



Mewbourne Oil Company

Lea County N. M. Nad (83)

Section 28 21-19S-35E Charolais

Charolais 28 21 B1MD St Com #2H

Original Hole

Design: Original Hole

Standard Survey Report

05 June, 2019

STRYKER
DIRECTIONAL



Microsoft
Survey Report



Company: Mewbourne Oil Company
Project: Lea County N. M. Nad (83)
Site: Section 28 21-19S-35E Charolais
Well: Charolais 28 21 B1MD St Com #2H
Wellbore: Original Hole
Design: Original Hole

Local Co-ordinate Reference: Well Charolais 28 21 B1MD St Com #2H
TVD Reference: 3721 + 27 @ 3748.0usft (Patterson 562)
MD Reference: 3721 + 27 @ 3748.0usft (Patterson 562)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

Project	Lea County N. M. Nad (83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site Section 28 21-19S-35E Charolais

Site Position: **Northing:** 592,090.70 usft **Latitude:** 32° 37' 28.975 N
From: Map **Easting:** 808,209.90 usft **Longitude:** 103° 27' 59.424 W
Position Uncertainty: 0.0 usft **Slot Radius:** 13-3/16 " **Grid Convergence:** 0.47 °

Well Charolais 28 21 B1MD St Com #2H

Well Position **+N/-S** 0.0 usft **Northing:** 592,090.50 usft **Latitude:** 32° 37' 28.976 N
+E/-W 0.0 usft **Easting:** 808,179.90 usft **Longitude:** 103° 27' 59.774 W
Position Uncertainty 0.0 usft **Wellhead Elevation:** 27.0 usft **Ground Level:** 3,721.0 usft

Wellbore Original Hole

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	03/04/19	6.75	60.42	48,007.38295310

Design Original Hole

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	356.04
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Survey Program Date 06/05/19

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
157.0	1,800.0	Survey #1 (Original Hole)	MWD+IGRF	OWSG MWD + IGRF or WMM
1,831.0	19,570.0	Survey #2 (Original Hole)	MWD+IGRF	OWSG MWD + IGRF or WMM

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
157.0	0.20	59.78	157.0	0.1	0.2	0.1	0.13	0.13	0.00
170.0	0.40	38.78	170.0	0.2	0.3	0.2	1.73	1.54	-161.54
353.0	0.70	5.78	353.0	1.8	0.8	1.7	0.23	0.16	-18.03
537.0	1.10	315.78	537.0	4.2	-0.3	4.2	0.46	0.22	-27.17
715.0	0.70	355.78	715.0	6.5	-1.6	6.6	0.41	-0.22	22.47
909.0	0.40	183.78	908.9	7.0	-1.7	7.1	0.57	-0.15	-88.66
1,099.0	0.50	204.78	1,098.9	5.6	-2.1	5.7	0.10	0.05	11.05
1,292.0	0.50	5.78	1,291.9	5.7	-2.4	5.8	0.51	0.00	83.42
1,480.0	0.50	1.78	1,479.9	7.3	-2.3	7.4	0.02	0.00	-2.13



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Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
1,673.0	0.30	167.78	1,672.9	7.6	-2.1	7.8	0.41	-0.10	86.01
1,800.0	1.20	309.78	1,799.9	8.2	-3.1	8.4	1.14	0.71	111.81
1800.0' MD Invictus									
1,831.0	0.20	209.90	1,830.9	8.3	-3.4	8.5	4.03	-3.23	-322.19
1,926.0	1.00	298.90	1,925.9	8.6	-4.2	8.8	1.07	0.84	93.68
2,022.0	2.60	294.60	2,021.9	9.9	-6.9	10.3	1.67	1.67	-4.48
2,117.0	4.90	294.70	2,116.7	12.5	-12.5	13.3	2.42	2.42	0.11
2,307.0	6.20	294.00	2,305.8	20.0	-29.3	22.0	0.69	0.68	-0.37
2,497.0	6.20	277.60	2,494.7	25.6	-48.8	28.9	0.93	0.00	-8.63
2,688.0	5.90	272.60	2,684.6	27.4	-68.9	32.1	0.32	-0.16	-2.62
2,878.0	4.40	272.00	2,873.8	28.1	-85.9	33.9	0.79	-0.79	-0.32
3,068.0	4.40	291.90	3,063.3	31.1	-99.9	37.9	0.80	0.00	10.47
3,257.0	5.00	288.20	3,251.6	36.3	-114.5	44.2	0.36	0.32	-1.96
3,447.0	5.50	280.70	3,440.8	40.6	-131.3	49.6	0.45	0.26	-3.95
3,637.0	5.10	277.80	3,630.0	43.4	-148.6	53.6	0.25	-0.21	-1.53
3,826.0	5.10	267.10	3,818.3	44.2	-165.3	55.5	0.50	0.00	-5.66
4,014.0	4.90	265.20	4,005.6	43.1	-181.7	55.5	0.14	-0.11	-1.01
4,205.0	4.70	261.80	4,195.9	41.3	-197.6	54.8	0.18	-0.10	-1.78
4,394.0	6.30	271.00	4,384.0	40.3	-215.6	55.1	0.96	0.85	4.87
4,583.0	4.90	272.90	4,572.1	40.9	-234.0	57.0	0.75	-0.74	1.01
4,774.0	4.20	275.80	4,762.5	42.1	-249.1	59.1	0.39	-0.37	1.52
4,963.0	4.60	282.30	4,951.0	44.4	-263.4	62.4	0.34	0.21	3.44
5,153.0	4.90	280.70	5,140.3	47.5	-278.8	66.6	0.17	0.16	-0.84
5,343.0	5.50	278.60	5,329.5	50.4	-295.8	70.7	0.33	0.32	-1.11
5,532.0	5.70	274.20	5,517.6	52.4	-314.1	74.0	0.25	0.11	-2.33
5,722.0	5.10	276.00	5,706.8	54.0	-331.9	76.8	0.33	-0.32	0.95
5,913.0	4.70	277.10	5,897.1	55.8	-348.1	79.7	0.22	-0.21	0.58
6,103.0	4.30	280.90	6,086.5	58.1	-362.9	83.1	0.26	-0.21	2.00
6,294.0	4.60	275.60	6,276.9	60.2	-377.5	86.2	0.27	0.16	-2.77
6,484.0	4.00	275.90	6,466.4	61.7	-391.7	88.6	0.32	-0.32	0.16
6,675.0	5.40	273.60	6,656.7	62.9	-407.3	90.9	0.74	0.73	-1.20
6,866.0	5.00	272.20	6,847.0	63.8	-424.6	93.0	0.22	-0.21	-0.73
7,057.0	5.60	285.50	7,037.1	66.6	-441.9	97.0	0.71	0.31	6.96
7,248.0	5.30	287.50	7,227.3	71.8	-459.3	103.3	0.19	-0.16	1.05
7,438.0	5.50	281.10	7,416.4	76.2	-476.6	108.9	0.33	0.11	-3.37
7,628.0	5.20	279.70	7,605.6	79.4	-494.0	113.3	0.17	-0.16	-0.74
7,817.0	4.70	277.10	7,793.9	81.8	-510.1	116.8	0.29	-0.26	-1.38
8,006.0	3.50	276.40	7,982.4	83.4	-523.5	119.3	0.64	-0.63	-0.37
8,196.0	3.70	270.00	8,172.0	84.0	-535.4	120.8	0.24	0.11	-3.37
8,385.0	3.40	265.50	8,360.7	83.6	-547.1	121.1	0.22	-0.16	-2.38
8,575.0	2.80	255.40	8,550.4	82.0	-557.2	120.2	0.43	-0.32	-5.32
8,766.0	2.50	254.10	8,741.2	79.6	-565.7	118.5	0.16	-0.16	-0.68
8,925.0	1.66	262.48	8,900.1	78.4	-571.4	117.6	0.56	-0.53	5.27



