



MEWBOURNE
OIL COMPANY

NM OIL CONSERVATION
ARTESIA DISTRICT

SEP 02 2015

RECEIVED

30-015-43063

Mewbourne Oil Company

Eddy County, NM

Ruger 31 B3DA Federal

No. 2H

Original Hole

Design: Original Hole

EOW Report

04 June, 2015





Mewbourne Oil Company
 Project: Eddy County, NM
 Site: Ruger 31 B3DA Federal
 Well: No. 2H
 Wellbore: Original Hole
 Design: Plan #3
 Lat: 32° 37' 18.883 N
 Long: 104° 7' 13.616 W
 Pad GL: 3299.00
 KB: WELL @ 3319.00usft (Original Well Elev)



SECTION DETAILS							
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace
8200.00	2.46	243.52	8193.69	92.03	-17.79	0.00	0.00
8377.77	2.46	243.52	8371.30	88.63	-24.62	0.00	-13.93
8143.48	89.57	83.19	8868.00	137.66	446.37	12.00	-160.32
13126.09	89.57	83.19	8898.00	609.65	4400.80	0.00	0.00
							4442.04

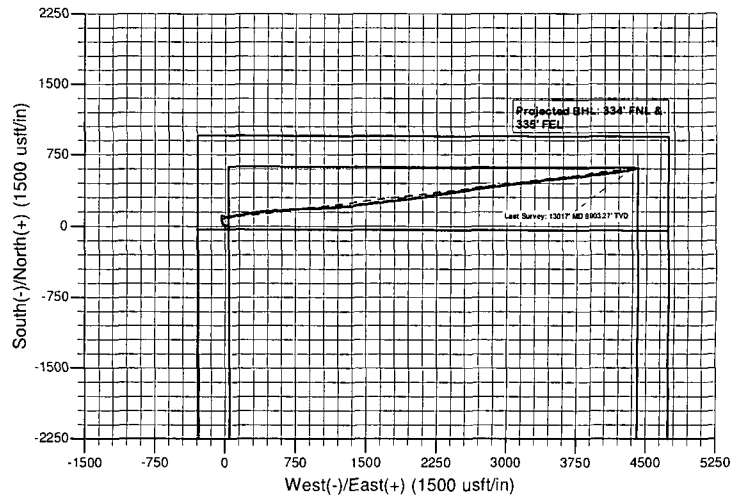
WELL DETAILS: No. 2H							
+N/-S	+E/-W	Northing	Ground Level:	Eastings	Latitude	Longitude	
0.00	0.00	590028.60	3299.00	565543.80	32° 37' 18.883 N	104° 7' 13.616 W	

DESIGN TARGET DETAILS							
Name	TVD	+N/-S	+E/-W	Northing	Eastings	Latitude	Longitude
Ruger No. 2H TD/PBHL	8898.00	609.65	4400.80	590638.25	569944.60	32° 37' 24.828 N	104° 6' 21.144 W

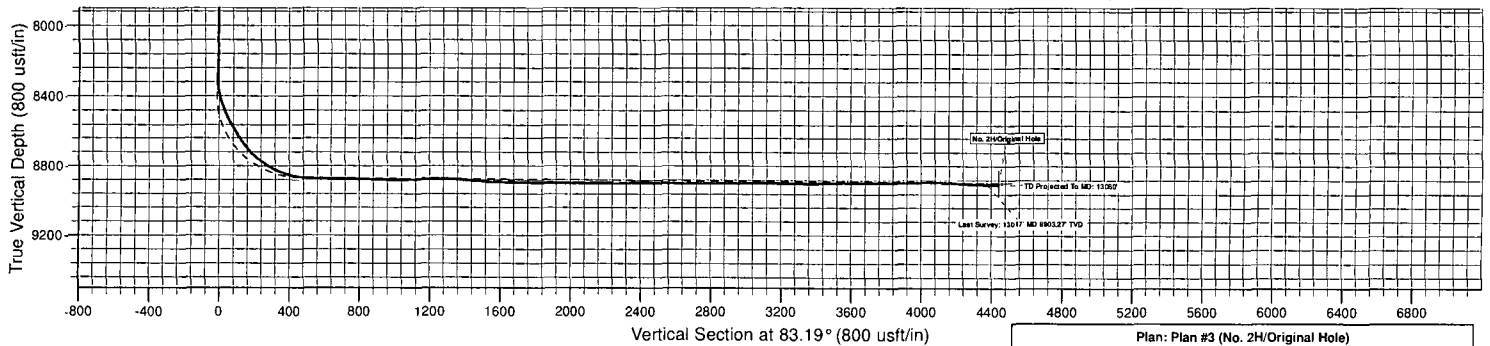
PROJECT DETAILS: Eddy County, NM
 Geodetic System: US State Plane 1927 (Exact solution)
 Datum: NAD 1927 (NADCON CONUS)
 Ellipsoid: Clarke 1866
 Zone: New Mexico East 3001
 System Datum: Mean Sea Level

