP110	BTC	1.16	1.47	35.63
6.125"	9417'	19825'	4.5"	13.5	P110	LTC	1.57	1.83	2.40
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, Owl Draw 27/22 W2NC Fed Com #2H

Sec 27, T26S, R27E

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3. Cementing Program

Casing	# Sks	Wt. lb/ gal	Yld. ft3/ sack	H ₂ O gal/ sk	500# Comp- Strength (hours)	Slurry Description
Surf.	390	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.	270	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.	535	12.5	2.12	11	9	Lead: 60:40:0 Class C + 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
Liner	425	11.2	2.97	17	16	Class C (60:40:0) + 4% MPAS + 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	1840'	25%
Liner	9417'	25%

Mewbourne Oil Company, Owl Draw 27/22 W2NC Fed Com #2H

Sec 27, T26S, R27E

SL: 170' FSL & 2230' FWL, Sec 27

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4. Pressure Control Equipment

Variance: None

BOP installed and tested before drilling which hole?	Size?	System Rated WP	Type	✓	Tested to:
12-1/4"	13-5/8"	2M 3M minimum	Annular	X	1250#
			Blind Ram		
			Pipe Ram		
			Double Ram		
			Other*		
8-3/4"	11"	5M	Annular	X	2500#
			Blind Ram	X	5000#
			Pipe Ram	X	
			Double Ram		
			Other*		
6-1/8"	11"	5M	Annular	X	2500#
			Blind Ram	X	5000#
			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.

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.
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Mewbourne Oil Company, Owl Draw 27/22 W2NC Fed Com #2H

Sec 27, T26S, R27E

SL: 170' FSL & 2230' FWL, Sec 27

BHL: 330' FNL & 2310' FWL, Sec 22

*See
COP*

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. Provide description here See attached schematic.

5. Mud Program

Depth		Type	Weight (ppg)	Viscosity	Water Loss
From	To				
0	375	FW Gel	8.6-8.8	28-34	N/C
375	2040	Saturated Brine	10.0	28-34	N/C
2040	9417	Cut Brine	8.5-9.3	28-34	N/C
9417	19825	FW w/Polymer	9.5-13.0	30-40	<20cc

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

*13.0#/gal mud used only for shale formation inhibition, not for well control.

What will be used to monitor the loss or gain of fluid?	PVT/Pason/Visual Monitoring
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6. Logging and Testing Procedures

Logging, Coring and Testing	
X	Will run GR/CNL from KOP (9417') 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	9417' (KOP) to TD
Density	
CBL	
Mud log	
PEX	

Mewbourne Oil Company, Owl Draw 27/22 W2NC Fed Com #2H
Sec 27, T26S, R27E
SL: 170' FSL & 2230' FWL, Sec 27
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7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	6794 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.

	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.

NO
NO

Attachments

☒ Directional Plan
☐ Other, describe

Mewbourne Oil Company

Eddy County, New Mexico

Owl Draw 27/22 W2NC Fed Com #2H

Sec 27, T26S, R27E

SL: 170' FSL & 2230' FWL, Sec 27

BHL: 330' FNL & 2310' FWL, Sec 22

Plan: Design #1

Standard Planning Report

20 April, 2016

Planning Report

Database:	Hobbs	Local Co-ordinate Reference:	Site Owl Draw 27/22 W2NC Fed Com #2H
Company:	Mewbourne Oil Company	TVD Reference:	WELL @ 3203.0usft (Original Well Elev)
Project:	Eddy County, New Mexico	MD Reference:	WELL @ 3203.0usft (Original Well Elev)
Site:	Owl Draw 27/22 W2NC Fed Com #2H	North Reference:	Grid
Well:	Sec 27, T26S, R27E	Survey Calculation Method:	Minimum Curvature
Wellbore:	BHL: 330' FNL & 2310' FWL, Sec 22		
Design:	Design #1		

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:	Owl Draw 27/22 W2NC Fed Com #2H		
Site Position:		Northing:	365,994.60 usft
From:	Map	Easting:	547,971.30 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16"
		Latitude:	32° 0' 22.098 N
		Longitude:	104° 10' 42.868 W
		Grid Convergence:	0.08°

Well	Sec 27, T26S, R27E					
Well Position	+N/-S	0.0 usft	Northing:	365,994.60 usft	Latitude:	32° 0' 22.098 N
	+E/-W	0.0 usft	Easting:	547,971.30 usft	Longitude:	104° 10' 42.868 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	3,203.0 usft	Ground Level:	3,176.0 usft

Wellbore	BHL: 330' FNL & 2310' FWL, Sec 22				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	12/31/2009	8.01	59.93	48,594

Design:	Design #1			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD):	+N/-S	+E/-W	Direction
	(usft)	(usft)	(usft)	(°)
	0.0	0.0	0.0	359.97

Plan Sections										
Measured Depth	Inclination	Azimuth	Vertical Depth	+N/-S	+E/-W	Dogleg Rate	Build Rate	Turn Rate	TFO	Target
(usft)	(°)	(°)	(usft)	(usft)	(usft)	(°/100usft)	(°/100usft)	(°/100usft)	(°)	
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
9,417.0	0.00	0.00	9,417.0	0.0	0.0	0.00	0.00	0.00	0.00	
10,313.4	89.64	359.97	9,990.0	569.4	-0.3	10.00	10.00	0.00	-0.03	
19,820.7	89.64	359.97	10,050.0	10,076.4	-5.3	0.00	0.00	0.00	0.00	BHL: 330' FNL & 2310'