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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)
New B.B. B1MD St Com 2H									
8,928.2	1.64	262.74	8,903.2	78.4	-571.5	117.6	0.56	-0.51	8.00
B.B. Charolais 28 21 B1MD St Com 2H									
8,956.0	1.50	265.20	8,931.1	78.3	-572.2	117.6	0.56	-0.51	8.84
9,021.0	1.20	263.50	8,996.1	78.1	-573.7	117.6	0.47	-0.46	-2.62
9,079.0	2.10	294.70	9,054.0	78.5	-575.3	118.0	2.14	1.55	53.79
9,127.0	7.80	317.00	9,101.8	81.3	-578.3	121.0	12.31	11.88	46.46
9,175.0	14.10	321.20	9,149.0	88.2	-584.2	128.3	13.22	13.13	8.75
9,222.0	20.40	321.00	9,193.8	99.1	-593.0	139.7	13.40	13.40	-0.43
9,270.0	25.10	330.50	9,238.1	114.4	-603.3	155.8	12.40	9.79	19.79
9,317.0	31.30	338.20	9,279.5	134.5	-612.7	176.4	15.27	13.19	16.38
9,365.0	36.50	340.90	9,319.3	159.6	-622.0	202.1	11.28	10.83	5.63
9,412.0	42.50	343.30	9,355.6	188.0	-631.2	231.1	13.17	12.77	5.11
9,460.0	47.90	349.20	9,389.4	221.1	-639.2	264.6	14.23	11.25	12.29
9,507.0	52.80	359.90	9,419.4	257.0	-642.5	300.7	20.37	10.43	22.77
9,555.0	57.70	2.30	9,446.8	296.4	-641.7	340.0	11.00	10.21	5.00
9,580.3	60.99	2.74	9,459.7	318.2	-640.7	361.6	13.06	12.98	1.75
LP Charolais 28 21 B1MD St Com 2H									
9,602.0	63.80	3.10	9,469.7	337.3	-639.8	380.7	13.06	12.98	1.65
9,650.0	67.60	3.60	9,489.5	381.0	-637.2	424.1	7.97	7.92	1.04
9,698.0	70.50	3.10	9,506.7	425.8	-634.6	468.5	6.12	6.04	-1.04
9,745.0	72.70	2.70	9,521.5	470.3	-632.3	512.8	4.75	4.68	-0.85
9,794.0	76.00	2.20	9,534.7	517.4	-630.3	559.7	6.81	6.73	-1.02
9,809.0	77.30	2.10	9,538.2	532.0	-629.8	574.2	8.69	8.67	-0.67
9,853.0	78.80	1.50	9,547.3	575.0	-628.4	617.0	3.66	3.41	-1.36
9,880.0	81.00	1.40	9,552.0	601.6	-627.7	643.5	8.16	8.15	-0.37
9,911.0	81.30	1.70	9,556.8	632.2	-626.9	674.0	1.36	0.97	0.97
9,943.0	79.70	2.10	9,562.1	663.8	-625.9	705.4	5.15	-5.00	1.25
9,975.0	81.20	2.30	9,567.4	695.3	-624.7	736.7	4.73	4.69	0.63
10,006.0	84.80	0.70	9,571.2	726.1	-623.8	767.4	12.69	11.61	-5.16
10,039.0	88.50	359.80	9,573.1	759.0	-623.7	800.2	11.54	11.21	-2.73
10,071.0	90.50	359.20	9,573.4	791.0	-624.0	832.2	6.53	6.25	-1.88
10,165.0	90.80	359.00	9,572.3	885.0	-625.5	926.0	0.38	0.32	-0.21
10,260.0	91.70	359.00	9,570.2	979.9	-627.1	1,020.9	0.95	0.95	0.00
10,355.0	92.00	359.10	9,567.2	1,074.9	-628.7	1,115.7	0.33	0.32	0.11
10,449.0	90.30	359.10	9,565.3	1,168.8	-630.2	1,209.5	1.81	-1.81	0.00
10,543.0	88.40	358.30	9,566.3	1,262.8	-632.3	1,303.4	2.19	-2.02	-0.85
10,637.0	90.80	358.20	9,567.0	1,356.7	-635.2	1,397.3	2.56	2.55	-0.11
10,732.0	88.60	357.80	9,567.5	1,451.7	-638.5	1,492.3	2.35	-2.32	-0.42
10,825.0	90.90	357.70	9,567.9	1,544.6	-642.1	1,585.2	2.48	2.47	-0.11
10,920.0	90.50	357.30	9,566.7	1,639.5	-646.3	1,680.2	0.60	-0.42	-0.42
11,014.0	90.40	357.70	9,566.0	1,733.4	-650.4	1,774.2	0.44	-0.11	0.43
11,110.0	91.50	357.40	9,564.4	1,829.3	-654.5	1,870.1	1.19	1.15	-0.31
11,205.0	92.40	357.40	9,561.2	1,924.2	-658.8	1,965.0	0.95	0.95	0.00



