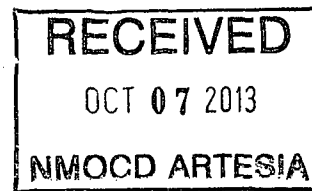


30015 4/124



Mewbourne Oil Co

Eddy County, New Mexico (Nad 83)

Sec 5, T25S, R28E

Black Lake 5 PA State Com #1H

Wellbore #1

Design: Wellbore #1

DDC Survey Report

23 August, 2013



DDC
Survey Report



Company:	Mewbourne Oil Co	Local Co-ordinate Reference:	Well Black Lake 5 PA State Com #1H
Project:	Eddy County, New Mexico (Nad 83)	TVD Reference:	WELL @ 3001.0usft (Patterson #41)
Site:	Sec 5, T25S, R28E	MD Reference:	WELL @ 3001.0usft (Patterson #41)
Well:	Black Lake 5 PA State 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 (Nad 83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site:	Sec 5, T25S, R28E		
Site Position:		Northing:	419,223.80 usft
From:	Map	Easting:	612,877.00 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 9' 8.329 N
		Longitude:	104° 6' 7.809 W
		Grid Convergence:	0.12 °

Well:	Black Lake 5 PA State Com #1H		
Well Position	+N/-S	0.0 usft	Northing: 419,223.80 usft
	+E/-W	0.0 usft	Easting: 612,877.00 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:	usft
		Latitude:	32° 9' 8.329 N
		Longitude:	104° 6' 7.809 W
		Ground Level:	2,981.0 usft

Wellbore:	Wellbore #1		
Magnetics	Model Name	Sample Date	Declination
			(°)
	IGRF2010	6/24/2013	7.58
			Dip Angle (°)
			59.98
			Field Strength (nT)
			48,315

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 (°)
			359.93

Survey Program	Date: 8/23/2013		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name
100.0	7,300.0	Gyro (Wellbore #1)	Good_gyro
7,443.0	12,575.0	MWD (Wellbore #1)	MWD default
			Description
			Good Gyro
			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	0.46	96.63	100.0	0.0	0.4	0.0	0.46	0.46	0.00
200.0	0.71	94.95	200.0	-0.1	1.4	-0.1	0.25	0.25	-1.68
300.0	0.74	89.04	300.0	-0.2	2.7	-0.2	0.08	0.03	-5.91
400.0	0.81	95.75	400.0	-0.2	4.0	-0.3	0.11	0.07	6.71
500.0	0.90	89.71	500.0	-0.3	5.5	-0.3	0.13	0.09	-6.04
600.0	0.60	68.61	600.0	-0.1	6.8	-0.1	0.40	-0.30	-21.10
700.0	0.49	50.45	700.0	0.3	7.6	0.3	0.20	-0.11	-18.16
800.0	0.53	47.41	799.9	0.9	8.3	0.9	0.05	0.04	-3.04
900.0	0.62	66.34	899.9	1.5	9.1	1.4	0.21	0.09	18.93

