

15-649

OCD Hobbs

HOBBS OCD

NOV 05 2015

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

APPLICATION FOR PERMIT TO DRILL OR REENTER

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

H

1a. Type of work: ☒ DRILL ☐ REENTER		5. Lease Serial No. NMNM02965A
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.
3a. Address PO Box 5270 Hobbs, NM 88241	3b. Phone No. (include area code) 575-393-5905	8. Lease Name and Well No. (315642) El Mar 21 A1CN Fed Com #2H
4. Location of Well (Report location clearly and in accordance with any State requirements.) At surface 185' FNL & 2460' FWL, Sec. 21 T26S R33E At proposed prod. zone 330' FSL & 2310' FWL, Sec. 21 T26S 33 R33E UNORTHODOX LOCATION		9. API Well No. 30-025-42929
14. Distance in miles and direction from nearest town or post office* 23 miles west of Jal, NM		10. Field and Pool, or Exploratory (97900) Red Hills Upper Bone Spring Shale
15. Distance from proposed* 185' location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No. of acres in lease NMNM02965A - 2,174.12 acres	11. Sec., T. R. M. or Blk. and Survey or Area Sec 21 T26S R33E
18. Distance from proposed location* 495' - El Mar 21 A3CN to nearest well, drilling, completed, #1H applied for, on this lease, ft.	19. Proposed Depth 9377' - TVD 13,873' - MD	12. County or Parish Lea
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3275' - GL	22. Approximate date work will start* 07/13/2015	13. State NM
17. Spacing Unit dedicated to this well 160 acres		
20. BLM/BIA Bond No. on file NM-1693 nationwide, NMB-000919		
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 B.B.J.	Name (Printed/Typed) Bradley Bishop	Date 05/11/2015
Title		

Approved by (Signature) Steve Caffey	Name (Printed/Typed) CARLSBAD FIELD OFFICE	Date NOV 3 2015
Title FIELD MANAGER	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

NOV 09 2015

K2
11/06/15

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1. Geologic Formations

TVD of target	9377'	Pilot hole depth	NA
MD at TD:	13873'	Deepest expected fresh water:	125'

Basin

Formation	Depth (TVD) from KB	Water/Mineral Bearing/Target Zone?	Hazards*
Quaternary Fill	Surface		
Rustler	805	Water	
Top of Salt	1170	Salt	
Castile/Base Salt	4850		
Lamar	4930	Oil	
Bell Canyon	4935	Oil	
Cherry Canyon			
Manzanita Marker			
Brushy Canyon			
Bone Spring	9050	Target Zone	
1 st Bone Spring Sand			
2 nd Bone Spring Sand			
3 rd Bone Spring Sand			
Abo			
Wolfcamp			
Devonian			
Fusselman			
Ellenburger			
Granite Wash			

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

Mewbourne Oil Company, El Mar 21 A1CN Fed Com #2H
 Sec 21, T26S, R33E
 SL: 185' FNL & 2460' FWL
 BHL: 330' FSL & 2310' 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'	830' 930'	13.375"	48	H40	STC	1.71	4.01	8.08
12.25"	0'	3453'	9.625"	36	J55	LTC	1.13	1.96	2.49
12.25"	3453'	4393'	9.625"	40	J55	LTC	1.13	1.73	8.98
12.25"	4393'	4875'	9.625"	40	N80	LTC	1.22	2.27	38.24
8.75"	0'	8757'	7"	26	HCP110	LTC	1.71	2.19	2.76
8.75"	8757'	9657'	7"	26	HCP110	BTC	1.61	2.05	35.47
6.125"	8757'	13873'	4.5"	13.5	P110	LTC	2.19	2.55	4.88
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?	

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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.	420	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.	775	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	12.5	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	17	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

See
COA

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	4675'	25%
Liner	8757'	25%

Mewbourne Oil Company, El Mar 21 A1CN Fed Com #2H
 Sec 21, T26S, R33E
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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"	2m 3M	Annular	X	1250#
			Blind Ram		must test to 2000 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.
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Mewbourne Oil Company, El Mar 21 A1CN Fed Com #2H
Sec 21, T26S, R33E
SL: 185' FNL & 2460' FWL
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	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.
	Variance: None
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'	830' 930'	FW Gel	8.6-8.8	28-34	N/C
830'	4875'	Saturated Brine	10.0	28-34	N/C
4875'	8757'	Cut Brine	8.6-9.5	28-34	N/C
8757'	13873'	FW w/Polymer	8.6-9.5	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.

