

HOBBS OCD

APR 21 2016

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Mewbourne Oil Company .

Lea County N.M.

Section 9-26S-33E Salado Draw 9 A3CN Fed Com #1H

Salado Draw 9 A3CN Fed Com #1H

Original Hole

Plan: Plan#1

Standard Planning Report

20 May, 2014



MAY 06 2016



Stryker Directional Planning Report



Database:	Stryker_EDM	Local Co-ordinate Reference:	Well Salado Draw 9 A3CN Fed Com #1H
Company:	Mewbourne Oil Company	TVD Reference:	3308 + 20 @ 3328.0usft (Patterson 36)
Project:	Lea County N.M.	MD Reference:	3308 + 20 @ 3328.0usft (Patterson 36)
Site:	Section 9-26S-33E Salado Draw 9 A3CN Fed Com #1H	North Reference:	Grid
Well:	Salado Draw 9 A3CN 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 9-26S-33E Salado Draw 9 A3CN Fed Com #1H		
Site Position:		Northing:	387,941.30 usft
From:	Map	Easting:	734,081.30 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 3' 51.528 N
		Longitude:	103° 34' 39.724 W
		Grid Convergence:	0.40 "

Well	Salado Draw 9 A3CN Fed Com #1H		
Well Position	+N/-S	0.0 usft	Northing:
	+E/-W	0.0 usft	Easting:
Position Uncertainty	0.0 usft	Wellhead Elevation:	0.0 usft
		Latitude:	32° 3' 51.528 N
		Longitude:	103° 34' 39.724 W
		Ground Level:	3,308.0 usft

Wellbore	Original Hole		
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Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	5/20/2014	7.22	59.96	48,227

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	182.11

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	
9,230.1	0.00	0.00	9,230.1	0.0	0.0	0.00	0.00	0.00	0.00	
10,126.6	89.65	182.11	9,803.0	-569.1	-21.0	10.00	10.00	-19.84	182.11	
14,204.9	89.65	182.11	9,828.0	-4,644.6	-171.1	0.00	0.00	0.00	0.00	PBHL Salado Draw



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Project:	Lea County N.M.	MD Reference:	3308 + 20 @ 3328.0usft (Patterson 36)
Site:	Section 9-26S-33E Salado Draw 9 A3CN Fed Com #1H	North Reference:	Grid
Well:	Salado Draw 9 A3CN 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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Well:	Salado Draw 9 A3CN 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)
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
9,230.1	0.00	0.00	9,230.1	0.0	0.0	0.0	0.00	0.00	0.00
9230.1' MD KOP									
9,250.0	1.99	182.11	9,250.0	-0.3	0.0	0.3	10.00	10.00	0.00
9,300.0	6.99	182.11	9,299.8	-4.3	-0.2	4.3	10.00	10.00	0.00
9,350.0	11.99	182.11	9,349.1	-12.5	-0.5	12.5	10.00	10.00	0.00
9,400.0	16.99	182.11	9,397.5	-25.0	-0.9	25.0	10.00	10.00	0.00
9,450.0	21.99	182.11	9,444.6	-41.7	-1.5	41.7	10.00	10.00	0.00
9,500.0	26.99	182.11	9,490.1	-62.4	-2.3	62.4	10.00	10.00	0.00
9,550.0	31.99	182.11	9,533.6	-87.0	-3.2	87.0	10.00	10.00	0.00
9,600.0	36.99	182.11	9,574.8	-115.2	-4.2	115.3	10.00	10.00	0.00
9,650.0	41.99	182.11	9,613.4	-147.0	-5.4	147.1	10.00	10.00	0.00
9,700.0	46.99	182.11	9,649.1	-182.0	-6.7	182.1	10.00	10.00	0.00
9,750.0	51.99	182.11	9,681.5	-220.0	-8.1	220.1	10.00	10.00	0.00