Azimuths to Grid North
 True North: -0.12°
 Magnetic North: 7.28°

Magnetic Field
 Strength: 48413.2nT
 Dip Angle: 60.37°
 Date: 04/16/2015
 Model: IGRF2010



NOTE: All Lease lines and Hard lines are estimates only and are subject to the customers' approval.



Plan: Plan #3 (No. 2H/Original Hole)
 Created By: Chris LeMaster Date: 8:52, June 04 2015

Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well No. 2H
Project:	Eddy County, NM	TVD Reference:	WELL @ 3319.00usft (Original Well Elev)
Site:	Ruger 31 B3DA Federal	MD Reference:	WELL @ 3319.00usft (Original Well Elev)
Well:	No. 2H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	Inwell D

Project	Eddy 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	Ruger 31 B3DA Federal			
Site Position:		Northing:	590,028.60 usft	Latitude: 32° 37' 18.883 N
From:	Map	Easting:	565,543.80 usft	Longitude: 104° 7' 13.616 W
Position Uncertainty:	3.30 usft	Slot Radius:	13-3/16"	Grid Convergence: 0.11 °

Well	No. 2H			
Well Position	+N/-S	0.00 usft	Northing:	590,028.60 usft
	+E/-W	0.00 usft	Easting:	565,543.80 usft
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft
			Ground Level:	3,299.00 usft

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	04/16/15	7.40	60.37	48,413

Design	Original Hole			
Audit Notes:				
Version:	1.0	Phase:	ACTUAL	Tie On Depth: 0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	83.19

Survey Program	Date	06/02/15			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
100.00	8,200.00	Gyro (Original Hole)	CB-GYRO-MS	Camera based gyro multishot	
8,264.00	13,080.00	MWD (Original Hole)	MWD	MWD - Standard	

Survey								
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	Build (°/100usft)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.27	237.86	100.00	-0.13	-0.20	-0.21	0.27	0.27
200.00	0.43	335.55	200.00	0.09	-0.55	-0.54	0.16	0.16
300.00	0.77	2.23	299.99	1.10	-0.68	-0.55	0.34	0.34
400.00	0.95	15.56	399.98	2.57	-0.43	-0.13	0.18	0.18
500.00	1.16	17.92	499.96	4.34	0.10	0.61	0.21	0.21
600.00	1.60	53.43	599.94	6.13	1.53	2.25	0.44	0.44
700.00	2.10	64.98	699.89	7.74	4.31	5.20	0.50	0.50
800.00	2.10	63.18	799.82	9.34	7.61	8.66	0.00	0.00
900.00	2.16	68.69	899.75	10.85	11.00	12.21	0.06	0.06
1,000.00	1.86	83.57	999.69	11.72	14.37	15.66	-0.30	-0.30

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Well:	No. 2H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	Inwell D

