

OPERATOR
WELL/LEASE
COUNTY

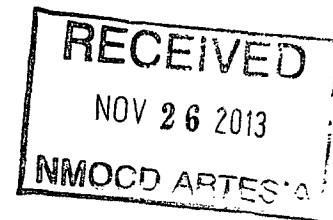
MEWBOURNE OIL COMPANY
BLACK LAKE 7 NC STATE COM 1H
EDDY

075-0099

STATE OF NEW MEXICO
DEVIATION REPORT

15-40984

420	0.98
712	1.10
986	1.50
1,380	1.70
1,577	1.70
1,799	0.30
1,957	0.50
2,084	1.50
2,143	1.10
2,207	2.40
2,271	2.40
3,859	0.80
4,264	0.99
4,708	1.16
5,132	1.38
5,525	1.34
5,940	1.63
6,353	1.66
6,764	1.63
7,174	0.80



STATE OF TEXAS

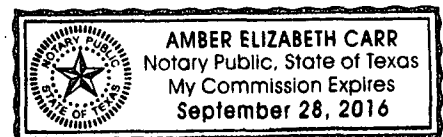
BY: Steve Moore

COUNTY OF MIDLAND

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

9/20/13, by

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





Company: Mewbourne Oil Company Lease / Well: Black Lake 7 NC State Com #1H County/Parish: Eddy Co State: New Mexico Date: 9/5/2013 API#: _____ Dir. Company: _____ Latitude: _____ Longitude: _____		Operator: _____ Job Number: _____ Gyro Serial #: _____ Proposed Direction: 0 Mag. Declination: _____ Rig/RKB: _____ ft. Tie-in Company: _____ X: _____ Y: _____
--	--	--

TIE-IN Survey				
Measured Depth (ft.)	Inclination	Azimuth Bearing	Vertical Depth	Coordinates (+N/-S) (+E/-W)

Digital Multi-Shot Survey Report									
Measured Depth (ft.)	Inclination	Azimuth Bearing	Vertical Depth	Vertical Section	Coordinates (+N/-S)	Coordinates (+E/-W)	Dog-Leg / 100 ft.	Closure Distance	Closure Direction
100.00	0.28	213.60	100.00	-0.20	-0.20	-0.14	0.28	0.24	213.60
200.00	0.41	243.52	200.00	-0.57	-0.57	-0.59	0.22	0.82	226.19
300.00	0.42	242.64	300.00	-0.89	-0.89	-1.24	0.01	1.53	234.12
400.00	0.25	279.24	399.99	-1.03	-1.03	-1.78	0.27	2.05	239.96
500.00	0.55	284.45	499.99	-0.87	-0.87	-2.46	0.30	2.61	250.44
600.00	0.94	283.50	599.98	-0.56	-0.56	-3.72	0.39	3.76	261.41
700.00	1.27	297.48	699.96	0.14	0.14	-5.50	0.42	5.50	271.47
800.00	0.95	300.93	799.94	1.08	1.08	-7.19	0.33	7.28	278.52
900.00	1.18	292.85	899.93	1.90	1.90	-8.85	0.27	9.06	282.14
1000.00	1.37	285.56	999.90	2.62	2.62	-10.96	0.25	11.27	283.47
1100.00	1.67	281.12	1099.87	3.23	3.23	-13.54	0.32	13.92	283.41
1200.00	1.80	279.64	1199.82	3.77	3.77	-16.51	0.14	16.94	282.86
1300.00	1.82	286.13	1299.77	4.47	4.47	-19.59	0.21	20.09	282.87
1400.00	1.58	289.11	1399.73	5.37	5.37	-22.42	0.26	23.05	283.46
1500.00	1.47	285.78	1499.69	6.17	6.17	-24.95	0.14	25.70	283.88
1600.00	1.35	281.07	1599.66	6.74	6.74	-27.34	0.17	28.16	283.85
1700.00	0.55	265.92	1699.65	6.93	6.93	-28.98	0.83	29.80	283.46
1800.00	0.23	228.02	1799.64	6.77	6.77	-29.61	0.39	30.37	282.87
1900.00	0.11	200.63	1899.64	6.54	6.54	-29.79	0.14	30.50	282.39
2000.00	0.71	87.33	1999.64	6.48	6.48	-29.20	0.76	29.92	282.51
2100.00	1.52	87.12	2099.62	6.58	6.58	-27.26	0.81	28.04	283.56
2200.00	2.13	99.59	2199.57	6.33	6.33	-24.10	0.72	24.92	284.72
2300.00	2.07	104.48	2299.50	5.57	5.57	-20.52	0.19	21.27	285.19
2400.00	1.87	107.56	2399.45	4.63	4.63	-17.22	0.23	17.83	285.05
2500.00	1.56	98.18	2499.40	3.94	3.94	-14.32	0.42	14.85	285.40
2600.00	1.75	97.44	2599.36	3.55	3.55	-11.45	0.19	11.99	287.22
2700.00	1.84	95.92	2699.31	3.19	3.19	-8.34	0.10	8.93	290.91
2800.00	1.82	92.65	2799.26	2.95	2.95	-5.16	0.11	5.94	299.74
2900.00	1.48	72.77	2899.22	3.26	3.26	-2.34	0.66	4.01	324.30
3000.00	1.57	67.15	2999.18	4.17	4.17	0.15	0.17	4.18	2.13
3100.00	1.44	63.49	3099.15	5.27	5.27	2.54	0.16	5.85	25.77
3200.00	1.54	58.82	3199.11	6.52	6.52	4.82	0.16	8.11	36.44
3300.00	1.46	62.82	3299.08	7.80	7.80	7.10	0.13	10.55	42.31
3400.00	1.38	68.48	3399.05	8.82	8.82	9.35	0.16	12.86	46.67
3500.00	1.29	67.52	3499.02	9.70	9.70	11.51	0.09	15.05	49.90
3600.00	1.21	70.72	3599.00	10.47	10.47	13.55	0.11	17.13	52.29
3700.00	0.95	73.80	3698.98	11.05	11.05	15.34	0.27	18.91	54.23
3800.00	0.84	63.23	3798.97	11.62	11.62	16.79	0.20	20.42	55.33
3900.00	0.66	60.96	3898.96	12.23	12.23	17.95	0.18	21.72	55.74
4000.00	0.93	74.37	3998.95	12.72	12.72	19.24	0.33	23.06	56.52
4100.00	0.87	90.00	4098.94	12.94	12.94	20.78	0.25	24.48	58.08
4200.00	0.77	99.19	4198.93	12.83	12.83	22.20	0.16	25.64	59.96
4300.00	0.61	84.18	4298.92	12.78	12.78	23.39	0.24	26.66	61.35
4400.00	0.77	74.66	4398.91	13.01	13.01	24.57	0.20	27.80	62.09
4500.00	0.56	125.20	4498.91	12.91	12.91	25.62	0.60	28.69	63.25
4600.00	0.80	195.77	4598.90	11.96	11.96	25.83	0.81	28.46	65.16
4700.00	1.14	216.27	4698.89	10.48	10.48	25.05	0.48	27.15	67.29
4800.00	1.00	221.50	4798.87	9.03	9.03	23.88	0.17	25.53	69.29
4900.00	0.86	221.52	4898.86	7.81	7.81	22.81	0.14	24.11	71.09
5000.00	0.91	203.92	4998.84	6.52	6.52	21.99	0.28	22.93	73.47
5100.00	1.16	203.09	5098.83	4.87	4.87	21.27	0.25	21.82	77.11
5200.00	1.35	212.51	5198.80	2.94	2.94	20.24	0.28	20.45	81.73
5300.00	1.19	219.92	5298.78	1.15	1.15	18.94	0.23	18.97	86.52



