

OCD Hobbs

14-488

Form 3160-3
(March 2012)FORM APPROVED
OMB No. 1004-0137
Expires October 31, 2014**UNORTHODOX
LOCATION**UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

HOBBS OCD

SEP 08 2014

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: ☒ DRILL ☐ REENTER		RECEIVED	
1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☐ Single Zone ☐ Multiple Zone			
2. Name of Operator Mewbourne Oil Company			
3a. Address PO Box 5270 Hobbs, NM 88241		3b. Phone No. (include area code) 575-393-5905	
4. Location of Well (Report location clearly and in accordance with any State requirements.)* At surface 175' FNL & 500' FWL, Sec 21 T26S R33E At proposed prod. zone 300 FSL & 330 FWL, Sec 21 T26S R33E			
14. Distance in miles and direction from nearest town or post office* 28 miles northeast of Orla, TX.		12. County or Parish Lea	
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 175'		16. No. of acres in lease 2,174.12	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 2514' State of New Mexico "CT" 1-26-33		19. Proposed Depth 14550' - MD 9850' - TVD	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3251'-GL		22. Approximate date work will start* 02/15/2014	
		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 Bailey</i>	Name (Printed/Typed)	Date 2-27-14
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Approved by (Signature) Steve Caffey	Name (Printed/Typed)	Date SEP - 8 2014
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.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1701
 States any false, fictitious or fraudulent statement or information is prohibited.

E-PERMITTING -- New Well *on*
 Comp _____ P&A _____ TA _____
 CSNG _____ Loc Chng _____
 ReComp _____ Add New Well _____
 Cancl Well _____ Create Pool _____

(Continued on page 2)

APPROVAL FOR TWO YEARS

and willfully make to any department or agency of the United States

*(Instructions on page 2)

Carlsbad Controlled Water Basin

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

SEP 16 2014

Drilling Program
Mewbourne Oil Company
 El Mar 21 A3DM Fed Com #1H
 175' FNL & 500' FWL (SHL)
 Sec 21-T26S-R33E
 Lea County, New Mexico

1. The estimated tops of geological markers are as follows:

Rustler	800'
Top Salt	1170'
Base Salt/Lamar	4650'
*Yates	NA
Seven Rivers	NA
*Queen	NA
Grayburg	NA
San Andres	NA
*Lamar/Delaware	4890'
*Bone Springs	9050'
*Wolfcamp	NA

2. Estimated depths of anticipated fresh water, oil, or gas:

Water	Fresh water is anticipated @ 120' and will be protected by setting surface casing at 825' and cementing to surface.
Hydrocarbons	Oil and gas are anticipated in the above (*) formations. These zones will be protected by casing as necessary.

3. Pressure control equipment:

See COA

A 2000# WP Annular will be installed after running 13 3/8" casing. A 3000# WP Double Ram BOP and 3000# WP Annular will be installed after running 9 5/8" & 7" casing strings. Pressure tests will be conducted prior to drilling out under all casing strings. BOP controls will be installed prior to drilling under surface casing and will remain in use until completion of drilling operations. BOPE will be inspected and operated as recommended in Onshore Order #2. A kelly cock and a sub equipped with a full opening valve sized to fit the drill pipe and collars will be available on the rig floor in the open position when the kelly is not in use. Will test the 7" & 9 5/8" BOPE to 3000# and both Annular BOPs to 1500# with a third party testing company before drilling below each shoe, but will test again, if needed, in 30 days from the 1st test as per BLM Onshore Oil and Gas Order #2.

4. MOC proposes to drill a vertical wellbore to 9317' & kick off to horizontal @ 9890' TVD. The well will be drilled to 14423' MD (9953' TVD). See attached directional plan.

5. Proposed casing and cementing program:

See COA

A. Casing Program:						
<u>Hole Size</u>	<u>Casing</u>	<u>Wt/Ft.</u>	<u>Grade</u>	<u>Depth</u>	<u>Jt Type</u>	
17 1/2"	13 3/8" (new)	48#	H40	0' - 825' ^{910'}	ST&C	
12 1/4"	9 5/8" (new)	36#	J55	0' - 3300' MD	LT&C	
12 1/4"	9 5/8" (new)	40#	J55	3300' - 4300' MD	LT&C	
12 1/4"	9 5/8" (new)	40#	N80	4300' - 4850' MD	LT&C	
8 3/4"	7" (new)	26#	P110	0-9317' MD	LT&C	
8 3/4"	7" (new)	26#	P110	9317'-10209' MD	BT&C	
6 1/8"	4 1/2" (new)	13.5#	P110	10009'-TD	LT&C	

Minimum casing design factors: Collapse 1.125, Burst 1.0, Tensile strength 1.8.

*Subject to availability of casing.

B. Cementing Program:

- i. Surface Casing: 450 sacks Class "C" (35:65:4) light cement w/ 1% CaCl₂ & LCM additives. Yield at 2.0 cuft/sk. Mix water @ 11.17 gal/sk. 200 sacks Class "C" cement w/ 1% CaCl₂. Yield at 1.34 cuft/sk. Mix water @ 6.33 gal/sk. Cmt circulated to surface w/100% excess.
- i. Intermediate Casing: 825 sacks Class "C" (35:65:4) light cement w/ salt and LCM additives. Yield at 2.0 cuft/sk. Mix water @ 11.17 gal/sk. 200 sacks Class "C" cement w/1% CaCl₂. Yield at 1.34 cuft/sk. Mix water @ 6.33 gal/sk. Cmt circulated to surface w/25% excess.
- ii. Production Casing: 360 sacks Class H light cement with fluid loss, LCM, & salt additives. Yield at 2.12 cuft/sk. Mix water @ 11.32 gal/sk. Tail w/300 sacks Class H cmt. Yield at 1.18 cuft/sk. Mix water @ 5.22 gal/sk. Calculated to tie back inside 9 5/8" csg 200' w/25% excess.
- iii. Production Liner: This will be a Packer/Port completion from TD up inside 7" casing with packer type liner hanger.

*Referring to above blends of light cement: (65% fly ash : 35% cement : 4% bentonite of the total of first two numbers). Generic names of additives are used since the availability of specific company and products are unknown at this time.

6. Mud Program:

See COA

Interval	Type System	Weight	Viscosity	Fluid Loss
0' - 825'	FW spud mud	8.6-9.0	32-34	NA
825' - 4850'	Brine water	10.0-10.2	28-30	NA
4850' - 9317' (KOP)	FW	8.5-8.7	28-30	NA
9317' - TD	FW w/Polymer	8.5-8.7	32-35	15

*Visual mud monitoring system shall be in place to detect volume changes indicating loss or gain of circulation fluid volume. Sufficient mud materials will be kept on location at all times to combat abnormal conditions.

7. Evaluation Program:

Samples: 10' samples from KOP to TD
Logging: GR, CN & Gyro 100' above KOP (9217') to surface. GR from 9217' to TD.

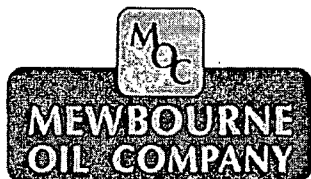
8. Downhole Conditions

See COA

Zones of abnormal pressure: None anticipated
Zones of lost circulation: Anticipated in surface and intermediate holes
Maximum bottom hole temperature: 120 degree F
Maximum bottom hole pressure: 8.3 lbs/gal gradient or less (.43668 x 9953'=4316 psi)
MOC does not anticipate H₂S, However H₂S contingency plan is attached.