Survey							
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	Build (°/100usft)
1,100.00	1.82	88.91	1,099.64	11.93	17.57	18.86	-0.04
1,200.00	1.78	90.79	1,199.59	11.94	20.71	21.98	-0.04
1,300.00	1.61	99.06	1,299.54	11.70	23.65	24.87	-0.17
1,400.00	1.57	103.69	1,399.51	11.15	26.37	27.50	-0.04
1,500.00	1.39	107.42	1,499.47	10.46	28.86	29.89	-0.18
1,600.00	1.17	117.86	1,599.45	9.62	30.92	31.84	-0.22
1,700.00	0.86	132.11	1,699.43	8.64	32.37	33.17	-0.31
1,800.00	0.96	136.34	1,799.42	7.53	33.51	34.17	0.10
1,900.00	0.52	155.17	1,899.41	6.51	34.28	34.81	-0.44
2,000.00	0.60	163.71	1,999.41	5.60	34.62	35.04	0.08
2,100.00	0.70	177.22	2,099.40	4.49	34.79	35.08	0.10
2,200.00	0.48	183.84	2,199.39	3.46	34.79	34.96	-0.22
2,300.00	0.51	229.67	2,299.39	2.75	34.43	34.51	0.03
2,400.00	0.89	225.59	2,399.38	1.92	33.53	33.52	0.38
2,500.00	0.65	214.14	2,499.37	0.91	32.66	32.54	-0.24
2,600.00	0.70	248.16	2,599.37	0.21	31.77	31.58	0.05
2,700.00	0.88	239.32	2,699.36	-0.41	30.55	30.28	0.18
2,800.00	0.73	235.92	2,799.35	-1.16	29.36	29.01	-0.15
2,900.00	0.72	261.87	2,899.34	-1.60	28.21	27.82	-0.01
3,000.00	0.96	253.32	2,999.33	-1.93	26.78	26.37	0.24
3,100.00	0.50	245.24	3,099.32	-2.35	25.59	25.13	-0.46
3,200.00	1.20	257.35	3,199.31	-2.77	24.17	23.67	0.70
3,300.00	0.96	252.70	3,299.29	-3.24	22.35	21.80	-0.24
3,400.00	1.61	274.24	3,399.27	-3.39	20.15	19.60	0.65
3,500.00	1.12	271.44	3,499.24	-3.26	17.77	17.26	-0.49
3,600.00	1.24	282.92	3,599.22	-2.99	15.74	15.27	0.12
3,700.00	1.51	274.96	3,699.19	-2.64	13.37	12.96	0.27
3,800.00	1.51	262.35	3,799.15	-2.70	10.75	10.35	0.00
3,900.00	1.07	312.23	3,899.13	-2.25	8.75	8.42	-0.44
4,000.00	1.02	348.78	3,999.12	-0.75	7.89	7.74	-0.05
4,100.00	1.16	350.36	4,099.10	1.12	7.55	7.63	0.14
4,200.00	0.54	20.89	4,199.09	2.56	7.54	7.79	-0.62
4,300.00	0.80	357.87	4,299.08	3.70	7.69	8.07	0.26
4,400.00	1.78	323.75	4,399.05	5.65	6.74	7.36	0.98
4,500.00	2.16	314.72	4,498.99	8.23	4.48	5.43	0.38
4,600.00	2.15	319.32	4,598.92	10.98	1.92	3.21	-0.01
4,700.00	2.27	320.44	4,698.85	13.93	-0.56	1.09	0.12
4,800.00	1.69	306.29	4,798.79	16.33	-3.01	-1.05	-0.58
4,900.00	1.90	304.06	4,898.74	18.13	-5.57	-3.38	0.21
5,000.00	1.41	311.04	4,998.70	19.86	-7.87	-5.46	-0.49
5,100.00	1.85	301.96	5,098.66	21.53	-10.17	-7.55	0.44
5,200.00	1.37	307.87	5,198.62	23.11	-12.49	-9.66	-0.48
5,300.00	2.11	288.79	5,298.57	24.44	-15.17	-12.17	0.74
5,400.00	2.20	302.23	5,398.50	26.06	-18.54	-15.32	0.09

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Well:	No. 2H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	Inwell D