Company: Mewbourne Oil Company Lease / Well: Black Lake 7 NC State Com #1H County/Parish: Eddy Co State: New Mexico Date: 9/5/2013 API#: Dir. Company: Latitude: Longitude:		Operator: Job Number: Gyro Serial #: Proposed Direction: 0 Mag. Declination: Rig/RKB: ft. Tie-in Company: X: Y:
--	--	--

TIE-IN Survey					
Measured	Inclination	Azimuth	Vertical	Coordinates	
Depth (ft.)		Bearing	Depth	(+N/-S)	(+E/-W)

Digital Multi-Shot Survey Report									
Measured	Inclination	Azimuth	Vertical	Vertical	Coordinates		Dog-Leg	Closure	Closure
Depth (ft.)		Bearing	Depth	Section	(+N/-S)	(+E/-W)	/ 100 ft.	Distance	Direction
5400.00	0.93	228.73	5398.76	-0.18	-0.18	17.66	0.31	17.66	90.58
5500.00	0.92	212.93	5498.75	-1.39	-1.39	16.61	0.25	16.67	94.78
5600.00	1.00	205.65	5598.73	-2.85	-2.85	15.80	0.15	16.06	100.22
5700.00	1.32	202.15	5698.71	-4.70	-4.70	14.99	0.33	15.71	107.42
5800.00	1.48	203.48	5798.68	-6.95	-6.95	14.04	0.16	15.67	116.35
5900.00	1.33	203.34	5898.65	-9.20	-9.20	13.07	0.15	15.98	125.16
6000.00	1.47	210.71	5998.62	-11.37	-11.37	11.95	0.23	16.50	133.58
6100.00	1.38	254.24	6098.60	-12.80	-12.80	10.14	1.06	16.33	141.63
6200.00	1.29	294.27	6198.57	-12.67	-12.67	7.95	0.92	14.96	147.88
6300.00	1.26	306.02	6298.55	-11.56	-11.56	6.04	0.26	13.04	152.42
6400.00	1.76	276.74	6398.51	-10.73	-10.73	3.62	0.90	11.33	161.35
6500.00	2.76	282.15	6498.43	-10.04	-10.04	-0.26	1.02	10.05	181.47
6600.00	1.46	299.56	6598.36	-8.91	-8.91	-3.72	1.43	9.65	202.66
6700.00	1.44	342.67	6698.34	-7.08	-7.08	-5.20	1.07	8.79	216.30
6800.00	1.97	353.25	6798.29	-4.17	-4.17	-5.78	0.61	7.13	234.15
6900.00	1.72	334.27	6898.24	-1.12	-1.12	-6.63	0.66	6.72	260.45
7000.00	0.92	327.61	6998.21	0.91	0.91	-7.71	0.81	7.77	276.76
7100.00	0.53	307.12	7098.20	1.87	1.87	-8.51	0.46	8.72	282.40
7200.00	0.74	264.92	7198.20	2.09	2.09	-9.52	0.50	9.75	282.40
7300.00	0.71	248.54	7298.19	1.81	1.81	-10.74	0.21	10.90	279.56

Mewbourne Oil Co

Eddy County, New Mexico

Sec 7, T25S, R28E

Black Lake 7 NC State Com #1H

Wellbore #1

Design: Wellbore #1

DDC Survey Report

17 September, 2013



DDC
Survey Report



Company:	Mewbourne Oil Co	Local Co-ordinate Reference:	Well Black Lake 7 NC State Com #1H
Project:	Eddy County, New Mexico	TVD Reference:	WELL @ 3083.0usft (Patterson #75)
Site:	Sec 7, T25S, R28E	MD Reference:	WELL @ 3083.0usft (Patterson #75)
Well:	Black Lake 7 NC 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		
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 7, T25S, R28E					
Site Position:		Northing:		413,856.40 usft		Latitude:		32° 8' 15.509 N			
From:		Map		Easting:		563,555.00 usft		Longitude:		104° 7' 40.824 W	
Position Uncertainty:		0.0 usft		Slot Radius:		13-3/16 "		Grid Convergence:		0.11 °	

Well	Black Lake 7 NC State Com #1H					
Well Position	+N/-S	0.0 usft	Northing:	413,856.40 usft	Latitude:	32° 8' 15.509 N
	+E/-W	0.0 usft	Easting:	563,555.00 usft	Longitude:	104° 7' 40.824 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	3,063.0 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	IGRF2010	8/9/2013	7.57	59.96	48,291

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	359.67	

Survey Program	Date	9/17/2013			
From	To	Survey (Wellbore)	Tool Name	Description	
(usft)	(usft)				
100.0	7,300.0	MS Gyro Survey (Wellbore #1)	Good_gyro	Good Gyro	
7,328.0	12,540.0	DDC 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	0.28	213.60	100.0	-0.2	-0.1	-0.2	0.28	0.28	0.00	
200.0	0.41	243.52	200.0	-0.6	-0.6	-0.6	0.22	0.13	29.92	
300.0	0.42	242.64	300.0	-0.9	-1.2	-0.9	0.01	0.01	-0.88	
400.0	0.25	279.24	400.0	-1.0	-1.8	-1.0	0.27	-0.17	36.60	
500.0	0.55	284.45	500.0	-0.9	-2.5	-0.9	0.30	0.30	5.21	
600.0	0.94	283.50	600.0	-0.6	-3.7	-0.5	0.39	0.39	-0.95	
700.0	1.27	297.48	700.0	0.1	-5.5	0.2	0.42	0.33	13.98	
800.0	0.95	300.93	799.9	1.1	-7.2	1.1	0.33	-0.32	3.45	
900.0	1.18	292.85	899.9	1.9	-8.9	2.0	0.27	0.23	-8.08	

