

Results of Directional Survey

API number:	30-025-41933		
OGRID:		Operator:	MEWBOURNE OIL CO
		Property:	QUERECHO 28 OB FEDERAL COM # 1H

surface	ULSTR:	O	28	T 18S	R 32E
				170 FSL	1420 FEL

BH Loc	ULSTR:	B	28	T 18S	R 32E
14070	MD	9423.9	TVD	336 FNL	2258 FEL
				4944 FSL	

Top Perf/OH	ULSTR:	O	28	T 18S	R 32E
9894	MD	9461.1	TVD	808 FSL	1717 FEL

Bot Perf/OH	ULSTR:	B	28	T 18S	R 32E
13985	MD	9425.8	TVD	420 FNL	2247 FEL
				4860 FSL	

	MD	N/S	E/W	VD
	9880	624.30	-293.80	9461.4
TOP PERFS/OH	9894	637.86	-297.22	9461.11
	9943	685.30	-309.20	9460.10
	13959	4663.80	-823.80	9426.40
BOT PERFS/OH	13985	4689.64	-826.97	9425.83
	13991	4695.60	-827.70	9425.70

NEXT TO LAST	14017	4721.40	-831.00	9425.10
LAST READING	14070	4773.90	-838.00	9423.90
TD	14070	4773.90	-838.00	9423.90

Surface Location	170	FS	1420	FE
Projected BHL	4944	FS	2258	FE
Location of				
Top Perfs/OH	808	FS	1717	FE
Bottom Perfs/OH	4860	FS	2247	FE

SUMMARY of Subsurface Locations

Surface Location	O-28-18S-32E	170	FS	1420	FE	Vert. Depth
Top Perfs/OH	O-28-18S-32E	808	FS	1717	FE	9461.11
Bottom Perfs/OH	B-28-18S-32E	4860	FS	2247	FE	9425.83
Projected TD	B-28-18S-32E	4944	FS	2258	FE	9423.90

OCT 16 2014

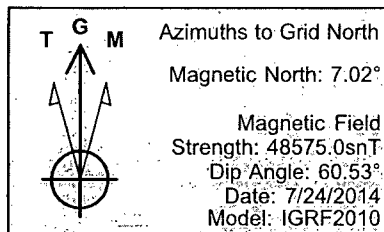
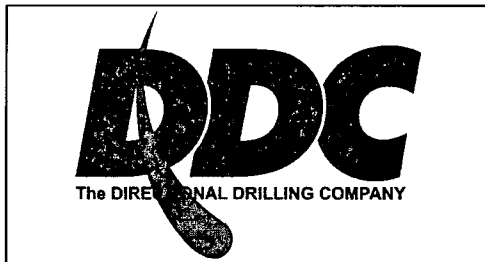
OCT 02 2014

RECEIVED

Company Name: Mewbourne Oil Co
 Querecho 28 OB Federal Com #1H
 Lea County, New Mexico
 Rig: Patterson #75
 Created By: James Dawson
 Date: 08/27/2014

Querecho 28 OB Federal Com #1H
 Lea County, New Mexico
 Quote 140783 & WT-140723
 Design #2 - Tied to Gyo

Mewbourne Oil Company



PROJECT DETAILS: Lea 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: Querecho 28 OB Federal Com #1H

Ground Level: 3714.0
 +N/-S +E/-W Northing Easting Latitude Longitude
 0.0 0.0 623049.32 674236.12 32° 42' 41.689 N 103° 46' 0.686 W

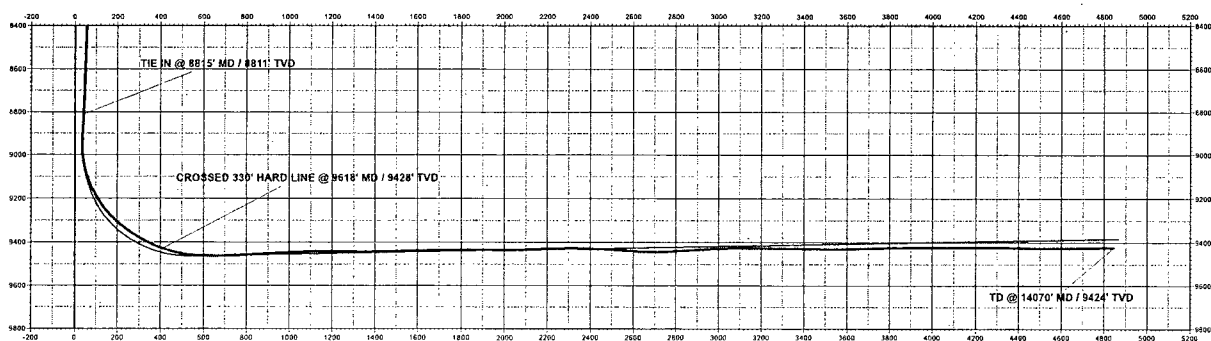
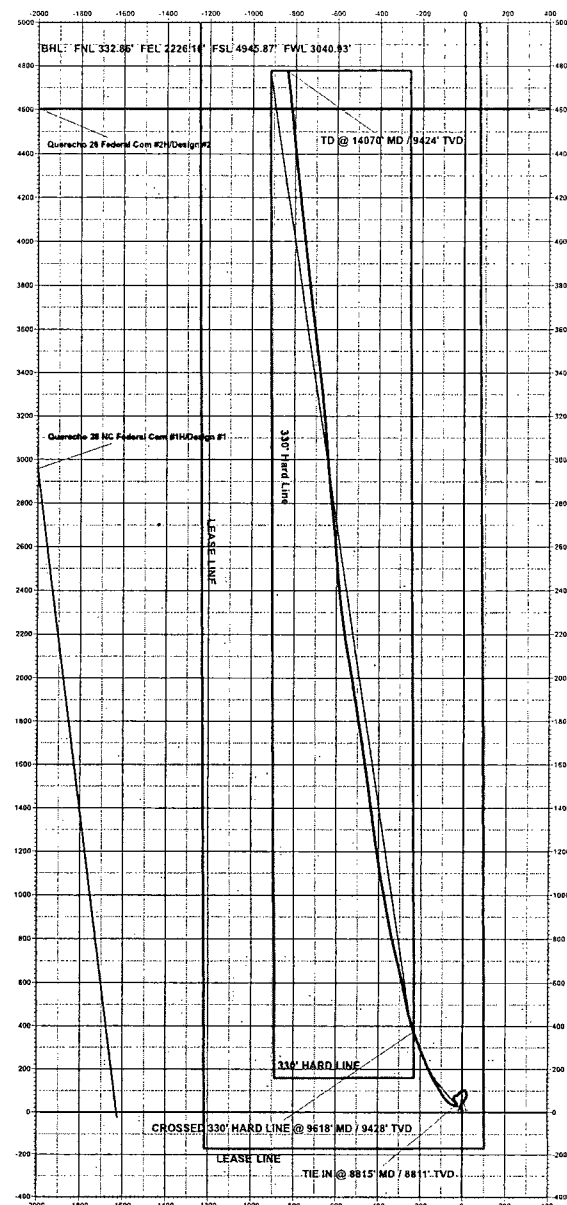
DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
PBHL Querecho 28 OB Federal Com #1H D#2 9384.0	4776.7	-917.3	627825.99	673318.84	32° 43' 29.003 N	103° 46' 11.124 W	