Survey								
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	Build (°/100usft)	
5,500.00	2.25	303.56	5,498.43	28.17	-21.80	-18.30	0.05	
5,600.00	3.34	324.41	5,598.31	31.62	-25.13	-21.20	1.09	
5,700.00	4.20	333.87	5,698.09	37.28	-28.44	-23.82	0.86	
5,800.00	4.95	342.83	5,797.78	44.69	-31.32	-25.80	0.75	
5,900.00	5.26	344.69	5,897.38	53.23	-33.81	-27.26	0.31	
6,000.00	5.20	349.87	5,996.96	62.11	-35.81	-28.20	-0.06	
6,100.00	5.28	351.58	6,096.54	71.12	-37.29	-28.59	0.08	
6,200.00	5.27	351.19	6,196.12	80.21	-38.66	-28.88	-0.01	
6,300.00	4.93	354.33	6,295.73	89.03	-39.79	-28.95	-0.34	
6,400.00	4.56	358.57	6,395.38	97.28	-40.31	-28.49	-0.37	
6,500.00	4.04	3.25	6,495.10	104.77	-40.21	-27.51	-0.52	
6,600.00	2.71	17.54	6,594.93	110.54	-39.30	-25.92	-1.33	
6,700.00	2.72	45.71	6,694.82	114.45	-36.89	-23.06	0.01	
6,800.00	2.52	52.43	6,794.72	117.45	-33.45	-19.29	-0.20	
6,900.00	2.16	77.26	6,894.63	119.21	-29.87	-15.52	-0.36	
7,000.00	3.26	103.61	6,994.52	118.95	-25.27	-10.98	1.10	
7,100.00	3.84	116.77	7,094.33	116.77	-19.51	-5.53	0.58	
7,200.00	3.29	115.90	7,194.14	114.01	-13.94	-0.32	-0.55	
7,300.00	2.45	141.80	7,294.02	111.08	-10.04	3.20	-0.84	
7,400.00	1.86	199.66	7,393.96	107.87	-9.26	3.59	-0.59	
7,500.00	2.16	219.04	7,493.90	104.88	-11.00	1.52	0.30	
7,600.00	1.37	214.51	7,593.85	102.43	-12.86	-0.62	-0.79	
7,700.00	1.57	169.92	7,693.82	100.10	-13.30	-1.34	0.20	
7,800.00	0.79	181.80	7,793.80	98.06	-13.08	-1.36	-0.78	
7,900.00	0.76	182.58	7,893.79	96.71	-13.13	-1.57	-0.03	
8,000.00	0.74	207.46	7,993.78	95.47	-13.46	-2.04	-0.02	
8,100.00	1.63	227.82	8,093.76	93.94	-14.81	-3.57	0.89	
8,200.00	2.46	243.52	8,193.69	92.03	-17.79	-6.75	0.83	
8,264.00	1.90	254.20	8,257.65	91.13	-20.04	-9.09	-0.87	
8,296.00	1.90	252.60	8,289.63	90.83	-21.05	-10.13	0.00	
8,327.00	3.50	82.10	8,320.62	90.80	-20.61	-9.69	5.16	
8,359.00	8.50	65.60	8,352.43	91.92	-17.48	-6.46	15.62	
8,391.00	13.30	63.20	8,383.85	94.55	-12.04	-0.74	15.00	
8,422.00	16.30	67.30	8,413.81	97.84	-4.84	6.79	9.68	
8,454.00	20.60	75.40	8,444.17	101.00	4.75	16.70	13.44	
8,485.00	23.20	76.80	8,472.93	103.76	15.98	28.17	8.39	
8,517.00	25.40	76.70	8,502.09	106.78	28.80	41.25	6.87	
8,549.00	27.80	78.10	8,530.70	109.90	42.78	55.51	7.50	
8,580.00	29.30	80.40	8,557.93	112.66	57.33	70.29	4.84	
8,612.00	29.90	82.80	8,585.76	114.96	72.97	86.08	1.87	
8,644.00	30.70	84.10	8,613.39	116.80	89.01	102.23	2.50	
8,676.00	33.40	83.40	8,640.51	118.65	105.88	119.21	8.44	
8,707.00	35.80	82.30	8,666.02	120.85	123.35	136.81	7.74	
8,739.00	38.20	80.60	8,691.58	123.72	142.39	156.05	7.50	
8,771.00	42.20	79.70	8,716.01	127.26	162.73	176.67	12.50	

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Well:	No. 2H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	Inwell D

