

A Gyrodata Directional Survey

Field Copy Only, not definitive

for

MEWBOURNE OIL

Location: PATTERSON #46, EDDY COUNTY, NEW MEXICO
Lease: PIERCE CROSSING 36 STATE Well: #2H, 4-1/2" DRILLPIPE

Job Number: MD1209VCW246

Run Date: 12/12/2009 4:32:54 AM

Surveyor: AJ EATON

Calculation Method: MINIMUM CURVATURE

Survey surface coordinates obtained from: Directional Drilling Company

Survey Latitude: 32.180330 deg. N Longitude: 103.938539 deg. W

Azimuth Correction:

Gyro: -0.21000 deg to Grid North

Proposed Well Direction: 180 500 deg

Vertical Section Calculated from Well Head Location

Closure Calculated from Well Head Location

Horizontal Coordinates Calculated from Local Horizontal Reference

mm

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MEASURED DEPTH feet	I N C L deg.	AZIMUTH deg.	VERTICAL SECTION feet	DOGLEG SEVERITY deg./ 100 ft.	VERTICAL DEPTH feet	CLOSURE DIST. AZIMUTH feet deg.	HORIZONTAL COORDINATES feet
0.00	0.00	0.00	0.0	0.00	0.00	0.0 0.0	0.00 N 0.00 E
0 TO 4639 FT. RATE GYROSCOPIC MULTISHOT SURVEY RUN INSIDE 4-1/2" DRILLPIPE ALL MEASURED DEPTHS AND COORDINATES REFERENCED TO PATTERON #46 R.K.B.							
100.00	0.53	133.00	0.3	0.53	100.00	0.5 133.0	0.32 S 0.34 E
200.00	1.90	120.25	1.5	1.38	199.97	2.6 124.8	1.47 S 2.11 E
300.00	2.47	115.70	3.2	0.60	299.90	6.4 120.6	3.24 S 5.48 E
400.00	2.26	107.38	4.7	0.40	399.82	10.4 117.1	4.76 S 9.30 E
500.00	2.12	103.96	5.7	0.19	499.74	14.2 114.1	5.79 S 12.98 E
600.00	1.45	130.23	6.9	1.04	599.70	17.3 114.2	7.06 S 15.75 E
700.00	1.33	136.25	8.6	0.19	699.67	19.6 116.5	8.72 S 17.52 E
800.00	1.12	155.19	10.3	0.45	799.64	21.4 119.2	10.45 S 18.73 E
900.00	1.14	155.98	12.1	0.02	899.62	23.1 122.1	12.25 S 19.55 E
1000.00	1.08	161.94	13.9	0.13	999.61	24.6 124.8	14.05 S 20.25 E
1100.00	1.00	164.24	15.6	0.09	1099.59	26.1 127.2	15.79 S 20.78 E
1200.00	1.03	165.14	17.3	0.04	1199.57	27.5 129.5	17.50 S 21.24 E
1300.00	0.97	161.48	19.0	0.09	1299.56	29.0 131.4	19.17 S 21.74 E
1400.00	1.26	145.61	20.7	0.42	1399.54	30.8 132.7	20.88 S 22.63 E
1500.00	1.33	143.18	22.5	0.09	1499.51	33.0 133.5	22.71 S 23.95 E
1600.00	1.49	140.76	24.4	0.16	1599.48	35.4 134.1	24.65 S 25.47 E
1700.00	1.45	141.29	26.4	0.04	1699.45	38.0 134.5	26.64 S 27.08 E
1800.00	0.90	156.39	28.1	0.62	1799.43	40.0 135.2	28.35 S 28.18 E
1900.00	0.62	163.20	29.3	0.30	1899.42	41.2 135.9	29.59 S 28.65 E

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MEASURED DEPTH feet	I N C L deg.	AZIMUTH deg.	VERTICAL SECTION feet	DOGLEG SEVERITY deg./ 100 ft.	VERTICAL DEPTH feet	CLOSURE DIST. AZIMUTH feet deg.	HORIZONTAL COORDINATES feet
2000.00	0.73	192.51	30.5	0.36	1999.41	42.0 137.0	30.72 S 28.67 E
2100.00	0.88	196.65	31.8	0.16	2099.40	42.8 138.6	32.07 S 28.32 E
2200.00	0.63	217.42	33.0	0.36	2199.40	43.3 140.1	33.25 S 27.76 E
2300.00	0.55	225.60	33.8	0.12	2299.39	43.5 141.5	34.02 S 27.08 E
2400.00	0.48	256.83	34.2	0.28	2399.39	43.4 142.6	34.45 S 26.33 E
2500.00	0.59	277.18	34.3	0.22	2499.38	42.8 143.6	34.48 S 25.41 E
2600.00	0.23	350.95	34.0	0.57	2599.38	42.3 144.0	34.22 S 24.87 E
2700.00	0.95	71.06	33.5	0.94	2699.37	42.4 142.8	33.75 S 25.62 E
2800.00	1.24	96.55	33.4	0.56	2799.36	43.4 140.7	33.60 S 27.48 E
2900.00	1.70	102.12	33.8	0.48	2899.32	45.4 138.6	34.03 S 29.99 E
3000.00	2.27	117.63	35.0	0.78	2999.26	48.4 136.7	35.26 S 33.19 E
3100.00	2.47	122.36	37.0	0.28	3099.18	52.4 135.4	37.33 S 36.76 E
3200.00	2.13	127.20	39.3	0.39	3199.10	56.3 134.7	39.60 S 40.06 E
3300.00	1.48	135.64	41.3	0.70	3299.05	59.5 134.5	41.65 S 42.44 E
3400.00	1.27	137.86	43.0	0.21	3399.02	61.9 134.5	43.40 S 44.09 E
3500.00	1.24	135.45	44.6	0.06	3499.00	64.1 134.6	44.99 S 45.59 E
3600.00	1.18	142.98	46.2	0.17	3598.97	66.2 134.8	46.58 S 46.97 E
3700.00	1.21	142.36	47.8	0.03	3698.95	68.2 135.0	48.24 S 48.24 E
3800.00	1.36	141.70	49.6	0.15	3798.93	70.4 135.2	50.00 S 49.61 E
3900.00	1.15	139.08	51.2	0.22	3898.90	72.6 135.4	51.69 S 51.00 E
4000.00	0.98	136.78	52.6	0.17	3998.89	74.5 135.4	53.07 S 52.24 E
4100.00	1.16	134.52	53.9	0.18	4098.87	76.3 135.5	54.40 S 53.55 E
4200.00	0.88	132.28	55.1	0.28	4198.85	78.1 135.4	55.63 S 54.84 E