What will be used to monitor the loss or gain of fluid?	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	8757'(KOP) to TD
	Density	
	CBL	
	Mud log	
	PEX	

Mewbourne Oil Company, El Mar 21 A1CN Fed Com #2H
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7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	4032 psi
Abnormal Temperature	No

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

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

Mewbourne Oil Company

Lea County, New Mexico

El Mar 21 A1CN Fed Com #2H

Sec 21, T26S, R33E

SL: 185' FNL & 2460' FWL

BHL: 330' FSL & 2310' FWL

Plan: Design #1

Standard Planning Report

13 April, 2015

Planning Report

Database:	Hobbs	Local Co-ordinate Reference:	Site El Mar 21 A1CN Fed Com #2H
Company:	Mewbourne Oil Company	TVD Reference:	WELL @ 3294.0usft (Original Well Elev)
Project:	Lea County, New Mexico	MD Reference:	WELL @ 3294.0usft (Original Well Elev)
Site:	El Mar 21 A1CN Fed Com #2H	North Reference:	Grid
Well:	Sec 21, T26S, R33E	Survey Calculation Method:	Minimum Curvature
Wellbore:	BHL: 330' FSL & 2310' FWL		
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	El Mar 21 A1CN Fed Com #2H		
Site Position:		Northing:	377,502.70 usft
From:	Map	Easting:	734,263.00 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 2' 8.217 N
		Longitude:	103° 34' 38.462 W
		Grid Convergence:	0.40 °

Well	Sec 21, T26S, R33E		
Well Position	+N/-S	0.0 usft	Northing:
	+E/-W	0.0 usft	Easting:
Position Uncertainty	0.0 usft	Wellhead Elevation:	3,294.0 usft
		Latitude:	32° 2' 8.217 N
		Longitude:	103° 34' 38.462 W
		Ground Level:	3,274.0 usft

Wellbore	BHL: 330' FSL & 2310' FWL		
Magnetics	Model Name	Sample Date	Declination (°)
	IGRF200510	12/31/2009	7.74
			Dip Angle (°)
			60.06
			Field Strength (nT)
			48,679

Design	Design #1		
Audit Notes:			
Version:	Phase:	PROTOTYPE	Tie On Depth:
			0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.0	0.0	0.0
			Direction (°)
			181.37

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		
8,757.0	0.00	0.00	8,757.0	0.0	0.0	0.00	0.00	0.00	0.00		
9,657.0	89.99	194.69	9,330.0	-554.2	-145.3	10.00	10.00	0.00	-165.31	LP/FTP: 738 FNL & 2	
9,971.4	89.33	178.99	9,331.9	-865.4	-182.7	5.00	-0.21	-5.00	-92.45	BHL: 330' FSL & 2310'	
13,872.8	89.34	178.99	9,377.0	-4,765.9	-113.8	0.00	0.00	0.00	0.00	BHL: 330' FSL & 2310'	

