

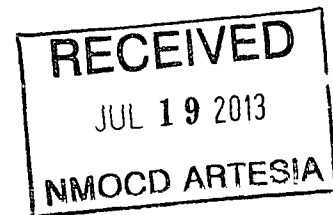
OPERATOR MEWBOURNE OIL COMPANY
WELL/LEASE DELAWARE RANCH 13 EH FED COM 1H
COUNTY EDDY

075-0096

STATE OF NEW MEXICO
DEVIATION REPORT

30-015-41271

426	1.50	4,777	1.00
560	1.90	5,223	1.00
589	2.10	5,666	1.30
615	1.90	6,044	1.60
650	2.10	6,456	1.70
680	2.10	6,869	1.20
709	2.70	7,314	1.30
952	1.70		
1,016	1.40		
1,080	1.30		
1,175	1.20		
1,271	1.20		
1,366	1.90		
1,430	2.10		
1,526	2.60		
1,621	1.70		
1,781	1.30		
1,876	1.20		
1,940	0.40		
2,132	2.80		
2,163	2.60		
2,195	2.40		
2,227	2.80		
2,259	3.00		
2,290	3.40		
2,354	3.70		
2,418	4.10		
2,519	3.80		
2,549	3.50		
2,995	1.60		
3,440	0.30		
3,886	0.40		
4,331	0.60		



BY:

Steve Moore

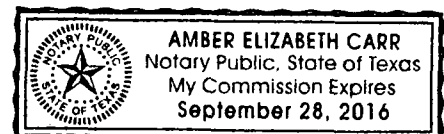
STATE OF TEXAS

COUNTY OF MIDLAND

The foregoing instrument was acknowledged before me on
Steve Moore on behalf of Patterson-UTI Drilling Company LLC.

5/31/13, by

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





Mewbourne Oil Co

Eddy County, New Mexico

Sec 13, T26-S, R28-E

Delaware Ranch 13 EH Fed Com #1H

Wellbore #1

Design: Wellbore #1

DDC Survey Report

28 May, 2013



DDC Survey Report



Company:	Mewbourne Oil Co	Local Co-ordinate Reference:	Well Delaware Ranch 13 EH Fed Com #1H
Project:	Eddy County, New Mexico	TVD Reference:	WELL @ 2967.0usft (Patterson #75)
Site:	Sec 13, T26-S, R28-E	MD Reference:	WELL @ 2967.0usft (Patterson #75)
Well:	Delaware Ranch 13 EH Fed Com #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 13, T26-S, R28-E			
Site Position:		Northing:	379,844.10 usft	Latitude:	32° 2' 38.351 N
From:	Map	Easting:	588,238.90 usft	Longitude:	104° 2' 54.785 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.15 °

Well:	Delaware Ranch 13 EH Fed Com #1H					
Well Position	+N/-S	0.0 usft	Northing:	379,844.10 usft	Latitude:	32° 2' 38.351 N
	+E/-W	0.0 usft	Easting:	588,238.90 usft	Longitude:	104° 2' 54.785 W
Position Uncertainty	0.0 usft	Wellhead Elevation:	usft	Ground Level:	2,947.0 usft	

Wellbore		Wellbore #1			
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	4/25/2013	7.56	59.89	48,273

Design:	Wellbore #1				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0

Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(usft)	(usft)	(usft)	(°)
	0.0	0.0	0.0	90.00

Survey Program		Date: 5/28/2013		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
100.0	7,655.0	VES Gyro Survey (Wellbore #1)	Good_gyro	Good Gyro
7,709.0	12,895.0	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	0.98	18.11	100.0	0.8	0.3	0.3	0.98	0.98	0.00
200.0	1.00	15.97	200.0	2.5	0.8	0.8	0.04	0.02	-2.14
300.0	0.91	16.71	300.0	4.1	1.2	1.2	0.09	-0.09	0.74
400.0	1.27	7.67	399.9	5.9	1.6	1.6	0.40	0.36	-9.04
500.0	1.68	356.67	499.9	8.5	1.7	1.7	0.50	0.41	-11.00
600.0	1.70	2.83	599.9	11.4	1.7	1.7	0.18	0.02	6.16
700.0	2.09	8.81	699.8	14.7	2.0	2.0	0.44	0.39	5.98
800.0	3.03	31.50	799.7	18.8	3.7	3.7	1.37	0.94	22.69
900.0	1.97	42.44	899.6	22.3	6.2	6.2	1.16	-1.06	10.94

