

1. Geologic Formations

RECEIVED

TVD of target	12135'	Pilot hole depth	NA
MD at TD:	16732'	Deepest expected fresh water:	225'

Basin

Formation	Depth (TVD) from KB	Water/Mineral Bearing/ Target Zone?	Hazards*
Quaternary Fill	Surface		
Rustler	537		
Top of Salt	1161		
Castile			
Base of Salt	4229		
Lamar	4449	Oil	
Bell Canyon	4489		
Cherry Canyon	5509		
Manzanita Marker	5669		
Brushy Canyon	7193		
Bone Spring	8565	Oil/Gas	
1 st Bone Spring Sand	9494		
2 nd Bone Spring Sand	10119		
3 rd Bone Spring Sand	11292		
Abo			
Wolfcamp	11689	Target Zone	
Devonian			
Fusselman			
Ellenburger			
Granite Wash			

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

Mewbourne Oil Company, Red Hills West 22 W1DM Fed Com #4H

Sec 22, T26S, R32E

SL: 185' FNL & 760' FWL

BHL: 330' FSL & 500' FWL

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'	565' 6.25'	13.375"	48	H40	STC	2.52	5.89	11.87
12.25"	0'	3453'	9.625"	36	J55	LTC	1.13	1.96	2.81
12.25"	3453'	4375'	9.625"	40	J55	LTC	1.13	1.74	14.10
8.75"	0'	11562'	7"	26	HCP110	LTC	1.30	1.66	2.14
8.75"	11562'	12463'	7"	26	HCP110	BTC	1.24	1.58	35.43
6.125"	11562'	16732'	4.5"	13.5	P110	LTC	1.69	1.97	4.83
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?	N
If yes, are there two strings cemented to surface?	
(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?	

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3. Cementing Program

Casing	# Sk	Wt. lb/ gal	Yld ft ³ / sack	H ₂ O gal/ sk	500# Comp. Strength (hours)	Slurry Description
Surf.	250	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
Inter.	685	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.	515	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	210	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

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

Casing String	TOC	% Excess
Surface	0'	100%
Intermediate	0'	25%
Production	4175'	25%
Liner	11562'	25%

Mewbourne Oil Company, Red Hills West 22 W1DM Fed Com #4H
 Sec 22, T26S, R32E
 SL: 185' FNL & 760' FWL
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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:
See COA 12-1/4"	13-5/8"	3M	Annular	X	1250#
			Blind Ram		must test to 2000 psi See COA
			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.

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Sec 22, T26S, R32E

SL: 185' FNL & 760' FWL

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X	Formation integrity test will be performed per Onshore Order #2. On Exploratory wells or on that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.i.
Y	A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. See attached for specs and hydrostatic test chart.
N	Are anchors required by manufacturer?
N	A multibowl wellhead is being used. The BOP will be tested per Onshore Order #2 after installation on the surface casing which will cover testing requirements for a maximum of 30 days. If any seal subject to test pressure is broken the system must be tested. Provide description here See attached schematic.

5. Mud Program

Depth		Type	Weight (ppg)	Viscosity	Water Loss
From	To				
0	565 565 625'	FW Gel	8.6-8.8	28-34	N/C
565	4375	Saturated Brine	10.0	28-34	N/C
4375	11562	Cut Brine	8.6-9.5	28-34	N/C
11562	16732	OBM	10.0-13.0	30-40	<10cc

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

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

Logging, Coring and Testing.	
X	Will run GR/CNL from TD 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	11562'(KOP) to TD
Density	
CBL	

Mewbourne Oil Company, Red Hills West 22 W1DM Fed Com #4H

Sec 22, T26S, R32E

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	Mud log	
	PEX	

7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	5218 psi
Abnormal Temperature	No