Survey								
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	Build (°/100usft)	
8,802.00	46.30	79.50	8,738.21	131.17	184.00	198.26	13.23	
8,834.00	49.80	81.30	8,759.60	135.12	207.47	222.02	10.94	
8,866.00	53.80	83.60	8,779.39	138.41	232.39	247.16	12.50	
8,897.00	57.50	83.90	8,796.88	141.20	257.83	272.75	11.94	
8,929.00	61.70	83.80	8,813.07	144.15	285.26	300.34	13.12	
8,961.00	65.50	82.10	8,827.30	147.68	313.70	329.00	11.87	
8,993.00	70.20	81.30	8,839.36	151.96	343.02	358.62	14.69	
9,024.00	74.30	81.70	8,848.81	156.32	372.21	388.12	13.23	
9,056.00	77.80	84.50	8,856.52	160.04	403.04	419.17	10.94	
9,078.00	79.80	86.40	8,860.79	161.76	424.55	440.73	9.09	
9,147.00	86.60	84.40	8,868.96	167.26	492.80	509.15	9.86	
9,179.00	87.00	85.80	8,870.75	169.98	524.63	541.08	1.25	
9,242.00	89.80	87.00	8,872.50	173.94	587.47	603.95	4.44	
9,306.00	89.60	87.00	8,872.84	177.29	651.38	667.81	-0.31	
9,369.00	89.10	86.50	8,873.55	180.86	714.28	730.68	-0.79	
<u>9,432.00</u>	88.30	86.70	8,874.98	<u>184.59</u>	<u>777.15</u>	793.56	-1.27	
9,495.00	89.10	87.10	8,876.41	188.00	840.04	856.41	1.27	
9,559.00	89.00	87.00	8,877.47	191.29	903.95	920.25	-0.16	
9,622.00	89.10	87.00	8,878.52	194.59	966.85	983.11	0.16	
9,685.00	90.80	87.30	8,878.57	197.72	1,029.77	1,045.95	2.70	
9,748.00	91.30	86.90	8,877.42	200.91	1,092.68	1,108.80	0.79	
9,812.00	92.00	86.60	8,875.58	204.54	1,156.55	1,172.65	1.09	
9,875.00	90.90	85.80	8,873.98	208.71	1,219.39	1,235.54	-1.75	
9,939.00	88.60	84.30	8,874.26	214.23	1,283.15	1,299.50	-3.59	
10,002.00	86.90	83.60	8,876.73	220.87	1,345.74	1,362.44	-2.70	
10,065.00	85.90	82.80	8,880.69	228.31	1,408.18	1,425.31	-1.59	
10,129.00	86.20	83.30	8,885.10	236.04	1,471.55	1,489.16	0.47	
10,192.00	86.90	83.30	8,888.89	243.37	1,534.01	1,552.05	1.11	
10,255.00	88.30	83.30	8,891.53	250.72	1,596.52	1,614.99	2.22	
10,319.00	90.10	83.30	8,892.42	258.18	1,660.08	1,678.98	2.81	
10,382.00	89.80	82.80	8,892.48	265.81	1,722.61	1,741.98	-0.48	
10,445.00	89.40	82.90	8,892.92	273.65	1,785.12	1,804.98	-0.63	
10,508.00	89.10	83.10	8,893.74	281.32	1,847.65	1,867.97	-0.48	
10,572.00	89.60	82.90	8,894.47	289.12	1,911.17	1,931.97	0.78	
10,635.00	89.60	82.80	8,894.91	296.96	1,973.68	1,994.96	0.00	
10,699.00	89.60	82.20	8,895.35	305.32	2,037.13	2,058.96	0.00	
10,762.00	90.10	82.00	8,895.52	313.98	2,099.53	2,121.95	0.79	
10,826.00	90.10	81.60	8,895.41	323.10	2,162.87	2,185.93	0.00	
10,889.00	90.30	81.30	8,895.19	332.47	2,225.17	2,248.90	0.32	
10,952.00	90.60	81.30	8,894.69	342.00	2,287.45	2,311.86	0.48	
11,015.00	90.70	81.50	8,893.98	351.42	2,349.73	2,374.83	0.16	
11,079.00	89.40	81.60	8,893.92	360.82	2,413.04	2,438.80	-2.03	
11,142.00	88.80	81.50	8,894.91	370.08	2,475.35	2,501.76	-0.95	
11,205.00	88.80	82.40	8,896.23	378.90	2,537.71	2,564.74	0.00	

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Design:	Original Hole	Database:	Inwell D

