



Job Number: NM-13003
 Company: Mewbourne Oil Company
 Lease/Well: Skeen 21 DM State 1H
 Location: Eddy
 Rig Name: Patterson 36
 RKB: ☐
 G.L. or M.S.L.: ☐

State/Country: New Mexico
 Declination: 7.59
 Grid: ☐
 File name: C:\WINSERVE\DDSKEEN.SVY
 Date/Time: 23-May-13 / 11:16
 Curve Name: svys

30015 40863

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 JUN 25 2013
 NMOCD ARTESIA

WINSERVE SURVEY CALCULATIONS
 Minimum Curvature Method
 Vertical Section Plane 179.93
 Vertical Section Referenced to Wellhead
 Rectangular Coordinates Referenced to Wellhead

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Dogleg Severity Deg/100	Vertical Section FT	BUILD RATE Deg/100	WALK RATE Deg/100
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
100.00	.30	192.30	100.00	-.26	-.06	.30	.26	.30	-167.70
200.00	.08	141.37	200.00	-.57	-.07	.26	.57	-.22	-50.93
300.00	.61	232.08	300.00	-.95	-.44	.62	.95	.53	90.71
400.00	.84	256.94	399.99	-1.44	-1.58	.38	1.44	.23	24.86
500.00	.57	251.48	499.98	-1.76	-2.76	.28	1.76	-.27	-5.46
600.00	.53	275.73	599.98	-1.88	-3.70	.23	1.87	-.04	24.25
700.00	.18	100.05	699.98	-1.86	-4.00	.71	1.85	-.35	-175.68
800.00	.75	97.21	799.97	-1.97	-3.20	.57	1.96	.57	-2.84
900.00	.72	83.17	899.96	-1.97	-1.92	.18	1.97	-.03	-14.04
1000.00	.63	121.53	999.96	-2.19	-.83	.45	2.19	-.09	38.36
1100.00	.72	129.62	1099.95	-2.88	.12	.13	2.88	.09	8.09
1200.00	.92	133.54	1199.94	-3.83	1.19	.21	3.83	.20	3.92
1300.00	.59	135.07	1299.93	-4.75	2.13	.33	4.75	-.33	1.53
1400.00	.25	182.73	1399.93	-5.33	2.49	.46	5.33	-.34	47.66
1500.00	.32	252.27	1499.93	-5.63	2.21	.33	5.63	.07	69.54
1600.00	.69	271.08	1599.92	-5.71	1.34	.40	5.71	.37	18.81
1700.00	.73	355.60	1699.92	-5.06	.69	.96	5.06	.04	84.52
1800.00	1.93	25.15	1799.89	-2.90	1.36	1.34	2.90	1.20	29.55
1900.00	2.55	34.96	1899.81	.45	3.35	.73	-.44	.62	9.81
2000.00	3.63	45.26	1999.67	4.50	6.87	1.21	-4.49	1.08	10.30
2100.00	5.09	47.65	2099.38	9.72	12.40	1.47	-9.70	1.46	2.39
2200.00	5.56	49.96	2198.94	15.82	19.39	.52	-15.80	.47	2.31
2300.00	5.07	56.44	2298.52	21.38	26.78	.77	-21.35	-.49	6.48
2400.00	3.40	59.21	2398.24	25.34	33.01	1.68	-25.30	-1.67	2.77