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Lease: PIERCE CROSSING 36 STATE Well: #2H, 4-1/2" DRILLPIPE

Job Number: MD1209VCW246

MEASURED DEPTH feet	I N C L deg.	AZIMUTH deg.	VERTICAL SECTION feet	DOGLEG SEVERITY deg./ 100 ft.	VERTICAL DEPTH feet	CLOSURE DIST. AZIMUTH feet deg.	HORIZONTAL COORDINATES feet
4300.00	0.95	134.94	56.2	0.08	4298.84	79.7 135.4	56.73 S 55.99 E
4400.00	0.77	140.70	57.3	0.19	4398.83	81.2 135.4	57.84 S 57.01 E
4500.00	0.74	134.47	58.3	0.09	4498.82	82.5 135.4	58.81 S 57.89 E
4600.00	0.75	130.68	59.2	0.05	4598.81	83.8 135.4	59.69 S 58.85 E
4639.00	0.63	149.95	59.5	0.67	4637.81	84.3 135.4	60.04 S 59.15 E

Final Station Closure: Distance: 84.28 ft Az: 135.43 deg.

Company: Mewbourne Oil Co.

Field: Delaware

County: Eddy

Well Name: Pierce Crossing 36-2H

Rig: Patterson 45

Magnetic Decl: 7.99

Grid Corr: 0.21

Total Survey Corr: 7.78

Date Printed: 1/14/10

Proposed Azimuth: 180.07

Target Inclination: 89.93

BRN F/Bit: 0.00 6946.00

2' Above 0.00 6944.00

2' Below 0.00 6948.00

At Last Survey Point

51.07 Below 44.72 Right

Projecting to Bit

51.65 Below 45.13 Right

BRN From Survey: 0.00

Projection 45°			Depth (ft)	9891	Incl: 89.20	Azimuth	180.60	TVD	5481.68	VS	4809.46	N/S	4809.40 S	E/W	50.92 W
No.	Tool Type	90 Dpth (ft)	Incl (°)	Azimuth (°)	Course Lgth(ft)	TVD (ft)	VS (ft)	Coordinates		Closure		DLS	Bld Rate	Wlk Rate	
								N/S (ft)	E/W (ft)	Dist (ft)	Ang (°)	(°/100')	(°/100')	(°/100')	
0	Plan	0	0	0		0.00	0.00	0.00 N	0.00 W						
1	Gyro	100	0.53	133	100	100.00	0.32	0.32 S	0.34 E	0.46	133.00	0.53	0.53	133.00	
2	Gyro	200	1.9	120.25	100	199.97	1.46	1.47 S	2.11 E	2.57	124.81	1.39	1.37	-12.75	
3	Gyro	300	2.47	115.7	100	299.90	3.23	3.24 S	5.48 E	6.37	120.55	0.60	0.57	-4.55	
4	Gyro	400	2.26	107.38	100	399.82	4.75	4.76 S	9.31 E	10.45	117.09	0.40	-0.21	-8.32	
5	Gyro	500	2.12	103.96	100	499.74	5.78	5.79 S	12.98 E	14.22	114.05	0.19	-0.14	-3.42	
6	Gyro	600	1.45	130.23	100	599.70	7.04	7.06 S	15.74 E	17.25	114.15	1.04	-0.67	26.27	
7	Gyro	700	1.33	136.25	100	699.67	8.69	8.71 S	17.51 E	19.56	116.45	0.19	-0.12	6.02	
8	Gyro	800	1.12	155.19	100	799.64	10.42	10.44 S	18.72 E	21.44	119.14	0.45	-0.21	18.94	