DDC Survey Report



Company:	Mewbourne Oil Co	Local Co-ordinate/Reference:	Well Black Lake 5 PA State Com #1H
Project:	Eddy County, New Mexico (Nad 83).	TVD Reference:	WELL @ 3001.0usft (Patterson #41)
Site:	Sec 5, T25S, R28E	MD Reference:	WELL @ 3001.0usft (Patterson #41)
Well:	Black Lake 5 PA State 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	0.49	121.45	999.9	1.5	10.0	1.4	0.53	-0.13	55.11
1,100.0	0.65	178.21	1,099.9	0.7	10.4	0.6	0.56	0.16	56.76
1,200.0	0.53	186.21	1,199.9	-0.4	10.3	-0.4	0.15	-0.12	8.00
1,300.0	0.42	184.07	1,299.9	-1.2	10.2	-1.2	0.11	-0.11	-2.14
1,400.0	0.33	175.25	1,399.9	-1.8	10.2	-1.9	0.11	-0.09	-8.82
1,500.0	0.30	165.30	1,499.9	-2.4	10.3	-2.4	0.06	-0.03	-9.95
1,600.0	0.54	122.75	1,599.9	-2.9	10.8	-2.9	0.38	0.24	-42.55
1,700.0	3.17	89.02	1,699.9	-3.1	14.0	-3.1	2.74	2.63	-33.73
1,800.0	4.14	83.29	1,799.7	-2.6	20.3	-2.7	1.04	0.97	-5.73
1,900.0	5.27	77.62	1,899.3	-1.2	28.4	-1.3	1.22	1.13	-5.67
2,000.0	6.25	77.04	1,998.8	1.0	38.2	0.9	0.98	0.98	-0.58
2,100.0	6.43	78.38	2,098.2	3.3	49.0	3.3	0.23	0.18	1.34
2,200.0	6.58	79.75	2,197.6	5.5	60.1	5.4	0.22	0.15	1.37
2,300.0	5.31	79.89	2,297.0	7.3	70.3	7.2	1.27	-1.27	0.14
2,400.0	3.97	79.19	2,396.7	8.8	78.2	8.7	1.34	-1.34	-0.70
2,500.0	2.74	78.32	2,496.5	9.9	84.0	9.8	1.23	-1.23	-0.87
2,600.0	2.46	77.88	2,596.4	10.8	88.4	10.7	0.28	-0.28	-0.44
2,700.0	2.22	78.93	2,696.3	11.7	92.4	11.5	0.24	-0.24	1.05
2,800.0	1.71	75.36	2,796.3	12.4	95.8	12.3	0.52	-0.51	-3.57
2,900.0	1.54	71.71	2,896.2	13.2	98.5	13.1	0.20	-0.17	-3.65
3,000.0	1.32	71.85	2,996.2	14.0	100.8	13.9	0.22	-0.22	0.14
3,100.0	0.85	69.16	3,096.2	14.6	102.6	14.5	0.47	-0.47	-2.69
3,200.0	0.50	60.20	3,196.2	15.1	103.7	15.0	0.36	-0.35	-8.96
3,300.0	0.21	14.01	3,296.2	15.5	104.1	15.4	0.39	-0.29	-46.19
3,400.0	0.29	356.71	3,396.2	15.9	104.2	15.8	0.11	0.08	-17.30
3,500.0	0.23	326.45	3,496.2	16.3	104.0	16.2	0.15	-0.06	-30.26
3,600.0	0.25	323.70	3,596.2	16.7	103.8	16.6	0.02	0.02	-2.75
3,700.0	0.26	327.64	3,696.2	17.0	103.5	16.9	0.02	0.01	3.94
3,800.0	0.34	296.15	3,796.2	17.4	103.2	17.2	0.18	0.08	-31.49
3,900.0	0.36	296.99	3,896.2	17.6	102.6	17.5	0.02	0.02	0.84
4,000.0	0.13	240.47	3,996.2	17.7	102.2	17.6	0.31	-0.23	-56.52
4,100.0	0.19	226.29	4,096.2	17.6	102.0	17.4	0.07	0.06	-14.18
4,200.0	0.18	240.28	4,196.2	17.4	101.8	17.2	0.05	-0.01	13.99
4,300.0	0.17	226.42	4,296.2	17.2	101.5	17.1	0.04	-0.01	-13.86
4,400.0	0.35	207.41	4,396.2	16.8	101.3	16.7	0.20	0.18	-19.01
4,500.0	0.40	201.19	4,496.2	16.2	101.0	16.1	0.06	0.05	-6.22
4,600.0	0.53	198.76	4,596.2	15.5	100.7	15.3	0.13	0.13	-2.43
4,700.0	0.93	226.59	4,696.1	14.5	100.0	14.3	0.52	0.40	27.83
4,800.0	0.96	238.55	4,796.1	13.5	98.7	13.3	0.20	0.03	11.96
4,900.0	0.96	245.05	4,896.1	12.7	97.2	12.6	0.11	0.00	6.50
5,000.0	0.88	247.40	4,996.1	12.0	95.7	11.9	0.09	-0.08	2.35
5,100.0	0.91	243.78	5,096.1	11.4	94.3	11.3	0.06	0.03	-3.62
5,200.0	0.80	244.38	5,196.1	10.7	93.0	10.6	0.11	-0.11	0.60