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Well:	Salado Draw 9 A3CN 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)
9,800.0	56.99	182.11	9,710.6	-260.6	-9.6	260.8	10.00	10.00	0.00
9,850.0	61.99	182.11	9,735.9	-303.7	-11.2	303.9	10.00	10.00	0.00
9,900.0	66.99	182.11	9,757.5	-348.8	-12.9	349.0	10.00	10.00	0.00
9,950.0	71.99	182.11	9,775.0	-395.5	-14.6	395.8	10.00	10.00	0.00
10,000.0	76.99	182.11	9,788.4	-443.7	-16.3	444.0	10.00	10.00	0.00
10,050.0	81.99	182.11	9,797.5	-492.8	-18.2	493.1	10.00	10.00	0.00
<u>10,100.0</u>	<u>86.99</u>	<u>182.11</u>	<u>9,802.3</u>	<u>-542.5</u>	<u>-20.0</u>	<u>542.9</u>	<u>10.00</u>	<u>10.00</u>	<u>0.00</u>
10,126.6	89.65	182.11	9,803.0	-569.1	-21.0	569.5	10.00	10.00	0.00
10126.6' MD LP									
10,127.5	89.65	182.11	9,803.1	-570.0	-21.0	570.3	0.00	0.00	0.00
LP Salado Draw 9 A3CN Fed Com #1H									
10,200.0	89.65	182.11	9,803.5	-642.4	-23.7	642.9	0.00	0.00	0.00
10,300.0	89.65	182.11	9,804.1	-742.4	-27.4	742.9	0.00	0.00	0.00
10,400.0	89.65	182.11	9,804.7	-842.3	-31.0	842.9	0.00	0.00	0.00
10,500.0	89.65	182.11	9,805.3	-942.2	-34.7	942.9	0.00	0.00	0.00
10,600.0	89.65	182.11	9,805.9	-1,042.1	-38.4	1,042.8	0.00	0.00	0.00
10,700.0	89.65	182.11	9,806.6	-1,142.1	-42.1	1,142.8	0.00	0.00	0.00
10,800.0	89.65	182.11	9,807.2	-1,242.0	-45.8	1,242.8	0.00	0.00	0.00
10,900.0	89.65	182.11	9,807.8	-1,341.9	-49.4	1,342.8	0.00	0.00	0.00
11,000.0	89.65	182.11	9,808.4	-1,441.9	-53.1	1,442.8	0.00	0.00	0.00
11,100.0	89.65	182.11	9,809.0	-1,541.8	-56.8	1,542.8	0.00	0.00	0.00
11,200.0	89.65	182.11	9,809.6	-1,641.7	-60.5	1,642.8	0.00	0.00	0.00
11,300.0	89.65	182.11	9,810.2	-1,741.7	-64.2	1,742.8	0.00	0.00	0.00
11,400.0	89.65	182.11	9,810.8	-1,841.6	-67.9	1,842.8	0.00	0.00	0.00
11,500.0	89.65	182.11	9,811.4	-1,941.5	-71.5	1,942.8	0.00	0.00	0.00
11,600.0	89.65	182.11	9,812.1	-2,041.4	-75.2	2,042.8	0.00	0.00	0.00
11,700.0	89.65	182.11	9,812.7	-2,141.4	-78.9	2,142.8	0.00	0.00	0.00
11,800.0	89.65	182.11	9,813.3	-2,241.3	-82.6	2,242.8	0.00	0.00	0.00
11,900.0	89.65	182.11	9,813.9	-2,341.2	-86.3	2,342.8	0.00	0.00	0.00
12,000.0	89.65	182.11	9,814.5	-2,441.2	-90.0	2,442.8	0.00	0.00	0.00
12,100.0	89.65	182.11	9,815.1	-2,541.1	-93.6	2,542.8	0.00	0.00	0.00
12,200.0	89.65	182.11	9,815.7	-2,641.0	-97.3	2,642.8	0.00	0.00	0.00
12,300.0	89.65	182.11	9,816.3	-2,741.0	-101.0	2,742.8	0.00	0.00	0.00
12,400.0	89.65	182.11	9,817.0	-2,840.9	-104.7	2,842.8	0.00	0.00	0.00
12,500.0	89.65	182.11	9,817.6	-2,940.8	-108.4	2,942.8	0.00	0.00	0.00
12,600.0	89.65	182.11	9,818.2	-3,040.7	-112.0	3,042.8	0.00	0.00	0.00
12,700.0	89.65	182.11	9,818.8	-3,140.7	-115.7	3,142.8	0.00	0.00	0.00
12,800.0	89.65	182.11	9,819.4	-3,240.6	-119.4	3,242.8	0.00	0.00	0.00
12,900.0	89.65	182.11	9,820.0	-3,340.5	-123.1	3,342.8	0.00	0.00	0.00
13,000.0	89.65	182.11	9,820.6	-3,440.5	-126.8	3,442.8	0.00	0.00	0.00
13,100.0	89.65	182.11	9,821.2	-3,540.4	-130.5	3,542.8	0.00	0.00	0.00
13,200.0	89.65	182.11	9,821.9	-3,640.3	-134.1	3,642.8	0.00	0.00	0.00
13,300.0	89.65	182.11	9,822.5	-3,740.3	-137.8	3,742.8	0.00	0.00	0.00
13,400.0	89.65	182.11	9,823.1	-3,840.2	-141.5	3,842.8	0.00	0.00	0.00
13,500.0	89.65	182.11	9,823.7	-3,940.1	-145.2	3,942.8	0.00	0.00	0.00
13,600.0	89.65	182.11	9,824.3	-4,040.1	-148.9	4,042.8	0.00	0.00	0.00
13,700.0	89.65	182.11	9,824.9	-4,140.0	-152.6	4,142.8	0.00	0.00	0.00
13,800.0	89.65	182.11	9,825.5	-4,239.9	-156.2	4,242.8	0.00	0.00	0.00
13,900.0	89.65	182.11	9,826.1	-4,339.8	-159.9	4,342.8	0.00	0.00	0.00
14,000.0	89.65	182.11	9,826.7	-4,439.8	-163.6	4,442.8	0.00	0.00	0.00
14,100.0	89.65	182.11	9,827.4	-4,539.7	-167.3	4,542.8	0.00	0.00	0.00
14,204.9	89.65	182.11	9,828.0	-4,644.5	-171.1	4,647.7	0.00	0.00	0.00
14204.9' MD PBHL - PBHL Salado Draw 9 A3CN Fed Com #1H									