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11,300.0	91.90	357.50	9,557.6	2,019.0	-663.0	2,059.9	0.54	-0.53	0.11
11,394.0	91.60	358.00	9,554.7	2,112.9	-666.7	2,153.8	0.62	-0.32	0.53
11,488.0	89.00	358.10	9,554.2	2,206.8	-669.9	2,247.8	2.77	-2.77	0.11
11,583.0	91.20	358.80	9,554.1	2,301.8	-672.5	2,342.7	2.43	2.32	0.74
11,678.0	92.00	359.30	9,551.4	2,396.7	-674.0	2,437.5	0.99	0.84	0.53
11,773.0	90.40	359.60	9,549.4	2,491.7	-675.0	2,532.3	1.71	-1.68	0.32
11,868.0	90.30	359.20	9,548.9	2,586.7	-676.0	2,627.2	0.43	-0.11	-0.42
11,963.0	90.60	359.20	9,548.1	2,681.7	-677.3	2,722.0	0.32	0.32	0.00
12,057.0	90.50	358.80	9,547.2	2,775.7	-678.9	2,815.9	0.44	-0.11	-0.43
12,152.0	91.10	358.60	9,545.9	2,870.6	-681.1	2,910.8	0.67	0.63	-0.21
12,246.0	92.70	359.00	9,542.8	2,964.5	-683.0	3,004.6	1.75	1.70	0.43
12,341.0	90.30	0.00	9,540.3	3,059.5	-683.9	3,099.4	2.74	-2.53	1.05
12,436.0	90.40	0.00	9,539.7	3,154.5	-683.9	3,194.2	0.11	0.11	0.00
12,531.0	90.20	0.00	9,539.2	3,249.5	-683.9	3,288.9	0.21	-0.21	0.00
12,625.0	91.50	0.60	9,537.8	3,343.5	-683.4	3,382.7	1.52	1.38	0.64
12,721.0	88.00	0.90	9,538.2	3,439.5	-682.1	3,478.3	3.66	-3.65	0.31
12,816.0	91.80	1.80	9,538.4	3,534.4	-679.9	3,572.9	4.11	4.00	0.95
12,911.0	91.90	2.50	9,535.3	3,629.3	-676.3	3,667.3	0.74	0.11	0.74
13,007.0	87.60	2.10	9,535.7	3,725.2	-672.5	3,762.7	4.50	-4.48	-0.42
13,102.0	87.10	0.60	9,540.1	3,820.1	-670.2	3,857.2	1.66	-0.53	-1.58
13,198.0	87.60	0.00	9,544.6	3,916.0	-669.7	3,952.8	0.81	0.52	-0.63
13,294.0	91.90	359.40	9,545.0	4,011.9	-670.2	4,048.6	4.52	4.48	-0.63
13,388.0	88.20	358.90	9,544.9	4,105.9	-671.6	4,142.5	3.97	-3.94	-0.53
13,484.0	88.30	358.00	9,547.8	4,201.8	-674.2	4,238.3	0.94	0.10	-0.94
13,513.0	89.40	358.00	9,548.4	4,230.8	-675.2	4,267.3	3.79	3.79	0.00
13,608.0	93.40	358.30	9,546.1	4,325.7	-678.3	4,362.2	4.22	4.21	0.32
13,703.0	93.30	358.40	9,540.6	4,420.5	-681.0	4,457.0	0.15	-0.11	0.11
13,799.0	94.10	358.10	9,534.4	4,516.3	-684.0	4,552.7	0.89	0.83	-0.31
13,894.0	91.00	0.00	9,530.1	4,611.1	-685.5	4,647.4	3.83	-3.26	2.00
13,989.0	89.90	0.00	9,529.4	4,706.1	-685.5	4,742.2	1.16	-1.16	0.00
14,084.0	90.20	0.30	9,529.3	4,801.1	-685.3	4,837.0	0.45	0.32	0.32
14,179.0	88.40	0.20	9,530.5	4,896.1	-684.9	4,931.7	1.90	-1.89	-0.11
14,274.0	87.80	0.00	9,533.6	4,991.1	-684.7	5,026.4	0.67	-0.63	-0.21
14,369.0	92.00	0.20	9,533.8	5,086.0	-684.5	5,121.2	4.43	4.42	0.21
14,464.0	91.10	0.70	9,531.2	5,181.0	-683.8	5,215.8	1.08	-0.95	0.53
14,560.0	89.40	0.40	9,530.8	5,277.0	-682.9	5,311.5	1.80	-1.77	-0.31
14,653.0	88.90	0.00	9,532.2	5,370.0	-682.5	5,404.3	0.69	-0.54	-0.43
14,748.0	90.20	359.30	9,532.9	5,465.0	-683.1	5,499.1	1.55	1.37	-0.74
14,842.0	90.80	358.80	9,532.1	5,559.0	-684.7	5,593.0	0.83	0.64	-0.53
14,936.0	90.30	358.50	9,531.2	5,652.9	-686.9	5,686.9	0.62	-0.53	-0.32
15,032.0	91.60	358.40	9,529.6	5,748.9	-689.5	5,782.8	1.36	1.35	-0.10
15,126.0	91.60	358.30	9,527.0	5,842.8	-692.2	5,876.6	0.11	0.00	-0.11
15,221.0	90.20	358.10	9,525.5	5,937.7	-695.2	5,971.6	1.49	-1.47	-0.21



Microsoft Survey Report



Company: Mewbourne Oil Company
Project: Lea County N. M. Nad (83)
Site: Section 28 21-19S-35E Charolais
Well: Charolais 28 21 B1MD St Com #2H
Wellbore: Original Hole
Design: Original Hole