9. Anticipated Starting Date:

Mewbourne Oil Company intends to drill this well as soon as possible after receiving approval with approximately 40 days involved in drilling operations and an additional 20 days involved in completion operations on the project.



Mewbourne Oil Company .

Lea County N.M.

Section 21-26S-33E El Mar 21 A3DM Fed Com #1H

El Mar 21 A3DM Fed Com #1H

Original Hole

Plan: Plan#1

Standard Planning Report

23 January, 2014





Stryker Directional Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well El Mar 21 A3DM Fed Com #1H
Company:	Mewbourne Oil Company	TVD Reference:	GL 3275 + 20 @ 3295.0usft (Patterson #36)
Project:	Lea County N.M.	MD Reference:	GL 3275 + 20 @ 3295.0usft (Patterson #36)
Site:	Section 21-26S-33E El Mar 21 A3DM Fed Com #1H	North Reference:	Grid
Well:	El Mar 21 A3DM Fed Com #1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	Plan#1		

Project	Lea County N.M.		
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	Section 21-26S-33E El Mar 21 A3DM Fed Com #1H		
Site Position:		Northing:	377,507.10 usft
From:	Map	Easting:	732,304.00 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 2' 8.396 N
		Longitude:	103° 35' 1.219 W
		Grid Convergence:	0.40 °

Well	El Mar 21 A3DM Fed Com #1H					
Well Position	+N-S	0.0 usft	Northing:	377,507.10 usft	Latitude:	32° 2' 8.396 N
	+E-W	0.0 usft	Easting:	732,304.00 usft	Longitude:	103° 35' 1.219 W
Position Uncertainty		0.0 usft	Wellhead Elevation:		Ground Level:	3,275.0 usft

Wellbore	Original Hole		
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Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	IGRF2010	1/23/2014	7.26	59.94	48,242

Design	Plan#1		
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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	181.62

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	
9,317.1	0.00	0.00	9,317.1	0.0	0.0	0.00	0.00	0.00	0.00	
10,208.5	89.14	181.62	9,890.0	-564.2	-15.9	10.00	10.00	-20.01	181.62	
14,422.8	89.14	181.62	9,953.0	-4,776.3	-134.8	0.00	0.00	0.00	0.00	PBHL El Mar A3DM



Stryker Directional Planning Report



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Company:	Mewbourne Oil Company	TVD Reference:	GL 3275 + 20 @ 3295.0usft (Patterson #36)
Project:	Lea County N.M.	MD Reference:	GL 3275 + 20 @ 3295.0usft (Patterson #36)
Site:	Section 21-26S-33E El Mar 21 A3DM Fed Com #1H	North Reference:	Grid
Well:	El Mar 21 A3DM Fed Com #1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	Plan#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
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



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Wellbore:	Original Hole		
Design:	Plan#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	
9,317.1	0.00	0.00	9,317.1	0.0	0.0	0.0	0.00	0.00	0.00	
9317.1 MD KOP										
9,350.0	3.29	181.62	9,350.0	-0.9	0.0	0.9	10.00	10.00	0.00	
9,400.0	8.29	181.62	9,399.7	-6.0	-0.2	6.0	10.00	10.00	0.00	
9,450.0	13.29	181.62	9,448.8	-15.3	-0.4	15.3	10.00	10.00	0.00	
9,500.0	18.29	181.62	9,496.9	-28.9	-0.8	28.9	10.00	10.00	0.00	
9,550.0	23.29	181.62	9,543.6	-46.7	-1.3	46.7	10.00	10.00	0.00	
9,600.0	28.29	181.62	9,588.6	-68.4	-1.9	68.4	10.00	10.00	0.00	
9,650.0	33.29	181.62	9,631.6	-94.0	-2.7	94.0	10.00	10.00	0.00	
9,700.0	38.29	181.62	9,672.1	-123.2	-3.5	123.3	10.00	10.00	0.00	
9,750.0	43.29	181.62	9,710.0	-155.8	-4.4	155.9	10.00	10.00	0.00	
9,800.0	48.29	181.62	9,744.8	-191.7	-5.4	191.7	10.00	10.00	0.00	