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

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

☒	H ₂ S is present
X	H ₂ S Plan attached

8. Other facets of operation

Is this a walking operation? If yes, describe. **No**

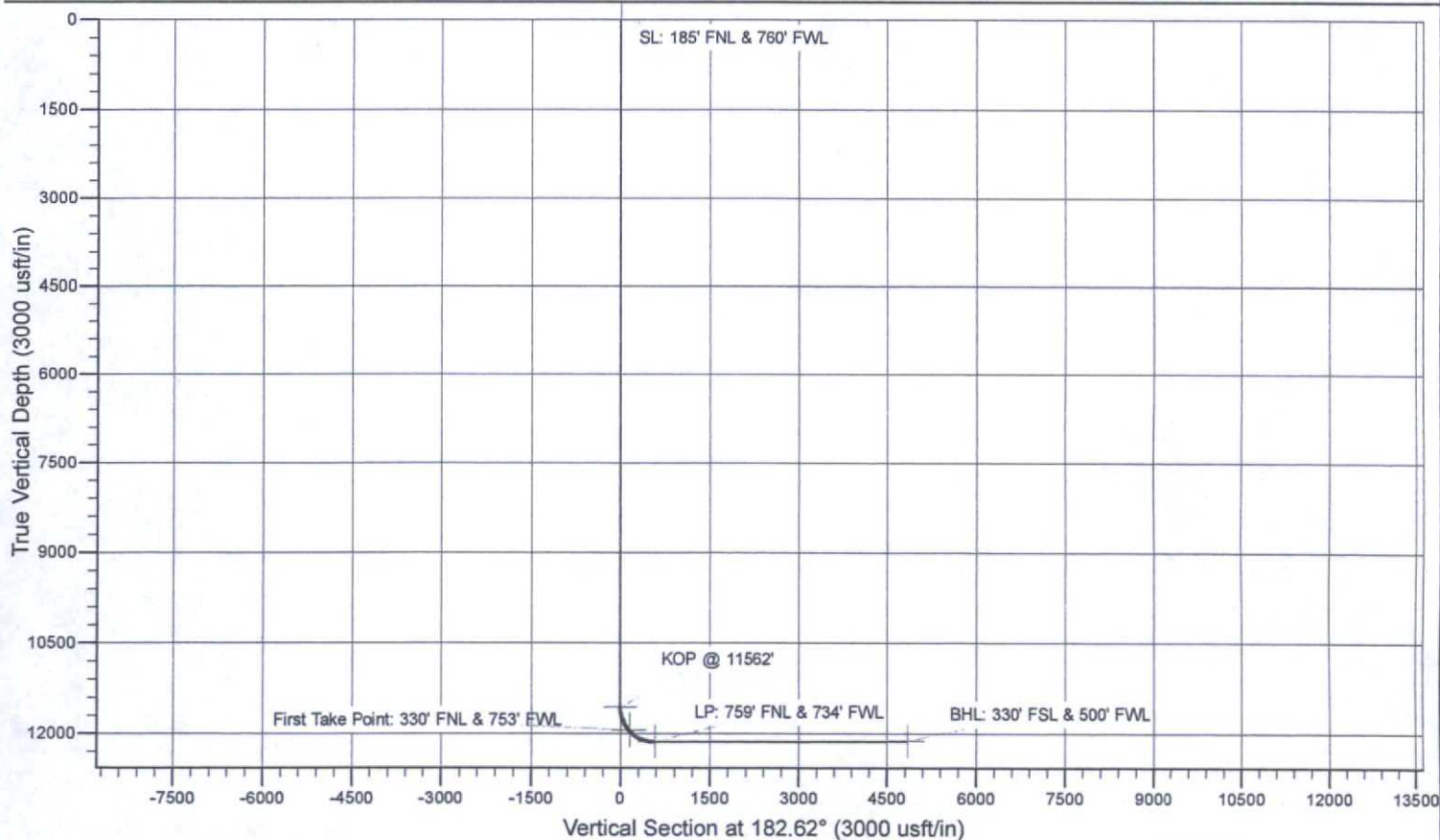
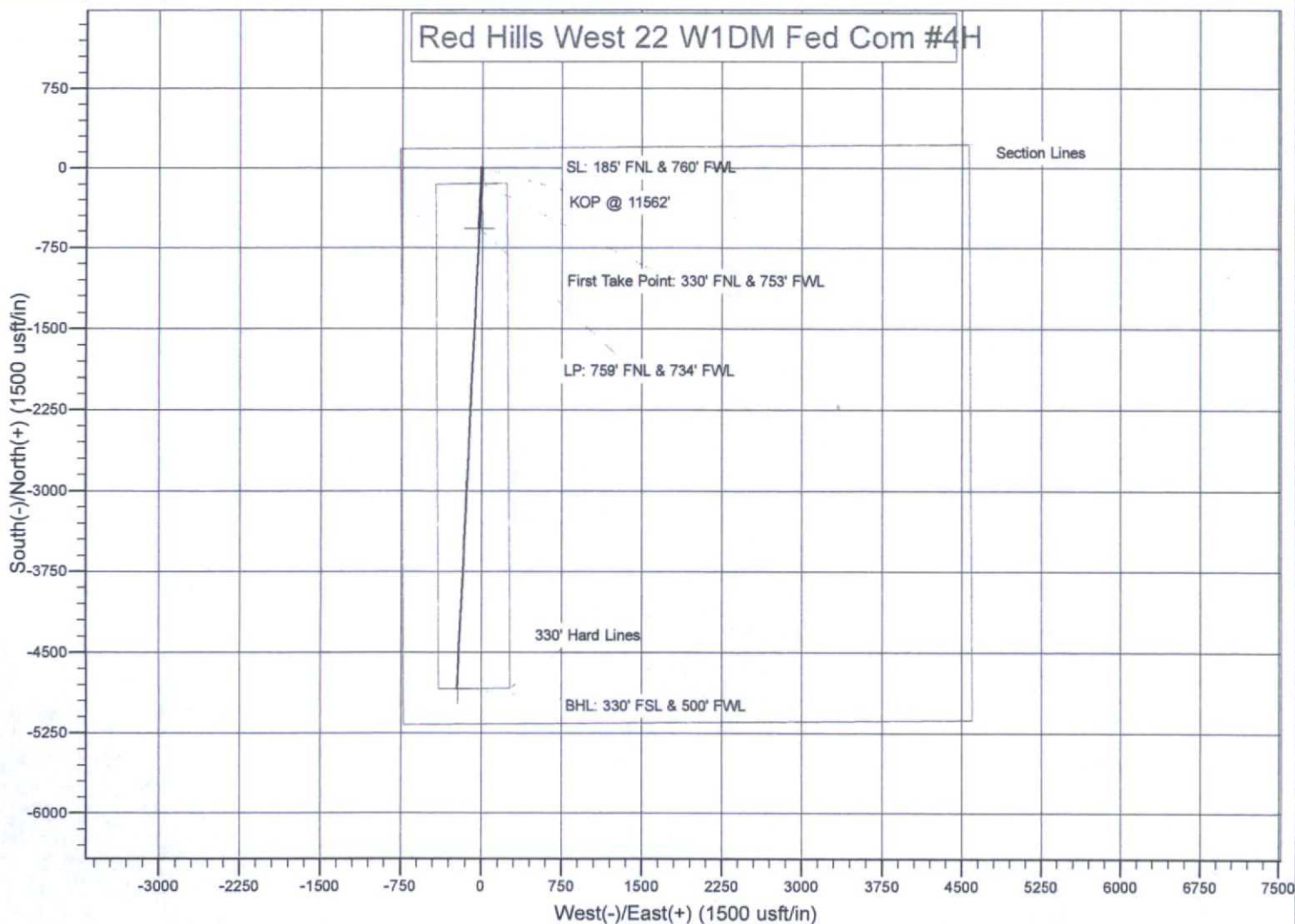
Will be pre-setting casing? If yes, describe. **No**