Stryker Directional Planning Report



Database:	Stryker_EDM	Local Co-ordinate Reference:	Well Salado Draw 9 A3CN Fed Com #1H
Company:	Mewbourne Oil Company .	TVD Reference:	3308 + 20 @ 3328.0usft (Patterson 36)
Project:	Lea County N.M.	MD Reference:	3308 + 20 @ 3328.0usft (Patterson 36)
Site:	Section 9-26S-33E Salado Draw 9 A3CN Fed Com #1H	North Reference:	Grid
Well:	Salado Draw 9 A3CN 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)
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Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
LP Salado Draw 9 A3	0.00	0.00	9,803.0	-569.2	-40.9	387,372.07	734,040.43	32° 3' 45.898 N	103° 34' 40.245 W
- plan misses target center by 19.9usft at 10127.5usft MD (9803.1 TVD, -570.0 N, -21.0 E)									
- Point									
PBHL Salado Draw 9	0.00	0.00	9,828.0	-4,644.6	-171.1	383,296.73	733,910.15	32° 3' 5.578 N	103° 34' 42.090 W
- plan hits target center									
- Point									

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
9,230.1	9,230.1	0.0	0.0	9230.1' MD KOP
10,126.6	9,803.0	-569.1	-21.0	10126.6' MD LP
14,204.9	9,828.0	-4,644.5	-171.1	14204.9' MD PBHL



Job Number: SVMO-150266
Company: Mewbourne Oil & Gas
Lease/Well: Salado Draw 9 A3CN FED Com 1H
Location: Lea County, NM
Rig Name: Patterson #36
RKB: 22
G.L. or M.S.L.: GL

