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Mewbourne Oil Co

Eddy County, New Mexico

Sec 1, T19S, 29E

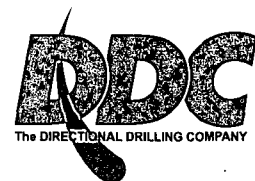
Zircon 1 B1AD State #1H

Wellbore #1

Design: Wellbore #1

DDC Survey Report

03 April, 2014



DDC
Survey Report



Company:	Mewbourne Oil Co	Local Co-ordinate Reference:	Well Zircon 1 B1AD State #1H
Project:	Eddy County, New Mexico	TVD Reference:	Well @ 3448.0usft (Patterson)
Site:	Sec 1, T19S, 29E	MD Reference:	Well @ 3448.0usft (Patterson)
Well:	Zircon 1 B1AD State #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Project	Eddy 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	Sec 1, T19S, 29E		
Site Position:		Northing:	612,532.04 usft
From:	Map	Easting:	591,682.24 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 41' 0.946 N
		Longitude:	104° 2' 7.252 W
		Grid Convergence:	0.16 °

Well	Zircon 1 B1AD State #1H		
Well Position	+N/-S	0.0 usft	Northing: 616,819.00 usft
	+E/-W	0.0 usft	Easting: 596,467.30 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:	0.0 usft
		Latitude:	32° 41' 43.231 N
		Longitude:	104° 1' 11.116 W
		Ground Level:	3,428.0 usft

Wellbore	Wellbore #1		
Magnetics	Model Name	Sample Date	Declination (°)
	IGRF2010	2/28/2014	7.50
			Dip Angle (°) 60.48
			Field Strength (nT) 48,580

Design	Wellbore #1		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
		Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)
	0.0	0.0	0.0
			Direction (°) 268.07

Survey Program	Date	4/3/2014		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
100.0	6,549.0	Gyro (Wellbore #1)	Good_gyro	Good Gyro
6,623.0	11,655.0	MWD (Wellbore #1)	MWD default	MWD - Standard

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	0.52	144.33	100.0	-0.4	0.3	-0.3	0.52	0.52	0.00
200.0	0.60	171.54	200.0	-1.3	0.6	-0.6	0.27	0.08	27.21
300.0	0.62	192.31	300.0	-2.3	0.6	-0.5	0.22	0.02	20.77
400.0	0.63	190.59	400.0	-3.4	0.4	-0.2	0.02	0.01	-1.72
500.0	0.72	176.09	500.0	-4.5	0.3	-0.1	0.19	0.09	-14.50
600.0	0.75	158.78	600.0	-5.8	0.6	-0.4	0.22	0.03	-17.31
700.0	0.88	155.41	700.0	-7.1	1.1	-0.9	0.14	0.13	-3.37
800.0	0.89	145.53	799.9	-8.4	1.9	-1.6	0.15	0.01	-9.88
900.0	0.95	126.56	899.9	-9.6	3.0	-2.7	0.31	0.06	-18.97

DDC
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Site:	Sec 1, T19S, 29E	MD Reference:	Well @ 3448.0usft (Patterson)
Well:	Zircon 1 B1AD State #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