DDC
Survey Report



Company:	Mewbourne Oil Co	Local Co-ordinate Reference:	Well Delaware Ranch 13 EH Fed Com #1H
Project:	Eddy County, New Mexico	TVD Reference:	WELL @ 2967.0usft (Patterson #75)
Site:	Sec 13, T26-S, R28-E	MD Reference:	WELL @ 2967.0usft (Patterson #75)
Well:	Delaware Ranch 13 EH Fed Com #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	1.14	70.00	999.6	23.9	8.3	8.3	1.09	-0.83	27.56
1,100.0	1.17	115.58	1,099.6	23.8	10.2	10.2	0.90	0.03	45.58
1,200.0	1.00	140.93	1,199.6	22.7	11.6	11.6	0.50	-0.17	25.35
1,300.0	1.32	170.34	1,299.5	20.9	12.4	12.4	0.67	0.32	29.41
1,400.0	1.69	186.20	1,399.5	18.3	12.4	12.4	0.55	0.37	15.86
1,500.0	2.06	200.59	1,499.4	15.1	11.6	11.6	0.60	0.37	14.39
1,600.0	1.81	211.27	1,599.4	12.1	10.2	10.2	0.44	-0.25	10.68
1,700.0	1.15	225.66	1,699.4	10.0	8.6	8.6	0.75	-0.66	14.39
1,800.0	1.16	228.68	1,799.3	8.7	7.2	7.2	0.06	0.01	3.02
1,900.0	0.87	238.89	1,899.3	7.6	5.8	5.8	0.34	-0.29	10.21
2,000.0	1.33	122.32	1,999.3	6.6	6.1	6.1	1.89	0.46	-116.57
2,100.0	2.60	86.74	2,099.2	6.1	9.3	9.3	1.70	1.27	-35.58
2,200.0	2.73	77.60	2,199.1	6.7	13.9	13.9	0.44	0.13	-9.14
2,300.0	3.03	91.02	2,299.0	7.2	18.9	18.9	0.74	0.30	13.42
2,400.0	3.47	89.43	2,398.9	7.2	24.6	24.6	0.45	0.44	-1.59
2,500.0	3.82	87.84	2,498.7	7.3	30.9	30.9	0.36	0.35	-1.59
2,600.0	3.00	83.27	2,598.5	7.8	36.8	36.8	0.86	-0.82	-4.57
2,700.0	2.25	85.45	2,698.4	8.2	41.4	41.4	0.76	-0.75	2.18
2,800.0	2.04	80.81	2,798.3	8.7	45.1	45.1	0.27	-0.21	-4.64
2,900.0	2.13	73.13	2,898.2	9.5	48.6	48.6	0.29	0.09	-7.68
3,000.0	1.38	82.60	2,998.2	10.2	51.6	51.6	0.80	-0.75	9.47
3,100.0	0.81	80.37	3,098.2	10.5	53.5	53.5	0.57	-0.57	-2.23
3,200.0	0.75	94.17	3,198.2	10.5	54.9	54.9	0.20	-0.06	13.80
3,300.0	0.55	120.38	3,298.2	10.2	55.9	55.9	0.35	-0.20	26.21
3,400.0	0.40	136.78	3,398.1	9.8	56.6	56.6	0.20	-0.15	16.40
3,500.0	0.58	145.47	3,498.1	9.1	57.1	57.1	0.19	0.18	8.69
3,600.0	0.29	203.23	3,598.1	8.4	57.3	57.3	0.49	-0.29	57.76
3,700.0	0.46	196.08	3,698.1	7.8	57.1	57.1	0.18	0.17	-7.15
3,800.0	0.25	210.76	3,798.1	7.2	56.9	56.9	0.23	-0.21	14.68
3,900.0	0.30	208.68	3,898.1	6.8	56.6	56.6	0.05	0.05	-2.08
4,000.0	0.45	210.20	3,998.1	6.3	56.3	56.3	0.15	0.15	1.52
4,100.0	0.46	219.64	4,098.1	5.6	55.8	55.8	0.08	0.01	9.44
4,200.0	0.59	224.16	4,198.1	4.9	55.2	55.2	0.14	0.13	4.52
4,300.0	0.64	222.17	4,298.1	4.1	54.5	54.5	0.05	0.05	-1.99
4,400.0	0.54	217.15	4,398.1	3.4	53.8	53.8	0.11	-0.10	-5.02
4,500.0	0.41	202.48	4,498.1	2.6	53.4	53.4	0.18	-0.13	-14.67
4,600.0	0.29	190.15	4,598.1	2.1	53.2	53.2	0.14	-0.12	-12.33
4,700.0	0.51	187.32	4,698.1	1.4	53.1	53.1	0.22	0.22	-2.83
4,800.0	0.41	150.44	4,798.1	0.6	53.2	53.2	0.31	-0.10	-36.88
4,900.0	0.71	152.14	4,898.1	-0.2	53.7	53.7	0.30	0.30	1.70
5,000.0	0.92	162.59	4,998.1	-1.5	54.2	54.2	0.26	0.21	10.45
5,100.0	0.84	149.36	5,098.1	-2.9	54.9	54.9	0.22	-0.08	-13.23
5,200.0	0.69	157.93	5,198.1	-4.1	55.5	55.5	0.19	-0.15	8.57