- plan hits target center

ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	VSect	Departure	Annotation
8815.0	2.75	159.51	8811.3	37.4	-24.4	41.4	221.5	TIE IN @ 8815' MD / 8811' TVD
9617.5	71.67	340.57	9428.1	373.4	-230.9	410.2	641.7	CROSSED 330° HARD LINE @ 9618' MD / 9428' TVD
14070.0	91.30	352.40	9423.9	4773.9	-838.0	4846.2	5088.7	TD @ 14070' MD / 9424' TVD



Vertical Section at 349.13° (200 usf/in)

HOBBS OCD

OCT 02 2014

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Mewbourne Oil Co

Lea County, New Mexico

Sec 28-18S-32E

Querecho 28 OB Federal Com #1H

Wellbore #1

Design: Wellbore #1

DDC Survey Report

27 August, 2014



Survey Report



Company:	Mewbourne Oil Co	Local Co-ordinate Reference:	Well Querecho 28 OB Federal Com #1H
Project:	Lea County, New Mexico	TVD Reference:	Well @ 3734.0usft (Patterson #75)
Site:	Sec 28-18S-32E	MD Reference:	Well @ 3734.0usft (Patterson #75)
Well:	Querecho 28 OB Federal Com #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM Compass

Project	Lea 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 28-18S-32E											
Site Position:			Northing:			627,657.52 usft			Latitude:			32° 43' 27.238 N					
From:			Map			Easting:			675,165.03 usft			Longitude:			103° 45' 49.524 W		
Position Uncertainty:			0.0 usft			Slot Radius:			13-3/16 "			Grid Convergence:			0.31 °		

Well	Querecho 28 OB Federal Com #1H					
Well Position	+N/-S	0.0 usft	Northing:	623,049.32 usft	Latitude:	32° 42' 41.689 N
	+E/-W	0.0 usft	Easting:	674,236.12 usft	Longitude:	103° 46' 0.686 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	0.0 usft	Ground Level:	3,714.0 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	7/24/2014	7.33	60.53	48,575

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		349.13

Survey Program	Date 8/27/2014			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
100.0	8,815.0	Gyro Survey (Wellbore #1)	Good_gyro	Good Gyro
8,875.0	14,070.0	MWD (Wellbore #1)	MWD default	MWD - Standard

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00	
100.0	0.25	31.71	100.0	0.2	0.1	0.2	0.25	0.25	0.00	
200.0	0.46	8.69	200.0	0.8	0.3	0.7	0.25	0.21	-23.02	
300.0	0.62	7.64	300.0	1.7	0.4	1.6	0.16	0.16	-1.05	
400.0	0.61	340.55	400.0	2.7	0.3	2.6	0.29	-0.01	-27.09	
500.0	0.69	343.18	500.0	3.8	0.0	3.8	0.09	0.08	2.63	
600.0	0.74	347.82	600.0	5.0	-0.3	5.0	0.08	0.05	4.64	
700.0	1.06	9.41	700.0	6.6	-0.3	6.5	0.46	0.32	21.59	
800.0	1.52	4.63	799.9	8.8	-0.1	8.7	0.47	0.46	-4.78	
900.0	1.40	336.35	899.9	11.2	-0.5	11.1	0.72	-0.12	-28.28	

Survey Report



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Project:	Lea County, New Mexico	TVD Reference:	Well @ 3734.0usft (Patterson #75)
Site:	Sec 28-18S-32E	MD Reference:	Well @ 3734.0usft (Patterson #75)
Well:	Querecho 28 OB Federal Com #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM Compass

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	1.40	335.25	999.9	13.5	-1.5	13.5	0.03	0.00	-1.10
1,100.0	1.80	317.53	1,099.8	15.7	-3.0	16.0	0.63	0.40	-17.72
1,200.0	1.34	309.96	1,199.8	17.7	-5.0	18.3	0.50	-0.46	-7.57
1,300.0	1.44	307.09	1,299.8	19.2	-6.9	20.1	0.12	0.10	-2.87
1,400.0	0.75	315.58	1,399.8	20.4	-8.3	21.6	0.71	-0.69	8.49
1,500.0	0.55	334.45	1,499.7	21.3	-9.0	22.6	0.29	-0.20	18.87
1,600.0	0.77	326.11	1,599.7	22.3	-9.6	23.7	0.24	0.22	-8.34
1,700.0	0.71	341.89	1,699.7	23.4	-10.2	24.9	0.21	-0.06	15.78
1,800.0	0.55	358.20	1,799.7	24.5	-10.4	26.0	0.24	-0.16	16.31
1,900.0	0.57	26.57	1,899.7	25.4	-10.2	26.9	0.28	0.02	28.37
2,000.0	1.05	32.22	1,999.7	26.6	-9.4	27.9	0.49	0.48	5.65
2,100.0	1.87	25.27	2,099.7	28.9	-8.3	29.9	0.84	0.82	-6.95
2,200.0	2.85	30.25	2,199.6	32.5	-6.3	33.1	1.00	0.98	4.98
2,300.0	2.99	28.51	2,299.5	36.9	-3.8	37.0	0.17	0.14	-1.74
2,400.0	2.94	35.86	2,399.3	41.3	-1.1	40.8	0.38	-0.05	7.35
2,500.0	3.13	41.24	2,499.2	45.4	2.2	44.2	0.34	0.19	5.38
2,600.0	2.78	32.76	2,599.1	49.5	5.3	47.6	0.56	-0.35	-8.48
2,700.0	2.33	41.33	2,699.0	53.1	8.0	50.6	0.59	-0.45	8.57
2,800.0	1.96	29.56	2,798.9	56.1	10.2	53.2	0.57	-0.37	-11.77
2,900.0	1.60	28.01	2,898.8	58.8	11.7	55.6	0.36	-0.36	-1.55
3,000.0	1.74	42.31	2,998.8	61.2	13.4	57.6	0.44	0.14	14.30
3,100.0	1.86	35.66	3,098.7	63.6	15.3	59.6	0.24	0.12	-6.65
3,200.0	1.53	31.02	3,198.7	66.1	17.0	61.7	0.36	-0.33	-4.64
3,300.0	1.18	36.83	3,298.7	68.1	18.3	63.4	0.38	-0.35	5.81
3,400.0	0.98	28.78	3,398.7	69.6	19.3	64.8	0.25	-0.20	-8.05
3,500.0	0.77	16.90	3,498.6	71.0	19.9	66.0	0.28	-0.21	-11.88
3,600.0	1.09	7.34	3,598.6	72.6	20.2	67.5	0.35	0.32	-9.56
3,700.0	0.66	3.44	3,698.6	74.1	20.4	69.0	0.43	-0.43	-3.90
3,800.0	0.93	19.25	3,798.6	75.5	20.7	70.2	0.35	0.27	15.81
3,900.0	0.91	20.00	3,898.6	77.0	21.2	71.6	0.02	-0.02	0.75
4,000.0	1.00	14.52	3,998.6	78.6	21.7	73.1	0.13	0.09	-5.48
4,100.0	1.12	1.70	4,098.6	80.4	22.0	74.8	0.27	0.12	-12.82
4,200.0	0.95	350.10	4,198.5	82.2	21.8	76.6	0.27	-0.17	-11.60
4,300.0	0.58	343.61	4,298.5	83.5	21.6	77.9	0.38	-0.37	-6.49
4,400.0	0.51	354.51	4,398.5	84.4	21.4	78.9	0.12	-0.07	10.90
4,500.0	0.61	5.50	4,498.5	85.4	21.4	79.8	0.15	0.10	10.99
4,600.0	0.83	357.05	4,598.5	86.7	21.4	81.1	0.24	0.22	-8.45
4,700.0	0.78	350.29	4,698.5	88.1	21.2	82.5	0.11	-0.05	-6.76
4,800.0	0.54	324.99	4,798.5	89.1	20.9	83.6	0.37	-0.24	-25.30
4,900.0	0.49	333.96	4,898.5	89.9	20.4	84.4	0.09	-0.05	8.97
5,000.0	0.64	345.12	4,998.5	90.8	20.1	85.4	0.19	0.15	11.16
5,100.0	0.70	349.75	5,098.5	91.9	19.8	86.6	0.08	0.06	4.63
5,200.0	0.84	346.97	5,198.5	93.3	19.5	87.9	0.14	0.14	-2.78