DDC
Survey Report



Company:	Mewbourne Oil Co	Local Co-ordinate Reference:	Well Black Lake 5 PA State Com #1H
Project:	Eddy County, New Mexico (Nad 83)	TVD Reference:	WELL @ 3001.0usft (Patterson #41)
Site:	Sec 5, T25S, R28E	MD Reference:	WELL @ 3001.0usft (Patterson #41)
Well:	Black Lake 5 PA State 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	0.84	250.91	5,296.1	10.2	91.6	10.1	0.10	0.04	6.53	
5,400.0	0.98	243.98	5,396.1	9.6	90.2	9.5	0.18	0.14	-6.93	
5,500.0	0.88	224.29	5,496.0	8.6	88.9	8.5	0.33	-0.10	-19.69	
5,600.0	1.10	215.37	5,596.0	7.3	87.8	7.2	0.27	0.22	-8.92	
5,700.0	1.49	195.78	5,696.0	5.3	86.9	5.2	0.58	0.39	-19.59	
5,800.0	1.45	198.22	5,796.0	2.8	86.1	2.7	0.07	-0.04	2.44	
5,900.0	1.37	193.23	5,895.9	0.5	85.5	0.4	0.15	-0.08	-4.99	
6,000.0	1.07	188.54	5,995.9	-1.6	85.1	-1.7	0.32	-0.30	-4.69	
6,100.0	0.25	144.53	6,095.9	-2.7	85.0	-2.8	0.91	-0.82	-44.01	
6,200.0	1.54	0.97	6,195.9	-1.6	85.2	-1.7	1.75	1.29	-143.56	
6,300.0	2.07	1.04	6,295.9	1.6	85.2	1.5	0.53	0.53	0.07	
6,400.0	1.93	352.90	6,395.8	5.1	85.1	5.0	0.32	-0.14	-8.14	
6,500.0	2.96	338.81	6,495.7	9.1	83.9	9.0	1.19	1.03	-14.09	
6,600.0	3.27	336.83	6,595.6	14.2	81.9	14.1	0.33	0.31	-1.98	
6,700.0	2.94	342.18	6,695.4	19.2	80.0	19.1	0.44	-0.33	5.35	
6,800.0	2.71	342.27	6,795.3	23.9	78.5	23.8	0.23	-0.23	0.09	
6,900.0	2.52	333.59	6,895.2	28.2	76.8	28.1	0.44	-0.19	-8.68	
7,000.0	2.55	328.60	6,995.1	32.0	74.6	31.9	0.22	0.03	-4.99	
7,100.0	1.99	316.87	7,095.0	35.2	72.3	35.1	0.72	-0.56	-11.73	
7,200.0	1.52	267.18	7,195.0	36.4	69.8	36.3	1.54	-0.47	-49.69	
TIE IN @ 7300' MD // 7294.9' TVD										
7,300.0	1.48	265.87	7,294.9	36.2	67.2	36.1	0.05	-0.04	-1.31	
7,443.0	1.70	340.80	7,437.9	38.1	64.6	38.0	1.36	0.15	52.40	
7,474.0	2.50	346.50	7,468.9	39.2	64.3	39.1	2.66	2.58	18.39	
7,506.0	7.00	346.10	7,500.7	41.8	63.7	41.7	14.06	14.06	-1.25	
7,537.0	12.10	348.80	7,531.3	46.8	62.6	46.7	16.51	16.45	8.71	
7,569.0	16.60	351.20	7,562.3	54.6	61.2	54.5	14.18	14.06	7.50	
7,601.0	19.90	352.60	7,592.7	64.5	59.8	64.4	10.40	10.31	4.38	
7,632.0	22.30	352.40	7,621.6	75.6	58.4	75.5	7.75	7.74	-0.65	
7,664.0	24.50	351.20	7,651.0	88.2	56.6	88.1	7.03	6.88	-3.75	
7,695.0	26.90	349.50	7,678.9	101.4	54.3	101.3	8.10	7.74	-5.48	
7,727.0	29.40	347.20	7,707.1	116.2	51.2	116.1	8.52	7.81	-7.19	
7,758.0	31.80	345.20	7,733.8	131.5	47.5	131.4	8.41	7.74	-6.45	
7,790.0	34.00	344.50	7,760.7	148.3	42.9	148.2	6.98	6.88	-2.19	
7,821.0	36.20	345.20	7,786.0	165.5	38.3	165.4	7.21	7.10	2.26	
7,853.0	38.10	347.00	7,811.5	184.2	33.6	184.2	6.84	5.94	5.63	
7,884.0	39.70	349.60	7,835.7	203.3	29.7	203.3	7.37	5.16	8.39	
7,916.0	41.90	351.60	7,859.9	223.9	26.3	223.9	8.00	6.88	6.25	
7,947.0	44.70	352.30	7,882.4	245.0	23.3	245.0	9.16	9.03	2.26	
7,979.0	48.20	353.10	7,904.5	268.0	20.4	268.0	11.09	10.94	2.50	
8,010.0	52.80	353.50	7,924.2	291.7	17.6	291.7	14.87	14.84	1.29	
8,042.0	57.20	353.90	7,942.5	317.8	14.7	317.8	13.79	13.75	1.25	
8,073.0	61.10	354.00	7,958.4	344.2	11.9	344.2	12.58	12.58	0.32	