Local Co-ordinate Reference: Well Charolais 28 21 B1MD St Com #2H
TVD Reference: 3721 + 27 @ 3748.0usft (Patterson 562)
MD Reference: 3721 + 27 @ 3748.0usft (Patterson 562)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
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)
15,316.0	89.00	357.30	9,526.1	6,032.7	-699.0	6,066.5	1.52	-1.26	-0.84
15,410.0	88.10	357.10	9,528.5	6,126.5	-703.6	6,160.5	0.98	-0.96	-0.21
15,505.0	90.80	358.20	9,529.4	6,221.4	-707.5	6,255.4	3.07	2.84	1.16
15,599.0	89.60	357.80	9,529.1	6,315.4	-710.8	6,349.4	1.35	-1.28	-0.43
15,695.0	93.60	359.20	9,526.4	6,411.3	-713.3	6,445.2	4.41	4.17	1.46
15,790.0	93.70	359.00	9,520.4	6,506.1	-714.8	6,539.9	0.23	0.11	-0.21
15,885.0	93.20	1.40	9,514.7	6,600.9	-714.4	6,634.5	2.58	-0.53	2.53
15,979.0	88.20	2.40	9,513.5	6,694.8	-711.3	6,727.9	5.42	-5.32	1.06
16,073.0	88.90	1.80	9,515.9	6,788.7	-707.9	6,821.4	0.98	0.74	-0.64
16,168.0	91.40	1.60	9,515.6	6,883.6	-705.1	6,915.9	2.64	2.63	-0.21
16,263.0	90.80	1.20	9,513.8	6,978.6	-702.7	7,010.5	0.76	-0.63	-0.42
16,357.0	90.20	0.70	9,513.0	7,072.6	-701.2	7,104.1	0.83	-0.64	-0.53
16,452.0	92.40	2.40	9,510.8	7,167.5	-698.6	7,198.6	2.93	2.32	1.79
16,547.0	93.40	4.70	9,506.0	7,262.2	-692.7	7,292.7	2.64	1.05	2.42
16,641.0	86.50	1.40	9,506.1	7,356.0	-687.7	7,385.9	8.14	-7.34	-3.51
16,736.0	86.50	359.90	9,511.9	7,450.8	-686.7	7,480.4	1.58	0.00	-1.58
16,831.0	88.60	358.60	9,516.0	7,545.7	-687.9	7,575.2	2.60	2.21	-1.37
16,925.0	90.10	357.30	9,517.0	7,639.6	-691.3	7,669.1	2.11	1.60	-1.38
17,020.0	91.80	357.80	9,515.5	7,734.5	-695.3	7,764.1	1.87	1.79	0.53
17,116.0	91.70	357.10	9,512.5	7,830.4	-699.6	7,860.0	0.74	-0.10	-0.73
17,210.0	90.20	356.40	9,511.0	7,924.2	-704.9	7,954.0	1.76	-1.60	-0.74
17,305.0	92.60	358.00	9,508.7	8,019.1	-709.6	8,048.9	3.04	2.53	1.68
17,400.0	90.60	359.20	9,506.0	8,114.0	-711.9	8,143.8	2.45	-2.11	1.26
17,495.0	90.50	359.20	9,505.1	8,209.0	-713.2	8,238.6	0.11	-0.11	0.00
17,590.0	89.80	358.20	9,504.8	8,304.0	-715.4	8,333.5	1.28	-0.74	-1.05
17,685.0	90.90	358.20	9,504.3	8,398.9	-718.3	8,428.5	1.16	1.16	0.00
17,780.0	89.90	357.80	9,503.6	8,493.9	-721.7	8,523.4	1.13	-1.05	-0.42
17,875.0	90.70	358.20	9,503.1	8,588.8	-725.0	8,618.4	0.94	0.84	0.42
17,970.0	91.00	358.10	9,501.7	8,683.7	-728.0	8,713.3	0.33	0.32	-0.11
18,065.0	90.40	358.70	9,500.5	8,778.7	-730.7	8,808.2	0.89	-0.63	0.63
18,160.0	91.00	359.20	9,499.4	8,873.7	-732.4	8,903.1	0.82	0.63	0.53
18,255.0	90.10	1.00	9,498.5	8,968.7	-732.3	8,997.8	2.12	-0.95	1.89
18,351.0	90.20	1.00	9,498.2	9,064.6	-730.6	9,093.5	0.10	0.10	0.00
18,446.0	87.90	1.10	9,499.8	9,159.6	-728.9	9,188.1	2.42	-2.42	0.11
18,541.0	89.20	1.00	9,502.2	9,254.6	-727.1	9,282.7	1.37	1.37	-0.11
18,635.0	91.20	1.50	9,501.9	9,348.5	-725.1	9,376.3	2.19	2.13	0.53
18,730.0	91.80	1.40	9,499.4	9,443.5	-722.7	9,470.8	0.64	0.63	-0.11
18,827.0	89.00	0.20	9,498.7	9,540.4	-721.3	9,567.5	3.14	-2.89	-1.24
18,922.0	89.50	0.10	9,499.9	9,635.4	-721.1	9,662.2	0.54	0.53	-0.11
19,017.0	90.50	1.00	9,499.9	9,730.4	-720.1	9,756.9	1.42	1.05	0.95
19,112.0	91.10	1.00	9,498.6	9,825.4	-718.5	9,851.6	0.63	0.63	0.00
19,207.0	90.50	0.70	9,497.3	9,920.4	-717.1	9,946.2	0.71	-0.63	-0.32
19,302.0	91.50	1.40	9,495.6	10,015.4	-715.3	10,040.8	1.28	1.05	0.74
19,397.0	92.30	1.00	9,492.5	10,110.3	-713.4	10,135.4	0.94	0.84	-0.42



Microsoft
Survey Report



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MD Reference: 3721 + 27 @ 3748.0usft (Patterson 562)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
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)
19,492.0	92.90	1.10	9,488.2	10,205.2	-711.6	10,229.9	0.64	0.63	0.11
19,518.0	90.70	0.00	9,487.4	10,231.1	-711.4	10,255.8	9.46	-8.46	-4.23
19,570.0	90.70	0.00	9,486.7	10,283.1	-711.4	10,307.7	0.00	0.00	0.00

19570' MD Projected to Bit - PBHL Charolais 28 21 B1MD St Com 2H

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
1,800.0	1,799.9	8.2	-3.1	1800.0' MD Inictvs
19,570.0	9,486.7	10,283.1	-711.4	19570' MD Projected to Bit

STRYKER

DIRECTIONAL

August 2, 2019

New Mexico Energy, Minerals and Natural Resources Department
Attn: Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, NM 87505

Attn: Jackie Lathan

Re: Mewbourne Oil Company
Charolais 28 21 B1MD State Com #2H
Pearl; Bone Spring
Lea County, New Mexico
API# 30-025-45343

Enclosed please find the original and one (1) copy of the survey performed on the reference well by STRYKER ENERGY DIRECTIONAL SERVICES, L.L.C. Other information required by your office is as follows:

<u>Name & Title</u>	<u>Drainhole No.</u>	<u>Survey Depths</u>	<u>Dates Performed</u>	<u>Type Survey</u>
Cody Hash	Original Hole	1,831ft. to 19,518ft.	04-11-19 to 05-03-19	MWD Survey

A certified plat on which the bottom-hole location is oriented to both surface location and to the lease lines (or unit lines in case of pooling) is attached to the survey report. If any other information is required, please contact the undersigned at the letterhead address and phone number.


Eric Estes

Enclosures

CC:

Mewbourne Oil Company
Attn: Frosty Lathan
P.O. Box 5720
Hobbs, NM 88241

Mewbourne Oil Company
Attn: Robin Terrell
P.O. Box 5720
Hobbs, NM 88241

NMEMaNRDMewbourne Oil Charolais 28 21 B1MD State Com #2HM191076

STRYKER ENERGY DIRECTIONAL SERVICES, L.L.C.
P.O. Box 1250
Montgomery, TX 77356
Office (936) 582-7296 * Fax (936)-588-4163



August 2, 2019

Survey Certification Report

STATE OF TEXAS

COUNTY OF Montgomery

I, Eric Estes, certify that I am employed by STRYKER ENERGY DIRECTIONAL SERVICES, L.L.C., and that I did on the day(s) of May 9, 2019, through June 4, 2019 conduct or supervise the taking of a SEDS Original Hole MWD Survey from a depth of 1,831feet to a depth of 19,518feet; that I am authorized and qualified to make this report; that this survey was conducted at the request of Mewbourne Oil Company, for the Charolais 28 21 B1MD State Com #2H, well API # 30-025-45343 in Lea County, New Mexico; and that I have reviewed this report and find that it conforms to the principles as set forth by STRYKER ENERGY DIRECTIONAL SERVICES, L.L.C.