Planning Report

Database:	Hobbs	Local Co-ordinate Reference:	Site Owl Draw 27/22 W2NC Fed Com #2H
Company:	Mewbourne Oil Company	TVD Reference:	WELL @ 3203.0usft (Original Well Elev)
Project:	Eddy County, New Mexico	MD Reference:	WELL @ 3203.0usft (Original Well Elev)
Site:	Owl Draw 27/22 W2NC Fed Com #2H	North Reference:	Grid
Well:	Sec 27, T26S, R27E	Survey Calculation Method:	Minimum Curvature
Wellbore:	BHL: 330' FNL & 2310' FWL, Sec 22		
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)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
SL: 170' FSL & 2230' FWL, Sec 27									
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	0.00
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	0.00
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	0.00
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	0.00
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	0.00
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	0.00
4,100.0	0.00	0.00	4,100.0	0.0	0.0	0.0	0.00	0.00	0.00
4,200.0	0.00	0.00	4,200.0	0.0	0.0	0.0	0.00	0.00	0.00
4,300.0	0.00	0.00	4,300.0	0.0	0.0	0.0	0.00	0.00	0.00
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	0.00
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.0	0.00	0.00	0.00
4,600.0	0.00	0.00	4,600.0	0.0	0.0	0.0	0.00	0.00	0.00
4,700.0	0.00	0.00	4,700.0	0.0	0.0	0.0	0.00	0.00	0.00
4,800.0	0.00	0.00	4,800.0	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
5,000.0	0.00	0.00	5,000.0	0.0	0.0	0.0	0.00	0.00	0.00
5,100.0	0.00	0.00	5,100.0	0.0	0.0	0.0	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

Planning Report

Database:	Hobbs	Local Co-ordinate Reference:	Site Owl Draw 27/22 W2NC Fed Com #2H
Company:	Mawbourne Oil Company	TVD Reference:	WELL @ 3203.0usft (Original Well Elev)
Project:	Eddy County, New Mexico	MD Reference:	WELL @ 3203.0usft (Original Well Elev)
Site:	Owl Draw 27/22 W2NC Fed Com #2H	North Reference:	Grid
Well:	Sec 27, T26S, R27E	Survey Calculation Method:	Minimum Curvature
Wellbore:	BHL: 330' FNL & 2310' FWL, Sec 22		
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	
8,300.0	0.00	0.00	8,300.0	0.0	0.0	0.0	0.00	0.00	0.00	
8,400.0	0.00	0.00	8,400.0	0.0	0.0	0.0	0.00	0.00	0.00	
8,500.0	0.00	0.00	8,500.0	0.0	0.0	0.0	0.00	0.00	0.00	
8,600.0	0.00	0.00	8,600.0	0.0	0.0	0.0	0.00	0.00	0.00	
8,700.0	0.00	0.00	8,700.0	0.0	0.0	0.0	0.00	0.00	0.00	
8,800.0	0.00	0.00	8,800.0	0.0	0.0	0.0	0.00	0.00	0.00	
8,900.0	0.00	0.00	8,900.0	0.0	0.0	0.0	0.00	0.00	0.00	
9,000.0	0.00	0.00	9,000.0	0.0	0.0	0.0	0.00	0.00	0.00	
9,100.0	0.00	0.00	9,100.0	0.0	0.0	0.0	0.00	0.00	0.00	
9,200.0	0.00	0.00	9,200.0	0.0	0.0	0.0	0.00	0.00	0.00	
9,300.0	0.00	0.00	9,300.0	0.0	0.0	0.0	0.00	0.00	0.00	
9,400.0	0.00	0.00	9,400.0	0.0	0.0	0.0	0.00	0.00	0.00	
9,417.0	0.00	0.00	9,417.0	0.0	0.0	0.0	0.00	0.00	0.00	
KOP @ 9417'										
9,500.0	8.30	359.97	9,499.7	6.0	0.0	6.0	10.00	10.00	0.00	
9,600.0	18.30	359.97	9,596.9	29.0	0.0	29.0	10.00	10.00	0.00	
9,700.0	28.30	359.97	9,688.6	68.5	0.0	68.5	10.00	10.00	0.00	
9,800.0	38.30	359.97	9,772.1	123.3	-0.1	123.3	10.00	10.00	0.00	
9,855.9	43.88	359.97	9,814.2	160.0	-0.1	160.0	10.00	10.00	0.00	
FTP: 330' FSL & 2230' FWL, Sec 27										
9,900.0	48.29	359.97	9,844.8	191.8	-0.1	191.8	10.00	10.00	0.00	
10,000.0	58.29	359.97	9,904.5	271.8	-0.1	271.8	10.00	10.00	0.00	
10,100.0	68.29	359.97	9,949.4	361.1	-0.2	361.1	10.00	10.00	0.00	
10,200.0	78.29	359.97	9,978.1	456.7	-0.2	456.7	10.00	10.00	0.00	

