

Results of Directional Survey

API number:	30-025-40873		
OGRID:		Operator:	MEWBOURNE OIL CO
		Property:	NORTE 13 IL FEDERAL # 1H

surface	ULSTR:	I	13	T 19S	R 32E
				1910 FSL	150 FEL

BH Loc	ULSTR:	L	13	T 19S	R 32E
14400	MD	9655.6	TVD	2015 FSL	346 FWL
					4934 FEL

Top Perf/OH	ULSTR:	I	13	T 19S	R 32E
9695	MD	9621.6	TVD	1880 FSL	257 FEL

Bot Perf/OH	ULSTR:	L	13	T 19S	R 32E
13780	MD	101.2	TVD	2011 FSL	966 FWL
					4314 FEL

	MD	N/S	E/W	VD
	9747	-30.80	-152.40	9647.4
TOP PERFS/OH	9695	-29.83	-107.39	9621.56
	9779	-31.40	-180.10	9663.30
	13760	100.10	-4144.50	100.10
BOT PERFS/OH	13780	101.23	-4164.47	101.23
	13824	103.70	-4208.40	103.70

NEXT TO LAST	14349	106.40	-4733.20	9656.80
LAST READING	14400	104.80	-4784.10	9655.60
TD	14400	104.80	-4784.10	9655.60

Surface Location	1910	FS	150	FE
Projected BHL	2015	FS	4934	FE
Location of				
Top Perfs/OH	1880	FS	257	FE
Bottom Perfs/OH	2011	FS	4314	FE

SUMMARY of Subsurface Locations

Surface Location	I-13-19S-32E	1910	FS	150	FE	Vert. Depth
Top Perfs/OH	I-13-19S-32E	1880	FS	257	FE	9621.56
Bottom Perfs/OH	L-13-19S-32E	2011	FS	4314	FE	101.23
Projected TD	L-13-19S-32E	2015	FS	4934	FE	9655.60

MAR 28 2013

OPERATOR MEWBOURNE OIL COMPANY
WELL/LEASE NORTE 13 IL FEDERAL 1H
COUNTY LEA

046-0084

STATE OF NEW MEXICO
DEVIATION REPORT

205	0.78
570	0.38
968	0.98
1,394	1.50
1,648	1.86
1,901	2.12
2,154	2.32
2,408	1.61
2,662	1.89
2,915	1.70
3,149	2.66
3,400	2.86
3,879	2.25
4,183	2.00
4,540	1.85
4,761	1.28
5,142	0.68
5,555	0.61
5,966	1.28
6,347	0.60
6,729	0.74
7,141	1.00
7,522	0.86
7,935	1.70
8,315	2.32

HOBBS OCD

MAR 11 2013

RECEIVED

STATE OF TEXAS

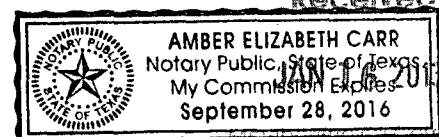
BY: *Steve Moore*

COUNTY OF MIDLAND

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

1/14/13, by

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



Hobbs



3335 Pollok Drive
Conroe, Texas 77303

936.442.2500 (office)
936.442.2599 (fax)
www.msenergyservices.com

Surveyor Certification Form

Survey Company: MS ENERGY SERVICES
Surveyors Name: JOSHUA SMITH
Survey Job Type: RATE GYRO
Customer: MEWBOURNE OIL & GAS
Well: NORTE 13 IL FED 1H
API: 30-025-40873
Surveyed from: SURFACE TO A DEPTH OF 9065' MD
Survey Run Date: 01-09-13 to 01-09-13
Surface Location: LEA COUNTY, NM

I certify that the data is true, correct, and complete and within the limitations of the tool set forth by MS Energy Services; that I am authorized and qualified to make this report; and that I have reviewed this report and find that it conforms to the principles and procedures as set forth by MS Energy Services.

Joshua Smith

Digitally signed by Joshua Smith
DN: cn=Joshua Smith, o=MS Energy Services, ou=MS
Survey, email=josmith@msenergyservices.com, c=US
Date: 2013.01.02 15:47:41 -06'00'



Job Number: SVMO-130019
 Company: Mewbourne Oil & Gas
 Lease/Well: Norte 13 IL Fed 1H
 Location: Lea County, NM
 Rig Name: Patterson #46
 RKB: 22'
 G.L. or M.S.L.: GL

State/Country: New Mexico/USA
 Declination: 7.18°
 Grid: East To Grid North
 File name: F:\SURVEY\2013SU~1\MEWBOU~1\MO\NORTE\13FED1H.SVY
 Date/Time: 10-Jan-13 / 11:26
 Curve Name: Surface - 9065' M.D. (Rate Gyro)

WINSERVE SURVEY CALCULATIONS
 Minimum Curvature Method
 Vertical Section Plane .00
 Vertical Section Referenced to Wellhead
 Rectangular Coordinates Referenced to Wellhead

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
200.00	.12	320.40	200.00	.16	-.13	.16	.21	320.40	.06
400.00	.07	288.44	400.00	.36	-.38	.36	.53	313.35	.04
600.00	.06	215.06	600.00	.31	-.56	.31	.64	299.35	.04
800.00	.25	240.78	800.00	.02	-1.00	.02	1.00	270.89	.10
1000.00	1.14	251.44	999.98	-.83	-3.27	-.83	3.37	255.73	.45
1200.00	1.72	227.74	1199.92	-3.48	-7.37	-3.48	8.16	244.72	.41
1400.00	2.25	211.51	1399.80	-8.85	-11.65	-8.85	14.63	232.78	.38
1600.00	2.37	207.03	1599.64	-15.88	-15.58	-15.88	22.25	224.45	.11
1800.00	2.41	207.73	1799.47	-23.28	-19.41	-23.28	30.32	219.82	.02