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Dogleg Severity Deg/100	Vertical Section FT	BUILD RATE Deg/100	WALK RATE Deg/100
2500.00	2.93	64.16	2498.09	27.97	37.85	.54	-27.93	-.47	4.95
2600.00	2.50	63.05	2597.97	30.08	42.10	.43	-30.02	-.43	-1.11
2700.00	2.29	62.65	2697.89	31.98	45.82	.21	-31.93	-.21	-.40
2800.00	1.83	58.55	2797.82	33.73	48.95	.48	-33.67	-.46	-4.10
2900.00	1.39	54.79	2897.78	35.27	51.31	.45	-35.20	-.44	-3.76
3000.00	1.04	60.66	2997.76	36.41	53.09	.37	-36.34	-.35	5.87
3100.00	.95	60.86	3097.74	37.26	54.60	.09	-37.19	-.09	.20
3200.00	.63	53.75	3197.73	37.99	55.77	.33	-37.92	-.32	-7.11
3300.00	.60	72.14	3297.73	38.47	56.71	.20	-38.40	-.03	18.39
3400.00	.51	42.73	3397.72	38.96	57.51	.29	-38.89	-.09	-29.41
3500.00	.18	8.96	3497.72	39.44	57.84	.37	-39.37	-.33	-33.77
3600.00	.19	12.54	3597.72	39.76	57.90	.02	-39.69	.01	3.58
3700.00	.13	255.64	3697.72	39.89	57.83	.27	-39.82	-.06	-116.90
3800.00	.28	59.65	3797.72	39.99	57.93	.41	-39.92	.15	164.01
3900.00	.14	93.13	3897.72	40.10	58.26	.18	-40.03	-.14	33.48
4000.00	.16	268.76	3997.72	40.10	58.24	.30	-40.02	.02	175.63
4100.00	.43	240.81	4097.72	39.91	57.78	.30	-39.84	.27	-27.95
4200.00	.49	249.69	4197.72	39.58	57.05	.09	-39.51	.06	8.88
4300.00	.18	252.89	4297.71	39.38	56.50	.31	-39.31	-.31	3.20
4400.00	.51	270.64	4397.71	39.34	55.90	.34	-39.27	.33	17.75
4500.00	.70	230.83	4497.71	38.96	54.98	.45	-38.89	.19	-39.81
4600.00	.63	219.16	4597.70	38.15	54.16	.15	-38.08	-.07	-11.67
4700.00	1.02	227.93	4697.69	37.13	53.15	.41	-37.06	.39	8.77
4800.00	1.29	207.45	4797.67	35.53	51.97	.49	-35.47	.27	-20.48
4900.00	1.17	213.59	4897.65	33.68	50.89	.18	-33.62	-.12	6.14
5000.00	1.21	212.35	4997.63	31.94	49.76	.05	-31.88	.04	-1.24
5100.00	1.07	229.85	5097.61	30.45	48.48	.37	-30.39	-.14	17.50
5200.00	1.31	221.56	5197.58	28.99	47.01	.29	-28.93	.24	-8.29
5300.00	1.04	208.27	5297.56	27.33	45.82	.38	-27.28	-.27	-13.29
5400.00	1.25	210.93	5397.54	25.60	44.83	.22	-25.54	.21	2.66
5500.00	1.02	192.26	5497.52	23.79	44.08	.43	-23.74	-.23	-18.67
5600.00	1.25	186.37	5597.50	21.84	43.77	.26	-21.79	.23	-5.89
5700.00	1.30	172.25	5697.48	19.63	43.80	.32	-19.58	.05	-14.12
5800.00	1.15	180.03	5797.46	17.50	43.96	.22	-17.45	-.15	7.78
5900.00	1.43	177.16	5897.43	15.25	44.02	.29	-15.20	.28	-2.87
6000.00	1.73	186.46	5997.39	12.51	43.91	.39	-12.45	.30	9.30
6100.00	1.99	191.11	6097.34	9.30	43.40	.30	-9.25	.26	4.65
6200.00	2.12	194.90	6197.28	5.81	42.59	.19	-5.76	.13	3.79
6300.00	2.37	197.35	6297.20	2.05	41.50	.27	-2.00	.25	2.45
6400.00	2.74	207.01	6397.10	-2.05	39.80	.57	2.10	.37	9.66
6500.00	3.04	210.81	6496.97	-6.46	37.36	.36	6.50	.30	3.80
6600.00	3.14	204.32	6596.83	-11.23	34.87	.36	11.27	.10	-6.49
6700.00	2.61	209.02	6696.70	-15.72	32.64	.58	15.76	-.53	4.70
6800.00	2.13	218.32	6796.62	-19.17	30.38	.61	19.20	-.48	9.30
6900.00	1.72	241.69	6896.56	-21.34	27.91	.88	21.37	-.41	23.37