9	Gyro	900	1.14	155.98	100	899.62	12.21	12.23 S	19.54 E	23.05	122.05	0.03	0.02	0.79	
10	Gyro	1000	1.08	161.94	100	999.61	14.01	14.04 S	20.24 E	24.63	124.75	0.13	-0.06	5.96	
11	Gyro	1100	1	164.24	100	1099.59	15.75	15.77 S	20.77 E	26.08	127.22	0.09	-0.08	2.30	
12	Gyro	1200	1.03	165.14	100	1199.57	17.46	17.48 S	21.23 E	27.50	129.47	0.03	0.03	0.90	
13	Gyro	1300	0.97	161.48	100	1299.56	19.13	19.15 S	21.73 E	28.97	131.39	0.09	-0.06	-3.66	
14	Gyro	1400	1.26	145.61	100	1399.54	20.84	20.86 S	22.62 E	30.78	132.69	0.42	0.29	-15.87	
15	Gyro	1500	1.33	143.18	100	1499.51	22.67	22.70 S	23.94 E	32.99	133.48	0.09	0.07	-2.43	
16	Gyro	1600	1.49	140.76	100	1599.48	24.61	24.64 S	25.46 E	35.43	134.06	0.17	0.16	-2.42	
17	Gyro	1700	1.45	141.29	100	1699.45	26.60	26.63 S	27.07 E	37.97	134.53	0.04	-0.04	0.53	
18	Gyro	1800	0.9	156.39	100	1799.43	28.30	28.34 S	28.18 E	39.96	135.16	0.63	-0.55	15.10	
19	Gyro	1900	0.62	163.2	100	1899.42	29.54	29.58 S	28.65 E	41.18	135.91	0.29	-0.28	6.81	
20	Gyro	2000	0.73	192.51	100	1999.41	30.68	30.72 S	28.67 E	42.01	136.98	0.36	0.11	29.31	
21	Gyro	2100	0.88	196.65	100	2099.40	32.04	32.07 S	28.31 E	42.78	138.57	0.16	0.15	4.14	
22	Gyro	2200	0.63	217.42	100	2199.39	33.21	33.25 S	27.75 E	43.31	140.14	0.37	-0.25	20.77	
23	Gyro	2300	0.55	225.6	100	2299.39	33.99	34.02 S	27.08 E	43.48	141.48	0.12	-0.08	8.18	
24	Gyro	2400	0.48	256.83	100	2399.39	34.42	34.45 S	26.33 E	43.36	142.61	0.29	-0.07	31.23	
25	Gyro	2500	0.59	277.18	100	2499.38	34.45	34.48 S	25.41 E	42.83	143.61	0.22	0.11	20.35	
26	Gyro	2600	0.23	350.95	100	2599.38	34.19	34.22 S	24.86 E	42.30	144.00	0.57	-0.36	73.77	
27	Gyro	2700	0.85	71.06	100	2699.37	33.72	33.75 S	25.62 E	42.37	142.80	0.94	0.72	80.11	
28	Gyro	2800	1.24	96.55	100	2799.36	33.57	33.60 S	27.48 E	43.41	140.73	0.56	0.29	25.49	
29	Gyro	2900	1.7	102.12	100	2899.32	34.00	34.04 S	30.00 E	45.37	138.61	0.48	0.46	5.57	
30	Gyro	3000	2.27	117.63	100	2999.26	35.23	35.27 S	33.21 E	48.44	136.73	0.78	0.57	15.51	
31	Gyro	3100	2.47	122.36	100	3099.18	37.30	37.34 S	36.78 E	52.41	135.43	0.28	0.20	4.73	
32	Gyro	3200	2.13	127.2	100	3199.10	39.57	39.62 S	40.08 E	56.36	134.67	0.39	-0.34	4.84	
33	Gyro	3300	1.48	135.64	100	3299.05	41.61	41.67 S	42.46 E	59.49	134.46	0.70	-0.65	8.44	