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	C L O S U R E		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
2000.00	2.24	211.00	1999.30	-30.36	-23.38	-30.36	38.32	217.61	.11
2200.00	2.33	186.30	2199.15	-37.75	-25.84	-37.75	45.75	214.40	.49
2400.00	2.30	170.21	2398.99	-45.74	-25.61	-45.74	52.42	209.24	.32
2600.00	2.02	147.43	2598.85	-52.67	-23.03	-52.67	57.48	203.62	.45
2800.00	2.27	116.81	2798.71	-57.43	-17.59	-57.43	60.06	197.03	.58
3000.00	2.27	85.14	2998.56	-58.88	-10.11	-58.88	59.74	189.75	.62
3200.00	2.79	73.44	3198.37	-57.15	-1.50	-57.15	57.17	181.50	.37
3400.00	2.94	61.26	3398.12	-53.30	7.66	-53.30	53.85	171.82	.31
3600.00	2.20	83.16	3597.92	-50.38	15.97	-50.38	52.85	162.41	.61
3800.00	2.21	82.99	3797.78	-49.45	23.61	-49.45	54.80	154.48	.01
4000.00	2.16	80.07	3997.63	-48.33	31.15	-48.33	57.50	147.20	.06
4200.00	2.40	69.84	4197.47	-46.24	38.79	-46.24	60.35	140.00	.24
4400.00	2.27	87.95	4397.31	-44.65	46.68	-44.65	64.60	133.73	.37
4600.00	1.66	89.57	4597.19	-44.49	53.54	-44.49	69.61	129.72	.31
4800.00	.95	70.97	4797.14	-43.93	58.00	-43.93	72.76	127.14	.41
5000.00	.98	44.56	4997.11	-42.17	60.77	-42.17	73.97	124.76	.22
5200.00	1.26	44.47	5197.07	-39.38	63.51	-39.38	74.73	121.80	.14
5400.00	1.07	51.75	5397.03	-36.65	66.52	-36.65	75.95	118.86	.12
5600.00	1.14	54.77	5596.99	-34.35	69.61	-34.35	77.62	116.26	.05
5800.00	1.23	59.35	5796.95	-32.11	73.08	-32.11	79.82	113.72	.07
6000.00	.91	49.69	5996.92	-29.99	76.14	-29.99	81.83	111.50	.18
6200.00	.89	52.27	6196.89	-28.01	78.58	-28.01	83.42	109.62	.02
6400.00	.57	84.77	6396.88	-26.97	80.80	-26.97	85.18	108.46	.26
6600.00	.54	87.06	6596.87	-26.83	82.73	-26.83	86.97	107.97	.02
6800.00	.32	148.34	6796.86	-27.25	83.96	-27.25	88.28	107.98	.24
7000.00	.84	180.81	6996.85	-29.20	84.24	-29.20	89.15	109.12	.30
7200.00	1.22	230.69	7196.82	-32.01	82.57	-32.01	88.56	111.19	.47
7400.00	.60	273.25	7396.80	-33.30	79.88	-33.30	86.54	112.63	.44
7600.00	.49	307.77	7596.79	-32.72	78.15	-32.72	84.73	112.71	.17

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	C L O S U R E		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
7800.00	.90	306.47	7796.77	-31.26	76.21	-31.26	82.38	112.30	.21
8000.00	1.09	351.61	7996.75	-28.44	74.67	-28.44	79.91	110.85	.39
8200.00	1.24	30.79	8196.71	-24.70	75.50	-24.70	79.44	108.12	.40
8400.00	2.65	48.56	8396.59	-19.78	80.08	-19.78	82.49	103.88	.76
8600.00	3.11	66.10	8596.34	-14.52	88.50	-14.52	89.69	99.32	.49
8800.00	2.96	56.96	8796.06	-9.51	97.79	-9.51	98.25	95.56	.25
9000.00	2.43	47.15	8995.84	-3.81	105.23	-3.81	105.30	92.07	.35
Last Survey Depth Recorded									
9065.00	2.16	46.68	9060.79	-2.03	107.13	-2.03	107.15	91.09	.42

Mewbourne Oil Co

Lea County, NM

Sec 13-19S-32E

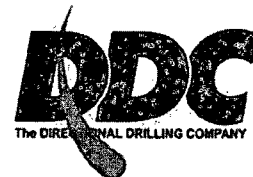
Norte 13 IL Fed #1H

Wellbore #1

Design: Wellbore #1

DDC Survey Report

27 February, 2013



DDC
Survey Report



Company:	Mewbourne Oil Co	Local Co-ordinate Reference:	Well Norte 13 IL Fed #1H
Project:	Lea County, NM	TVD Reference:	WELL @ 3650.0usft (Patterson)
Site:	Sec 13-19S-32E	MD Reference:	WELL @ 3650.0usft (Patterson)
Well:	Norte 13 IL Fed #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Project:	Lea County, NM		
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 13-19S-32E					
Site Position:		Northing:		605,306.90 usft		Latitude:		32° 39' 45.180 N			
From:		Map		Easting:		691,290.14 usft		Longitude:		103° 42' 42.307 W	
Position Uncertainty:		0.0 usft		Slot Radius:		13-3/16 "		Grid Convergence:		0.34 °	

Well		Norte 13 IL Fed #1H				
Well Position	+N/-S	0.0 usft	Northing:	603,717.14 usft	Latitude:	32° 39' 29.439 N
	+E/-W	0.0 usft	Easting:	691,481.43 usft	Longitude:	103° 42' 40.178 W
Position Uncertainty	0.0 usft	Wellhead Elevation:	usft	Ground Level:	3,630.0 usft	

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	12/19/2012	7.50	60.53	48,710

Design:	Wellbore #1				
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	270.61	

Survey Program		Date 2/27/2013		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
200.0	9,065.0	Gyro (Wellbore #1)	Good_gyro	Good Gyro
9,208.0	14,400.0	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
200.0	0.12	320.40	200.0	0.2	-0.1	0.1	0.06	0.06	0.00
400.0	0.07	288.44	400.0	0.4	-0.4	0.4	0.04	-0.03	-15.98
600.0	0.06	215.06	600.0	0.3	-0.6	0.6	0.04	-0.01	-36.69
800.0	0.25	240.78	800.0	0.0	-1.0	1.0	0.10	0.10	12.86
1,000.0	1.14	251.44	1,000.0	-0.8	-3.3	3.3	0.45	0.45	5.33
1,200.0	1.72	227.74	1,199.9	-3.5	-7.4	7.3	0.41	0.29	-11.85
1,400.0	2.25	211.51	1,399.8	-8.8	-11.6	11.6	0.38	0.27	-8.12
1,600.0	2.37	207.03	1,599.6	-15.9	-15.6	15.4	0.11	0.06	-2.24
1,800.0	2.41	207.73	1,799.5	-23.3	-19.4	19.2	0.02	0.02	0.35