Planning Report

Database:	Hobbs	Local Co-ordinate Reference:	Site Owl Draw 27/22 W2NC Fed Com #2H
Company:	Mewbourne Oil Company	TVD Reference:	WELL @ 3203.0usft (Original Well Elev)
Project:	Eddy County, New Mexico	MD Reference:	WELL @ 3203.0usft (Original Well Elev)
Site:	Owl Draw 27/22 W2NC Fed Com #2H	North Reference:	Grid
Well:	Sec 27, T26S, R27E	Survey Calculation Method:	Minimum Curvature
Wellbore:	BHL: 330' FNL & 2310' FWL, Sec 22		
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)
10,300.0	88.29	359.97	9,989.8	555.9	-0.3	555.9	10.00	10.00	0.00
10,313.5	89.64	359.97	9,990.0	569.4	-0.3	569.4	9.97	9.97	0.00
LP: 740' FSL & 2230' FWL, Sec 27									
10,400.0	89.64	359.97	9,990.5	655.9	-0.3	655.9	0.00	0.00	0.00
10,500.0	89.64	359.97	9,991.2	755.9	-0.4	755.9	0.00	0.00	0.00
10,600.0	89.64	359.97	9,991.8	855.9	-0.5	855.9	0.00	0.00	0.00
10,700.0	89.64	359.97	9,992.4	955.9	-0.5	955.9	0.00	0.00	0.00
10,800.0	89.64	359.97	9,993.1	1,055.9	-0.6	1,055.9	0.00	0.00	0.00
10,900.0	89.64	359.97	9,993.7	1,155.9	-0.6	1,155.9	0.00	0.00	0.00
11,000.0	89.64	359.97	9,994.3	1,255.9	-0.7	1,255.9	0.00	0.00	0.00
11,100.0	89.64	359.97	9,995.0	1,355.9	-0.7	1,355.9	0.00	0.00	0.00
11,200.0	89.64	359.97	9,995.6	1,455.9	-0.8	1,455.9	0.00	0.00	0.00
11,300.0	89.64	359.97	9,996.2	1,555.9	-0.8	1,555.9	0.00	0.00	0.00
11,400.0	89.64	359.97	9,996.9	1,655.9	-0.9	1,655.9	0.00	0.00	0.00
11,500.0	89.64	359.97	9,997.5	1,755.9	-0.9	1,755.9	0.00	0.00	0.00
11,600.0	89.64	359.97	9,998.1	1,855.9	-1.0	1,855.9	0.00	0.00	0.00
11,700.0	89.64	359.97	9,998.8	1,955.9	-1.0	1,955.9	0.00	0.00	0.00
11,800.0	89.64	359.97	9,999.4	2,055.9	-1.1	2,055.9	0.00	0.00	0.00
11,900.0	89.64	359.97	10,000.0	2,155.9	-1.1	2,155.9	0.00	0.00	0.00
12,000.0	89.64	359.97	10,000.6	2,255.9	-1.2	2,255.9	0.00	0.00	0.00
12,100.0	89.64	359.97	10,001.3	2,355.9	-1.2	2,355.9	0.00	0.00	0.00
12,200.0	89.64	359.97	10,001.9	2,455.9	-1.3	2,455.9	0.00	0.00	0.00
12,300.0	89.64	359.97	10,002.5	2,555.9	-1.3	2,555.9	0.00	0.00	0.00
12,400.0	89.64	359.97	10,003.2	2,655.9	-1.4	2,655.9	0.00	0.00	0.00
12,500.0	89.64	359.97	10,003.8	2,755.9	-1.4	2,755.9	0.00	0.00	0.00
12,600.0	89.64	359.97	10,004.4	2,855.9	-1.5	2,855.9	0.00	0.00	0.00
12,700.0	89.64	359.97	10,005.1	2,955.9	-1.6	2,955.9	0.00	0.00	0.00
12,800.0	89.64	359.97	10,005.7	3,055.9	-1.6	3,055.9	0.00	0.00	0.00
12,900.0	89.64	359.97	10,006.3	3,155.9	-1.7	3,155.9	0.00	0.00	0.00
13,000.0	89.64	359.97	10,007.0	3,255.9	-1.7	3,255.9	0.00	0.00	0.00
13,100.0	89.64	359.97	10,007.6	3,355.9	-1.8	3,355.9	0.00	0.00	0.00
13,200.0	89.64	359.97	10,008.2	3,455.9	-1.8	3,455.9	0.00	0.00	0.00
13,300.0	89.64	359.97	10,008.8	3,555.9	-1.9	3,555.9	0.00	0.00	0.00
13,400.0	89.64	359.97	10,009.5	3,655.8	-1.9	3,655.8	0.00	0.00	0.00
13,500.0	89.64	359.97	10,010.1	3,755.8	-2.0	3,755.8	0.00	0.00	0.00
13,600.0	89.64	359.97	10,010.7	3,855.8	-2.0	3,855.8	0.00	0.00	0.00
13,700.0	89.64	359.97	10,011.4	3,955.8	-2.1	3,955.8	0.00	0.00	0.00
13,800.0	89.64	359.97	10,012.0	4,055.8	-2.1	4,055.8	0.00	0.00	0.00
13,900.0	89.64	359.97	10,012.6	4,155.8	-2.2	4,155.8	0.00	0.00	0.00
14,000.0	89.64	359.97	10,013.3	4,255.8	-2.2	4,255.8	0.00	0.00	0.00
14,100.0	89.64	359.97	10,013.9	4,355.8	-2.3	4,355.8	0.00	0.00	0.00
14,200.0	89.64	359.97	10,014.5	4,455.8	-2.3	4,455.8	0.00	0.00	0.00
14,300.0	89.64	359.97	10,015.2	4,555.8	-2.4	4,555.8	0.00	0.00	0.00
14,400.0	89.64	359.97	10,015.8	4,655.8	-2.4	4,655.8	0.00	0.00	0.00
14,500.0	89.64	359.97	10,016.4	4,755.8	-2.5	4,755.8	0.00	0.00	0.00
14,600.0	89.64	359.97	10,017.1	4,855.8	-2.6	4,855.8	0.00	0.00	0.00
14,700.0	89.64	359.97	10,017.7	4,955.8	-2.6	4,955.8	0.00	0.00	0.00
14,800.0	89.64	359.97	10,018.3	5,055.8	-2.7	5,055.8	0.00	0.00	0.00
14,900.0	89.64	359.97	10,018.9	5,155.8	-2.7	5,155.8	0.00	0.00	0.00
15,000.0	89.64	359.97	10,019.6	5,255.8	-2.8	5,255.8	0.00	0.00	0.00
15,100.0	89.64	359.97	10,020.2	5,355.8	-2.8	5,355.8	0.00	0.00	0.00
15,200.0	89.64	359.97	10,020.8	5,455.8	-2.9	5,455.8	0.00	0.00	0.00
15,300.0	89.64	359.97	10,021.5	5,555.8	-2.9	5,555.8	0.00	0.00	0.00

