

**Mewbourne Oil Company, Paduca 7/6 W1ED Fed Com #2H**  
**Sec 7, T26S, R32E**  
**SL: 2500' FNL & 570' FWL, Sec 7**  
**BHL: 330' FNL & 330' FWL, Sec 6**

**1. Geologic Formations**

TVD of target	11785'	Pilot hole depth	NA
MD at TD:	19085'	Deepest expected fresh water:	275'

**Basin**

Formation	Depth (TVD) from KB	Water/Mineral Bearing/ Target Zone?	Hazards*
Quaternary Fill	Surface		
Rustler	1056	Water	
Top Salt	1408		
Castile			
Base Salt	4167		
Lamar	4369	Oil/Gas	
Bell Canyon	4446	Oil/Gas	
Cherry Canyon	5401	Oil/Gas	
Manzanita Marker	5547		
Brushy Canyon	6894	Oil/Gas	
Bone Spring	8356	Oil/Gas	
1 <sup>st</sup> Bone Spring Sand	9331		
2 <sup>nd</sup> Bone Spring Sand	9990		
3 <sup>rd</sup> Bone Spring Sand	11182		
Abo			
Wolfcamp	11596	Target Zone	
Devonian			
Fusselman			
Ellenburger			
Granite Wash			

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

**Mewbourne Oil Company, Paduca 7/6 W1ED Fed Com #2H**  
**Sec 7, T26S, R32E**  
**SL: 2500' FNL & 570' FWL, Sec 7**  
**BHL: 330' FNL & 330' FWL, Sec 6**

**2. Casing Program**

Hole Size	Casing Interval		Csg. Size	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	SF Jt Tension	SF Body Tension
	From	To								
17.5"	0'	1210'	13.375"	48	H40	STC	1.22	2.75	5.54	9.31
12.25"	0'	3453'	9.625"	36	J55	LTC	1.13	1.96	2.87	4.54
12.25"	3453'	4295'	9.625"	40	J55	LTC	1.15	1.77	15.44	18.71
8.75"	0'	11950'	7"	26	HCP110	LTC	1.35	1.72	2.09	2.67
6.125"	11150'	19085'	4.5"	13.5	P110	LTC	1.34	1.56	3.16	3.94
BLM Minimum Safety Factor							1.125	1	1.6 Dry 1.8 Wet	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 <sup>rd</sup> 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 <sup>nd</sup> 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, Paduca 7/6 W1ED Fed Com #2H**  
**Sec 7, T26S, R32E**  
**SL: 2500' FNL & 570' FWL, Sec 7**  
**BHL: 330' FNL & 330' FWL, Sec 6**

**3. Cementing Program**

Casing	# Sks	Wt. lb/gal	Yld ft <sup>3</sup> /sack	H <sub>2</sub> O gal/sk	500# Comp. Strength (hours)	Slurry Description
Surf.	670	12.5	2.12	11	10	Lead: Class C + Salt + Gel + Extender + LCM
	200	14.8	1.34	6.3	8	Tail: Class C + Retarder
Inter.	710	12.5	2.12	11	10	Lead: Class C + Salt + Gel + Extender + LCM
	200	14.8	1.34	6.3	8	Tail: Class C + Retarder
Prod. Stg 1	350	12.5	2.12	11	9	Lead: Class C + Gel + Retarder + Defoamer + Extender
	400	15.6	1.18	5.2	10	Tail: Class H + Retarder + Fluid Loss + Defoamer
ECP/DV Tool @ 5547'						
Prod. Stg 2	75	12.5	2.12	11	9	Lead: Class C + Gel + Retarder + Defoamer + Extender
	100	14.8	1.34	6.3	8	Tail: Class C + Retarder
Liner	325	11.2	2.97	17	16	Class C + Salt + Gel + Fluid Loss + Retarder + Dispersant + Defoamer + Anti-Settling Agent

A

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

Casing String	TOC	% Excess
Surface	0'	100%
Intermediate	0'	25%
Production	4095'	25%
Liner	11150'	25%

**Mewbourne Oil Company, Paduca 7/6 W1ED Fed Com #2H**  
**Sec 7, T26S, R32E**  
**SL: 2500' FNL & 570' FWL, Sec 7**  
**BHL: 330' FNL & 330' FWL, Sec 6**

**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"	10M	Annular	X	5000#
			Blind Ram	X	
			Pipe Ram	X	10000#
			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.
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?
Y	A multibowl wellhead is being used. The BOP will be tested per Onshore Order #2 after installation on the surface casing which will cover testing requirements for a maximum of 30 days. If any seal subject to test pressure is broken the system must be tested. <ul style="list-style-type: none"> <li>• Provide description here: See attached schematic.</li> </ul>

**Mewbourne Oil Company, Paduca 7/6 W1ED Fed Com #2H**  
**Sec 7, T26S, R32E**  
**SL: 2500' FNL & 570' FWL, Sec 7**  
**BHL: 330' FNL & 330' FWL, Sec 6**

**5. Mud Program**

Depth		Type	Weight (ppg)	Viscosity	Water Loss
From	To				
0'	1210'	Spud Mud	8.6-8.8	28-34	N/C
1210'	4295'	Brine	10.0	28-34	N/C
4295'	11150'	Cut Brine	8.6-9.7	28-34	N/C
11150'	19085'	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
---	-----------------------------

**6. Logging and Testing Procedures**

Logging, Coring and Testing.	
X	Will run GR/CNL from KOP (11150') 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	11150' (KOP) to TD
Density	
CBL	
Mud log	
PEX	

**Mewbourne Oil Company, Paduca 7/6 W1ED Fed Com #2H**  
**Sec 7, T26S, R32E**  
**SL: 2500' FNL & 570' FWL, Sec 7**  
**BHL: 330' FNL & 330' FWL, Sec 6**

**7. Drilling Conditions**

Condition	Specify what type and where?
BH Pressure at deepest TVD	7967 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
<b>X</b>	H2S Plan attached

**8. Other facets of operation**

Is this a walking operation? If yes, describe.

Will be pre-setting casing? If yes, describe.

Attachments

Directional Plan

Other, describe