DDC
Survey Report



Company:	Mewbourne Oil Co	Local Co-ordinate Reference:	Well Norte 13 IL Fed #1H
Project:	Lea County, NM	TVD Reference:	WELL @ 3650.0usft (Patterson)
Site:	Sec.13-19S-32E	MD Reference:	WELL @ 3650.0usft (Patterson)
Well:	Norte 13 IL Fed #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)
2,000.0	2.24	211.00	1,999.3	-30.4	-23.4	23.1	0.11	-0.09	1.64
2,200.0	2.33	186.30	2,199.1	-37.7	-25.8	25.4	0.49	0.05	-12.35
2,400.0	2.30	170.21	2,399.0	-45.7	-25.6	25.1	0.32	-0.02	-8.05
2,600.0	2.02	147.43	2,598.8	-52.7	-23.0	22.5	0.45	-0.14	-11.39
2,800.0	2.27	116.81	2,798.7	-57.4	-17.6	17.0	0.58	0.13	-15.31
3,000.0	2.27	85.14	2,998.6	-58.9	-10.1	9.5	0.62	0.00	-15.84
3,200.0	2.79	73.44	3,198.4	-57.2	-1.5	0.9	0.37	0.26	-5.85
3,400.0	2.94	61.26	3,398.1	-53.3	7.7	-8.2	0.31	0.08	-6.09
3,600.0	2.20	83.16	3,597.9	-50.4	16.0	-16.5	0.61	-0.37	10.95
3,800.0	2.21	82.99	3,797.8	-49.4	23.6	-24.1	0.01	0.01	-0.09
4,000.0	2.16	80.07	3,997.6	-48.3	31.2	-31.7	0.06	-0.03	-1.46
4,200.0	2.40	69.84	4,197.5	-46.2	38.8	-39.3	0.24	0.12	-5.12
4,400.0	2.27	87.95	4,397.3	-44.7	46.7	-47.2	0.37	-0.07	9.06
4,600.0	1.66	89.57	4,597.2	-44.5	53.5	-54.0	0.31	-0.31	0.81
4,800.0	0.95	70.97	4,797.1	-43.9	58.0	-58.5	0.41	-0.36	-9.30
5,000.0	0.98	44.56	4,997.1	-42.2	60.8	-61.2	0.22	0.02	-13.21
5,200.0	1.26	44.47	5,197.1	-39.4	63.5	-63.9	0.14	0.14	-0.05
5,400.0	1.07	51.75	5,397.0	-36.7	66.5	-66.9	0.12	-0.10	3.64
5,600.0	1.14	54.77	5,597.0	-34.3	69.6	-70.0	0.05	0.04	1.51
5,800.0	1.23	59.35	5,797.0	-32.1	73.1	-73.4	0.07	0.05	2.29
6,000.0	0.91	49.69	5,996.9	-30.0	76.1	-76.5	0.18	-0.16	-4.83
6,200.0	0.89	52.27	6,196.9	-28.0	78.6	-78.9	0.02	-0.01	1.29
6,400.0	0.57	84.77	6,396.9	-27.0	80.8	-81.1	0.26	-0.16	16.25
6,600.0	0.54	87.06	6,596.9	-26.8	82.7	-83.0	0.02	-0.02	1.15
6,800.0	0.32	148.34	6,796.9	-27.3	84.0	-84.2	0.24	-0.11	30.64
7,000.0	0.84	180.81	6,996.9	-29.2	84.2	-84.5	0.30	0.26	16.24
7,200.0	1.22	230.69	7,196.8	-32.0	82.6	-82.9	0.47	0.19	24.94
7,400.0	0.60	273.25	7,396.8	-33.3	79.9	-80.2	0.44	-0.31	21.28
7,600.0	0.49	307.77	7,596.8	-32.7	78.2	-78.5	0.17	-0.06	17.26
7,800.0	0.90	306.47	7,796.8	-31.3	76.2	-76.5	0.21	0.21	-0.65
8,000.0	1.09	351.61	7,996.7	-28.4	74.7	-75.0	0.39	0.10	22.57
8,200.0	1.24	30.79	8,196.7	-24.7	75.5	-75.8	0.40	0.08	19.59
8,400.0	2.65	48.56	8,396.6	-19.8	80.1	-80.3	0.76	0.71	8.89
8,600.0	3.11	66.10	8,596.3	-14.5	88.5	-88.7	0.49	0.23	8.77
8,800.0	2.96	56.96	8,796.1	-9.5	97.8	-97.9	0.25	-0.08	-4.57
9,000.0	2.43	47.15	8,995.8	-3.8	105.2	-105.3	0.35	-0.27	-4.91
TIE IN @ 9065' MD / 9061' TVD									
9,065.0	2.16	46.68	9,060.8	-2.0	107.1	-107.1	0.42	-0.42	-0.72
9,208.0	1.40	317.80	9,203.7	1.1	107.9	-107.9	1.78	-0.53	-62.15
9,240.0	4.30	258.70	9,235.7	1.2	106.5	-106.5	11.80	9.06	-184.69
9,272.0	7.90	249.80	9,267.5	0.2	103.2	-103.2	11.60	11.25	-27.81
9,304.0	11.30	251.10	9,299.1	-1.6	98.2	-98.2	10.65	10.63	4.06
9,336.0	14.90	252.90	9,330.2	-3.8	91.3	-91.3	11.32	11.25	5.63

DDC
Survey Report



Company:	Mewbourne Oil Co	Local Co-ordinate Reference:	Well Norte 13 IL Fed #1H
Project:	Lea County NM	TVD Reference:	WELL @ 3650.0usft (Patterson)
Site:	Sec 13-19S-32E	MD Reference:	WELL @ 3650.0usft (Patterson)
Well:	Norte 13 IL Fed #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)	
9,367.0	19.20	254.70	9,359.9	-6.4	82.6	-82.6	13.97	13.87	5.81	
9,399.0	22.80	255.40	9,389.7	-9.3	71.5	-71.6	11.28	11.25	2.19	
9,431.0	26.30	256.30	9,418.8	-12.5	58.6	-58.7	11.00	10.94	2.81	
9,462.0	29.50	258.40	9,446.2	-15.7	44.5	-44.6	10.80	10.32	6.77	
9,494.0	33.00	261.00	9,473.6	-18.7	28.1	-28.3	11.72	10.94	8.13	
9,525.0	36.50	262.60	9,499.0	-21.2	10.6	-10.9	11.67	11.29	5.16	
9,557.0	40.00	264.00	9,524.2	-23.5	-9.0	8.8	11.27	10.94	4.38	
9,589.0	43.40	265.60	9,548.1	-25.4	-30.2	30.0	11.13	10.63	5.00	
9,621.0	46.80	266.60	9,570.6	-26.9	-52.8	52.6	10.85	10.63	3.13	
9,652.0	49.50	267.20	9,591.3	-28.2	-75.9	75.6	8.83	8.71	1.94	
9,684.0	52.20	268.00	9,611.5	-29.2	-100.7	100.4	8.66	8.44	2.50	
9,715.0	55.30	268.20	9,629.9	-30.0	-125.7	125.3	10.01	10.00	0.65	
9,747.0	58.20	268.30	9,647.4	-30.8	-152.4	152.1	9.07	9.06	0.31	

