OPERATOR MEWBOURNE OIL COMPANY 047-0102
WELL/LEASE THOMPSON 8 FED 3H
COUNTY EDDY

STATE OF NEW MEXICO
DEVIATION REPORT 30 015 41040

351	1.00
640	1.00
1,018	1.34
1,350	1.84
1,477	1.46
1,731	0.49
2,016	1.15
2,206	2.33
2,301	2.24
3,211	2.00
3,484	2.53
3,962	1.86
4,470	1.10
4,724	0.20
5,234	0.90
5,725	1.00
6,235	1.20
6,566	1.60
6,806	1.70
7,041	1.40

Received

MAR 19 2013

me Oil Company
bs

BY: Steve Moore

STATE OF TEXAS

COUNTY OF MIDLAND

The foregoing instrument was acknowledged before me on 3/12/13, by Steve Moore on behalf of Patterson-UTI Drilling Company LLC.

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

AMBER ELIZABETH CARR
Notary Public, State of Texas
My Commission Expires
September 28, 2016

Company: Mewbourne Oil Company
Lease/Well: Thompson 8 Federal/No 003H
Location: Sec 008 T-20S R-29E
Rig Name: Patterson 47
State/County: New Mexico /Eddy
Latitude: 32.59, Longitude: -104.09
GRID North Is 0.13 Degrees East of True North
VS-Azi: 0.00 Degrees

Depth Reference : RKB 19 Feet

DRILLOG HA GYRO SURVEY CALCULATIONS
Filename: thompson 8 fed #3-de_01.ut
Minimum Curvature Method
Report Date/Time: 3/4/2013 / 09:24

Vaughn Energy Services
Shreveport, LA
318-549-3860
Surveyor: Billy James
Thompson 8 Federal No 003H / API 30-015-41040

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	****
100.00	0.72	297.46	100.00	0.29	-0.56	0.29	0.63	297.46	0.72
200.00	0.51	219.02	199.99	0.23	-1.39	0.23	1.41	279.48	0.79
300.00	0.53	141.61	299.99	-0.48	-1.39	-0.48	1.47	251.06	0.65
400.00	0.94	174.29	399.98	-1.65	-1.02	-1.65	1.94	211.59	0.57
500.00	0.75	193.41	499.97	-3.11	-1.09	-3.11	3.29	199.29	0.34
600.00	0.48	120.52	599.97	-3.96	-0.88	-3.96	4.05	192.51	0.76
700.00	1.27	103.87	699.95	-4.44	0.56	-4.44	4.47	172.84	0.82
800.00	1.88	91.56	799.92	-4.75	3.27	-4.75	5.77	145.39	0.70
900.00	1.85	91.55	899.86	-4.83	6.53	-4.83	8.13	126.50	0.03
1000.00	1.67	95.74	999.82	-5.02	9.59	-5.02	10.83	117.63	0.22
1100.00	1.39	99.35	1099.78	-5.37	12.24	-5.37	13.36	113.67	0.29
1200.00	1.54	105.45	1199.75	-5.92	14.73	-5.92	15.88	111.90	0.21
1300.00	1.30	115.25	1299.72	-6.76	17.05	-6.76	18.34	111.63	0.34
1400.00	1.05	135.64	1399.70	-7.90	18.72	-7.90	20.32	112.89	0.48
1500.00	0.15	116.97	1499.69	-8.62	19.48	-8.62	21.30	113.87	0.92
1600.00	0.25	109.40	1599.69	-8.75	19.80	-8.75	21.65	113.84	0.11
1700.00	0.49	62.05	1699.69	-8.62	20.38	-8.62	22.13	112.93	0.37
1800.00	1.50	65.62	1799.67	-7.88	21.95	-7.88	23.33	109.75	1.02
1900.00	1.63	58.87	1899.63	-6.60	24.37	-6.60	25.25	105.16	0.22
2000.00	1.22	21.34	1999.60	-4.87	25.97	-4.87	26.43	100.63	0.99