Stryker Directional Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well El Mar 21 A3DM Fed Com #1H
Company:	Mewbourne Oil Company	TVD Reference:	GL 3275 + 20 @ 3295.0usft (Patterson #36)
Project:	Lea County N.M.	MD Reference:	GL 3275 + 20 @ 3295.0usft (Patterson #36)
Site:	Section 21-26S-33E El Mar 21 A3DM Fed Com #1H	North Reference:	Grid
Well:	El Mar 21 A3DM Fed Com #1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	Plan#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)
9,850.0	53.29	181.62	9,776.4	-230.4	-6.5	230.5	10.00	10.00	0.00
9,900.0	58.29	181.62	9,804.5	-271.7	-7.7	271.8	10.00	10.00	0.00
9,950.0	63.29	181.62	9,828.9	-315.3	-8.9	315.4	10.00	10.00	0.00
10,000.0	68.29	181.62	9,849.4	-360.9	-10.2	361.0	10.00	10.00	0.00
10,050.0	73.29	181.62	9,865.9	-408.1	-11.5	408.2	10.00	10.00	0.00
10,100.0	78.29	181.62	9,878.1	-456.5	-12.9	456.7	10.00	10.00	0.00
10,150.0	83.29	181.62	9,886.1	-505.8	-14.3	506.0	10.00	10.00	0.00
10,200.0	88.29	181.62	9,889.8	-555.6	-15.7	555.9	10.00	10.00	0.00
10,208.5	89.14	181.62	9,890.0	-564.1	-15.9	564.4	10.00	10.00	0.00
10208.5' MD LP									
10,300.0	89.14	181.62	9,891.4	-655.6	-18.5	655.8	0.00	0.00	0.00
10,400.0	89.14	181.62	9,892.9	-755.5	-21.3	755.8	0.00	0.00	0.00
10,500.0	89.14	181.62	9,894.4	-855.5	-24.2	855.8	0.00	0.00	0.00
10,600.0	89.14	181.62	9,895.8	-955.4	-27.0	955.8	0.00	0.00	0.00
10,700.0	89.14	181.62	9,897.3	-1,055.4	-29.8	1,055.8	0.00	0.00	0.00
10,800.0	89.14	181.62	9,898.8	-1,155.3	-32.6	1,155.8	0.00	0.00	0.00
10,900.0	89.14	181.62	9,900.3	-1,255.3	-35.4	1,255.8	0.00	0.00	0.00
11,000.0	89.14	181.62	9,901.8	-1,355.2	-38.3	1,355.8	0.00	0.00	0.00
11,100.0	89.14	181.62	9,903.3	-1,455.2	-41.1	1,455.8	0.00	0.00	0.00
11,200.0	89.14	181.62	9,904.8	-1,555.1	-43.9	1,555.7	0.00	0.00	0.00
11,300.0	89.14	181.62	9,906.3	-1,655.1	-46.7	1,655.7	0.00	0.00	0.00
11,400.0	89.14	181.62	9,907.8	-1,755.0	-49.5	1,755.7	0.00	0.00	0.00
11,500.0	89.14	181.62	9,909.3	-1,855.0	-52.4	1,855.7	0.00	0.00	0.00
11,600.0	89.14	181.62	9,910.8	-1,954.9	-55.2	1,955.7	0.00	0.00	0.00
11,700.0	89.14	181.62	9,912.3	-2,054.9	-58.0	2,055.7	0.00	0.00	0.00
11,800.0	89.14	181.62	9,913.8	-2,154.8	-60.8	2,155.7	0.00	0.00	0.00
11,900.0	89.14	181.62	9,915.3	-2,254.8	-63.7	2,255.7	0.00	0.00	0.00
12,000.0	89.14	181.62	9,916.8	-2,354.7	-66.5	2,355.7	0.00	0.00	0.00
12,100.0	89.14	181.62	9,918.3	-2,454.7	-69.3	2,455.6	0.00	0.00	0.00
12,200.0	89.14	181.62	9,919.8	-2,554.6	-72.1	2,555.6	0.00	0.00	0.00
12,300.0	89.14	181.62	9,921.3	-2,654.6	-74.9	2,655.6	0.00	0.00	0.00
12,400.0	89.14	181.62	9,922.8	-2,754.5	-77.8	2,755.6	0.00	0.00	0.00
12,500.0	89.14	181.62	9,924.3	-2,854.5	-80.6	2,855.6	0.00	0.00	0.00
12,600.0	89.14	181.62	9,925.7	-2,954.4	-83.4	2,955.6	0.00	0.00	0.00
12,700.0	89.14	181.62	9,927.2	-3,054.4	-86.2	3,055.6	0.00	0.00	0.00
12,800.0	89.14	181.62	9,928.7	-3,154.3	-89.1	3,155.6	0.00	0.00	0.00
12,900.0	89.14	181.62	9,930.2	-3,254.3	-91.9	3,255.6	0.00	0.00	0.00
13,000.0	89.14	181.62	9,931.7	-3,354.2	-94.7	3,355.5	0.00	0.00	0.00
13,100.0	89.14	181.62	9,933.2	-3,454.2	-97.5	3,455.5	0.00	0.00	0.00
13,200.0	89.14	181.62	9,934.7	-3,554.1	-100.3	3,555.5	0.00	0.00	0.00
13,300.0	89.14	181.62	9,936.2	-3,654.1	-103.2	3,655.5	0.00	0.00	0.00
13,400.0	89.14	181.62	9,937.7	-3,754.0	-106.0	3,755.5	0.00	0.00	0.00
13,500.0	89.14	181.62	9,939.2	-3,854.0	-108.8	3,855.5	0.00	0.00	0.00
13,600.0	89.14	181.62	9,940.7	-3,953.9	-111.6	3,955.5	0.00	0.00	0.00
13,700.0	89.14	181.62	9,942.2	-4,053.9	-114.5	4,055.5	0.00	0.00	0.00
13,800.0	89.14	181.62	9,943.7	-4,153.8	-117.3	4,155.5	0.00	0.00	0.00
13,900.0	89.14	181.62	9,945.2	-4,253.8	-120.1	4,255.4	0.00	0.00	0.00
14,000.0	89.14	181.62	9,946.7	-4,353.7	-122.9	4,355.4	0.00	0.00	0.00
14,100.0	89.14	181.62	9,948.2	-4,453.6	-125.7	4,455.4	0.00	0.00	0.00
14,200.0	89.14	181.62	9,949.7	-4,553.6	-128.6	4,555.4	0.00	0.00	0.00
14,300.0	89.14	181.62	9,951.2	-4,653.5	-131.4	4,655.4	0.00	0.00	0.00
14,400.0	89.14	181.62	9,952.7	-4,753.5	-134.2	4,755.4	0.00	0.00	0.00



Stryker Directional Planning Report

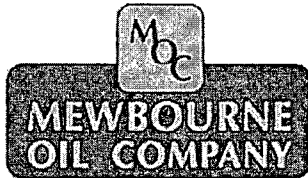


Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well El Mar 21 A3DM Fed Com #1H
Company:	Mewbourne Oil Company	TVD Reference:	GL 3275 + 20 @ 3295.0usft (Patterson #36)
Project:	Lea County N.M.	MD Reference:	GL 3275 + 20 @ 3295.0usft (Patterson #36)
Site:	Section 21-26S-33E El Mar 21 A3DM Fed Com #1H	North Reference:	Grid
Well:	El Mar 21 A3DM Fed Com #1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	Plan#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)
14,422.8	89.14	181.62	9,953.0	-4,776.3	-134.8	4,778.2	0.00	0.00	0.00
14422.8' MD/PBHL									

Design Targets									
Target Name	hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude Longitude
LP El Mar 21 A3DM F	- plan misses target center by 2.5usft at 10210.1usft MD (9890.0 TVD, -565.7 N, -16.0 E)	0.00	0.00	9,890.0	-565.6	-18.5	376,941.46	732,285.54	32° 2' 2.799 N 103° 35' 1.479 W
PBHL El Mar A3DM F	- plan hits target center	0.00	0.00	9,953.0	-4,776.3	-134.8	372,730.79	732,169.15	32° 1' 21.139 N 103° 35' 3.170 W

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Comment
9,317.1	9,317.1	0.0	0.0	9317.1' MD KOP
10,208.5	9,890.0	-564.1	-15.9	10208.5' MD LP
14,422.8	9,953.0	-4,776.3	-134.8	14422.8' MD PBHL



Mewbourne Oil Company .

Lea County N.M.

Section 21-26S-33E El Mar 21A3DM Fed Com #1H

El Mar 21A3DM Fed Com #1H

Original Hole

Plan: Plan#1

Standard Planning Report - Geographic

23 January, 2014





Stryker Directional Planning Report - Geographic



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well El Mar 21 A3DM Fed Com #1H
Company:	Mewbourne Oil Company	TVD Reference:	GL 3275 + 20 @ 3295.0usft (Patterson #36)
Project:	Lea County N.M.	MD Reference:	GL 3275 + 20 @ 3295.0usft (Patterson #36)
Site:	Section 21-26S-33E El Mar 21 A3DM Fed Com #1H	North Reference:	Grid
Well:	El Mar 21 A3DM Fed Com #1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	Plan#1		

Project	Lea County N.M.		
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						Section 21-26S-33E El Mar 21 A3DM Fed Com #1H					
Site Position:			Northing:		377,507.10 usft		Latitude:		32° 2' 8.396 N		
From:		Map	Easting:		732,304.00 usft		Longitude:		103° 35' 1.219 W		
Position Uncertainty:		0.0 usft	Slot Radius:		13-3/16 "		Grid Convergence:		0.40		

Well	El Mar 21 A3DM Fed Com #1H					
Well Position	+N/-S	0.0 usft	Northing:	377,507.10 usft	Latitude:	32° 2' 8.396 N
	+E/-W	0.0 usft	Easting:	732,304.00 usft	Longitude:	103° 35' 1.219 W
Position Uncertainty	0.0 usft	Wellhead Elevation:		Ground Level:	3,275.0 usft	

Wellbore	Original Hole
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Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	1/23/2014	7.26	59.94	48,242

Design	Plan#1
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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	181.62