Planning Report

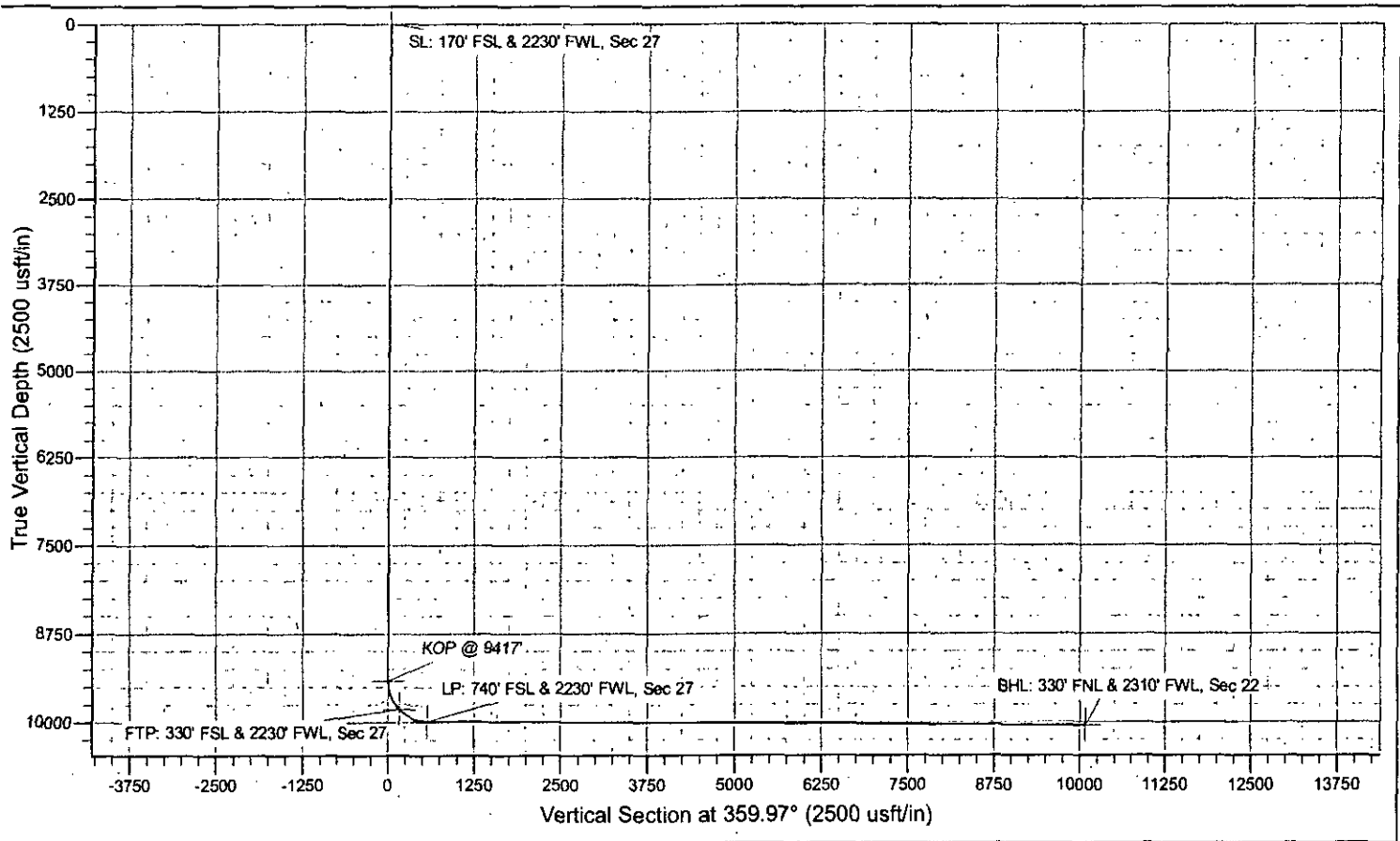
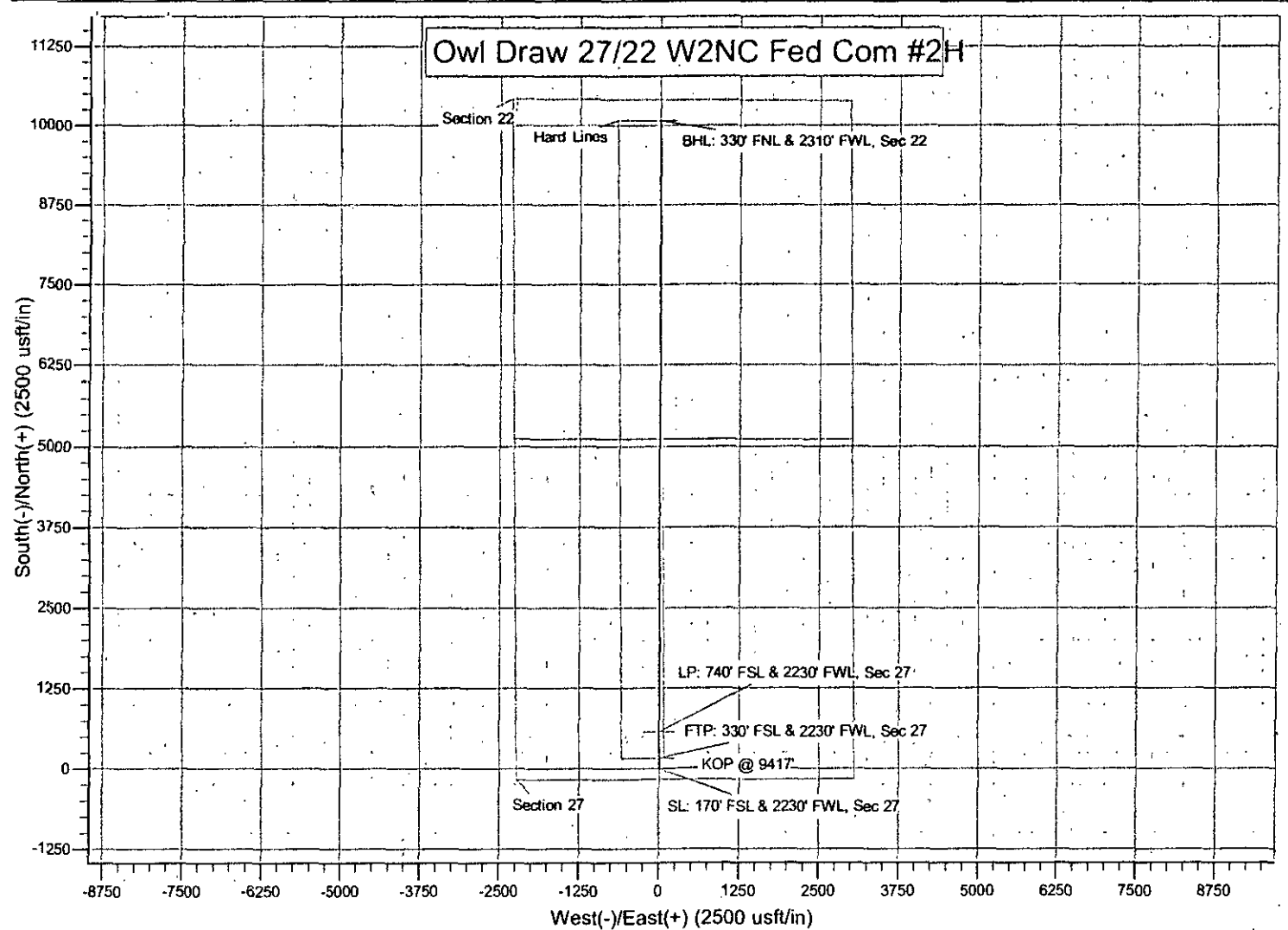
Database:	Hobbs	Local Co-ordinate Reference:	Site Owl Draw 27/22 W2NC Fed Com #2H
Company:	Mewbourne Oil Company	TVD Reference:	WELL @ 3203.0usft (Original Well Elev)
Project:	Eddy County, New Mexico	MD Reference:	WELL @ 3203.0usft (Original Well Elev)
Site:	Owl Draw 27/22 W2NC Fed Com #2H	North Reference:	Grid
Well:	Sec 27, T26S, R27E	Survey Calculation Method:	Minimum Curvature
Wellbore:	BHL: 330' FNL & 2310' FWL, Sec 22		
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)
15,400.0	89.64	359.97	10,022.1	5,655.8	-3.0	5,655.8	0.00	0.00	0.00
15,500.0	89.64	359.97	10,022.7	5,755.8	-3.0	5,755.8	0.00	0.00	0.00
15,600.0	89.64	359.97	10,023.4	5,855.8	-3.1	5,855.8	0.00	0.00	0.00
15,700.0	89.64	359.97	10,024.0	5,955.8	-3.1	5,955.8	0.00	0.00	0.00
15,800.0	89.64	359.97	10,024.6	6,055.8	-3.2	6,055.8	0.00	0.00	0.00
15,900.0	89.64	359.97	10,025.3	6,155.8	-3.2	6,155.8	0.00	0.00	0.00
16,000.0	89.64	359.97	10,025.9	6,255.8	-3.3	6,255.8	0.00	0.00	0.00
16,100.0	89.64	359.97	10,026.5	6,355.8	-3.3	6,355.8	0.00	0.00	0.00
16,200.0	89.64	359.97	10,027.1	6,455.8	-3.4	6,455.8	0.00	0.00	0.00
16,300.0	89.64	359.97	10,027.8	6,555.8	-3.4	6,555.8	0.00	0.00	0.00