Survey Report



Company:	Mewbourne Oil Co	Local Co-ordinate Reference:	Well Querecho 28 OB Federal Com #1H
Project:	Lea County, New Mexico	TVD Reference:	Well @ 3734.0usft (Patterson #75)
Site:	Sec 28-18S-32E	MD Reference:	Well @ 3734.0usft (Patterson #75)
Well:	Querecho 28 OB Federal Com #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM Compass

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
5,300.0	0.93	333.33	5,298.5	94.7	19.0	89.4	0.23	0.09	-13.64	
5,400.0	1.01	333.62	5,398.5	96.2	18.3	91.0	0.08	0.08	0.29	
5,500.0	0.84	320.08	5,498.4	97.6	17.4	92.5	0.28	-0.17	-13.54	
5,600.0	0.75	315.49	5,598.4	98.6	16.5	93.7	0.11	-0.09	-4.59	
5,700.0	0.99	342.05	5,698.4	99.9	15.7	95.1	0.46	0.24	26.56	
5,800.0	1.01	334.57	5,798.4	101.5	15.1	96.8	0.13	0.02	-7.48	
5,900.0	1.68	288.85	5,898.4	102.8	13.3	98.4	1.21	0.67	-45.72	
6,000.0	1.95	253.91	5,998.3	102.8	10.3	99.0	1.12	0.27	-34.94	
6,100.0	2.30	248.77	6,098.3	101.6	6.8	98.5	0.40	0.35	-5.14	
6,200.0	2.91	244.59	6,198.2	99.8	2.6	97.5	0.64	0.61	-4.18	
6,300.0	3.43	241.04	6,298.0	97.2	-2.3	95.9	0.56	0.52	-3.55	
6,400.0	3.43	236.71	6,397.8	94.1	-7.4	93.8	0.26	0.00	-4.33	
6,500.0	3.24	228.86	6,497.7	90.6	-12.0	91.3	0.49	-0.19	-7.85	
6,600.0	3.14	223.85	6,597.5	86.8	-16.0	88.3	0.30	-0.10	-5.01	
6,700.0	2.60	212.95	6,697.4	82.9	-19.2	85.0	0.77	-0.54	-10.90	
6,800.0	1.40	221.87	6,797.3	80.1	-21.2	82.7	1.24	-1.20	8.92	
6,900.0	0.92	235.58	6,897.3	78.7	-22.7	81.6	0.55	-0.48	13.71	
7,000.0	1.59	249.42	6,997.3	77.8	-24.7	81.1	0.73	0.67	13.84	
7,100.0	0.93	275.85	7,097.2	77.4	-26.8	81.1	0.86	-0.66	26.43	
7,200.0	1.10	272.73	7,197.2	77.5	-28.5	81.5	0.18	0.17	-3.12	
7,300.0	1.04	268.23	7,297.2	77.5	-30.4	81.9	0.10	-0.06	-4.50	
7,400.0	0.87	256.19	7,397.2	77.3	-32.0	82.0	0.26	-0.17	-12.04	
7,500.0	2.01	228.82	7,497.2	76.0	-34.1	81.1	1.30	1.14	-27.37	
7,600.0	2.54	215.36	7,597.1	73.0	-36.7	78.6	0.75	0.53	-13.46	
7,700.0	2.71	207.29	7,697.0	69.1	-39.1	75.3	0.41	0.17	-8.07	
7,800.0	2.93	172.58	7,796.9	64.5	-39.8	70.8	1.69	0.22	-34.71	
7,900.0	1.90	158.14	7,896.8	60.4	-38.9	66.7	1.19	-1.03	-14.44	
8,000.0	0.92	167.72	7,996.8	58.1	-38.1	64.2	1.00	-0.98	9.58	
8,100.0	1.05	132.45	8,096.7	56.7	-37.2	62.7	0.61	0.13	-35.27	
8,200.0	1.29	141.75	8,196.7	55.2	-35.9	61.0	0.31	0.24	9.30	
8,300.0	1.42	150.91	8,296.7	53.2	-34.6	58.8	0.25	0.13	9.16	
8,400.0	1.86	143.83	8,396.6	50.8	-33.0	56.1	0.48	0.44	-7.08	
8,500.0	2.47	140.94	8,496.6	47.8	-30.7	52.8	0.62	0.61	-2.89	
8,600.0	2.22	143.31	8,596.5	44.6	-28.2	49.1	0.27	-0.25	2.37	
8,700.0	1.89	152.48	8,696.4	41.6	-26.3	45.8	0.46	-0.33	9.17	
8,800.0	2.56	158.01	8,796.4	38.1	-24.7	42.0	0.70	0.67	5.53	
TIE IN @ 8815' MD / 8811' TVD										
8,815.0	2.75	159.51	8,811.3	37.4	-24.4	41.4	1.35	1.27	10.00	
8,875.0	4.00	187.20	8,871.2	34.0	-24.2	37.9	3.37	2.08	46.15	
8,907.0	4.40	221.80	8,903.2	32.0	-25.1	36.1	7.89	1.25	108.13	
8,939.0	6.10	251.20	8,935.0	30.5	-27.6	35.2	9.78	5.31	91.88	
8,970.0	8.80	271.60	8,965.8	30.0	-31.5	35.4	12.06	8.71	65.81	
9,002.0	12.30	283.20	8,997.2	30.9	-37.3	37.4	12.74	10.94	36.25	

Survey Report



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Site:	Sec 28-18S-32E	MD Reference:	Well @ 3734.0usft (Patterson #75)
Well:	Querecho 28 OB Federal Com #1H	North Reference:	Grid
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Design:	Wellbore #1	Database:	EDM Compass