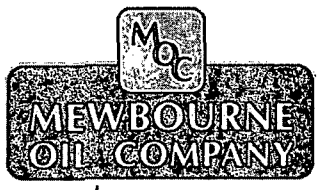
VES Survey Date: 02/28/2013

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
2100.00	1.10	290.58	2099.59	-3.54	25.46	-3.54	25.71	97.92	1.66
2200.00	1.43	257.35	2199.57	-3.48	23.35	-3.48	23.61	98.47	0.79
2300.00	1.50	220.70	2299.54	-4.75	21.28	-4.75	21.80	102.57	0.92
2400.00	1.74	230.75	2399.50	-6.70	19.25	-6.70	20.38	109.19	0.37
2500.00	0.87	299.69	2499.48	-7.28	17.42	-7.28	18.88	112.69	1.64
2600.00	0.81	310.41	2599.46	-6.45	16.22	-6.45	17.45	111.68	0.17
2700.00	0.51	280.91	2699.46	-5.90	15.24	-5.90	16.35	111.17	0.45
2800.00	1.31	239.39	2799.45	-6.40	13.83	-6.40	15.24	114.84	0.99
2900.00	1.86	218.75	2899.41	-8.25	11.83	-8.25	14.42	124.88	0.78
3000.00	1.79	209.96	2999.36	-10.86	10.04	-10.86	14.79	137.25	0.29
3100.00	1.40	205.43	3099.32	-13.32	8.73	-13.32	15.93	146.75	0.40
3200.00	1.55	231.44	3199.29	-15.27	7.15	-15.27	16.86	154.92	0.68
3300.00	0.70	241.23	3299.27	-16.41	5.55	-16.41	17.33	161.33	0.87
3400.00	0.86	257.83	3399.26	-16.87	4.27	-16.87	17.40	165.78	0.27
3500.00	1.29	241.42	3499.24	-17.57	2.55	-17.57	17.75	171.74	0.53
3600.00	1.43	240.02	3599.21	-18.73	0.48	-18.73	18.73	178.54	0.14
3700.00	1.57	239.27	3699.18	-20.05	-1.78	-20.05	20.13	185.06	0.14
3800.00	1.26	238.90	3799.15	-21.32	-3.90	-21.32	21.67	190.36	0.30
3900.00	1.66	236.68	3899.11	-22.68	-6.05	-22.68	23.48	194.94	0.40
4000.00	1.44	236.68	3999.08	-24.17	-8.31	-24.17	25.56	198.98	0.22
4100.00	1.01	251.08	4099.05	-25.15	-10.20	-25.15	27.13	202.07	0.53
4200.00	1.11	278.36	4199.04	-25.29	-11.99	-25.29	27.99	205.36	0.51
4300.00	0.63	266.88	4299.03	-25.18	-13.50	-25.18	28.57	208.20	0.51
4400.00	1.10	233.41	4399.01	-25.78	-14.82	-25.78	29.74	209.90	0.67
4500.00	1.41	250.96	4498.99	-26.76	-16.76	-26.76	31.57	212.06	0.49
4600.00	0.48	260.11	4598.98	-27.23	-18.34	-27.23	32.83	213.96	0.94
4700.00	0.43	278.37	4698.97	-27.25	-19.12	-27.25	33.29	215.06	0.15
4800.00	0.38	297.54	4798.97	-27.04	-19.79	-27.04	33.51	216.20	0.14
4900.00	0.58	274.83	4898.97	-26.84	-20.59	-26.84	33.83	217.50	0.27
5000.00	0.56	231.56	4998.96	-27.10	-21.49	-27.10	34.59	218.41	0.42
5100.00	1.10	229.07	5098.95	-28.04	-22.60	-28.04	36.01	218.87	0.54
5200.00	0.97	272.41	5198.94	-28.63	-24.17	-28.63	37.47	220.17	0.78
5300.00	0.37	305.32	5298.93	-28.41	-25.28	-28.41	38.03	221.67	0.69
5400.00	0.45	276.05	5398.93	-28.18	-25.94	-28.18	38.30	222.63	0.22
5500.00	0.66	297.59	5498.92	-27.87	-26.84	-27.87	38.69	223.92	0.29
5600.00	0.36	319.77	5598.92	-27.36	-27.56	-27.36	38.83	225.20	0.35
5700.00	0.46	329.16	5698.92	-26.78	-27.97	-26.78	38.72	226.25	0.12
5800.00	1.04	359.77	5798.91	-25.52	-28.18	-25.52	38.02	227.83	0.68
5900.00	0.50	356.40	5898.90	-24.18	-28.21	-24.18	37.16	229.39	0.54
6000.00	0.68	338.04	5998.89	-23.20	-28.46	-23.20	36.72	230.81	0.26
6100.00	1.00	19.68	6098.88	-21.83	-28.39	-21.83	35.81	232.44	0.67
6200.00	1.43	5.99	6198.86	-19.76	-27.96	-19.76	34.24	234.75	0.51

VES Survey Date: 02/28/2013

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
6300.00	1.61	348.43	6298.83	-17.15	-28.11	-17.15	32.93	238.61	0.50
6400.00	1.63	347.99	6398.79	-14.38	-28.69	-14.38	32.09	243.38	0.03
6500.00	1.04	336.68	6498.76	-12.15	-29.35	-12.15	31.76	247.50	0.65
6600.00	1.62	333.79	6598.73	-10.05	-30.33	-10.05	31.95	251.66	0.58
6700.00	1.86	333.30	6698.68	-7.34	-31.68	-7.34	32.52	256.96	0.25
6800.00	1.70	333.87	6798.64	-4.55	-33.07	-4.55	33.38	262.16	0.16
6900.00	1.23	300.59	6898.60	-2.67	-34.65	-2.67	34.75	265.60	0.95
7000.00	1.29	299.09	6998.58	-1.57	-36.55	-1.57	36.59	267.53	0.06
7100.00	1.18	293.69	7098.56	-0.62	-38.47	-0.62	38.48	269.08	0.16
7200.00	1.93	308.06	7198.52	0.83	-40.74	0.83	40.75	271.17	0.84
7250.00	1.68	308.24	7248.50	1.81	-41.98	1.81	42.02	272.46	0.49
7310.00	1.98	307.22	7308.46	2.98	-43.49	2.98	43.60	273.92	0.50

VES Survey Date: 02/28/2013



Mewbourne Oil Company

EDDY COUNTY, NM (NAD27)
SECTION 8
THOMPSON 8 FEDERAL #3H

Wellbore #1

Survey: Plan v. Actual

Standard Survey Report

19 March, 2013

Stryker Directional
Survey Report

Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well THOMPSON 8 FEDERAL #3H
Project:	EDDY COUNTY, NM (NAD27)	TVD Reference:	WELL @ 3299.0usft (Original Well Elev)
Site:	SECTION 8	MD Reference:	WELL @ 3299.0usft (Original Well Elev)
Well:	THOMPSON 8 FEDERAL #3H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Plan v. Actual	Database:	EDM 5000.1 Single User Db

Project EDDY COUNTY, NM (NAD27) - NM-EAST

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 SECTION 8 - H

Site Position:		Northing:	578,069.43 usft	Latitude:	32° 35' 20.329 N
From:	Map	Easting:	575,373.44 usft	Longitude:	104° 5' 19.004 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.13 °

Well THOMPSON 8 FEDERAL #3H

Well Position	+N/-S	0.0 usft	Northing:	578,069.43 usft	Latitude:	32° 35' 20.329 N
	+E/-W	0.0 usft	Easting:	575,373.44 usft	Longitude:	104° 5' 19.004 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	3,279.0 usft

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	9/27/2012	7.69	60.40	48,651

Design Plan v. Actual

Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	273.06

Survey Program Date 3/19/2013

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
100.0	7,310.0	Gyro Survey (Wellbore #1)		
7,486.0	12,540.0	Plan v. Actual (Wellbore #1)		