DDC
Survey Report



Company:	Mewbourne Oil Co	Local Co-ordinate Reference:	Well Delaware Ranch 13 EH Fed.Com #1H
Project:	Eddy County, New Mexico	TVD Reference:	WELL @ 2967.0usft (Patterson #75)
Site:	Sec 13, T26-S, R28-E	MD Reference:	WELL @ 2967.0usft (Patterson #75)
Well:	Delaware Ranch 13 EH Fed Com #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)
5,300.0	0.91	164.45	5,298.1	-5.5	55.9	55.9	0.24	0.22	6.52
5,400.0	1.00	164.48	5,398.0	-7.1	56.3	56.3	0.09	0.09	0.03
5,500.0	1.01	164.99	5,498.0	-8.8	56.8	56.8	0.01	0.01	0.51
5,600.0	1.25	161.49	5,598.0	-10.6	57.4	57.4	0.25	0.24	-3.50
5,700.0	1.37	168.87	5,698.0	-12.8	58.0	58.0	0.21	0.12	7.38
5,800.0	1.37	168.06	5,798.0	-15.2	58.4	58.4	0.02	0.00	-0.81
5,900.0	1.55	176.71	5,897.9	-17.7	58.8	58.8	0.28	0.18	8.65
6,000.0	1.62	181.13	5,997.9	-20.5	58.8	58.8	0.14	0.07	4.42
6,100.0	1.37	177.39	6,097.9	-23.1	58.8	58.8	0.27	-0.25	-3.74
6,200.0	1.38	185.76	6,197.8	-25.5	58.8	58.8	0.20	0.01	8.37
6,300.0	1.17	183.03	6,297.8	-27.7	58.6	58.6	0.22	-0.21	-2.73
6,400.0	1.22	188.79	6,397.8	-29.8	58.4	58.4	0.13	0.05	5.76
6,500.0	1.40	185.29	6,497.8	-32.0	58.1	58.1	0.20	0.18	-3.50
6,600.0	1.67	185.35	6,597.7	-34.7	57.9	57.9	0.27	0.27	0.06
6,700.0	1.36	171.66	6,697.7	-37.3	57.9	57.9	0.47	-0.31	-13.69
6,800.0	1.23	179.12	6,797.7	-39.6	58.1	58.1	0.21	-0.13	7.46
6,900.0	1.22	180.69	6,897.6	-41.7	58.1	58.1	0.04	-0.01	1.57
7,000.0	0.97	184.14	6,997.6	-43.6	58.0	58.0	0.26	-0.25	3.45
7,100.0	0.83	189.98	7,097.6	-45.2	57.8	57.8	0.17	-0.14	5.84
7,200.0	0.99	199.12	7,197.6	-46.7	57.4	57.4	0.22	0.16	9.14
7,300.0	1.34	196.63	7,297.6	-48.6	56.8	56.8	0.35	0.35	-2.49
7,400.0	1.63	209.55	7,397.5	-51.0	55.8	55.8	0.44	0.29	12.92
7,500.0	1.27	216.93	7,497.5	-53.1	54.4	54.4	0.40	-0.36	7.38
7,600.0	1.09	228.64	7,597.5	-54.6	53.0	53.0	0.30	-0.18	11.71
TIE IN @ 7655' MD / 7652.5' TVD									
7,655.0	0.97	232.16	7,652.5	-55.3	52.3	52.3	0.25	-0.22	6.40
7,709.0	1.00	277.90	7,706.5	-55.5	51.4	51.4	1.42	0.06	84.70
7,740.0	1.10	277.60	7,737.5	-55.4	50.9	50.9	0.32	0.32	-0.97
7,772.0	1.10	57.20	7,769.5	-55.2	50.8	50.8	6.45	0.00	436.25
7,804.0	5.60	76.00	7,801.4	-54.7	52.6	52.6	14.29	14.06	58.75
7,836.0	9.20	76.00	7,833.1	-53.7	56.6	56.6	11.25	11.25	0.00
7,868.0	12.30	76.30	7,864.6	-52.2	62.4	62.4	9.69	9.69	0.94
7,900.0	15.70	74.60	7,895.6	-50.3	69.9	69.9	10.70	10.63	-5.31
7,932.0	19.90	71.20	7,926.1	-47.4	79.2	79.2	13.52	13.13	-10.63
7,963.0	24.10	65.80	7,954.8	-43.1	90.0	90.0	15.02	13.55	-17.42
7,995.0	28.10	66.50	7,983.5	-37.4	102.9	102.9	12.54	12.50	2.19
8,027.0	32.40	68.10	8,011.2	-31.2	117.7	117.7	13.67	13.44	5.00
8,059.0	34.90	72.80	8,037.8	-25.3	134.4	134.4	11.28	7.81	14.69
8,091.0	37.40	79.70	8,063.7	-20.8	152.7	152.7	14.92	7.81	21.56
8,123.0	41.20	83.70	8,088.4	-17.9	172.8	172.8	14.27	11.88	12.50
8,155.0	45.20	87.20	8,111.7	-16.2	194.6	194.6	14.57	12.50	10.94
8,186.0	49.10	90.60	8,132.8	-15.8	217.3	217.3	14.93	12.58	10.97
CROSSED HARDLINE @ 8209' MD / 8147.5' TVD									
8,209.0	51.47	91.33	8,147.5	-16.1	235.0	235.0	10.59	10.31	3.17