DDC Survey Report



Company:	Mewbourne Oil Co	Local Co-ordinate Reference:	Well Black Lake 7 NC State Com #1H
Project:	Eddy County, New Mexico	TVD Reference:	WELL @ 3083.0usft (Patterson #75)
Site:	Sec 7, T25S, R28E	MD Reference:	WELL @ 3083.0usft (Patterson #75)
Well:	Black Lake 7 NC 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	1.37	285.56	999.9	2.6	-11.0	2.7	0.25	0.19	-7.29
1,100.0	1.67	281.12	1,099.9	3.2	-13.5	3.3	0.32	0.30	-4.44
1,200.0	1.80	279.64	1,199.8	3.8	-16.5	3.9	0.14	0.13	-1.48
1,300.0	1.82	286.13	1,299.8	4.5	-19.6	4.6	0.21	0.02	6.49
1,400.0	1.58	289.11	1,399.7	5.4	-22.4	5.5	0.26	-0.24	2.98
1,500.0	1.47	285.78	1,499.7	6.2	-25.0	6.3	0.14	-0.11	-3.33
1,600.0	1.35	281.07	1,599.7	6.7	-27.3	6.9	0.17	-0.12	-4.71
1,700.0	0.55	265.92	1,699.6	6.9	-29.0	7.1	0.83	-0.80	-15.15
1,800.0	0.23	228.02	1,799.6	6.8	-29.6	6.9	0.39	-0.32	-37.90
1,900.0	0.11	200.63	1,899.6	6.5	-29.8	6.7	0.14	-0.12	-27.39
2,000.0	0.71	87.33	1,999.6	6.5	-29.2	6.6	0.76	0.60	-113.30
2,100.0	1.52	87.12	2,099.6	6.6	-27.3	6.7	0.81	0.81	-0.21
2,200.0	2.13	99.59	2,199.6	6.3	-24.1	6.5	0.72	0.61	12.47
2,300.0	2.07	104.48	2,299.5	5.6	-20.5	5.7	0.19	-0.06	4.89
2,400.0	1.87	107.56	2,399.4	4.6	-17.2	4.7	0.23	-0.20	3.08
2,500.0	1.56	98.18	2,499.4	3.9	-14.3	4.0	0.42	-0.31	-9.38
2,600.0	1.75	97.44	2,599.4	3.6	-11.5	3.6	0.19	0.19	-0.74
2,700.0	1.84	95.92	2,699.3	3.2	-8.3	3.2	0.10	0.09	-1.52
2,800.0	1.82	92.65	2,799.3	2.9	-5.2	3.0	0.11	-0.02	-3.27
2,900.0	1.48	72.77	2,899.2	-3.3	-2.3	3.3	0.66	-0.34	-19.88
3,000.0	1.57	67.15	2,999.2	4.2	0.2	4.2	0.17	0.09	-5.62
3,100.0	1.44	63.49	3,099.1	5.3	2.5	5.3	0.16	-0.13	-3.66
3,200.0	1.54	58.82	3,199.1	6.5	4.8	6.5	0.16	0.10	-4.67
3,300.0	1.46	62.82	3,299.1	7.8	7.1	7.8	0.13	-0.08	4.00
3,400.0	1.38	68.48	3,399.0	8.8	9.4	8.8	0.16	-0.08	5.66
3,500.0	1.29	67.52	3,499.0	9.7	11.5	9.6	0.09	-0.09	-0.96
3,600.0	1.21	70.72	3,599.0	10.5	13.5	10.4	0.11	-0.08	3.20
3,700.0	0.95	73.80	3,699.0	11.1	15.3	11.0	0.27	-0.26	3.08
3,800.0	0.84	63.23	3,799.0	11.6	16.8	11.5	0.20	-0.11	-10.57
3,900.0	0.66	60.96	3,899.0	12.2	18.0	12.1	0.18	-0.18	-2.27
4,000.0	0.93	74.37	3,999.0	12.7	19.2	12.6	0.33	0.27	13.41
4,100.0	0.87	90.00	4,098.9	12.9	20.8	12.8	0.25	-0.06	15.63
4,200.0	0.77	99.19	4,198.9	12.8	22.2	12.7	0.16	-0.10	9.19
4,300.0	0.61	84.18	4,298.9	12.8	23.4	12.6	0.24	-0.16	-15.01
4,400.0	0.77	74.66	4,398.9	13.0	24.6	12.9	0.20	0.16	-9.52
4,500.0	0.56	125.20	4,498.9	12.9	25.6	12.8	0.60	-0.21	50.54
4,600.0	0.80	195.77	4,598.9	12.0	25.8	11.8	0.81	0.24	70.57
4,700.0	1.14	216.27	4,698.9	10.5	25.0	10.3	0.48	0.34	20.50
4,800.0	1.00	221.50	4,798.9	9.0	23.9	8.9	0.17	-0.14	5.23
4,900.0	0.86	221.52	4,898.9	7.8	22.8	7.7	0.14	-0.14	0.02
5,000.0	0.91	203.92	4,998.8	6.5	22.0	6.4	0.28	0.05	-17.60
5,100.0	1.16	203.09	5,098.8	4.9	21.3	4.7	0.25	0.25	-0.83
5,200.0	1.35	212.51	5,198.8	2.9	20.2	2.8	0.28	0.19	9.42