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	
9,317.1	0.00	0.00	9,317.1	0.0	0.0	0.00	0.00	0.00	0.00	
10,208.5	89.14	181.62	9,890.0	-564.2	-15.9	10.00	10.00	-20.01	181.62	
14,422.8	89.14	181.62	9,953.0	-4,776.3	-134.8	0.00	0.00	0.00	0.00	PBHL El Mar A3DM



Stryker Directional Planning Report - Geographic



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well El-Mar 21 A3DM Fed Com #1H
Company:	Mewbourne Oil Company	TVD Reference:	GL 3275 + 20 @ 3295.0usft (Patterson #36)
Project:	Lea County N.M.	MD Reference:	GL 3275 + 20 @ 3295.0usft (Patterson #36)
Site:	Section 21-26S-33E El-Mar 21 A3DM Fed Com #1H	North Reference:	Grid
Well:	El-Mar 21 A3DM Fed Com #1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	Plan #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.0	0.00	0.00	0.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
100.0	0.00	0.00	100.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
200.0	0.00	0.00	200.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
300.0	0.00	0.00	300.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
400.0	0.00	0.00	400.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
500.0	0.00	0.00	500.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
600.0	0.00	0.00	600.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
700.0	0.00	0.00	700.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
800.0	0.00	0.00	800.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
900.0	0.00	0.00	900.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
1,000.0	0.00	0.00	1,000.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
1,100.0	0.00	0.00	1,100.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
1,200.0	0.00	0.00	1,200.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
1,300.0	0.00	0.00	1,300.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
1,400.0	0.00	0.00	1,400.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
1,500.0	0.00	0.00	1,500.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
1,600.0	0.00	0.00	1,600.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
1,700.0	0.00	0.00	1,700.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
1,800.0	0.00	0.00	1,800.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
1,900.0	0.00	0.00	1,900.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
2,000.0	0.00	0.00	2,000.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
2,100.0	0.00	0.00	2,100.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
2,200.0	0.00	0.00	2,200.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
2,300.0	0.00	0.00	2,300.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
2,400.0	0.00	0.00	2,400.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
2,500.0	0.00	0.00	2,500.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
2,600.0	0.00	0.00	2,600.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
2,700.0	0.00	0.00	2,700.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
2,800.0	0.00	0.00	2,800.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
2,900.0	0.00	0.00	2,900.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
3,000.0	0.00	0.00	3,000.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
3,100.0	0.00	0.00	3,100.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
3,200.0	0.00	0.00	3,200.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
3,300.0	0.00	0.00	3,300.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
3,400.0	0.00	0.00	3,400.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
3,500.0	0.00	0.00	3,500.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
3,600.0	0.00	0.00	3,600.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
3,700.0	0.00	0.00	3,700.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
3,800.0	0.00	0.00	3,800.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
3,900.0	0.00	0.00	3,900.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
4,000.0	0.00	0.00	4,000.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
4,100.0	0.00	0.00	4,100.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
4,200.0	0.00	0.00	4,200.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
4,300.0	0.00	0.00	4,300.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
4,400.0	0.00	0.00	4,400.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
4,500.0	0.00	0.00	4,500.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
4,600.0	0.00	0.00	4,600.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
4,700.0	0.00	0.00	4,700.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
4,800.0	0.00	0.00	4,800.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
4,900.0	0.00	0.00	4,900.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
5,000.0	0.00	0.00	5,000.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
5,100.0	0.00	0.00	5,100.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
5,200.0	0.00	0.00	5,200.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
5,300.0	0.00	0.00	5,300.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W



Stryker Directional Planning Report - Geographic



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well El Mar 21 A3DM Fed Com #1H
Company:	Mewbourne Oil Company	TVD Reference:	GL 3275 + 20 @ 3295.0usft (Patterson #36)
Project:	Lea County N.M.	MD Reference:	GL 3275 + 20 @ 3295.0usft (Patterson #36)
Site:	Section 21-26S-33E El Mar 21 A3DM Fed Com #1H	North Reference:	Grid
Well:	El Mar 21 A3DM Fed Com #1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	Plan#1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
5,400.0	0.00	0.00	5,400.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
5,500.0	0.00	0.00	5,500.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
5,600.0	0.00	0.00	5,600.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
5,700.0	0.00	0.00	5,700.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
5,800.0	0.00	0.00	5,800.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
5,900.0	0.00	0.00	5,900.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
6,000.0	0.00	0.00	6,000.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
6,100.0	0.00	0.00	6,100.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
6,200.0	0.00	0.00	6,200.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
6,300.0	0.00	0.00	6,300.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
6,400.0	0.00	0.00	6,400.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
6,500.0	0.00	0.00	6,500.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
6,600.0	0.00	0.00	6,600.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
6,700.0	0.00	0.00	6,700.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
6,800.0	0.00	0.00	6,800.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
6,900.0	0.00	0.00	6,900.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
7,000.0	0.00	0.00	7,000.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
7,100.0	0.00	0.00	7,100.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
7,200.0	0.00	0.00	7,200.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
7,300.0	0.00	0.00	7,300.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
7,400.0	0.00	0.00	7,400.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
7,500.0	0.00	0.00	7,500.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
7,600.0	0.00	0.00	7,600.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
7,700.0	0.00	0.00	7,700.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
7,800.0	0.00	0.00	7,800.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
7,900.0	0.00	0.00	7,900.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
8,000.0	0.00	0.00	8,000.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
8,100.0	0.00	0.00	8,100.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
8,200.0	0.00	0.00	8,200.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
8,300.0	0.00	0.00	8,300.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
8,400.0	0.00	0.00	8,400.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
8,500.0	0.00	0.00	8,500.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
8,600.0	0.00	0.00	8,600.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
8,700.0	0.00	0.00	8,700.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
8,800.0	0.00	0.00	8,800.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
8,900.0	0.00	0.00	8,900.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
9,000.0	0.00	0.00	9,000.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
9,100.0	0.00	0.00	9,100.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
9,200.0	0.00	0.00	9,200.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
9,300.0	0.00	0.00	9,300.0	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
9,317.1	0.00	0.00	9,317.1	0.0	0.0	377,507.10	732,304.00	32° 2' 8.396 N	103° 35' 1.219 W
9317.1' MD KOP									
9,350.0	3.29	181.62	9,350.0	-0.9	0.0	377,506.15	732,303.97	32° 2' 8.386 N	103° 35' 1.219 W
9,400.0	8.29	181.62	9,399.7	-6.0	-0.2	377,501.11	732,303.83	32° 2' 8.336 N	103° 35' 1.221 W
9,450.0	13.29	181.62	9,448.8	-15.3	-0.4	377,491.76	732,303.56	32° 2' 8.244 N	103° 35' 1.225 W
9,500.0	18.29	181.62	9,496.9	-28.9	-0.8	377,478.16	732,303.18	32° 2' 8.109 N	103° 35' 1.230 W
9,550.0	23.29	181.62	9,543.6	-46.7	-1.3	377,460.43	732,302.68	32° 2' 7.934 N	103° 35' 1.238 W
9,600.0	28.29	181.62	9,588.6	-68.4	-1.9	377,438.69	732,302.07	32° 2' 7.719 N	103° 35' 1.247 W
9,650.0	33.29	181.62	9,631.6	-94.0	-2.7	377,413.12	732,301.34	32° 2' 7.466 N	103° 35' 1.257 W
9,700.0	38.29	181.62	9,672.1	-123.2	-3.5	377,383.90	732,300.52	32° 2' 7.177 N	103° 35' 1.269 W
9,750.0	43.29	181.62	9,710.0	-155.8	-4.4	377,351.25	732,299.60	32° 2' 6.854 N	103° 35' 1.282 W
9,800.0	48.29	181.62	9,744.8	-191.7	-5.4	377,315.44	732,298.59	32° 2' 6.499 N	103° 35' 1.297 W
9,850.0	53.29	181.62	9,776.4	-230.4	-6.5	377,276.73	732,297.49	32° 2' 6.116 N	103° 35' 1.313 W
9,900.0	58.29	181.62	9,804.5	-271.7	-7.7	377,235.41	732,296.33	32° 2' 5.707 N	103° 35' 1.330 W