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)
1,000.0	1.12	109.67	999.9	-10.4	4.6	-4.2	0.35	0.17	-16.89
1,100.0	1.96	103.08	1,099.9	-11.1	7.2	-6.8	0.86	0.84	-6.59
1,200.0	1.95	98.99	1,199.8	-11.7	10.5	-10.1	0.14	-0.01	-4.09
1,300.0	1.81	91.88	1,299.8	-12.1	13.8	-13.4	0.27	-0.14	-7.11
1,400.0	1.78	90.51	1,399.7	-12.1	16.9	-16.5	0.05	-0.03	-1.37
1,500.0	1.21	84.43	1,499.7	-12.0	19.5	-19.1	0.59	-0.57	-6.08
1,600.0	0.78	66.37	1,599.7	-11.7	21.2	-20.8	0.53	-0.43	-18.06
1,700.0	0.75	42.65	1,699.7	-10.9	22.2	-21.9	0.32	-0.03	-23.72
1,800.0	0.52	328.48	1,799.7	-10.0	22.5	-22.1	0.79	-0.23	-74.17
1,900.0	0.69	316.66	1,899.7	-9.2	21.8	-21.5	0.21	0.17	-11.82
2,000.0	0.74	315.07	1,999.6	-8.3	20.9	-20.6	0.05	0.05	-1.59
2,100.0	0.92	316.26	2,099.6	-7.3	19.9	-19.7	0.18	0.18	1.19
2,200.0	0.76	308.50	2,199.6	-6.3	18.8	-18.6	0.20	-0.16	-7.76
2,300.0	0.74	286.67	2,299.6	-5.7	17.7	-17.5	0.28	-0.02	-21.83
2,400.0	0.63	296.69	2,399.6	-5.3	16.6	-16.4	0.16	-0.11	10.02
2,500.0	0.69	286.85	2,499.6	-4.8	15.5	-15.4	0.13	0.06	-9.84
2,600.0	0.66	278.34	2,599.6	-4.6	14.4	-14.2	0.10	-0.03	-8.51
2,700.0	0.53	291.35	2,699.6	-4.3	13.4	-13.2	0.19	-0.13	13.01
2,800.0	0.51	289.02	2,799.6	-4.0	12.5	-12.4	0.03	-0.02	-2.33
2,900.0	0.51	294.77	2,899.6	-3.7	11.7	-11.6	0.05	0.00	5.75
3,000.0	0.61	283.12	2,999.6	-3.4	10.8	-10.7	0.15	0.10	-11.65
3,100.0	0.48	278.78	3,099.6	-3.2	9.9	-9.7	0.14	-0.13	-4.34
3,200.0	0.47	270.45	3,199.6	-3.1	9.0	-8.9	0.07	-0.01	-8.33
3,300.0	0.52	272.59	3,299.6	-3.1	8.2	-8.1	0.05	0.05	2.14
3,400.0	0.52	292.29	3,399.6	-2.9	7.3	-7.2	0.18	0.00	19.70
3,500.0	0.40	283.84	3,499.6	-2.7	6.5	-6.4	0.14	-0.12	-8.45
3,600.0	0.61	288.19	3,599.6	-2.4	5.7	-5.6	0.21	0.21	4.35
3,700.0	0.62	297.68	3,699.5	-2.0	4.7	-4.6	0.10	0.01	9.49
3,800.0	0.65	311.17	3,799.5	-1.4	3.8	-3.8	0.15	0.03	13.49
3,900.0	0.78	303.87	3,899.5	-0.6	2.8	-2.8	0.16	0.13	-7.30
4,000.0	0.64	313.91	3,999.5	0.2	1.8	-1.8	0.19	-0.14	10.04
4,100.0	0.81	315.31	4,099.5	1.0	0.9	-1.0	0.17	0.17	1.40
4,200.0	1.14	326.14	4,199.5	2.4	-0.1	0.0	0.38	0.33	10.83
4,300.0	1.17	315.73	4,299.5	3.9	-1.4	1.2	0.21	0.03	-10.41
4,400.0	1.10	308.29	4,399.5	5.3	-2.8	2.7	0.16	-0.07	-7.44
4,500.0	1.27	298.09	4,499.4	6.4	-4.6	4.4	0.27	0.17	-10.20
4,600.0	2.15	288.53	4,599.4	7.5	-7.3	7.1	0.92	0.88	-9.56
4,700.0	2.60	267.14	4,699.3	8.0	-11.4	11.1	0.99	0.45	-21.39
4,800.0	2.51	264.24	4,799.2	7.6	-15.8	15.6	0.16	-0.09	-2.90
4,900.0	2.18	266.21	4,899.1	7.3	-19.9	19.6	0.34	-0.33	1.97
5,000.0	1.84	264.56	4,999.1	7.0	-23.4	23.1	0.34	-0.34	-1.65
5,100.0	1.98	267.49	5,099.0	6.8	-26.7	26.5	0.17	0.14	2.93
5,200.0	1.83	266.25	5,199.0	6.6	-30.0	29.8	0.16	-0.15	-1.24

DDC
Survey Report



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Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

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	2.00	266.29	5,298.9	6.4	-33.4	33.1	0.17	0.17	0.04	
5,400.0	1.84	266.82	5,398.8	6.2	-36.7	36.5	0.16	-0.16	0.53	
5,500.0	1.57	261.52	5,498.8	5.9	-39.7	39.4	0.31	-0.27	-5.30	
5,600.0	1.77	262.90	5,598.8	5.5	-42.6	42.3	0.20	0.20	1.38	
5,700.0	1.82	272.64	5,698.7	5.4	-45.7	45.5	0.31	0.05	9.74	
5,800.0	1.65	288.76	5,798.7	5.9	-48.6	48.4	0.51	-0.17	16.12	
5,900.0	1.37	302.35	5,898.6	7.0	-51.0	50.7	0.45	-0.28	13.59	
6,000.0	1.48	309.71	5,998.6	8.5	-53.0	52.7	0.21	0.11	7.36	
6,100.0	1.69	304.87	6,098.6	10.2	-55.2	54.8	0.25	0.21	-4.84	
6,200.0	1.49	296.24	6,198.5	11.6	-57.6	57.2	0.31	-0.20	-8.63	
6,300.0	1.89	295.83	6,298.5	12.9	-60.2	59.8	0.40	0.40	-0.41	
6,400.0	2.85	301.02	6,398.4	14.9	-63.8	63.3	0.98	0.96	5.19	
6,500.0	3.87	308.90	6,498.2	18.3	-68.6	67.9	1.12	1.02	7.88	
TIE IN @ 6549' MD / 6547' TVD										
6,549.0	4.06	307.37	6,547.1	20.4	-71.3	70.5	0.44	0.39	-3.12	
6,623.0	3.80	300.70	6,620.9	23.2	-75.5	74.6	0.71	-0.35	-9.01	
6,655.0	3.60	298.60	6,652.9	24.2	-77.3	76.4	0.75	-0.63	-6.56	
6,687.0	4.20	287.30	6,684.8	25.1	-79.3	78.4	3.04	1.88	-35.31	
6,719.0	8.00	277.70	6,716.6	25.7	-82.6	81.7	12.25	11.88	-30.00	
6,750.0	11.80	275.60	6,747.1	26.3	-87.9	86.9	12.31	12.26	-6.77	
6,782.0	15.40	273.20	6,778.2	26.9	-95.4	94.4	11.39	11.25	-7.50	
6,814.0	18.70	270.30	6,808.8	27.1	-104.8	103.8	10.65	10.31	-9.06	
6,846.0	21.70	267.90	6,838.8	26.9	-115.8	114.8	9.72	9.38	-7.50	
6,877.0	25.00	267.00	6,867.3	26.4	-128.1	127.1	10.71	10.65	-2.90	
6,909.0	28.30	268.20	6,895.9	25.8	-142.4	141.5	10.45	10.31	3.75	
CROSSED HARD LINE @ 6914' MD / 6901' TVD										
6,914.4	28.76	268.27	6,900.6	25.7	-145.0	144.0	8.46	8.44	1.34	
6,941.0	31.00	268.60	6,923.7	25.3	-158.2	157.3	8.46	8.44	1.23	
6,972.0	34.70	268.10	6,949.7	24.9	-175.0	174.1	11.97	11.94	-1.61	
7,004.0	37.80	267.10	6,975.6	24.1	-193.9	193.0	9.86	9.69	-3.13	
7,036.0	41.20	266.10	7,000.2	22.8	-214.3	213.4	10.81	10.63	-3.13	
7,068.0	44.10	266.20	7,023.8	21.4	-235.9	235.0	9.06	9.06	0.31	
7,100.0	47.00	266.80	7,046.2	20.0	-258.7	257.9	9.16	9.06	1.88	
7,131.0	50.00	267.70	7,066.7	18.9	-281.9	281.1	9.92	9.68	2.90	
7,163.0	54.20	267.20	7,086.4	17.8	-307.1	306.3	13.18	13.13	-1.56	
7,195.0	58.10	266.50	7,104.2	16.3	-333.6	332.9	12.32	12.19	-2.19	
7,227.0	61.60	267.00	7,120.3	14.7	-361.2	360.5	11.02	10.94	1.56	
7,259.0	64.30	267.90	7,134.8	13.5	-389.7	389.0	8.80	8.44	2.81	
7,291.0	67.70	268.90	7,147.8	12.7	-418.9	418.3	11.00	10.63	3.13	
7,322.0	70.90	268.60	7,158.8	12.0	-447.9	447.3	10.36	10.32	-0.97	
7,354.0	74.40	268.90	7,168.3	11.4	-478.4	477.8	10.97	10.94	0.94	
7,386.0	77.40	269.10	7,176.1	10.8	-509.5	508.8	9.39	9.38	0.63	
7,418.0	79.90	269.20	7,182.4	10.4	-540.8	540.2	7.82	7.81	0.31	
7,450.0	82.80	268.90	7,187.2	9.8	-572.5	571.8	9.11	9.06	-0.94	