DDC Survey Report



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Project:	Eddy County, New Mexico	TVD Reference:	WELL @ 2967.0usft (Patterson #75)
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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)
8,218.0	52.40	91.60	8,153.1	-16.3	242.1	242.1	10.59	10.32	3.02
8,250.0	56.20	90.70	8,171.7	-16.8	268.1	268.1	12.09	11.88	-2.81
8,281.0	59.40	90.00	8,188.3	-17.0	294.3	294.3	10.50	10.32	-2.26
8,313.0	62.50	89.50	8,203.8	-16.8	322.3	322.3	9.78	9.69	-1.56
8,345.0	66.10	89.30	8,217.7	-16.5	351.1	351.1	11.26	11.25	-0.63
8,377.0	70.90	88.60	8,229.4	-16.0	380.9	380.9	15.14	15.00	-2.19
8,409.0	74.80	89.20	8,238.8	-15.4	411.4	411.4	12.32	12.19	1.88
8,440.0	78.40	88.80	8,246.0	-14.9	441.6	441.6	11.68	11.61	-1.29
8,472.0	81.90	88.60	8,251.5	-14.2	473.1	473.1	10.95	10.94	-0.63
8,510.0	86.30	89.30	8,255.4	-13.5	510.9	510.9	11.72	11.58	1.84
8,578.0	87.60	88.10	8,259.0	-11.9	578.8	578.8	2.60	1.91	-1.76
8,610.0	87.90	89.00	8,260.3	-11.1	610.7	610.7	2.96	0.94	2.81
8,641.0	88.00	89.20	8,261.4	-10.6	641.7	641.7	0.72	0.32	0.65
8,673.0	88.40	89.20	8,262.4	-10.2	673.7	673.7	1.25	1.25	0.00
8,704.0	88.50	88.80	8,263.2	-9.6	704.7	704.7	1.33	0.32	-1.29
8,736.0	88.90	89.00	8,263.9	-9.0	736.7	736.7	1.40	1.25	0.63
8,768.0	88.90	88.60	8,264.6	-8.4	768.6	768.6	1.25	0.00	-1.25
8,799.0	88.90	88.40	8,265.2	-7.5	799.6	799.6	0.65	0.00	-0.65
8,830.0	89.00	88.10	8,265.7	-6.6	830.6	830.6	1.02	0.32	-0.97
8,862.0	89.80	88.40	8,266.1	-5.6	862.6	862.6	2.67	2.50	0.94
8,894.0	90.10	88.40	8,266.1	-4.7	894.6	894.6	0.94	0.94	0.00
8,925.0	89.60	89.70	8,266.2	-4.2	925.6	925.6	4.49	-1.61	4.19
8,989.0	88.60	90.00	8,267.2	-4.0	989.6	989.6	1.63	-1.56	0.47
9,052.0	89.30	90.20	8,268.3	-4.2	1,052.6	1,052.6	1.16	1.11	0.32
9,115.0	88.40	90.40	8,269.6	-4.5	1,115.5	1,115.5	1.46	-1.43	0.32
9,178.0	89.40	90.40	8,270.8	-4.9	1,178.5	1,178.5	1.59	1.59	0.00
9,242.0	87.70	90.20	8,272.4	-5.3	1,242.5	1,242.5	2.67	-2.66	-0.31
9,305.0	89.20	90.20	8,274.1	-5.5	1,305.5	1,305.5	2.38	2.38	0.00
9,368.0	87.50	89.70	8,275.9	-5.4	1,368.4	1,368.4	2.81	-2.70	-0.79
9,431.0	89.70	90.40	8,277.5	-5.5	1,431.4	1,431.4	3.66	3.49	1.11
9,494.0	88.40	89.80	8,278.5	-5.6	1,494.4	1,494.4	2.27	-2.06	-0.95
9,557.0	88.10	89.50	8,280.4	-5.2	1,557.4	1,557.4	0.67	-0.48	-0.48
9,621.0	89.70	89.20	8,281.7	-4.5	1,621.4	1,621.4	2.54	2.50	-0.47
9,684.0	88.10	88.80	8,282.9	-3.4	1,684.3	1,684.3	2.62	-2.54	-0.63
9,747.0	88.60	89.20	8,284.7	-2.3	1,747.3	1,747.3	1.02	0.79	0.63
9,810.0	86.30	89.00	8,287.5	-1.3	1,810.2	1,810.2	3.66	-3.65	-0.32
9,873.0	85.40	88.80	8,292.1	-0.1	1,873.1	1,873.1	1.46	-1.43	-0.32
9,937.0	86.50	89.00	8,296.6	1.1	1,936.9	1,936.9	1.75	1.72	0.31
10,000.0	87.20	88.60	8,300.0	2.5	1,999.8	1,999.8	1.28	1.11	-0.63
10,064.0	88.70	88.60	8,302.3	4.0	2,063.7	2,063.7	2.34	2.34	0.00
10,127.0	89.80	89.00	8,303.2	5.3	2,126.7	2,126.7	1.86	1.75	0.63
10,190.0	90.20	88.40	8,303.2	6.8	2,189.7	2,189.7	1.14	0.63	-0.95
10,254.0	90.80	88.10	8,302.6	8.7	2,253.6	2,253.6	1.05	0.94	-0.47

