

OCD Hobbs

Form 3160-3
(March 2012)UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

HOBBS OCD

OCT 30 2015

FORM APPROVED
OMB No. 1004-0137
Expires October 31, 2014

H

APPLICATION FOR PERMIT TO DRILL OR REENTER

RECEIVED

1a. Type of work: ☒ DRILL ☐ REENTER		5. Lease Serial No. 105561 & 10559 NM 105559
1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone		6. If Indian, Allottee or Tribe Name
2. Name of Operator Mewbourne Oil Company <14744>		7. If Unit or CA Agreement, Name and No. 125386A - Red Hills West Unit
3a. Address PO Box 5270 Hobbs, NM 88241		8. Lease Name and Well No. Red Hills West Unit #013H
3b. Phone No. (include area code) (575) 393-5905		9. API Well No. 70-025-42908
4. Location of Well (Report location clearly and in accordance with any State requirements*) At surface 330' FNL & 150' FWL, Sec 10 T26S R32E (D) At proposed prod. zone 330' FNL & 330' FWL, Sec 3 T26S R32E (D)		10. Field and Pool, or Exploratory Jennings Upper Bone Spring Shale
14. Distance in miles and direction from nearest town or post office* 28 miles West of Jal, NM		11. Sec., T. R. M. or Blk. and Survey or Area Sec. 10 T26S R32E
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 150'	16. No. of acres in lease 105561 - 360 acres 10559 - 320 acres	17. Spacing Unit dedicated to this well 160 acres
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 65' - Red Hills West Unit #011H	19. Proposed Depth 9,069' - TVD 14,193' - MD	20. BLM/BIA Bond No. on file NM1693 nationwide, NMB-000919
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3248' - GL	22. Approximate date work will start* 07/27/2015	23. Estimated duration 60 days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, must be attached to this form:

- | | |
|--|---|
| 1. Well plat certified by a registered surveyor. | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan. | 5. Operator certification |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be required by the BLM. |

25. Signature <i>Bradley Bishop</i>	Name (Printed/Typed) Bradley Bishop	Date 05/27/2015
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Title

Approved by (Signature) Steve Caffey	Name (Printed/Typed) Steve Caffey	Date OCT 27 2015
Title FIELD MANAGER	Office CARLSBAD FIELD OFFICE	

Application approval 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.

Conditions of approval, if any, are attached.

APPROVAL FOR TWO YEARS

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.

(Continued on page 2)

*(Instructions on page 2)

Carlsbad Controlled Water Basin

Approval Subject to General Requirements
& Special Stipulations AttachedSEE ATTACHED FOR
CONDITIONS OF APPROVAL

Mewbourne Oil Co, Red Hills West Unit #013H
 Sec 10, T26S, R32E
 SL: 330' FNL & 150' FWL, Sec 10
 BHL: 330' FNL & 330' FWL, Sec 3

HOBBSOCD

OCT 30 2015

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1. Geologic Formations

TVD of target	9069'	Pilot hole depth	NA
MD at TD:	14193'	Deepest expected fresh water:	250'

Basin

Formation	Depth (TVD) from KB	Water/Mineral Bearing/ Target Zone?	Hazards*
Quaternary Fill	Surface	Water	
Rustler	935	Water	
Top of Salt	1275	Salt	
Base of Salt/Castile	4290	Barren	
Delaware (Lamar)	4520	Oil/Gas	
Manzanita Marker	5750		
Bone Spring	8640	Target Zone	
2 nd Bone Spring			
Wolfcamp		Will Not Penetrate	
Canyon			
Strawn			
Atoka			
Morrow			
Barnett Shale			
Woodford Shale			
Devonian			
Fusselman			
Ellenburger			
Granite Wash			

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

Mewbourne Oil Co, Red Hills West Unit #013H
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2. Casing Program

See COA

Hole Size	Casing Interval		Csg. Size	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	SF Tension
	From	To							
17.5"	0'	960' 1030'	13.375"	48	H40	STC	1.48	3.47	6.99
12.25"	0'	3453'	9.625"	36	J55	LTC	1.13	1.96	2.76
12.25"	3453'	4393'	9.625"	40	J55	LTC	1.13	1.73	13.04
12.25"	4393'	4450'	9.625"	40	N80	LTC	1.34	2.48	324.17
8.75"	0'	8496'	7"	26	HCP110	LTC	1.77	2.25	2.84
8.75"	8496'	9396'	7"	26	HCP110	BTC	1.65	2.11	35.47
6.125"	8496'	14193'	4.5"	13.5	P110	LTC	2.27	2.63	4.38
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
Does casing meet API specifications? 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 intermediate 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 Co, Red Hills West Unit #013H
 Sec 10, T26S, R32E
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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	510	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. <i>See COA</i>	700	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.	250	12	2.12	11	10	Lead: Class C (60:40:0)+3% Sodium Chloride+5#/sk LCM+0.7% Sodium Metasilicate+0.3% FL52A+6%MPA5
	400	15.6	1.18	5.2	12	Tail: Class H+0.1%R3+0.3%FL52A
Liner	250	11.2	2.97	18	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

DV tool depth(s) will be adjusted based on hole conditions and cement volumes will be adjusted proportionally. DV tool will be set a minimum of 50 feet below previous casing and a minimum of 200 feet above current shoe. Lab reports with the 500 psi compressive strength time for the cement will be onsite for review.