DDC
Survey Report



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Site:	Sec 1, T19S, 29E	MD Reference:	Well @ 3448.0usft (Patterson)
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Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

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)
7,482.0	85.90	268.50	7,190.4	9.1	-604.3	603.7	9.77	9.69	-1.25
7,513.0	87.50	267.70	7,192.2	8.1	-635.2	634.6	5.77	5.16	-2.58
7,527.0	87.80	267.90	7,192.7	7.5	-649.2	648.6	2.57	2.14	1.43
7,614.0	92.00	266.50	7,192.9	3.3	-736.1	735.6	5.09	4.83	-1.61
7,646.0	92.90	267.40	7,191.5	1.6	-768.0	767.5	3.98	2.81	2.81
7,678.0	93.20	267.40	7,189.8	0.1	-799.9	799.5	0.94	0.94	0.00
7,741.0	93.00	266.90	7,186.4	-3.0	-862.8	862.4	0.85	-0.32	-0.79
7,805.0	93.00	266.50	7,183.1	-6.7	-926.6	926.3	0.62	0.00	-0.63
7,899.0	92.40	266.40	7,178.6	-12.5	-1,020.3	1,020.1	0.65	-0.64	-0.11
7,994.0	91.80	265.90	7,175.2	-18.9	-1,115.0	1,115.0	0.82	-0.63	-0.53
8,089.0	91.30	265.30	7,172.6	-26.1	-1,209.7	1,209.9	0.82	-0.53	-0.63
8,184.0	92.70	267.30	7,169.3	-32.3	-1,304.4	1,304.8	2.57	1.47	2.11
8,279.0	92.30	267.10	7,165.1	-36.9	-1,399.2	1,399.7	0.47	-0.42	-0.21
8,373.0	91.80	266.40	7,161.8	-42.2	-1,493.0	1,493.6	0.91	-0.53	-0.74
8,468.0	91.40	267.00	7,159.1	-47.7	-1,587.8	1,588.5	0.76	-0.42	0.63
8,563.0	92.40	267.70	7,156.0	-52.1	-1,682.7	1,683.5	1.28	1.05	0.74
8,658.0	93.70	267.90	7,150.9	-55.7	-1,777.5	1,778.3	1.38	1.37	0.21
8,753.0	92.80	268.20	7,145.5	-59.0	-1,872.2	1,873.2	1.00	-0.95	0.32
8,848.0	92.80	267.30	7,140.9	-62.7	-1,967.1	1,968.0	0.95	0.00	-0.95
8,943.0	93.50	269.30	7,135.7	-65.5	-2,061.9	2,062.9	2.23	0.74	2.11
9,038.0	93.00	268.30	7,130.3	-67.5	-2,156.7	2,157.7	1.18	-0.53	-1.05
9,133.0	92.60	267.70	7,125.6	-70.8	-2,251.5	2,252.6	0.76	-0.42	-0.63
9,228.0	92.90	269.00	7,121.1	-73.5	-2,346.4	2,347.5	1.40	0.32	1.37
9,323.0	92.10	268.70	7,116.9	-75.4	-2,441.3	2,442.4	0.90	-0.84	-0.32
9,418.0	93.40	269.40	7,112.4	-77.0	-2,536.1	2,537.3	1.55	1.37	0.74
9,513.0	94.00	269.90	7,106.2	-77.6	-2,630.9	2,632.1	0.82	0.63	0.53
9,608.0	93.20	269.00	7,100.3	-78.5	-2,725.7	2,726.8	1.27	-0.84	-0.95
9,703.0	93.60	268.90	7,094.6	-80.2	-2,820.6	2,821.7	0.43	0.42	-0.11
9,798.0	92.70	268.80	7,089.4	-82.1	-2,915.4	2,916.5	0.95	-0.95	-0.11
9,893.0	92.40	267.20	7,085.2	-85.4	-3,010.2	3,011.4	1.71	-0.32	-1.68
9,988.0	92.30	266.70	7,081.3	-90.5	-3,105.0	3,106.3	0.54	-0.11	-0.53
10,083.0	91.80	265.80	7,077.9	-96.7	-3,199.8	3,201.2	1.08	-0.53	-0.95
10,177.0	91.70	265.80	7,075.0	-103.6	-3,293.5	3,295.1	0.11	-0.11	0.00
10,272.0	91.50	265.60	7,072.4	-110.7	-3,388.2	3,390.0	0.30	-0.21	-0.21
10,367.0	91.20	268.40	7,070.1	-115.7	-3,483.0	3,484.9	2.96	-0.32	2.95
10,462.0	91.50	268.30	7,067.9	-118.4	-3,577.9	3,579.9	0.33	0.32	-0.11
10,557.0	91.20	268.20	7,065.7	-121.3	-3,672.9	3,674.9	0.33	-0.32	-0.11
10,652.0	90.90	268.50	7,063.9	-124.0	-3,767.8	3,769.8	0.45	-0.32	0.32
10,747.0	90.10	267.50	7,063.1	-127.4	-3,862.7	3,864.8	1.35	-0.84	-1.05
10,842.0	89.40	266.80	7,063.5	-132.1	-3,957.6	3,959.8	1.04	-0.74	-0.74
10,937.0	89.00	265.80	7,064.8	-138.2	-4,052.4	4,054.8	1.13	-0.42	-1.05
11,032.0	90.30	265.50	7,065.4	-145.4	-4,147.1	4,149.7	1.40	1.37	-0.32
11,127.0	90.90	266.00	7,064.4	-152.5	-4,241.9	4,244.6	0.82	0.63	0.53