A handwritten signature in black ink, appearing to read "Eric Estes", is written over a horizontal line.

Eric Estes

STRYKER ENERGY DIRECTIONAL SERVICES, L.L.C.

STRYKER ENERGY DIRECTIONAL SERVICES, L.L.C.
P.O. Box 1250
Montgomery, TX 77356
Office (936) 582-7296 * Fax (936)-588-4163



OCD Permitting

[Home](#) > [Wells](#) > [Well Details](#)

30-025-45343 CHAROLAIS 28 21 B1MD STATE COM #002H [322856]

General Well Information

Operator: [14744] MEWBOURNE OIL CO
 Status: New Direction: Horizontal
 Well Type: Oil Multi-Lateral: No
 Work Type: New Mineral Owner: State
 Surface Owner: State
 Surface Location: D-21-19S-35E 205 FSL 1310 FWL
 Lat/Long: 32.8247156,-103.4866039 NAD83
 GL Elevation: 3787
 KB Elevation: Sing/Mur Compl: Single
 DF Elevation: Potash Waiver: False

Proposed Formation and/or Notes

2ND BONE SPRING SAND

Depths

Proposed: 20313 Total Vertical Depth: 0
 Measured Vertical Depth: 0 Plugback Measured: 0

Formation Tops

Formation	Top	Producing	Method Obtained
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Event Dates

Initial APD Approval: 11/08/2018
 Most Recent APD Approval: 11/08/2018 Current APD Expiration: 11/08/2020
 APD Cancellation:
 APD Extension Approval:
 Spud: Gas Capture Plan Received: 11/08/2018
 Approved Temporary TA Expiration:
 Abandonment:
 Shut In:
 Plug and Abandoned Intent PNR Expiration:
 Recieved: Last MIT/BHT:
 Well Plugged:
 Site Release:
 Last Inspection:

History

Effective Date	Property	Well Number	Operator	C-101 Work Type	Well Type	Well Status	Apd Cancelled	Plug Date
11/08/2018	[322856] CHAROLAIS 28 21 B1MD STATE COM	#002H	[14744] MEWBOURNE OIL CO	New	Oil	New		

Comments

Operator

General Contact Information

Company: [14744] MEWBOURNE OIL CO Main Phone: 575-393-5905
 Address: P.O. Box 5270 Main Fax: 575-393-7259
 Hobbs, NM 88241
 Country: U.S.A.

Quick Links

- [General Well Information](#)
- [History](#)
- [Comments](#)
- [Operator](#)
- [Pits](#)
- [Casing](#)
- [Well Completions](#)
- [Financial Assurance](#)
- [Compliance](#)
- [Complaints, Incidents and Spills](#)
- [Orders](#)
- [Production](#)
- [Transporters](#)
- [Points of Disposition](#)

Associated Images

- [Well Files](#)
- [Well Logs](#)
- [Administrative Orders](#)

New Searches

- [New Well Search](#)



Microsoft MWD Report



Company: Mewbourne Oil Company
Project: Lea County N. M. Nad (83)
Site: Section 28 21-19S-35E Charolais
Well: Charolais 28 21 B1MD St Com #2H
Wellbore: Original Hole
Design: Original Hole

Local Co-ordinate Reference: Well Charolais 28 21 B1MD St Com #2H
TVD Reference: 3721 + 27 @ 3748.0usft (Patterson 562)
MD Reference: 3721 + 27 @ 3748.0usft (Patterson 562)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

Survey Program Date 06/05/19

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
157.0	1,800.0	Survey #1 (Original Hole)	MWD+IGRF	OWSG MWD + IGRF or WMM
1,831.0	19,570.0	Survey #2 (Original Hole)	MWD+IGRF	OWSG MWD + IGRF or WMM

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	
1,800.0	1.20	309.78	1,799.9	8.2	-3.1	8.7	339.24	Tie-In to Gyro
1,831.0	0.20	209.90	1,830.9	8.3	-3.4	9.0	337.95	
1,928.0	1.00	298.90	1,925.9	8.6	-4.2	9.5	334.03	
2,022.0	2.60	294.60	2,021.9	9.9	-6.9	12.1	325.13	
2,117.0	4.90	294.70	2,116.7	12.5	-12.5	17.7	314.88	
2,307.0	6.20	294.00	2,305.8	20.0	-29.3	35.5	304.40	
2,497.0	6.20	277.60	2,494.7	25.6	-48.8	55.1	297.65	
2,688.0	5.90	272.60	2,684.6	27.4	-68.9	74.1	291.69	
2,878.0	4.40	272.00	2,873.8	28.1	-85.9	90.4	288.11	
3,068.0	4.40	291.90	3,063.3	31.1	-99.9	104.7	287.26	
3,257.0	5.00	288.20	3,251.6	36.3	-114.5	120.1	287.61	
3,447.0	5.50	280.70	3,440.8	40.6	-131.3	137.4	287.19	
3,637.0	5.10	277.80	3,630.0	43.4	-148.6	154.8	286.30	
3,826.0	5.10	267.10	3,818.3	44.2	-165.3	171.1	284.96	
4,014.0	4.90	265.20	4,005.6	43.1	-181.7	186.7	283.34	
4,205.0	4.70	261.80	4,195.9	41.3	-197.6	201.8	281.80	
4,394.0	6.30	271.00	4,384.0	40.3	-215.6	219.3	280.60	
4,583.0	4.90	272.90	4,572.1	40.9	-234.0	237.6	279.92	
4,774.0	4.20	275.80	4,762.5	42.1	-249.1	252.7	279.58	
4,963.0	4.60	282.30	4,951.0	44.4	-263.4	267.1	279.56	
5,153.0	4.90	280.70	5,140.3	47.5	-278.8	282.9	279.67	