Casing String	TOC	% Excess
Surface	0'	100%
Intermediate	0'	25%
Production	4250'	25%
Liner	8496'	25%

Mewbourne Oil Co, Red Hills West Unit #013H
 Sec 10, T26S, R32E
 SL: 330' FNL & 150' FWL, Sec 10
 BHL: 330' FNL & 330' FWL, Sec 3

4. Pressure Control Equipment

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See
COA

BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Type	✓	Tested to:
12-1/4"	13-5/8"	2M	Annular	X	1250#
			Blind Ram		must test to 2,000 psi
			Pipe Ram		
			Double Ram		
			Other*		
8-3/4"	11"	3M	Annular	X	1500#
			Blind Ram	X	3000#
			Pipe Ram	X	
			Double Ram		
			Other *		
6-1/8"	11"	3M	Annular	X	1500#
			Blind Ram	X	3000#
			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 Co, Red Hills West Unit #013H
 Sec 10, T26S, R32E
 SL: 330' FNL & 150' FWL, Sec 10
 BHL: 330' FNL & 330' FWL, Sec 3

<i>See COA</i> N	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.
Y / 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	960 1030	FW Gel	8.6-8.8	28-34	N/C
960	4450	Saturated Brine	10.0-10.2	28-34	N/C
4450	8496	Cut Brine	8.5-9.3	28-34	N/C
8496	14193	FW/Polymer	8.5-9.3	28-34	N/C

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?	Visual Monitoring/PVT/Pason
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Mewbourne Oil Co, Red Hills West Unit #013H
 Sec 10, T26S, R32E
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6. Logging and Testing Procedures

Logging, Coring and Testing.	
X	Will run GR/CNL from KOP (8496) to surface. 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	From KOP(8496) to TD
Density	
CBL	
Mud log	
PEX	

7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	3960 psi
Abnormal Temperature	No

Mitigation measure for abnormal conditions. Describe. Lost circulation material/sweeps/mud scavengers.

Hydrogen Sulfide (H ₂ S) monitors will be installed prior to drilling out the surface shoe. If H ₂ S 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
	H ₂ S Plan attached

See
COA

8. Other facets of operation

Is this a walking operation? If yes, describe. **No**
 Will be pre-setting casing? If yes, describe. **No**

Attachments

✓ Directional Plan
 _____ Other, describe

Mewbourne Oil Company

Lea County, New Mexico

Red Hills West Unit #013H

Sec 10, T26S, R32E

SL: 330' FNL & 150' FWL, Sec 10

BHL: 330' FNL & 330' FWL, Sec 3

Plan: Design #1

Standard Planning Report

27 May, 2015

Planning Report

Database:	Hobbs	Local Co-ordinate Reference:	Site Red Hills West Unit #013H
Company:	Mewbourne Oil Company	TVD Reference:	WELL @ 3269.0usft (Original Well Elev)
Project:	Lea County, New Mexico	MD Reference:	WELL @ 3269.0usft (Original Well Elev)
Site:	Red Hills West Unit #013H	North Reference:	Grid
Well:	Sec 10, T26S, R32E	Survey Calculation Method:	Minimum Curvature
Wellbore:	BHL: 330' FNL & 330' FWL, Sec 3		
Design:	Design #1		

Project	Lea 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		Red Hills West Unit #013H			
Site Position:		Northing:	387,618.50 usft	Latitude:	32° 3' 50.202 N
From:	Map	Easting:	705,342.90 usft	Longitude:	103° 40' 13.698 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.35 °

Well	Sec 10, T26S, R32E					
Well Position	+N/-S	0.0 usft	Northing:	387,618.50 usft	Latitude:	32° 3' 50.202 N
	+E/-W	0.0 usft	Easting:	705,342.90 usft	Longitude:	103° 40' 13.698 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	3,269.0 usft	Ground Level:	3,249.0 usft

Wellbore	BHL: 330' FNL & 330' FWL, Sec 3				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	5/27/2015	7.13	59.92	48,116