DDC
Survey Report



Company:	Mewbourne Oil Co	Local Co-ordinate Reference:	Well Zircon 1 B1AD State #1H
Project:	Eddy County, New Mexico	TVD Reference:	Well @ 3448.0usft (Patterson)
Site:	Sec 1, T19S, 29E	MD Reference:	Well @ 3448.0usft (Patterson)
Well:	Zircon 1 B1AD State #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

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)
11,222.0	90.70	265.80	7,063.1	-159.3	-4,336.6	4,339.5	0.30	-0.21	-0.21
11,317.0	92.70	268.20	7,060.3	-164.2	-4,431.4	4,434.4	3.29	2.11	2.53
11,412.0	92.50	267.60	7,056.0	-167.7	-4,526.3	4,529.3	0.67	-0.21	-0.63
11,507.0	91.90	267.60	7,052.3	-171.7	-4,621.1	4,624.3	0.63	-0.63	0.00
11,601.0	91.70	267.00	7,049.4	-176.1	-4,715.0	4,718.2	0.67	-0.21	-0.64
TD @ 11655' MD / 7048' TVD									
11,655.0	91.00	267.00	7,048.1	-178.9	-4,768.9	4,772.2	1.30	-1.30	0.00

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
6,549.0	6,547.1	20.4	-71.3	TIE IN @6549' MD / 6547' TVD
6,914.4	6,900.6	25.7	-145.0	CROSSED HARD LINE @ 6914' MD / 6901' TVD
11,655.0	7,048.1	-178.9	-4,768.9	TD @ 11655' MD / 7048' TVD

Checked By: _____	Approved By: _____	Date: _____
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Company Rep	DAVID BERRYMAN
Field	0
BOT Service Rep	MIKE MARTINEZ
District Location	Odessa, TX



	Size	Weight	Grade	ID	Drift	Thread	Capacity	Length	Burst	Collapse				
Casing	7.000	26.00	80000	6.276	6.151	0	0.03826	7,575.00	7,240	5,410				
Top Liner	4.500	13.50	P-110	3.920	3.875	LTC / 8RD	0.01493	4,319.50	5,350	4,960				
Bott Liner	0.000	0.00	0	0.000	0.000	0	0.00000	-	-	-				
TVD		7048.00		KOP		6620.00		Open Hole		6.125	Casing Vol. (bbl)	277.8		
Carry Fluid Weight (ppg)			8.4		Propanant Content (ppa)					Max Drill Out Size		0		
		Comm. Number		Description			Depth	Length	OD	ID	Ball Seat ID	Shear Press.	Max Rate (BPM)	Displ. (BBL)
Liner Top	1	10292414		JR slv with 4.750 ALT seal bore ID			7260.50	4.00	5.750	4.000				