Attachments

☒ Directional Plan

☐ Other, describe

Red Hills West 22 W1DM Fed Com #4H



Mewbourne Oil Company

Lea County, New Mexico

Red Hills West 22 W1DM Fed Com #4H

Sec 22, T26S, R32E

SL: 185' FNL & 760' FWL

BHL: 330' FSL & 500' FWL

Plan: Design #1

Standard Planning Report

16 July, 2015

Planning Report

Database: Hobbs
 Company: Mewbourne Oil Company
 Project: Lea County, New Mexico
 Site: Red Hills West 22 W1DM Fed Com #4H
 Well: Sec 22, T26S, R32E
 Wellbore: BHL: 330' FSL & 500' FWL
 Design: Design #1

Local Co-ordinate Reference: Site Red Hills West 22 W1DM Fed Com #4H
 TVD Reference: WELL @ 3169.0usft (Original Well Elev)
 MD Reference: WELL @ 3169.0usft (Original Well Elev)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature

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 22 W1DM Fed Com #4H				
Site Position:		Northing:	377,072.00 usft	Latitude:	32° 2' 5.793 N
From:	Map	Easting:	706,027.00 usft	Longitude:	103° 40' 6.503 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.35 °

Well	Sec 22, T26S, R32E					
Well Position	+N/-S	0.0 usft	Northing:	377,072.00 usft	Latitude:	32° 2' 5.793 N
	+E/-W	0.0 usft	Easting:	706,027.00 usft	Longitude:	103° 40' 6.503 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	3,169.0 usft	Ground Level:	3,144.0 usft

Wellbore	BHL: 330' FSL & 500' FWL				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	7/16/2015	7.11	59.89	48,086

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	182.62

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	
11,562.0	0.00	0.00	11,562.0	0.0	0.0	0.00	0.00	0.00	0.00	
12,463.4	90.13	182.62	12,135.0	-573.7	-26.2	10.00	10.00	0.00	-177.38	
16,732.1	90.13	182.62	12,125.0	-4,838.0	-221.0	0.00	0.00	0.00	0.00	BHL: 330' FSL & 500'

Planning Report

Database: Hobbs
 Company: Mewbourne Oil Company
 Project: Lea County, New Mexico
 Site: Red Hills West 22 W1DM Fed Com #4H
 Well: Sec 22, T26S, R32E
 Wellbore: BHL: 330' FSL & 500' FWL
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 TVD Reference: WELL @ 3169.0usft (Original Well Elev)
 MD Reference: WELL @ 3169.0usft (Original Well Elev)
 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)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
SL: 185' FNL & 760' FWL									
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

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 Design: Design #1

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 North Reference:
 Survey Calculation Method:

Site Red Hills West 22 W1DM Fed Com #4H
 WELL @ 3169.0usft (Original Well Elev)
 WELL @ 3169.0usft (Original Well Elev)
 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)
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
9,500.0	0.00	0.00	9,500.0	0.0	0.0	0.0	0.00	0.00	0.00
9,600.0	0.00	0.00	9,600.0	0.0	0.0	0.0	0.00	0.00	0.00
9,700.0	0.00	0.00	9,700.0	0.0	0.0	0.0	0.00	0.00	0.00
9,800.0	0.00	0.00	9,800.0	0.0	0.0	0.0	0.00	0.00	0.00
9,900.0	0.00	0.00	9,900.0	0.0	0.0	0.0	0.00	0.00	0.00
10,000.0	0.00	0.00	10,000.0	0.0	0.0	0.0	0.00	0.00	0.00
10,100.0	0.00	0.00	10,100.0	0.0	0.0	0.0	0.00	0.00	0.00
10,200.0	0.00	0.00	10,200.0	0.0	0.0	0.0	0.00	0.00	0.00
10,300.0	0.00	0.00	10,300.0	0.0	0.0	0.0	0.00	0.00	0.00
10,400.0	0.00	0.00	10,400.0	0.0	0.0	0.0	0.00	0.00	0.00
10,500.0	0.00	0.00	10,500.0	0.0	0.0	0.0	0.00	0.00	0.00
10,600.0	0.00	0.00	10,600.0	0.0	0.0	0.0	0.00	0.00	0.00

Planning Report

Database: Hobbs
Company: Mewbourne Oil Company
Project: Lea County, New Mexico
Site: Red Hills West 22 W1DM Fed Com #4H
Well: Sec 22, T26S, R32E
Wellbore: BHL 330' FSL & 500' FWL
Design: Design #1