Planning Report

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Project:	Lea County, New Mexico	MD Reference:	WELL @ 3294.0usft (Original Well Elev)
Site:	El Mar 21 A1CN Fed Com #2H	North Reference:	Grid
Well:	Sec 21, T26S, R33E	Survey Calculation Method:	Minimum Curvature
Wellbore:	BHL: 330' FSL & 2310' FWL		
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: 185 FNL & 2460 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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Well:	Sec 21, T26S, R33E	Survey Calculation Method:	Minimum Curvature
Wellbore:	BHL: 330' FSL & 2310' FWL		
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
8,757.0	0.00	0.00	8,757.0	0.0	0.0	0.0	0.00	0.00	0.00
KOP @ 8757									
8,800.0	4.30	194.69	8,800.0	-1.6	-0.4	1.6	10.00	10.00	0.00
8,900.0	14.30	194.69	8,898.5	-17.2	-4.5	17.3	10.00	10.00	0.00
9,000.0	24.30	194.69	8,992.8	-49.1	-12.9	49.4	10.00	10.00	0.00
9,100.0	34.30	194.69	9,079.9	-96.4	-25.3	96.9	10.00	10.00	0.00
9,200.0	44.30	194.69	9,157.2	-157.6	-41.3	158.5	10.00	10.00	0.00
9,300.0	54.30	194.69	9,222.3	-230.8	-60.5	232.2	10.00	10.00	0.00
9,400.0	64.30	194.69	9,273.3	-313.9	-82.3	315.7	10.00	10.00	0.00
9,500.0	74.29	194.69	9,308.6	-404.2	-106.0	406.6	10.00	10.00	0.00
9,600.0	84.29	194.69	9,327.2	-499.2	-130.9	502.1	10.00	10.00	0.00
9,657.0	89.99	194.69	9,330.0	-554.2	-145.3	557.5	10.00	10.00	0.00
LP/FTP: 738 FNL & 2310 FWL									
9,700.0	89.90	192.55	9,330.0	-596.0	-155.5	599.5	5.00	-0.21	-5.00
9,800.0	89.69	187.55	9,330.4	-694.4	-172.9	698.3	5.00	-0.21	-5.00
9,900.0	89.48	182.55	9,331.1	-794.0	-181.7	798.1	5.00	-0.21	-5.00
9,971.4	89.33	178.99	9,331.9	-865.4	-182.7	869.5	5.00	-0.21	-5.00
10,000.0	89.33	178.99	9,332.2	-894.0	-182.2	898.1	0.00	0.00	0.00
10,100.0	89.33	178.99	9,333.4	-993.9	-180.4	998.0	0.00	0.00	0.00

Planning Report

Database:	Hobbs	Local Co-ordinate Reference:	Site El Mar 21 A1CN Fed Com #2H
Company:	Mewbourne Oil Company	TVD Reference:	WELL @ 3294.0usft (Original Well Elev)
Project:	Lea County, New Mexico	MD Reference:	WELL @ 3294.0usft (Original Well Elev)
Site:	El Mar 21 A1CN Fed Com #2H	North Reference:	Grid
Well:	Sec 21, T26S, R33E	Survey Calculation Method:	Minimum Curvature
Wellbore:	BHL: 330' FSL & 2310' FWL		
Design:	Design #1		