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Dogleg Severity Deg/100	Vertical Section FT	BUILD RATE Deg/100	WALK RATE Deg/100
7000.00	2.86	261.94	6996.48	-22.40	24.12	1.38	22.43	1.14	20.25
7100.00	3.02	271.27	7096.35	-22.69	19.01	.50	22.71	.16	9.33
7200.00	2.94	267.67	7196.22	-22.74	13.82	.20	22.75	-.08	-3.60
7300.00	2.55	265.79	7296.10	-23.00	9.04	.40	23.01	-.39	-1.88
7383.00	2.68	264.93	7379.01	-23.31	5.26	.16	23.32	.16	-1.04
7413.00	5.70	239.70	7408.93	-24.12	3.28	11.56	24.13	10.07	-84.10
7445.00	9.50	225.00	7440.65	-26.79	.03	13.25	26.79	11.88	-45.94
7477.00	12.00	214.60	7472.09	-31.40	-3.72	9.86	31.40	7.81	-32.50
7508.00	14.80	204.80	7502.24	-37.65	-7.21	11.60	37.64	9.03	-31.61
7540.00	17.30	195.60	7533.00	-45.95	-10.21	11.12	45.93	7.81	-28.75
7572.00	18.40	186.90	7563.46	-55.54	-12.10	9.00	55.53	3.44	-27.19
7603.00	21.00	182.50	7592.65	-65.95	-12.93	9.65	65.94	8.39	-14.19
7635.00	24.40	178.40	7622.17	-78.29	-12.99	11.71	78.28	10.63	-12.81
7667.00	27.30	176.50	7650.96	-92.23	-12.36	9.42	92.21	9.06	-5.94
7699.00	29.30	175.80	7679.14	-107.36	-11.34	6.34	107.35	6.25	-2.19
7731.00	31.90	174.60	7706.68	-123.59	-9.97	8.35	123.58	8.12	-3.75
7762.00	34.20	174.30	7732.66	-140.42	-8.33	7.44	140.41	7.42	-.97
7794.00	36.30	175.80	7758.79	-158.82	-6.74	7.10	158.81	6.56	4.69
7826.00	38.70	177.30	7784.18	-178.26	-5.58	8.02	178.25	7.50	4.69
7858.00	41.70	177.70	7808.62	-198.89	-4.68	9.41	198.89	9.38	1.25
7889.00	45.50	178.10	7831.06	-220.25	-3.90	12.29	220.25	12.26	1.29
7921.00	49.30	178.60	7852.72	-243.79	-3.23	11.93	243.79	11.87	1.56
7952.00	52.30	179.70	7872.31	-267.81	-2.87	10.06	267.81	9.68	3.55
7983.00	56.20	180.30	7890.42	-292.96	-2.88	12.68	292.96	12.58	1.94
8015.00	59.70	180.30	7907.40	-320.08	-3.02	10.94	320.08	10.94	.00
8046.00	63.50	179.90	7922.14	-347.35	-3.06	12.31	347.34	12.26	-1.29
8078.00	67.40	178.90	7935.43	-376.45	-2.76	12.51	376.44	12.19	-3.13
8110.00	71.40	179.30	7946.69	-406.39	-2.29	12.55	406.39	12.50	1.25
8142.00	75.60	179.70	7955.77	-437.06	-2.02	13.18	437.06	13.12	1.25
8173.00	79.40	180.30	7962.48	-467.32	-2.02	12.40	467.32	12.26	1.94
8205.00	82.60	179.90	7967.49	-498.93	-2.08	10.08	498.92	10.00	-1.25
8216.00	84.00	179.70	7968.77	-509.85	-2.04	12.85	509.85	12.73	-1.82
8313.00	88.20	179.40	7975.37	-606.60	-1.28	4.34	606.60	4.33	-.31
8377.00	91.50	180.70	7975.54	-670.59	-1.33	5.54	670.59	5.16	2.03
8472.00	92.20	180.90	7972.47	-765.53	-2.66	.77	765.53	.74	.21
8536.00	92.70	180.50	7969.73	-829.47	-3.44	1.00	829.46	.78	-.62
8599.00	93.10	179.70	7966.55	-892.39	-3.55	1.42	892.38	.63	-1.27
8663.00	91.10	179.60	7964.20	-956.34	-3.16	3.13	956.33	-3.13	-.16
8726.00	88.00	180.60	7964.69	-1019.33	-3.27	5.17	1019.32	-4.92	1.59
8789.00	88.30	180.80	7966.73	-1082.29	-4.04	.57	1082.28	.48	.32
8853.00	89.00	181.00	7968.24	-1146.26	-5.04	1.14	1146.26	1.09	.31
8916.00	90.00	181.00	7968.79	-1209.25	-6.14	1.59	1209.24	1.59	.00
8979.00	87.10	180.60	7970.38	-1272.22	-7.02	4.65	1272.21	-4.60	-.63
9042.00	87.60	180.40	7973.29	-1335.15	-7.57	.85	1335.14	.79	-.32
9105.00	89.50	180.00	7974.89	-1398.12	-7.79	3.08	1398.11	3.02	-.63