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)
9,034.0	15.90	291.60	9,028.3	33.3	-44.6	41.1	12.91	11.25	26.25
9,065.0	19.40	300.80	9,057.8	37.5	-53.0	46.8	14.41	11.29	29.68
9,097.0	22.90	308.10	9,087.6	44.1	-62.5	55.0	13.67	10.94	22.81
9,129.0	25.90	314.30	9,116.8	52.8	-72.4	65.5	12.32	9.38	19.38
9,161.0	28.80	321.30	9,145.2	63.7	-82.2	78.0	13.52	9.06	21.88
9,192.0	31.70	328.00	9,172.0	76.4	-91.2	92.3	14.34	9.35	21.61
9,224.0	34.90	328.50	9,198.7	91.4	-100.5	108.7	10.04	10.00	1.56
9,256.0	37.80	327.30	9,224.5	107.4	-110.5	126.3	9.33	9.06	-3.75
9,288.0	41.40	326.90	9,249.2	124.5	-121.6	145.2	11.28	11.25	-1.25
9,320.0	44.80	329.80	9,272.5	143.2	-133.1	165.7	12.30	10.63	9.06
9,351.0	46.80	333.30	9,294.1	162.7	-143.6	186.9	10.35	6.45	11.29
9,383.0	50.20	335.20	9,315.3	184.3	-154.0	210.0	11.52	10.63	5.94
9,414.0	53.80	335.20	9,334.4	206.5	-164.3	233.7	11.61	11.61	0.00
9,446.0	56.50	335.90	9,352.7	230.4	-175.2	259.3	8.63	8.44	2.19
9,478.0	59.20	337.70	9,369.7	255.3	-185.8	285.7	9.69	8.44	5.63
9,509.0	62.20	338.40	9,384.9	280.3	-195.9	312.3	9.88	9.68	2.26
9,541.0	64.60	339.30	9,399.2	307.0	-206.2	340.4	7.91	7.50	2.81
9,573.0	67.00	339.40	9,412.4	334.3	-216.5	369.2	7.51	7.50	0.31
9,605.0	70.30	340.00	9,424.0	362.3	-226.9	398.6	10.46	10.31	1.88
CROSSED 330° HARD LINE @ 9618 MD / 9428 TVD									
9,617.5	71.67	340.57	9,428.1	373.4	-230.9	410.2	11.78	10.96	4.57
9,636.0	73.70	341.40	9,433.6	390.1	-236.6	427.7	11.78	10.97	4.48
9,668.0	75.50	342.60	9,442.1	419.4	-246.1	458.3	6.69	5.63	3.75
9,700.0	77.80	345.20	9,449.5	449.3	-254.8	489.3	10.68	7.19	8.13
9,731.0	81.90	347.00	9,454.9	479.0	-262.1	519.8	14.41	13.23	5.81
9,752.0	84.60	346.80	9,457.4	499.3	-266.8	540.6	12.89	12.86	-0.95
9,816.0	89.00	349.10	9,461.0	561.7	-280.2	604.5	7.75	6.88	3.59
9,880.0	90.20	346.30	9,461.4	624.3	-293.8	668.5	4.76	1.88	-4.38
9,943.0	92.20	345.40	9,460.1	685.3	-309.2	731.4	3.48	3.17	-1.43
10,006.0	93.10	346.10	9,457.2	746.3	-324.7	794.2	1.81	1.43	1.11
10,069.0	93.10	347.70	9,453.8	807.6	-338.9	857.0	2.54	0.00	2.54
10,133.0	93.00	349.10	9,450.4	870.2	-351.8	920.9	2.19	-0.16	2.19
10,196.0	92.30	350.50	9,447.5	932.1	-362.9	983.9	2.48	-1.11	2.22
10,259.0	93.20	349.30	9,444.4	994.1	-374.0	1,046.8	2.38	1.43	-1.90
10,323.0	91.80	349.80	9,441.6	1,057.0	-385.6	1,110.7	2.32	-2.19	0.78
10,386.0	89.80	351.20	9,440.8	1,119.1	-396.0	1,173.7	3.87	-3.17	2.22
10,450.0	88.60	351.00	9,441.7	1,182.3	-405.9	1,237.6	1.90	-1.88	-0.31
10,513.0	88.80	352.40	9,443.1	1,244.6	-414.9	1,300.6	2.24	0.32	2.22
10,576.0	90.10	352.80	9,443.7	1,307.1	-423.1	1,363.4	2.16	2.06	0.63
10,639.0	91.30	352.10	9,442.9	1,369.6	-431.3	1,426.3	2.21	1.90	-1.11
10,703.0	91.60	351.50	9,441.3	1,432.9	-440.5	1,490.2	1.05	0.47	-0.94
10,766.0	91.80	352.60	9,439.4	1,495.2	-449.2	1,553.1	1.77	0.32	1.75
10,829.0	91.10	352.10	9,437.8	1,557.7	-457.6	1,616.0	1.37	-1.11	-0.79
10,892.0	90.90	350.90	9,436.7	1,620.0	-466.9	1,678.9	1.93	-0.32	-1.90

Survey Report



Company:	Mewbourne Oil Co	Local Co-ordinate Reference:	Well: Querecho 28 OB Federal Com #1H
Project:	Lea County, New Mexico	TVD Reference:	Well @ 3734.0usft (Patterson #75)
Site:	Sec 28-18S-32E	MD Reference:	Well @ 3734.0usft (Patterson #75)
Well:	Querecho 28 OB Federal Com #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM Compass