Company: Mewbourne Oil Co.

Field: Delaware

County: Eddy

Well Name: Pierce Crossing 36-2H

Rig: Patterson 45

Magnetic Decl:

Grid Corr:

Total Survey Corr:

Date Printed:

Proposed Azimuth:

Target Inclination:

BRN F/Bit:

2' Above

2' Below

180.07

89.93

0.00

0.00

0.00

At Last Survey Point

51.07 Below

44.72 Right

Projecting to Bit

51.65 Below

45.13 Right

BRN From Survey: 0.00

Projection		45'	Depth (ft)	9891	Incl: 89.20	Azimuth	180.60	TVD	5481.68	VS	4809.46	N/S	4809.40 S	E/W	50.92 W
No.	Tool Type	90 Dpth (ft)	Incl (°)	Azimuth (°)	Course Lgth(ft)	TVD (ft)	VS (ft)	Coordinates		Closure		DLS	Bld Rate	Wlk Rate	
								N/S (ft)	E/W (ft)	Dist (ft)	Ang (°)	(°/100')	(°/100')	(°/100')	
34	Gyro	3400	1.27	137.86	100	3399.02	43.36	43.41 S	44.11 E	61.89	134.54	0.22	-0.21	2.22	
35	Gyro	3500	1.24	135.45	100	3498.99	44.95	45.00 S	45.61 E	64.08	134.61	0.06	-0.03	-2.41	
36	Gyro	3600	1.18	142.98	100	3598.97	46.54	46.60 S	46.99 E	66.18	134.76	0.17	-0.06	7.53	
37	Gyro	3700	1.21	142.36	100	3698.95	48.20	48.25 S	48.26 E	68.24	135.00	0.03	0.03	-0.62	
38	Gyro	3800	1.36	141.7	100	3798.92	49.96	50.02 S	49.64 E	70.47	135.22	0.15	0.15	-0.66	
39	Gyro	3900	1.15	139.08	100	3898.90	51.65	51.71 S	51.03 E	72.65	135.38	0.22	-0.21	-2.62	
40	Gyro	4000	0.98	136.78	100	3998.88	53.03	53.09 S	52.27 E	74.51	135.45	0.18	-0.17	-2.30	
41	Gyro	4100	1.16	134.52	100	4098.87	54.36	54.43 S	53.58 E	76.37	135.45	0.18	0.18	-2.26	
42	Gyro	4200	0.88	132.28	100	4198.85	55.59	55.65 S	54.87 E	78.15	135.40	0.26	-0.28	-2.24	
43	Gyro	4300	0.95	134.94	100	4298.84	56.69	56.75 S	56.03 E	79.75	135.37	0.08	0.07	2.66	
44	Gyro	4400	0.77	140.7	100	4398.83	57.79	57.86 S	57.04 E	81.25	135.41	0.20	-0.18	5.76	
45	Gyro	4500	0.74	134.47	100	4498.82	58.76	58.83 S	57.92 E	82.56	135.45	0.09	-0.03	-6.23	
46	Gyro	4600	0.75	130.68	100	4598.81	59.64	59.71 S	58.88 E	83.86	135.40	0.05	0.01	-3.79	
47	Gyro	4639	0.63	149.96	39	4637.81	59.99	60.06 S	59.18 E	84.32	135.42	0.67	-0.31	49.44	
48	MWD	4735	0.90	183.20	96	4733.80	61.20	61.27 S	59.40 E	85.34	135.89	0.53	0.28	34.63	
49	MWD	4767	2.80	199.30	32	4765.78	62.19	62.26 S	59.13 E	85.87	136.48	6.10	5.94	50.31	
50	MWD	4799	4.90	190.20	32	4797.71	64.27	64.34 S	58.63 E	87.05	137.66	6.81	6.56	-28.44	
51	MWD	4831	7.10	197.60	32	4829.53	67.51	67.57 S	57.79 E	88.92	139.46	7.27	6.88	23.13	
52	MWD	4862	9.40	194.80	31	4860.21	71.78	71.85 S	56.57 E	91.44	141.79	7.53	7.42	-9.03	
53	MWD	4894	11.80	191.70	32	4891.66	77.51	77.58 S	55.23 E	95.23	144.55	7.71	7.50	-9.69	
54	MWD	4926	14.10	195.00	32	4922.84	84.49	84.55 S	53.56 E	100.09	147.65	7.55	7.19	10.31	
55	MWD	4958	17.50	194.80	32	4953.63	92.91	92.97 S	51.32 E	106.20	151.10	10.63	10.63	-0.62	
56	MWD	4990	21.60	194.80	32	4983.78	103.26	103.32 S	48.59 E	114.18	154.81	12.81	12.81	0.00	
57	MWD	5021	24.70	193.00	31	5012.28	115.10	115.15 S	45.67 E	123.88	158.36	10.26	10.00	-5.81	
58	MWD	5053	26.90	190.80	32	5041.09	128.73	128.78 S	42.81 E	135.71	161.61	7.50	6.88	-6.87	
59	MWD	5085	28.70	186.00	32	5069.40	143.48	143.53 S	40.65 E	149.18	164.19	8.97	5.63	-15.00	
60	MWD	5117	32.10	191.40	32	5097.00	159.47	159.52 S	38.17 E	164.02	166.54	13.62	10.63	16.88	
61	MWD	5149	34.10	190.70	32	5123.80	176.63	176.67 S	34.82 E	180.07	168.85	6.36	6.25	-2.19	
62	MWD	5180	36.20	187.00	31	5149.15	194.26	194.30 S	32.09 E	196.93	170.62	9.65	6.77	-11.94	
63	MWD	5212	38.30	187.90	32	5174.45	213.68	213.72 S	29.55 E	215.75	172.13	9.84	9.69	2.81	
64	MWD	5242	42.50	187.60	30	5197.12	233.15	233.18 S	26.90 E	234.73	173.42	10.69	10.67	-1.00	
65	MWD	5274	45.40	185.90	32	5220.16	255.20	255.23 S	24.30 E	256.39	174.56	9.78	9.06	-5.31	
66	MWD	5306	47.60	187.30	32	5242.19	278.26	278.29 S	21.63 E	279.13	175.56	7.57	6.88	4.38	
67	MWD	5338	50.40	185.70	32	5263.18	302.26	302.28 S	18.90 E	302.87	176.42	9.53	8.75	-5.00	

Company: **Mewbourne Oil Co.**
 Field: **Delaware**
 County: **Eddy**
 Well Name: **Pierce Crossing 36-2H**
 Rig: **Patterson 45**

Magnetic Decl: **7.99**
 Grid Corr: **0.21**
 Total Survey Corr: **7.78**
 Date Printed: **1/14/10**