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Dogleg Severity Deg/100	Vertical Section FT	BUILD RATE Deg/100	WALK RATE Deg/100
9169.00	86.70	179.00	7977.01	-1462.08	-7.23	4.65	1462.07	-4.38	-1.56
9232.00	88.10	179.20	7979.87	-1525.01	-6.25	2.24	1525.00	2.22	.32
9295.00	91.90	180.20	7979.87	-1587.99	-5.92	6.24	1587.98	6.03	1.59
9358.00	92.60	180.30	7977.39	-1650.94	-6.19	1.12	1650.93	1.11	.16
9421.00	89.50	180.30	7976.24	-1713.92	-6.52	4.92	1713.91	-4.92	.00
9484.00	88.80	180.30	7977.17	-1776.92	-6.85	1.11	1776.91	-1.11	.00
9548.00	90.90	180.30	7977.34	-1840.91	-7.18	3.28	1840.90	3.28	.00
9611.00	91.30	179.80	7976.13	-1903.90	-7.24	1.02	1903.89	.63	-.79
9674.00	89.50	179.20	7975.69	-1966.89	-6.69	3.01	1966.88	-2.86	-.95
9737.00	90.90	179.70	7975.47	-2029.89	-6.09	2.36	2029.88	2.22	.79
9801.00	90.10	179.30	7974.91	-2093.88	-5.53	1.40	2093.87	-1.25	-.62
9863.00	89.50	178.60	7975.13	-2155.87	-4.39	1.49	2155.86	-.97	-1.13
9927.00	90.20	178.50	7975.30	-2219.85	-2.77	1.10	2219.84	1.09	-.16
9990.00	91.00	178.30	7974.64	-2282.82	-1.01	1.31	2282.82	1.27	-.32
10054.00	91.60	178.10	7973.19	-2346.77	1.00	.99	2346.77	.94	-.31
10117.00	92.80	178.00	7970.77	-2409.69	3.14	1.91	2409.69	1.90	-.16
10179.00	90.90	178.80	7968.77	-2471.63	4.87	3.32	2471.63	-3.06	1.29
10243.00	92.10	179.00	7967.09	-2535.59	6.10	1.90	2535.60	1.87	.31
10306.00	91.30	180.20	7965.22	-2598.56	6.54	2.29	2598.57	-1.27	1.90
10369.00	91.60	181.20	7963.63	-2661.54	5.77	1.66	2661.54	.48	1.59
10496.00	89.60	181.80	7962.30	-2788.48	2.44	1.64	2788.48	-1.57	.47
10559.00	90.60	181.10	7962.19	-2851.46	.85	1.94	2851.46	1.59	-1.11
10623.00	88.90	181.00	7962.47	-2915.44	-.32	2.66	2915.44	-2.66	-.16
10686.00	89.50	180.70	7963.35	-2978.43	-1.26	1.06	2978.43	.95	-.48
10749.00	91.60	180.10	7962.74	-3041.42	-1.70	3.47	3041.42	3.33	-.95
10812.00	89.80	178.10	7961.97	-3104.40	-.71	4.27	3104.40	-2.86	-3.17
10876.00	90.90	176.50	7961.58	-3168.33	2.31	3.03	3168.33	1.72	-2.50
10939.00	89.70	175.70	7961.25	-3231.18	6.59	2.29	3231.19	-1.90	-1.27
11002.00	88.30	178.10	7962.35	-3294.07	10.00	4.41	3294.08	-2.22	3.81
11065.00	90.40	179.80	7963.07	-3357.05	11.15	4.29	3357.06	3.33	2.70
11128.00	88.40	179.30	7963.73	-3420.04	11.65	3.27	3420.05	-3.17	-.79
11191.00	87.20	178.50	7966.14	-3482.98	12.85	2.29	3483.00	-1.90	-1.27
11255.00	88.10	178.80	7968.77	-3546.91	14.36	1.48	3546.93	1.41	.47
11318.00	88.30	179.00	7970.75	-3609.87	15.57	.45	3609.88	.32	.32
11382.00	89.20	179.50	7972.14	-3673.85	16.41	1.61	3673.86	1.41	.78
11446.00	90.20	181.00	7972.48	-3737.84	16.13	2.82	3737.86	1.56	2.34
11509.00	91.30	181.20	7971.65	-3800.82	14.92	1.77	3800.84	1.75	.32
11573.00	91.60	180.90	7970.03	-3864.79	13.75	.66	3864.81	.47	-.47
11636.00	90.30	181.40	7968.99	-3927.77	12.48	2.21	3927.78	-2.06	.79
11699.00	89.60	179.60	7969.04	-3990.76	11.93	3.07	3990.78	-1.11	-2.86
11762.00	90.50	178.80	7968.99	-4053.76	12.81	1.91	4053.77	1.43	-1.27
11826.00	90.80	177.80	7968.26	-4117.72	14.71	1.63	4117.74	.47	-1.56
11889.00	90.60	176.90	7967.49	-4180.65	17.62	1.46	4180.67	-.32	-1.43
11953.00	91.00	177.00	7966.60	-4244.55	21.03	.64	4244.58	.63	.16
12016.00	91.10	177.20	7965.45	-4307.46	24.21	.35	4307.49	.16	.32