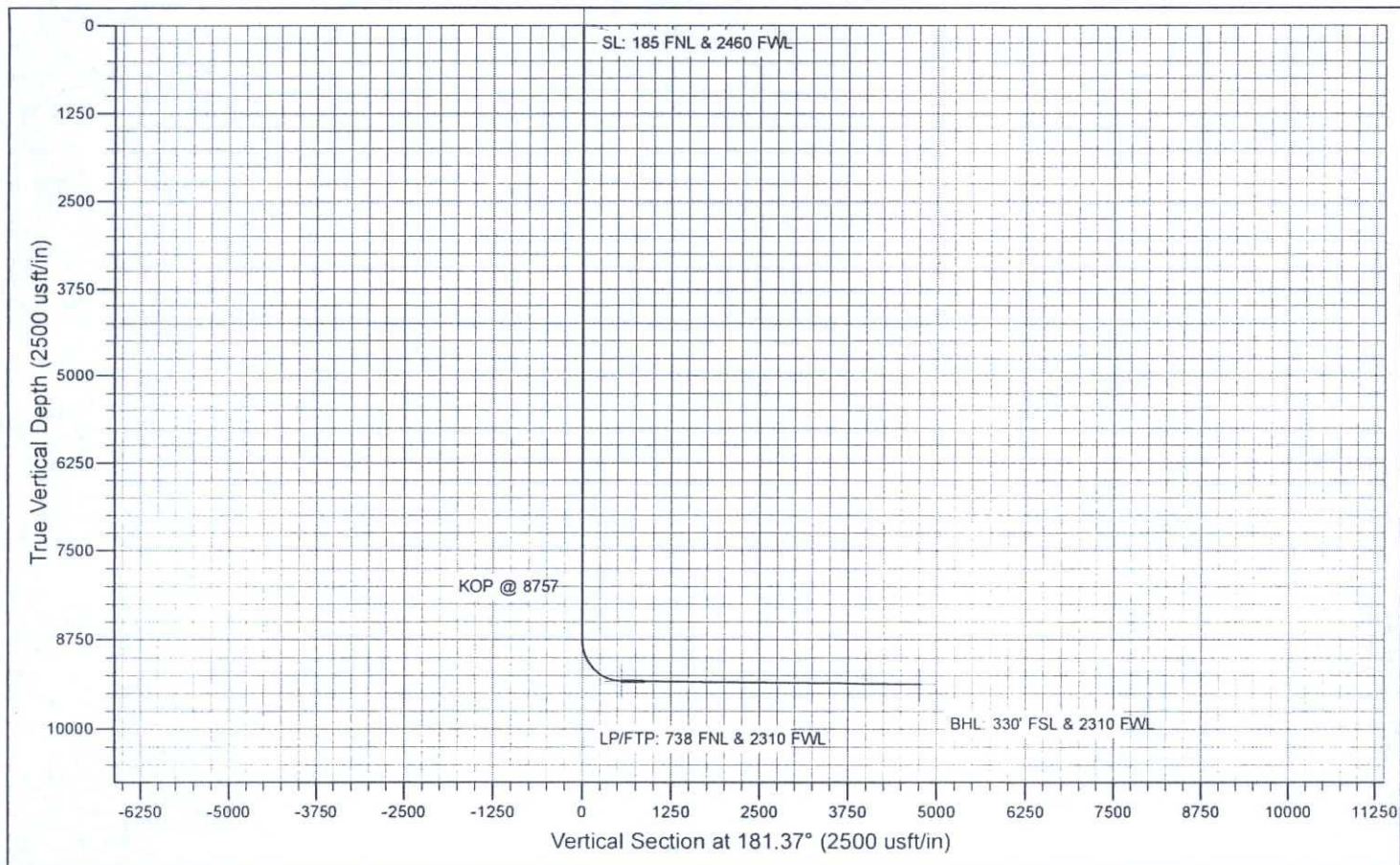
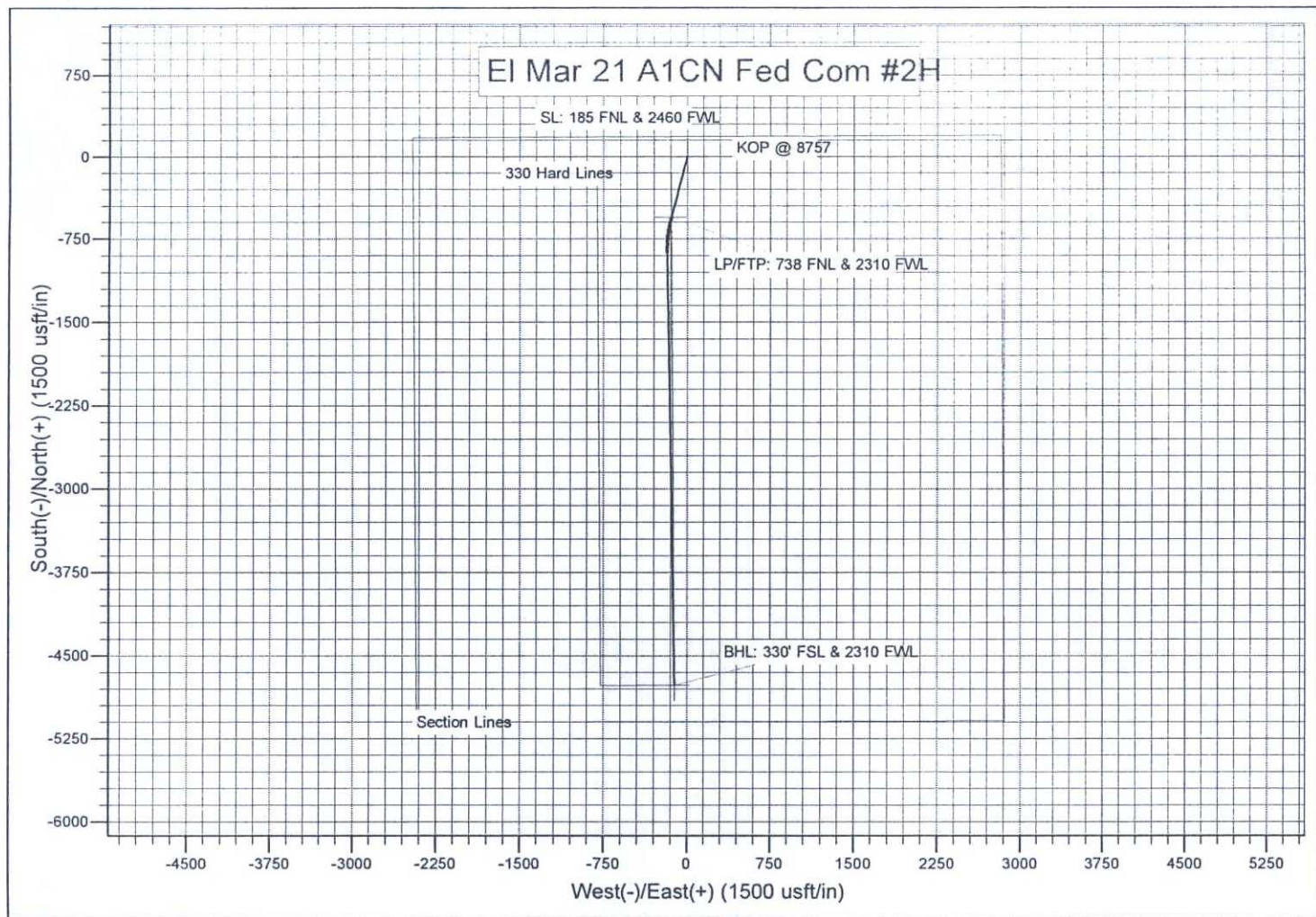
Planned Survey