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)
7,310.0	1.98	307.22	7,308.5	3.0	-43.5	43.6	0.00	0.00	0.00
TI @ 7310 MD, 1.98°									
7,486.0	4.60	304.60	7,484.2	8.8	-51.7	52.1	1.49	1.49	-1.49
7,518.0	7.20	296.20	7,516.0	10.4	-54.6	55.0	8.54	8.13	-26.25
7,550.0	10.30	271.10	7,547.6	11.4	-59.2	59.7	15.15	9.69	-78.44
7,581.0	12.60	278.40	7,578.0	11.9	-65.3	65.9	8.76	7.42	23.55
7,613.0	16.10	275.50	7,609.0	12.9	-73.2	73.8	11.16	10.94	-9.06
7,645.0	19.10	267.70	7,639.5	13.1	-82.9	83.4	11.91	9.38	-24.38
7,677.0	21.90	260.50	7,669.5	11.9	-94.0	94.5	11.76	8.75	-22.50
7,708.0	23.90	261.60	7,698.0	10.0	-105.9	106.3	6.60	6.45	3.55

Company:	Mewbourne Oil Company	**Local Co-ordinate Reference:**	Well THOMPSON 8 FEDERAL #3H
Project:	EDDY COUNTY, NM (NAD27)	**TVD Reference:**	WELL @ 3299.0usft (Original Well Elev)
Site:	SECTION 8	**MD Reference:**	WELL @ 3299.0usft (Original Well Elev)
Well:	THOMPSON 8 FEDERAL #3H	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan v Actual	**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)
7,740.0	25.60	265.60	7,727.1	8.5	-119.2	119.5	7.45	5.31	12.50
7,772.0	28.60	266.70	7,755.6	7.6	-133.7	134.0	9.50	9.38	3.44
7,804.0	31.80	264.70	7,783.2	6.3	-149.8	149.9	10.48	10.00	-6.25
7,835.0	35.30	263.50	7,809.1	4.6	-166.8	166.8	11.49	11.29	-3.87
7,867.0	39.20	264.00	7,834.5	2.5	-186.1	185.9	12.22	12.19	1.56
7,899.0	44.10	266.00	7,858.4	0.6	-207.3	207.0	15.86	15.31	6.25
7,931.0	49.70	267.90	7,880.3	-0.6	-230.6	230.2	18.03	17.50	5.94
7,962.0	55.50	268.90	7,899.1	-1.3	-255.2	254.8	18.88	18.71	3.23
7,994.0	61.10	270.70	7,915.9	-1.4	-282.4	281.9	18.14	17.50	5.63
8,026.0	66.90	273.90	7,930.0	-0.2	-311.1	310.7	20.23	18.13	10.00
8,058.0	72.20	275.60	7,941.1	2.3	-341.0	340.6	17.29	16.56	5.31
8,084.0	77.20	275.60	7,948.0	4.8	-365.9	365.7	19.23	19.23	0.00
8,161.0	90.50	273.70	7,956.2	10.9	-442.1	442.0	17.45	17.27	-2.47
8,193.0	90.80	273.20	7,955.9	12.9	-474.0	474.0	1.82	0.94	-1.56
8,256.0	91.50	272.30	7,954.6	15.9	-536.9	537.0	1.81	1.11	-1.43
8,319.0	89.70	269.80	7,953.9	17.0	-599.9	600.0	4.89	-2.86	-3.97
8,383.0	91.10	269.50	7,953.5	16.6	-663.9	663.8	2.24	2.19	-0.47
8,446.0	92.20	270.20	7,951.7	16.5	-726.9	726.7	2.07	1.75	1.11
8,509.0	91.30	269.50	7,949.7	16.3	-789.8	789.6	1.81	-1.43	-1.11
8,572.0	92.90	270.90	7,947.4	16.5	-852.8	852.5	3.37	2.54	2.22
8,635.0	93.10	271.80	7,944.1	18.0	-915.7	915.3	1.46	0.32	1.43
8,698.0	94.10	273.20	7,940.2	20.8	-978.5	978.2	2.73	1.59	2.22
8,761.0	93.50	275.30	7,936.0	25.4	-1,041.2	1,041.1	3.46	-0.95	3.33
8,824.0	93.10	276.30	7,932.4	31.8	-1,103.8	1,103.9	1.71	-0.63	1.59
8,887.0	89.80	280.20	7,930.8	40.8	-1,166.1	1,166.6	8.11	-5.24	6.19
8,951.0	89.80	280.70	7,931.0	52.4	-1,229.0	1,230.0	0.78	0.00	0.78
9,014.0	90.30	280.50	7,931.0	64.0	-1,290.9	1,292.5	0.85	0.79	-0.32
9,077.0	88.50	280.50	7,931.6	75.5	-1,352.9	1,355.0	2.86	-2.86	0.00
9,140.0	86.60	279.00	7,934.3	86.1	-1,414.9	1,417.5	3.84	-3.02	-2.38
9,203.0	85.60	274.70	7,938.6	93.6	-1,477.3	1,480.2	6.99	-1.59	-6.83
9,267.0	86.20	273.20	7,943.2	98.0	-1,541.0	1,544.0	2.52	0.94	-2.34
9,298.0	88.60	272.60	7,944.6	99.6	-1,571.9	1,575.0	7.98	7.74	-1.94
9,330.0	90.70	271.10	7,944.8	100.6	-1,603.9	1,607.0	8.06	6.56	-4.69
9,362.0	90.70	269.30	7,944.4	100.7	-1,635.9	1,638.9	5.62	0.00	-5.63
9,393.0	90.60	269.10	7,944.0	100.3	-1,666.9	1,669.8	0.72	-0.32	-0.65
9,425.0	91.20	268.20	7,943.5	99.6	-1,698.8	1,701.7	3.38	1.88	-2.81
9,456.0	93.10	267.90	7,942.4	98.5	-1,729.8	1,732.6	6.20	6.13	-0.97
9,488.0	92.90	267.50	7,940.7	97.2	-1,761.7	1,764.4	1.40	-0.63	-1.25
9,520.0	92.10	268.60	7,939.3	96.1	-1,793.7	1,796.3	4.25	-2.50	3.44
9,551.0	91.90	270.40	7,938.2	95.9	-1,824.7	1,827.2	5.84	-0.65	5.81
9,583.0	92.10	269.60	7,937.1	95.9	-1,856.6	1,859.1	2.58	0.63	-2.50
9,615.0	92.00	269.30	7,936.0	95.6	-1,888.6	1,891.0	0.99	-0.31	-0.94
9,646.0	91.80	270.50	7,934.9	95.5	-1,919.6	1,922.0	3.92	-0.65	3.87

Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well THOMPSON 8 FEDERAL #3H
Project:	EDDY COUNTY, NM (NAD27)	TVD Reference:	WELL @ 3299.0usft (Original Well Elev)
Site:	SECTION 8	MD Reference:	WELL @ 3299.0usft (Original Well Elev)
Well:	THOMPSON 8 FEDERAL #3H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Plan v. Actual	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)
9,678.0	92.20	271.90	7,933.8	96.2	-1,951.6	1,953.9	4.55	1.25	4.38
9,710.0	92.00	271.10	7,932.6	97.0	-1,983.5	1,985.9	2.58	-0.63	-2.50
9,741.0	91.80	270.90	7,931.6	97.6	-2,014.5	2,016.9	0.91	-0.65	-0.65
9,773.0	92.20	272.10	7,930.5	98.4	-2,046.5	2,048.8	3.95	1.25	3.75
9,805.0	92.80	273.20	7,929.1	99.9	-2,078.4	2,080.8	3.91	1.88	3.44
9,836.0	93.20	272.80	7,927.5	101.5	-2,109.3	2,111.8	1.82	1.29	-1.29
9,868.0	92.20	273.90	7,926.0	103.4	-2,141.3	2,143.7	4.64	-3.13	3.44
9,931.0	92.10	276.20	7,923.6	108.9	-2,204.0	2,206.6	3.65	-0.16	3.65
9,994.0	92.90	275.60	7,920.9	115.4	-2,266.6	2,269.5	1.59	1.27	-0.95
10,057.0	92.20	276.50	7,918.0	122.0	-2,329.2	2,332.3	1.81	-1.11	1.43
10,121.0	88.20	278.40	7,917.8	130.3	-2,392.6	2,396.1	6.92	-6.25	2.97
10,184.0	87.40	278.10	7,920.2	139.3	-2,454.9	2,458.8	1.36	-1.27	-0.48
10,247.0	90.70	273.90	7,921.3	145.9	-2,517.5	2,521.7	8.48	5.24	-6.67
10,310.0	91.00	273.50	7,920.4	150.0	-2,580.4	2,584.7	0.79	0.48	-0.63
10,373.0	91.30	273.30	7,919.1	153.7	-2,643.3	2,647.7	0.57	0.48	-0.32
10,436.0	91.20	272.50	7,917.7	156.9	-2,706.2	2,710.7	1.28	-0.16	-1.27
10,500.0	91.40	272.30	7,916.3	159.6	-2,770.1	2,774.7	0.44	0.31	-0.31
10,563.0	91.40	271.90	7,914.7	161.9	-2,833.0	2,837.6	0.63	0.00	-0.63
10,626.0	90.60	271.90	7,913.6	164.0	-2,896.0	2,900.6	1.27	-1.27	0.00
10,690.0	90.80	271.40	7,912.8	165.8	-2,960.0	2,964.6	0.84	0.31	-0.78
10,753.0	92.90	270.50	7,910.8	166.9	-3,022.9	3,027.5	3.63	3.33	-1.43
10,816.0	93.60	269.80	7,907.2	167.0	-3,085.8	3,090.3	1.57	1.11	-1.11
10,880.0	93.20	273.30	7,903.4	168.8	-3,149.7	3,154.2	5.49	-0.63	5.47
10,943.0	91.90	274.60	7,900.6	173.1	-3,212.4	3,217.1	2.92	-2.06	2.06
11,006.0	88.50	276.50	7,900.4	179.2	-3,275.1	3,280.0	6.18	-5.40	3.02
11,070.0	89.00	276.30	7,901.8	186.3	-3,338.7	3,343.9	0.84	0.78	-0.31
11,133.0	91.80	276.90	7,901.4	193.6	-3,401.3	3,406.8	4.55	4.44	0.95
11,196.0	91.80	277.40	7,899.4	201.4	-3,463.8	3,469.6	0.79	0.00	0.79
11,259.0	92.30	277.00	7,897.1	209.3	-3,526.2	3,532.4	1.02	0.79	-0.63
11,322.0	92.90	276.90	7,894.3	216.9	-3,588.7	3,595.2	0.97	0.95	-0.16
11,386.0	91.70	277.40	7,891.7	224.9	-3,652.2	3,659.0	2.03	-1.88	0.78
11,449.0	87.80	279.00	7,892.0	233.8	-3,714.5	3,721.7	6.69	-6.19	2.54
11,512.0	89.10	277.70	7,893.7	243.0	-3,776.8	3,784.4	2.92	2.06	-2.06
11,576.0	89.30	277.00	7,894.6	251.2	-3,840.3	3,848.2	1.14	0.31	-1.09
11,639.0	88.00	275.30	7,896.1	257.9	-3,902.9	3,911.1	3.40	-2.06	-2.70
11,702.0	87.30	274.20	7,898.7	263.1	-3,965.6	3,974.0	2.07	-1.11	-1.75
11,765.0	86.60	272.80	7,902.0	267.0	-4,028.4	4,036.9	2.48	-1.11	-2.22
11,829.0	88.60	269.60	7,904.7	268.3	-4,092.3	4,100.8	5.89	3.13	-5.00
11,892.0	89.50	267.70	7,905.7	266.8	-4,155.3	4,163.6	3.34	1.43	-3.02
11,955.0	91.60	266.50	7,905.1	263.6	-4,218.2	4,226.3	3.84	3.33	-1.90
12,019.0	93.20	266.50	7,902.4	259.7	-4,282.0	4,289.8	2.50	2.50	0.00
12,082.0	93.60	265.60	7,898.7	255.4	-4,344.8	4,352.2	1.56	0.63	-1.43
12,145.0	95.40	265.10	7,893.8	250.3	-4,407.4	4,414.4	2.96	2.86	-0.79