16,400.0	89.64	359.97	10,028.4	6,655.8	-3.5	6,655.8	0.00	0.00	0.00
16,500.0	89.64	359.97	10,029.0	6,755.8	-3.6	6,755.8	0.00	0.00	0.00
16,600.0	89.64	359.97	10,029.7	6,855.8	-3.6	6,855.8	0.00	0.00	0.00
16,700.0	89.64	359.97	10,030.3	6,955.8	-3.7	6,955.8	0.00	0.00	0.00
16,800.0	89.64	359.97	10,030.9	7,055.8	-3.7	7,055.8	0.00	0.00	0.00
16,900.0	89.64	359.97	10,031.6	7,155.8	-3.8	7,155.8	0.00	0.00	0.00
17,000.0	89.64	359.97	10,032.2	7,255.8	-3.8	7,255.8	0.00	0.00	0.00
17,100.0	89.64	359.97	10,032.8	7,355.8	-3.9	7,355.8	0.00	0.00	0.00
17,200.0	89.64	359.97	10,033.5	7,455.8	-3.9	7,455.8	0.00	0.00	0.00
17,300.0	89.64	359.97	10,034.1	7,555.8	-4.0	7,555.8	0.00	0.00	0.00
17,400.0	89.64	359.97	10,034.7	7,655.8	-4.0	7,655.8	0.00	0.00	0.00
17,500.0	89.64	359.97	10,035.4	7,755.8	-4.1	7,755.8	0.00	0.00	0.00
17,600.0	89.64	359.97	10,036.0	7,855.8	-4.1	7,855.8	0.00	0.00	0.00
17,700.0	89.64	359.97	10,036.6	7,955.8	-4.2	7,955.8	0.00	0.00	0.00
17,800.0	89.64	359.97	10,037.2	8,055.8	-4.2	8,055.8	0.00	0.00	0.00
17,900.0	89.64	359.97	10,037.9	8,155.8	-4.3	8,155.8	0.00	0.00	0.00
18,000.0	89.64	359.97	10,038.5	8,255.8	-4.3	8,255.8	0.00	0.00	0.00
18,100.0	89.64	359.97	10,039.1	8,355.8	-4.4	8,355.8	0.00	0.00	0.00