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)
10,956.0	90.80	351.70	9,435.8	1,683.2	-476.5	1,742.9	1.26	-0.16	1.25
11,019.0	90.40	351.50	9,435.1	1,745.5	-485.8	1,805.8	0.71	-0.63	-0.32
11,082.0	89.40	350.50	9,435.2	1,807.8	-495.6	1,868.8	2.24	-1.59	-1.59
11,146.0	89.80	351.20	9,435.7	1,870.9	-505.8	1,932.8	1.26	0.63	1.09
11,209.0	90.20	351.40	9,435.7	1,933.2	-515.3	1,995.7	0.71	0.63	0.32
11,272.0	91.20	350.90	9,434.9	1,995.5	-525.0	2,058.7	1.77	1.59	-0.79
11,335.0	92.40	349.80	9,432.9	2,057.5	-535.6	2,121.6	2.58	1.90	-1.75
11,399.0	91.60	350.50	9,430.7	2,120.6	-546.5	2,185.6	1.66	-1.25	1.09
11,462.0	91.40	351.00	9,429.1	2,182.7	-556.6	2,248.5	0.85	-0.32	0.79
11,526.0	90.10	351.20	9,428.2	2,245.9	-566.5	2,312.5	2.06	-2.03	0.31
11,589.0	88.20	352.60	9,429.2	2,308.3	-575.4	2,375.4	3.75	-3.02	2.22
11,652.0	87.70	353.10	9,431.4	2,370.8	-583.2	2,438.2	1.12	-0.79	0.79
11,716.0	87.10	355.20	9,434.3	2,434.4	-589.8	2,501.9	3.41	-0.94	3.28
11,779.0	85.90	356.00	9,438.2	2,497.1	-594.6	2,564.4	2.29	-1.90	1.27
11,842.0	86.50	356.00	9,442.3	2,559.8	-599.0	2,626.8	0.95	0.95	0.00
11,905.0	87.80	355.20	9,445.5	2,622.5	-603.8	2,689.3	2.42	2.06	-1.27
11,969.0	93.90	353.00	9,444.5	2,686.1	-610.4	2,753.0	10.13	9.53	-3.44
12,032.0	94.00	353.50	9,440.2	2,748.5	-617.8	2,815.7	0.81	0.16	0.79
12,095.0	93.60	354.20	9,436.0	2,811.0	-624.5	2,878.4	1.28	-0.63	1.11
12,159.0	93.00	354.70	9,432.3	2,874.6	-630.7	2,942.0	1.22	-0.94	0.78
12,222.0	91.80	355.20	9,429.7	2,937.3	-636.2	3,004.6	2.06	-1.90	0.79
12,285.0	91.10	355.40	9,428.1	3,000.1	-641.4	3,067.2	1.16	-1.11	0.32
12,349.0	90.00	356.00	9,427.5	3,063.9	-646.2	3,130.8	1.96	-1.72	0.94
12,412.0	89.70	355.80	9,427.6	3,126.8	-650.7	3,193.4	0.57	-0.48	-0.32
12,476.0	89.20	354.50	9,428.2	3,190.5	-656.1	3,257.0	2.18	-0.78	-2.03
12,539.0	89.00	354.50	9,429.2	3,253.2	-662.1	3,319.7	0.32	-0.32	0.00
12,602.0	89.00	354.00	9,430.3	3,315.9	-668.4	3,382.5	0.79	0.00	-0.79
12,665.0	89.10	353.30	9,431.4	3,378.5	-675.4	3,445.3	1.12	0.16	-1.11
12,728.0	90.00	353.00	9,431.9	3,441.1	-682.9	3,508.1	1.51	1.43	-0.48
12,791.0	90.80	353.00	9,431.4	3,503.6	-690.6	3,570.9	1.27	1.27	0.00
12,854.0	91.20	353.70	9,430.3	3,566.1	-697.9	3,633.8	1.28	0.63	1.11
12,917.0	91.20	352.40	9,429.0	3,628.7	-705.5	3,696.6	2.06	0.00	-2.06
12,980.0	91.40	352.40	9,427.6	3,691.1	-713.8	3,759.5	0.32	0.32	0.00
13,043.0	91.10	352.80	9,426.2	3,753.6	-721.9	3,822.4	0.79	-0.48	0.63
13,106.0	90.70	353.00	9,425.2	3,816.1	-729.7	3,885.2	0.71	-0.63	0.32
13,169.0	90.40	353.50	9,424.6	3,878.6	-737.1	3,948.0	0.93	-0.48	0.79
13,232.0	90.20	353.30	9,424.3	3,941.2	-744.4	4,010.9	0.45	-0.32	-0.32
13,264.0	90.20	353.30	9,424.2	3,973.0	-748.1	4,042.8	0.00	0.00	0.00
13,296.0	90.50	353.00	9,424.0	4,004.8	-751.9	4,074.7	1.33	0.94	-0.94
13,327.0	89.90	353.10	9,423.9	4,035.5	-755.7	4,105.6	1.96	-1.94	0.32
13,359.0	89.70	354.00	9,424.0	4,067.3	-759.3	4,137.5	2.88	-0.63	2.81
13,390.0	89.70	353.80	9,424.1	4,098.2	-762.6	4,168.4	0.65	0.00	-0.65
13,422.0	89.80	353.70	9,424.3	4,130.0	-766.0	4,200.3	0.44	0.31	-0.31

Survey Report



Company:	Mewbourne Oil Co	Local Co-ordinate Reference:	Well Querecho 28 OB Federal Com #1H
Project:	Lea County, New Mexico	TVD Reference:	Well @ 3734.0usft (Patterson #75)
Site:	Sec 28-18S-32E	MD Reference:	Well @ 3734.0usft (Patterson #75)
Well:	Querecho 28 OB Federal Com #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM: Compass

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)
13,454.0	90.00	354.40	9,424.3	4,161.8	-769.4	4,232.2	2.28	0.63	2.19
13,485.0	89.60	353.70	9,424.5	4,192.6	-772.6	4,263.1	2.60	-1.29	-2.26
13,517.0	89.90	353.30	9,424.6	4,224.4	-776.2	4,295.0	1.56	0.94	-1.25
13,549.0	89.30	353.50	9,424.8	4,256.2	-779.9	4,326.9	1.98	-1.88	0.63
13,580.0	89.30	353.80	9,425.2	4,287.0	-783.3	4,357.8	0.97	0.00	0.97
13,612.0	89.20	353.70	9,425.6	4,318.8	-786.8	4,389.7	0.44	-0.31	-0.31
13,643.0	89.00	353.80	9,426.1	4,349.6	-790.2	4,420.6	0.72	-0.65	0.32
13,675.0	88.90	354.00	9,426.7	4,381.4	-793.6	4,452.5	0.70	-0.31	0.63
13,707.0	89.40	354.00	9,427.2	4,413.3	-796.9	4,484.4	1.56	1.56	0.00
13,738.0	90.00	353.80	9,427.3	4,444.1	-800.2	4,515.3	2.04	1.94	-0.65
13,770.0	90.00	354.20	9,427.3	4,475.9	-803.5	4,547.1	1.25	0.00	1.25
13,801.0	89.90	353.70	9,427.3	4,506.7	-806.8	4,578.0	1.64	-0.32	-1.61
13,833.0	89.90	354.50	9,427.4	4,538.6	-810.1	4,609.9	2.50	0.00	2.50
13,864.0	90.00	354.00	9,427.4	4,569.4	-813.2	4,640.8	1.64	0.32	-1.61
13,896.0	90.30	353.70	9,427.3	4,601.2	-816.6	4,672.7	1.33	0.94	-0.94
13,928.0	90.90	353.50	9,427.0	4,633.0	-820.2	4,704.6	1.98	1.88	-0.63
13,959.0	91.30	353.10	9,426.4	4,663.8	-823.8	4,735.5	1.82	1.29	-1.29
13,991.0	91.30	353.00	9,425.7	4,695.6	-827.7	4,767.4	0.31	0.00	-0.31
14,017.0	91.30	352.40	9,425.1	4,721.4	-831.0	4,793.3	2.31	0.00	-2.31
TD @ 14070' MD / 9424' TVD									
14,070.0	91.30	352.40	9,423.9	4,773.9	-838.0	4,846.2	0.00	0.00	0.00

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
8,815.0	8,811.3	37.4	-24.4	TIE IN @ 8815' MD / 8811' TVD
9,617.5	9,428.1	373.4	-230.9	CROSSED 330' HARD LINE @ 9618' MD / 9428' TVD
14,070.0	9,423.9	4,773.9	-838.0	TD @ 14070' MD / 9424' TVD

Checked By: _____ Approved By: _____ Date: _____



Job Number: SVMO-141077
 Company: Mewbourne Oil & Gas
 Lease/Well: Qurecho 28 OB Fed Com 1H
 Location: Lea County, NM
 Rig Name: Patterson #75
 RKB: 23'
 G.L. or M.S.L.: GL