CROSSED HARD LINE @ 9779' MD / 9663' TVD

9,779.0	62.00	269.30	9,663.3	-31.4	-180.1	179.8	12.18	11.88	3.13	
9,811.0	65.10	270.30	9,677.6	-31.5	-208.8	208.4	10.08	9.69	3.13	
9,842.0	68.20	270.70	9,689.9	-31.3	-237.3	236.9	10.07	10.00	1.29	
9,874.0	72.00	271.20	9,700.8	-30.8	-267.3	267.0	11.97	11.88	1.56	
9,906.0	76.50	271.70	9,709.5	-30.0	-298.1	297.8	14.14	14.06	1.56	
9,938.0	79.90	272.50	9,716.0	-28.8	-329.4	329.1	10.90	10.63	2.50	
9,969.0	83.40	273.00	9,720.5	-27.4	-360.0	359.7	11.40	11.29	1.61	
9,986.0	85.50	273.60	9,722.1	-26.4	-376.9	376.6	12.84	12.35	3.53	
10,061.0	91.00	270.80	9,724.4	-23.5	-451.8	451.5	8.23	7.33	-3.73	
10,092.0	91.00	270.70	9,723.9	-23.1	-482.8	482.5	0.32	0.00	-0.32	
10,123.0	91.20	270.60	9,723.3	-22.8	-513.8	513.5	0.72	0.65	-0.32	
10,187.0	91.70	270.20	9,721.7	-22.3	-577.8	577.5	1.00	0.78	-0.63	
10,249.0	92.40	269.30	9,719.5	-22.6	-639.7	639.5	1.84	1.13	-1.45	
10,312.0	92.00	269.10	9,717.0	-23.5	-702.7	702.4	0.71	-0.63	-0.32	
10,375.0	90.60	269.30	9,715.6	-24.3	-765.7	765.3	2.24	-2.22	0.32	
10,438.0	90.90	269.00	9,714.8	-25.3	-828.6	828.3	0.67	0.48	-0.48	
10,502.0	91.70	269.00	9,713.3	-26.4	-892.6	892.3	1.25	1.25	0.00	
10,565.0	91.00	268.40	9,711.9	-27.8	-955.6	955.2	1.46	-1.11	-0.95	
10,629.0	90.20	269.00	9,711.2	-29.3	-1,019.6	1,019.2	1.56	-1.25	0.94	
10,692.0	90.50	268.00	9,710.8	-30.9	-1,082.5	1,082.1	1.66	0.48	-1.59	
10,755.0	90.00	269.10	9,710.5	-32.5	-1,145.5	1,145.1	1.92	-0.79	1.75	
10,819.0	89.90	268.70	9,710.6	-33.8	-1,209.5	1,209.1	0.64	-0.16	-0.63	
10,882.0	90.80	269.50	9,710.2	-34.7	-1,272.5	1,272.0	1.91	1.43	1.27	
10,945.0	91.00	269.60	9,709.2	-35.2	-1,335.5	1,335.0	0.35	0.32	0.16	
11,008.0	91.40	271.80	9,707.9	-34.5	-1,398.5	1,398.0	3.55	0.63	3.49	
11,072.0	91.40	271.40	9,706.3	-32.7	-1,462.4	1,462.0	0.62	0.00	-0.63	
11,135.0	91.10	271.20	9,704.9	-31.3	-1,525.4	1,525.0	0.57	-0.48	-0.32	
11,198.0	91.10	270.40	9,703.7	-30.4	-1,588.4	1,587.9	1.27	0.00	-1.27	
11,261.0	90.60	271.80	9,702.8	-29.2	-1,651.3	1,650.9	2.36	-0.79	2.22	
11,325.0	90.50	271.90	9,702.2	-27.1	-1,715.3	1,714.9	0.22	-0.16	0.16	