State/Country: New Mexico/USA
Declination: 6.79°
Grid: East To Grid North
File name: Y:\WINSER-12015SU-11MEWBOL-11MOISALADO-119A3CNFEDCOM-1
Date/Time: 07-Apr-15 / 16:50
Curve Name: Surface - 9060' M.D. (Rate Gyro)

MS Survey

WINSERVE SURVEY CALCULATIONS
Minimum Curvature Method
Vertical Section Plane 182.11
Vertical Section Referenced to Wellhead
Rectangular Coordinates Referenced to Wellhead

We hereby certify that our survey data from
Surface MD to 9060' MD is, to the best of
our knowledge a true and accurate account of
the well bore.
Shaun Cooper 4/7/15
MS Energy Services Date

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	Distance FT	CLOSURE Direction Deg	Dogleg Severity Deg/100
00	.00	.00	.00	.00	.00	.00	.00	.00	.00
100.00	.83	123.33	100.00	-.40	.61	.38	.72	123.33	.83
200.00	.81	123.39	199.99	-1.18	1.80	1.12	2.16	123.35	.02
300.00	.65	120.38	299.98	-1.86	2.88	1.75	3.43	122.87	.16
400.00	.37	89.69	399.97	-2.15	3.69	2.01	4.27	120.16	.38
500.00	.45	4.87	499.97	-1.75	4.05	1.60	4.41	113.41	.56
600.00	1.34	341.54	599.96	-.25	3.71	.12	3.72	93.89	.94
700.00	1.96	338.65	699.92	2.45	2.72	-2.55	3.66	47.98	.63
800.00	1.90	335.03	799.86	5.54	1.40	-5.59	5.72	14.13	.14
900.00	2.03	340.98	899.80	8.72	.12	-8.72	8.72	.78	.24

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE Distance FT	Direction Deg	Dogleg Severity Deg/100
1000.00	1.88	337.95	999.74	11.92	-1.07	-11.87	11.97	354.85	.18
1100.00	.93	279.41	1099.72	13.57	-2.49	-13.47	13.80	349.60	1.60
1200.00	1.10	171.93	1199.71	12.75	-3.16	-12.63	13.14	346.10	1.64
1300.00	1.22	110.03	1299.69	11.44	-2.02	-11.36	11.61	349.98	1.20
1400.00	1.13	31.98	1399.68	11.91	-.50	-11.88	11.92	357.60	1.48
1500.00	.96	292.13	1499.67	13.06	-.75	-13.02	13.08	356.70	1.60
1600.00	1.30	206.86	1599.65	12.36	-2.04	-12.28	12.53	350.63	1.55
1700.00	1.31	145.01	1699.63	10.42	-1.90	-10.34	10.59	349.67	1.34
1800.00	1.23	62.13	1799.61	9.98	-.29	-9.96	9.99	358.31	1.68
1900.00	.97	339.78	1899.60	11.28	.36	-11.28	11.28	1.84	1.46
2000.00	1.08	248.35	1999.59	11.72	-.81	-11.69	11.75	356.07	1.47
2100.00	1.36	177.70	2099.57	10.19	-1.63	-10.12	10.32	350.89	1.43
2200.00	1.24	102.87	2199.55	8.76	-.53	-8.74	8.78	356.53	1.58
2300.00	1.52	44.11	2299.53	9.48	1.45	-9.52	9.58	8.68	1.38
2400.00	1.43	12.46	2399.50	11.65	2.64	-11.73	11.94	12.77	.81
2500.00	1.01	325.44	2499.48	13.59	2.41	-13.67	13.80	10.05	1.05
2600.00	.84	266.82	2599.46	14.28	1.18	-14.31	14.32	4.71	.92
2700.00	1.06	191.69	2699.45	13.33	.26	-13.33	13.33	1.10	1.17
2800.00	.97	96.12	2799.44	12.33	.91	-12.36	12.37	4.22	1.50
2900.00	1.36	21.41	2899.43	13.35	2.19	-13.42	13.53	9.30	1.45
3000.00	1.22	338.23	2999.40	15.44	2.22	-15.51	15.60	8.20	.96
3100.00	1.06	283.61	3099.39	16.65	.93	-16.67	16.67	3.20	1.06
3200.00	.57	181.62	3199.38	16.37	.02	-16.36	16.37	.06	1.30
3300.00	1.04	72.93	3299.37	16.14	.87	-16.16	16.16	3.09	1.34
3400.00	1.24	1.34	3399.36	17.48	1.76	-17.54	17.57	5.76	1.34
3500.00	1.35	290.22	3499.34	18.97	.68	-18.99	18.99	2.06	1.51
3600.00	1.04	238.15	3599.32	18.90	-1.19	-18.85	18.94	356.39	1.09
3700.00	.71	126.62	3699.31	18.05	-1.47	-17.99	18.11	355.36	1.46
3800.00	.65	40.84	3799.31	18.11	-.60	-18.08	18.12	358.11	.93