State/Country: New Mexico/USA
 Declination: 7.05°
 Grid: East To Grid North
 File name: S:\2014SU-1\MEWBOU-1\MO\QUERECHO\1H.SVY
 Date/Time: 11-Aug-14 / 15:02
 Curve Name: Surface - 8815' M.D. (Rate Gyro)

MS Survey

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

We hereby certify that our survey data from
 Surface MD to 8815' MD is, to the best of
 our knowledge a true and accurate account of the
 well bore.
 Clayton Turner 8/12/14
 MS Energy Services Date

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE Distance FT	Direction Deg	Dogleg Severity Deg/100
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
100.00	.25	31.71	100.00	.19	.11	.19	.22	31.71	.25
200.00	.46	8.69	200.00	.77	.29	.77	.82	20.69	.25
300.00	.62	7.64	299.99	1.70	.42	1.70	1.75	13.95	.16
400.00	.61	340.55	399.99	2.74	.32	2.74	2.76	6.61	.29
500.00	.69	343.18	499.98	3.82	-.03	3.82	3.82	359.49	.09
600.00	.74	347.82	599.97	5.03	-.34	5.03	5.04	356.08	.08
700.00	1.06	9.41	699.96	6.57	-.33	6.57	6.58	357.13	.46
800.00	1.52	4.63	799.94	8.80	-.07	8.80	8.80	359.54	.47
900.00	1.40	336.35	899.90	11.24	-.45	11.24	11.25	357.69	.72
1000.00	1.40	335.25	999.87	13.47	-1.46	13.47	13.55	353.83	.03
1100.00	1.80	317.53	1099.84	15.74	-3.03	15.74	16.03	349.11	.63
1200.00	1.34	309.96	1199.80	17.65	-4.98	17.65	18.34	344.23	.50

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	
1300.00	1.44	307.09	1299.77	19.16	-6.88	19.16	20.36	340.24	.12
1400.00	.75	315.58	1399.75	20.38	-8.34	20.38	22.03	337.74	.71
1500.00	.55	334.45	1499.74	21.28	-9.01	21.28	23.11	337.06	.29
1600.00	.77	326.11	1599.74	22.28	-9.59	22.28	24.25	336.71	.24
1700.00	.71	341.89	1699.73	23.42	-10.16	23.42	25.53	336.56	.21
1800.00	.55	358.20	1799.72	24.49	-10.37	24.49	26.59	337.06	.24
1900.00	.57	26.57	1899.72	25.42	-10.16	25.42	27.37	338.21	.28
2000.00	1.05	32.22	1999.71	26.64	-9.45	26.64	28.26	340.47	.49
2100.00	1.87	25.27	2099.67	28.89	-8.26	28.89	30.04	344.04	.84
2200.00	2.85	30.25	2199.59	32.51	-6.31	32.51	33.12	349.01	1.00
2300.00	2.99	28.51	2299.46	36.95	-3.82	36.95	37.14	354.10	.17
2400.00	2.94	35.86	2399.33	41.32	-1.07	41.32	41.33	358.52	.38
2500.00	3.13	41.24	2499.19	45.45	2.23	45.45	45.50	2.81	.34
2600.00	2.78	32.76	2599.05	49.54	5.35	49.54	49.83	6.16	.56
2700.00	2.33	41.33	2698.95	53.11	8.00	53.11	53.71	8.57	.59
2800.00	1.96	29.56	2798.88	56.12	10.19	56.12	57.04	10.29	.57
2900.00	1.60	28.01	2898.84	58.84	11.69	58.84	59.99	11.23	.36
3000.00	1.74	42.31	2998.79	61.20	13.36	61.20	62.64	12.32	.44
3100.00	1.86	35.66	3098.74	63.64	15.33	63.64	65.46	13.55	.24
3200.00	1.53	31.02	3198.70	66.10	16.97	66.10	68.24	14.39	.36
3300.00	1.18	36.83	3298.67	68.07	18.27	68.07	70.48	15.02	.38
3400.00	.98	28.78	3398.65	69.64	19.30	69.64	72.27	15.49	.25
3500.00	.77	16.90	3498.64	71.04	19.91	71.04	73.77	15.65	.28
3600.00	1.09	7.34	3598.63	72.62	20.22	72.62	75.39	15.56	.35
3700.00	.66	3.44	3698.62	74.14	20.38	74.14	76.89	15.37	.43
3800.00	.93	19.25	3798.61	75.48	20.68	75.48	78.26	15.32	.35
3900.00	.91	20.00	3898.60	76.99	21.22	76.99	79.86	15.41	.02
4000.00	1.00	14.52	3998.58	78.58	21.71	78.58	81.53	15.44	.13
4100.00	1.12	1.70	4098.56	80.41	21.96	80.41	83.35	15.28	.27
4200.00	.95	350.10	4198.55	82.20	21.85	82.20	85.05	14.88	.27
4300.00	.58	343.61	4298.54	83.50	21.56	83.50	86.24	14.48	.38
4400.00	.51	354.51	4398.53	84.43	21.37	84.43	87.09	14.21	.12
4500.00	.61	5.50	4498.53	85.40	21.38	85.40	88.04	14.06	.15
4600.00	.83	357.05	4598.52	86.66	21.40	86.66	89.26	13.87	.24

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	
4700.00	.78	350.29	4698.51	88.05	21.25	88.05	90.58	13.57	.11
4800.00	.54	324.99	4798.51	89.11	20.86	89.11	91.52	13.18	.37
4900.00	.49	333.96	4898.50	89.88	20.40	89.88	92.16	12.79	.09
5000.00	.64	345.12	4998.50	90.80	20.07	90.80	92.99	12.46	.19
5100.00	.70	349.75	5098.49	91.94	19.82	91.94	94.05	12.16	.08
5200.00	.84	346.97	5198.48	93.26	19.54	93.26	95.28	11.84	.14
5300.00	.93	333.33	5298.47	94.70	19.02	94.70	96.59	11.35	.23
5400.00	1.01	333.62	5398.45	96.21	18.26	96.21	97.93	10.75	.08
5500.00	.84	320.08	5498.44	97.56	17.40	97.56	99.10	10.11	.28
5600.00	.75	315.49	5598.43	98.59	16.47	98.59	99.96	9.48	.11
5700.00	.99	342.05	5698.42	99.88	15.74	99.88	101.11	8.96	.46
5800.00	1.01	334.57	5798.41	101.50	15.10	101.50	102.62	8.46	.13
5900.00	1.68	288.85	5898.38	102.77	13.33	102.77	103.63	7.39	1.21
6000.00	1.95	253.91	5998.33	102.77	10.31	102.77	103.29	5.73	1.12
6100.00	2.30	248.77	6098.26	101.57	6.81	101.57	101.80	3.83	.40
6200.00	2.91	244.59	6198.16	99.76	2.64	99.76	99.79	1.52	.64
6300.00	3.43	241.04	6298.01	97.22	-2.27	97.22	97.25	358.66	.56
6400.00	3.43	236.71	6397.83	94.13	-7.39	94.13	94.42	355.51	.26
6500.00	3.24	228.86	6497.66	90.63	-12.01	90.63	91.42	352.45	.49
6600.00	3.14	223.85	6597.50	86.79	-16.04	86.79	88.26	349.53	.30
6700.00	2.60	212.95	6697.38	82.91	-19.17	82.91	85.10	346.98	.77
6800.00	1.40	221.87	6797.32	80.10	-21.22	80.10	82.87	345.16	1.24
6900.00	.92	235.58	6897.30	78.74	-22.70	78.74	81.94	343.92	.55
7000.00	1.59	249.42	6997.27	77.80	-24.66	77.80	81.61	342.41	.73
7100.00	.93	275.85	7097.25	77.39	-26.77	77.39	81.89	340.92	.86
7200.00	1.10	272.73	7197.23	77.52	-28.53	77.52	82.60	339.79	.18
7300.00	1.04	268.23	7297.21	77.54	-30.40	77.54	83.28	338.59	.10
7400.00	.87	256.19	7397.20	77.33	-32.04	77.33	83.70	337.49	.26
7500.00	2.01	228.82	7497.17	75.99	-34.10	75.99	83.29	335.83	1.30
7600.00	2.54	215.36	7597.09	73.03	-36.70	73.03	81.73	333.32	.75
7700.00	2.71	207.29	7696.99	69.12	-39.07	69.12	79.40	330.53	.41
7800.00	2.93	172.58	7796.87	64.49	-39.82	64.49	75.79	328.30	1.69
7900.00	1.90	158.14	7896.78	60.41	-38.87	60.41	71.84	327.24	1.19
8000.00	.92	167.72	7996.75	58.09	-38.09	58.09	69.46	326.75	1.00