DDC
Survey Report



Company:	Mewbourne Oil Co	Local Co-ordinate Reference:	Well Norte 13 IL Fed #1H
Project:	Lea County, NM	TVD Reference:	WELL @ 3650.0usft (Patterson)
Site:	Sec 13-19S-32E	MD Reference:	WELL @ 3650.0usft (Patterson)
Well:	Norte 13 IL Fed #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)
11,389.0	90.40	272.10	9,701.7	-24.9	-1,779.3	1,778.9	0.35	-0.16	0.31
11,452.0	90.20	272.10	9,701.4	-22.6	-1,842.2	1,841.9	0.32	-0.32	0.00
11,515.0	89.60	271.30	9,701.5	-20.7	-1,905.2	1,904.9	1.59	-0.95	-1.27
11,579.0	90.30	271.40	9,701.5	-19.2	-1,969.2	1,968.9	1.10	1.09	0.16
11,642.0	91.70	271.10	9,700.4	-17.8	-2,032.1	2,031.8	2.27	2.22	-0.48
11,706.0	91.70	270.70	9,698.5	-16.8	-2,096.1	2,095.8	0.62	0.00	-0.63
11,769.0	90.90	270.30	9,697.1	-16.2	-2,159.1	2,158.8	1.42	-1.27	-0.63
11,833.0	90.70	270.70	9,696.2	-15.7	-2,223.1	2,222.8	0.70	-0.31	0.63
11,896.0	91.90	270.90	9,694.8	-14.8	-2,286.1	2,285.8	1.93	1.90	0.32
11,959.0	92.10	271.80	9,692.6	-13.3	-2,349.0	2,348.7	1.46	0.32	1.43
12,022.0	92.20	270.90	9,690.2	-11.8	-2,411.9	2,411.7	1.44	0.16	-1.43
12,086.0	91.40	271.00	9,688.2	-10.8	-2,475.9	2,475.6	1.26	-1.25	0.16
12,148.0	89.80	270.50	9,687.6	-10.0	-2,537.9	2,537.6	2.70	-2.58	-0.81
12,211.0	90.00	271.10	9,687.7	-9.1	-2,600.9	2,600.6	1.00	0.32	0.95
12,274.0	90.60	270.80	9,687.3	-8.0	-2,663.9	2,663.6	1.06	0.95	-0.48
12,305.0	91.10	270.80	9,686.9	-7.6	-2,694.9	2,694.6	1.61	1.61	0.00
12,337.0	92.00	271.70	9,686.0	-6.9	-2,726.8	2,726.6	3.98	2.81	2.81
12,368.0	92.20	273.60	9,684.9	-5.5	-2,757.8	2,757.6	6.16	0.65	6.13
12,431.0	89.80	273.30	9,683.8	-1.7	-2,820.7	2,820.5	3.84	-3.81	-0.48
12,494.0	89.80	272.90	9,684.0	1.7	-2,883.6	2,883.4	0.63	0.00	-0.63
12,557.0	89.90	273.10	9,684.2	5.0	-2,946.5	2,946.4	0.35	0.16	0.32
12,620.0	91.90	272.00	9,683.2	7.8	-3,009.4	3,009.3	3.62	3.17	-1.75
12,684.0	91.80	270.60	9,681.1	9.3	-3,073.4	3,073.3	2.19	-0.16	-2.19
12,716.0	91.70	269.90	9,680.1	9.4	-3,105.3	3,105.3	2.21	-0.31	-2.19
12,747.0	92.00	270.70	9,679.1	9.6	-3,136.3	3,136.3	2.75	0.97	2.58
12,779.0	91.90	272.60	9,678.0	10.5	-3,168.3	3,168.2	5.94	-0.31	5.94
12,811.0	90.80	273.60	9,677.3	12.2	-3,200.2	3,200.2	4.65	-3.44	3.13
12,874.0	90.60	273.20	9,676.5	16.0	-3,263.1	3,263.1	0.71	-0.32	-0.63
12,937.0	90.70	272.20	9,675.8	18.9	-3,326.0	3,326.1	1.60	0.16	-1.59
12,969.0	90.70	272.10	9,675.4	20.1	-3,358.0	3,358.0	0.31	0.00	-0.31
13,001.0	91.70	272.10	9,674.7	21.3	-3,390.0	3,390.0	3.13	3.13	0.00
13,032.0	92.70	273.60	9,673.5	22.8	-3,420.9	3,421.0	5.81	3.23	4.84
13,063.0	91.70	276.10	9,672.4	25.5	-3,451.8	3,451.9	8.68	-3.23	8.06
13,126.0	89.50	276.60	9,671.7	32.4	-3,514.4	3,514.5	3.58	-3.49	0.79
13,190.0	90.20	277.00	9,671.9	40.0	-3,577.9	3,578.2	1.26	1.09	0.63
13,254.0	90.60	277.00	9,671.4	47.8	-3,641.5	3,641.8	0.63	0.63	0.00
13,317.0	90.90	278.40	9,670.6	56.2	-3,703.9	3,704.3	2.27	0.48	2.22
13,380.0	90.90	278.30	9,669.6	65.4	-3,766.2	3,766.7	0.16	0.00	-0.16
13,443.0	90.70	276.40	9,668.7	73.4	-3,828.7	3,829.3	3.03	-0.32	-3.02
13,507.0	90.40	275.50	9,668.1	80.1	-3,892.3	3,893.0	1.48	-0.47	-1.41
13,570.0	90.60	274.60	9,667.6	85.6	-3,955.1	3,955.8	1.46	0.32	-1.43
13,634.0	91.20	274.40	9,666.6	90.6	-4,018.9	4,019.6	0.99	0.94	-0.31
13,697.0	92.00	274.40	9,664.8	95.5	-4,081.7	4,082.5	1.27	1.27	0.00

DDC Survey Report



Company:	Mewbourne Oil Co	Local Co-ordinate Reference:	Well Norte 13 IL Fed #1H
Project:	Lea County, NM	TVD Reference:	WELL @ 3650.0usft (Patterson)
Site:	Sec 13-19S-32E	MD Reference:	WELL @ 3650.0usft (Patterson)
Well:	Norte 13 IL Fed #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

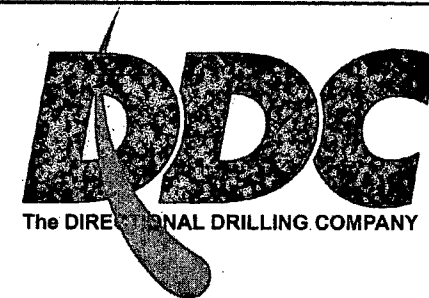
Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
13,760.0	91.80	274.00	9,662.7	100.1	-4,144.5	4,145.3	0.71	-0.32	-0.63	
13,824.0	90.40	272.40	9,661.5	103.7	-4,208.4	4,209.2	3.32	-2.19	-2.50	
13,887.0	89.90	272.30	9,661.3	106.2	-4,271.3	4,272.2	0.81	-0.79	-0.16	
13,951.0	89.90	271.50	9,661.4	108.4	-4,335.3	4,336.2	1.25	0.00	-1.25	
14,014.0	90.10	271.50	9,661.4	110.0	-4,398.2	4,399.2	0.32	0.32	0.00	
14,078.0	90.70	269.50	9,661.0	110.6	-4,462.2	4,463.2	3.26	0.94	-3.13	
14,139.0	90.90	269.40	9,660.1	110.0	-4,523.2	4,524.1	0.37	0.33	-0.16	
14,203.0	90.80	269.50	9,659.2	109.4	-4,587.2	4,588.1	0.22	-0.16	0.16	
14,266.0	90.90	268.60	9,658.2	108.3	-4,650.2	4,651.1	1.44	0.16	-1.43	
14,329.0	91.00	268.90	9,657.2	107.0	-4,713.2	4,714.1	0.50	0.16	0.48	
14,349.0	91.30	268.20	9,656.8	106.4	-4,733.2	4,734.0	3.81	1.50	-3.50	
TD @ 14400' MD / 9656' TVD										
14,400.0	91.30	268.20	9,655.6	104.8	-4,784.1	4,785.0	0.00	0.00	0.00	

Design Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
9,065.0	9,060.8	-2.0	107.1	TIE IN @ 9065' MD / 9061' TVD	
9,779.0	9,663.3	-31.4	-180.1	CROSSED HARD LINE @ 9779' MD / 9663' TVD	
14,400.0	9,655.6	104.8	-4,784.1	TD @ 14400' MD / 9656' TVD	

Checked By: _____	Approved By: _____	Date: _____
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Company Name: Mewbourne Oil Co
 Norte 13 IL Fed #1H
 Lea County, NM
 Rig: Patterson #48
 Created By: Dina Chance
 Date: 2/27/2013

Norte 13 IL Fed #1H
 Lea County, NM
 Q120506 & WT-12969
 Design #2



Mewbourne Oil Company

PROJECT DETAILS: Lea County, NM

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: Norte 13 IL Fed #1H

Ground Level: 3836.0
 +N/-S +E/-W Northing Easting Longitude
 0.0 0.0 863717.14 891481.43 32° 30' 23.43" N 103° 42' 45.17" W