Zone	Length	Item	QTY	Unit Price	Subtotal	Material	Installation	Subtotal	Notes
20	513.3	H409400008	S3 HANGER PACKER	7264.50	4.62	5.875	3.875		1670
		10302875	4.5" VT X 4.5" LTC X-OVER	7269.12	0.90	4.938	3.875		
		H299900281	COMBO COLLAR	7270.02	0.59	5.000	0.000		
		H29710014	4.5" 13.5# LTC SPACER NIPPLE	7270.61	7.59	4.500	3.938		
19	187.3		8 JTS OF 4.5 13.5 P-110	7278.20	362.22	4.500	3.920		
		4506856624	3.500 EXPress Sleeve ZONE 20	7640.42	2.40	5.750		3.488	2286
			3 JTS OF 4.5 13.5 P-110	7642.82	135.67	4.500	3.920		
		104729081	OH PACKER 19	7778.49	3.89	5.820	3.875		2154
18	230.1		2 JTS OF 4.5 13.5 P-110	7782.38	90.61	4.500	3.920		
		4506856624	3.438 EXPress Sleeve ZONE 19	7872.99	2.40	5.750		3.385	2286
			2 JTS OF 4.5 13.5 P-110	7875.39	90.35	4.500	3.920		
			OH PACKER 18	7965.74	3.89	5.820	3.875		2154
17	187.3		2 JTS OF 4.5 13.5 P-110	7969.63	87.82	4.500	3.920		
		4506856624	3.375 EXPress Sleeve ZONE 18	8057.45	2.40	5.750		3.363	2286
			3 JTS OF 4.5 13.5 P-110	8059.85	135.97	4.500	3.920		
		104729081	OH PACKER 17	8195.82	3.89	5.820	3.875		2154
16	232.8		2 JTS OF 4.5 13.5 P-110	8199.71	90.34	4.500	3.920		
		4506856624	3.313 EXPress Sleeve ZONE 17	8290.05	2.40	5.750		3.260	2286
			2 JTS OF 4.5 13.5 P-110	8292.45	90.67	4.500	3.920		
		104729109	OH PACKER 16	8383.12	3.89	5.820	3.875		2154
15	187.3		2 JTS OF 4.5 13.5 P-110	8387.01	90.67	4.500	3.920		
		4506805519	3.250 EXPress Sleeve ZONE 16	8477.68	2.40	5.750		3.198	2286
			3 JTS OF 4.5 13.5 P-110	8480.08	135.80	4.500	3.920		
		104729109	OH PACKER 15	8615.88	3.89	5.820	3.875		2154
14	230.9		2 JTS OF 4.5 13.5 P-110	8619.77	90.37	4.500	3.920		
		4506805519	3.188 EXPress Sleeve ZONE 15	8710.14	2.40	5.750		3.135	2286
			2 JTS OF 4.5 13.5 P-110	8712.54	90.67	4.500	3.920		
		104729096	OH PACKER 14	8803.21	3.89	5.820	3.875		2154
13	187.6		2 JTS OF 4.5 13.5 P-110	8807.10	90.67	4.500	3.920		
		4506805519	3.125 EXPress Sleeve ZONE 14	8897.77	2.40	5.750		3.073	2286
			3 JTS OF 4.5 13.5 P-110	8900.17	133.90	4.500	3.920		
		104729096	OH PACKER 13	9034.07	3.89	5.820	3.875		2154
			2 JTS OF 4.5 13.5 P-110	9037.96	90.58	4.500	3.920		
			3.063 EXPress Sleeve ZONE 13	9128.54	2.40	5.750		3.010	2286

Operating Company Mewbourne Oil Co.
Well Name & Number ZIRCON 1B1AD STATE 1H
Sales Ticket Number 6273695

Company Rep DAVID BERRYMAN
Field 0
BOT Service Rep MIKE MARTINEZ
District Location Odessa, TX



	Size	Weight	Grade	ID	Drift	Thread	Capacity	Length	Burst	Collapse
Casing	7.000	26.00	80000	6.276	6.151	0	0.03826	7,575.00	7,240	5,410
Top Liner	4.500	13.50	P-110	3.920	3.875	LTC / 8RD	0.01493	4,319.50	5,350	4,960
Bott Liner	0.000	0.00	0	0.000	0.000	0	0.00000	-	-	-

TVD	7048.00	KOP	6620.00	Open Hole	6.125	Casing Vol. (bbl)	277.8
Carry Fluid Weight (ppg)	8.4	Proppant Content (ppa)		Max Drill Out Size	0		