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	
8100.00	1.05	132.45	8096.74	56.69	-37.24	56.69	67.83	326.70	.61
8200.00	1.29	141.75	8196.72	55.19	-35.87	55.19	65.82	326.98	.31
8300.00	1.42	150.91	8296.69	53.22	-34.57	53.22	63.46	327.00	.25
8400.00	1.86	143.83	8396.65	50.83	-33.01	50.83	60.60	327.00	.48
8500.00	2.47	140.94	8496.58	47.84	-30.69	47.84	56.84	327.32	.62
8600.00	2.22	143.31	8596.49	44.62	-28.18	44.62	52.77	327.73	.27
8700.00	1.89	152.48	8696.43	41.60	-26.26	41.60	49.19	327.74	.46
8800.00	2.56	158.01	8796.35	38.07	-24.66	38.07	45.36	327.07	.70
Last Survey Depth Recorded									
8815.00	2.75	159.51	8811.34	37.42	-24.41	37.42	44.68	326.89	1.35

Operating Company Mewbourne Oil Co.
 Well Name & Number Quercho 28 OB FED COM #11
 Sales Ticket Number 0
 Date 8/23/2014

Company Rep 0
 Field 0
 BOT Service Rep Zach Blenkinsopp
 District Location Odessa, TX



	Size	Weight	Grade	ID	Drift	Thread	Capacity	Length	Burst	Collapse
Casing	7.000	26.00	110000	6.276	6.151	LTC / 8RD	0.03826	9,800.00	9,960	6,230
Top Liner	4.500	13.50	110000	3.920	3.795	LTC / 8RD	0.01493	4,470.68	12,410	10,690
Bott Liner	0.000	0.00	0	0.000	0.000	0	0.00000	-	-	-

TVD	9424.00	KOP	8892.00	Open Hole	6.125	Casing Vol. (bbl)	365.1
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Carry Fluid Weight (ppg)	8.4	Propanant Content (ppa)		Max Drill Out Size	0
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	Comm. Number	Description	Depth	Length	OD	ID	Ball Seat ID	Shear Press.	Max Rate (BPM)	Displ (BBL)
Liner Ton 1	10292414	JR Slv w 4.750" Alt Seal Bore ID	9541.32	4.00	5.750	3.913				

Zone Length	H4090400008	S-3 Casing Hanger Packer	9545.32	4.65	5.875	3.875		1670		
	H299900281	Combo Collar (4-1/2 LT&C)	9549.97	0.59	5.000	4.500				
	H299710014	4-1/2" 13.5# LT&C Spacer Nipple	9550.56	6.90	4.500	3.938				
		8 Jnts 4-1/2" 13.5# LT&C csg	9557.46	336.66	3.920					
	H810090200	3.500" EXPress Sleeve (Zone 20)	9894.12	2.40	5.630		3.448	2286		
		3 Jnts 4-1/2" 13.5# LT&C csg	9896.52	127.04	4.500	3.920				
	H409360008	582 OH PACKER #19	10023.56	3.89	5.820	3.875		2154		
		2 Jnts 4-1/2" 13.5# LT&C csg	10027.45	77.26	4.500	3.920				
	H810090199	3.438" EXPress Sleeve (Zone 19)	10104.71	2.40	5.630		3.385	2286		
		3 Jnts 4-1/2" 13.5# LT&C csg	10107.11	124.24	4.500	3.920				
	H409360008	582 OH PACKER #18	10231.35	3.89	5.820	3.875		2154		
		3 Jnts 4-1/2" 13.5# LT&C csg	10235.24	83.75	4.500	3.920				
	H810090198	3.375" EXPress Sleeve (Zone 18)	10318.99	2.40	5.630		3.323	2286		
		3 Jnts 4-1/2" 13.5# LT&C csg	10321.39	122.98	4.500	3.920				
	H409360008	582 OH PACKER #17	10444.37	3.89	5.820	3.875		2154		
		2 Jnts 4-1/2" 13.5# LT&C csg	10448.26	84.51	4.500	3.920				
	H810090197	3.313" EXPress Sleeve (Zone 17)	10532.77	2.40	5.630		3.260	2286		
		3 Jnts 4-1/2" 13.5# LT&C csg	10535.17	126.79	4.500	3.920				
	H409360008	582 OH PACKER #16	10661.96	3.89	5.820	3.875		2154		
		3 Jnts 4-1/2" 13.5# LT&C csg	10665.85	83.85	4.500	3.920				
	H810090196	3.250" EXPress Sleeve (Zone 16)	10749.70	2.40	5.630		3.198	2286		
		3 Jnts 4-1/2" 13.5# LT&C csg	10752.10	126.25	4.500	3.920				

Operating Company Mewbourne Oil Co.
 Well Name & Number Quercho 28 OB FED COM #11
 Sales Ticket Number 0
 Date 8/23/2014

Company Rep 0
 Field 0
 BOT Service Rep Zach Blenkinsopp
 District Location Odessa, TX