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Eastng	Latitude	Longitude
PRML Norte 13 IL Fed #1H	9825.9	51.2	-4785.3	893798.96	888884.16	32° 30' 24.21" N	103° 42' 45.234" W

- plan hits target center

ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	VSect	Departure	Annotation
8985.0	2.18	48.88	9886.3	-3.9	107.1	-187.1	242.1	TIE IN @ 8085' MD / 9081' TVD
9779.0	62.90	289.38	9883.3	-31.4	-189.1	178.8	537.9	CROSSED HARD LINE @ 9779' MD / 9883' TVD
14400.0	81.30	288.20	9855.8	164.9	-4784.1	4785.8	5147.9	TD @ 14400' MD / 9856' TVD



Azimuths to Grid North

Magnetic North: 7.16°

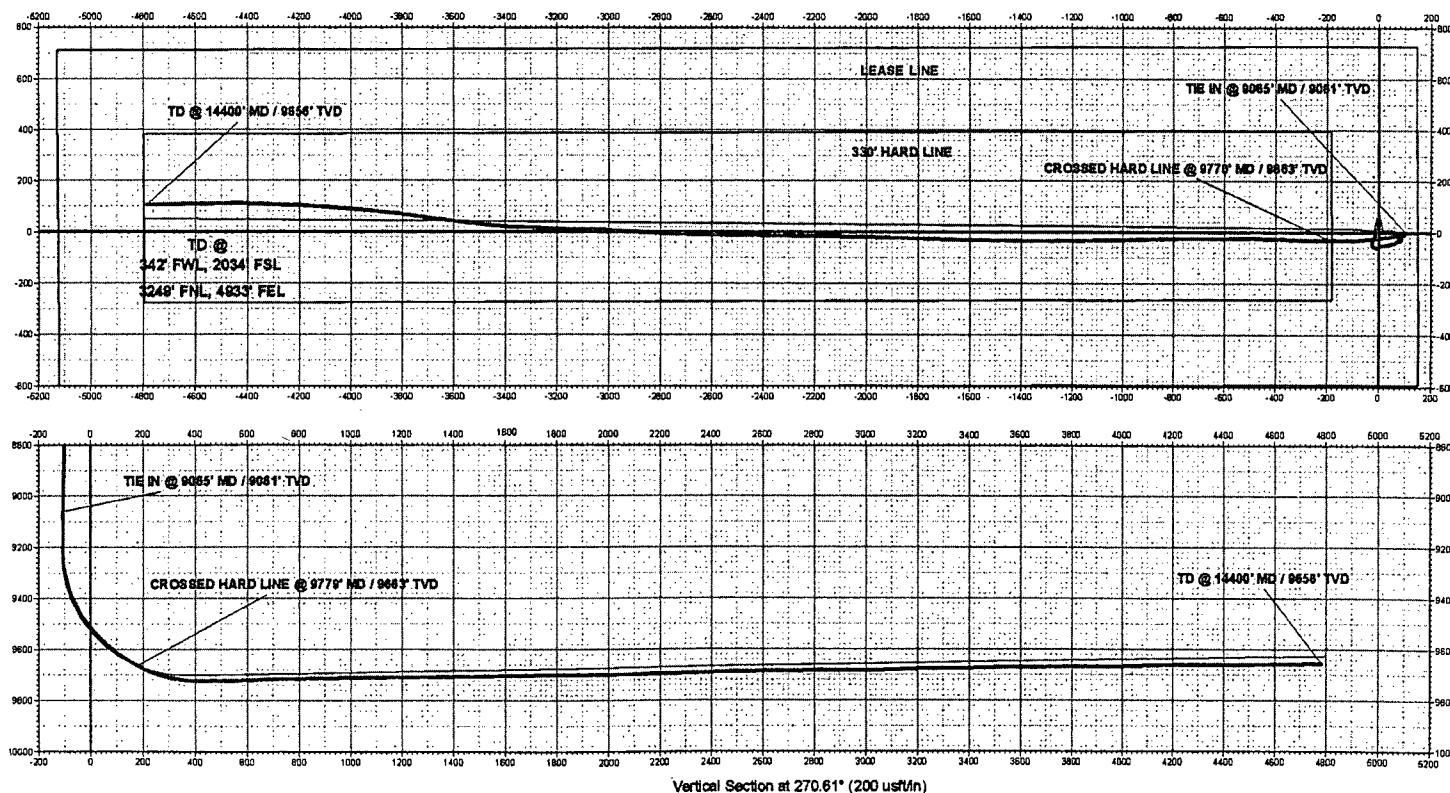
Magnetic Field

Strength: 48709.7snT

Dip Angle: 60.53°

Date: 12/19/2012

Model: IGRF2010



Operating Company Mewbourne Oil Company
Well Name & Number #1H
Sales Ticket Number 5244714
Date 1/22/2013

Company Rep 13
Field Norte IL Fed #1H
BOT Service Rep 0
District Location Odessa, Texas, USA



	Size	Weight	Grade	ID	Drift	Thread	Capacity	Length	Burst	Collapse
Casing	7.000	26.00	110000	6.276	6.151	LT&C	0.03826	10,039.00	4,980	4,330
Top Liner	4.500	13.50	110000	3.920	3.795	LT&C	0.01493	4,566.01	12,410	10,690
Bott Liner	0.000	0.00	0	0.000	0.000	0	0.00000	-	-	-
TVD		KOP		Open Hole		6.125	Casing Vol. (bbl)		375.8	
Carry Fluid Weight (ppg)		8.4		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)
Liner Top	1	JR Setting Sleeve w/ RH Profile	9820.99	4.63	5.750	4.750				