Design	Design #1			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	1.39

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	
8,496.0	0.00	0.00	8,496.0	0.0	0.0	0.00	0.00	0.00	0.00	
9,396.3	90.02	14.69	9,069.0	554.5	145.4	10.00	10.00	0.00	14.69	LP: 223 FSL & 300 FV
9,920.9	90.20	358.96	9,068.0	1,073.8	207.5	3.00	0.03	-3.00	-89.35	BHL: 330 FNL & 330 FV
14,193.0	90.31	358.96	9,049.0	5,345.1	129.7	0.00	0.00	0.00	0.00	BHL: 330 FNL & 330 FV

Planning Report

Database:	Hobbs	Local Co-ordinate Reference:	Site Red Hills West Unit #013H
Company:	Mewbourne Oil Company	TVD Reference:	WELL @ 3269.0usft (Original Well Elev)
Project:	Lea County, New Mexico	MD Reference:	WELL @ 3269.0usft (Original Well Elev)
Site:	Red Hills West Unit #013H	North Reference:	Grid
Well:	Sec 10, T26S, R32E	Survey Calculation Method:	Minimum Curvature
Wellbore:	BHL: 330' FNL & 330' FWL, Sec 3		
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: 330 FNL & 150 FWL, Sec 10									
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 Red Hills West Unit #013H
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Site:	Red Hills West Unit #013H	North Reference:	Grid
Well:	Sec 10, T26S, R32E	Survey Calculation Method:	Minimum Curvature
Wellbore:	BHL: 330' FNL & 330' FWL, Sec 3		
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
8,496.0	0.00	0.00	8,496.0	0.0	0.0	0.0	0.00	0.00	0.00
KOP @ 8496									
8,500.0	0.40	14.69	8,500.0	0.0	0.0	0.0	10.00	10.00	0.00
8,600.0	10.40	14.69	8,599.4	9.1	2.4	9.2	10.00	10.00	0.00
8,700.0	20.40	14.69	8,695.7	34.8	9.1	35.0	10.00	10.00	0.00
8,800.0	30.40	14.69	8,785.9	76.2	20.0	76.7	10.00	10.00	0.00
8,900.0	40.40	14.69	8,867.3	132.2	34.7	133.0	10.00	10.00	0.00
9,000.0	50.40	14.69	8,937.5	200.9	52.7	202.2	10.00	10.00	0.00
9,100.0	60.40	14.69	8,994.2	280.5	73.5	282.2	10.00	10.00	0.00
9,200.0	70.39	14.69	9,035.8	368.3	96.6	370.5	10.00	10.00	0.00
9,300.0	80.39	14.69	9,061.0	461.8	121.1	464.6	10.00	10.00	0.00
9,396.3	90.02	14.69	9,069.0	554.5	145.4	557.9	10.00	10.00	0.00
LP: 223 FSL & 300 FWL, Sec 3									
9,400.0	90.03	14.58	9,069.0	558.1	146.3	561.5	3.00	0.03	-3.00
9,500.0	90.06	11.58	9,068.9	655.5	169.0	659.4	3.00	0.03	-3.00
9,524.5	90.07	10.85	9,068.9	679.5	173.7	683.5	3.00	0.03	-3.00
First Take Point: 348 FSL & 330 FWL									
9,600.0	90.09	8.58	9,068.8	753.9	186.5	758.2	3.00	0.03	-3.00
9,700.0	90.13	5.58	9,068.6	853.1	198.8	857.7	3.00	0.03	-3.00
9,800.0	90.16	2.58	9,068.3	952.9	205.9	957.6	3.00	0.03	-3.00
9,900.0	90.19	359.58	9,068.0	1,052.8	207.8	1,057.6	3.00	0.03	-3.00

Planning Report

Database:	Hobbs	Local Co-ordinate Reference:	Site Red Hills West Unit #013H
Company:	Mewbourne Oil Company	TVD Reference:	WELL @ 3269.0usft (Original Well Elev)
Project:	Lea County, New Mexico	MD Reference:	WELL @ 3269.0usft (Original Well Elev)
Site:	Red Hills West Unit #013H	North Reference:	Grid
Well:	Sec 10, T26S, R32E	Survey Calculation Method:	Minimum Curvature
Wellbore:	BHL: 330' FNL & 330' FWL, Sec 3		
Design:	Design #1		