DDC
Survey Report



Company:	Mewbourne Oil Co	Local Co-ordinate Reference:	Well Black Lake 5 PA State Com #1H
Project:	Eddy County, New Mexico (Nad 83)	TVD Reference:	WELL @ 3001.0usft (Patterson #41)
Site:	Sec 5, T25S, R28E	MD Reference:	WELL @ 3001.0usft (Patterson #41)
Well:	Black Lake 5 PA State 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)
8,105.0	64.50	354.20	7,973.1	372.5	9.0	372.5	10.64	10.63	0.63
8,136.0	66.40	354.00	7,985.9	400.6	6.1	400.6	6.16	6.13	-0.65
8,168.0	67.70	354.40	7,998.4	429.9	3.1	429.9	4.22	4.06	1.25
CROSSED HARDLINE @ 8187.2' MD / 8005.4' TVD									
8,187.2	69.43	354.46	8,005.4	447.7	1.4	447.7	9.04	9.03	0.32
8,199.0	70.50	354.50	8,009.5	458.7	0.3	458.7	9.04	9.03	0.32
8,231.0	74.00	354.00	8,019.2	489.1	-2.7	489.1	11.04	10.94	-1.56
8,262.0	77.30	354.00	8,026.9	518.9	-5.9	518.9	10.65	10.65	0.00
8,294.0	80.10	354.40	8,033.2	550.1	-9.1	550.1	8.84	8.75	1.25
8,325.0	82.40	356.10	8,037.9	580.7	-11.6	580.7	9.19	7.42	5.48
8,357.0	84.70	357.40	8,041.5	612.4	-13.4	612.4	8.24	7.19	4.06
8,386.0	87.10	358.40	8,043.6	641.3	-14.5	641.3	8.96	8.28	3.45
8,475.0	91.80	359.50	8,044.4	730.3	-16.1	730.3	5.42	5.28	1.24
8,507.0	92.10	359.30	8,043.3	762.2	-16.4	762.3	1.13	0.94	-0.63
8,538.0	92.30	359.80	8,042.1	793.2	-16.7	793.2	1.74	0.65	1.61
8,570.0	91.90	359.60	8,041.0	825.2	-16.8	825.2	1.40	-1.25	-0.63
8,602.0	90.40	359.80	8,040.3	857.2	-17.0	857.2	4.73	-4.69	0.63
8,633.0	89.60	0.20	8,040.3	888.2	-17.0	888.2	2.89	-2.58	1.29
8,665.0	88.90	0.20	8,040.8	920.2	-16.9	920.2	2.19	-2.19	0.00
8,729.0	89.40	0.00	8,041.7	984.2	-16.8	984.2	0.84	0.78	-0.31