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)
10,200.0	89.33	178.99	9,334.5	-1,093.9	-178.6	1,097.9	0.00	0.00	0.00
10,300.0	89.33	178.99	9,335.7	-1,193.9	-176.9	1,197.8	0.00	0.00	0.00
10,400.0	89.33	178.99	9,336.9	-1,293.9	-175.1	1,297.7	0.00	0.00	0.00
10,500.0	89.33	178.99	9,338.0	-1,393.9	-173.3	1,397.6	0.00	0.00	0.00
10,600.0	89.33	178.99	9,339.2	-1,493.8	-171.6	1,497.5	0.00	0.00	0.00
10,700.0	89.33	178.99	9,340.4	-1,593.8	-169.8	1,597.4	0.00	0.00	0.00
10,800.0	89.33	178.99	9,341.5	-1,693.8	-168.0	1,697.3	0.00	0.00	0.00
10,900.0	89.33	178.99	9,342.7	-1,793.8	-166.3	1,797.2	0.00	0.00	0.00
11,000.0	89.33	178.99	9,343.9	-1,893.7	-164.5	1,897.1	0.00	0.00	0.00
11,100.0	89.33	178.99	9,345.0	-1,993.7	-162.7	1,997.0	0.00	0.00	0.00
11,200.0	89.33	178.99	9,346.2	-2,093.7	-161.0	2,096.9	0.00	0.00	0.00
11,300.0	89.33	178.99	9,347.3	-2,193.7	-159.2	2,196.9	0.00	0.00	0.00
11,400.0	89.34	178.99	9,348.5	-2,293.7	-157.4	2,296.8	0.00	0.00	0.00
11,500.0	89.34	178.99	9,349.7	-2,393.6	-155.7	2,396.7	0.00	0.00	0.00
11,600.0	89.34	178.99	9,350.8	-2,493.6	-153.9	2,496.6	0.00	0.00	0.00
11,700.0	89.34	178.99	9,352.0	-2,593.6	-152.2	2,596.5	0.00	0.00	0.00
11,800.0	89.34	178.99	9,353.1	-2,693.6	-150.4	2,696.4	0.00	0.00	0.00
11,900.0	89.34	178.99	9,354.3	-2,793.5	-148.6	2,796.3	0.00	0.00	0.00
12,000.0	89.34	178.99	9,355.5	-2,893.5	-146.9	2,896.2	0.00	0.00	0.00
12,100.0	89.34	178.99	9,356.6	-2,993.5	-145.1	2,996.1	0.00	0.00	0.00
12,200.0	89.34	178.99	9,357.8	-3,093.5	-143.3	3,096.0	0.00	0.00	0.00
12,300.0	89.34	178.99	9,358.9	-3,193.5	-141.6	3,195.9	0.00	0.00	0.00
12,400.0	89.34	178.99	9,360.1	-3,293.4	-139.8	3,295.8	0.00	0.00	0.00
12,500.0	89.34	178.99	9,361.2	-3,393.4	-138.0	3,395.7	0.00	0.00	0.00
12,600.0	89.34	178.99	9,362.4	-3,493.4	-136.3	3,495.6	0.00	0.00	0.00
12,700.0	89.34	178.99	9,363.5	-3,593.4	-134.5	3,595.6	0.00	0.00	0.00
12,800.0	89.34	178.99	9,364.7	-3,693.3	-132.7	3,695.5	0.00	0.00	0.00
12,900.0	89.34	178.99	9,365.8	-3,793.3	-131.0	3,795.4	0.00	0.00	0.00
13,000.0	89.34	178.99	9,367.0	-3,893.3	-129.2	3,895.3	0.00	0.00	0.00
13,100.0	89.34	178.99	9,368.1	-3,993.3	-127.4	3,995.2	0.00	0.00	0.00
13,200.0	89.34	178.99	9,369.3	-4,093.3	-125.7	4,095.1	0.00	0.00	0.00
13,300.0	89.34	178.99	9,370.4	-4,193.2	-123.9	4,195.0	0.00	0.00	0.00
13,400.0	89.34	178.99	9,371.6	-4,293.2	-122.1	4,294.9	0.00	0.00	0.00
13,500.0	89.34	178.99	9,372.7	-4,393.2	-120.4	4,394.8	0.00	0.00	0.00
13,600.0	89.34	178.99	9,373.9	-4,493.2	-118.6	4,494.7	0.00	0.00	0.00
13,700.0	89.34	178.99	9,375.0	-4,593.1	-116.9	4,594.6	0.00	0.00	0.00
13,800.0	89.34	178.99	9,376.2	-4,693.1	-115.1	4,694.5	0.00	0.00	0.00
13,872.8	89.34	178.99	9,377.0	-4,765.9	-113.8	4,767.3	0.00	0.00	0.00
BHL: 330' FSL & 2310' FWL									