DDC
Survey Report



Company:	Mewbourne Oil Co	Local Co-ordinate Reference:	Well Delaware Ranch 13 EH Fed Com #1H
Project:	Eddy County, New Mexico	TVD Reference:	WELL @ 2967.0usft (Patterson #75)
Site:	Sec 13, T26-S, R28-E	MD Reference:	WELL @ 2967.0usft (Patterson #75)
Well:	Delaware Ranch 13 EH Fed Com #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)	
10,317.0	91.50	88.40	8,301.3	10.6	2,316.6	2,316.6	1.21	1.11	0.48	
10,380.0	90.60	88.30	8,300.2	12.5	2,379.6	2,379.6	1.44	-1.43	-0.16	
10,444.0	90.50	87.90	8,299.6	14.6	2,443.5	2,443.5	0.64	-0.16	-0.63	
10,507.0	89.00	87.00	8,299.8	17.4	2,506.5	2,506.5	2.78	-2.38	-1.43	
10,570.0	86.00	86.50	8,302.6	21.0	2,569.3	2,569.3	4.83	-4.76	-0.79	
10,634.0	88.20	88.40	8,305.8	23.8	2,633.1	2,633.1	4.54	3.44	2.97	
10,697.0	88.30	88.40	8,307.7	25.6	2,696.1	2,696.1	0.16	0.16	0.00	
10,761.0	89.40	88.10	8,309.0	27.5	2,760.0	2,760.0	1.78	1.72	-0.47	
10,824.0	89.30	87.90	8,309.7	29.7	2,823.0	2,823.0	0.35	-0.16	-0.32	
10,887.0	88.00	87.00	8,311.2	32.5	2,885.9	2,885.9	2.51	-2.06	-1.43	
10,951.0	89.60	87.90	8,312.6	35.4	2,949.8	2,949.8	2.87	2.50	1.41	
11,014.0	88.40	88.40	8,313.7	37.4	3,012.8	3,012.8	2.06	-1.90	0.79	
11,077.0	90.40	89.00	8,314.3	38.8	3,075.8	3,075.8	3.31	3.17	0.95	
11,140.0	90.00	88.60	8,314.1	40.1	3,138.8	3,138.8	0.90	-0.63	-0.63	
11,203.0	90.60	88.40	8,313.8	41.8	3,201.7	3,201.7	1.00	0.95	-0.32	
11,266.0	88.60	87.60	8,314.2	44.0	3,264.7	3,264.7	3.42	-3.17	-1.27	
11,329.0	90.90	89.20	8,314.5	45.7	3,327.7	3,327.7	4.45	3.65	2.54	
11,393.0	88.90	88.60	8,314.6	47.0	3,391.6	3,391.6	3.26	-3.13	-0.94	