Company:	Mewbourne Oil Company	**Local Co-ordinate Reference:**	Well THOMPSON 8 FEDERAL #3H
Project:	EDDY COUNTY, NM (NAD27)	**TVD Reference:**	WELL @ 3299.0usft (Original Well Elev)
Site:	SECTION 8	**MD Reference:**	WELL @ 3299.0usft (Original Well Elev)
Well:	THOMPSON 8 FEDERAL #3H	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan v. Actual	**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)
12,208.0	97.20	264.60	7,886.9	244.7	-4,469.7	4,476.4	2.96	2.86	-0.79
12,272.0	98.20	265.30	7,878.3	239.1	-4,532.9	4,539.2	1.90	1.56	1.09
12,335.0	98.60	267.00	7,869.1	234.9	-4,595.1	4,601.1	2.74	0.63	2.70
12,398.0	94.30	268.40	7,862.0	232.4	-4,657.6	4,663.4	7.17	-6.83	2.22
12,461.0	94.10	268.10	7,857.4	230.5	-4,720.4	4,726.0	0.57	-0.32	-0.48
12,477.0	94.20	267.70	7,856.2	229.9	-4,736.4	4,741.9	2.57	0.63	-2.50
12,540.0	94.20	267.70	7,851.6	227.4	-4,799.2	4,804.5	0.00	0.00	0.00
BHL @ 12540 MD, 94.20°									

Survey Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
7,310.0	7,308.5	3.0	-43.5	TI @ 7310 MD, 1.98°
12,540.0	7,851.6	227.4	-4,799.2	BHL @ 12540 MD, 94.20°

Checked By: _____ Approved By: _____ Date: _____

COMPANY: Mewbourne Oil Company
WELL: THOMPSON 8 FEDERAL #3H
COUNTY: EDDY COUNTY, NM (NAD27)
DATUM: NAD 1927 (NADCON CONUS)
RIG: PATTERSON 47
GRID CORRECTION: 7.56° E

OFFICE: 936.582.7296 PLANNING: 214.784.3778

Azimuths to Grid North
True North: -0.13°
Magnetic North: 7.56°

Magnetic Field
Strength: 48651.3snT
Dip Angle: 60.40°
Date: 9/27/2012
Model: IGRF2010

CREATED BY: BRANDON ESTES

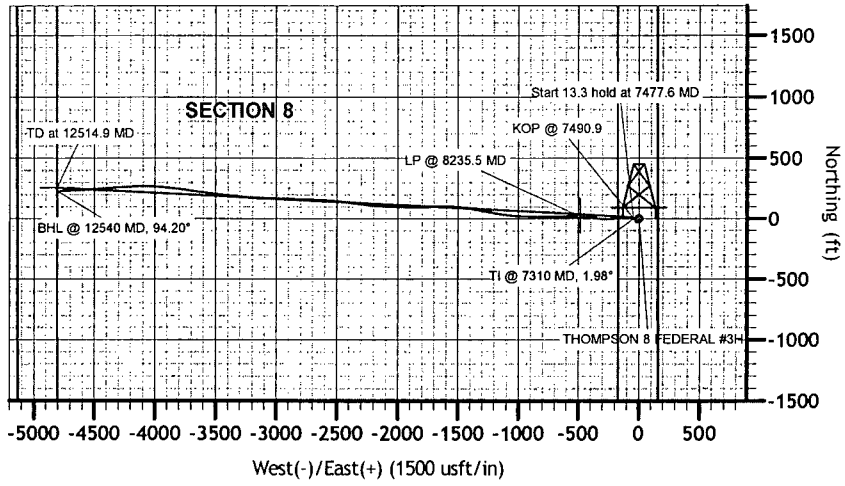
DATE: 10:21, March 19 2013
PLAN: Plan v. Actual

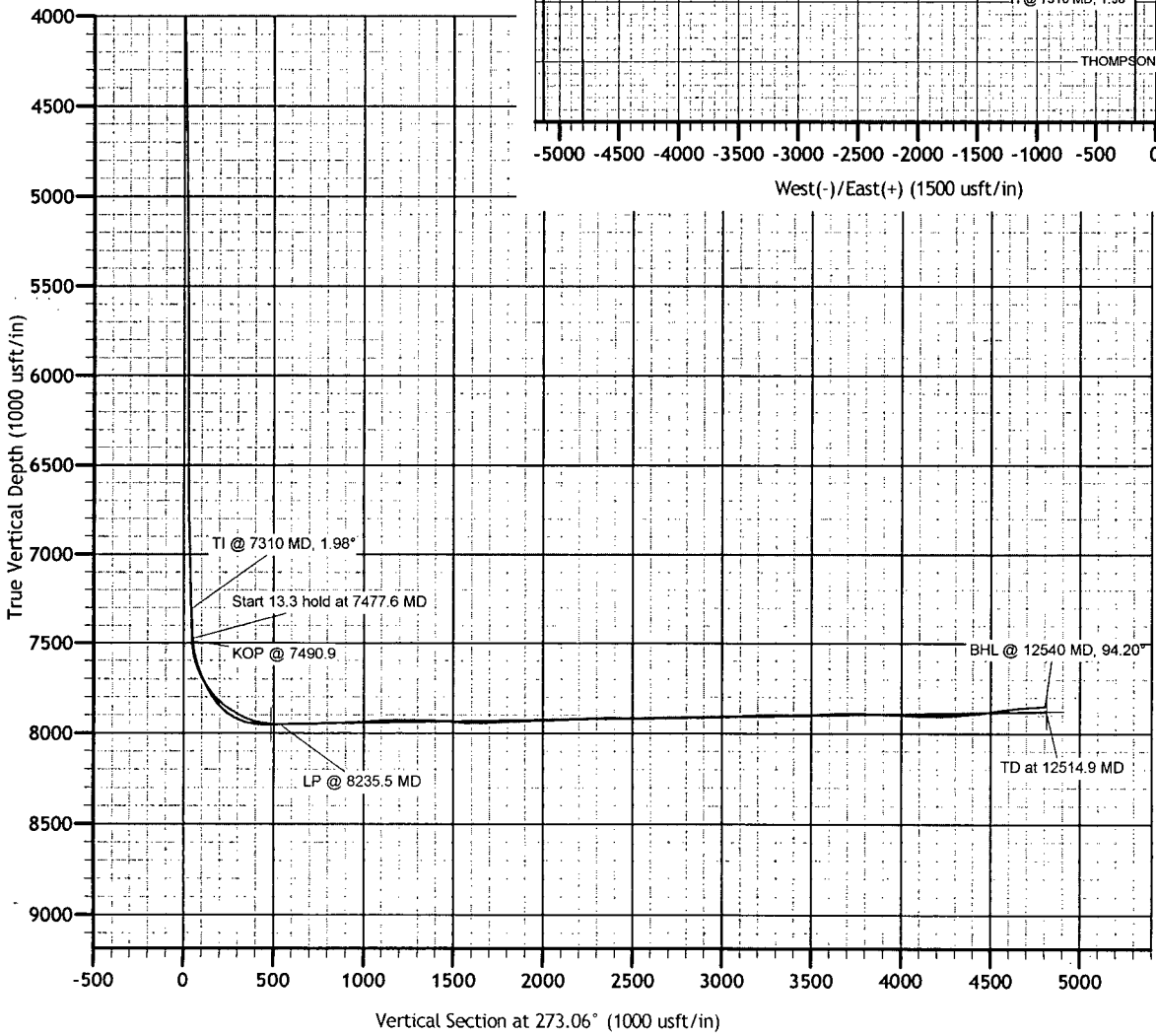
GEODETIC ZONE: New Mexico East 3001
WELL @ 3299.0usft (Original Well Elev)
GROUND ELEVATION: 3279.0