Planning Report

Database:	Hobbs	Local Co-ordinate Reference:	Site El Mar 21 A1CN Fed Com #2H
Company:	Mewbourne Oil Company	TVD Reference:	WELL @ 3294.0usft (Original Well Elev)
Project:	Lea County, New Mexico	MD Reference:	WELL @ 3294.0usft (Original Well Elev)
Site:	El Mar 21 A1CN Fed Com #2H	North Reference:	Grid
Well:	Sec 21, T26S, R33E	Survey Calculation Method:	Minimum Curvature
Wellbore:	BHL: 330' FSL & 2310' FWL		
Design:	Design #1		

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 & 2460 FW - plan hits target center - Point	0.00	0.00	0.0	0.0	0.0	377,502.70	734,263.00	32° 2' 8.217 N	103° 34' 38.462 W
KOP @ 8757 - plan hits target center - Point	0.00	0.00	8,757.0	0.0	0.0	377,502.70	734,263.00	32° 2' 8.217 N	103° 34' 38.462 W
LP/FTP: 738 FNL & 2311 - plan hits target center - Point	0.00	0.01	9,330.0	-554.2	-145.3	376,948.51	734,117.67	32° 2' 2.743 N	103° 34' 40.195 W
BHL: 330' FSL & 2310 F - plan hits target center - Point	0.00	0.00	9,377.0	-4,765.9	-113.8	372,736.80	734,149.20	32° 1' 21.062 N	103° 34' 40.171 W