11,456.0	88.30	88.40	8,316.1	48.6	3,454.6	3,454.6	1.00	-0.95	-0.32	
11,520.0	89.40	89.80	8,317.4	49.6	3,518.6	3,518.6	2.78	1.72	2.19	
11,583.0	90.60	89.80	8,317.4	49.8	3,581.6	3,581.6	1.90	1.90	0.00	
11,646.0	89.40	88.30	8,317.4	50.9	3,644.6	3,644.6	3.05	-1.90	-2.38	
11,710.0	87.90	86.00	8,318.9	54.1	3,708.5	3,708.5	4.29	-2.34	-3.59	
11,772.0	87.80	85.50	8,321.3	58.7	3,770.2	3,770.2	0.82	-0.16	-0.81	
11,836.0	89.40	87.00	8,322.8	62.8	3,834.1	3,834.1	3.43	2.50	2.34	
11,899.0	91.30	90.00	8,322.4	64.5	3,897.1	3,897.1	5.64	3.02	4.76	
11,962.0	88.80	89.70	8,322.4	64.7	3,960.0	3,960.0	4.00	-3.97	-0.48	
12,026.0	89.90	89.00	8,323.1	65.4	4,024.0	4,024.0	2.04	1.72	-1.09	
12,089.0	90.10	88.10	8,323.1	67.0	4,087.0	4,087.0	1.46	0.32	-1.43	
12,151.0	91.10	89.50	8,322.5	68.3	4,149.0	4,149.0	2.77	1.61	2.26	
12,215.0	92.10	90.60	8,320.7	68.2	4,213.0	4,213.0	2.32	1.56	1.72	
12,278.0	92.40	90.90	8,318.2	67.4	4,275.9	4,275.9	0.67	0.48	0.48	
12,341.0	90.40	90.90	8,316.7	66.4	4,338.9	4,338.9	3.17	-3.17	0.00	
12,404.0	91.70	91.40	8,315.5	65.1	4,401.9	4,401.9	2.21	2.06	0.79	
12,468.0	90.30	91.60	8,314.4	63.5	4,465.8	4,465.8	2.21	-2.19	0.31	
12,531.0	89.50	92.30	8,314.5	61.3	4,528.8	4,528.8	1.69	-1.27	1.11	
12,594.0	91.10	92.50	8,314.2	58.7	4,591.7	4,591.7	2.56	2.54	0.32	
12,657.0	89.40	92.70	8,313.9	55.8	4,654.7	4,654.7	2.72	-2.70	0.32	
12,720.0	89.30	93.20	8,314.6	52.6	4,717.6	4,717.6	0.81	-0.16	0.79	
12,784.0	90.30	93.20	8,314.8	49.0	4,781.5	4,781.5	1.56	1.56	0.00	
12,845.0	90.20	93.00	8,314.6	45.7	4,842.4	4,842.4	0.37	-0.16	-0.33	
12,895.0	90.20	93.00	8,314.4	43.1	4,892.3	4,892.3	0.00	0.00	0.00	