Proposed Azimuth: **180.07**Target Inclination: **89.93**

At Last Survey Point

51.07 Below 44.72 Right

Projecting to Bit

51.65 Below 45.13 RightBRN From Survey: **0.00**

Projection		45 °	Depth (ft)	9891	Incl: 89.20	Azimuth	180.60	TVD	5481.68	VS	4809.46	N/S	4809.40 S	E/W	50.92 W
No.	Tool Type	90 Dpth (ft)	Incl (°)	Azimuth (°)	Course Lgth(ft)	TVD (ft)	VS (ft)	Coordinates		Closure		DLS	Bld Rate	Wlk Rate	
								N/S (ft)	E/W (ft)	Dist (ft)	Ang (°)	(°/100')	(°/100')	(°/100')	
68	MWD	5370	52.30	184.80	32	5283.17	327.14	327.16 S	16.82 E	327.59	177.09	6.33	5.94	-2.81	
69	MWD	5402	55.90	185.70	32	5301.93	352.95	352.97 S	14.24 E	353.26	177.69	11.48	11.25	2.81	
70	MWD	5433	57.50	187.20	31	5318.95	378.70	378.72 S	11.33 E	378.88	178.29	6.56	5.16	4.84	
71	MWD	5465	60.20	186.60	32	5335.50	405.89	405.90 S	8.04 E	405.98	178.87	8.59	8.44	-1.87	
72	MWD	5497	63.00	186.00	32	5350.72	433.87	433.88 S	4.95 E	433.90	179.35	8.90	8.75	-1.87	
73	MWD	5529	66.00	186.50	32	5364.49	462.58	462.58 S	1.81 E	462.59	179.78	9.48	9.38	1.56	
74	MWD	5560	69.00	186.40	31	5376.35	491.04	491.04 S	1.41 W	491.04	180.16	9.68	9.68	-0.32	
75	MWD	5592	71.30	186.10	32	5387.22	520.96	520.96 S	4.69 W	520.98	180.52	7.24	7.19	-0.94	
76	MWD	5624	73.90	186.10	32	5396.79	551.33	551.32 S	7.93 W	551.37	180.82	8.13	8.13	0.00	
77	MWD	5656	77.70	186.80	32	5404.64	582.15	582.14 S	11.42 W	582.25	181.12	12.06	11.88	2.19	
78	MWD	5687	81.40	186.10	31	5410.26	612.44	612.43 S	14.84 W	612.61	181.39	12.14	11.94	-2.26	
79	MWD	5719	84.10	185.80	32	5414.30	644.02	644.00 S	18.13 W	644.25	181.61	8.49	8.44	-0.94	
80	MWD	5751	86.20	184.90	32	5417.00	675.76	675.74 S	21.10 W	676.07	181.79	7.14	6.56	-2.81	
81	6 1/2"	5826	90.00	184.20	75	5419.49	750.48	750.45 S	27.05 W	750.94	182.06	5.15	5.07	-0.93	
82	Hole	5857	90.40	183.60	31	5419.38	781.41	781.38 S	29.16 W	781.92	182.14	2.33	1.29	-1.94	
83	MWD	5886	90.10	182.60	29	5419.25	810.37	810.33 S	30.72 W	810.92	182.17	3.60	-1.03	-3.45	
84	MWD	5917	88.20	182.60	31	5419.71	841.33	841.30 S	32.13 W	841.91	182.19	6.13	-6.13	0.00	
85	MWD	5948	87.60	183.80	31	5420.85	872.27	872.23 S	33.86 W	872.88	182.22	4.33	-1.94	3.87	
86	MWD	5979	87.20	182.30	31	5422.25	903.19	903.15 S	35.51 W	903.85	182.25	5.00	-1.29	-4.84	
87	MWD	6010	89.00	183.40	31	5423.28	934.14	934.09 S	37.05 W	934.83	182.27	6.80	5.81	3.55	
88	MWD	6041	89.40	184.30	31	5423.71	965.07	965.02 S	39.13 W	965.81	182.32	3.18	1.29	2.90	
89	MWD	6071	89.60	182.30	30	5423.98	995.02	994.97 S	40.86 W	995.81	182.35	6.70	0.67	-6.67	
90	MWD	6102	90.40	183.30	31	5423.98	1025.98	1025.93 S	42.37 W	1026.80	182.36	4.13	2.58	3.23	
91	MWD	6133	90.60	184.80	31	5423.71	1056.90	1056.85 S	44.56 W	1057.79	182.41	4.88	0.65	4.84	
92	MWD	6163	90.90	184.80	30	5423.31	1086.80	1086.74 S	47.07 W	1087.76	182.48	1.00	1.00	0.00	
93	MWD	6195	91.20	185.00	32	5422.73	1118.68	1118.62 S	49.80 W	1119.73	182.55	1.13	0.94	0.62	
94	MWD	6225	91.10	186.90	30	5422.12	1148.51	1148.45 S	52.91 W	1149.67	182.64	6.34	-0.33	6.33	
95	MWD	6256	91.00	183.60	31	5421.56	1179.38	1179.31 S	55.75 W	1180.63	182.71	10.65	-0.32	-10.65	
96	MWD	6287	90.80	182.70	31	5421.07	1210.33	1210.26 S	57.45 W	1211.62	182.72	2.97	-0.65	-2.90	
97	MWD	6318	90.20	182.00	31	5420.80	1241.30	1241.23 S	58.72 W	1242.62	182.71	2.97	-1.94	-2.26	
98	MWD	6349	89.50	178.60	31	5420.88	1272.30	1272.23 S	58.88 W	1273.59	182.65	11.20	-2.26	-10.97	
99	MWD	6379	88.70	181.10	30	5421.35	1302.29	1302.22 S	58.81 W	1303.55	182.59	8.75	-2.67	8.33	
100	MWD	6410	88.10	181.70	31	5422.22	1333.27	1333.20 S	59.56 W	1334.53	182.56	2.74	-1.94	1.94	
101	MWD	6442	87.90	181.20	32	5423.33	1365.24	1365.17 S	60.37 W	1366.50	182.53	1.68	-0.62	-1.56	

Company: **Mewbourne Oil Co.**Field: **Delaware**County: **Eddy**Well Name: **Pierce Crossing 36-2H**Rig: **Patterson 45**

Magnetic Decl:

Grid Corr:

Total Survey Corr:

Date Printed:

Proposed Azimuth:

Target Inclination:

BRN F/Bit:

2' Above

2' Below

180.07

89.93

0.00

0.00

0.00

At Last Survey Point

51.07 Below

44.72 Right

Projecting to Bit

51.65 Below

45.13 Right

BRN From Survey: 0.00

Projection		45 °	Depth (ft)		9891	Incl: 89.20	Azimuth		180.60	TVD		5481.68	VS	4809.46	N/S		4809.40 S	E/W		50.52 W
No.	Tool Type	90 Dpth (ft)	Incl (°)	Azimuth (°)	Course	Lgth(ft)	TVD (ft)	VS (ft)	Coordinates		Closure		DLS		Bld Rate	Wlk Rate				
									N/S (ft)	E/W (ft)	Dist (ft)	Ang (°)	(°/100')		(°/100')					
102	MWD	6471	88.40	178.30	29	5424.27	1394.22	1394.15 S	60.24 W	1395.45	182.47	10.14	1.72	-10.00						
103	MWD	6502	88.80	178.60	31	5425.03	1425.20	1425.13 S	59.41 W	1426.37	182.39	1.61	1.29	0.97						
104	MWD	6534	90.00	179.90	32	5425.36	1457.19	1457.12 S	58.99 W	1458.32	182.32	5.53	3.75	4.06						
105	MWD	6566	89.50	178.70	32	5425.50	1489.19	1489.12 S	58.60 W	1490.27	182.25	4.06	-1.56	-3.75						
106	MWD	6598	89.00	181.80	32	5425.92	1521.18	1521.11 S	58.74 W	1522.25	182.21	9.81	-1.56	9.69						
107	MWD	6629	89.00	179.40	31	5426.46	1552.18	1552.11 S	59.06 W	1553.23	182.18	7.74	0.00	-7.74						
108	MWD	6661	89.90	179.90	32	5426.77	1584.17	1584.10 S	58.87 W	1585.20	182.13	3.22	2.81	1.56						
109	MWD	6693	90.30	177.70	32	5426.71	1616.16	1616.09 S	58.20 W	1617.14	182.06	6.99	1.25	-6.88						
110	MWD	6725	90.40	176.60	32	5426.52	1648.12	1648.05 S	56.60 W	1649.02	181.97	3.45	0.31	-3.44						
111	MWD	6756	90.50	176.90	31	5426.28	1679.07	1679.00 S	54.85 W	1679.90	181.87	1.02	0.32	0.97						
112	MWD	6788	90.50	176.20	32	5426.00	1711.01	1710.94 S	52.92 W	1711.76	181.77	2.19	0.00	-2.19						
113	MWD	6819	90.40	175.90	31	5425.75	1741.93	1741.87 S	50.79 W	1742.61	181.67	1.02	-0.32	-0.97						
114	MWD	6852	90.50	177.30	33	5425.48	1774.87	1774.81 S	48.83 W	1775.48	181.58	4.25	0.30	4.24						
115	MWD	6884	90.40	174.80	32	5425.24	1806.78	1806.73 S	46.62 W	1807.33	181.48	7.82	-0.31	-7.81						
116	MWD	6916	90.40	176.80	32	5425.02	1838.69	1838.64 S	44.28 W	1839.17	181.38	6.25	0.00	6.25						
117	MWD	6947	90.60	176.00	31	5424.75	1869.63	1869.58 S	42.33 W	1870.06	181.30	2.66	0.65	-2.58						
118	MWD	6979	90.50	178.00	32	5424.44	1901.58	1901.53 S	40.66 W	1901.97	181.22	6.26	-0.31	6.25						
119	MWD	7011	90.40	176.30	32	5424.19	1933.53	1933.49 S	39.07 W	1933.88	181.16	5.32	-0.31	-5.31						
120	MWD	7044	89.00	176.90	33	5424.36	1966.47	1966.43 S	37.11 W	1966.78	181.08	4.62	-4.24	1.82						
121	MWD	7076	88.70	177.50	32	5425.00	1998.43	1998.38 S	35.55 W	1998.70	181.02	2.10	-0.94	1.87						
122	MWD	7107	87.60	177.80	31	5426.01	2029.38	2029.34 S	34.28 W	2029.63	180.97	3.68	-3.55	0.97						
123	MWD	7137	87.70	179.60	30	5427.24	2059.35	2059.31 S	33.60 W	2059.58	180.93	6.00	0.33	6.00						
124	MWD	7169	87.70	179.00	32	5428.52	2091.32	2091.28 S	33.21 W	2091.54	180.91	1.87	0.00	-1.87						
125	MWD	7200	88.10	179.40	31	5429.66	2122.29	2122.26 S	32.78 W	2122.51	180.88	1.82	1.29	1.29						
126	MWD	7231	89.80	178.10	31	5430.22	2153.28	2153.24 S	32.10 W	2153.48	180.85	6.90	5.48	-4.19						
127	MWD	7263	90.20	180.70	32	5430.22	2185.27	2185.24 S	31.76 W	2185.47	180.83	8.22	1.25	8.12						
128	MWD	7295	90.50	178.10	32	5430.03	2217.27	2217.23 S	31.43 W	2217.45	180.81	8.18	0.94	-8.12						
129	MWD	7327	90.60	178.90	32	5429.72	2249.25	2249.22 S	30.59 W	2249.43	180.78	2.52	0.31	2.50						
130	MWD	7359	91.00	178.20	32	5429.27	2281.24	2281.20 S	29.78 W	2281.40	180.75	2.52	1.25	-2.19						
131	MWD	7391	89.70	179.00	32	5429.08	2313.23	2313.19 S	29.00 W	2313.38	180.72	4.77	-4.06	2.50						
132	MWD	7424	90.40	179.20	33	5429.05	2346.22	2346.19 S	28.48 W	2346.36	180.70	2.21	2.12	0.61						
133	MWD	7457	90.10	181.50	33	5428.91	2379.22	2379.19 S	28.68 W	2379.36	180.69	7.03	-0.91	6.97						
134	MWD	7489	89.40	183.60	32	5429.05	2411.19	2411.15 S	30.11 W	2411.34	180.72	6.92	-2.19	6.56						
135	MWD	7522	89.00	185.10	33	5429.51	2444.09	2444.05 S	32.61 W	2444.27	180.76	4.70	-1.21	4.55						

Company: Mewbourne Oil Co.

Field: Delaware

County: Eddy

Well Name: Pierce Crossing 36-2H

Rig: Patterson 45

Magnetic Decl:

Grid Corr:

Total Survey Corr:

Date Printed:

Proposed Azimuth:

Target Inclination:

BRN F/Bit:

2' Above

2' Below

180.07

89.93

0.00

0.00

0.00

At Last Survey point

51.07 Below

44.72 Right

Projecting to Bit

51.65 Below

45.13 Right

BRN From Survey: 0.00

Projection		45'	Depth (ft)		9891	Incl: 89.20	Azimuth		180.60	TVD	5481.68	VS	4809.46	N/S		4809.40 S	E/W		50.92 W
No.	Tool Type	90 Dpth (ft)	Incl (°)	Azimuth (°)	Course Lgth(ft)	TVD (ft)	VS (ft)	Coordinates		Closure		DLS	Bld Rate	Wlk Rate					
								N/S (ft)	E/W (ft)	Dist (ft)	Ang (°)	(°/100')	(°/100')	(°/100')					
136	MWD	7556	86.20	183.90	34	5430.93	2477.96	2477.91 S	35.28 W	2478.17	180.82	8.96	-8.24	-3.53					
137	MWD	7588	85.40	182.40	32	5433.27	2509.82	2509.78 S	37.03 W	2510.05	180.85	5.30	-2.50	-4.69					
138	MWD	7620	85.50	185.70	32	5435.81	2541.64	2541.59 S	39.28 W	2541.90	180.89	10.28	0.31	10.31					
139	MWD	7651	88.10	184.70	31	5437.54	2572.46	2572.42 S	42.09 W	2572.76	180.94	8.98	8.39	-3.23					
140	MWD	7683	88.50	185.10	32	5438.49	2604.34	2604.28 S	44.82 W	2604.67	180.99	1.77	1.25	1.25					
141	MWD	7715	90.30	186.20	32	5438.83	2636.18	2636.13 S	47.97 W	2636.56	181.04	6.59	5.62	3.44					
142	MWD	7747	91.00	188.10	32	5438.46	2667.93	2667.87 S	51.95 W	2668.38	181.12	6.33	2.19	5.94					
143	MWD	7778	91.60	186.80	31	5437.76	2698.67	2698.60 S	55.97 W	2699.18	181.19	4.62	1.94	-4.19					
144	MWD	7810	90.00	186.00	32	5437.31	2730.47	2730.40 S	59.54 W	2731.05	181.25	5.59	-5.00	-2.50					
145	MWD	7842	89.20	185.70	32	5437.54	2762.30	2762.23 S	62.80 W	2762.94	181.30	2.67	-2.50	-0.94					
146	MWD	7874	89.90	184.00	32	5437.79	2794.19	2794.11 S	65.50 W	2794.88	181.34	5.75	2.19	-5.31					
147	MWD	7906	89.00	181.00	32	5438.10	2826.16	2826.08 S	66.90 W	2826.87	181.36	9.79	-2.81	-9.38					
148	MWD	7938	88.50	180.60	32	5438.79	2858.15	2858.07 S	67.35 W	2858.86	181.35	2.00	-1.56	-1.25					
149	MWD	7969	87.30	179.00	31	5439.93	2889.12	2889.04 S	67.24 W	2889.83	181.33	6.45	-3.87	-5.16					
150	MWD	8001	87.40	180.10	32	5441.41	2921.09	2921.01 S	66.99 W	2921.78	181.31	3.45	0.31	3.44					
151	MWD	8033	87.70	178.60	32	5442.78	2953.05	2952.98 S	66.62 W	2953.73	181.29	4.78	0.94	-4.69					
152	MWD	8065	87.70	181.20	32	5444.06	2985.03	2984.95 S	66.57 W	2985.69	181.28	8.12	0.00	8.12					
153	MWD	8096	86.10	181.10	31	5445.74	3015.97	3015.90 S	67.19 W	3016.64	181.28	5.17	-5.16	-0.32					
154	MWD	8128	86.10	180.80	32	5447.92	3047.90	3047.82 S	67.72 W	3048.57	181.27	0.94	0.00	-0.94					
155	MWD	8160	86.20	179.50	32	5450.06	3079.62	3079.74 S	67.80 W	3080.49	181.26	4.07	0.31	-4.06					
156	MWD	8192	86.30	180.00	32	5452.16	3111.75	3111.67 S	67.66 W	3112.41	181.25	1.59	0.31	1.56					
157	MWD	8223	86.50	181.50	31	5454.10	3142.69	3142.61 S	68.07 W	3143.35	181.24	4.87	0.65	4.84					
158	MWD	8255	86.60	181.70	32	5456.03	3174.62	3174.54 S	68.96 W	3175.29	181.24	0.70	0.31	0.62					
159	MWD	8287	87.30	178.70	32	5457.73	3206.57	3206.49 S	69.07 W	3207.23	181.23	9.61	2.19	-9.38					
160	MWD	8319	87.70	176.40	32	5459.13	3238.51	3238.43 S	67.70 W	3239.14	181.20	7.29	1.25	-7.19					
161	MWD	8351	88.30	176.70	32	5460.25	3270.43	3270.35 S	65.78 W	3271.01	181.15	2.10	1.87	0.94					
162	MWD	8382	88.10	175.00	31	5461.22	3301.33	3301.25 S	63.54 W	3301.86	181.10	5.52	-0.65	-5.48					
163	MWD	8414	88.50	179.00	32	5462.17	3333.26	3333.19 S	61.86 W	3333.76	181.06	12.56	1.25	12.50					
164	MWD	8446	89.20	178.50	32	5462.81	3365.25	3365.17 S	61.17 W	3365.73	181.04	2.69	2.19	-1.56					
165	MWD	8478	89.50	178.70	32	5463.17	3397.23	3397.16 S	60.38 W	3397.70	181.02	1.13	0.94	0.62					
166	MWD	8510	89.70	178.20	32	5463.40	3429.22	3429.15 S	59.52 W	3429.67	180.99	1.68	0.63	-1.56					
167	MWD	8541	89.90	176.50	31	5463.51	3460.18	3460.12 S	58.09 W	3460.60	180.96	5.52	0.65	-5.48					
168	MWD	8572	89.80	178.40	31	5463.59	3491.15	3491.08 S	56.71 W	3491.54	180.93	6.14	-0.32	6.13					
169	MWD	8604	90.10	178.20	32	5463.61	3523.13	3523.07 S	55.76 W	3523.51	180.91	1.13	0.94	-0.63					

Company: **Mewbourne Oil Co.**
 Field: **Delaware**
 County: **Eddy**
 Well Name: **Pierce Crossing 36-2H**
 Rig: **Patterson 46**

Magnetic Decl: **7.99**
 Grid Corr: **0.21**
 Total Survey Corr: **7.78**
 Date Printed: **1/14/10**

Proposed Azimuth: **180.07**
 Target Inclination: **89.93**
 BRN F/Bit: **0.00**
 2' Above **0.00**
 2' Below **0.00**

At Last Survey Point
51.07 Below **44.72 Right**
 Projecting to Bit
51.65 Below **45.13 Right**
 BRN From Survey: **0.00**