	Comm. Number	Description	Depth	Length	OD	ID	Ball Seat ID	Shear Press.	Max Rate (BPM)	Displ. (BBL)
		2 JTS OF 4.5 13.5 P-110	9130.94	90.69	4.500	3.920				
	104729102	OH PACKER 12	9221.63	3.89	5.820	3.875		2154		
12		2 JTS OF 4.5 13.5 P-110	9225.52	90.66	4.500	3.920				
187.6	4506805519	3.000 EXPress Sleeve ZONE 12	9316.18	2.40	5.750		2.948	2286		
		2 JTS OF 4.5 13.5 P-110	9318.58	90.61	4.500	3.920				
	104729102	OH PACKER 11	9409.19	3.89	5.820	3.875		2154		
11		2 JTS OF 4.5 13.5 P-110	9413.08	90.09	4.500	3.920				
231.8	4506805519	2.938 EXPress Sleeve ZONE 11	9503.17	2.40	5.750		2.885	2286		
		3 JTS OF 4.5 13.5 P-110	9505.57	135.40	4.500	3.920				
	104729102	OH PACKER 10	9640.97	3.89	5.820	3.875		2154		
10		2 JTS OF 4.5 13.5 P-110	9644.86	90.68	4.500	3.920				
232.4	4506805519	2.875 EXPress Sleeve ZONE 10	9735.54	2.40	5.750		2.823	2286		
		3 JTS OF 4.5 13.5 P-110	9737.94	135.42	4.500	3.920				
	104729081	OH PACKER 9	9873.36	3.89	5.820	3.875		2154		
9		2 JTS OF 4.5 13.5 P-110	9877.25	90.69	4.500	3.920				
185.3	4506805519	2.813 EXPress Sleeve ZONE 9	9967.94	2.40	5.750		2.760	2286		
		2 JTS OF 4.5 13.5 P-110	9970.34	88.36	4.500	3.920				
	104729109	OH PACKER 8	10058.70	3.89	5.820	3.875		2154		
8		2 JTS OF 4.5 13.5 P-110	10062.59	90.64	4.500	3.920				
187.3	4506805519	2.750 EXPress Sleeve ZONE 8	10153.23	2.40	5.750		2.698	2286		
		2 JTS OF 4.5 13.5 P-110	10155.63	90.38	4.500	3.920				
	104729109	OH PACKER 7	10246.01	3.89	5.820	3.875		2154		
7		2 JTS OF 4.5 13.5 P-110	10249.90	90.36	4.500	3.920				
232.3	4506805519	2.688 EXPress Sleeve ZONE 7	10340.26	2.40	5.750		2.635	2286		
		3 JTS OF 4.5 13.5 P-110	10342.66	135.69	4.500	3.920				
	104729106	OH PACKER 6	10478.35	3.89	5.820	3.875		2154		
6		2 JTS OF 4.5 13.5 P-110	10482.24	90.64	4.500	3.920				
187.4	4506805519	2.625 EXPress Sleeve ZONE 6	10572.88	2.40	5.750		2.573	2286		
		2 JTS OF 4.5 13.5 P-110	10575.28	90.42	4.500	3.920				
	104729109	OH PACKER 5	10665.70	3.89	5.820	3.875		2154		
5		2 JTS OF 4.5 13.5 P-110	10669.59	90.60	4.500	3.920				
235.9	4506805519	2.563 EXPress Sleeve ZONE 5	10760.19	2.40	5.750		2.510	2286		
		3 JTS OF 4.5 13.5 P-110	10762.59	135.96	4.500	3.920				
	104729109	OH PACKER 4	10898.55	3.89	5.820	3.875		2154		
4		2 JTS OF 4.5 13.5 P-110	10902.44	90.66	4.500	3.920				
187.3	4506805519	2.500 EXPress Sleeve ZONE 4	10993.10	2.40	5.750		2.448	2286		
		2 JTS OF 4.5 13.5 P-110	10995.50	90.35	4.500	3.920				
	104729106	OH PACKER 3	11085.85	3.89	5.820	3.875		2154		

Company Rep	DAVID BERRYMAN
Field	0
BOT Service Rep	MIKE MARTINEZ
District Location	Odessa, TX

[illegible]



Job Number: SVMO-140413
 Company: Mewbourne Oil & Gas
 Lease/Well: Parkway 26 State Com 5H
 Location: Eddy County, NM
 Rig Name: Patterson #45
 RKB: 17.5'
 G.L. or M.S.L.: GL

State/Country: New Mexico/USA
 Declination: 7.35°
 Grid: East To Grid North
 File name: S:\2014SU~1\MEWBOU~1\MOIPARKWA~1\5H.SVY
 Date/Time: 03-Apr-14 / 12:37
 Curve Name: Surface - 7500' M.D. (Rate Gyro)

MS SURVEY

WINSERVE SURVEY CALCULATIONS
 Minimum Curvature Method
 Vertical Section Plane 90.11
 Vertical Section Referenced to Wellhead
 Rectangular Coordinates Referenced to Wellhead

We hereby certify that our survey data from
 Surface MD to 7500' MD is, to the best of
 our knowledge a true and accurate account of
 the well bore.
 Travis Paik 4/13/14
 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	CLOSURE		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
100.00	.57	164.99	100.00	-.48	.13	.13	.50	164.99	.57
200.00	.98	167.00	199.99	-1.79	.45	.45	1.85	165.92	.41
300.00	1.18	166.74	299.97	-3.63	.88	.89	3.73	166.39	.20
400.00	1.03	156.68	399.95	-5.46	1.47	1.48	5.65	164.92	.24
500.00	1.12	158.40	499.94	-7.19	2.19	2.20	7.52	163.09	.10
600.00	.90	135.25	599.92	-8.66	3.10	3.12	9.20	160.31	.46
700.00	.83	110.30	699.91	-9.47	4.33	4.35	10.41	155.42	.38
800.00	1.20	116.38	799.89	-10.18	5.95	5.97	11.79	149.71	.38
900.00	2.22	110.00	899.85	-11.31	8.71	8.73	14.27	142.41	1.04