	Size	Weight	Grade	ID	Drift	Thread	Capacity	Length	Burst	Collapse
Casing	7.000	26.00	110000	6.276	6.151	LTC / 8RD	0.03826	9,800.00	9,960	6,230
Top Liner	4.500	13.50	110000	3.920	3.795	LTC / 8RD	0.01493	4,470.68	12,410	10,690
Bott Liner	0.000	0.00	0	0.000	0.000	0	0.00000	-	-	-
TVD	9424.00		KOP	8892.00		Open Hole	6.125		Casing Vol. (bbl)	365.1
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)
	H409360008	582 OH PACKER #15	10878.35	3.89	5.820	3.875		2154		
		2 Jnts 4-1/2" 13.5# LT&C csg	10882.24	83.26	4.500	3.920				
	H810090195	3.188" EXPress Sleeve (Zone 15)	10965.50	2.40	5.630		3.135	2286		
		3 Jnts 4-1/2" 13.5# LT&C csg	10967.90	124.47	4.500	3.920				
	H409360008	582 OH PACKER #14	11092.37	3.89	5.820	3.875		2154		
		2 Jnts 4-1/2" 13.5# LT&C csg	11096.26	85.14	4.500	3.920				
	H810090194	3.125" EXPress Sleeve (Zone 14)	11181.40	2.40	5.630		3.073	2286		
		3 Jnts 4-1/2" 13.5# LT&C csg	11183.80	127.71	4.500	3.920				
	H409360008	582 OH PACKER #13	11341.51	3.89	5.820	3.875		2154		
		2 Jnts 4-1/2" 13.5# LT&C csg	11315.40	84.65	4.500	3.920				
	H810090193	3.063" EXPress Sleeve (Zone 13)	11400.05	2.40	5.630		3.010	2286		
		3 Jnts 4-1/2" 13.5# LT&C csg	11402.45	124.24	4.500	3.920				
	H409360008	582 OH PACKER #12	11526.69	3.89	5.820	3.875		2154		
		2 Jnts 4-1/2" 13.5# LT&C csg	11530.58	84.55	4.500	3.920				
	H810090192	3.00" EXPress Sleeve (Zone 12)	11615.13	2.40	5.630		2.948	2286		
		3 Jnts 4-1/2" 13.5# LT&C csg	11617.53	124.43	4.500	3.920				
	H409360008	582 OH PACKER #11	11741.96	3.89	5.820	3.875		2154		
		2 Jnts 4-1/2" 13.5# LT&C csg	11745.85	80.40	4.500	3.920				
	H810090191	2.938" EXPress Sleeve (Zone 11)	11828.25	2.40	5.630		2.885	2286		
		3 Jnts 4-1/2" 13.5# LT&C csg	11828.65	121.95	4.500	3.920				
	H409360008	582 OH PACKER #10	11950.60	3.89	5.820	3.875		2154		
		2 Jnts 4-1/2" 13.5# LT&C csg	11954.49	84.56	4.500	3.920				
	H810090190	2.875" EXPress Sleeve (Zone 10)	12039.05	2.40	5.630		2.823	2286		
		3 Jnts 4-1/2" 13.5# LT&C csg	12041.45	84.89	4.500	3.920				
	H409360008	582 OH PACKER #9	12126.34	3.89	5.820	3.875		2154		
		2 Jnts 4-1/2" 13.5# LT&C csg	12130.23	126.93	4.500	3.920				
	H810090189	2.813" EXPress Sleeve (Zone 9)	12257.16	2.40	5.630		2.760	2286		

Operating Company Mewbourne Oil Co.
 Well Name & Number Zuercho 28 OB FED COM #1
 Sales Ticket Number 0
 Date 8/23/2014

Company Rep 0
 Field 0
 BOT Service Rep Zach Blenkinsopp
 District Location Odessa, TX



	Size	Weight	Grade	ID	Drift	Thread	Capacity	Length	Burst	Collapse		
Casing	7.000	26.00	110000	6.276	6.151	LTC / 8RD	0.03826	9,800.00	9,960	6,230		
Top Liner	4.500	13.50	110000	3.920	3.795	LTC / 8RD	0.01493	4,470.68	12,410	10,690		
Bott Liner	0.000	0.00	0	0.000	0.000	0	0.00000	-	-	-		
TVD		9424.00		KOP		8892.00		Open Hole		6.125	Casing Vol. (bbl)	365.1
Carry Fluid Weight (ppg)			8.4		Propanant Content (ppa)					Max Drill Out Size		0

Comm. Number	Description	Depth	Length	OD	ID	Ball Seat ID	Shear Press	Max Rate (BPM)	Displ (BBL)
	3 Jnts 4-1/2" 13.5# LT&C csg	12259.56	84.91	4.500	3.920				
H409360008	582 OH PACKER #8	12344.47	3.89	5.820	3.875		2154		
	3 Jnts 4-1/2" 13.5# LT&C csg	12348.36	125.75	4.500	3.920				
H810090188	2.750" EXPress Sleeve (Zone 8)	12474.11	2.40	5.630		2.698	2286		
	3 Jnts 4-1/2" 13.5# LT&C csg	12476.51	125.81	4.500	3.920				
H409360008	582 OH PACKER #7	12602.32	3.89	5.820	3.875		2154		
	2 Jnts 4-1/2" 13.5# LT&C csg	12606.21	83.79	4.500	3.920				
H810090187	2.688" EXPress Sleeve (Zone 7)	12690.00	2.40	5.630		2.635	2286		
	3 Jnts 4-1/2" 13.5# LT&C csg	12692.40	123.02	4.500	3.920				
H409360008	582 OH PACKER #6	12815.42	3.89	5.820	3.875		2154		
	2 Jnts 4-1/2" 13.5# LT&C csg	12819.31	83.92	4.500	3.920				
H810090186	2.625" EXPress Sleeve (Zone 6)	12903.23	2.40	5.630		2.573	2286		
	3 Jnts 4-1/2" 13.5# LT&C csg	12905.63	125.75	4.500	3.920				
H409360008	582 OH PACKER #5	13031.38	3.89	5.820	3.875		2154		
	3 Jnts 4-1/2" 13.5# LT&C csg	13035.27	84.40	4.500	3.920				
H810090185	2.563" EXPress Sleeve (Zone 5)	13119.67	2.40	5.630		2.510	2286		
	3 Jnts 4-1/2" 13.5# LT&C csg	13122.07	123.47	4.500	3.920				
H409360008	582 OH PACKER #4	13245.54	3.89	5.820	3.875		2154		
	2 Jnts 4-1/2" 13.5# LT&C csg	13249.43	85.17	4.500	3.920				
H810090184	2.500" EXPress Sleeve (Zone 4)	13334.60	2.40	5.630		2.448	2286		
	3 Jnts 4-1/2" 13.5# LT&C csg	13337.00	125.66	4.500	3.920				
H409360008	582 OH PACKER #3	13462.66	3.89	5.820	3.875		2154		
	2 Jnts 4-1/2" 13.5# LT&C csg	13466.55	82.20	4.500	3.920				
H810090183	2.438" EXPress Sleeve (Zone 3)	13548.75	2.40	5.630		2.385	2286		
	3 Jnts 4-1/2" 13.5# LT&C csg	13551.15	126.39	4.500	3.920				
H409360008	582 OH PACKER #2	13677.54	3.89	5.820	3.875		2154		
	3 Jnts 4-1/2" 13.5# LT&C csg	13681.43	81.74	4.500	3.920				

Company Rep	0
Field	0
BOT Service Rep	Zach Blenkinsopp
District Location	Odessa, TX

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