Stryker Directional Planning Report - Geographic



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well El Mar 21 A3DM Fed Com #1H
Company:	Mewbourne Oil Company	TVD Reference:	GL 3275 + 20 @ 3295.0usft (Patterson #36)
Project:	Lea County N.M.	MD Reference:	GL 3275 + 20 @ 3295.0usft (Patterson #36)
Site:	Section 21-26S-33E El Mar 21 A3DM Fed Com #1H	North Reference:	Grid
Well:	El Mar 21 A3DM Fed Com #1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	Plan#1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
9,950.0	63.29	181.62	9,828.9	-315.3	-8.9	377,191.80	732,295.09	32° 2' 5.276 N	103° 35' 1.347 W
10,000.0	68.29	181.62	9,849.4	-360.9	-10.2	377,146.23	732,293.81	32° 2' 4.825 N	103° 35' 1.366 W
10,050.0	73.29	181.62	9,865.9	-408.1	-11.5	377,099.04	732,292.48	32° 2' 4.358 N	103° 35' 1.385 W
10,100.0	78.29	181.62	9,878.1	-456.5	-12.9	377,050.61	732,291.11	32° 2' 3.879 N	103° 35' 1.405 W
10,150.0	83.29	181.62	9,886.1	-505.8	-14.3	377,001.29	732,289.72	32° 2' 3.391 N	103° 35' 1.425 W
10,200.0	88.29	181.62	9,889.8	-555.6	-15.7	376,951.46	732,288.31	32° 2' 2.898 N	103° 35' 1.446 W
10,208.5	89.14	181.62	9,890.0	-564.1	-15.9	376,942.97	732,288.07	32° 2' 2.814 N	103° 35' 1.449 W
10208.5' MD LP									
10,300.0	89.14	181.62	9,891.4	-655.6	-18.5	376,851.51	732,285.49	32° 2' 1.909 N	103° 35' 1.486 W
10,400.0	89.14	181.62	9,892.9	-755.5	-21.3	376,751.56	732,282.67	32° 2' 0.920 N	103° 35' 1.527 W
10,500.0	89.14	181.62	9,894.4	-855.5	-24.2	376,651.61	732,279.84	32° 1' 59.931 N	103° 35' 1.568 W
10,600.0	89.14	181.62	9,895.8	-955.4	-27.0	376,551.66	732,277.02	32° 1' 58.943 N	103° 35' 1.609 W
10,700.0	89.14	181.62	9,897.3	-1,055.4	-29.8	376,451.72	732,274.20	32° 1' 57.954 N	103° 35' 1.650 W
10,800.0	89.14	181.62	9,898.8	-1,155.3	-32.6	376,351.77	732,271.38	32° 1' 56.965 N	103° 35' 1.691 W
10,900.0	89.14	181.62	9,900.3	-1,255.3	-35.4	376,251.82	732,268.56	32° 1' 55.976 N	103° 35' 1.731 W
11,000.0	89.14	181.62	9,901.8	-1,355.2	-38.3	376,151.87	732,265.73	32° 1' 54.987 N	103° 35' 1.772 W
11,100.0	89.14	181.62	9,903.3	-1,455.2	-41.1	376,051.92	732,262.91	32° 1' 53.998 N	103° 35' 1.813 W
11,200.0	89.14	181.62	9,904.8	-1,555.1	-43.9	375,951.97	732,260.09	32° 1' 53.009 N	103° 35' 1.854 W
11,300.0	89.14	181.62	9,906.3	-1,655.1	-46.7	375,852.02	732,257.27	32° 1' 52.020 N	103° 35' 1.895 W
11,400.0	89.14	181.62	9,907.8	-1,755.0	-49.5	375,752.07	732,254.45	32° 1' 51.031 N	103° 35' 1.936 W
11,500.0	89.14	181.62	9,909.3	-1,855.0	-52.4	375,652.12	732,251.62	32° 1' 50.043 N	103° 35' 1.976 W
11,600.0	89.14	181.62	9,910.8	-1,954.9	-55.2	375,552.17	732,248.80	32° 1' 49.054 N	103° 35' 2.017 W
11,700.0	89.14	181.62	9,912.3	-2,054.9	-58.0	375,452.23	732,245.98	32° 1' 48.065 N	103° 35' 2.058 W
11,800.0	89.14	181.62	9,913.8	-2,154.8	-60.8	375,352.28	732,243.16	32° 1' 47.076 N	103° 35' 2.099 W
11,900.0	89.14	181.62	9,915.3	-2,254.8	-63.7	375,252.33	732,240.34	32° 1' 46.087 N	103° 35' 2.140 W
12,000.0	89.14	181.62	9,916.8	-2,354.7	-66.5	375,152.38	732,237.52	32° 1' 45.098 N	103° 35' 2.181 W
12,100.0	89.14	181.62	9,918.3	-2,454.7	-69.3	375,052.43	732,234.69	32° 1' 44.109 N	103° 35' 2.221 W
12,200.0	89.14	181.62	9,919.8	-2,554.6	-72.1	374,952.48	732,231.87	32° 1' 43.120 N	103° 35' 2.262 W
12,300.0	89.14	181.62	9,921.3	-2,654.6	-74.9	374,852.53	732,229.05	32° 1' 42.132 N	103° 35' 2.303 W
12,400.0	89.14	181.62	9,922.8	-2,754.5	-77.8	374,752.58	732,226.23	32° 1' 41.143 N	103° 35' 2.344 W
12,500.0	89.14	181.62	9,924.3	-2,854.5	-80.6	374,652.63	732,223.41	32° 1' 40.154 N	103° 35' 2.385 W
12,600.0	89.14	181.62	9,925.7	-2,954.4	-83.4	374,552.68	732,220.58	32° 1' 39.165 N	103° 35' 2.426 W
12,700.0	89.14	181.62	9,927.2	-3,054.4	-86.2	374,452.74	732,217.76	32° 1' 38.176 N	103° 35' 2.466 W
12,800.0	89.14	181.62	9,928.7	-3,154.3	-89.1	374,352.79	732,214.94	32° 1' 37.187 N	103° 35' 2.507 W
12,900.0	89.14	181.62	9,930.2	-3,254.3	-91.9	374,252.84	732,212.12	32° 1' 36.198 N	103° 35' 2.548 W
13,000.0	89.14	181.62	9,931.7	-3,354.2	-94.7	374,152.89	732,209.30	32° 1' 35.209 N	103° 35' 2.589 W
13,100.0	89.14	181.62	9,933.2	-3,454.2	-97.5	374,052.94	732,206.48	32° 1' 34.220 N	103° 35' 2.630 W
13,200.0	89.14	181.62	9,934.7	-3,554.1	-100.3	373,952.99	732,203.65	32° 1' 33.232 N	103° 35' 2.671 W
13,300.0	89.14	181.62	9,936.2	-3,654.1	-103.2	373,853.04	732,200.83	32° 1' 32.243 N	103° 35' 2.711 W
13,400.0	89.14	181.62	9,937.7	-3,754.0	-106.0	373,753.09	732,198.01	32° 1' 31.254 N	103° 35' 2.752 W
13,500.0	89.14	181.62	9,939.2	-3,854.0	-108.8	373,653.14	732,195.19	32° 1' 30.265 N	103° 35' 2.793 W
13,600.0	89.14	181.62	9,940.7	-3,953.9	-111.6	373,553.19	732,192.37	32° 1' 29.276 N	103° 35' 2.834 W
13,700.0	89.14	181.62	9,942.2	-4,053.9	-114.5	373,453.25	732,189.54	32° 1' 28.287 N	103° 35' 2.875 W
13,800.0	89.14	181.62	9,943.7	-4,153.8	-117.3	373,353.30	732,186.72	32° 1' 27.298 N	103° 35' 2.916 W
13,900.0	89.14	181.62	9,945.2	-4,253.8	-120.1	373,253.35	732,183.90	32° 1' 26.309 N	103° 35' 2.956 W
14,000.0	89.14	181.62	9,946.7	-4,353.7	-122.9	373,153.40	732,181.08	32° 1' 25.320 N	103° 35' 2.997 W
14,100.0	89.14	181.62	9,948.2	-4,453.6	-125.7	373,053.45	732,178.26	32° 1' 24.332 N	103° 35' 3.038 W
14,200.0	89.14	181.62	9,949.7	-4,553.6	-128.6	372,953.50	732,175.43	32° 1' 23.343 N	103° 35' 3.079 W
14,300.0	89.14	181.62	9,951.2	-4,653.5	-131.4	372,853.55	732,172.61	32° 1' 22.354 N	103° 35' 3.120 W
14,400.0	89.14	181.62	9,952.7	-4,753.5	-134.2	372,753.60	732,169.79	32° 1' 21.365 N	103° 35' 3.161 W
14,422.8	89.14	181.62	9,953.0	-4,776.3	-134.8	372,730.81	732,169.15	32° 1' 21.139 N	103° 35' 3.170 W