8,792.0	88.70	0.20	8,042.7	1,047.2	-16.7	1,047.2	1.16	-1.11	0.32
8,855.0	88.90	0.00	8,044.1	1,110.2	-16.6	1,110.2	0.45	0.32	-0.32
8,918.0	89.20	359.50	8,045.1	1,173.1	-16.8	1,173.2	0.93	0.48	-0.79
8,982.0	89.50	359.60	8,045.8	1,237.1	-17.3	1,237.2	0.49	0.47	0.16
9,045.0	90.10	359.00	8,046.1	1,300.1	-18.1	1,300.2	1.35	0.95	-0.95
9,108.0	90.70	358.20	8,045.6	1,363.1	-19.6	1,363.1	1.59	0.95	-1.27
9,171.0	90.00	358.60	8,045.2	1,426.1	-21.4	1,426.1	1.28	-1.11	0.63
9,234.0	90.10	359.00	8,045.2	1,489.1	-22.7	1,489.1	0.65	0.16	0.63
9,297.0	90.60	359.10	8,044.8	1,552.1	-23.8	1,552.1	0.81	0.79	0.16
9,361.0	90.10	0.30	8,044.4	1,616.1	-24.1	1,616.1	2.03	-0.78	1.88
9,424.0	90.00	0.30	8,044.3	1,679.1	-23.8	1,679.1	0.16	-0.16	0.00
9,487.0	90.40	0.50	8,044.1	1,742.1	-23.3	1,742.1	0.71	0.63	0.32
9,550.0	89.30	0.30	8,044.3	1,805.1	-22.9	1,805.1	1.77	-1.75	-0.32
9,613.0	89.30	359.60	8,045.1	1,868.0	-22.9	1,868.1	1.11	0.00	-1.11
9,676.0	89.30	359.30	8,045.8	1,931.0	-23.5	1,931.1	0.48	0.00	-0.48
9,740.0	89.90	359.50	8,046.3	1,995.0	-24.2	1,995.1	0.99	0.94	0.31
9,803.0	90.40	359.30	8,046.1	2,058.0	-24.9	2,058.1	0.85	0.79	-0.32
9,866.0	90.80	359.30	8,045.5	2,121.0	-25.6	2,121.1	0.63	0.63	0.00
9,929.0	91.10	358.80	8,044.4	2,184.0	-26.7	2,184.0	0.93	0.48	-0.79
9,992.0	89.90	358.40	8,043.9	2,247.0	-28.2	2,247.0	2.01	-1.90	-0.63
10,056.0	89.90	358.10	8,044.0	2,311.0	-30.2	2,311.0	0.47	0.00	-0.47
10,119.0	90.30	359.80	8,043.9	2,373.9	-31.3	2,374.0	2.77	0.63	2.70
10,183.0	90.70	359.80	8,043.3	2,437.9	-31.6	2,438.0	0.63	0.63	0.00
10,246.0	91.20	359.60	8,042.3	2,500.9	-31.9	2,501.0	0.85	0.79	-0.32