+N/-S	+E/-W	Northing	Easting	Latittude	Longitude
0.0	0.0	578069.42	575373.44	32° 35' 20.329 N	104° 5' 19.004 W

CRITICAL POINTS

TVD	MD	Inc	Azi	+N/-S	+E/-W	VSect	Departure	Annotation
7308.5	7310.0	1.98	307.22	3.0	-43.5	43.6	0.0	TI @ 7310 MD, 1.98°
7851.6	12540.0	94.20	267.70	227.4	-4799.2	4804.5	4776.1	BHL @ 12540 MD, 94.20°





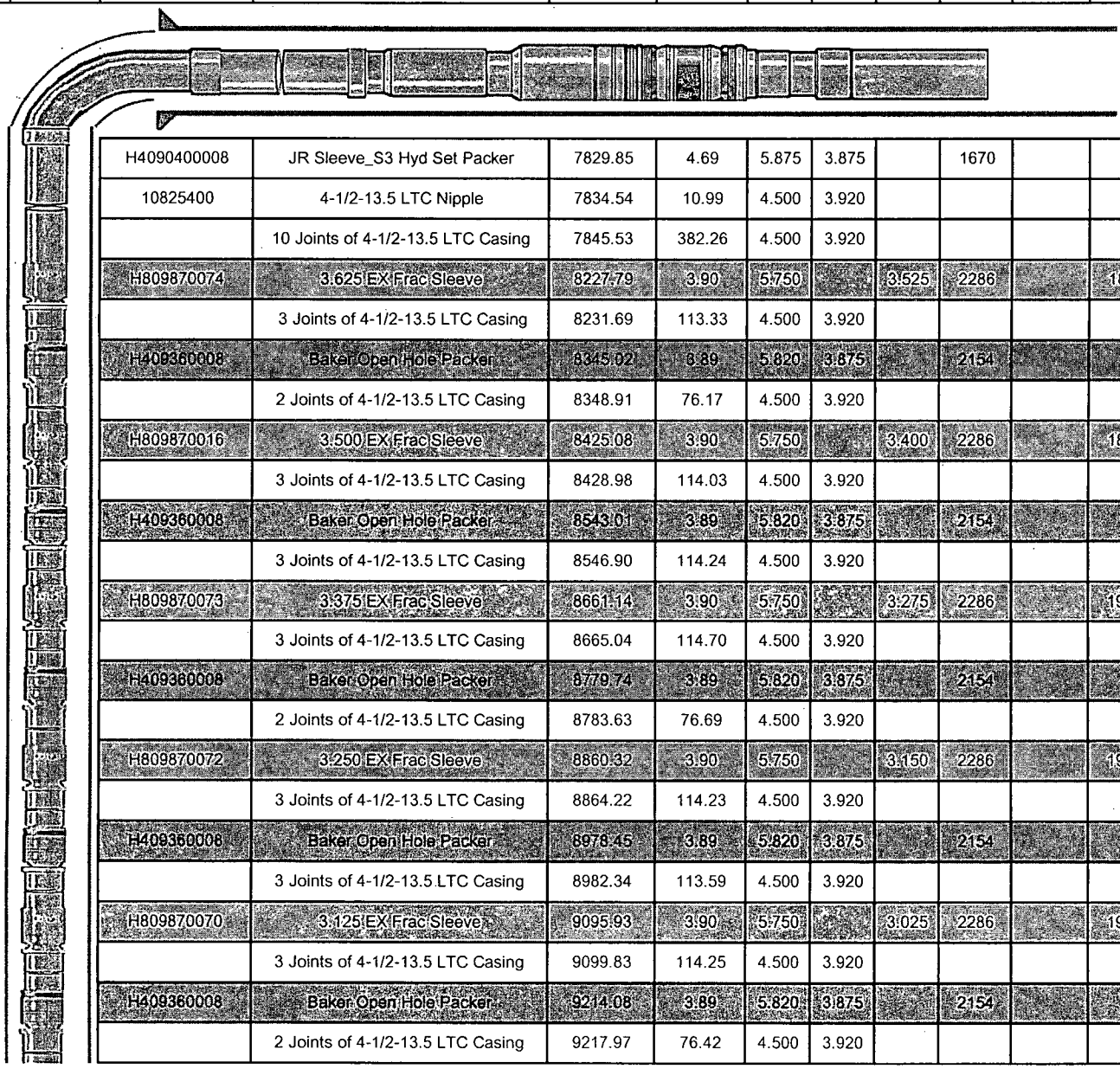
Operating Company	Mewbourne	**Company Rep**	Brian
Well Name & Number	Thomson 8 Federal #3H	**Field**	Thompson
Sales Ticket Number	5341745	**BOT Service Rep**	Joseph Haynes
Date	3/10/2013	**District Location**	Odessa, Texas, USA