Local Co-ordinate Reference: Site Red Hills West 22 W1DM Fed Com #4H
TVD Reference: WELL @ 3169.0usft (Original Well Elev)
MD Reference: WELL @ 3169.0usft (Original Well Elev)
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)
10,700.0	0.00	0.00	10,700.0	0.0	0.0	0.0	0.00	0.00	0.00
10,800.0	0.00	0.00	10,800.0	0.0	0.0	0.0	0.00	0.00	0.00
10,900.0	0.00	0.00	10,900.0	0.0	0.0	0.0	0.00	0.00	0.00
11,000.0	0.00	0.00	11,000.0	0.0	0.0	0.0	0.00	0.00	0.00
11,100.0	0.00	0.00	11,100.0	0.0	0.0	0.0	0.00	0.00	0.00
11,200.0	0.00	0.00	11,200.0	0.0	0.0	0.0	0.00	0.00	0.00
11,300.0	0.00	0.00	11,300.0	0.0	0.0	0.0	0.00	0.00	0.00
11,400.0	0.00	0.00	11,400.0	0.0	0.0	0.0	0.00	0.00	0.00
11,500.0	0.00	0.00	11,500.0	0.0	0.0	0.0	0.00	0.00	0.00
11,562.0	0.00	0.00	11,562.0	0.0	0.0	0.0	0.00	0.00	0.00
KOP @ 11562'									
11,600.0	3.80	182.62	11,600.0	-1.3	-0.1	1.3	10.00	10.00	0.00
11,700.0	13.80	182.62	11,698.7	-16.5	-0.8	16.5	10.00	10.00	0.00
11,800.0	23.80	182.62	11,793.2	-48.7	-2.2	48.7	10.00	10.00	0.00
11,900.0	33.80	182.62	11,880.7	-96.7	-4.4	96.8	10.00	10.00	0.00
11,979.1	41.70	182.62	11,943.2	-145.0	-6.6	145.2	10.00	10.00	0.00
First Take Point: 330' FNL & 753' FWL									
12,000.0	43.80	182.62	11,958.6	-159.2	-7.3	159.4	10.00	10.00	0.00
12,100.0	53.80	182.62	12,024.4	-234.3	-10.7	234.5	10.00	10.00	0.00
12,200.0	63.80	182.62	12,076.1	-319.6	-14.6	320.0	10.00	10.00	0.00
12,300.0	73.80	182.62	12,112.2	-412.6	-18.8	413.1	10.00	10.00	0.00
12,400.0	83.80	182.62	12,131.6	-510.5	-23.3	511.0	10.00	10.00	0.00
12,463.4	90.13	182.62	12,135.0	-573.7	-26.2	574.3	10.00	10.00	0.00
LP: 759' FNL & 734' FWL									
12,500.0	90.13	182.62	12,134.9	-610.3	-27.9	610.9	0.00	0.00	0.00
12,600.0	90.13	182.62	12,134.7	-710.2	-32.4	710.9	0.00	0.00	0.00
12,700.0	90.13	182.62	12,134.4	-810.1	-37.0	810.9	0.00	0.00	0.00
12,800.0	90.13	182.62	12,134.2	-910.0	-41.6	910.9	0.00	0.00	0.00
12,900.0	90.13	182.62	12,134.0	-1,009.9	-46.1	1,010.9	0.00	0.00	0.00
13,000.0	90.13	182.62	12,133.7	-1,109.8	-50.7	1,110.9	0.00	0.00	0.00
13,100.0	90.13	182.62	12,133.5	-1,209.7	-55.3	1,210.9	0.00	0.00	0.00
13,200.0	90.13	182.62	12,133.3	-1,309.5	-59.8	1,310.9	0.00	0.00	0.00
13,300.0	90.13	182.62	12,133.0	-1,409.4	-64.4	1,410.9	0.00	0.00	0.00
13,400.0	90.13	182.62	12,132.8	-1,509.3	-68.9	1,510.9	0.00	0.00	0.00
13,500.0	90.13	182.62	12,132.6	-1,609.2	-73.5	1,610.9	0.00	0.00	0.00
13,600.0	90.13	182.62	12,132.3	-1,709.1	-78.1	1,710.9	0.00	0.00	0.00
13,700.0	90.13	182.62	12,132.1	-1,809.0	-82.6	1,810.9	0.00	0.00	0.00
13,800.0	90.13	182.62	12,131.9	-1,908.9	-87.2	1,910.9	0.00	0.00	0.00
13,900.0	90.13	182.62	12,131.6	-2,008.8	-91.8	2,010.9	0.00	0.00	0.00
14,000.0	90.13	182.62	12,131.4	-2,108.7	-96.3	2,110.9	0.00	0.00	0.00
14,100.0	90.13	182.62	12,131.2	-2,208.6	-100.9	2,210.9	0.00	0.00	0.00
14,200.0	90.13	182.62	12,130.9	-2,308.5	-105.5	2,310.9	0.00	0.00	0.00
14,300.0	90.13	182.62	12,130.7	-2,408.4	-110.0	2,410.9	0.00	0.00	0.00
14,400.0	90.13	182.62	12,130.5	-2,508.3	-114.6	2,510.9	0.00	0.00	0.00
14,500.0	90.13	182.62	12,130.2	-2,608.2	-119.1	2,610.9	0.00	0.00	0.00
14,600.0	90.13	182.62	12,130.0	-2,708.1	-123.7	2,710.9	0.00	0.00	0.00
14,700.0	90.13	182.62	12,129.8	-2,808.0	-128.3	2,810.9	0.00	0.00	0.00
14,800.0	90.13	182.62	12,129.5	-2,907.9	-132.8	2,910.9	0.00	0.00	0.00
14,900.0	90.13	182.62	12,129.3	-3,007.8	-137.4	3,010.9	0.00	0.00	0.00
15,000.0	90.13	182.62	12,129.1	-3,107.7	-142.0	3,110.9	0.00	0.00	0.00
15,100.0	90.13	182.62	12,128.8	-3,207.6	-146.5	3,210.9	0.00	0.00	0.00
15,200.0	90.13	182.62	12,128.6	-3,307.5	-151.1	3,310.9	0.00	0.00	0.00
15,300.0	90.13	182.62	12,128.4	-3,407.4	-155.6	3,410.9	0.00	0.00	0.00