14422.8' MD PBHL



Stryker Directional Planning Report - Geographic



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well El Mar 21 A3DM Fed Com #1H
Company:	Mewbourne Oil Company	TVD Reference:	GL 3275 + 20 @ 3295.0usft (Patterson #36)
Project:	Lea County N.M.	MD Reference:	GL 3275 + 20 @ 3295.0usft (Patterson #36)
Site:	Section 21-26S-33E El Mar 21 A3DM Fed Com #1H	North Reference:	Grid
Well:	El Mar 21 A3DM Fed Com #1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	Plan#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									
LP El Mar 21 A3DM F	0.00	0.00	9,890.0	-565.6	-18.5	376,941.46	732,285.54	32° 2' 2.799 N	103° 35' 1.479 W
- plan misses target center by 2.5usft at 10210.1usft MD (9890.0 TVD, -565.7 N, -16.0 E)									
- Point									
PBHL El Mar A3DM F	0.00	0.00	9,953.0	-4,776.3	-134.8	372,730.79	732,169.15	32° 1' 21.139 N	103° 35' 3.170 W
- plan hits target center									
- Point									

Plan Annotations

Measured Depth	Vertical	Local Coordinates		Comment
(usft)	Depth	+N/-S	+E/-W	
(usft)	(usft)	(usft)	(usft)	
9,317.1	9,317.1	0.0	0.0	9317.1' MD KOP
10,208.5	9,890.0	-564.1	-15.9	10208.5' MD LP
14,422.8	9,953.0	-4,776.3	-134.8	14422.8' MD PBHL



COMPANY: Mewbourne Oil Company
 WELL: El Mar 21 A3DM Fed Com #1H
 COUNTY: Lea County N.M.
 DATUM: NAD 1927 (NADCON CONUS)
 RIG: Patterson #36



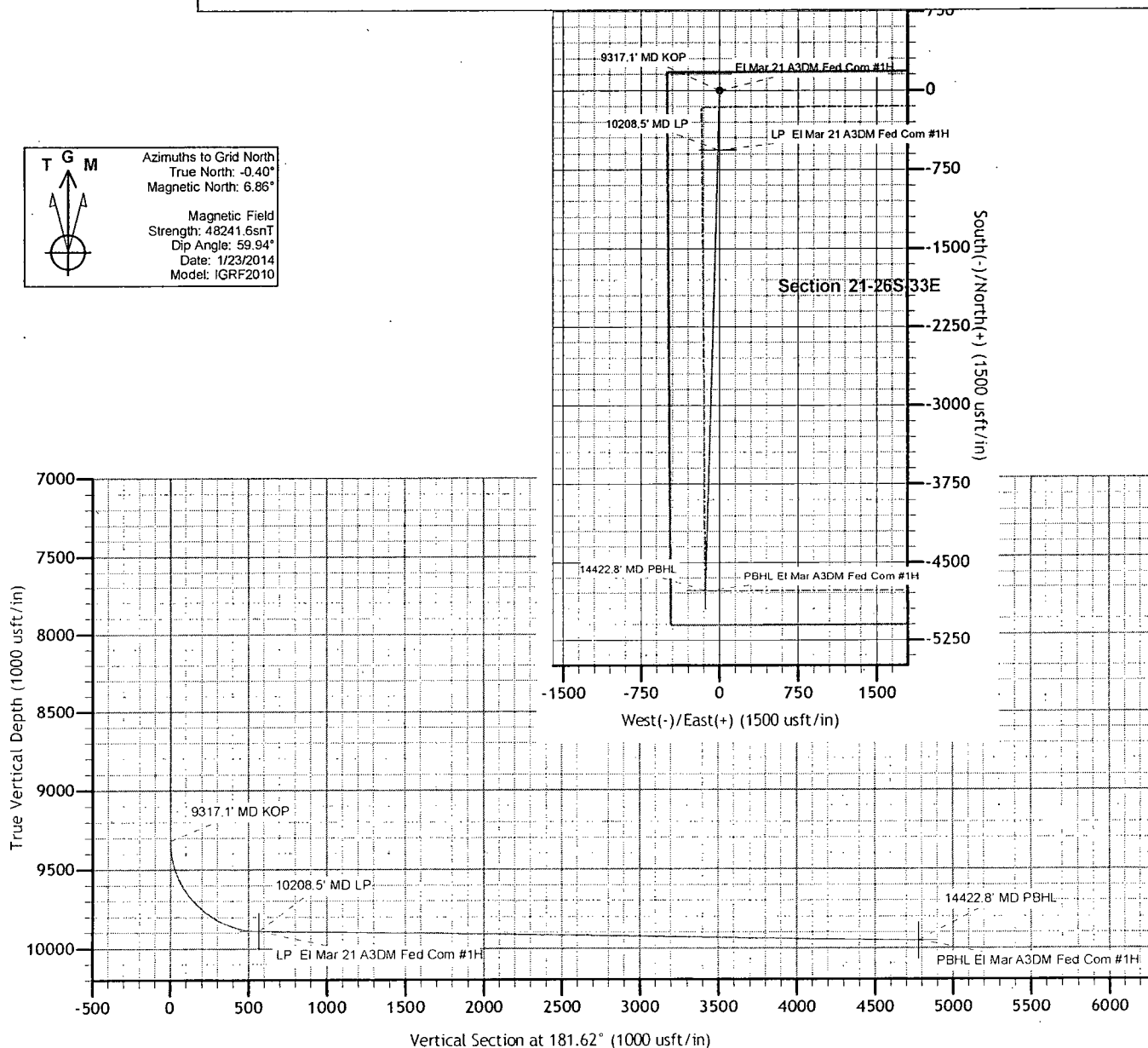
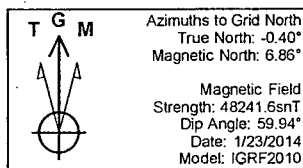
OFFICE: 936.582.7296