BAKER HUGHES

	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	8,147.00	9,960	6,230
Top Liner	4.500	13.50	338000	3.920	3.795	LT&C	0.01492	4,697.15	12,410	10,680
Bott Liner										

TVD	7,856.00	KOP	7,426.00	Open Hole	6.125	Casing Vol. (bbl)	180.4
Carry Fluid Weight (ppg)	8.4	Propant Content (ppa)				Max Drill Out Size	3.625

	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	7825.85	4.00	5.750	4.000				



Zone Length:										
	H4090400008	JR Sleeve_S3 Hyd Set Packer	7829.85	4.69	5.875	3.875		1670		
	10825400	4-1/2-13.5 LTC Nipple	7834.54	10.99	4.500	3.920				
		10 Joints of 4-1/2-13.5 LTC Casing	7845.53	382.26	4.500	3.920				
20	H809870074	3.625 EX Frac Sleeve	8227.79	3.90	5.750		3.525	2286		186
		3 Joints of 4-1/2-13.5 LTC Casing	8231.69	113.33	4.500	3.920				
	H409360008	Baker Open Hole Packer	8345.02	6.89	5.820	3.875		2154		
		2 Joints of 4-1/2-13.5 LTC Casing	8348.91	76.17	4.500	3.920				
19	H809870016	3.500 EX Frac Sleeve	8425.08	3.90	5.750		3.400	2286		188
		3 Joints of 4-1/2-13.5 LTC Casing	8428.98	114.03	4.500	3.920				
	H409360008	Baker Open Hole Packer	8543.01	3.89	5.820	3.875		2154		
		3 Joints of 4-1/2-13.5 LTC Casing	8546.90	114.24	4.500	3.920				
18	H809870073	3.375 EX Frac Sleeve	8661.14	3.90	5.750		3.275	2286		193
		3 Joints of 4-1/2-13.5 LTC Casing	8665.04	114.70	4.500	3.920				
	H409360008	Baker Open Hole Packer	8779.74	3.89	5.820	3.875		2154		
		2 Joints of 4-1/2-13.5 LTC Casing	8783.63	76.69	4.500	3.920				
17	H809870072	3.250 EX Frac Sleeve	8860.32	3.90	5.750		3.150	2286		196
		3 Joints of 4-1/2-13.5 LTC Casing	8864.22	114.23	4.500	3.920				
	H409360008	Baker Open Hole Packer	8978.45	3.89	5.820	3.875		2154		
		3 Joints of 4-1/2-13.5 LTC Casing	8982.34	113.59	4.500	3.920				
16	H809870070	3.125 EX Frac Sleeve	9095.93	3.90	5.750		3.025	2286		199
		3 Joints of 4-1/2-13.5 LTC Casing	9099.83	114.25	4.500	3.920				
	H409360008	Baker Open Hole Packer	9214.08	3.89	5.820	3.875		2154		
		2 Joints of 4-1/2-13.5 LTC Casing	9217.97	76.42	4.500	3.920				

Operating Company	Mewbourne	**Company Rep**	Brian		
Well Name & Number	Thomson 8 Federal #3H	**Field**	Thompson		
Sales Ticket Number	5341745	**BOT Service Rep**	Joseph Haynes		
Date	3/10/2013	**District Location**	Odessa, Texas, USA		

BAKER HUGHES

	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	8,147.00	9,960	6,230
Top Liner	4.500	13.50	338000	3.920	3.795	LT&C	0.01492	4,697.15	12,410	10,680
Bott Liner										

TVD	7,856.00	KOP	7,426.00	Open Hole	6.125	Casing Vol. (bbl)	180.4
Carry Fluid Weight (ppg)	8.4	Propant Content (ppa)				Max Drill Out Size	3.625

	Comm. Number	Description	Depth	Length	OD	ID	Ball Seat ID	Shear Press.	Max Rate (BPM)	Displ. (BBL)
15	H809870069	3.000 EX Frac Sleeve	9294.39	3.90	5.750		2.900	2286		201
		3 Joints of 4-1/2-13.5 LTC Casing	9298.29	115.09	4.500	3.920				
	H409360008	Baker Open Hole Packer	9413.38	3.89	5.820	3.875		2154		
		2 Joints of 4-1/2-13.5 LTC Casing	9417.27	75.03	4.500	3.920				
14	H809870068	2.875 EX Frac sleeve	9492.30	3.90	5.750		2.775	2286		205
		3 Joints of 4-1/2-13.5 LTC Casing	9496.20	113.67	4.500	3.920				
	H409360008	Baker Open Hole Packer	9609.87	3.89	5.820	3.875		2154		
		3 Joints of 4-1/2-13.5 LTC Casing	9613.76	113.93	4.500	3.920				
13	H809870067	2.750 EX Frac Sleeve	9727.69	3.90	5.750		2.650	2286		209
		3 Joint of 4-1/2-13.5 LTC Casing	9731.59	113.52	4.500	3.920				
	H409360008	Baker Open Hole Packer	9845.11	3.89	5.820	3.875		2154		
		2 Joints of 4-1/2-13.5 LTC Casing	9849.00	76.25	4.500	3.920				
12	H809870066	2.625 EX Frac Sleeve	9925.25	3.90	5.750		2.525	2286		212
		3 Joints of 4-1/2-13.5 LTC Casing	9929.15	114.06	4.500	3.920				
	H409360008	Baker Open Hole Packer	10043.21	3.89	5.820	3.875		2154		
		2 Joints of 4-1/2-13.5 LTC Casing	10047.10	75.25	4.500	3.920				
11	H809870065	2.500 EX Frac Sleeve	10122.35	3.90	5.750		2.400	2286		215
		3 Joints of 4-1/2-13.5 LTC Casing	10126.25	111.99	4.500	3.920				
	H409360008	Baker Open Hole Packer	10238.24	3.89	5.820	3.875		2154		
		3 Joints of 4-1/2-13.5 LTC Casing	10242.13	114.36	4.500	3.920				
10	H809870063	2.375 EX Frac Sleeve	10356.49	3.90	5.750		2.275	2286		218
		3 Joints of 4-1/2-13.5 LTC Casing	10360.39	113.74	4.500	3.920				
	H409360008	Baker Open Hole Packer	10474.13	3.89	5.820	3.875		2154		
		2 Joints of 4-1/2-13.5 LTC Casing	10478.02	74.22	4.500	3.920				
9	H809870054	2.250 EX Frac Sleeve	10552.24	3.90	5.750		2.150	2286		221
		3 Joints of 4-1/2-13.5 LTC Casing	10556.14	114.95	4.500	3.920				
	H409360008	Baker Open Hole Packer	10671.09	3.89	5.820	3.875		2154		