DDC
Survey Report



Company:	Mewbourne Oil Co	Local Co-ordinate Reference:	Well Black Lake 7 NC State Com #1H
Project:	Eddy County, New Mexico	TVD Reference:	WELL @ 3083.0usft (Patterson #75)
Site:	Sec 7, T25S, R28E	MD Reference:	WELL @ 3083.0usft (Patterson #75)
Well:	Black Lake 7 NC 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	1.19	219.92	5,298.8	1.2	18.9	1.0	0.23	-0.16	7.41
5,400.0	0.93	228.73	5,398.8	-0.2	17.7	-0.3	0.31	-0.26	8.81
5,500.0	0.92	212.93	5,498.8	-1.4	16.6	-1.5	0.25	-0.01	-15.80
5,600.0	1.00	205.65	5,598.7	-2.8	15.8	-2.9	0.15	0.08	-7.28
5,700.0	1.32	202.15	5,698.7	-4.7	15.0	-4.8	0.33	0.32	-3.50
5,800.0	1.48	203.48	5,798.7	-7.0	14.0	-7.0	0.16	0.16	1.33
5,900.0	1.33	203.34	5,898.7	-9.2	13.1	-9.3	0.15	-0.15	-0.14
6,000.0	1.47	210.71	5,998.6	-11.4	12.0	-11.4	0.23	0.14	7.37
6,100.0	1.38	254.24	6,098.6	-12.8	10.1	-12.9	1.06	-0.09	43.53
6,200.0	1.29	294.27	6,198.6	-12.7	8.0	-12.7	0.92	-0.09	40.03
6,300.0	1.26	306.02	6,298.5	-11.6	6.0	-11.6	0.26	-0.03	11.75
6,400.0	1.76	276.74	6,398.5	-10.7	3.6	-10.8	0.90	0.50	-29.28
6,500.0	2.76	282.15	6,498.4	-10.0	-0.3	-10.0	1.02	1.00	5.41
6,600.0	1.46	299.56	6,598.4	-8.9	-3.7	-8.9	1.43	-1.30	17.41
6,700.0	1.44	342.67	6,698.3	-7.1	-5.2	-7.1	1.07	-0.02	43.11
6,800.0	1.97	353.25	6,798.3	-4.2	-5.8	-4.1	0.61	0.53	10.58
6,900.0	1.72	334.27	6,898.2	-1.1	-6.6	-1.1	0.66	-0.25	-18.98
7,000.0	0.92	327.61	6,998.2	0.9	-7.7	1.0	0.81	-0.80	-6.66
7,100.0	0.53	307.12	7,098.2	1.9	-8.5	1.9	0.46	-0.39	-20.49
7,200.0	0.74	264.92	7,198.2	2.1	-9.5	2.1	0.50	0.21	-42.20
Tie into Gyro @ 7300' MD / 7298' TVD									
7,300.0	0.71	248.54	7,298.2	1.8	-10.7	1.9	0.21	-0.03	-16.38
7,328.0	1.10	226.80	7,326.2	1.6	-11.1	1.6	1.83	1.39	-77.64
7,358.0	0.80	221.40	7,356.2	1.2	-11.4	1.3	1.04	-1.00	-18.00
7,390.0	1.40	346.00	7,388.2	1.4	-11.7	1.5	6.15	1.88	389.38
7,421.0	3.90	354.80	7,419.1	2.8	-11.9	2.9	8.15	8.06	28.39
7,453.0	6.20	4.80	7,451.0	5.6	-11.8	5.7	7.67	7.19	31.25
7,485.0	7.90	5.00	7,482.8	9.6	-11.5	9.6	5.31	5.31	0.63
7,517.0	10.30	1.00	7,514.4	14.6	-11.3	14.7	7.75	7.50	-12.50
7,549.0	13.00	356.20	7,545.7	21.1	-11.4	21.1	8.96	8.44	-15.00
7,581.0	15.90	355.90	7,576.7	29.0	-12.0	29.1	9.07	9.06	-0.94
7,612.0	18.80	354.50	7,606.3	38.2	-12.8	38.3	9.45	9.35	-4.52
7,644.0	22.00	354.10	7,636.3	49.3	-13.9	49.4	10.01	10.00	-1.25
7,676.0	25.20	353.90	7,665.6	62.1	-15.2	62.2	10.00	10.00	-0.63
7,708.0	28.40	355.50	7,694.2	76.4	-16.6	76.5	10.25	10.00	5.00
7,740.0	31.30	356.40	7,721.9	92.3	-17.7	92.4	9.17	9.06	2.81
7,772.0	34.60	356.90	7,748.8	109.7	-18.7	109.8	10.35	10.31	1.56
7,804.0	37.60	356.70	7,774.6	128.5	-19.7	128.6	9.38	9.38	-0.63
7,836.0	41.20	356.90	7,799.3	148.8	-20.9	148.9	11.26	11.25	0.63
7,867.0	44.40	357.30	7,822.1	169.8	-21.9	170.0	10.36	10.32	1.29
Crossed Hard Line @ 7881' MD / 7832' TVD									
7,881.2	45.86	357.53	7,832.1	179.9	-22.4	180.0	10.37	10.31	1.61
7,899.0	47.70	357.80	7,844.3	192.8	-22.9	193.0	10.37	10.31	1.52
7,931.0	52.20	357.40	7,864.9	217.3	-23.9	217.4	14.09	14.06	-1.25