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE Distance FT	Direction Deg	Dogleg Severity Deg/100
3900.00	1.32	307.19	3899.30	19.24	-1.14	-19.18	19.27	356.59	1.51
4000.00	1.55	226.67	3999.28	19.01	-3.05	-18.88	19.25	350.89	1.86
4100.00	1.38	165.59	4099.25	16.91	-3.73	-16.76	17.32	347.56	1.50
4200.00	1.02	95.77	4199.23	15.66	-2.55	-15.55	15.86	350.77	1.40
4300.00	1.13	33.16	4299.22	16.39	-1.12	-16.34	16.43	356.09	1.12
4400.00	1.27	338.85	4399.20	18.25	-.98	-18.20	18.28	356.92	1.10
4500.00	.63	272.43	4499.19	19.31	-1.93	-19.22	19.40	354.29	1.17
4600.00	.88	112.48	4599.18	19.04	-1.77	-18.96	19.12	354.69	1.49
4700.00	.83	78.96	4699.17	18.88	-.35	-18.86	18.89	358.94	.50
4800.00	1.03	350.67	4799.16	19.91	.22	-19.90	19.91	.62	1.30
4900.00	1.02	259.90	4899.15	20.64	-.81	-20.60	20.66	357.76	1.46
5000.00	1.20	223.59	4999.13	19.73	-2.40	-19.62	19.87	353.05	.71
5100.00	1.48	222.98	5099.11	18.02	-4.01	-17.86	18.46	347.47	.28
5200.00	1.16	215.69	5199.08	16.25	-5.48	-16.04	17.15	341.38	.36
5300.00	1.08	245.14	5299.06	15.04	-6.92	-14.77	16.55	335.28	.57
5400.00	.69	235.83	5399.05	14.30	-8.28	-13.99	16.52	329.94	.41
5500.00	.71	273.05	5499.04	14.00	-9.39	-13.64	16.86	326.13	.45
5600.00	.43	247.65	5599.04	13.89	-10.36	-13.50	17.33	323.28	.37
5700.00	.66	267.34	5699.03	13.72	-11.28	-13.29	17.76	320.57	.29
5800.00	.37	273.45	5799.03	13.71	-12.18	-13.25	18.34	318.38	.29
5900.00	.68	296.95	5899.03	14.00	-13.03	-13.51	19.13	317.05	.37
6000.00	.50	269.25	5999.02	14.26	-14.00	-13.74	19.98	315.54	.33
6100.00	.51	326.58	6099.02	14.63	-14.68	-14.08	20.72	314.90	.48
6200.00	.55	287.03	6199.01	15.14	-15.38	-14.56	21.58	314.55	.36
6300.00	.59	333.15	6299.01	15.74	-16.07	-15.14	22.50	314.40	.45
6400.00	.25	309.98	6399.01	16.34	-16.47	-15.72	23.20	314.77	.37
6500.00	.63	319.34	6499.00	16.90	-17.00	-16.26	23.97	314.83	.39
6600.00	.42	348.12	6599.00	17.67	-17.43	-17.02	24.82	315.39	.33
6700.00	.62	316.69	6698.99	18.42	-17.88	-17.75	25.67	315.86	.34