Planning Report

Database: Hobbs
 Company: Mewbourne Oil Company
 Project: Lea County, New Mexico
 Site: Red Hills West 22 W1DM Fed Com #4H
 Well: Sec 22, T26S, R32E
 Wellbore: BHL: 330' FSL & 500' FWL
 Design: Design #1

Local Co-ordinate Reference: Site Red Hills West 22 W1DM Fed Com #4H
 TVD Reference: WELL @ 3169.0usft (Original Well Elev)
 MD Reference: WELL @ 3169.0usft (Original Well Elev)
 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)
15,400.0	90.13	182.62	12,128.1	-3,507.3	-160.2	3,510.9	0.00	0.00	0.00
15,500.0	90.13	182.62	12,127.9	-3,607.1	-164.8	3,610.9	0.00	0.00	0.00
15,600.0	90.13	182.62	12,127.7	-3,707.0	-169.3	3,710.9	0.00	0.00	0.00
15,700.0	90.13	182.62	12,127.4	-3,806.9	-173.9	3,810.9	0.00	0.00	0.00
15,800.0	90.13	182.62	12,127.2	-3,906.8	-178.5	3,910.9	0.00	0.00	0.00
15,900.0	90.13	182.62	12,126.9	-4,006.7	-183.0	4,010.9	0.00	0.00	0.00
16,000.0	90.13	182.62	12,126.7	-4,106.6	-187.6	4,110.9	0.00	0.00	0.00
16,100.0	90.13	182.62	12,126.5	-4,206.5	-192.2	4,210.9	0.00	0.00	0.00
16,200.0	90.13	182.62	12,126.2	-4,306.4	-196.7	4,310.9	0.00	0.00	0.00
16,300.0	90.13	182.62	12,126.0	-4,406.3	-201.3	4,410.9	0.00	0.00	0.00
16,400.0	90.13	182.62	12,125.8	-4,506.2	-205.8	4,510.9	0.00	0.00	0.00
16,500.0	90.13	182.62	12,125.5	-4,606.1	-210.4	4,610.9	0.00	0.00	0.00
16,600.0	90.13	182.62	12,125.3	-4,706.0	-215.0	4,710.9	0.00	0.00	0.00
16,700.0	90.13	182.62	12,125.1	-4,805.9	-219.5	4,810.9	0.00	0.00	0.00
16,732.1	90.13	182.62	12,125.0	-4,838.0	-221.0	4,843.0	0.00	0.00	0.00

BHL: 330' FSL & 500' FWL

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
SL: 185' FNL & 760' FWL - plan hits target center - Point	0.00	0.00	0.0	0.0	0.0	377,072.00	706,027.00	32° 2' 5.793 N	103° 40' 6.503 W
KOP @ 11562' - plan hits target center - Point	0.00	0.00	11,562.0	0.0	0.0	377,072.00	706,027.00	32° 2' 5.793 N	103° 40' 6.503 W
First Take Point: 330' FN - plan hits target center - Point	0.00	0.00	11,943.2	-145.0	-6.6	376,927.00	706,020.40	32° 2' 4.358 N	103° 40' 6.590 W
BHL: 330' FSL & 500' Fv - plan hits target center - Point	0.00	0.00	12,125.0	-4,838.0	-221.0	372,234.00	705,806.00	32° 1' 17.929 N	103° 40' 9.416 W
LP: 759' FNL & 734' FWL - plan hits target center - Point	0.00	0.00	12,135.0	-573.7	-26.2	376,498.30	706,000.80	32° 2' 0.117 N	103° 40' 6.848 W