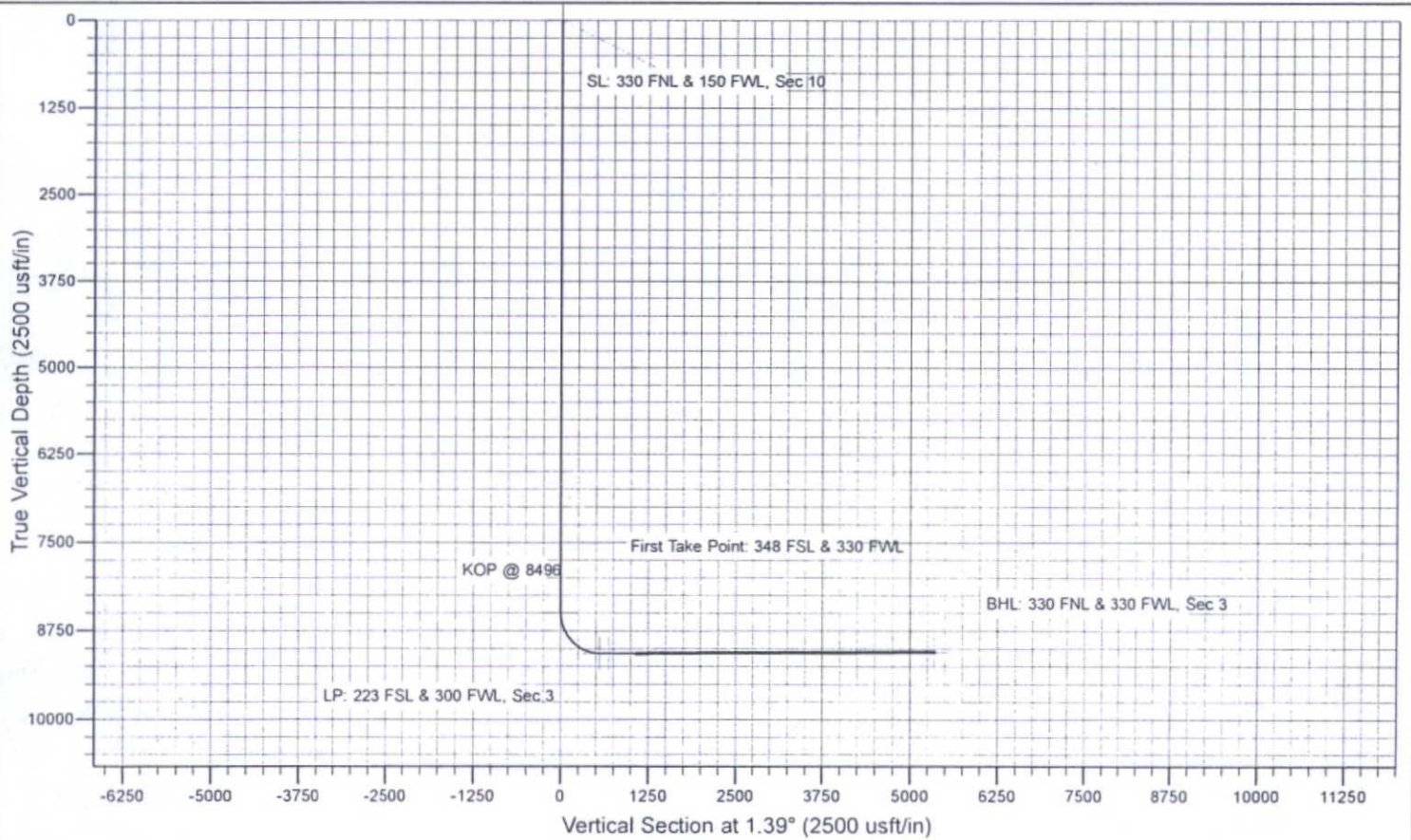
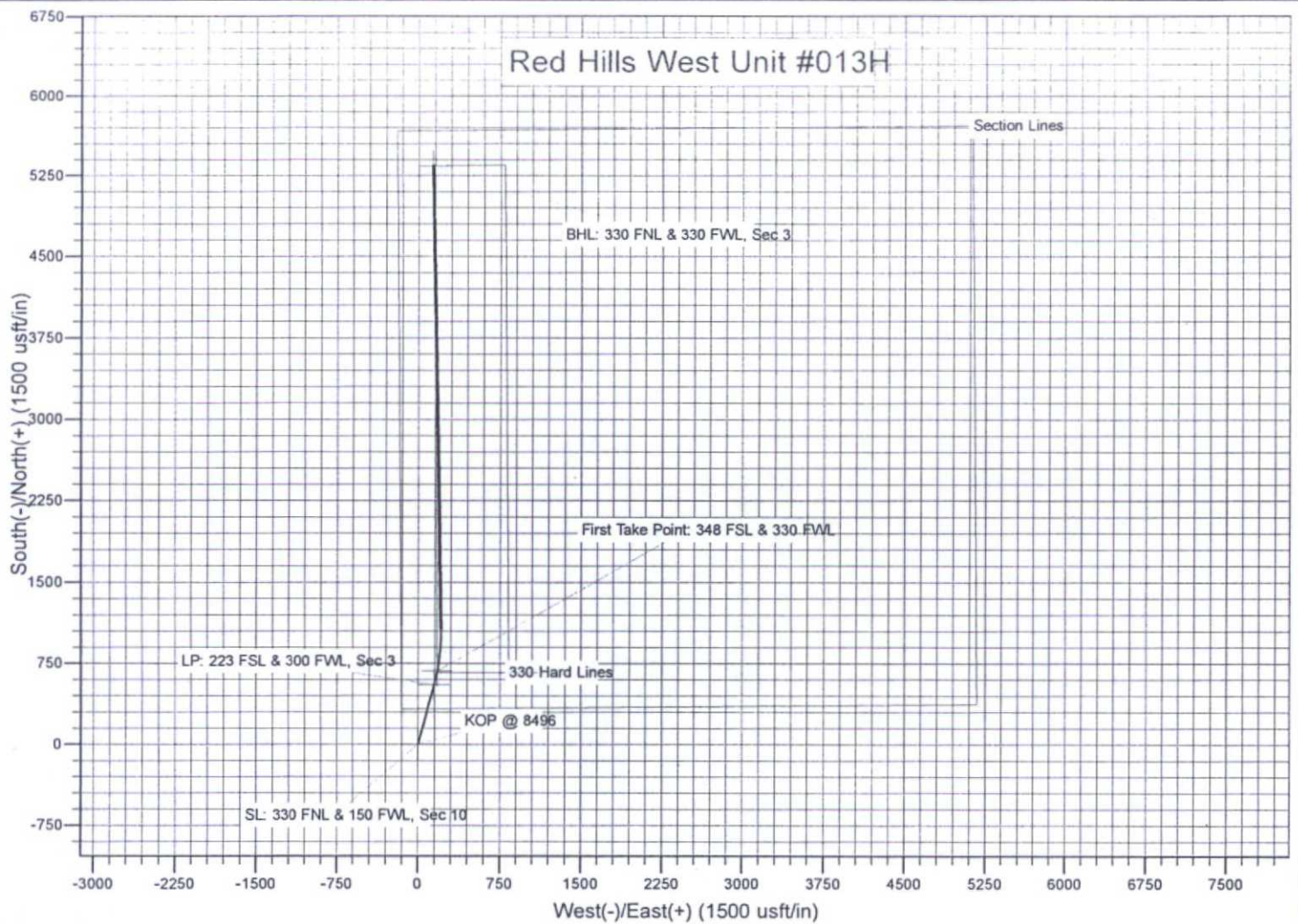
Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
9,920.9	90.20	358.96	9,068.0	1,073.8	207.5	1,078.5	3.00	0.03	-3.00	
10,000.0	90.20	358.96	9,067.7	1,152.8	206.1	1,157.5	0.00	0.00	0.00	
10,100.0	90.20	358.96	9,067.3	1,252.8	204.3	1,257.4	0.00	0.00	0.00	
10,200.0	90.21	358.96	9,067.0	1,352.8	202.5	1,357.3	0.00	0.00	0.00	
10,300.0	90.21	358.96	9,066.6	1,452.8	200.6	1,457.2	0.00	0.00	0.00	
10,400.0	90.21	358.96	9,066.2	1,552.8	198.8	1,557.1	0.00	0.00	0.00	
10,500.0	90.21	358.96	9,065.9	1,652.7	197.0	1,657.0	0.00	0.00	0.00	
10,600.0	90.22	358.96	9,065.5	1,752.7	195.2	1,756.9	0.00	0.00	0.00	
10,700.0	90.22	358.96	9,065.1	1,852.7	193.3	1,856.8	0.00	0.00	0.00	
10,800.0	90.22	358.96	9,064.7	1,952.7	191.5	1,956.8	0.00	0.00	0.00	
10,900.0	90.22	358.96	9,064.3	2,052.7	189.7	2,056.7	0.00	0.00	0.00	
11,000.0	90.23	358.96	9,063.9	2,152.6	187.9	2,156.6	0.00	0.00	0.00	
11,100.0	90.23	358.96	9,063.5	2,252.6	186.1	2,256.5	0.00	0.00	0.00	
11,200.0	90.23	358.96	9,063.1	2,352.6	184.2	2,356.4	0.00	0.00	0.00	
11,300.0	90.24	358.96	9,062.7	2,452.6	182.4	2,456.3	0.00	0.00	0.00	
11,400.0	90.24	358.96	9,062.3	2,552.6	180.6	2,556.2	0.00	0.00	0.00	
11,500.0	90.24	358.96	9,061.9	2,652.6	178.8	2,656.1	0.00	0.00	0.00	
11,600.0	90.24	358.96	9,061.5	2,752.5	176.9	2,756.0	0.00	0.00	0.00	
11,700.0	90.25	358.96	9,061.1	2,852.5	175.1	2,855.9	0.00	0.00	0.00	
11,800.0	90.25	358.96	9,060.6	2,952.5	173.3	2,955.8	0.00	0.00	0.00	
11,900.0	90.25	358.96	9,060.2	3,052.5	171.5	3,055.8	0.00	0.00	0.00	