Microsoft
MWD Report



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North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)
5,343.0	5.50	278.60	5,329.5	50.4	-295.8	300.1	279.66
5,532.0	5.70	274.20	5,517.6	52.4	-314.1	318.5	279.47
5,722.0	5.10	276.00	5,706.8	54.0	-331.9	336.3	279.24
5,913.0	4.70	277.10	5,897.1	55.8	-348.1	352.6	279.11
6,103.0	4.30	280.90	6,086.5	58.1	-362.9	367.5	279.10
6,294.0	4.60	275.60	6,276.9	60.2	-377.5	382.3	279.07
6,484.0	4.00	275.90	6,466.4	61.7	-391.7	396.5	278.95
6,675.0	5.40	273.60	6,656.7	62.9	-407.3	412.1	278.78
6,866.0	5.00	272.20	6,847.0	63.8	-424.6	429.3	278.55
7,057.0	5.60	285.50	7,037.1	66.6	-441.9	446.9	278.57
7,248.0	5.30	287.50	7,227.3	71.8	-459.3	464.8	278.88
7,438.0	5.50	281.10	7,416.4	76.2	-476.6	482.6	279.08
7,628.0	5.20	279.70	7,605.6	79.4	-494.0	500.3	279.13
7,817.0	4.70	277.10	7,793.9	81.8	-510.1	516.6	279.11
8,006.0	3.50	276.40	7,982.4	83.4	-523.5	530.1	279.05
8,196.0	3.70	270.00	8,172.0	84.0	-535.4	542.0	278.92
8,385.0	3.40	265.50	8,360.7	83.6	-547.1	553.5	278.68
8,575.0	2.80	255.40	8,550.4	82.0	-557.2	563.2	278.37
8,766.0	2.50	254.10	8,741.2	79.6	-565.7	571.3	278.01
8,925.0	1.66	262.48	8,900.1	78.4	-571.4	576.7	277.81
New B.B. B1MD St Com 2H							
8,928.2	1.64	262.74	8,903.2	78.4	-571.5	576.8	277.81
B.B. Charolais 28 21 B1MD St Com 2H							
8,956.0	1.50	265.20	8,931.1	78.3	-572.2	577.5	277.79
9,021.0	1.20	263.50	8,996.1	78.1	-573.7	579.0	277.76
9,079.0	2.10	294.70	9,054.0	78.5	-575.3	580.6	277.77
9,127.0	7.80	317.00	9,101.8	81.3	-578.3	584.0	278.00



Microsoft
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Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)
9,175.0	14.10	321.20	9,149.0	88.2	-584.2	590.8	278.59
9,222.0	20.40	321.00	9,193.8	99.1	-593.0	601.2	279.48
9,270.0	25.10	330.50	9,238.1	114.4	-603.3	614.0	280.74
9,317.0	31.30	338.20	9,279.5	134.5	-612.7	627.3	282.38
9,365.0	36.50	340.90	9,319.3	159.6	-622.0	642.2	284.39
9,412.0	42.50	343.30	9,355.6	188.0	-631.2	658.6	286.59
9,460.0	47.90	349.20	9,389.4	221.1	-639.2	676.3	289.08
9,507.0	52.80	359.90	9,419.4	257.0	-642.5	692.0	291.80
9,555.0	57.70	2.30	9,446.8	296.4	-641.7	706.8	294.79
9,580.3	60.99	2.74	9,459.7	318.2	-640.7	715.4	296.41
LP Charolais 28 21 B1MD St Com 2H							
9,602.0	63.80	3.10	9,469.7	337.3	-639.8	723.2	297.80
9,650.0	67.80	3.60	9,489.5	381.0	-637.2	742.4	300.88
9,698.0	70.50	3.10	9,506.7	425.8	-634.6	764.2	303.86
9,745.0	72.70	2.70	9,521.5	470.3	-632.3	788.0	306.64
9,794.0	76.00	2.20	9,534.7	517.4	-630.3	815.5	309.38
9,809.0	77.30	2.10	9,538.2	532.0	-629.8	824.4	310.19
9,853.0	78.80	1.50	9,547.3	575.0	-628.4	851.8	312.46
9,880.0	81.00	1.40	9,552.0	601.6	-627.7	869.5	313.78
9,911.0	81.30	1.70	9,556.8	632.2	-626.9	890.3	315.24
9,943.0	79.70	2.10	9,562.1	663.8	-625.9	912.3	316.68
9,975.0	81.20	2.30	9,567.4	695.3	-624.7	934.7	318.06
10,006.0	84.80	0.70	9,571.2	726.1	-623.8	957.3	319.33
10,039.0	88.50	359.80	9,573.1	759.0	-623.7	982.4	320.59
10,071.0	90.50	359.20	9,573.4	791.0	-624.0	1,007.5	321.73
10,165.0	90.80	359.00	9,572.3	885.0	-625.5	1,083.7	324.75
10,260.0	91.70	359.00	9,570.2	979.9	-627.1	1,163.4	327.38



Microsoft
MWD Report



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Wellbore: Original Hole
Design: Original Hole

Local Co-ordinate Reference: Well Charolais 28 21 B1MD St Com #2H
TVD Reference: 3721 + 27 @ 3748.0usft (Patterson 562)
MD Reference: 3721 + 27 @ 3748.0usft (Patterson 562)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)
10,355.0	92.00	359.10	9,567.2	1,074.9	-628.7	1,245.2	329.68
10,449.0	90.30	359.10	9,565.3	1,168.8	-630.2	1,327.9	331.67
10,543.0	88.40	358.30	9,566.3	1,262.8	-632.3	1,412.3	333.40
10,637.0	90.80	358.20	9,567.0	1,356.7	-635.2	1,498.1	334.91
10,732.0	88.60	357.80	9,567.5	1,451.7	-638.5	1,585.9	336.26
10,825.0	90.90	357.70	9,567.9	1,544.6	-642.1	1,672.8	337.43
10,920.0	90.50	357.30	9,566.7	1,639.5	-646.3	1,762.3	338.49
11,014.0	90.40	357.70	9,566.0	1,733.4	-650.4	1,851.4	339.43
11,110.0	91.50	357.40	9,564.4	1,829.3	-654.5	1,942.9	340.31
11,205.0	92.40	357.40	9,561.2	1,924.2	-658.8	2,033.8	341.10
11,300.0	91.90	357.50	9,557.6	2,019.0	-663.0	2,125.1	341.82
11,394.0	91.60	358.00	9,554.7	2,112.9	-666.7	2,215.6	342.49
11,488.0	89.00	358.10	9,554.2	2,206.8	-669.9	2,306.2	343.11
11,583.0	91.20	358.80	9,554.1	2,301.8	-672.5	2,398.0	343.71
11,678.0	92.00	359.30	9,551.4	2,396.7	-674.0	2,489.7	344.29
11,773.0	90.40	359.60	9,549.4	2,491.7	-675.0	2,581.5	344.84
11,868.0	90.30	359.20	9,548.9	2,586.7	-676.0	2,673.5	345.35
11,963.0	90.60	359.20	9,548.1	2,681.7	-677.3	2,765.9	345.83
12,057.0	90.50	358.80	9,547.2	2,775.7	-678.9	2,857.5	346.26
12,152.0	91.10	358.60	9,545.9	2,870.6	-681.1	2,950.3	346.65
12,246.0	92.70	359.00	9,542.8	2,964.5	-683.0	3,042.2	347.03
12,341.0	90.30	0.00	9,540.3	3,059.5	-683.9	3,135.0	347.40
12,436.0	90.40	0.00	9,539.7	3,154.5	-683.9	3,227.8	347.77
12,531.0	90.20	0.00	9,539.2	3,249.5	-683.9	3,320.7	348.12
12,625.0	91.50	0.60	9,537.8	3,343.5	-683.4	3,412.6	348.45
12,721.0	88.00	0.90	9,538.2	3,439.5	-682.1	3,506.4	348.78
12,816.0	91.80	1.80	9,538.4	3,534.4	-679.9	3,599.2	349.11