18,200.0	89.64	359.97	10,039.8	8,455.8	-4.4	8,455.8	0.00	0.00	0.00
18,300.0	89.64	359.97	10,040.4	8,555.7	-4.5	8,555.8	0.00	0.00	0.00
18,400.0	89.64	359.97	10,041.0	8,655.7	-4.6	8,655.7	0.00	0.00	0.00
18,500.0	89.64	359.97	10,041.7	8,755.7	-4.6	8,755.7	0.00	0.00	0.00
18,600.0	89.64	359.97	10,042.3	8,855.7	-4.7	8,855.7	0.00	0.00	0.00
18,700.0	89.64	359.97	10,042.9	8,955.7	-4.7	8,955.7	0.00	0.00	0.00
18,800.0	89.64	359.97	10,043.6	9,055.7	-4.8	9,055.7	0.00	0.00	0.00
18,900.0	89.64	359.97	10,044.2	9,155.7	-4.8	9,155.7	0.00	0.00	0.00
19,000.0	89.64	359.97	10,044.8	9,255.7	-4.9	9,255.7	0.00	0.00	0.00
19,100.0	89.64	359.97	10,045.5	9,355.7	-4.9	9,355.7	0.00	0.00	0.00
19,200.0	89.64	359.97	10,046.1	9,455.7	-5.0	9,455.7	0.00	0.00	0.00
19,300.0	89.64	359.97	10,046.7	9,555.7	-5.0	9,555.7	0.00	0.00	0.00
19,400.0	89.64	359.97	10,047.3	9,655.7	-5.1	9,655.7	0.00	0.00	0.00
19,500.0	89.64	359.97	10,048.0	9,755.7	-5.1	9,755.7	0.00	0.00	0.00
19,600.0	89.64	359.97	10,048.6	9,855.7	-5.2	9,855.7	0.00	0.00	0.00
19,700.0	89.64	359.97	10,049.2	9,955.7	-5.2	9,955.7	0.00	0.00	0.00
19,800.0	89.64	359.97	10,049.9	10,055.7	-5.3	10,055.7	0.00	0.00	0.00
19,820.7	89.64	359.97	10,050.0	10,076.4	-5.3	10,076.4	0.00	0.00	0.00
BHL: 330' FNL & 2310' FWL, Sec 22									