12,000.0	90.25	358.96	9,059.7	3,152.5	169.7	3,155.7	0.00	0.00	0.00	
12,100.0	90.26	358.96	9,059.3	3,252.5	167.8	3,255.6	0.00	0.00	0.00	
12,200.0	90.26	358.96	9,058.9	3,352.4	166.0	3,355.5	0.00	0.00	0.00	
12,300.0	90.26	358.96	9,058.4	3,452.4	164.2	3,455.4	0.00	0.00	0.00	
12,400.0	90.26	358.96	9,057.9	3,552.4	162.4	3,555.3	0.00	0.00	0.00	
12,500.0	90.27	358.96	9,057.5	3,652.4	160.5	3,655.2	0.00	0.00	0.00	
12,600.0	90.27	358.96	9,057.0	3,752.4	158.7	3,755.1	0.00	0.00	0.00	
12,700.0	90.27	358.96	9,056.5	3,852.3	156.9	3,855.0	0.00	0.00	0.00	
12,800.0	90.27	358.96	9,056.1	3,952.3	155.1	3,954.9	0.00	0.00	0.00	
12,900.0	90.28	358.96	9,055.6	4,052.3	153.3	4,054.8	0.00	0.00	0.00	
13,000.0	90.28	358.96	9,055.1	4,152.3	151.4	4,154.7	0.00	0.00	0.00	
13,100.0	90.28	358.96	9,054.6	4,252.3	149.6	4,254.7	0.00	0.00	0.00	
13,200.0	90.28	358.96	9,054.1	4,352.3	147.8	4,354.6	0.00	0.00	0.00	
13,300.0	90.29	358.96	9,053.6	4,452.2	146.0	4,454.5	0.00	0.00	0.00	
13,400.0	90.29	358.96	9,053.1	4,552.2	144.1	4,554.4	0.00	0.00	0.00	
13,500.0	90.29	358.96	9,052.6	4,652.2	142.3	4,654.3	0.00	0.00	0.00	
13,600.0	90.29	358.96	9,052.1	4,752.2	140.5	4,754.2	0.00	0.00	0.00	
13,700.0	90.30	358.96	9,051.6	4,852.2	138.7	4,854.1	0.00	0.00	0.00	
13,800.0	90.30	358.96	9,051.1	4,952.2	136.9	4,954.0	0.00	0.00	0.00	
13,900.0	90.30	358.96	9,050.6	5,052.1	135.0	5,053.9	0.00	0.00	0.00	
14,000.0	90.30	358.96	9,050.0	5,152.1	133.2	5,153.8	0.00	0.00	0.00	
14,100.0	90.31	358.96	9,049.5	5,252.1	131.4	5,253.7	0.00	0.00	0.00	
14,193.0	90.31	358.96	9,049.0	5,345.1	129.7	5,346.7	0.00	0.00	0.00	
BHL: 330 FNL & 330 FWL, Sec 3										