GRID CORRECTION: To convert a Magnetic Direction to a Grid Direction, Add 6.86°

GEODETTIC ZONE: New Mexico East 3001						
GL 3275 + 20 @ 3295.0usft (Patterson #36)						
GROUND ELEVATION: 3275.0						
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	377507.10	732304.00	32° 2' 8.396 N	103° 35' 1.219 W	

PLAN SECTIONS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSeet	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	9317.1	0.00	0.00	9317.1	0.0	0.0	0.00	0.00	0.0	
3	10208.5	89.14	181.62	9890.0	-564.2	-15.9	10.00	181.62	564.4	
4	14422.8	89.14	181.62	9953.0	-4776.3	-134.8	0.00	0.00	4778.2	PBHL El Mar A3DM Fed Com #1H

DESIGN TARGET DETAILS									
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape	
LP El Mar 21 A3DM Fed Com #1H	9890.0	-565.6	-18.5	376941.46	732285.54	32° 2' 2.799 N	103° 35' 1.479 W	Point	
- plan misses target center by 2.5usft at 10210.1usft MD (9890.0 TVD, -565.7 N, -16.0 E)									
PBHL El Mar A3DM Fed Com #1H	9953.0	-4776.3	-134.8	372730.79	732169.15	32° 1' 21.139 N	103° 35' 3.170 W	Point	
- plan hits target center									



Notes Regarding Blowout Preventer

Mewbourne Oil Company

El Mar 21 A3DM Fed Com #1H

175' FNL & 500' 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.