Microsoft
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MD Reference: 3721 + 27 @ 3748.0usft (Patterson 562)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)
12,911.0	91.90	2.50	9,535.3	3,629.3	-676.3	3,691.8	349.44
13,007.0	87.60	2.10	9,535.7	3,725.2	-672.5	3,785.4	349.77
13,102.0	87.10	0.60	9,540.1	3,820.1	-670.2	3,878.4	350.05
13,198.0	87.60	0.00	9,544.6	3,916.0	-669.7	3,972.8	350.29
13,294.0	91.90	359.40	9,545.0	4,011.9	-670.2	4,067.5	350.52
13,388.0	88.20	358.90	9,544.9	4,105.9	-671.6	4,160.5	350.71
13,484.0	88.30	358.00	9,547.8	4,201.8	-674.2	4,255.6	350.88
13,513.0	89.40	358.00	9,548.4	4,230.8	-675.2	4,284.3	350.93
13,608.0	93.40	358.30	9,546.1	4,325.7	-678.3	4,378.6	351.09
13,703.0	93.30	358.40	9,540.6	4,420.5	-681.0	4,472.7	351.24
13,799.0	94.10	358.10	9,534.4	4,516.3	-684.0	4,567.8	351.39
13,894.0	91.00	0.00	9,530.1	4,611.1	-685.5	4,661.8	351.54
13,989.0	89.90	0.00	9,529.4	4,706.1	-685.5	4,755.8	351.71
14,084.0	90.20	0.30	9,529.3	4,801.1	-685.3	4,849.8	351.88
14,179.0	88.40	0.20	9,530.5	4,896.1	-684.9	4,943.8	352.04
14,274.0	87.80	0.00	9,533.6	4,991.1	-684.7	5,037.8	352.19
14,369.0	92.00	0.20	9,533.8	5,086.0	-684.5	5,131.9	352.33
14,464.0	91.10	0.70	9,531.2	5,181.0	-683.8	5,225.9	352.48
14,560.0	89.40	0.40	9,530.8	5,277.0	-682.9	5,321.0	352.63
14,653.0	88.90	0.00	9,532.2	5,370.0	-682.5	5,413.2	352.76
14,748.0	90.20	359.30	9,532.9	5,465.0	-683.1	5,507.5	352.87
14,842.0	90.80	358.80	9,532.1	5,559.0	-684.7	5,601.0	352.98
14,936.0	90.30	358.50	9,531.2	5,652.9	-686.9	5,694.5	353.07
15,032.0	91.60	358.40	9,529.6	5,748.9	-689.5	5,790.1	353.16
15,126.0	91.60	358.30	9,527.0	5,842.8	-692.2	5,883.7	353.24
15,221.0	90.20	358.10	9,525.5	5,937.7	-695.2	5,978.3	353.32
15,316.0	89.00	357.30	9,526.1	6,032.7	-699.0	6,073.0	353.39



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Database: EDM 5000.1 Single User Db

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)
15,410.0	88.10	357.10	9,528.5	6,126.5	-703.6	6,166.8	353.45
15,505.0	90.80	358.20	9,529.4	6,221.4	-707.5	6,261.5	353.51
15,599.0	89.60	357.80	9,529.1	6,315.4	-710.8	6,355.2	353.58
15,695.0	93.60	359.20	9,526.4	6,411.3	-713.3	6,450.8	353.65
15,790.0	93.70	359.00	9,520.4	6,506.1	-714.8	6,545.2	353.73
15,885.0	93.20	1.40	9,514.7	6,600.9	-714.4	6,639.4	353.82
15,979.0	88.20	2.40	9,513.5	6,694.8	-711.3	6,732.5	353.94
16,073.0	88.90	1.80	9,515.9	6,788.7	-707.9	6,825.5	354.05
16,168.0	91.40	1.60	9,515.6	6,883.6	-705.1	6,919.7	354.15
16,263.0	90.80	1.20	9,513.8	6,978.6	-702.7	7,013.9	354.25
16,357.0	90.20	0.70	9,513.0	7,072.6	-701.2	7,107.3	354.34
16,452.0	92.40	2.40	9,510.8	7,167.5	-698.6	7,201.5	354.43
16,547.0	93.40	4.70	9,506.0	7,262.2	-692.7	7,295.2	354.55
16,641.0	86.50	1.40	9,506.1	7,356.0	-687.7	7,388.1	354.66
16,736.0	86.50	359.90	9,511.9	7,450.8	-686.7	7,482.4	354.73
16,831.0	88.60	358.60	9,516.0	7,545.7	-687.9	7,577.0	354.79
16,925.0	90.10	357.30	9,517.0	7,639.6	-691.3	7,670.9	354.83
17,020.0	91.80	357.80	9,515.5	7,734.5	-695.3	7,765.7	354.86
17,116.0	91.70	357.10	9,512.5	7,830.4	-699.6	7,861.6	354.89
17,210.0	90.20	356.40	9,511.0	7,924.2	-704.9	7,955.5	354.92
17,305.0	92.60	358.00	9,508.7	8,019.1	-709.6	8,050.4	354.94
17,400.0	90.60	359.20	9,506.0	8,114.0	-711.9	8,145.2	354.99
17,495.0	90.50	359.20	9,505.1	8,209.0	-713.2	8,239.9	355.03
17,590.0	89.80	358.20	9,504.8	8,304.0	-715.4	8,334.7	355.08
17,685.0	90.90	358.20	9,504.3	8,398.9	-718.3	8,429.6	355.11
17,780.0	89.90	357.80	9,503.6	8,493.9	-721.7	8,524.5	355.14
17,875.0	90.70	358.20	9,503.1	8,588.8	-725.0	8,619.3	355.18



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Database: EDM 5000.1 Single User Db