Planning Report

Database:	Hobbs	Local Co-ordinate Reference:	Site Red Hills West Unit #013H
Company:	Mewbourne Oil Company	TVD Reference:	WELL @ 3269.0usft (Original Well Elev)
Project:	Lea County, New Mexico	MD Reference:	WELL @ 3269.0usft (Original Well Elev)
Site:	Red Hills West Unit #013H	North Reference:	Grid
Well:	Sec 10, T26S, R32E	Survey Calculation Method:	Minimum Curvature
Wellbore:	BHL: 330' FNL & 330' FWL, Sec 3		
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: 330 FNL & 150 FWL	0.00	0.00	0.0	0.0	0.0	387,618.50	705,342.90	32° 3' 50.202 N	103° 40' 13.698 W
- plan hits target center									
- Point									
KOP @ 8496	0.00	0.00	8,496.0	0.0	0.0	387,618.50	705,342.90	32° 3' 50.202 N	103° 40' 13.698 W
- plan hits target center									
- Point									
BHL: 330 FNL & 330 FW	0.00	0.00	9,049.0	5,345.1	129.7	392,963.60	705,472.60	32° 4' 43.089 N	103° 40' 11.809 W
- plan hits target center									
- Point									
First Take Point: 348 FSI	0.00	0.00	9,068.9	679.6	173.2	388,298.07	705,516.15	32° 3' 56.917 N	103° 40' 11.636 W
- plan misses target center by 0.5usft at 9524.5usft MD (9068.9 TVD, 679.5 N, 173.7 E)									
- Point									
LP: 223 FSL & 300 FWL	0.00	0.00	9,069.0	554.5	145.4	388,173.00	705,488.30	32° 3' 55.681 N	103° 40' 11.968 W
- plan hits target center									
- Point									