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Dogleg Severity Deg/100	Vertical Section FT	BUILD RATE Deg/100	WALK RATE Deg/100
12079.00	89.30	178.90	7965.23	-4370.42	26.36	3.93	4370.45	-2.86	2.70
12142.00	89.30	179.80	7966.00	-4433.41	27.07	1.43	4433.44	.00	1.43
12205.00	90.90	179.40	7965.89	-4496.41	27.51	2.62	4496.44	2.54	-.63
12269.00	93.20	178.20	7963.60	-4560.35	28.85	4.05	4560.38	3.59	-1.87
12332.00	91.80	178.10	7960.85	-4623.25	30.88	2.23	4623.29	-2.22	-.16
12396.00	91.80	178.30	7958.84	-4687.19	32.89	.31	4687.23	.00	.31
12460.00	90.00	179.10	7957.83	-4751.16	34.34	3.08	4751.20	-2.81	1.25
12480.00	90.50	179.20	7957.75	-4771.16	34.64	2.55	4771.20	2.50	.50
Proj to bit (.65' HI, 29' LEFT)									
12525.00	90.50	179.20	7957.35	-4816.15	35.27	.00	4816.19	.00	.00

Mewbourne Oil Company

Skeen 21 DM State 1H

Eddy County, New Mexico

WELL PROFILE DATA rev2

MD	Inc.	Azi.	TVD	N/-S	E/-W	DLS	Comment	05-13-2013
7383	2.68	264.93	7379	-23	5	0.00	Survey @ 7383 MD	
7503	2.68	264.93	7499	-24	-0	0.00	KOP Begin 12°/100' Build/Turn	
8253	90.26	179.66	7974	-504	-20	12.00	Begin 90.26° Lateral Section	
12569	90.26	179.66	7954	-4819	6	0.00	PBHL/TD	

WELL PROFILE DATA svys

MD	Inc.	Azi.	TVD	N/-S	E/-W	DLS	Comment	05-24-2013
12525	90.50	179.20	7957	-4816	35	0.00	Survey Proj. to 12525 MD	

Surface Location	NAD27 NM East
Lat: N 32° 02' 04.96"	Long: W 104° 05' 56.07"
x: 572642.92	y: 376432.22
Model IGRF2011	Date: 21-Apr-2013
Declination (MN to TN): 7.59° East	
Dip: 59.87	
Field Strength: 48259.6	
Total Corr. (MN to GN): 7.46° East	

rolfson oil