TD @ 12895' MD / 8314.4' TVD

DDC
Survey Report



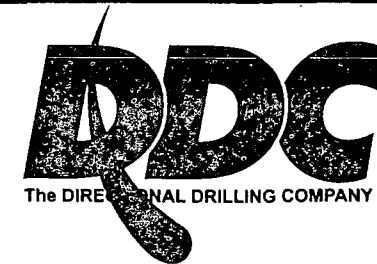
Company:	Mewbourne Oil Co	Local Co-ordinate Reference:	Well Delaware Ranch 13 EH Fed Com #1H
Project:	Eddy County New Mexico	TVD Reference:	WELL @ 2967.0usft (Patterson #75)
Site:	Sec 13 T26 S R28 E	MD Reference:	WELL @ 2967.0usft (Patterson #75)
Well:	Delaware Ranch 13 EH Fed Com #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
7,655.0	7,652.5	-55.3	52.3	TIE IN @ 7655' MD / 7652.5' TVD
8,209.0	8,147.5	-16.1	235.0	CROSSED HARDLINE @ 8209' MD / 8147.5' TVD
12,895.0	8,314.4	43.1	4,892.3	TD @ 12895' MD / 8314.4' TVD

Checked By: _____ Approved By: _____ Date: _____

Company Name: Mewbourne Oil Co.
 Delaware Ranch 13 EH Fed Com #1H
 Eddy County, New Mexico
 Rig: Patterson #75
 Created By: TIFFANI MIZELL
 Date: 05/28/2013

Delaware Ranch 13 EH Fed Com #1H
 Eddy County, New Mexico
 Q130158 & WT-13339
 Design #2 - Tied to Gyro