DDC
Survey Report



Company:	Mewbourne Oil Co	Local Co-ordinate Reference:	Well Black Lake 7 NC State Com #1H
Project:	Eddy County, New Mexico	TVD Reference:	WELL @ 3083.0usft (Patterson #75)
Site:	Sec 7, T25S, R28E	MD Reference:	WELL @ 3083.0usft (Patterson #75)
Well:	Black Lake 7 NC 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)
7,963.0	56.60	356.90	7,883.5	243.3	-25.2	243.4	13.81	13.75	-1.56
7,994.0	61.60	356.90	7,899.4	269.8	-26.7	270.0	16.13	16.13	0.00
8,026.0	66.30	356.60	7,913.4	298.5	-28.3	298.7	14.71	14.69	-0.94
8,058.0	71.10	356.40	7,925.1	328.3	-30.1	328.5	15.01	15.00	-0.63
8,090.0	76.60	356.20	7,934.0	358.9	-32.1	359.1	17.20	17.19	-0.63
8,112.0	80.70	356.60	7,938.3	380.5	-33.5	380.7	18.72	18.64	1.82
8,208.0	89.00	357.80	7,946.9	475.9	-38.1	476.1	8.73	8.65	1.25
8,271.0	90.70	358.50	7,947.1	538.8	-40.2	539.1	2.92	2.70	1.11
8,334.0	90.80	358.90	7,946.2	601.8	-41.6	602.1	0.65	0.16	0.63
8,398.0	90.80	1.50	7,945.4	665.8	-41.4	666.0	4.06	0.00	4.06
8,461.0	91.10	1.70	7,944.3	728.8	-39.6	729.0	0.57	0.48	0.32
8,525.0	91.40	2.50	7,942.9	792.7	-37.3	792.9	1.33	0.47	1.25
8,588.0	90.50	3.40	7,941.9	855.6	-34.0	855.8	2.02	-1.43	1.43
8,651.0	89.70	2.20	7,941.8	918.6	-30.9	918.7	2.29	-1.27	-1.90
8,714.0	89.70	2.20	7,942.1	981.5	-28.5	981.7	0.00	0.00	0.00
8,777.0	90.00	2.50	7,942.3	1,044.5	-25.9	1,044.6	0.67	0.48	0.48
8,841.0	89.90	2.40	7,942.3	1,108.4	-23.2	1,108.5	0.22	-0.16	-0.16
8,904.0	88.50	1.50	7,943.2	1,171.3	-21.1	1,171.4	2.64	-2.22	-1.43
8,968.0	90.20	1.10	7,943.9	1,235.3	-19.6	1,235.4	2.73	2.66	-0.63
9,031.0	90.50	1.80	7,943.5	1,298.3	-18.0	1,298.4	1.21	0.48	1.11
9,094.0	90.20	1.30	7,943.1	1,361.3	-16.3	1,361.4	0.93	-0.48	-0.79
9,157.0	90.90	2.00	7,942.5	1,424.2	-14.5	1,424.3	1.57	1.11	1.11
9,220.0	89.50	1.50	7,942.3	1,487.2	-12.6	1,487.3	2.36	-2.22	-0.79
9,284.0	89.30	1.30	7,943.0	1,551.2	-11.0	1,551.2	0.44	-0.31	-0.31
9,347.0	89.30	1.70	7,943.8	1,614.2	-9.4	1,614.2	0.63	0.00	0.63
9,411.0	89.70	2.40	7,944.3	1,678.1	-7.1	1,678.1	1.26	0.63	1.09
9,474.0	87.60	1.10	7,945.8	1,741.1	-5.1	1,741.1	3.92	-3.33	-2.06
9,538.0	87.60	1.00	7,948.5	1,805.0	-4.0	1,805.0	0.16	0.00	-0.16
9,601.0	88.30	0.80	7,950.7	1,868.0	-3.0	1,867.9	1.16	1.11	-0.32
9,664.0	89.60	359.00	7,951.9	1,930.9	-3.1	1,930.9	3.52	2.06	-2.86
9,728.0	89.80	359.90	7,952.2	1,994.9	-3.7	1,994.9	1.44	0.31	1.41
9,791.0	89.90	359.40	7,952.4	2,057.9	-4.1	2,057.9	0.81	0.16	-0.79
9,854.0	90.20	359.50	7,952.3	2,120.9	-4.7	2,120.9	0.50	0.48	0.16
9,917.0	90.30	359.70	7,952.1	2,183.9	-5.1	2,183.9	0.35	0.16	0.32
9,980.0	90.30	0.40	7,951.7	2,246.9	-5.1	2,246.9	1.11	0.00	1.11
10,044.0	90.50	0.60	7,951.3	2,310.9	-4.5	2,310.9	0.44	0.31	0.31
10,107.0	90.90	1.00	7,950.5	2,373.9	-3.6	2,373.9	0.90	0.63	0.63
10,170.0	89.60	1.10	7,950.2	2,436.9	-2.5	2,436.9	2.07	-2.06	0.16
10,233.0	89.60	1.00	7,950.7	2,499.9	-1.3	2,499.9	0.16	0.00	-0.16
10,297.0	90.10	1.70	7,950.8	2,563.9	0.2	2,563.8	1.34	0.78	1.09
10,360.0	89.40	1.10	7,951.1	2,626.9	1.7	2,626.8	1.46	-1.11	-0.95
10,424.0	89.60	1.00	7,951.7	2,690.8	2.9	2,690.8	0.35	0.31	-0.16
10,487.0	88.30	359.70	7,952.8	2,753.8	3.3	2,753.8	2.92	-2.06	-2.06

DDC Survey Report



Company:	Mewbourne Oil Co	Local Co-ordinate Reference:	Well Black Lake 7 NC State Com #1H
Project:	Eddy County, New Mexico	TVD Reference:	WELL @ 3083.0usft (Patterson #75)
Site:	Sec 7, T25S, R28E	MD Reference:	WELL @ 3083.0usft (Patterson #75)
Well:	Black Lake 7 NC 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)	
10,550.0	88.00	359.40	7,954.9	2,816.8	2.8	2,816.7	0.67	-0.48	-0.48	
10,613.0	88.40	358.00	7,956.8	2,879.7	1.3	2,879.7	2.31	0.63	-2.22	
10,676.0	88.60	358.00	7,958.5	2,942.7	-0.9	2,942.6	0.32	0.32	0.00	
10,739.0	89.10	357.80	7,959.8	3,005.6	-3.2	3,005.6	0.85	0.79	-0.32	
10,803.0	89.30	358.30	7,960.7	3,069.6	-5.3	3,069.6	0.84	0.31	0.78	
10,866.0	89.50	358.30	7,961.3	3,132.5	-7.2	3,132.5	0.32	0.32	0.00	
10,929.0	89.60	358.70	7,961.8	3,195.5	-8.9	3,195.5	0.65	0.16	0.63	
10,992.0	89.70	358.30	7,962.2	3,258.5	-10.5	3,258.5	0.65	0.16	-0.63	
11,056.0	90.00	358.70	7,962.4	3,322.5	-12.2	3,322.5	0.78	0.47	0.63	
11,119.0	90.00	359.20	7,962.4	3,385.5	-13.3	3,385.5	0.79	0.00	0.79	
11,183.0	90.40	359.20	7,962.1	3,449.5	-14.2	3,449.5	0.63	0.63	0.00	
11,246.0	90.70	359.50	7,961.5	3,512.5	-14.9	3,512.5	0.67	0.48	0.48	
11,309.0	90.80	359.50	7,960.7	3,575.4	-15.5	3,575.5	0.16	0.16	0.00	
11,373.0	91.10	359.70	7,959.6	3,639.4	-15.9	3,639.5	0.56	0.47	0.31	
11,436.0	91.30	0.30	7,958.3	3,702.4	-15.9	3,702.5	1.00	0.32	0.95	
11,499.0	91.60	0.60	7,956.7	3,765.4	-15.4	3,765.4	0.67	0.48	0.48	
11,562.0	90.40	1.00	7,955.6	3,828.4	-14.6	3,828.4	2.01	-1.90	0.63	
11,625.0	90.40	0.80	7,955.2	3,891.4	-13.6	3,891.4	0.32	0.00	-0.32	
11,688.0	90.80	1.10	7,954.5	3,954.4	-12.5	3,954.4	0.79	0.63	0.48	
11,752.0	90.00	359.90	7,954.1	4,018.4	-12.0	4,018.4	2.25	-1.25	-1.88	
11,815.0	88.70	359.00	7,954.8	4,081.3	-12.6	4,081.4	2.51	-2.06	-1.43	
11,879.0	88.40	359.00	7,956.4	4,145.3	-13.7	4,145.3	0.47	-0.47	0.00	
11,942.0	88.60	359.20	7,958.1	4,208.3	-14.7	4,208.3	0.45	0.32	0.32	
12,005.0	88.80	359.50	7,959.5	4,271.3	-15.4	4,271.3	0.57	0.32	0.48	
12,068.0	89.20	359.40	7,960.6	4,334.3	-16.0	4,334.3	0.65	0.63	-0.16	
12,132.0	89.50	359.50	7,961.3	4,398.2	-16.6	4,398.3	0.49	0.47	0.16	
12,195.0	89.70	359.90	7,961.8	4,461.2	-17.0	4,461.3	0.71	0.32	0.63	
12,259.0	90.00	0.10	7,961.9	4,525.2	-17.0	4,525.3	0.56	0.47	0.31	
12,322.0	90.30	0.10	7,961.8	4,588.2	-16.8	4,588.3	0.48	0.48	0.00	
12,385.0	90.60	0.10	7,961.3	4,651.2	-16.7	4,651.3	0.48	0.48	0.00	
12,448.0	91.00	0.30	7,960.4	4,714.2	-16.5	4,714.3	0.71	0.63	0.32	
12,492.0	91.40	0.10	7,959.5	4,758.2	-16.4	4,758.2	1.02	0.91	-0.45	
TD @ 12540' MD / 7958' TVD										
12,540.0	91.40	0.10	7,958.3	4,806.2	-16.3	4,806.2	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	7,298.2	1.8	-10.7	Tie into Gyro @ 7300' MD / 7298' TVD
7,881.2	7,832.1	179.9	-22.4	Crossed Hard Line @ 7881' MD / 7832' TVD
12,540.0	7,958.3	4,806.2	-16.3	TD @ 12540' MD / 7958' TVD