Red Hills West Unit #013H



Notes Regarding Blowout Preventer

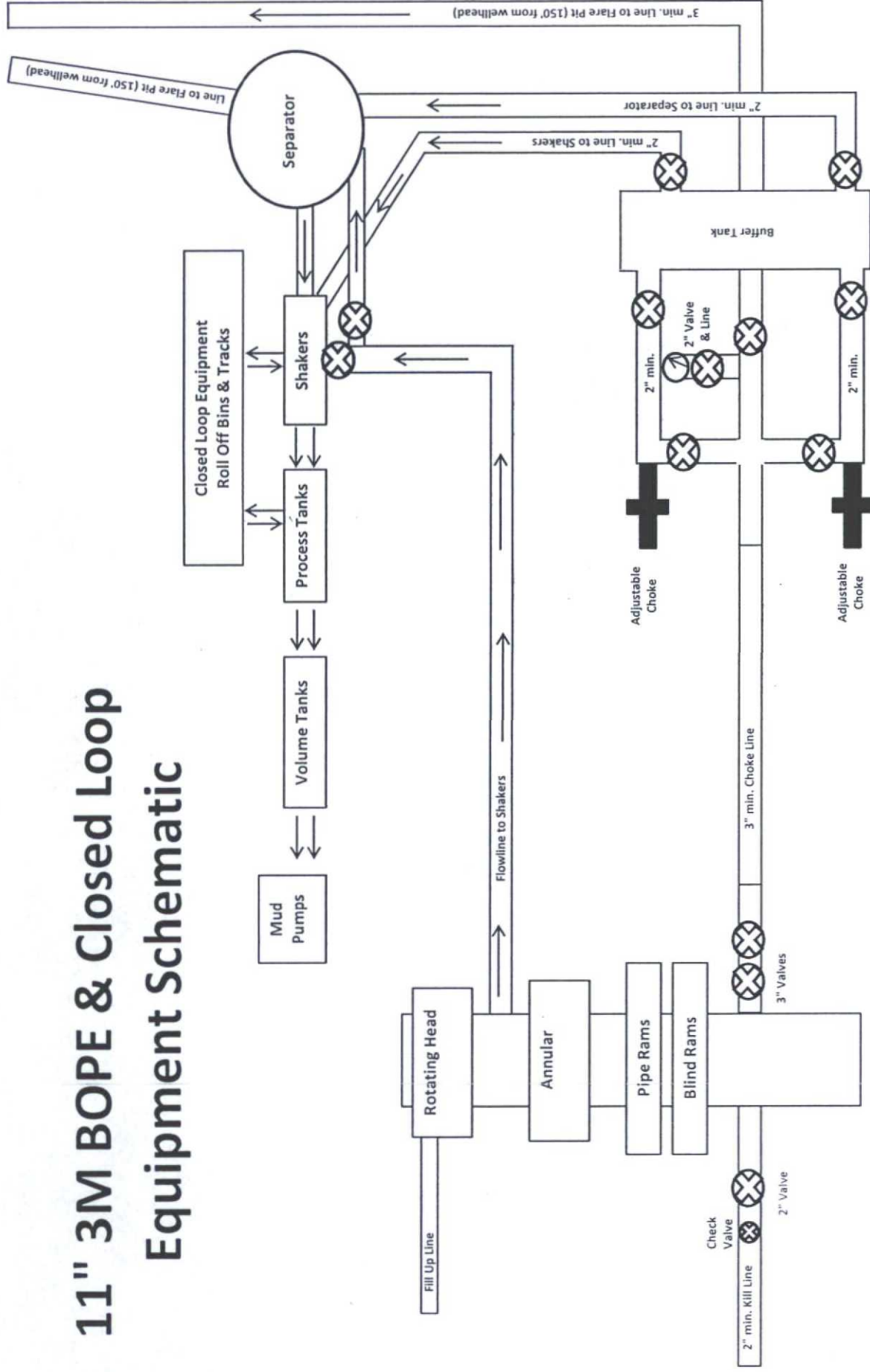
Mewbourne Oil Company

Red Hills West Unit #013H
330' FNL & 150' FWL (SHL)
Sec 10-T26S-R32E
Lea County, New Mexico

- I. Drilling nipple (bell nipple) to be constructed so that it can be removed without the use of a welder through the opening of the rotary table, with minimum internal diameter equal to blowout preventer bore.
- II. Blowout preventer and all fittings must be in good condition with a minimum 3000 psi working pressure on 9 5/8" and 7" casing.
- III. Safety valve must be available on the rig floor at all times with proper connections to install in the drill string. Valve must be full bore with minimum 3000 psi working pressure.
- IV. Equipment through which bit must pass shall be at least as large as internal diameter of the casing.
- V. A kelly cock shall be installed on the kelly at all times.