Notes Regarding Blowout Preventer

Mewbourne Oil Company

Red Hills West 22 W1DM Fed Com #4H

185' FNL & 760' FWL (SHL)

Sec 22-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 2000 psi working pressure on 13 3/8" casing and 3000 psi working pressure on 9 5/8" & 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" 5M BOPE & Closed Loop Equipment Schematic

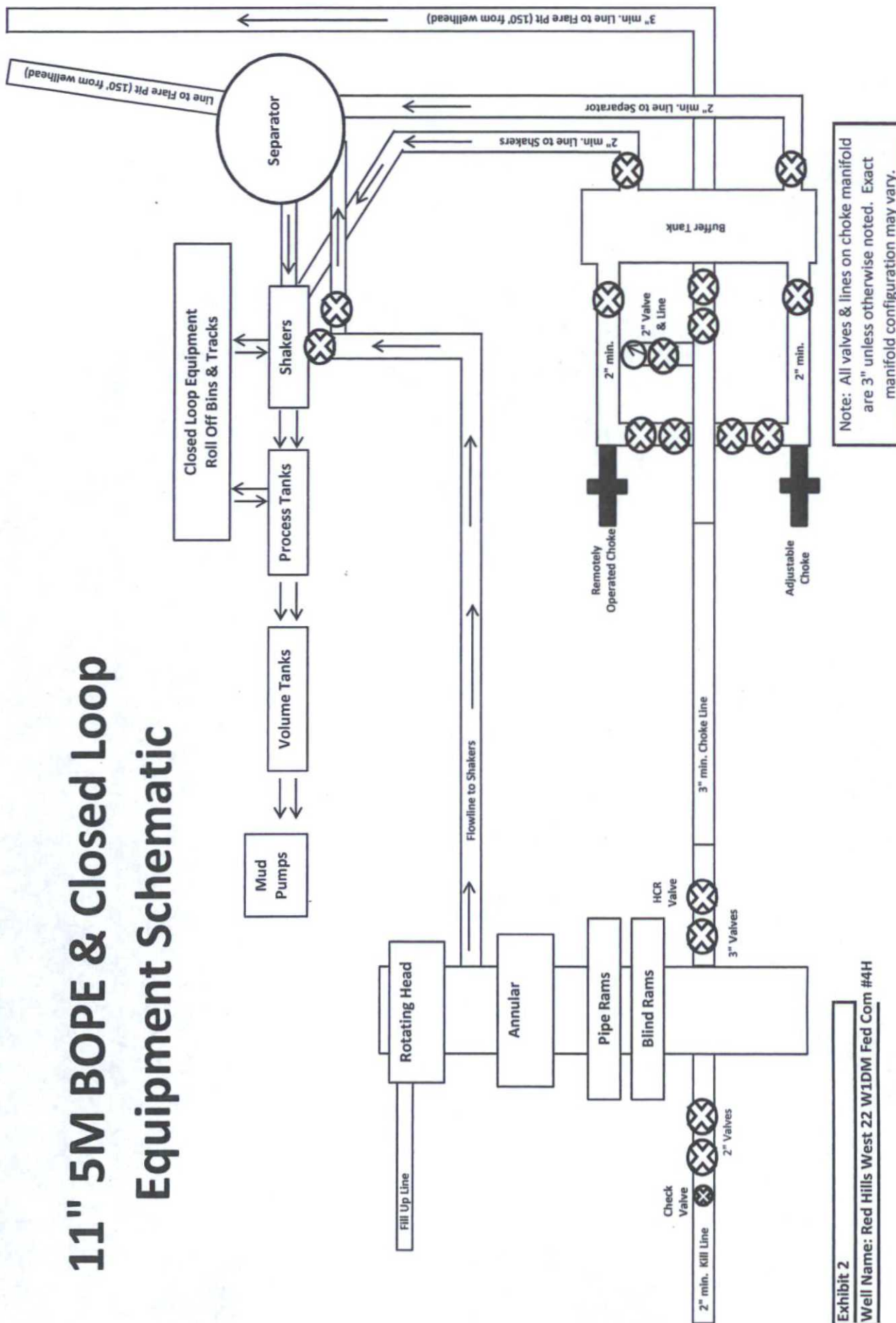


Exhibit 2
Well Name: Red Hills West 22 W1DM Fed Com #4H

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

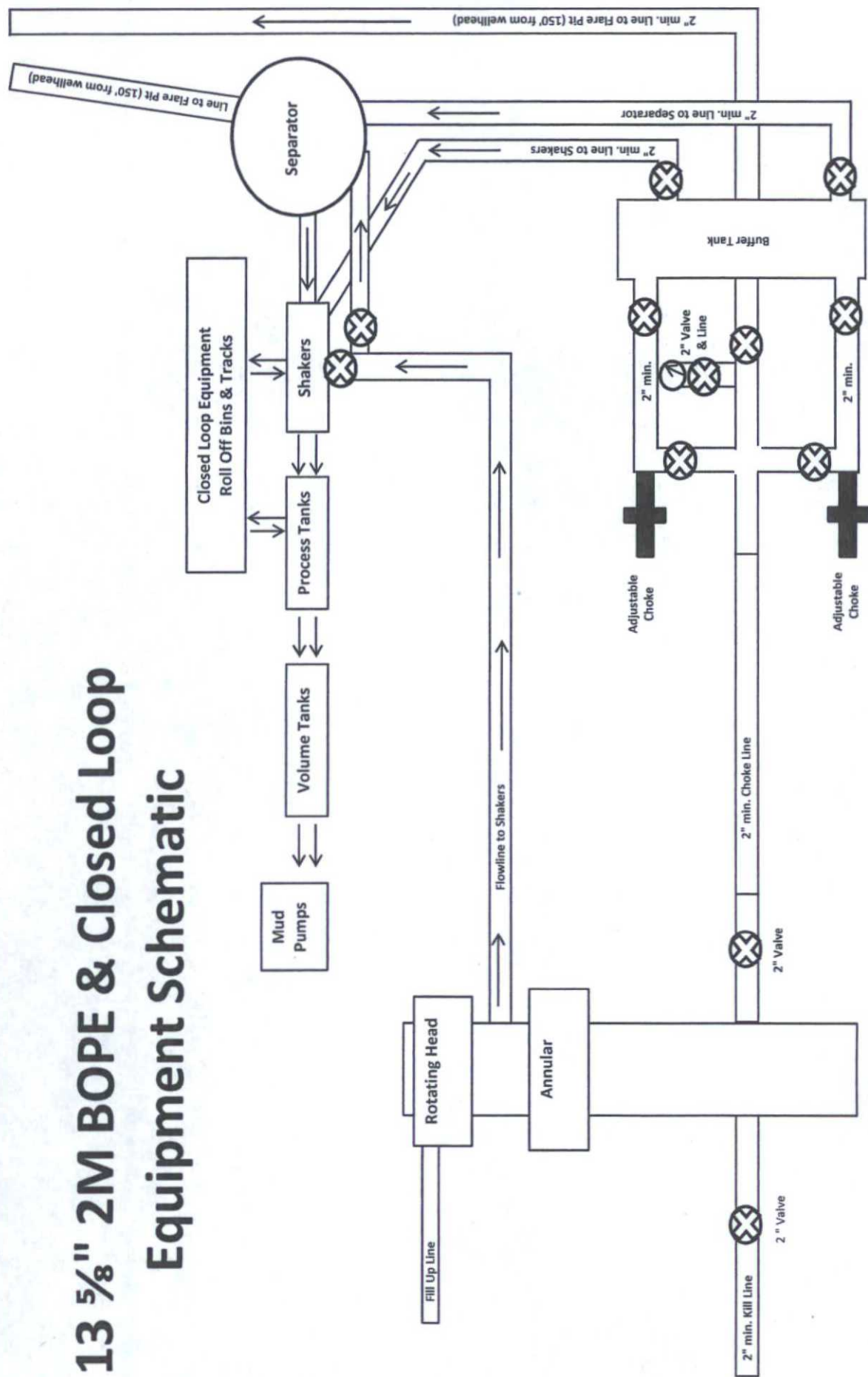


Exhibit 2A

Well Name: Red Hills West 22 W1DM Fed Com #4H