DDC
Survey Report



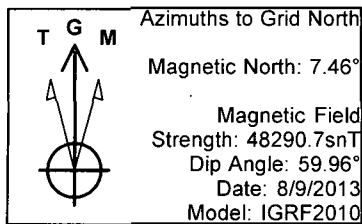
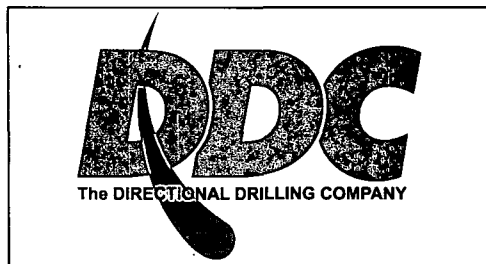
Company:	Mewbourne Oil Co.	Local Co-ordinate Reference:	Well Black Lake 7-NC State Com #1H
Project:	Eddy County, New Mexico	TVD Reference:	WELL @ 3083.0usft (Patterson #75)
Site:	Sec.7, T25S, R28E	MD Reference:	WELL @ 3083.0usft (Patterson #75)
Well:	Black Lake 7-NC State Com #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Checked By: _____ Approved By: _____ Date: _____

Company Name: Mewbourne Oil Co
Black Lake 7 NC State Com #1H
Eddy County, New Mexico
Rig: Patterson #75
Created By: James Dawson
Date: 09/17/2013

Black Lake 7 NC State Com #1H
Eddy County, New Mexico
Q130699 & WT-13695
Design #2 - Tied to Gyro

Mewbourne Oil Company



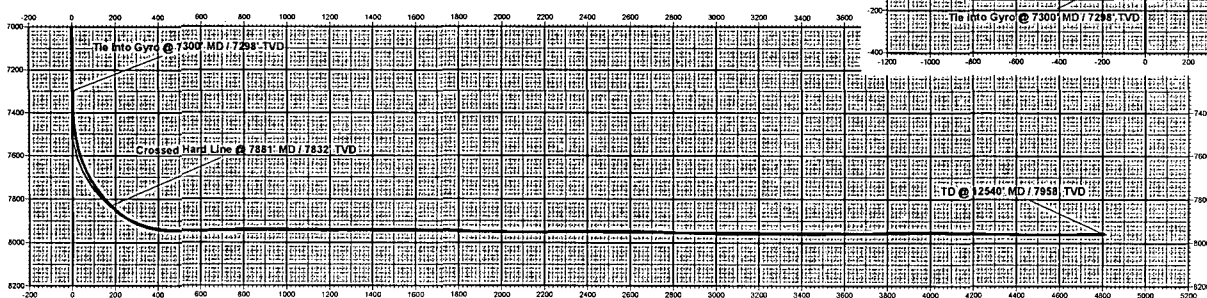
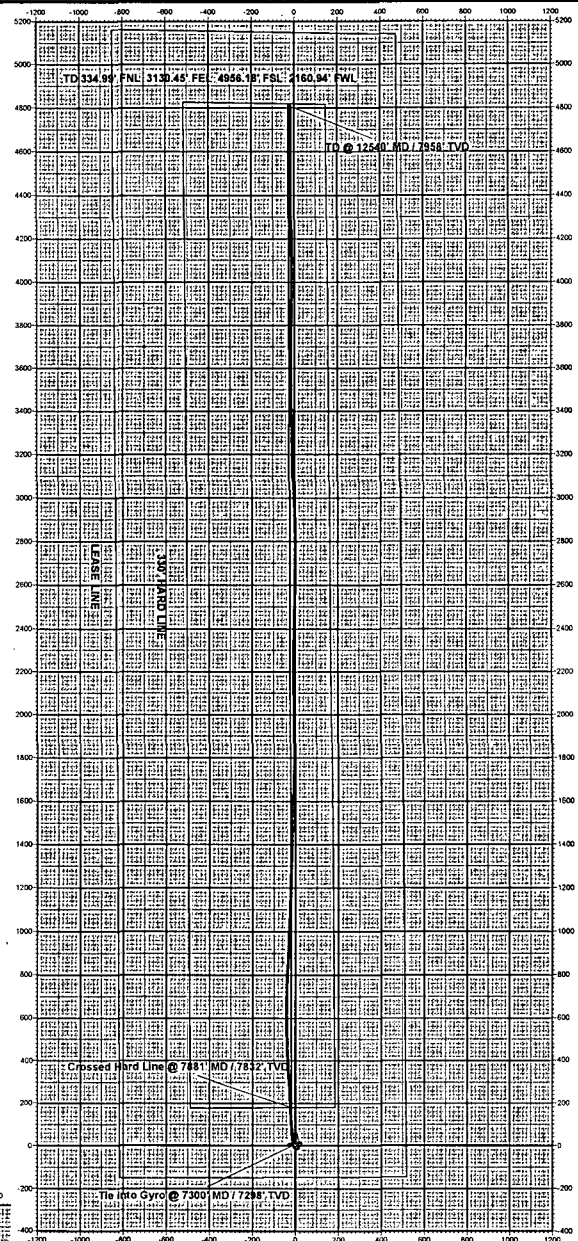
PROJECT DETAILS: Eddy County, New Mexico