Zone Length										
	2	S-3 Liner Top Packer	9825.62	4.00	5.813	3.875				
	3	4.5" LTC Spacer Nipple w/ Collar	9829.62	8.09	4.500	4.000				
	7 Jts	4-1/2" 13.5# LTC P-110 Casing	9837.71	267.61	4.500	3.920				
30	Zone 30	3.625" EX-Frac Sleeve	10105.32	3.90	5.750	3.875	3.625	2288	310	378
358.3	2 Jts	4-1/2" 13.5# LTC P-110 Casing	10109.22	74.70	4.500	3.920				
	#29	582 Open Hole Packer	10183.92	3.89	5.820	3.875		2154		
	2 Jts	4-1/2" 13.5# LTC P-110 Casing	10187.81	76.25	4.500	3.920				
29	Zone 29	3.500" EX-C Frac Sleeve	10264.06	3.53	5.750	3.875	3.448	2154	288	378
160.4	2 Jts	4-1/2" 13.5# LTC P-110 Casing	10267.59	76.74	4.500	3.920				
	#28	582 Open Hole Packer	10344.33	3.89	5.820	3.875		2154		
	2 Jts	4-1/2" 13.5# LTC P-110 Casing	10348.22	76.66	4.500	3.920				
28	Zone 28	3.438" EX-C Frac Sleeve	10424.88	3.53	5.750	3.875	3.385	2154	278	378
160.2	2 Jts	4-1/2" 13.5# LTC P-110 Casing	10428.41	76.14	4.500	3.920				
	#27	582 Open Hole Packer	10504.55	3.89	5.820	3.875		2154		
	1 Jt	4-1/2" 13.5# LTC P-110 Casing	10508.44	36.71	4.500	3.920				
27	Zone 27	3.375" EX-C Frac Sleeve	10545.15	3.53	5.750	3.875	3.323	2154	288	378
119.4	2 Jts	4-1/2" 13.5# LTC P-110 Casing	10548.68	75.23	4.500	3.920				
	#26	582 Open Hole Packer	10623.91	3.89	5.820	3.875		2154		
	2 Jts	4-1/2" 13.5# LTC P-110 Casing	10627.80	75.85	4.500	3.920				
26	Zone 26	3.313" EX-C Frac Sleeve	10703.65	3.53	5.750	3.875	3.260	2154	287	378
157.9	2 Jts	4-1/2" 13.5# LTC P-110 Casing	10707.18	74.63	4.500	3.920				
	#25	582 Open Hole Packer	10781.81	3.89	5.820	3.875		2154		
	2 Jts	4-1/2" 13.5# LTC P-110 Casing	10785.70	74.65	4.500	3.920				
25	Zone 25	3.250" EX-C Frac Sleeve	10860.35	3.53	5.750	3.875	3.198	2154	248	378
157.5	2 Jts	4-1/2" 13.5# LTC P-110 Casing	10863.88	75.45	4.500	3.920				
	#24	582 Open Hole Packer	10939.33	3.89	5.820	3.875		2154		
	2 Jts	4-1/2" 13.5# LTC P-110 Casing	10943.22	74.04	4.500	3.920				
24	Zone 24	3.188" EX-C Frac Sleeve	11017.28	3.53	5.750	3.875	3.135	2154	238	378
158.3	2 Jts	4-1/2" 13.5# LTC P-110 Casing	11020.79	76.86	4.500	3.920				
	#23	582 Open Hole Packer	11097.85	3.89	5.820	3.875		2154		
	2 Jts	4-1/2" 13.5# LTC P-110 Casing	11101.54	75.57	4.500	3.920				
23	Zone 23	3.125" EX-C Frac Sleeve	11177.11	3.53	5.750	3.875	3.073	2154	229	378
158.2	2 Jts	4-1/2" 13.5# LTC P-110 Casing	11180.64	75.23	4.500	3.920				

Operating Company Mewbourne Oil Company
Well Name & Number #1H
Sales Ticket Number 5244714

Company Rep 13
Field Norte IL Fed #1H
BOT Service Rep 0
Date 1/22/2013
District Location Odessa, Texas, USA



	Size	Weight	Grade	ID	Drift	Thread	Capacity	Length	Burst	Collapse
Casing	7.000	26.00	110000	6.276	6.151	LT&C	0.03826	10,039.00	4,980	4,330
Top Liner	4.500	13.50	110000	3.920	3.795	LT&C	0.01493	4,566.01	12,410	10,690
Bott Liner	0.000	0.00	0	0.000	0.000	0	0.00000	-	-	-
TVD		KOP		Open Hole		6.125	Casing Vol. (bbl)		375.8	
Carry Fluid Weight (ppg)		8.4		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)
22.0 121.9	#22	582 Open Hole Packer	11255.87	3.89	5.820	3.875		2154		
	1 Jt	4-1/2" 13.5# LTC P-110 Casing	11259.76	38.24	4.500	3.920				
	Zone 22	3.063" EX-C Frac Sleeve	11258.00	3.53	5.750	3.875	3.010	2154	219	376
21 159.7	2 Jts	4-1/2" 13.5# LTC P-110 Casing	11301.53	76.27	4.500	3.920				
	#21	582 Open Hole Packer	11377.80	3.89	5.820	3.875		2154		
	2 Jts	4-1/2" 13.5# LTC P-110 Casing	11381.69	75.80	4.500	3.920				
20 122.3	Zone 21	3.000" EX-C Frac Sleeve	11457.49	3.53	5.750	3.875	2.948	2154	211	376
	2 Jts	4-1/2" 13.5# LTC P-110 Casing	11461.02	76.50	4.500	3.920				
	#20	582 Open Hole Packer	11537.52	3.89	5.820	3.875		2154		
19 158.0	1 Jt	4-1/2" 13.5# LTC P-110 Casing	11541.41	38.83	4.500	3.920				
	Zone 20	2.938" EX-C Frac Sleeve	11580.24	3.53	5.750	3.875	2.885	2154	202	376
	2 Jts	4-1/2" 13.5# LTC P-110 Casing	11583.77	76.08	4.500	3.920				
18 157.9	#19	582 Open Hole Packer	11659.85	3.89	5.820	3.875		2154		
	2 Jts	4-1/2" 13.5# LTC P-110 Casing	11663.74	76.75	4.500	3.920				
	Zone 19	2.875" EX-C Frac Sleeve	11740.49	3.53	5.750	3.875	2.823	2154	193	376
17 121.3	2 Jts	4-1/2" 13.5# LTC P-110 Casing	11744.02	73.86	4.500	3.920				
	#18	582 Open Hole Packer	11817.88	3.89	5.820	3.875		2154		
	2 Jts	4-1/2" 13.5# LTC P-110 Casing	11821.77	75.64	4.500	3.920				
16 160.0	Zone 18	2.813" EX-C Frac Sleeve	11897.41	3.53	5.750	3.875	2.780	2154	185	376
	2 Jts	4-1/2" 13.5# LTC P-110 Casing	11900.94	74.81	4.500	3.920				
	#17	582 Open Hole Packer	11975.75	3.89	5.820	3.875		2154		
15 156.4	2 Jts	4-1/2" 13.5# LTC P-110 Casing	11979.64	75.22	4.500	3.920				
	Zone 17	2.750" EX-C Frac Sleeve	12054.88	3.53	5.750	3.875	2.698	2154	176	376
	1 Jt	4-1/2" 13.5# LTC P-110 Casing	12058.39	38.68	4.500	3.920				
14 120.5	#16	582 Open Hole Packer	12097.07	3.89	5.820	3.875		2154		
	2 Jts	4-1/2" 13.5# LTC P-110 Casing	12100.96	75.58	4.500	3.920				
	Zone 16	2.688" EX-C Frac Sleeve	12176.54	3.53	5.750	3.875	2.635	2154	168	376
13	2 Jts	4-1/2" 13.5# LTC P-110 Casing	12180.07	76.99	4.500	3.920				
	#15	582 Open Hole Packer	12257.06	3.89	5.820	3.875		2154		
	2 Jts	4-1/2" 13.5# LTC P-110 Casing	12260.95	75.93	4.500	3.920				
12	Zone 15	2.625" EX-C Frac Sleeve	12336.88	3.53	5.750	3.875	2.573	2154	160	376
	2 Jts	4-1/2" 13.5# LTC P-110 Casing	12340.41	73.05	4.500	3.920				
	#14	582 Open Hole Packer	12413.46	3.89	5.820	3.875		2154		
11	1 Jt	4-1/2" 13.5# LTC P-110 Casing	12417.35	36.64	4.500	3.920				
	Zone 14	2.583" EX-C Frac Sleeve	12453.96	3.53	5.750	3.875	2.510	2154	153	376
	2 Jts	4-1/2" 13.5# LTC P-110 Casing	12457.52	76.45	4.500	3.920				
10	#13	582 Open Hole Packer	12533.97	3.89	5.820	3.875		2154		
	2 Jts	4-1/2" 13.5# LTC P-110 Casing	12537.86	75.98	4.500	3.920				