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE Distance FT	Direction Deg	Dogleg Severity Deg/100
6800.00	.50	358.27	6798.99	19.25	-18.26	-18.57	26.54	316.51	.41
6900.00	.28	290.05	6898.99	19.77	-18.51	-19.08	27.08	316.90	.47
7000.00	.22	11.62	6998.99	20.05	-18.70	-19.34	27.41	317.00	.33
7100.00	.10	12.05	7098.99	20.32	-18.64	-19.62	27.57	317.47	.12
7200.00	.25	202.38	7198.99	20.20	-18.70	-19.50	27.53	317.21	.35
7300.00	.14	10.18	7298.99	20.12	-18.77	-19.42	27.51	317.00	.39
7400.00	.50	172.71	7398.99	19.81	-18.69	-19.11	27.23	316.67	.63
7500.00	.20	136.53	7498.98	19.25	-18.51	-18.56	26.71	316.12	.36
7600.00	.36	200.97	7598.98	18.83	-18.51	-18.14	26.40	315.50	.33
7700.00	.33	177.47	7698.98	18.25	-18.61	-17.55	26.06	314.45	.14
7800.00	.31	140.68	7798.98	17.75	-18.42	-17.06	25.58	313.94	.20
7900.00	.06	175.58	7898.98	17.49	-18.25	-16.81	25.27	313.79	.26
8000.00	.33	196.88	7998.98	17.16	-18.33	-16.48	25.11	313.12	.27
8100.00	.52	145.92	8098.98	16.51	-18.15	-15.83	24.54	312.29	.40
8200.00	.61	136.99	8198.97	15.75	-17.54	-15.09	23.57	311.92	.13
8300.00	.46	137.00	8298.97	15.06	-16.90	-14.43	22.64	311.71	.15
8400.00	.43	154.01	8398.96	14.43	-16.46	-13.82	21.89	311.24	.13
8500.00	.53	166.48	8498.96	13.65	-16.19	-13.04	21.17	310.13	.14
8600.00	.42	187.62	8598.96	12.83	-16.13	-12.23	20.61	308.50	.21
8700.00	.42	202.52	8698.95	12.13	-16.32	-11.52	20.33	306.62	.11
8800.00	.45	201.39	8798.95	11.43	-16.60	-10.81	20.15	304.54	.03
8900.00	.36	235.88	8898.95	10.88	-17.01	-10.25	20.19	302.62	.26
9000.00	.64	283.07	8998.95	10.83	-17.81	-10.17	20.85	301.31	.48
Last Survey Depth Recorded									
9060.00	.49	267.87	9058.94	10.90	-18.39	-10.22	21.38	300.65	.35

OPERATOR
WELL/LEASE
COUNTY

Mewbourne Oil Company
Salado Draw 9A3CN Fed Com 1H
Lea

036-0075

STATE OF NEW MEXICO
DEVIATION REPORT

291	1.60
523	1.40
1006	2.20
1468	1.60
2960	1.40
3245	1.20
3279	1.50
3374	1.60
3470	1.70
3565	1.30
3660	0.60
3755	0.70
3849	1.50
4198	1.70
4800	1.20
4851	1.10
5024	1.20
5390	0.40
5818	0.70
6072	0.90
6231	0.50
6389	0.50
6548	0.60
6702	0.30
6897	0.20
7119	0.30
7319	0.80
7510	1.50
7699	1.6
7889	1.5
8080	1.2
8271	0.5
8493	0.5
8684	3.2
10170	883
11535	90.1
12106	87.3
12645	90.3
12707	90.1
12772	89.7

BY:

Briana Welch

STATE OF TEXAS

COUNTY OF MIDLAND

The foregoing instrument was acknowledged before me on
Welch on behalf of Patterson-UTL Drilling Company LLC.

5/14/15, by Briana

Amber Elizabeth Carr
Notary Public for Midland County, Texas
My Commission Expires:

