

Mewbourne Oil Co

Eddy County, New Mexico

Sec 12, T19S, R29E

Zircon 12/7 B2JK Federal Com #1H

Wellbore #1

Design: Wellbore #1

30-015-42713

DDC Survey Report

02 December, 2014



Company Name: Mewbourne Oil Co
Zircon 12/ B2JK Federal Com #1H
Eddy County, New Mexico
Rig: Patterson #75
Created By: Kaleigh DeCordova
Date: 12/02/2014

Mewbourne Oil Company

Zircon 12/7 B2JK Federal Com #1H
Eddy County, New Mexico
Q141197 & WT-141153
Design #4 - Tie In



Azimuths to Grid North

Correction: 7.25°

Magnetic Field
Strength: 48498.0snT

Dip Angle: 60.44°

Date: 11/6/2014

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: New Mexico East 3001
System Datum: Mean Sea Level

DESIGN TARGET DETAILS

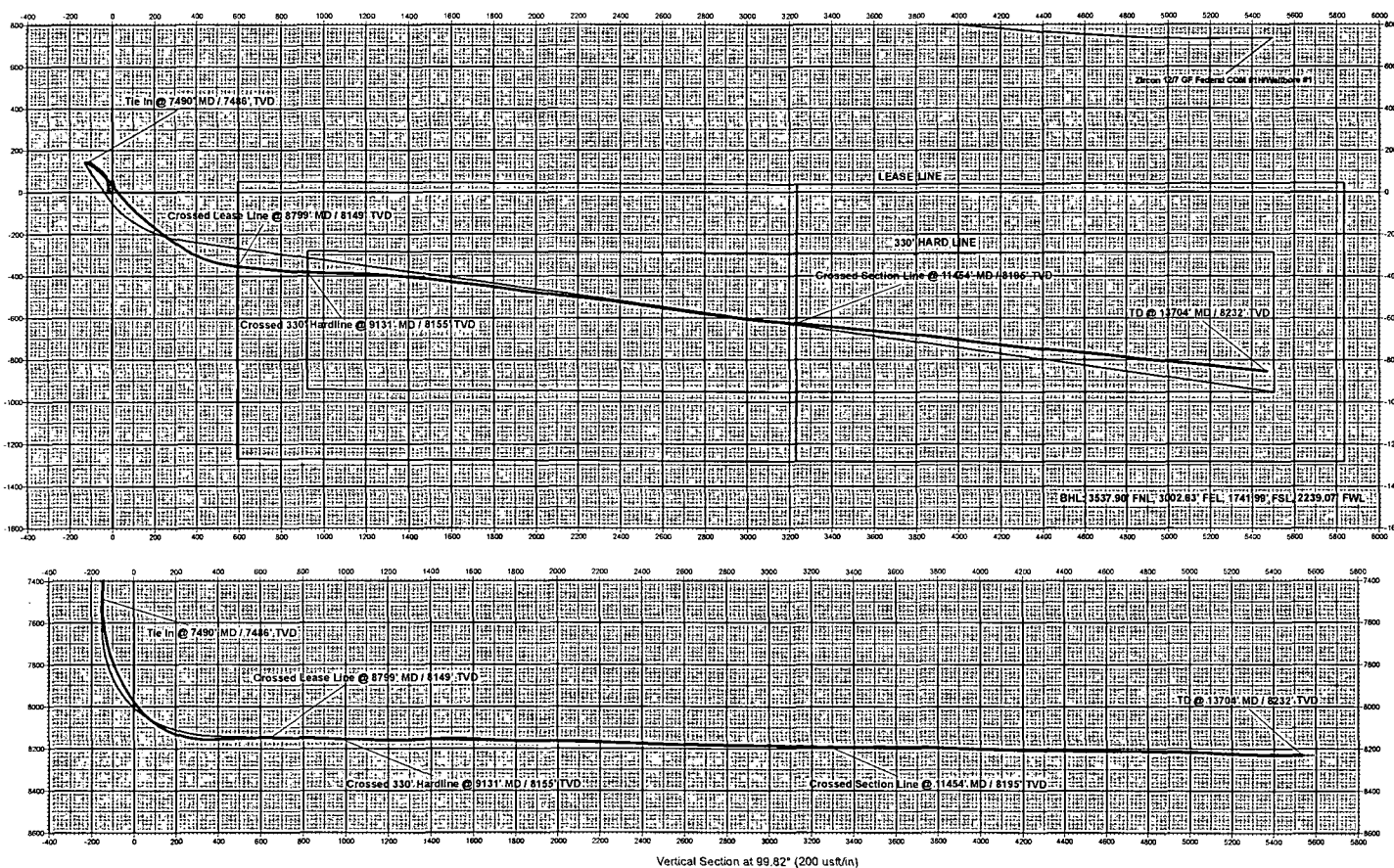
Name	TVD	+N-S	+E-W	Northing	Easting	Latitude	Longitude
PBHL Zircon 12/7 B2JK Fed Com #1H B232.0		-953.4	5506.3	609374.95	598920.69	32° 40' 19.600 N	104° 0' 42.705 W
plan hits target center							

ANNOTATIONS

MD	Inc	Azi	TVD	+N-S	+E-W	Vsect	Departure	Annotation
7490.0	1.72	272.66	7485.6	140.0	-124.3	-168.4	215.9	Tie In @ 7490' MD / 7485' TVD
8799.4	89.57	97.22	8148.9	-364.8	586.4	648.2	1114.8	Crossed Lease Line @ 8799' MD / 8149' TVD
9130.6	88.53	92.81	8155.1	-383.2	926.2	978.0	1445.9	Crossed 330° Hardline @ 9131' MD / 8155' TVD
11453.6	89.00	94.60	8196.3	-428.1	3233.9	3293.7	3768.0	Crossed Section Line @ 11454' MD / 8195' TVD
13704.0	89.40	95.90	8231.8	-855.0	6471.9	5537.6	6017.6	TD @ 13704' MD / 8232' TVD

WELL DETAILS: Zircon 12/7 B2JK Federal Com #1H

Ground Level:		3392.0			
+N-S	+E-W	Northing	Easting	Latitude	Longitude
0.0	0.0	609328.37	693414.35	32° 40' 29.195 N	104° 1' 47.092 W



Survey Report



Company:	Mewbourne Oil Co	Local Co-ordinate Reference:	Well Zircon 12/7 B2JK Federal Com #1H
Project:	Eddy County, New Mexico	TVD Reference:	Well @ 3412.0usft (Patterson #75)
Site:	Sec 12, T19S, R29E	MD Reference:	Well @ 3412.0usft (Patterson #75)
Well:	Zircon 12/7 B2JK Federal Com #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Compass

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 12, T19S, R29E		
Site Position:		Northing:	611,361.60 usft
From:	Map	Easting:	593,842.90 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16"
		Latitude:	32° 40' 49.303 N
		Longitude:	104° 1' 42.010 W
		Grid Convergence:	0.16 °

Well	Zircon 12/7 B2JK Federal Com #1H		
Well Position	+N/-S	0.0 usft	Northing: 609,328.38 usft
	+E/-W	0.0 usft	Easting: 593,414.35 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:	0.0 usft
		Latitude:	32° 40' 29.195 N
		Longitude:	104° 1' 47.092 W
		Ground Level:	3,392.0 usft

Wellbore	Wellbore #1		
Magnetics	Model Name	Sample Date	Declination
			(°)
	IGRF2010	11/6/2014	7.41
			Dip Angle
			(°)
			60.44
			Field Strength
			(nT)
			48,498

Design	Wellbore #1		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
		Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.0	0.0	0.0
			Direction
			(°)
			99.82

Survey Program	Date	12/2/2014		
From	To	Survey (Wellbore)	Tool Name	Description
(usft)	(usft)			
100.0	7,490.0	MS Gyro (Wellbore #1)	Good_gyro	Good Gyro
7,543.0	13,704.0	MWD (Wellbore #1)	MWD default	MWD - Standard

Survey									
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Vertical	Dogleg	Build	Turn
Depth	(°)	(°)	Depth	(usft)	(usft)	Section	Rate	Rate	Rate
(usft)			(usft)			(usft)	(°/100usft)	(°/100usft)	(°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.55	217.71	100.0	-0.4	-0.3	-0.2	0.55	0.55	0.00
200.0	0.32	236.74	200.0	-0.9	-0.8	-0.7	0.27	-0.23	19.03
300.0	1.05	277.78	300.0	-0.9	-2.0	-1.8	0.84	0.73	41.04
400.0	1.58	276.79	400.0	-0.7	-4.2	-4.1	0.53	0.53	-0.99
500.0	1.55	276.43	499.9	-0.3	-7.0	-6.8	0.03	-0.03	-0.36
600.0	1.41	274.89	599.9	-0.1	-9.5	-9.4	0.15	-0.14	-1.54
700.0	1.30	278.41	699.9	0.2	-11.9	-11.7	0.14	-0.11	3.52
800.0	1.10	287.17	799.8	0.6	-13.9	-13.8	0.27	-0.20	8.76
900.0	0.87	290.87	899.8	1.2	-15.5	-15.5	0.24	-0.23	3.70

Survey Report



Company:	Mewbourne Oil Co	Local Co-ordinate Reference:	Well Zircon 12/7 B2JK Federal Com #1H
Project:	Eddy County, New Mexico	TVD Reference:	Well @ 3412.0usft (Patterson #75)
Site:	Sec 12, T19S, R29E	MD Reference:	Well @ 3412.0usft (Patterson #75)
Well:	Zircon 12/7 B2JK Federal Com #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Compass

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	0.85	313.94	999.8	2.0	-16.8	-16.9	0.34	-0.02	23.07
1,100.0	0.74	330.00	1,099.8	3.0	-17.6	-17.9	0.25	-0.11	16.06
1,200.0	0.59	12.23	1,199.8	4.1	-17.8	-18.3	0.50	-0.15	42.23
1,300.0	0.83	13.20	1,299.8	5.3	-17.6	-18.2	0.24	0.24	0.97
1,400.0	0.82	16.90	1,399.8	6.7	-17.2	-18.1	0.05	-0.01	3.70
1,500.0	0.82	17.75	1,499.8	8.1	-16.8	-17.9	0.01	0.00	0.85
1,600.0	0.78	6.53	1,599.8	9.4	-16.5	-17.8	0.16	-0.04	-11.22
1,700.0	0.75	12.50	1,699.8	10.7	-16.3	-17.9	0.09	-0.03	5.97
1,800.0	0.83	9.40	1,799.7	12.1	-16.0	-17.8	0.09	0.08	-3.10
1,900.0	0.84	8.14	1,899.7	13.5	-15.8	-17.9	0.02	0.01	-1.26
2,000.0	0.79	353.58	1,999.7	15.0	-15.8	-18.1	0.21	-0.05	-14.56
2,100.0	0.81	357.97	2,099.7	16.3	-15.9	-18.4	0.06	0.02	4.39
2,200.0	0.93	357.28	2,199.7	17.9	-15.9	-18.7	0.12	0.12	-0.69
2,300.0	1.02	352.26	2,299.7	19.6	-16.1	-19.2	0.12	0.09	-5.02
2,400.0	1.16	354.06	2,399.7	21.4	-16.3	-19.7	0.14	0.14	1.80
2,500.0	1.13	351.63	2,499.6	23.4	-16.5	-20.3	0.06	-0.03	-2.43
2,600.0	1.20	355.41	2,599.6	25.4	-16.8	-20.9	0.10	0.07	3.78
2,700.0	1.27	348.32	2,699.6	27.6	-17.1	-21.5	0.17	0.07	-7.09
2,800.0	1.39	350.38	2,799.6	29.9	-17.5	-22.3	0.13	0.12	2.06
2,900.0	1.49	347.07	2,899.5	32.3	-18.0	-23.3	0.13	0.10	-3.31
3,000.0	1.58	352.12	2,999.5	35.0	-18.5	-24.2	0.16	0.09	5.05
3,100.0	1.73	347.17	3,099.5	37.8	-19.0	-25.2	0.21	0.15	-4.95
3,200.0	1.89	350.19	3,199.4	40.9	-19.6	-26.3	0.19	0.16	3.02
3,300.0	1.94	352.18	3,299.4	44.2	-20.1	-27.4	0.08	0.05	1.99
3,400.0	2.11	347.97	3,399.3	47.7	-20.8	-28.6	0.23	0.17	-4.21
3,500.0	2.33	348.66	3,499.2	51.5	-21.5	-30.0	0.22	0.22	0.69
3,600.0	2.40	347.49	3,599.1	55.5	-22.4	-31.5	0.09	0.07	-1.17
3,700.0	2.42	347.64	3,699.1	59.6	-23.3	-33.1	0.02	0.02	0.15
3,800.0	2.54	340.82	3,799.0	63.8	-24.5	-35.0	0.32	0.12	-6.82
3,900.0	2.52	338.00	3,898.9	67.9	-26.0	-37.2	0.13	-0.02	-2.82
4,000.0	2.55	338.13	3,998.8	72.0	-27.7	-39.5	0.03	0.03	0.13
4,100.0	2.88	330.99	4,098.7	76.3	-29.7	-42.3	0.47	0.33	-7.14
4,200.0	3.18	324.05	4,198.5	80.7	-32.6	-45.9	0.47	0.30	-6.94
4,300.0	3.61	317.83	4,298.3	85.3	-36.3	-50.3	0.57	0.43	-6.22
4,400.0	3.89	315.37	4,398.1	90.0	-40.8	-55.6	0.32	0.28	-2.46
4,500.0	4.11	312.92	4,497.9	94.9	-45.8	-61.3	0.28	0.22	-2.45
4,600.0	4.55	308.97	4,597.6	99.8	-51.5	-67.8	0.53	0.44	-3.95
4,700.0	4.82	309.12	4,697.3	105.0	-57.9	-74.9	0.27	0.27	0.15
4,800.0	4.92	309.73	4,796.9	110.3	-64.4	-82.3	0.11	0.10	0.61
4,900.0	4.89	310.10	4,896.5	115.8	-71.0	-89.7	0.04	-0.03	0.37
5,000.0	3.42	309.44	4,996.3	120.5	-76.5	-96.0	1.47	-1.47	-0.66
5,100.0	2.24	305.09	5,096.1	123.5	-80.4	-100.3	1.20	-1.18	-4.35
5,200.0	1.32	298.13	5,196.1	125.2	-83.1	-103.2	0.94	-0.92	-6.96

Survey Report



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Project:	Eddy County, New Mexico	TVD Reference:	Well @ 3412.0usft (Patterson #75)
Site:	Sec 12, T19S, R29E	MD Reference:	Well @ 3412.0usft (Patterson #75)
Well:	Zircon 12/7 B2JK Federal Com #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Compass

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	1.12	293.02	5,296.1	126.1	-85.0	-105.2	0.23	-0.20	-5.11
5,400.0	0.85	287.06	5,396.1	126.7	-86.6	-106.9	0.29	-0.27	-5.96
5,500.0	0.41	274.83	5,496.0	126.9	-87.7	-108.0	0.46	-0.44	-12.23
5,600.0	0.32	178.33	5,596.0	126.7	-88.0	-108.3	0.55	-0.09	-96.50
5,700.0	0.35	55.82	5,696.0	126.6	-87.7	-108.0	0.59	0.03	-122.51
5,800.0	0.85	310.29	5,796.0	127.2	-88.1	-108.5	1.00	0.50	-105.53
5,900.0	1.26	310.51	5,896.0	128.4	-89.5	-110.0	0.41	0.41	0.22
6,000.0	1.41	316.73	5,996.0	130.0	-91.1	-112.0	0.21	0.15	6.22
6,100.0	1.50	314.33	6,096.0	131.8	-92.9	-114.0	0.11	0.09	-2.40
6,200.0	1.30	318.01	6,195.9	133.6	-94.6	-116.0	0.22	-0.20	3.68
6,300.0	0.99	316.94	6,295.9	135.1	-96.0	-117.6	0.31	-0.31	-1.07
6,400.0	0.75	316.85	6,395.9	136.2	-97.0	-118.8	0.24	-0.24	-0.09
6,500.0	0.91	301.40	6,495.9	137.1	-98.1	-120.1	0.27	0.16	-15.45
6,600.0	1.41	296.31	6,595.9	138.0	-99.9	-122.0	0.51	0.50	-5.09
6,700.0	2.11	291.76	6,695.8	139.3	-102.7	-125.0	0.71	0.70	-4.55
6,800.0	1.95	291.66	6,795.8	140.6	-106.0	-128.4	0.16	-0.16	-0.10
6,900.0	1.52	265.22	6,895.7	141.1	-108.9	-131.4	0.90	-0.43	-26.44
7,000.0	1.46	250.89	6,995.7	140.6	-111.4	-133.8	0.38	-0.06	-14.33
7,100.0	1.50	269.76	7,095.7	140.1	-113.9	-136.2	0.49	0.04	18.87
7,200.0	1.52	269.92	7,195.6	140.1	-116.6	-138.8	0.02	0.02	0.16
7,300.0	1.44	267.32	7,295.6	140.1	-119.2	-141.3	0.10	-0.08	-2.60
7,400.0	1.54	268.62	7,395.6	140.0	-121.8	-143.9	0.11	0.10	1.30
Tie In @ 7490' MD / 7486' TVD									
7,490.0	1.72	272.66	7,485.5	140.0	-124.3	-146.4	0.24	0.20	4.49
7,543.0	1.20	71.10	7,538.5	140.2	-124.6	-146.7	5.42	-0.98	298.94
7,575.0	4.50	98.70	7,570.5	140.1	-123.0	-145.1	10.88	10.31	86.25
7,607.0	6.70	105.00	7,602.3	139.5	-120.0	-142.0	7.13	6.88	19.69
7,638.0	8.60	100.60	7,633.0	138.6	-116.0	-137.9	6.41	6.13	-14.19
7,670.0	10.00	117.10	7,664.6	136.9	-111.1	-132.9	9.37	4.38	51.56
7,702.0	13.00	121.70	7,696.0	133.7	-105.6	-126.9	9.80	9.38	14.38
7,733.0	16.40	124.10	7,726.0	129.4	-99.0	-119.6	11.14	10.97	7.74
7,765.0	19.50	125.90	7,756.4	123.8	-90.9	-110.7	9.84	9.69	5.63
7,797.0	22.70	127.00	7,786.2	116.9	-81.7	-100.4	10.08	10.00	3.44
7,828.0	25.90	129.20	7,814.5	109.0	-71.7	-89.2	10.73	10.32	7.10
7,860.0	29.00	131.70	7,842.9	99.5	-60.4	-76.5	10.33	9.69	7.81
7,892.0	31.90	134.70	7,870.5	88.3	-48.6	-63.0	10.23	9.06	9.38
7,923.0	34.80	136.40	7,896.4	76.2	-36.7	-49.2	9.83	9.35	5.48
7,955.0	37.30	139.10	7,922.2	62.2	-24.1	-34.3	9.26	7.81	8.44
7,987.0	39.60	141.40	7,947.3	46.9	-11.3	-19.2	8.46	7.19	7.19
8,018.0	42.40	140.80	7,970.7	31.1	1.4	-3.9	9.12	9.03	-1.94
8,050.0	45.70	141.00	7,993.7	13.8	15.5	12.9	10.32	10.31	0.63
8,082.0	48.70	140.80	8,015.4	-4.4	30.3	30.6	9.39	9.38	-0.63
8,113.0	51.90	138.60	8,035.2	-22.6	45.7	48.9	11.68	10.32	-7.10

Survey Report



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Project:	Eddy County, New Mexico	TVD Reference:	Well @ 3412.0usft (Patterson #75)
Site:	Sec 12, T19S, R29E	MD Reference:	Well @ 3412.0usft (Patterson #75)
Well:	Zircon 12/7 B2JK Federal Com #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Compass

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)
8,145.0	55.20	138.00	8,054.2	-41.8	62.8	69.0	10.42	10.31	-1.88
8,177.0	58.50	136.60	8,071.7	-61.5	81.0	90.3	10.94	10.31	-4.38
8,209.0	62.20	135.60	8,087.6	-81.5	100.3	112.7	11.88	11.56	-3.13
8,240.0	64.50	132.90	8,101.5	-100.8	120.1	135.5	10.75	7.42	-8.71
8,272.0	66.90	129.80	8,114.6	-120.1	142.0	160.4	11.58	7.50	-9.69
8,303.0	70.00	129.10	8,126.0	-138.4	164.3	185.5	10.22	10.00	-2.26
8,335.0	73.30	128.50	8,136.1	-157.4	187.9	212.0	10.46	10.31	-1.88
8,366.0	76.90	128.50	8,144.1	-176.1	211.4	238.3	11.61	11.61	0.00
8,398.0	80.30	127.80	8,150.4	-195.4	236.0	265.9	10.84	10.63	-2.19
8,429.0	83.40	127.00	8,154.8	-214.1	260.4	293.1	10.32	10.00	-2.58
8,461.0	86.80	125.90	8,157.5	-233.0	286.1	321.6	11.16	10.63	-3.44
8,493.0	90.20	125.00	8,158.4	-251.6	312.1	350.4	10.99	10.63	-2.81
8,524.0	92.60	123.10	8,157.6	-268.9	337.8	378.7	9.87	7.74	-6.13
8,556.0	92.20	119.40	8,156.3	-285.5	365.1	408.5	11.62	-1.25	-11.56
8,587.0	91.90	116.10	8,155.1	-299.9	392.5	437.9	10.68	-0.97	-10.65
8,619.0	92.40	112.70	8,153.9	-313.1	421.7	468.9	10.73	1.56	-10.63
8,651.0	93.60	109.20	8,152.3	-324.5	451.5	500.2	11.55	3.75	-10.94
8,682.0	93.00	105.50	8,150.5	-333.8	481.0	530.9	12.07	-1.94	-11.94
8,714.0	91.60	102.20	8,149.2	-341.4	512.1	562.8	11.19	-4.38	-10.31
8,751.0	89.90	98.70	8,148.7	-348.1	548.4	599.8	10.52	-4.59	-9.46
Crossed Lease Line @ 8799' MD / 8149' TVD									
8,799.4	89.57	97.22	8,148.9	-354.8	596.4	648.2	3.13	-0.68	-3.05
8,869.0	89.10	95.10	8,149.7	-362.3	665.6	717.6	3.13	-0.68	-3.05
8,932.0	89.20	95.00	8,150.7	-367.9	728.3	780.4	0.22	0.16	-0.16
8,995.0	89.20	95.10	8,151.6	-373.4	791.1	843.2	0.16	0.00	0.16
9,059.0	88.20	94.40	8,153.0	-378.7	854.8	906.9	1.91	-1.56	-1.09
9,122.0	88.50	93.00	8,154.8	-382.8	917.7	969.5	2.27	0.48	-2.22
Crossed 330' Hardline @ 9131' MD / 8155' TVD									
9,130.6	88.53	92.81	8,155.1	-383.2	926.2	978.0	2.21	0.31	-2.19
9,154.0	88.60	92.30	8,155.6	-384.2	949.6	1,001.2	2.21	0.31	-2.19
9,217.0	87.80	91.40	8,157.6	-386.3	1,012.6	1,063.6	1.91	-1.27	-1.43
9,249.0	87.90	91.10	8,158.8	-387.0	1,044.5	1,095.2	0.99	0.31	-0.94
9,280.0	88.20	91.30	8,159.9	-387.6	1,075.5	1,125.8	1.16	0.97	0.65
9,312.0	89.00	91.30	8,160.7	-388.3	1,107.5	1,157.5	2.50	2.50	0.00
9,343.0	88.60	90.90	8,161.3	-388.9	1,138.5	1,188.1	1.82	-1.29	-1.29
9,375.0	89.20	91.60	8,161.9	-389.6	1,170.5	1,219.8	2.88	1.88	2.19
9,438.0	93.00	94.30	8,160.7	-392.9	1,233.3	1,282.3	7.40	6.03	4.29
9,502.0	92.50	93.60	8,157.6	-397.3	1,297.1	1,345.9	1.34	-0.78	-1.09
9,565.0	91.50	94.40	8,155.4	-401.7	1,359.9	1,408.5	2.03	-1.59	1.27
9,628.0	90.70	96.40	8,154.2	-407.6	1,422.6	1,471.3	3.42	-1.27	3.17
9,691.0	89.00	96.90	8,154.4	-414.9	1,485.2	1,534.2	2.81	-2.70	0.79
9,755.0	88.40	96.90	8,155.8	-422.6	1,548.7	1,598.1	0.94	-0.94	0.00
9,818.0	87.30	96.70	8,158.2	-430.0	1,611.2	1,661.0	1.77	-1.75	-0.32
9,850.0	85.80	96.90	8,160.1	-433.8	1,642.9	1,692.9	4.73	-4.69	0.63

Survey Report



Company:	Mewbourne Oil Co	Local Co-ordinate Reference:	Well Zircon 12/7 B2JK Federal Com #1H
Project:	Eddy County, New Mexico	TVD Reference:	Well @ 3412.0usft (Patterson #75)
Site:	Sec 12, T19S, R29E	MD Reference:	Well @ 3412.0usft (Patterson #75)
Well:	Zircon 12/7 B2JK Federal Com #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Compass

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)
9,881.0	86.20	96.60	8,162.3	-437.5	1,673.7	1,723.7	1.61	1.29	-0.97
9,913.0	89.10	96.70	8,163.6	-441.2	1,705.4	1,755.7	9.07	9.06	0.31
9,944.0	90.40	96.70	8,163.7	-444.8	1,736.2	1,786.6	4.19	4.19	0.00
9,976.0	89.90	97.40	8,163.7	-448.7	1,768.0	1,818.6	2.69	-1.56	2.19
10,007.0	90.00	97.90	8,163.7	-452.8	1,798.7	1,849.6	1.64	0.32	1.61
10,039.0	89.80	98.10	8,163.7	-457.3	1,830.4	1,881.5	0.88	-0.63	0.63
10,071.0	89.30	97.40	8,164.0	-461.6	1,862.1	1,913.5	2.69	-1.56	-2.19
10,134.0	89.40	97.30	8,164.7	-469.7	1,924.6	1,976.5	0.22	0.16	-0.16
10,198.0	89.20	96.90	8,165.5	-477.6	1,988.1	2,040.4	0.70	-0.31	-0.63
10,261.0	89.40	96.90	8,166.3	-485.1	2,050.6	2,103.3	0.32	0.32	0.00
10,324.0	88.40	96.60	8,167.5	-492.5	2,113.1	2,166.2	1.66	-1.59	-0.48
10,388.0	87.10	96.60	8,170.0	-499.9	2,176.7	2,230.0	2.03	-2.03	0.00
10,451.0	87.20	96.20	8,173.1	-506.9	2,239.2	2,292.9	0.65	0.16	-0.63
10,483.0	88.50	96.20	8,174.3	-510.4	2,271.0	2,324.8	4.06	4.06	0.00
10,546.0	87.90	96.70	8,176.3	-517.4	2,333.6	2,387.6	1.24	-0.95	0.79
10,609.0	88.10	97.40	8,178.5	-525.2	2,396.0	2,450.5	1.15	0.32	1.11
10,673.0	87.80	97.90	8,180.8	-533.7	2,459.4	2,514.4	0.91	-0.47	0.78
10,736.0	90.30	98.50	8,181.8	-542.7	2,521.8	2,577.4	4.08	3.97	0.95
10,799.0	90.00	98.30	8,181.7	-551.9	2,584.1	2,640.4	0.57	-0.48	-0.32
10,862.0	88.60	98.10	8,182.4	-560.8	2,646.5	2,703.3	2.24	-2.22	-0.32
10,925.0	88.10	97.60	8,184.2	-569.4	2,708.8	2,766.3	1.12	-0.79	-0.79
10,988.0	89.80	97.90	8,185.4	-577.9	2,771.2	2,829.2	2.74	2.70	0.48
11,051.0	89.60	97.30	8,185.7	-586.3	2,833.7	2,892.2	1.00	-0.32	-0.95
11,114.0	89.10	97.30	8,186.4	-594.3	2,896.2	2,955.1	0.79	-0.79	0.00
11,177.0	88.60	96.60	8,187.7	-601.9	2,958.7	3,018.0	1.37	-0.79	-1.11
11,241.0	88.00	96.40	8,189.6	-609.1	3,022.3	3,081.9	0.99	-0.94	-0.31
11,304.0	87.90	95.70	8,191.9	-615.8	3,084.9	3,144.7	1.12	-0.16	-1.11
11,336.0	88.20	95.10	8,193.0	-618.8	3,116.7	3,176.6	2.10	0.94	-1.88
11,367.0	88.90	94.30	8,193.7	-621.3	3,147.6	3,207.4	3.43	2.26	-2.58
11,430.0	89.00	94.60	8,194.9	-626.2	3,210.4	3,270.2	0.50	0.16	0.48
Crossed Section Line @ 11454' MD / 8195' TVD									
11,453.6	89.00	94.60	8,195.3	-628.1	3,233.9	3,293.7	0.00	0.00	0.00
11,494.0	89.00	94.60	8,196.0	-631.3	3,274.2	3,333.9	0.00	0.00	0.00
11,557.0	91.90	96.60	8,195.5	-637.5	3,336.9	3,396.7	5.59	4.60	3.17
11,620.0	91.10	96.20	8,193.9	-644.5	3,399.5	3,459.6	1.42	-1.27	-0.63
11,684.0	90.30	95.70	8,193.1	-651.1	3,463.1	3,523.4	1.47	-1.25	-0.78
11,747.0	90.50	94.80	8,192.6	-656.9	3,525.8	3,586.2	1.46	0.32	-1.43
11,810.0	90.20	95.50	8,192.3	-662.6	3,588.6	3,649.0	1.21	-0.48	1.11
11,873.0	88.30	95.50	8,193.1	-668.6	3,651.3	3,711.8	3.02	-3.02	0.00
11,936.0	87.10	95.10	8,195.6	-674.4	3,714.0	3,774.6	2.01	-1.90	-0.63
12,000.0	88.00	95.80	8,198.3	-680.5	3,777.6	3,838.3	1.78	1.41	1.09
12,063.0	87.90	96.00	8,200.6	-687.0	3,840.2	3,901.1	0.35	-0.16	0.32
12,126.0	87.80	96.40	8,203.0	-693.8	3,902.8	3,964.0	0.65	-0.16	0.63
12,189.0	87.30	96.90	8,205.7	-701.0	3,965.3	4,026.8	1.12	-0.79	0.79

Survey Report



Company:	Mewbourne Oil Co	Local Co-ordinate Reference:	Well Zircon 12/7 B2JK Federal Com #1H
Project:	Eddy County, New Mexico	TVD Reference:	Well @ 3412.0usft (Patterson #75)
Site:	Sec 12, T19S, R29E	MD Reference:	Well @ 3412.0usft (Patterson #75)
Well:	Zircon 12/7 B2JK Federal Com #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Compass

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)
12,253.0	89.40	97.40	8,207.5	-709.0	4,028.8	4,090.7	3.37	3.28	0.78
12,316.0	89.30	96.70	8,208.2	-716.7	4,091.3	4,153.6	1.12	-0.16	-1.11
12,380.0	88.90	96.90	8,209.2	-724.3	4,154.9	4,217.5	0.70	-0.63	0.31
12,443.0	90.00	97.30	8,209.8	-732.1	4,217.4	4,280.5	1.86	1.75	0.63
12,506.0	89.20	95.80	8,210.3	-739.3	4,280.0	4,343.4	2.70	-1.27	-2.38
12,569.0	89.10	95.10	8,211.2	-745.3	4,342.7	4,406.2	1.12	-0.16	-1.11
12,633.0	89.30	94.60	8,212.1	-750.7	4,406.4	4,469.9	0.84	0.31	-0.78
12,695.0	90.40	95.10	8,212.3	-755.9	4,468.2	4,531.7	1.95	1.77	0.81
12,758.0	89.30	94.80	8,212.4	-761.4	4,531.0	4,594.5	1.81	-1.75	-0.48
12,821.0	89.00	94.60	8,213.4	-766.5	4,593.8	4,657.2	0.57	-0.48	-0.32
12,885.0	89.10	95.10	8,214.4	-771.9	4,657.5	4,720.9	0.80	0.16	0.78
12,948.0	91.20	96.60	8,214.2	-778.4	4,720.2	4,783.8	4.10	3.33	2.38
13,011.0	90.60	96.90	8,213.3	-785.8	4,782.8	4,846.7	1.06	-0.95	0.48
13,074.0	88.50	96.20	8,213.8	-792.9	4,845.3	4,909.6	3.51	-3.33	-1.11
13,137.0	88.10	95.70	8,215.6	-799.5	4,908.0	4,972.4	1.02	-0.63	-0.79
13,201.0	87.20	95.00	8,218.2	-805.4	4,971.6	5,036.2	1.78	-1.41	-1.09
13,264.0	86.80	95.00	8,221.5	-810.9	5,034.3	5,098.9	0.63	-0.63	0.00
13,327.0	88.00	95.80	8,224.4	-816.8	5,097.0	5,161.6	2.29	1.90	1.27
13,391.0	87.10	96.00	8,227.1	-823.4	5,160.6	5,225.4	1.44	-1.41	0.31
13,454.0	89.30	95.70	8,229.1	-829.8	5,223.2	5,288.2	3.52	3.49	-0.48
13,517.0	89.40	95.80	8,229.8	-836.1	5,285.9	5,351.0	0.22	0.16	0.16
TD @ 13704' MD / 8232' TVD									
13,704.0	89.40	95.80	8,231.8	-855.0	5,471.9	5,537.6	0.00	0.00	0.00