DDC Survey Report



Company:	Mewbourne Oil Co	Local Co-ordinate Reference:	Well Black Lake 5 PA State Com #1H
Project:	Eddy County, New Mexico (Nad 83)	TVD Reference:	WELL @ 3001.0usft (Patterson #41)
Site:	Sec 5, T25S, R28E	MD Reference:	WELL @ 3001.0usft (Patterson #41)
Well:	Black Lake 5 PA State 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)	
10,309.0	90.70	1.20	8,041.2	2,563.9	-31.5	2,564.0	2.66	-0.79	2.54	
10,373.0	89.90	1.60	8,040.9	2,627.9	-29.9	2,627.9	1.40	-1.25	0.63	
10,467.0	90.50	1.90	8,040.5	2,721.8	-27.0	2,721.9	0.71	0.64	0.32	
10,562.0	89.20	1.90	8,040.8	2,816.8	-23.9	2,816.8	1.37	-1.37	0.00	
10,658.0	90.00	1.90	8,041.5	2,912.7	-20.7	2,912.8	0.83	0.83	0.00	
10,753.0	90.40	2.60	8,041.1	3,007.7	-17.0	3,007.7	0.85	0.42	0.74	
10,847.0	90.80	3.20	8,040.2	3,101.5	-12.2	3,101.6	0.77	0.43	0.64	
10,942.0	90.40	1.40	8,039.2	3,196.5	-8.4	3,196.5	1.94	-0.42	-1.89	
11,005.0	90.70	0.90	8,038.6	3,259.4	-7.1	3,259.4	0.93	0.48	-0.79	
11,100.0	89.70	359.30	8,038.2	3,354.4	-7.0	3,354.4	1.99	-1.05	-1.68	
11,163.0	90.40	359.50	8,038.2	3,417.4	-7.6	3,417.4	1.16	1.11	0.32	
11,227.0	90.90	0.00	8,037.4	3,481.4	-7.9	3,481.4	1.10	0.78	0.78	
11,290.0	90.20	358.60	8,036.8	3,544.4	-8.7	3,544.4	2.48	-1.11	-2.22	
11,353.0	89.50	359.50	8,037.0	3,607.4	-9.7	3,607.4	1.81	-1.11	1.43	
11,416.0	89.30	359.80	8,037.7	3,670.4	-10.1	3,670.4	0.57	-0.32	0.48	
11,479.0	90.00	359.80	8,038.0	3,733.4	-10.3	3,733.4	1.11	1.11	0.00	
11,543.0	90.10	359.30	8,038.0	3,797.4	-10.8	3,797.4	0.80	0.16	-0.78	
11,606.0	90.10	359.30	8,037.9	3,860.4	-11.6	3,860.4	0.00	0.00	0.00	
11,669.0	90.60	359.30	8,037.5	3,923.4	-12.4	3,923.4	0.79	0.79	0.00	
11,733.0	89.50	358.10	8,037.4	3,987.4	-13.8	3,987.4	2.54	-1.72	-1.88	
11,796.0	89.40	357.20	8,038.0	4,050.3	-16.4	4,050.3	1.44	-0.16	-1.43	
11,860.0	89.90	357.20	8,038.4	4,114.2	-19.5	4,114.3	0.78	0.78	0.00	
11,923.0	90.40	357.50	8,038.3	4,177.2	-22.4	4,177.2	0.93	0.79	0.48	
12,017.0	88.90	358.10	8,038.8	4,271.1	-26.0	4,271.1	1.72	-1.60	0.64	
12,112.0	89.60	358.10	8,040.1	4,366.0	-29.2	4,366.1	0.74	0.74	0.00	
12,207.0	90.50	358.10	8,040.0	4,461.0	-32.3	4,461.0	0.95	0.95	0.00	
12,301.0	89.50	359.00	8,040.0	4,554.9	-34.7	4,555.0	1.43	-1.06	0.96	
12,396.0	90.60	358.20	8,039.9	4,649.9	-37.0	4,650.0	1.43	1.16	-0.84	
12,492.0	91.00	357.00	8,038.6	4,745.8	-41.1	4,745.9	1.32	0.42	-1.25	
12,521.0	91.40	357.40	8,038.0	4,774.8	-42.5	4,774.8	1.95	1.38	1.38	
TD @ 12575' MD / 8036.7' TVD										
12,575.0	91.40	357.40	8,036.7	4,828.7	-44.9	4,828.8	0.00	0.00	0.00	

Design/Annotations:					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
7,300.0	7,294.9	36.2	67.2	TIE IN @ 7300' MD / 7294.9' TVD	
8,187.2	8,005.4	447.7	1.4	CROSSED HARDLINE @ 8187.2' MD / 8005.4' TVD	
12,575.0	8,036.7	4,828.7	-44.9	TD @ 12575' MD / 8036.7' TVD	

Checked By: _____ Approved By: _____ Date: _____