Survey							
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	Build (°/100usft)
11,268.00	89.80	83.20	8,897.00	386.80	2,600.21	2,627.73	1.59
11,332.00	90.70	83.60	8,896.72	394.15	2,663.78	2,691.73	1.41
11,395.00	90.40	82.80	8,896.12	401.61	2,726.34	2,754.72	-0.48
11,458.00	89.60	82.20	8,896.12	409.83	2,788.80	2,817.72	-1.27
11,522.00	89.40	82.30	8,896.68	418.46	2,852.21	2,881.71	-0.31
11,585.00	91.00	82.90	8,896.46	426.58	2,914.68	2,944.70	2.54
11,648.00	91.20	82.80	8,895.25	434.42	2,977.18	3,007.69	0.32
11,711.00	90.50	83.20	8,894.31	442.10	3,039.70	3,070.68	-1.11
11,775.00	88.80	83.30	8,894.70	449.62	3,103.26	3,134.68	-2.66
11,838.00	88.90	83.50	8,895.97	456.86	3,165.83	3,197.66	0.16
11,902.00	89.50	83.20	8,896.86	464.27	3,229.39	3,261.66	0.94
11,965.00	90.10	82.80	8,897.08	471.94	3,291.92	3,324.65	0.95
12,028.00	90.10	82.70	8,896.97	479.90	3,354.41	3,387.65	0.00
12,092.00	91.40	83.60	8,896.13	487.53	3,417.95	3,451.65	2.03
12,155.00	90.90	83.60	8,894.87	494.55	3,480.54	3,514.63	-0.79
12,218.00	90.20	84.20	8,894.26	501.24	3,543.18	3,577.62	-1.11
12,281.00	89.90	84.60	8,894.21	507.39	3,605.88	3,640.61	-0.48
12,345.00	89.90	83.80	8,894.32	513.86	3,669.55	3,704.60	0.00
12,408.00	90.70	83.80	8,893.99	520.66	3,732.19	3,767.59	1.27
12,471.00	90.10	84.00	8,893.55	527.36	3,794.83	3,830.59	-0.95
12,534.00	90.10	84.00	8,893.44	533.94	3,857.48	3,893.58	0.00
12,598.00	90.90	85.00	8,892.88	540.08	3,921.18	3,957.56	1.25
12,661.00	90.70	84.50	8,892.00	545.84	3,983.91	4,020.53	-0.32
12,724.00	88.80	83.10	8,892.28	552.64	4,046.54	4,083.52	-3.02
12,787.00	88.00	82.40	8,894.04	560.59	4,109.01	4,146.49	-1.27
12,851.00	87.30	81.10	8,896.66	569.77	4,172.29	4,210.42	-1.09
12,914.00	87.60	80.70	8,899.46	579.72	4,234.44	4,273.30	0.48
12,977.00	88.20	79.80	8,901.77	590.38	4,296.49	4,336.18	0.95
13,017.00	87.50	79.60	8,903.27	597.53	4,335.81	4,376.08	-1.75
Last Survey: 13017' MD 8903.27' TVD							
13,080.00	87.50	79.60	8,906.02	608.89	4,397.72	4,438.89	0.00
TD Projected To MD: 13080' - Ruger No. 2H TD/PBHL							

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
13,017.00	8,903.27	597.53	4,335.81	Last Survey: 13017' MD 8903.27' TVD
13,080.00	8,906.02	608.89	4,397.72	TD Projected To MD: 13080'

Checked By: _____ Approved By: _____ Date: _____



Job Number: SVMO-150387
 Company: Mewbourne Oil & Gas
 Lease/Well: Ruger 31 B3DA Federal 2H
 Location: Eddy County, NM
 Rig Name: Patterson #75
 RKB: 22'
 G.L. or M.S.L.: GL

State/Country: New Mexico/USA
 Declination: 7.28°
 Grid: East To Grid North
 File name: W:\WINSER~1\2015SU~1\MEWBOU~1\MO\RUGER\31B3DA\FEDERAL\2H.S
 Date/Time: 19-May-15 / 16:40
 Curve Name: Surface - 8200' M.D. (SRG)

MS Survey

WINSERVE SURVEY CALCULATIONS
 Minimum Curvature Method
 Vertical Section Plane 82.11
 Vertical Section Referenced to Wellhead
 Rectangular Coordinates Referenced to Wellhead