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
7,490.0	7,485.5	140.0	-124.3	Tie In @ 7490' MD / 7486' TVD
8,799.4	8,148.9	-354.8	596.4	Crossed Lease Line @ 8799' MD / 8149' TVD
9,130.6	8,155.1	-383.2	926.2	Crossed 330' Hardline @ 9131' MD / 8155' TVD
11,453.6	8,195.3	-628.1	3,233.9	Crossed Section Line @ 11454' MD / 8195' TVD
13,704.0	8,231.8	-855.0	5,471.9	TD @ 13704' MD / 8232' TVD

Checked By: _____

Approved By: _____

Date: _____

Operating Company Mewbourne Oil Co.
 Well Name & Number Zircon 12-7 B2JK Fed Com-1H
 Sales Ticket Number 6880231
 Date 11/26/2014

Company Rep Kenneth
 Field 0
 BOT Service Rep Shane Gilmer
 District Location Odessa, TX



	Size	Weight	Grade	ID	Drift	Thread	Capacity	Length	Burst	Collapse	
Casing	7.000	26.00	110000	6.276	6.151	LTC / 8RD	0.03826	8,800.00	9,960	6,230	
Top Liner	4.500	13.50	110000	3.920	3.795	LTC / 8RD	0.01493	5,446.05	12,410	10,690	
Bott Liner	0.000	0.00	0	0.000	0.000	0	0.00000	-	-	-	
TVD		8231.00		KOP		7543.00		Open Hole	6.125	Casing Vol. (bbl)	316.4
Carry Fluid Weight (ppg)			8.4		Propant 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 w 4.750" Alt Seal Bore ID	8268.95	4.00	5.750	3.913			

H4090400008	S-3 Casing Hanger Packer	8272.95	4.62	5.875	3.875		1670		
H299900281	Combo Collar (4-1/2 LT&C)	8277.57	0.59	5.000	4.500				
H299710014	4-1/2" 13.5# LT&C Spacer Nipple	8278.16	7.46	4.500	3.938				
	4-1/2" 13.5# P110 LT&C	8285.62	879.72						
	OH Packer #20	9165.34	3.89	5.820	3.875		2154		
	4-1/2" 13.5# P110 LT&C	9169.23	84.58						
H810090200	3.500" EXPress Sleeve (Zone 20)	9253.81	2.40	5.630		3.448	2286		
	4-1/2" 13.5# P110 LT&C	9256.21	123.68	4.500	3.920				
H409360008	582 OH PACKER #19	9379.89	3.89	5.820	3.875		2154		
	4-1/2" 13.5# P110 LT&C	9383.78	84.28	4.500	3.920				
H810090199	3.438" EXPress Sleeve (Zone 19)	9468.06	2.40	5.630		3.385	2286		
	4-1/2" 13.5# P110 LT&C	9470.46	126.44	4.500	3.920				
H409360008	582 OH PACKER #18	9596.90	3.89	5.820	3.875		2154		
	4-1/2" 13.5# P110 LT&C	9600.79	123.38	4.500	3.920				
H810090198	3.375" EXPress Sleeve (Zone 18)	9724.17	2.40	5.630		3.323	2286		
	4-1/2" 13.5# P110 LT&C	9726.57	126.88	4.500	3.920				
H409360008	582 OH PACKER #17	9853.45	3.89	5.820	3.875		2154		
	4-1/2" 13.5# P110 LT&C	9857.34	85.19	4.500	3.920				
H810090197	3.313" EXPress Sleeve (Zone 17)	9942.53	2.40	5.630		3.260	2286		
	4-1/2" 13.5# P110 LT&C	9944.93	127.90	4.500	3.920				
H409360008	582 OH PACKER #16	10072.83	3.89	5.820	3.875		2154		
	4-1/2" 13.5# P110 LT&C	10076.72	126.96	4.500	3.920				

Operating Company Mewbourne Oil Co.
 Well Name & Number Zircon 12-7 B2JK Fed Com-1F
 Sales Ticket Number 6880231
 Date 11/26/2014

Company Rep Kenneth
 Field 0
 BOT Service Rep Shane Gilmer
 District Location Odessa, TX



	Size	Weight	Grade	ID	Drift	Thread	Capacity	Length	Burst	Collapse	
Casing	7.000	26.00	110000	6.276	6.151	LTC / 8RD	0.03826	8,800.00	9,960	6,230	
Top Liner	4.500	13.50	110000	3.920	3.795	LTC / 8RD	0.01493	5,446.05	12,410	10,690	
Bott Liner	0.000	0.00	0	0.000	0.000	0	0.00000	-	-	-	
TVD		8231.00		KOP		7543.00		Open Hole	6.125	Casing Vol. (bbl)	316.4
Carry Fluid Weight (ppg)			8.4		Propant Content (ppa)				Max Drill Out Size		0

	Comm. Number	Description	Depth	Length	OD	ID	Ball Seat ID	Shear Press.	Max Rate (BPM)	Displ. (BBL)
	H810090196	3.250" EXPress Sleeve (Zone 16)	10203.68	2.40	5.630		3.198	2286		
		4-1/2" 13.5# P110 LT&C	10206.08	82.01	4.500	3.920				
	H409360008	582 OH PACKER #15	10288.09	3.89	5.820	3.875		2154		
		4-1/2" 13.5# P110 LT&C	10291.98	85.25	4.500	3.920				
	H810090195	3.188" EXPress Sleeve (Zone 15)	10377.23	2.40	5.630		3.135	2286		
		4-1/2" 13.5# P110 LT&C	10379.63	169.92	4.500	3.920				
	H409360008	582 OH PACKER #14	10549.55	3.89	5.820	3.875		2154		
		4-1/2" 13.5# P110 LT&C	10553.44	127.74	4.500	3.920				
	H810090194	3.125" EXPress Sleeve (Zone 14)	10681.18	2.40	5.630		3.073	2286		
		4-1/2" 13.5# P110 LT&C	10683.58	127.35	4.500	3.920				
	H409360008	582 OH PACKER #13	10810.93	3.89	5.820	3.875		2154		
		4-1/2" 13.5# P110 LT&C	10814.82	84.59	4.500	3.920				
	H810090193	3.063" EXPress Sleeve (Zone 13)	10899.41	2.40	5.630		3.010	2286		
		4-1/2" 13.5# P110 LT&C	10901.81	127.38	4.500	3.920				
	H409360008	582 OH PACKER #12	11029.19	3.89	5.820	3.875		2154		
		4-1/2" 13.5# P110 LT&C	11033.08	84.97	4.500	3.920				
	H810090192	3.00" EXPress Sleeve (Zone 12)	11118.05	2.40	5.630		2.948	2286		
		4-1/2" 13.5# P110 LT&C	11120.45	127.16	4.500	3.920				
	H409360008	582 OH PACKER #11	11247.61	3.89	5.820	3.875		2154		
		4-1/2" 13.5# P110 LT&C	11251.50	127.29	4.500	3.920				
	H810090191	2.938" EXPress Sleeve (Zone 11)	11378.79	2.40	5.630		2.885	2286		
		4-1/2" 13.5# P110 LT&C	11381.19	125.59	4.500	3.920				
	H409360008	582 OH PACKER #10	11506.78	3.89	5.820	3.875		2154		
		4-1/2" 13.5# P110 LT&C	11510.67	85.01	4.500	3.920				
	H810090190	2.875" EXPress Sleeve (Zone 10)	11595.68	2.40	5.630		2.823	2286		
		4-1/2" 13.5# P110 LT&C	11598.08	126.21	4.500	3.920				