Operating Company Mewbourne Oil Company
Well Name & Number #1H
Sales Ticket Number 5244714
Date 1/22/2013

Company Rep
Field Norte IL Fed #1H
BOT Service Rep 0
District Location Odessa, Texas, USA



	Size	Weight	Grade	ID	Drift	Thread	Capacity	Length	Burst	Collapse
Casing	7.000	26.00	110000	6.276	6.151	LT&C	0.03826	10,039.00	4,980	4,330
Top Liner	4.500	13.50	110000	3.920	3.795	LT&C	0.01493	4,566.01	12,410	10,690
Bott Liner	0.000	0.00	0	0.000	0.000	0	0.00000	-	-	-

TVD	KOP	Open Hole	6.125	Casing Vol. (bbl)	375.8
Carry Fluid Weight (ppg)	8.4	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)
13	Zone 13	2.500" EX-C Frac Sleeve	12613.84	3.53	5.750	3.875	2.448	2154	145	376
159.4	2 Jts	4-1/2" 13.5# LTC P-110 Casing	12617.37	76.02	4.500	3.920				
	#12	582 Open Hole Packer	12693.39	3.89	5.820	3.875		2154		
	2 Jts	4-1/2" 13.5# LTC P-110 Casing	12697.28	74.72	4.500	3.920				
12	Zone 12	2.438" EX-C Frac Sleeve	12772.00	3.53	5.750	3.875	2.388	2154	138	378
120.9	1 Jt	4-1/2" 13.5# LTC P-110 Casing	12775.53	38.72	4.500	3.920				
	#11	582 Open Hole Packer	12814.25	3.89	5.820	3.875		2154		
	2 Jts	4-1/2" 13.5# LTC P-110 Casing	12818.14	75.68	4.500	3.920				
11	Zone 11	2.375" EX-C Frac Sleeve	12893.82	3.53	5.750	3.875	2.323	2154	131	378
160.1	2 Jts	4-1/2" 13.5# LTC P-110 Casing	12897.35	76.97	4.500	3.920				
	#10	582 Open Hole Packer	12974.32	3.89	5.820	3.875		2154		
	2 Jts	4-1/2" 13.5# LTC P-110 Casing	12978.21	76.25	4.500	3.920				
10	Zone 10	2.313" EX-C Frac Sleeve	13054.48	3.53	5.750	3.875	2.610		0	376
159.7	2 Jts	4-1/2" 13.5# LTC P-110 Casing	13057.99	76.02	4.500	3.920				
	#9	582 Open Hole Packer	13134.01	3.89	5.820	3.875		2154		
	2 Jts	4-1/2" 13.5# LTC P-110 Casing	13137.90	74.82	4.500	3.920				
9	Zone 9	2.250" EX Frac Sleeve	13212.72	3.90	5.750	3.875	2.150		0	376
120.9	1 Jt	4-1/2" 13.5# LTC P-110 Casing	13216.62	38.33	4.500	3.920				
	#8	582 Open Hole Packer	13254.95	3.89	5.820	3.875		2154		
	2 Jts	4-1/2" 13.5# LTC P-110 Casing	13258.84	77.02	4.500	3.920				
8	Zone 8	2.125" EX Frac Sleeve	13335.86	3.90	5.750	3.875	2.025		0	376
160.7	2 Jts	4-1/2" 13.5# LTC P-110 Casing	13339.76	75.90	4.500	3.920				
	#7	582 Open Hole Packer	13415.66	3.89	5.820	3.875		2154		
	2 Jts	4-1/2" 13.5# LTC P-110 Casing	13419.55	74.37	4.500	3.920				
7	Zone 7	2.000" EX Frac Sleeve	13493.82	3.90	5.750	3.875	1.900		0	376
158.6	2 Jts	4-1/2" 13.5# LTC P-110 Casing	13497.82	76.43	4.500	3.920				
	#6	582 Open Hole Packer	13574.25	3.89	5.820	3.875		2154		
	2 Jts	4-1/2" 13.5# LTC P-110 Casing	13578.14	75.84	4.500	3.920				
6	Zone 6	1.875" EX Frac Sleeve	13653.98	3.90	5.750	3.875	1.775		0	376
158.6	2 Jts	4-1/2" 13.5# LTC P-110 Casing	13657.88	74.95	4.500	3.920				
	#5	582 Open Hole Packer	13732.83	3.89	5.820	3.875		2154		
	1 Jt	4-1/2" 13.5# LTC P-110 Casing	13736.72	38.41	4.500	3.920				
5	Zone 5	1.750" EX Frac Sleeve	13775.13	3.90	5.750	3.875	1.850		0	376
121.8	2 Jts	4-1/2" 13.5# LTC P-110 Casing	13779.03	75.61	4.500	3.920				
	#4	582 Open Hole Packer	13854.64	3.89	5.820	3.875		2154		
	2 Jts	4-1/2" 13.5# LTC P-110 Casing	13858.53	76.69	4.500	3.920				
4	Zone 4	1.625" EX Frac Sleeve	13935.22	3.90	5.750	3.875	1.625		0	376
161.4	2 Jts	4-1/2" 13.5# LTC P-110 Casing	13939.12	76.95	4.500	3.920				