Projection	45'	Depth (ft)	9891	Incl: 89.20	Azimuth	180.60	TVD	5481.68	VS	4809.46	N/S	4809.40 S	E/W	50.92 W
No.	Tool Type	90 Dpth (ft)	Incl (°)	Azimuth (°)	Course Lgth(ft)	TVD (ft)	VS (ft)	Coordinates		Closure		DLS (°/100')	Bld Rate (°/100')	Wlk Rate (°/100')
								N/S (ft)	E/W (ft)	Dist (ft)	Ang (°)			
170	MWD	8636	90.20	177.20	32	5463.53	3555.11	3555.04 S	54.47 W	3555.46	180.88	3.14	0.31	-3.13
171	MWD	8668	88.50	177.90	32	5463.89	3587.07	3587.01 S	53.10 W	3587.40	180.85	5.75	-5.31	2.19
172	MWD	8699	88.10	175.70	31	5464.81	3618.01	3617.95 S	51.38 W	3618.31	180.81	7.21	-1.29	-7.10
173	MWD	8731	88.50	180.30	32	5465.76	3649.96	3649.90 S	50.26 W	3650.25	180.79	14.42	1.25	14.38
174	MWD	8763	88.60	177.40	32	5466.57	3681.94	3681.88 S	49.62 W	3682.22	180.77	9.06	0.31	-9.06
175	MWD	8795	88.60	183.00	32	5467.36	3713.92	3713.86 S	49.73 W	3714.19	180.77	17.49	0.00	17.50
176	MWD	8827	88.70	178.30	32	5468.11	3745.90	3745.84 S	50.09 W	3746.18	180.77	14.69	0.31	-14.69
177	MWD	8859	88.70	181.90	32	5468.84	3777.89	3777.83 S	50.15 W	3778.16	180.76	11.25	0.00	11.25
178	MWD	8891	89.10	177.70	32	5469.45	3809.87	3809.81 S	50.04 W	3810.14	180.75	13.18	1.25	-13.13
179	MWD	8922	89.00	180.50	31	5469.97	3840.86	3840.80 S	49.55 W	3841.12	180.74	9.04	-0.32	9.03
180	MWD	8954	89.00	178.50	32	5470.52	3872.85	3872.80 S	49.27 W	3873.11	180.73	6.25	0.00	-6.25
181	MWD	8986	89.00	179.80	32	5471.08	3904.84	3904.79 S	48.80 W	3905.09	180.72	4.06	0.00	4.06
182	MWD	9018	88.90	178.40	32	5471.67	3936.83	3936.78 S	48.29 W	3937.07	180.70	4.39	-0.31	-4.38
183	MWD	9050	89.00	179.50	32	5472.25	3968.82	3968.77 S	47.71 W	3969.05	180.69	3.45	0.31	3.44
184	MWD	9081	90.30	178.60	31	5472.44	3999.81	3999.76 S	47.19 W	4000.04	180.68	5.10	4.19	-2.90
185	MWD	9113	91.70	180.90	32	5471.89	4031.80	4031.75 S	47.05 W	4032.03	180.67	8.41	4.38	7.19
186	MWD	9145	92.00	182.70	32	5470.85	4063.77	4063.72 S	48.06 W	4064.00	180.68	5.70	0.94	5.62
187	MWD	9177	91.60	179.80	32	5469.85	4095.75	4095.69 S	48.75 W	4095.98	180.68	9.14	-1.25	-9.06
188	MWD	9208	90.00	179.90	31	5469.41	4126.74	4126.69 S	48.67 W	4126.97	180.68	5.17	-5.16	0.32
189	MWD	9239	89.60	179.80	31	5469.52	4157.74	4157.69 S	48.59 W	4157.97	180.67	1.33	-1.29	-0.32
190	MWD	9270	88.20	179.40	31	5470.12	4188.73	4188.68 S	48.38 W	4188.96	180.66	4.70	-4.52	-1.29
191	MWD	9302	88.00	179.50	32	5471.18	4220.71	4220.66 S	48.07 W	4220.93	180.65	0.70	-0.63	0.31
192	MWD	9334	88.60	179.00	32	5472.13	4252.70	4252.64 S	47.65 W	4252.91	180.64	2.44	1.87	-1.56
193	MWD	9366	88.10	179.10	32	5473.05	4284.68	4284.62 S	47.12 W	4284.88	180.63	1.59	-1.56	0.31
194	MWD	9397	87.70	179.90	31	5474.19	4315.66	4315.60 S	46.85 W	4315.86	180.62	2.88	-1.29	2.58
195	MWD	9429	87.80	181.20	32	5475.44	4347.63	4347.58 S	47.16 W	4347.83	180.62	4.07	0.31	4.06
196	MWD	9461	87.80	179.10	32	5476.67	4379.60	4379.55 S	47.24 W	4379.80	180.62	6.56	0.00	-6.56
197	MWD	9493	88.60	179.80	32	5477.68	4411.59	4411.53 S	46.93 W	4411.78	180.61	3.32	2.50	2.19
198	MWD	9525	89.10	179.40	32	5478.32	4443.58	4443.53 S	46.71 W	4443.77	180.60	2.00	1.56	-1.25
199	MWD	9557	89.60	182.50	32	5478.68	4475.57	4475.51 S	47.24 W	4475.76	180.60	9.81	1.56	9.69
200	MWD	9589	89.80	183.50	32	5478.85	4507.53	4507.47 S	48.92 W	4507.74	180.62	3.19	0.63	3.13
201	MWD	9621	89.80	180.40	32	5478.96	4539.50	4539.45 S	50.00 W	4539.72	180.63	9.69	0.00	-9.69
202	MWD	9654	89.00	178.50	33	5479.31	4572.50	4572.44 S	49.69 W	4572.71	180.62	6.25	-2.42	-5.76

[illegible]