Operating Company Mewbourne Oil Co.
 Well Name & Number Zircon 12-7 B2JK Fed Com-1H
 Sales Ticket Number 6880231

Company Rep Kenneth
 Field 0
 BOT Service Rep Shane Gilmer
 District Location Odessa, TX



Date 11/26/2014

	Size	Weight	Grade	ID	Drift	Thread	Capacity	Length	Burst	Collapse
Casing	7.000	26.00	110000	6.276	6.151	LTC / 8RD	0.03826	8,800.00	9,960	6,230
Top Liner	4.500	13.50	110000	3.920	3.795	LTC / 8RD	0.01493	5,446.05	12,410	10,690
Bott Liner	0.000	0.00	0	0.000	0.000	0	0.00000	-	-	-
TVD	8231.00		KOP	7543.00		Open Hole	6.125	Casing Vol. (bbl)	316.4	
Carry Fluid Weight (ppg)	8.4		Propant Content (ppa)				Max Drill Out Size		0	

	Comm. Number	Description	Depth	Length	OD	ID	Ball Seat ID	Shear Press.	Max Rate (BPM)	Displ. (BBL)
	H409360008	582 OH PACKER #9	11724.29	3.89	5.820	3.875		2154		
		4-1/2" 13.5# P110 LT&C	11728.18	126.53	4.500	3.920				
	H810090189	2.813" EXPress Sleeve (Zone 9)	11854.71	2.40	5.630		2.760	2286		
		4-1/2" 13.5# P110 LT&C	11857.11	125.73	4.500	3.920				
	H409360008	582 OH PACKER #8	11982.84	3.89	5.820	3.875		2154		
		4-1/2" 13.5# P110 LT&C	11986.73	83.17	4.500	3.920				
	H810090188	2.750" EXPress Sleeve (Zone 8)	12069.90	2.40	5.630		2.698	2286		
		4-1/2" 13.5# P110 LT&C	12072.30	127.50	4.500	3.920				
	H409360008	582 OH PACKER #7	12199.80	3.89	5.820	3.875		2154		
		4-1/2" 13.5# P110 LT&C	12203.69	127.50	4.500	3.920				
	H810090187	2.688" EXPress Sleeve (Zone 7)	12331.19	2.40	5.630		2.635	2286		
		4-1/2" 13.5# P110 LT&C	12333.59	127.49	4.500	3.920				
	H409360008	582 OH PACKER #6	12461.08	3.89	5.820	3.875		2154		
		4-1/2" 13.5# P110 LT&C	12464.97	84.45	4.500	3.920				
	H810090186	2.625" EXPress Sleeve (Zone 6)	12549.42	2.40	5.630		2.573	2286		
		4-1/2" 13.5# P110 LT&C	12551.82	124.35	4.500	3.920				
	H409360008	582 OH PACKER #5	12676.17	3.89	5.820	3.875		2154		
		4-1/2" 13.5# P110 LT&C	12680.06	84.57	4.500	3.920				
	H810090185	2.563" EXPress Sleeve (Zone 5)	12764.63	2.40	5.630		2.510	2286		
		4-1/2" 13.5# P110 LT&C	12767.03	126.05	4.500	3.920				
	H409360008	582 OH PACKER #4	12893.08	3.89	5.820	3.875		2154		
		4-1/2" 13.5# P110 LT&C	12896.97	123.80	4.500	3.920				
	H810090184	2.500" EXPress Sleeve (Zone 4)	13020.77	2.40	5.630		2.448	2286		
		4-1/2" 13.5# P110 LT&C	13023.17	123.62	4.500	3.920				
	H409360008	582 OH PACKER #3	13146.79	3.89	5.820	3.875		2154		
		4-1/2" 13.5# P110 LT&C	13150.68	125.74	4.500	3.920				

Company Rep	Kenneth
Field	0
BOT Service Rep	Shane Gilmer
District Location	Odessa, TX

[illegible]



Job Number: SVMO-141543
 Company: Mewbourne Oil & Gas
 Lease/Well: Zircon 12/7 B2JK Fed Com 1H
 Location: Eddy County, NM
 Rig Name: Patterson #75
 RKB: 23'
 G.L. or M.S.L.: GL

State/Country: New Mexico/USA
 Declination: 7.25°
 Grid: East To Grid North
 File name: Y:\WINSER~1\2014SU~1\MEWBOU~1\MO\ZIRCON\127B2J~1\1H.SVY
 Date/Time: 17-Nov-14 / 15:06
 Curve Name: Surface - 7490' M.D. (SRG)

MS Survey

WINSERVE SURVEY CALCULATIONS
 Minimum Curvature Method
 Vertical Section Plane .00
 Vertical Section Referenced to Wellhead
 Rectangular Coordinates Referenced to Wellhead

We hereby certify that our survey data from
 Surface MD to 7490' MD is, to the best of
 our knowledge a true and accurate account of the
 well bore.