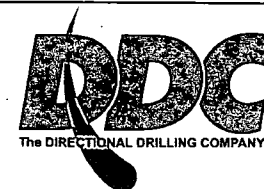
Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	C L O S U R E		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
1000.00	2.96	105.63	999.74	-12.67	13.01	13.04	18.16	134.23	.77
1100.00	2.79	106.37	1099.62	-14.05	17.83	17.86	22.70	128.23	.17
1200.00	2.53	106.50	1199.51	-15.36	22.29	22.32	27.07	124.58	.26
1300.00	1.79	92.84	1299.44	-16.07	25.96	25.99	30.53	121.75	.90
1400.00	1.69	83.02	1399.39	-15.97	28.99	29.02	33.09	118.85	.31
1500.00	1.90	51.45	1499.35	-14.75	31.75	31.77	35.01	114.93	1.00
1600.00	1.83	41.92	1599.29	-12.53	34.11	34.13	36.34	110.17	.32
1700.00	1.69	40.91	1699.25	-10.23	36.14	36.16	37.56	105.80	.14
1800.00	1.71	52.41	1799.20	-8.21	38.29	38.31	39.16	102.10	.34
1900.00	1.93	51.20	1899.15	-6.24	40.78	40.80	41.26	98.70	.22
2000.00	.95	14.12	1999.12	-4.38	42.30	42.31	42.53	95.91	1.30
2100.00	.42	.33	2099.11	-3.21	42.50	42.51	42.62	94.32	.55
2200.00	.39	68.37	2199.11	-2.72	42.82	42.83	42.91	93.63	.45
2300.00	.30	83.89	2299.11	-2.57	43.40	43.40	43.47	93.38	.13
2400.00	.83	55.49	2399.11	-2.13	44.26	44.26	44.31	92.75	.58
2500.00	.96	56.18	2499.09	-1.25	45.55	45.55	45.57	91.57	.13
2600.00	2.64	38.08	2599.04	1.03	47.66	47.66	47.68	88.76	1.75
2700.00	2.35	40.74	2698.95	4.40	50.42	50.41	50.61	85.02	.31
2800.00	1.74	103.65	2798.89	5.59	53.24	53.23	53.53	84.01	2.20
2900.00	1.90	115.54	2898.84	4.52	56.21	56.20	56.39	85.41	.41
3000.00	1.79	107.31	2998.79	3.34	59.20	59.19	59.29	86.77	.29
3100.00	1.04	109.83	3098.76	2.57	61.54	61.53	61.59	87.61	.75
3200.00	.92	132.60	3198.75	1.71	62.98	62.98	63.01	88.44	.40
3300.00	1.46	121.09	3298.72	.51	64.67	64.67	64.67	89.55	.59
3400.00	.76	120.66	3398.70	-.48	66.33	66.33	66.33	90.42	.70
3500.00	.94	146.39	3498.69	-1.50	67.35	67.36	67.37	91.28	.42
3600.00	1.17	130.11	3598.68	-2.85	68.59	68.59	68.65	92.38	.38
3700.00	1.05	120.56	3698.66	-3.97	70.16	70.16	70.27	93.24	.22
3800.00	.53	125.32	3798.65	-4.70	71.32	71.33	71.48	93.77	.52

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	C L O S U R E		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
3900.00	.27	176.84	3898.65	-5.20	71.71	71.72	71.90	94.15	.42
4000.00	.69	208.19	3998.64	-5.97	71.44	71.45	71.69	94.78	.48
4100.00	.79	195.17	4098.63	-7.17	70.98	70.99	71.34	95.77	.20
4200.00	.80	202.30	4198.63	-8.48	70.53	70.55	71.04	96.85	.10
4300.00	.72	210.46	4298.62	-9.67	69.95	69.97	70.61	97.87	.13
4400.00	.61	252.83	4398.61	-10.36	69.12	69.14	69.89	98.53	.49
4500.00	.70	256.12	4498.60	-10.67	68.02	68.04	68.85	98.91	.10
4600.00	1.11	265.32	4598.59	-10.89	66.46	66.48	67.35	99.31	.43
4700.00	1.53	272.38	4698.56	-10.92	64.16	64.18	65.08	99.66	.45
4800.00	1.27	282.82	4798.53	-10.62	61.75	61.77	62.65	99.76	.36
4900.00	1.22	308.11	4898.51	-9.71	59.83	59.85	60.61	99.22	.55
5000.00	1.16	339.97	4998.49	-8.10	58.65	58.66	59.20	97.87	.66
5100.00	1.38	1.19	5098.47	-5.95	58.32	58.34	58.63	95.83	.52
5200.00	1.49	8.82	5198.44	-3.46	58.55	58.55	58.65	93.38	.22
5300.00	1.85	8.22	5298.39	-.58	58.98	58.98	58.98	90.56	.36
5400.00	1.77	349.59	5398.34	2.54	58.93	58.93	58.98	87.53	.59
5500.00	1.32	331.85	5498.31	5.07	58.11	58.10	58.33	85.01	.65
5600.00	1.09	316.04	5598.29	6.77	56.90	56.89	57.31	83.21	.40
5700.00	.93	312.93	5698.27	8.01	55.65	55.63	56.22	81.81	.17
5800.00	1.39	304.98	5798.25	9.26	54.06	54.04	54.85	80.28	.49
5900.00	1.43	329.59	5898.22	11.03	52.44	52.41	53.58	78.12	.60
6000.00	1.47	333.63	5998.19	13.25	51.23	51.21	52.92	75.50	.11
6100.00	1.49	340.73	6098.16	15.63	50.24	50.21	52.61	72.72	.18
6200.00	2.51	325.39	6198.09	18.66	48.56	48.53	52.02	68.98	1.14
6300.00	3.63	300.09	6297.95	22.05	44.58	44.54	49.74	63.68	1.73
6400.00	3.78	303.06	6397.74	25.44	39.08	39.03	46.63	56.94	.24
6500.00	3.83	303.93	6497.52	29.10	33.54	33.49	44.41	49.06	.08
6600.00	3.36	305.14	6597.33	32.65	28.38	28.31	43.26	41.00	.48
6700.00	2.86	310.62	6697.18	35.96	24.09	24.02	43.28	33.82	.58