Operating Company	Mewbourne	**Company Rep**	Brian
Well Name & Number	Thomson 8 Federal #3H	**Field**	Thompson
Sales Ticket Number	5341745	**BOT Service Rep**	Joseph Haynes
Date	3/10/2013	**District Location**	Odessa, Texas, USA

BAKER HUGHES

	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	8,147.00	9,960	6,230
Top Liner	4.500	13.50	338000	3.920	3.795	LT&C	0.01492	4,697.15	12,410	10,680
Bott Liner										

TVD	7,856.00	KOP	7,426.00	Open Hole	6.125	Casing Vol. (bbl)	180.4
Carry Fluid Weight (ppg)	8.4	Propant Content (ppa)				Max Drill Out Size	3.625

	Comm. Number	Description	Depth	Length	OD	ID	Ball Seat ID	Shear Press	Max Rate (BPM)	Displ (BBL)
		2 Joints of 4-1/2-13.5 LTC Casing	10674.98	76.43	4.500	3.920				
8	H809870047	2.125 EX Frac Sleeve	10751.41	3.90	5.750		2.025	2286		224
		3 Joints of 4-1/2-13.5 LTC Casing	10755.31	112.51	4.500	3.920				
	H409360008	Baker Open Hole Packer	10867.82	3.89	5.820	3.875		2154		
		3 Joints of 4-1/2-13.5 LTC Casing	10871.71	113.77	4.500	3.920				
7	H809870042	2.000 EX Frac Sleeve	10985.48	3.90	5.750		1.900	2286		227
		3 Joints of 4-1/2-13.5 LTC Casing	10989.38	111.43	4.500	3.920				
	H409360008	Baker Open Hole Packer	11100.81	3.89	5.820	3.875		2154		
		2 Joints of 4-1/2-13.5 LTC Casing	11104.70	76.96	4.500	3.920				
6	H809870088	1.875 EX Frac Sleeve	11181.66	3.90	5.750		1.775	2286		230
		3 Joints of 4-1/2-13.5 LTC Casing	11185.56	112.95	4.500	3.920				
	H409360008	Baker Open Hole Packer	11298.51	3.89	5.820	3.875		2154		
		3 Joints of 4-1/2-13.5 LTC Casing	11302.40	114.48	4.500	3.920				
5	H809870087	1.750 EX Frac Sleeve	11416.88	3.90	5.750		1.650	2286		234
		3 Joints of 4-1/2-13.5 LTC Casing	11420.78	111.54	4.500	3.920				
	H409360008	Baker Open Hole Packer	11532.32	3.89	5.820	3.875		2154		
		2 Joints of 4-1/2-13.5 LTC Casing	11536.21	77.06	4.500	3.920				
4	H809870086	1.625 EX Frac Sleeve	11613.27	3.90	5.750		1.525	2286		237
		7 Joints of 4-1/2-13.5 LTC Casing	11617.17	266.99	4.500	3.920				
	H409360008	Baker Open Hole Packer	11884.16	3.89	5.820	3.875		2154		
		7 Joints of 4-1/2-13.5 LTC Casing	11888.05	265.84	4.500	3.920				
3	H809870085	1.500 EX Frac Sleeve	12153.89	3.90	5.750		1.400	2286		245
		3 Joints of 4-1/2-13.5 LTC Casing	12157.79	113.53	4.500	3.920				
	H409360008	Baker Open Hole Packer	12271.32	3.89	5.820	3.875		2154		
		2 Joints of 4-1/2-13.5 LTC Casing	12275.21	77.52	4.500	3.920				
2	H809160007	1.375 DBL Ball Frac Sleeve	12352.73	3.90	5.750		1.275	2286		
		2 Joints of 4-1/2-13.5 LTC Casing	12356.63	74.70	4.500	3.920				

Operating Company	Mewbourne	**Company Rep**	Brian		
Well Name & Number	Thomson 8 Federal #3H	**Field**	Thompson		
Sales Ticket Number	5341745	**BOT Service Rep**	Joseph Haynes		
Date	3/10/2013	**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	8,147.00	9,960	6,230
Top Liner	4.500	13.50	338000	3.920	3.795	LT&C	0.01492	4,697.15	12,410	10,680
Bott Liner										

TVD	7,856.00	KOP	7,426.00	Open Hole	6.125	Casing Vol. (bbl)	180.4
Carry Fluid Weight (ppg)	8.4	Propant Content (ppa)				Max Drill Out Size	3.625

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Comm. Number	Description	Depth	Length	OD	ID	Ball Seat ID	Shear Press.	Max Rate (BPM)	Displ (BBL)
H409360008	Baker Open Hole Packer	12431.33	3.89	5.820	3.875		2154		
	2 Joints of 4-1/2-13.5 LTC Casing	12435.22	75.05	4.500	3.920				
H810060007	1.25 EX Frac Sleeve	12510.27	2.38	5.750		1.250	3048		250
	Pup Joint	12512.65	8.06	4.500	3.920				
	Double Valve Float Shoe	12520.71	2.29	5.820	3.875		2154		
	Bottom of Float Shoe	12523.00							