Daniel Wiest 11/17/14
 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	C L O S U R E		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
100.00	.55	217.71	100.00	-.38	-.29	-.38	.48	217.71	.55
200.00	.32	236.74	200.00	-.91	-.82	-.91	1.23	221.96	.27
300.00	1.05	277.78	299.99	-.94	-1.96	-.94	2.18	244.36	.84
400.00	1.58	276.79	399.96	-.65	-4.24	-.65	4.29	261.22	.53
500.00	1.55	276.43	499.92	-.34	-6.95	-.34	6.96	267.20	.03
600.00	1.41	274.89	599.89	-.08	-9.52	-.08	9.52	269.50	.15
700.00	1.30	278.41	699.86	.19	-11.87	.19	11.87	270.90	.14
800.00	1.10	287.17	799.84	.64	-13.91	.64	13.92	272.62	.27
900.00	.87	290.87	899.83	1.19	-15.54	1.19	15.58	274.38	.24

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	.85	313.94	999.82	1.98	-16.78	1.98	16.89	276.71	.34
1100.00	.74	330.00	1099.81	3.05	-17.64	3.05	17.90	279.81	.25
1200.00	.59	12.23	1199.80	4.11	-17.85	4.11	18.32	282.97	.50
1300.00	.83	13.20	1299.79	5.32	-17.58	5.32	18.36	286.84	.24
1400.00	.82	16.90	1399.78	6.71	-17.20	6.71	18.46	291.31	.05
1500.00	.82	17.75	1499.77	8.08	-16.78	8.08	18.62	295.71	.01
1600.00	.78	6.53	1599.76	9.43	-16.48	9.43	18.99	299.79	.16
1700.00	.75	12.50	1699.75	10.75	-16.26	10.75	19.49	303.47	.09
1800.00	.83	9.40	1799.74	12.10	-16.00	12.10	20.06	307.10	.09
1900.00	.84	8.14	1899.73	13.54	-15.78	13.54	20.79	310.64	.02
2000.00	.79	353.58	1999.72	14.95	-15.75	14.95	21.72	313.51	.21
2100.00	.81	357.97	2099.71	16.34	-15.85	16.34	22.77	315.87	.06
2200.00	.93	357.28	2199.70	17.86	-15.92	17.86	23.93	318.29	.12
2300.00	1.02	352.26	2299.69	19.55	-16.08	19.55	25.31	320.58	.12
2400.00	1.16	354.06	2399.67	21.44	-16.30	21.44	26.94	322.76	.14
2500.00	1.13	351.63	2499.65	23.43	-16.55	23.43	28.68	324.76	.06
2600.00	1.20	355.41	2599.63	25.44	-16.78	25.44	30.48	326.60	.10
2700.00	1.27	348.32	2699.60	27.57	-17.08	27.57	32.44	328.22	.17
2800.00	1.39	350.38	2799.58	29.85	-17.51	29.85	34.61	329.61	.13
2900.00	1.49	347.07	2899.55	32.32	-18.01	32.32	36.99	330.88	.13
3000.00	1.58	352.12	2999.51	34.95	-18.49	34.95	39.54	332.13	.16
3100.00	1.73	347.17	3099.47	37.79	-19.01	37.79	42.30	333.30	.21
3200.00	1.89	350.19	3199.42	40.88	-19.63	40.88	45.35	334.36	.19
3300.00	1.94	352.18	3299.36	44.19	-20.14	44.19	48.56	335.50	.08
3400.00	2.11	347.97	3399.30	47.66	-20.75	47.66	51.98	336.47	.23
3500.00	2.33	348.66	3499.23	51.46	-21.53	51.46	55.78	337.29	.22
3600.00	2.40	347.49	3599.14	55.49	-22.39	55.49	59.84	338.03	.09
3700.00	2.42	347.64	3699.05	59.60	-23.29	59.60	63.99	338.65	.02
3800.00	2.54	340.82	3798.96	63.76	-24.47	63.76	68.29	339.00	.32

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	2.52	338.00	3898.86	67.89	-26.02	67.89	72.70	339.03	.13
4000.00	2.55	338.13	3998.76	71.99	-27.68	71.99	77.13	338.97	.03
4100.00	2.88	330.99	4098.65	76.25	-29.72	76.25	81.84	338.70	.47
4200.00	3.18	324.05	4198.51	80.69	-32.57	80.69	87.02	338.02	.47
4300.00	3.61	317.83	4298.34	85.27	-36.31	85.27	92.68	336.93	.57
4400.00	3.89	315.37	4398.12	90.02	-40.81	90.02	98.84	335.61	.32
4500.00	4.11	312.92	4497.88	94.87	-45.82	94.87	105.36	334.22	.28
4600.00	4.55	308.97	4597.59	99.81	-51.52	99.81	112.32	332.70	.53
4700.00	4.82	309.12	4697.26	104.95	-57.87	104.95	119.85	331.13	.27
4800.00	4.92	309.73	4796.90	110.35	-64.42	110.35	127.78	329.72	.11
4900.00	4.89	310.10	4896.53	115.83	-70.98	115.83	135.85	328.50	.04
5000.00	3.42	309.44	4996.27	120.47	-76.55	120.47	142.73	327.57	1.47
5100.00	2.24	305.09	5096.14	123.49	-80.45	123.49	147.38	326.92	1.20
5200.00	1.32	298.13	5196.09	125.16	-83.06	125.16	150.21	326.43	.94
5300.00	1.12	293.02	5296.07	126.08	-84.98	126.08	152.05	326.02	.23
5400.00	.85	287.06	5396.06	126.68	-86.59	126.68	153.45	325.65	.29
5500.00	.41	274.83	5496.05	126.93	-87.65	126.93	154.26	325.37	.46
5600.00	.32	178.33	5596.05	126.68	-88.00	126.68	154.25	325.21	.55
5700.00	.35	55.82	5696.05	126.57	-87.74	126.57	154.01	325.27	.59
5800.00	.85	310.29	5796.04	127.23	-88.05	127.23	154.73	325.31	1.00
5900.00	1.26	310.51	5896.03	128.42	-89.46	128.42	156.51	325.14	.41
6000.00	1.41	316.73	5996.00	130.03	-91.14	130.03	158.79	324.97	.21
6100.00	1.50	314.33	6095.97	131.84	-92.92	131.84	161.29	324.83	.11
6200.00	1.30	318.01	6195.94	133.60	-94.61	133.60	163.71	324.69	.22
6300.00	.99	316.94	6295.92	135.07	-95.96	135.07	165.69	324.61	.31
6400.00	.75	316.85	6395.90	136.18	-97.00	136.18	167.19	324.54	.24
6500.00	.91	301.40	6495.89	137.07	-98.12	137.07	168.57	324.40	.27
6600.00	1.41	296.31	6595.87	138.03	-99.90	138.03	170.39	324.10	.51
6700.00	2.11	291.76	6695.83	139.26	-102.72	139.26	173.04	323.59	.71

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	1.95	291.66	6795.76	140.57	-106.01	140.57	176.06	322.98	.16
6900.00	1.52	265.22	6895.72	141.09	-108.91	141.09	178.23	322.33	.90
7000.00	1.46	250.89	6995.69	140.56	-111.43	140.56	179.37	321.59	.38
7100.00	1.50	269.76	7095.65	140.14	-113.95	140.14	180.62	320.88	.49
7200.00	1.52	269.92	7195.62	140.13	-116.58	140.13	182.28	320.24	.02
7300.00	1.44	267.32	7295.58	140.07	-119.16	140.07	183.90	319.61	.10
7400.00	1.54	268.62	7395.55	139.98	-121.76	139.98	185.53	318.98	.11
Last Survey Depth Recorded									
7490.00	1.72	272.66	7485.51	140.01	-124.32	140.01	187.24	318.40	.24