We hereby certify that our survey data from
 Surface MD to 8200' MD is, to the best of
 our knowledge a true and accurate account of
 the well bore.
 Travis Pack 5/19/15
 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		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
100.00	.27	237.86	100.00	-.13	-.20	-.21	.24	237.86	.27
200.00	.43	335.55	200.00	.09	-.55	-.54	.56	279.31	.54
300.00	.77	2.23	299.99	1.10	-.68	-.53	1.30	328.24	.43
400.00	.95	15.56	399.98	2.57	-.43	-.08	2.61	350.41	.27
500.00	1.16	17.92	499.96	4.34	.10	.69	4.34	1.31	.21
600.00	1.60	53.43	599.94	6.13	1.53	2.36	6.32	14.03	.94
700.00	2.10	64.98	699.89	7.74	4.31	5.33	8.86	29.14	.62
800.00	2.10	63.18	799.82	9.34	7.61	8.82	12.05	39.17	.07
900.00	2.16	68.69	899.75	10.85	11.00	12.38	15.45	45.39	.21
1000.00	1.86	83.57	999.69	11.72	14.37	15.84	18.54	50.80	.60
1100.00	1.82	88.91	1099.64	11.93	17.57	19.04	21.24	55.82	.18
1200.00	1.78	90.79	1199.59	11.94	20.71	22.15	23.90	60.04	.07