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: Black Lake 7 NC State Com #1H					
	Ground Level:	3063.0			
+N-S	+E-W	Northing	Eastings	Latitude	Longitude
0.0	0.0	413856.40	563555.00	32° 8' 15.508 N	104° 7' 49.824 W

DESIGN TARGET DETAILS						
Name	TVD	+N-S	+E-W	Northing	Eastings	Latitude
PBHL - Black Lake 7 NC State Com #1H	7960.0	4916.5	-27.9	418672.94	563527.72	32° 8' 3.176 N
- plan hits target center						

ANNOTATIONS									
MD	Inc	Adj	TVD	+N-S	+E-W	V-Sect	Departure	Tie Into Gyro	Annotation
7300.0	0.71	249.54	7298.2	1.8	-10.7	1.9	159.5	Tie Into Gyro @ 7300' MD / 7298' TVD	
7881.0	45.84	357.53	7831.9	179.7	-22.4	179.9	331.0	Crossed Hard Line @ 7881' MD / 7832' TVD	
12540.0	91.40	0.10	7958.3	4806.2	-19.3	4806.2	4958.9	TD @ 12540' MD / 7958' TVD	



Vertical Section at 359.67° (200 usf/in)

Operating Company Mewbourne
 Well Name & Number Black Lake 7 NC State Com #1H
 Sales Ticket Number 5801509-1
 Date 9/17/2013

Company Rep Russell Bryant
 Field
 BOT Service Rep John Davis
 District Location Odessa, Texas, USA



	Size	Weight	Grade	ID	Drift	Thread	Capacity	Length	Burst	Collapse
Casing	7.000	26.00	P-110	6.276	6.151	LT&C	0.03826	8,162.00	9,960	6,230
Top Liner	4.500	13.50	338000	3.920	3.795	LT&C	0.01492	4,562.93	12,410	10,680
Bott Liner										

TVD	7,960.00	KOP	7,339.00	Open Hole	6.125	Casing Vol. (bbl)	304.1
Carry Fluid Weight (ppg)	8.8	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 Setting Sleeve_RH Profile	7949.07						

Zone Length										
		JR Sleeve_S3 Hyd Set Packer	7949.07	9.55	5.813	3.875				
		4-1/2-13.5 LTC Nipple	7958.62	6.76	5.000	3.920				
		7 Joints of 4-1/2-13.5 LTC Casing	7965.38	269.55	5.000	3.920				
20		3.625 EX Frac Sleeve	8234.93	2.40	5.750		3.525	2286		
		3 Joint of 4-1/2-13.5 LTC Casing	8237.33	115.43	5.000	3.920				
		Baker Open Hole Packer	8352.76	3.89	5.820	3.875		2154		
		3 Joints of 4-1/2-13.5 LTC Casing	8356.65	115.40	5.000	3.920				
19		3.500 EX Frac Sleeve	8472.05	2.40	5.750		3.400	2286		
		3 Joint of 4-1/2-13.5 LTC Casing	8474.45	115.53	5.000	3.920				
		Baker Open Hole Packer	8589.98	3.89	5.820	3.875		2154		
		3 Joints of 4-1/2-13.5 LTC Casing	8593.87	115.51	5.000	3.920				
18		3.375 EX Frac Sleeve	8709.38	2.40	5.750		3.275	2286		
		3 Joint of 4-1/2-13.5 LTC Casing	8711.78	115.46	5.000	3.920				
		Baker Open Hole Packer	8827.24	3.89	5.820	3.875		2154		
		2 Joints of 4-1/2-13.5 LTC Casing	8831.13	76.40	5.000	3.920				
17		3.250 EX Frac Sleeve	8907.53	2.40	5.750		3.150	2286		
		3 Joint of 4-1/2-13.5 LTC Casing	8909.93	113.60	5.000	3.920				
		Baker Open Hole Packer	9023.53	3.89	5.820	3.875		2154		
		3 Joints of 4-1/2-13.5 LTC Casing	9027.42	115.53	5.000	3.920				
16		3.125 EX Frac Sleeve	9142.95	2.40	5.750		3.025	2286		
		3 Joints of 4-1/2-13.5 LTC Casing	9145.35	115.27	5.000	3.920				
		Baker Open Hole Packer	9260.62	3.89	5.820	3.875		2154		

Operating Company Mewbourne
 Well Name & Number Black Lake 7 NC State Com #1H
 Sales Ticket Number 5801509-1
 Date 9/17/2013

Company Rep Russell Bryant
 Field
 BOT Service Rep John Davis
 District Location Odessa, Texas, USA