Planning Report

Database:	Hobbs	Local Co-ordinate Reference:	Site Owl Draw 27/22 W2NC Fed Com #2H
Company:	Mewbourne Oil Company	TVD Reference:	WELL @ 3203.0usft (Original Well Elev)
Project:	Eddy County, New Mexico	MD Reference:	WELL @ 3203.0usft (Original Well Elev)
Site:	Owl Draw 27/22 W2NC Fed Com #2H	North Reference:	Grid
Well:	Sec 27, T26S, R27E	Survey Calculation Method:	Minimum Curvature
Wellbore:	BHL: 330' FNL & 2310' FWL, Sec 22		
Design:	Design #1		

Design Targets									
Target Name	Dip Angle	Dip Dir	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
- Shape									
SL: 170' FSL & 2230' FV - plan hits target center - Point	0.00	0.01	0.0	0.0	0.0	365,994.60	547,971.30	32° 0' 22.098 N	104° 10' 42.868 W
KOP @ 9417' - plan hits target center - Point	0.00	0.01	9,417.0	0.0	0.0	365,994.60	547,971.30	32° 0' 22.098 N	104° 10' 42.868 W
FTP: 330' FSL & 2230' F - plan hits target center - Point	0.00	0.00	9,814.2	160.0	-0.1	366,154.60	547,971.22	32° 0' 23.682 N	104° 10' 42.866 W
LP: 740' FSL & 2230' FV - plan hits target center - Point	0.00	0.00	9,990.0	569.4	-0.3	366,564.00	547,971.00	32° 0' 27.733 N	104° 10' 42.862 W
BHL: 330' FNL & 2310' F - plan hits target center - Point	0.00	0.00	10,050.0	10,076.4	-5.3	376,071.00	547,966.00	32° 2' 1.821 N	104° 10' 42.761 W





GATES E & S NORTH AMERICA, INC.
134 44TH STREET
CORPUS CHRISTI, TEXAS 78405

PHONE: 361-887-9807
FAX: 361-887-0812
EMAIL: Tim.Cantu@gates.com
WEB: www.gates.com

10K CEMENTING ASSEMBLY PRESSURE TEST CERTIFICATE

Customer :	AUSTIN DISTRIBUTING	Test Date:	4/30/2015
Customer Ref. :	4060578	Hose Serial No.:	D-043015-7
Invoice No. :	500506	Created By:	JUSTIN CROPPER
Product Description:	10K3.548.0CK4.1/1610KFLGE/E LE		
End Fitting 1 :	4 1/16 10K FLG	End Fitting 2 :	4 1/16 10K FLG
Gates Part No. :	4773-6290	Assembly Code :	L36554102914D-043015-7
Working Pressure :	10,000 PSI	Test Pressure :	15,000 PSI

Gates E & S North America, Inc. certifies that the following hose assembly has been tested to the Gates Oilfield Roughneck Agreement/Specification requirements and passed the 15 minute hydrostatic test per API Spec 7K/Q1, Fifth Edition, June 2010, Test pressure 9.6.7 and per Table 9 to 15,000 psi in accordance with this product number. Hose burst pressure 9.6.7.2 exceeds the minimum of 2.5 times the working pressure per Table 9.

Quality Manager :
Date :
Signature :

QUALITY
4/30/2015
<i>Justin Cropper</i>

Production:
Date :
Signature :