Notes Regarding Blowout Preventer

Mewbourne Oil Company

El Mar 21 A1CN Fed Com #2H

185' FNL & 2460' FWL (SHL)

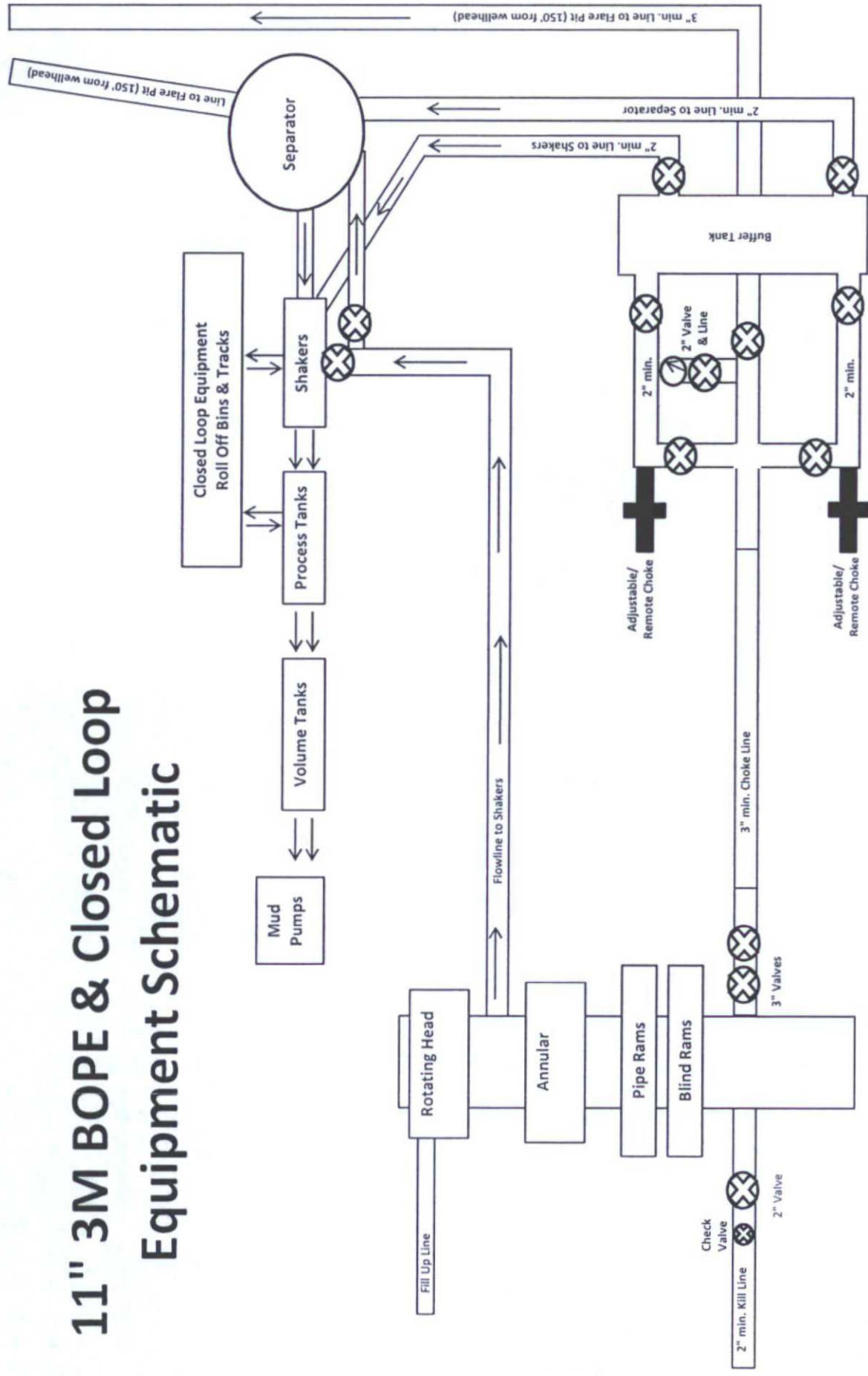