	Size	Weight	Grade	ID	Drift	Thread	Capacity	Length	Burst	Collapse	
Casing	7.000	26.00	P-110	6.276	6.151	LT&C	0.03826	8,162.00	9,960	6,230	
Top Liner	4.500	13.50	338000	3.920	3.795	LT&C	0.01492	4,562.93	12,410	10,680	
Bott Liner											
TVD		7,960.00		KOP		7,339.00		Open Hole	6.125	Casing Vol. (bbl)	304.1
Carry Fluid Weight (ppg)			8.8		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)
15		3 Joints of 4-1/2-13.5 LTC Casing	9264.51	115.03	5.000	3.920				
		3.000 EX Frac sleeve	9379.54	2.40	5.750		2.900	2286		
		3 Joint of 4-1/2-13.5 LTC Casing	9381.94	115.07	5.000	3.920				
14		Baker Open Hole Packer	9497.01	3.89	5.820	3.875		2154		
		2 Joints of 4-1/2-13.5 LTC Casing	9500.90	76.26	5.000	3.920				
		2.875 EX Frac Sleeve	9577.16	2.40	5.750		2.775	2286		
13		3 Joints of 4-1/2-13.5 LTC Casing	9579.56	115.41	5.000	3.920				
		Baker Open Hole Packer	9694.97	3.89	5.820	3.875		2154		
		3 Joints of 4-1/2-13.5 LTC Casing	9698.86	115.52	5.000	3.920				
12		2.750 EX Frac Sleeve	9814.38	2.40	5.750		2.650	2286		
		3 Joint of 4-1/2-13.5 LTC Casing	9816.78	115.43	5.000	3.920				
		Baker Open Hole Packer	9932.21	3.89	5.820	3.875		2154		
11		3 Joints of 4-1/2-13.5 LTC Casing	9936.10	114.88	5.000	3.920				
		2.625 EX Frac Sleeve	10050.98	2.40	5.750		2.525	2286		
		3 Joints of 4-1/2-13.5 LTC Casing	10053.38	114.95	5.000	3.920				
10		Baker Open Hole Packer	10168.33	3.89	5.820	3.875		2154		
		3 Joints of 4-1/2-13.5 LTC Casing	10172.22	114.62	5.000	3.920				
		2.500 EX Frac Sleeve	10286.84	2.40	5.750		2.400	2286		
9		3 Joint of 4-1/2-13.5 LTC Casing	10289.24	114.79	5.000	3.920				
		Baker Open Hole Packer	10404.03	3.89	5.820	3.875		2154		
		2 Joints of 4-1/2-13.5 LTC Casing	10407.92	76.69	5.000	3.920				
		2.375 EX Frac Sleeve	10484.61	2.40	5.750		2.275	2286		
		3 Joints of 4-1/2-13.5 LTC Casing	10487.01	115.76	5.000	3.920				
		Baker Open Hole Packer	10602.77	3.89	5.820	3.875		2154		
		3 Joint of 4-1/2-13.5 LTC Casing	10606.66	115.44	5.000	3.920				
		2.250 EX Frac Sleeve	10722.10	2.40	5.750		2.150	2286		

Operating Company Mewbourne
 Well Name & Number Black Lake 7 NC State Com #1H
 Sales Ticket Number 5801509-1
 Date 9/17/2013

Company Rep Russell Bryant
 Field
 BOT Service Rep John Davis
 District Location Odessa, Texas, USA



	Size	Weight	Grade	ID	Drift	Thread	Capacity	Length	Burst	Collapse		
Casing	7.000	26.00	P-110	6.276	6.151	LT&C	0.03826	8,162.00	9,960	6,230		
Top Liner	4.500	13.50	338000	3.920	3.795	LT&C	0.01492	4,562.93	12,410	10,680		
Bott Liner												
TVD		7,960.00		KOP		7,339.00		Open Hole		6.125	Casing Vol. (bbl)	304.1
Carry Fluid Weight (ppg)			8.8		Propan Content (ppa)				Max Drill Out Size		0	

	Comm. Number	Description	Depth	Length	OD	ID	Ball Seat ID	Shear Press.	Max Rate (BPM)	Displ. (BBL)
8		3 Joints of 4-1/2-13.5 LTC Casing	10724.50	115.52	5.000	3.920				
		Baker Open Hole Packer	10840.02	3.89	5.820	3.875		2154		
		3 Joint of 4-1/2-13.5 LTC Casing	10843.91	115.38	5.000	3.920				
7		2.125 EX Frac Sleeve	10959.29	2.40	5.750		2.025	2286		
		3 Joints of 4-1/2-13.5 LTC Casing	10961.69	115.51	5.000	3.920				
		Baker Open Hole Packer	11077.20	3.89	5.820	3.875		2154		
6		2 Joint of 4-1/2-13.5 LTC Casing	11081.09	77.07	5.000	3.920				
		2.000 EX Frac Sleeve	11158.16	2.40	5.750		1.900	2286		
		3 Joints of 4-1/2-13.5 LTC Casing	11160.56	115.59	5.000	3.920				
5		Baker Open Hole Packer	11276.15	3.89	5.820	3.875		2154		
		3 Joint of 4-1/2-13.5 LTC Casing	11280.04	114.45	5.000	3.920				
		1.875 EX Frac Sleeve	11394.49	2.40	5.750		1.775	2286		
4		3 Joints of 4-1/2-13.5 LTC Casing	11396.89	115.81	5.000	3.920				
		Baker Open Hole Packer	11512.70	3.89	5.820	3.875		2154		
		3 Joints of 4-1/2-13.5 LTC Casing	11516.59	115.80	5.000	3.920				
3		1.750 EX Frac Sleeve	11632.39	2.40	5.750		1.650	2286		
		3 Joint of 4-1/2-13.5 LTC Casing	11634.79	115.73	5.000	3.920				
		Baker Open Hole Packer	11750.52	3.89	5.820	3.875		2154		
		2 Joints of 4-1/2-13.5 LTC Casing	11754.41	77.19	5.000	3.920				
		1.625 EX Frac Sleeve	11831.60	2.40	5.750		1.525	2286		
		3 Joints of 4-1/2-13.5 LTC Casing	11834.00	114.84	5.000	3.920				
		Baker Open Hole Packer	11948.84	3.89	5.820	3.875		2154		
		3 Joints of 4-1/2-13.5 LTC Casing	11952.73	122.90	5.000	3.920				
		1.500 DBL Ball Frac Sleeve	12075.63	2.40	5.750		1.400	2286		
		3 Joint of 4-1/2-13.5 LTC Casing	12078.03	123.62	5.000	3.920				
		Baker Open Hole Packer	12201.65	3.89	5.820	3.875		2154		

Company Rep	Russell Bryant
Field	
BOT Service Rep	John Davis
District Location	Odessa, Texas, USA

[illegible]

TVD	7,960.00	KOP	7,339.00	Open Hole	6.125	Casing Vol. (bbl)	304.1
-----	----------	-----	----------	-----------	-------	-------------------	-------

Carry Fluid Weight (ppg)	8.8	Propant Content (ppa)		Max Drill Out Size	0
--------------------------	-----	-----------------------	--	--------------------	---

[illegible]