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	
1300.00	1.61	99.06	1299.54	11.70	23.65	25.03	26.38	63.69	.30
1400.00	1.57	103.69	1399.51	11.15	26.37	27.65	28.63	67.08	.13
1500.00	1.39	107.42	1499.47	10.46	28.86	30.02	30.69	70.07	.20
1600.00	1.17	117.86	1599.45	9.62	30.92	31.94	32.38	72.71	.32
1700.00	.86	132.11	1699.43	8.64	32.37	33.25	33.51	75.05	.40
1800.00	.96	136.34	1799.42	7.53	33.51	34.23	34.35	77.33	.12
1900.00	.52	155.17	1899.41	6.51	34.28	34.85	34.89	79.24	.50
2000.00	.60	163.71	1999.41	5.60	34.62	35.06	35.07	80.81	.12
2100.00	.70	177.22	2099.40	4.49	34.79	35.08	35.08	82.65	.18
2200.00	.48	183.84	2199.39	3.46	34.79	34.94	34.97	84.32	.23
2300.00	.51	229.67	2299.39	2.75	34.43	34.48	34.54	85.43	.39
2400.00	.89	225.59	2399.38	1.92	33.53	33.48	33.59	86.72	.38
2500.00	.65	214.14	2499.37	.91	32.66	32.48	32.67	88.41	.28
2600.00	.70	248.16	2599.37	.21	31.77	31.50	31.77	89.62	.40
2700.00	.88	239.32	2699.36	-.41	30.55	30.20	30.55	90.76	.22
2800.00	.73	235.92	2799.35	-1.16	29.36	28.92	29.38	92.25	.16
2900.00	.72	261.87	2899.34	-1.60	28.21	27.72	28.25	93.25	.33
3000.00	.96	253.32	2999.33	-1.93	26.78	26.27	26.85	94.12	.27
3100.00	.50	245.24	3099.32	-2.35	25.59	25.02	25.69	95.26	.47
3200.00	1.20	257.35	3199.31	-2.77	24.17	23.56	24.33	96.53	.72
3300.00	.96	252.70	3299.29	-3.24	22.35	21.69	22.58	98.26	.26
3400.00	1.61	274.24	3399.27	-3.39	20.15	19.49	20.43	99.55	.80
3500.00	1.12	271.44	3499.24	-3.26	17.77	17.15	18.06	100.40	.49
3600.00	1.24	282.92	3599.22	-2.99	15.74	15.18	16.02	100.77	.26
3700.00	1.51	274.96	3699.19	-2.64	13.37	12.88	13.63	101.17	.33
3800.00	1.51	262.35	3799.15	-2.70	10.75	10.28	11.08	104.10	.33
3900.00	1.07	312.23	3899.13	-2.25	8.75	8.36	9.04	104.40	1.16
4000.00	1.02	348.78	3999.12	-.75	7.89	7.71	7.92	95.41	.66
4100.00	1.16	350.36	4099.10	1.12	7.55	7.63	7.63	81.53	.14
4200.00	.54	20.89	4199.09	2.56	7.54	7.82	7.97	71.24	.75
4300.00	.80	357.87	4299.08	3.70	7.69	8.12	8.53	64.30	.37
4400.00	1.78	323.75	4399.05	5.65	6.74	7.45	8.80	50.04	1.20
4500.00	2.16	314.72	4498.99	8.23	4.48	5.57	9.37	28.59	.49
4600.00	2.15	319.32	4598.92	10.98	1.92	3.41	11.14	9.94	.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	
4700.00	2.27	320.44	4698.85	13.93	-.56	1.36	13.94	357.69	.13
4800.00	1.69	306.29	4798.79	16.33	-3.01	-.74	16.60	349.55	.75
4900.00	1.90	304.06	4898.74	18.13	-5.57	-3.03	18.96	342.91	.22
5000.00	1.41	311.04	4998.70	19.86	-7.87	-5.07	21.37	338.38	.53
5100.00	1.85	301.96	5098.66	21.53	-10.17	-7.12	23.81	334.71	.51
5200.00	1.37	307.87	5198.62	23.11	-12.49	-9.19	26.27	331.62	.51
5300.00	2.11	288.79	5298.57	24.44	-15.17	-11.67	28.77	328.17	.93
5400.00	2.20	302.23	5398.50	26.06	-18.54	-14.79	31.98	324.57	.51
5500.00	2.25	303.56	5498.43	28.17	-21.80	-17.72	35.62	322.26	.07
5600.00	3.34	324.41	5598.31	31.62	-25.13	-20.55	40.39	321.53	1.47
5700.00	4.20	333.87	5698.09	37.28	-28.44	-23.05	46.89	322.66	1.06
5800.00	4.95	342.83	5797.78	44.69	-31.32	-24.89	54.57	324.97	1.03
5900.00	5.26	344.69	5897.38	53.23	-33.81	-26.18	63.06	327.58	.35
6000.00	5.20	349.87	5996.96	62.11	-35.81	-26.95	71.70	330.03	.48
6100.00	5.28	351.58	6096.54	71.12	-37.29	-27.17	80.31	332.34	.18
6200.00	5.27	351.19	6196.12	80.21	-38.66	-27.29	89.05	334.27	.04
6300.00	4.93	354.33	6295.73	89.03	-39.79	-27.19	97.52	335.92	.44
6400.00	4.56	358.57	6395.38	97.28	-40.31	-26.58	105.30	337.49	.51
6500.00	4.04	3.25	6495.10	104.77	-40.21	-25.45	112.22	339.00	.63
6600.00	2.71	17.54	6594.93	110.54	-39.30	-23.76	117.32	340.43	1.56
6700.00	2.72	45.71	6694.82	114.45	-36.89	-20.83	120.25	342.13	1.32
6800.00	2.52	52.43	6794.72	117.45	-33.45	-17.01	122.12	344.10	.37
6900.00	2.16	77.26	6894.63	119.21	-29.87	-13.22	122.89	345.93	1.07
7000.00	3.26	103.61	6994.52	118.95	-25.27	-8.70	121.61	348.01	1.63
7100.00	3.84	116.77	7094.33	116.77	-19.51	-3.30	118.39	350.51	1.00
7200.00	3.29	115.90	7194.14	114.01	-13.94	1.84	114.86	353.03	.55
7300.00	2.45	141.80	7294.02	111.08	-10.04	5.30	111.53	354.84	1.52
7400.00	1.86	199.66	7393.96	107.87	-9.26	5.63	108.27	355.09	2.15
7500.00	2.16	219.04	7493.90	104.88	-11.00	3.50	105.45	354.01	.74
7600.00	1.37	214.51	7593.85	102.43	-12.86	1.32	103.24	352.84	.80
7700.00	1.57	169.92	7693.82	100.10	-13.30	.57	100.98	352.43	1.13
7800.00	.79	181.80	7793.80	98.06	-13.08	.50	98.93	352.40	.81
7900.00	.76	182.58	7893.79	96.71	-13.13	.27	97.60	352.27	.03
8000.00	.74	207.46	7993.78	95.47	-13.46	-.23	96.42	351.98	.32

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	
8100.00	1.63	227.82	8093.76	93.94	-14.81	-1.78	95.10	351.04	.97
Last Survey Depth Recorded									
8200.00	2.46	243.52	8193.69	92.03	-17.79	-4.98	93.73	349.06	.99