Sec 21-T26S-R33E

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

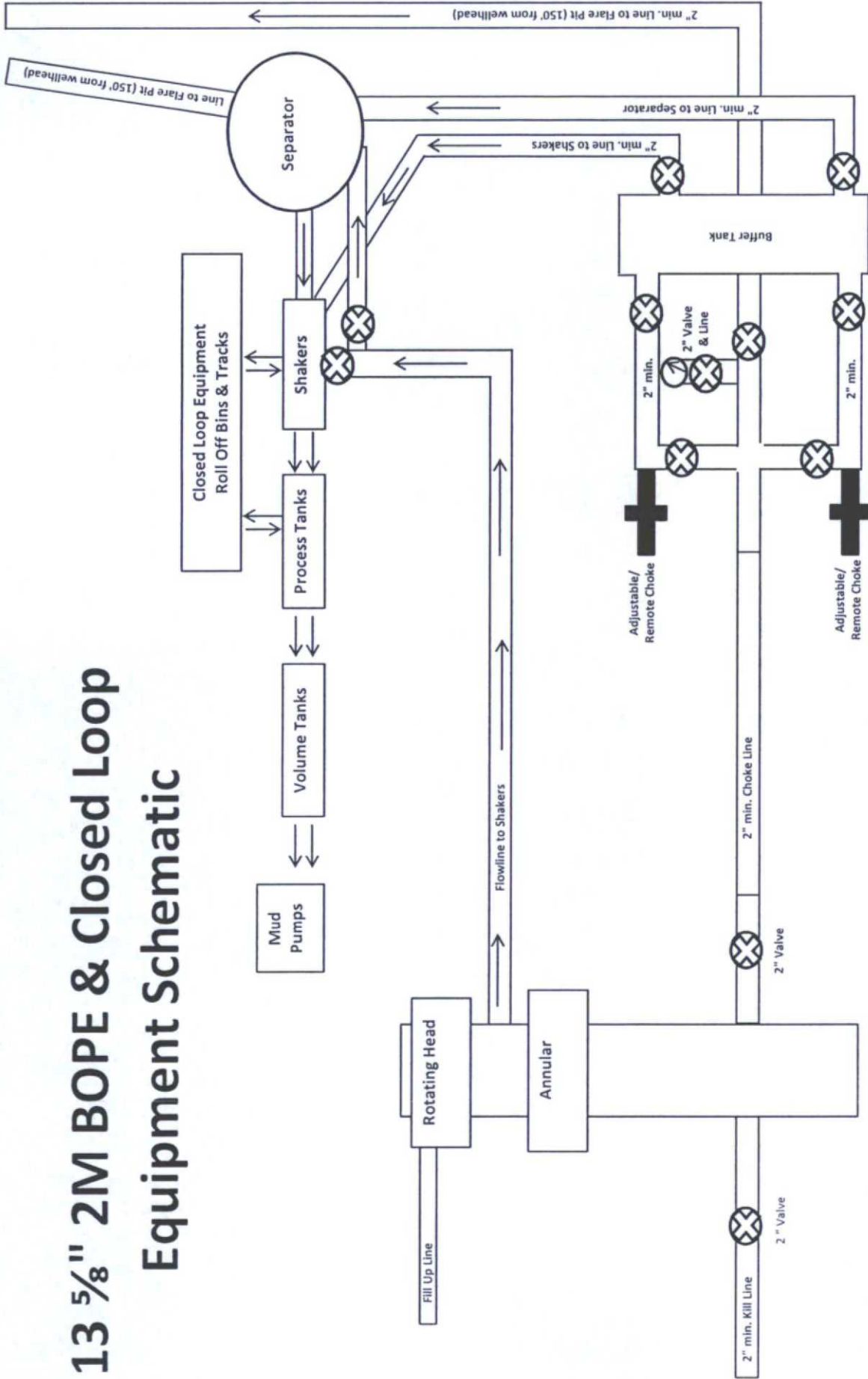


Exhibit 2A
EI Mar 21 A1CN Fed Com #2H