Mewbourne Oil Company



Azimuths to Grid North

Magnetic North: 7.41°

Magnetic Field
 Strength: 48272.7snT

Dip Angle: 59.89°

Date: 4/25/2013

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

WELL DETAILS: Delaware Ranch 13 EH Fed Com #1H

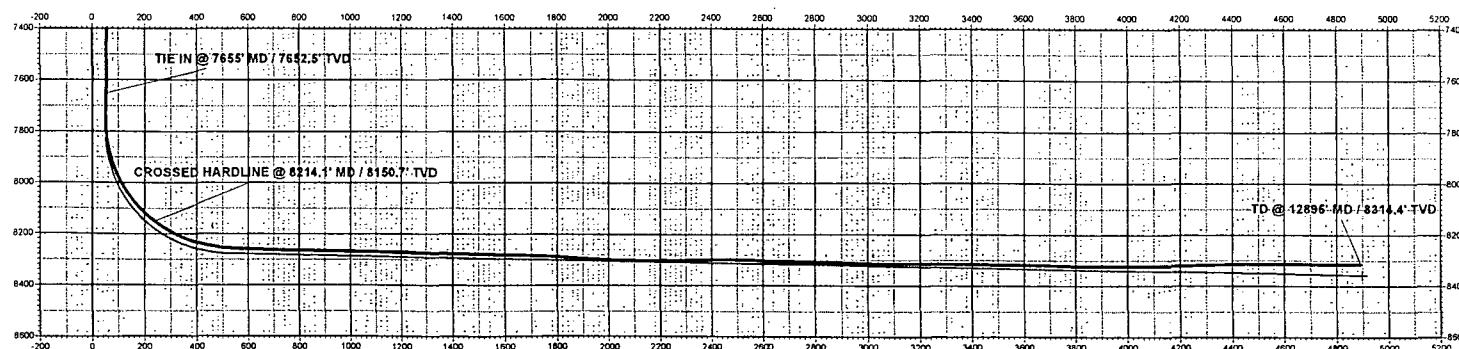
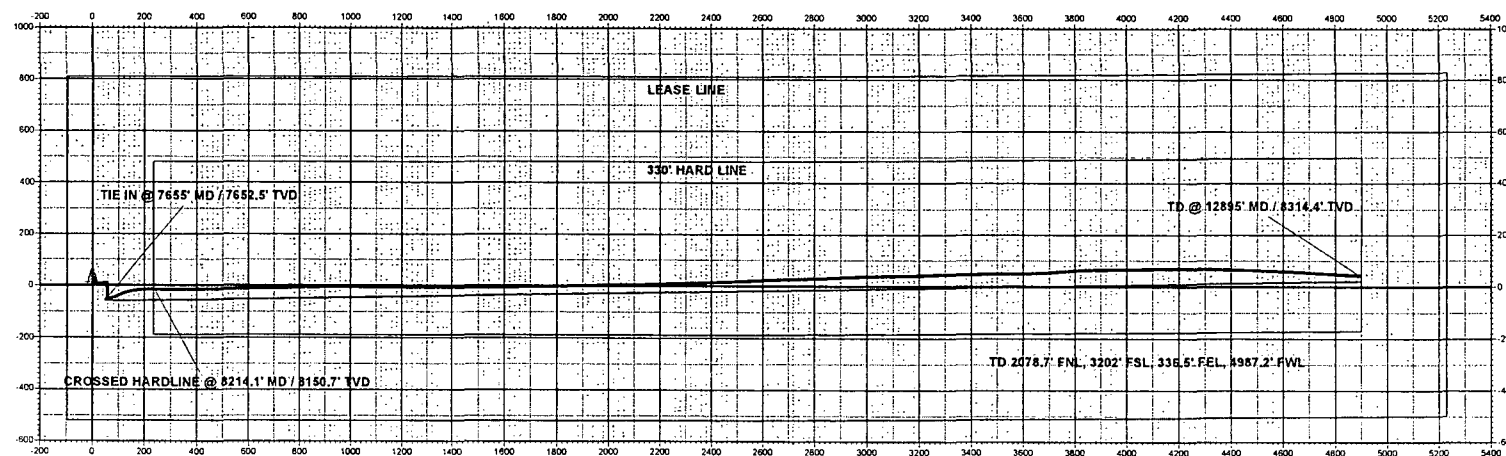
		Ground Level: 2947.0			
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	379844.10	589238.30	32° 2' 58.351 N	104° 2' 54.785 W

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
PBHL Delaware Ranch 13 EH Fed Com #1H Design #2357.0 - plan hits target center	21.9	4898.8	379866.02	593137.87	32° 2' 38.437 N	104° 1' 57.868 W	

ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Vsect	Departure	Annotation
7655.0	0.97	232.16	7652.5	-55.3	52.3	52.3	170.8	TIE IN @ 7655' MD / 7652.5' TVD
8214.1	52.00	91.48	8150.7	-16.2	239.0	239.0	367.4	CROSSED HARDLINE @ 8214.1' MD / 8150.7' TVD
12895.0	90.20	93.00	8314.4	43.1	4892.3	4892.3	5022.7	TD @ 12895' MD / 8314.4' TVD



Vertical Section at 90.00° (200 usf/in)