Blowout preventer closing equipment to include and accumulator of at least 40 gallon capacity, two independent sources of pressure on closing unit, and meet all other API specifications.

11" 3M BOPE & Closed Loop Equipment Schematic



Note: All valves & lines on choke manifold are 3" unless otherwise noted. Exact manifold configuration may vary.

13 5/8" 2M BOPE & Closed Loop Equipment Schematic

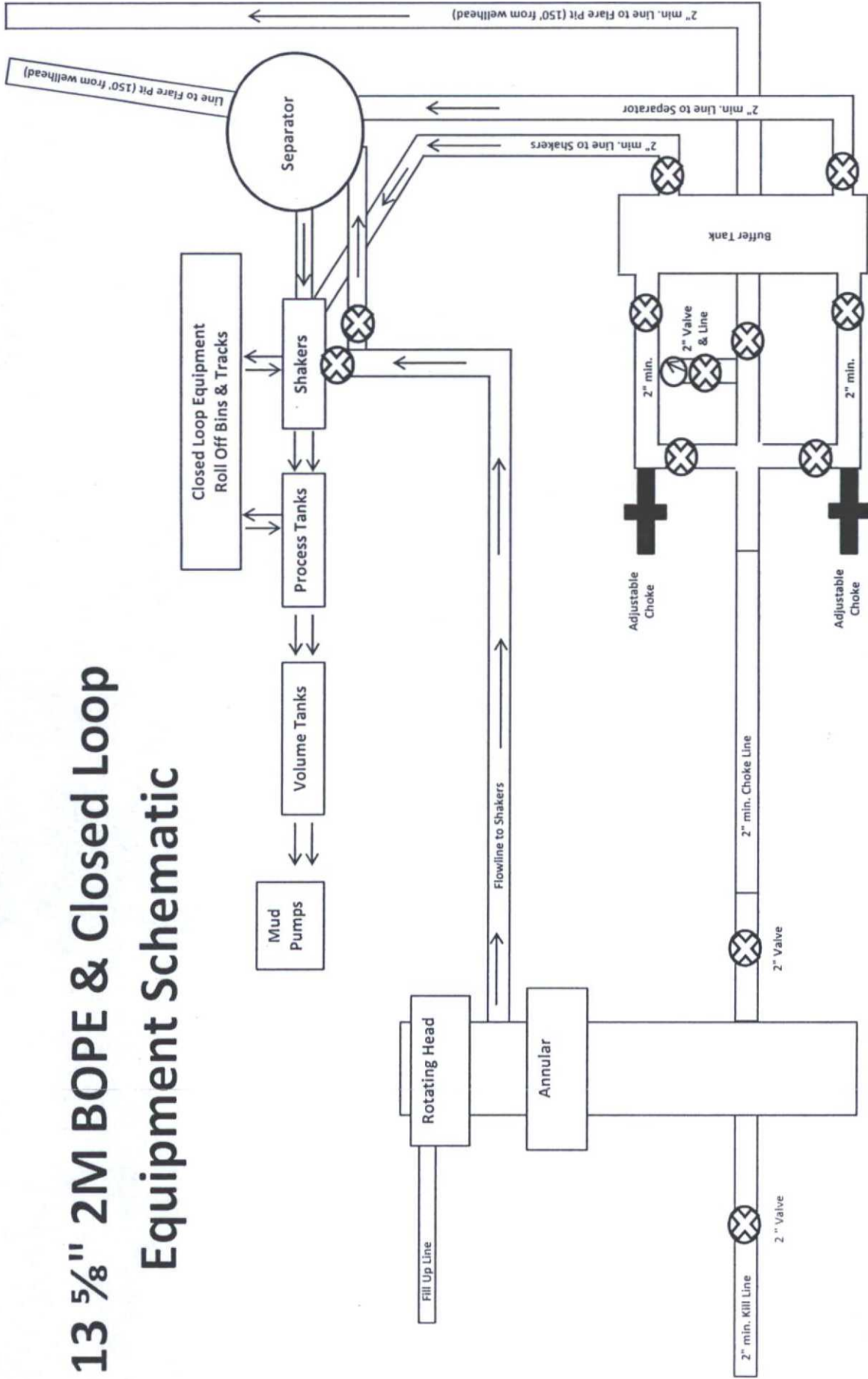


Exhibit 2A
Red Hills West Unit #013H