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	C L O S U R E		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
6800.00	3.00	317.64	6797.05	39.52	20.43	20.35	44.49	27.34	.38
6900.00	2.86	311.58	6896.92	43.11	16.80	16.72	46.27	21.29	.34
7000.00	2.56	292.94	6996.81	45.63	12.88	12.79	47.42	15.76	.93
7100.00	1.85	289.61	7096.73	47.05	9.30	9.21	47.96	11.18	.72
7200.00	1.24	297.83	7196.70	48.09	6.82	6.73	48.57	8.08	.65
7300.00	1.88	298.80	7296.66	49.39	4.43	4.33	49.59	5.12	.64
7400.00	3.46	277.16	7396.55	50.55	.00	-.10	50.55	360.00	1.85
Last Survey Depth Recorded									
7500.00	3.58	247.08	7496.37	49.71	-5.87	-5.97	50.06	353.26	1.83

Company Name: Mewbourne Oil Co
Zircon 1 B1AD State #1H
Eddy County, New Mexico
Rig: Patterson #46
Created By: James Dawson
Date: 4/3/2014

Zircon 1 B1AD State #1H
Eddy County, New Mexico
Q140298 & WT-140248
Design #3



Mewbourne Oil Company



Azimuths to Grid North

Magnetic North: 7.33°

Magnetic Field
Strength: 48579.9snT
Dip Angle: 60.48°
Date: 2/28/2014
Model: IGRF2010

PROJECT DETAILS: Eddy County, New Mexico

Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: Mean Sea Level
System Datum: New Mexico East 3001

WELL DETAILS: Zircon 1 B1AD State #1H

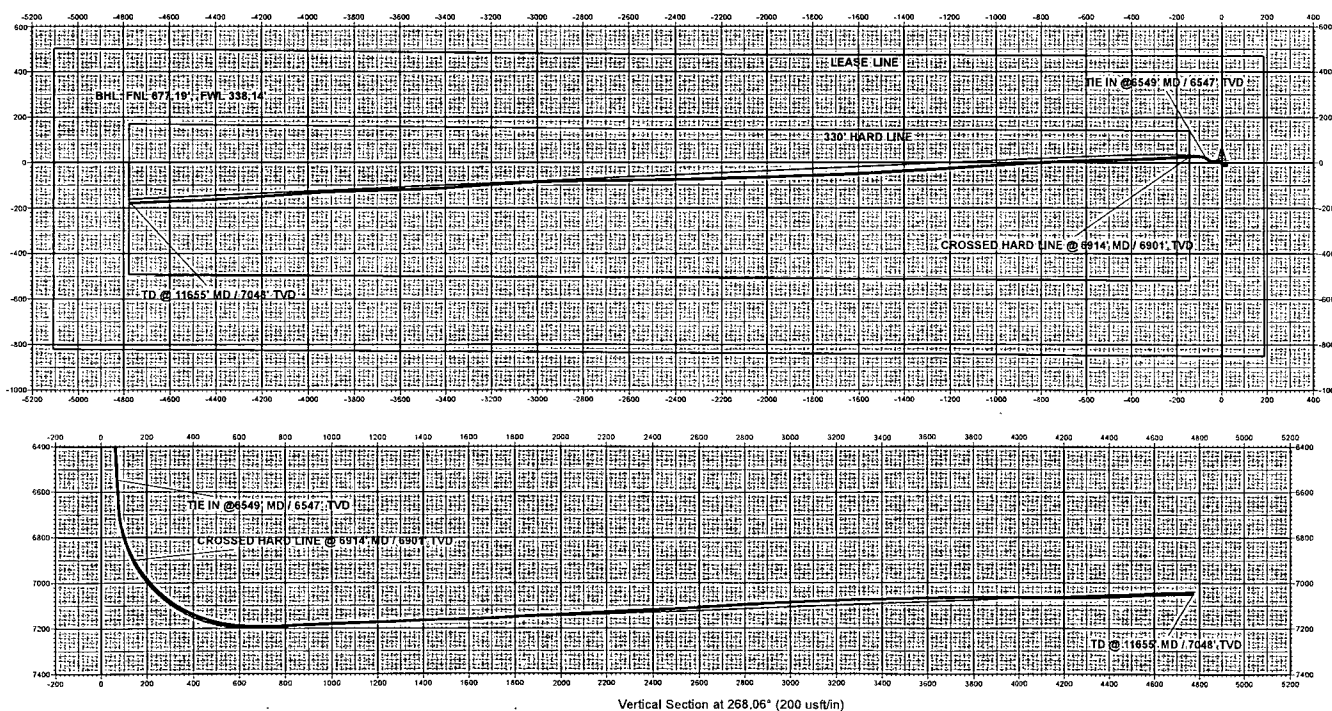
+N/-S	+E/-W	Ground Level	Latitude	Longitude
0.0	0.0	516819.00	32° 41' 43.231 N	104° 1' 11.116 W

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
PBHL Zircon B1AD State #1H - plan hits target center	7038.0	-161.7	-4777.0	616657.31	591690.35	32° 41' 41.767 N	104° 2' 7.021 W

ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	V Sct	Departure	Annotation
8549.0	4.06	307.37	8547.1	20.4	-71.3	70.6	136.1	TIE IN @ 8549' MD / 6547' TVD
6914.4	28.76	208.27	8900.6	25.7	-145.0	144.0	211.4	CROSSED HARD LINE @ 6914' MD / 6901' TVD
11655.0	91.00	267.00	7048.1	-178.9	-4768.9	4772.2	4840.6	TD @ 11655' MD / 7048' TVD



Vertical Section at 268.06° (200 usft/in)