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

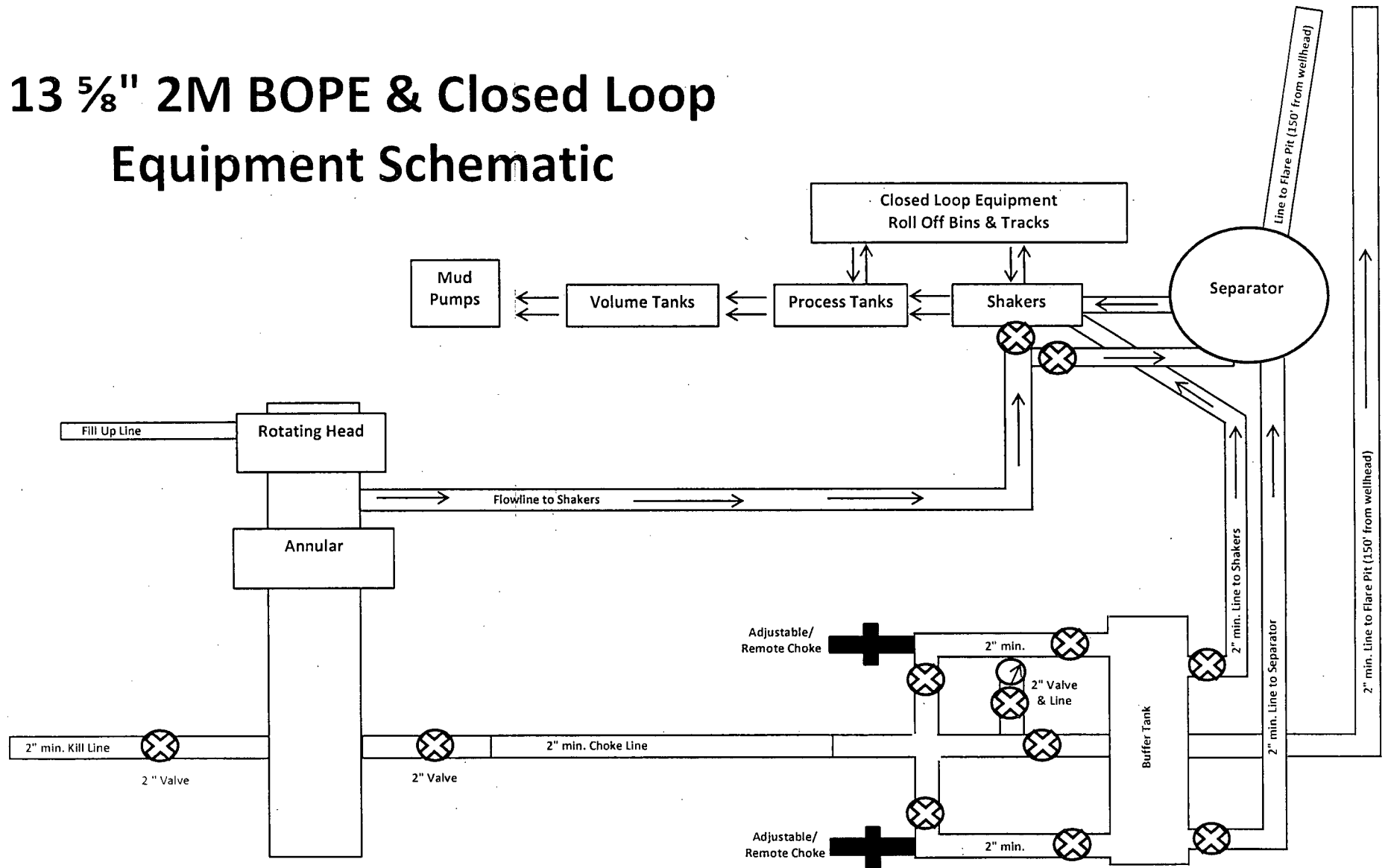


Exhibit 2A
El Mar 21 A3DM Fed Com #1H

11" 3M BOPE & Closed Loop Equipment Schematic

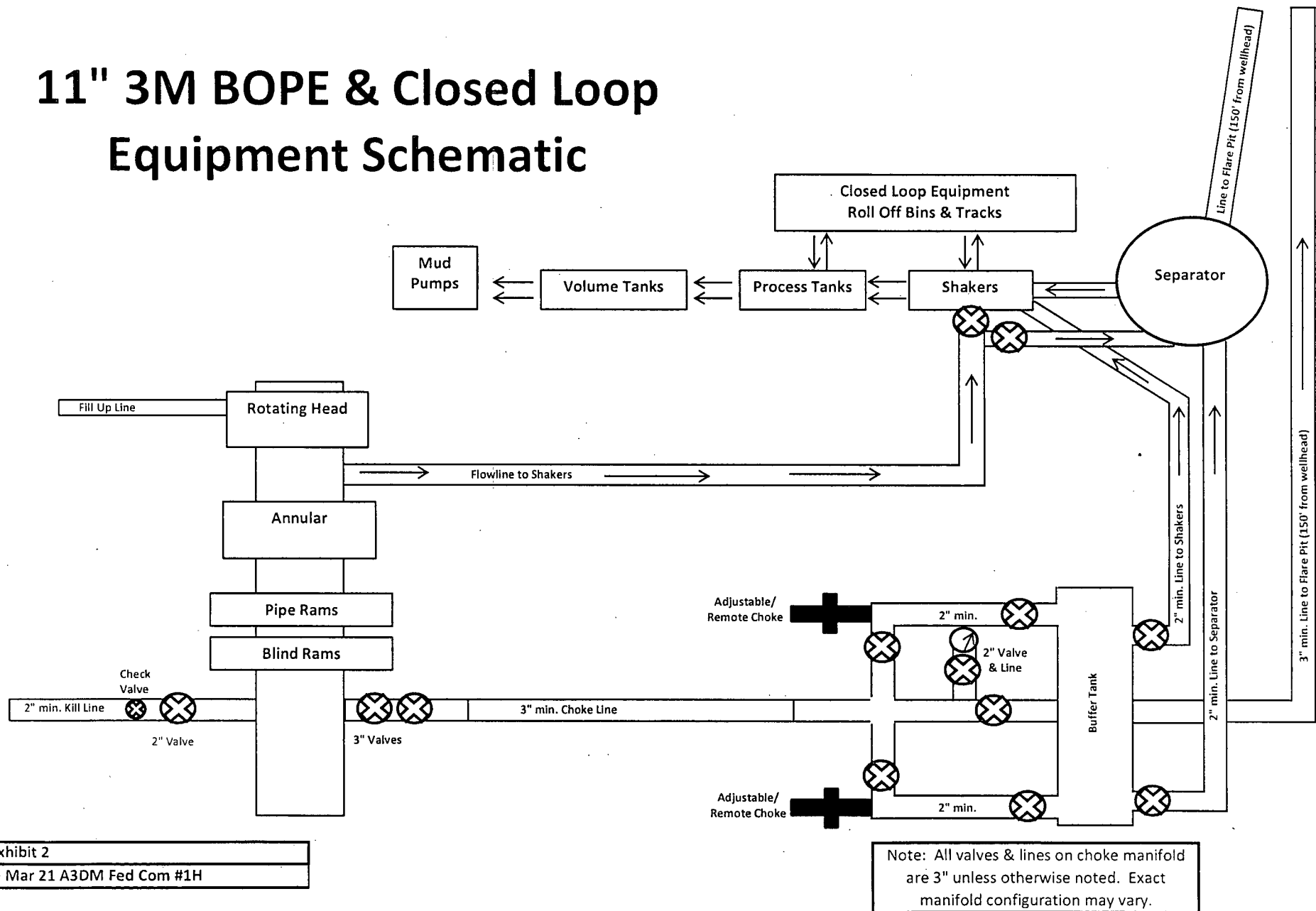


Exhibit 2

El Mar 21 A3DM Fed Com #1H

H2S Diagram
Closed Loop Pad Dimensions 280' x 320'

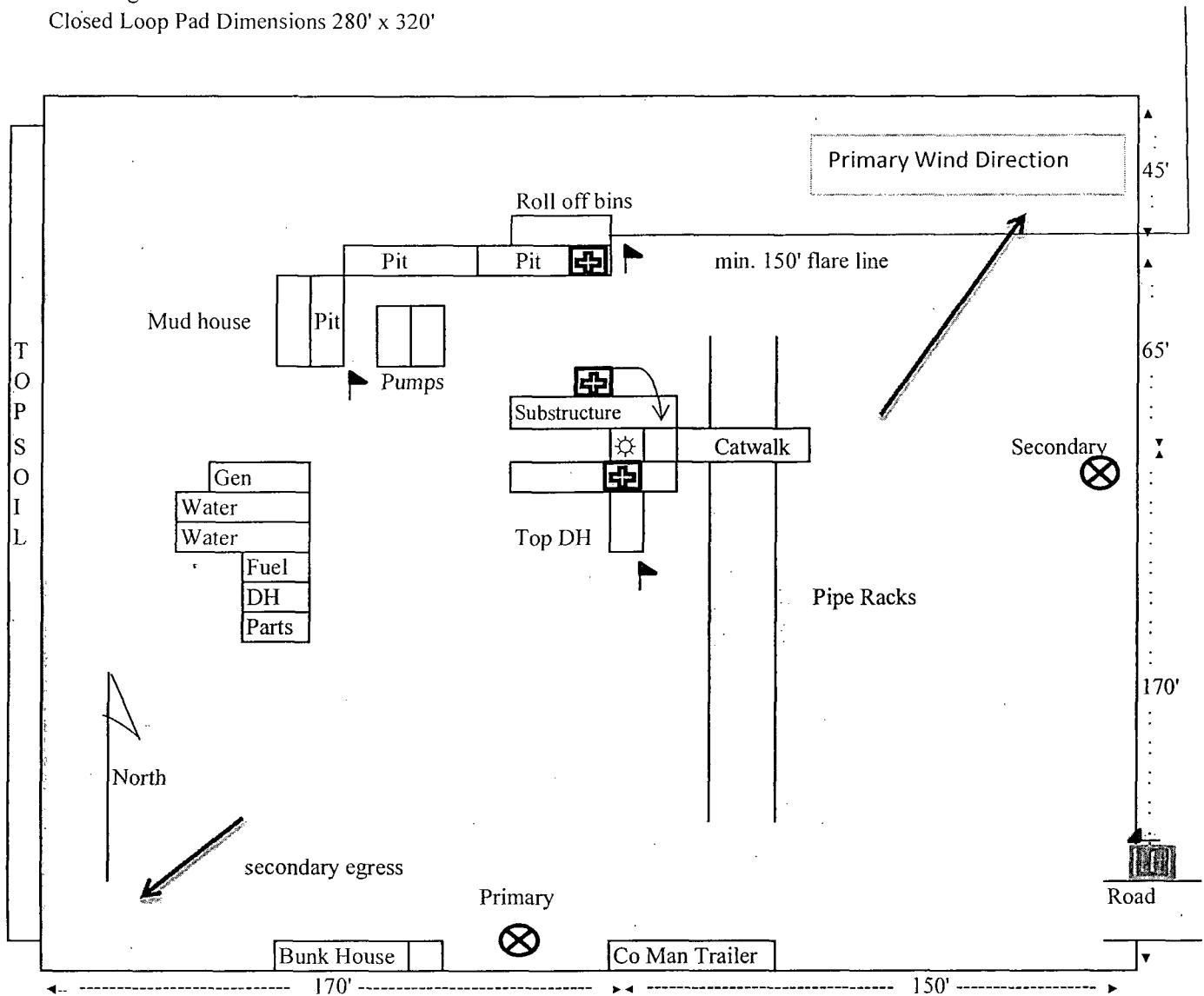


Exhibit 6

Mewbourne Oil Company
El Mar 21 A3DM Fed Com #1H
175' FNL & 500' FWL
Sec. 21 T26S R33E
Lea County, NM



= Warning Signs



= Wind Markers



= H2S Monitors



= Safety Stations