PRODUCTION
4/30/2015
<i>Justin Cropper</i>

Form PTC - 01 Rev.02



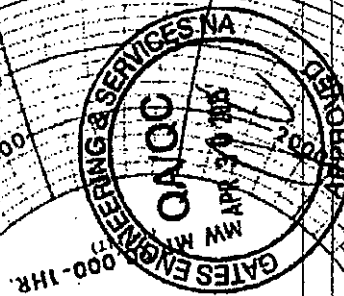
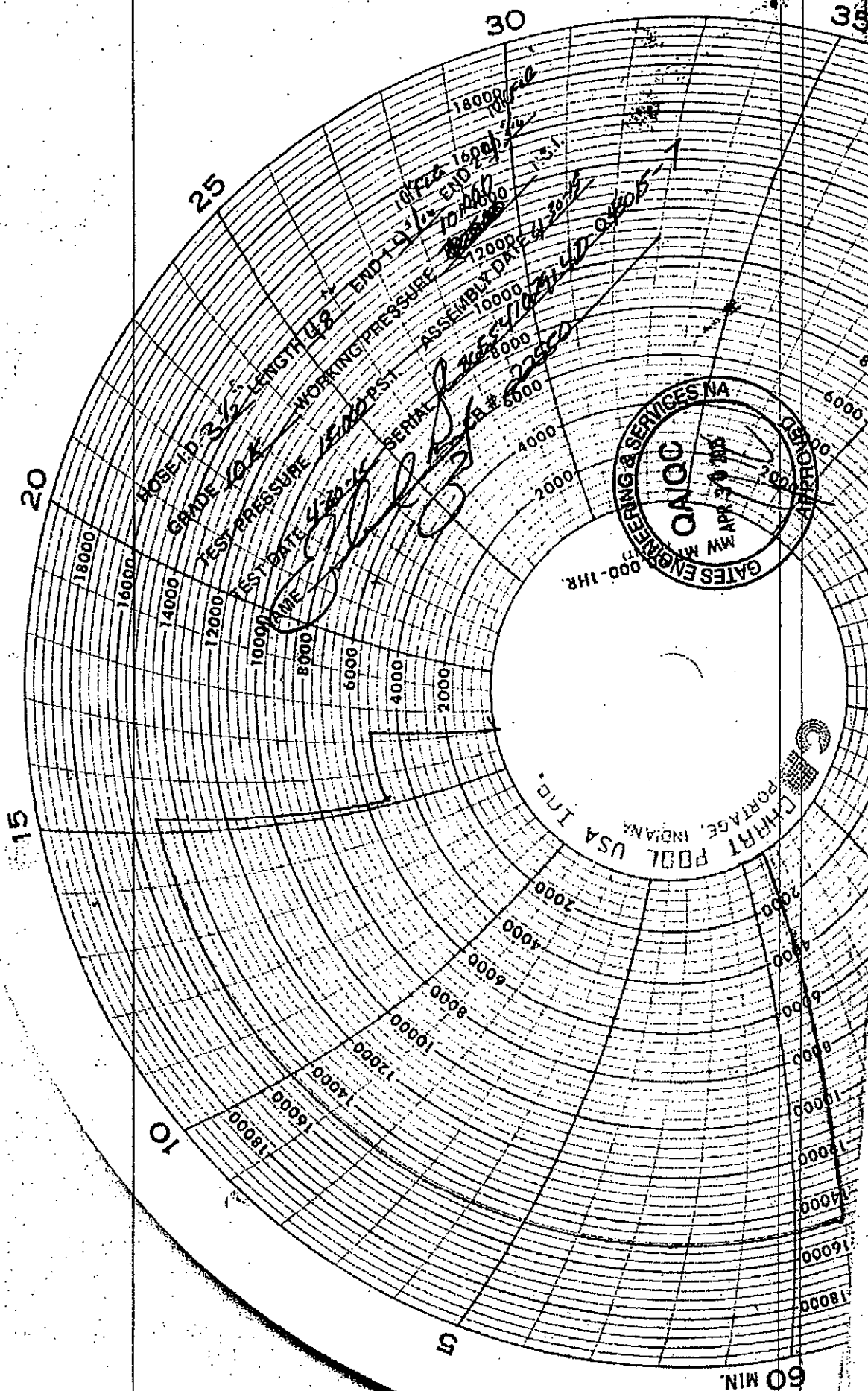


CHART POOL USA INC.
PORTAGE, INDIANA

60 MIN

PECOS DISTRICT CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Mewbourne Oil Company
LEASE NO.:	NMNM-114971
WELL NAME & NO.:	Owl Draw 27 W2NC Fed Com 2H
SURFACE HOLE FOOTAGE:	0170' FSL & 2230' FWL
BOTTOM HOLE FOOTAGE:	0330' FNL & 2310' FWL
LOCATION:	Section 27, T. 26 S., R 27 E., NMPM
COUNTY:	Eddy County, New Mexico

The original COAs still stand with the following drilling modifications:

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. **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.

B. 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 8 hours. 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.

High Cave/Karst

Possibility of water flows in the Salado and Castile.

Possibility of lost circulation in the Delaware.

Abnormal pressure may be encountered within the 3rd Bone Spring Sandstone and all subsequent formations.

A MINIMUM OF TWO CASING STRINGS CEMENTED TO SURFACE IS REQUIRED IN HIGH CAVE/KARST AREAS. THE CEMENT MUST BE IN A SOLID SHEATH. THEREFORE, ONE INCH OPERATIONS ARE NOT SUFFICIENT TO PROTECT CAVE KARST RESOURCES. A CASING DESIGN THAT HAS A ONE INCH JOB PERFORMED DOES NOT COUNT AS A SOLID SHEATH. IF THE PRIMARY CEMENT JOB ON THE SURFACE CASING DOES NOT CIRCULATE, THEN THE NEXT TWO CASING STRINGS MUST BE CEMENTED TO SURFACE.

1. The **13-3/8** inch surface casing shall be set at approximately **375** feet 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 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, which shall be set at approximately **2040** feet (**Lamar Limestone**), 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 23% - Additional cement may be required.**

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 and the mud weight for the bottom of the hole. Report results to BLM office.

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

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

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

Formation below the 7" 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 and the mud weight for the bottom of the hole. Report results to BLM office.

4. The minimum required fill of cement behind the 4-1/2 inch production Liner is:

☒ Cement as proposed. Operator shall provide method of verification.

5. 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 53.
2. 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).
3. 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 (Operator installing 2M or 3M annular).**
4. 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 **5000 (5M) psi. 5M 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.**

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. 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).
 - 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.
 - g. 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.

D. DRILLING MUD

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the **Wolfcamp** formation, and shall be used until production casing is run and cemented.

E. DRILL STEM TEST

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

F. 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 042216