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)
17,970.0	91.00	358.10	9,501.7	8,683.7	-728.0	8,714.2	355.21
18,065.0	90.40	358.70	9,500.5	8,778.7	-730.7	8,809.0	355.24
18,160.0	91.00	359.20	9,499.4	8,873.7	-732.4	8,903.8	355.28
18,255.0	90.10	1.00	9,498.5	8,968.7	-732.3	8,998.5	355.33
18,351.0	90.20	1.00	9,498.2	9,064.6	-730.6	9,094.0	355.39
18,446.0	87.90	1.10	9,499.8	9,159.6	-728.9	9,188.6	355.45
18,541.0	89.20	1.00	9,502.2	9,254.6	-727.1	9,283.1	355.51
18,635.0	91.20	1.50	9,501.9	9,348.5	-725.1	9,376.6	355.57
18,730.0	91.80	1.40	9,499.4	9,443.5	-722.7	9,471.1	355.62
18,827.0	89.00	0.20	9,498.7	9,540.4	-721.3	9,567.7	355.68
18,922.0	89.50	0.10	9,499.9	9,635.4	-721.1	9,662.4	355.72
19,017.0	90.50	1.00	9,499.9	9,730.4	-720.1	9,757.0	355.77
19,112.0	91.10	1.00	9,498.6	9,825.4	-718.5	9,851.6	355.82
19,207.0	90.50	0.70	9,497.3	9,920.4	-717.1	9,946.3	355.87
19,302.0	91.50	1.40	9,495.6	10,015.4	-715.3	10,040.9	355.91
19,397.0	92.30	1.00	9,492.5	10,110.3	-713.4	10,135.4	355.96
19,492.0	92.90	1.10	9,488.2	10,205.2	-711.6	10,229.9	356.01
19,518.0	90.70	0.00	9,487.4	10,231.1	-711.4	10,255.8	356.02
19,570.0	90.70	0.00	9,486.7	10,283.1	-711.4	10,307.7	356.04

19570' MD Projected to Bit - PBHL Charolais 28 21 B1MD St Com 2H

Survey Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
19,570.0	9,486.7	10,283.1	-711.4	19570' MD Projected to Bit



COMPANY: Mewbourne Oil Company
WELL: Charolais 28 21 B1MD St Com #2H
COUNTY: Lea County N. M. Nad (83)
DATUM: North American Datum 1983
RIG: Patterson 562



OFFICE: 934.582.7294

GRID CORRECTION: To convert a Magnetic Direction to a Grid Direction, Add 6.28°

GEODETIC ZONE: New Mexico Eastern Zone
3721 + 27 @ 3748.0usft (Patterson 562)
GROUND ELEVATION: 3721.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	592090.50	808179.90	32° 37' 28.976 N	103° 27' 59.774 W	

PLAN SECTIONS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	1900.0	0.00	0.00	1900.0	0.0	0.0	0.00	0.00	0.0	
3	2230.9	4.96	277.94	2230.6	2.0	-14.2	1.50	277.94	3.0	
4	8593.8	4.96	277.94	8569.5	78.0	-559.4	0.00	0.00	117.6	
5	8924.7	0.00	0.00	8900.0	80.0	-573.6	1.50	180.00	120.6	New B.B. B1MD St Com 2H
6	9110.2	0.00	0.00	9085.5	80.0	-573.6	0.00	0.00	120.6	
7	9863.4	90.38	353.00	9563.0	557.0	-632.2	12.00	353.00	600.6	
8	10189.2	90.38	359.52	9560.8	882.0	-653.5	2.00	89.95	928.2	
9	19598.3	90.38	359.52	9498.0	10288.8	-732.9	0.00	0.00	10314.7	PBHL Charolais 28 21 B1MD St Com 2H

SHL: 205' FSL: 1310' FWL

Section 28-19S-35E

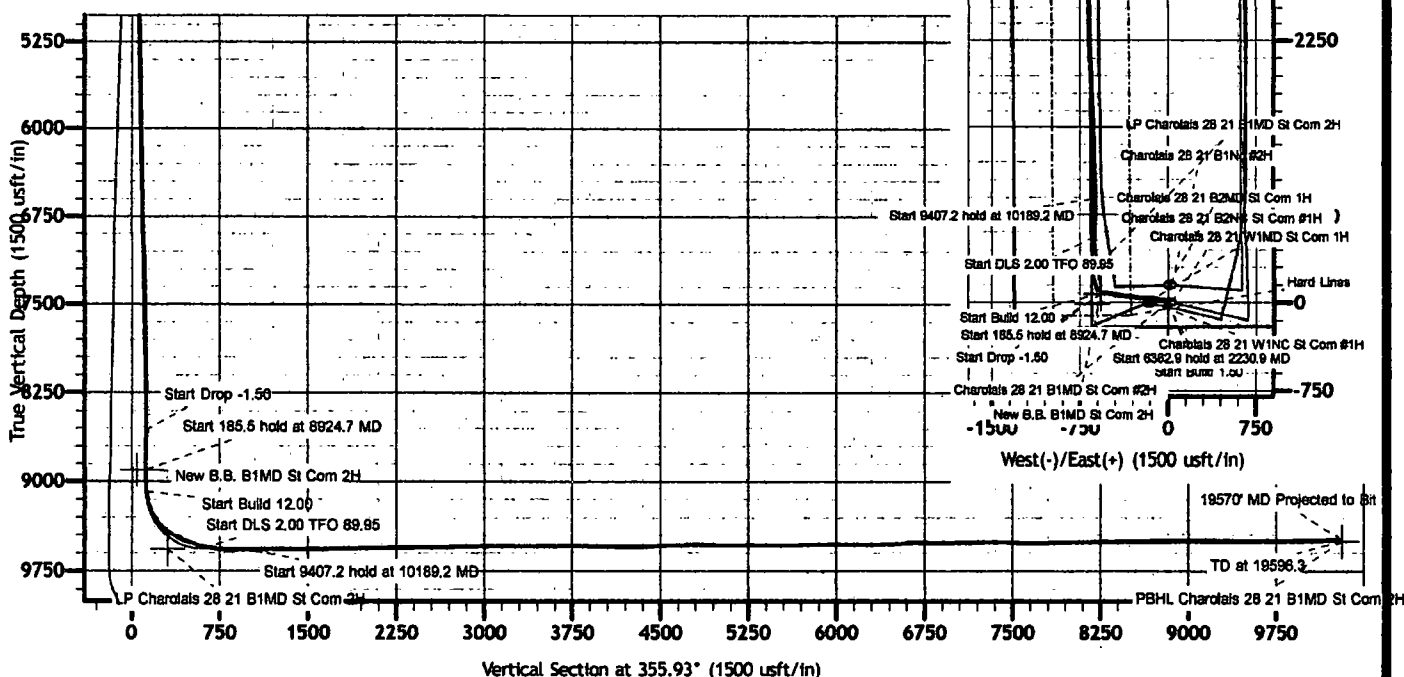
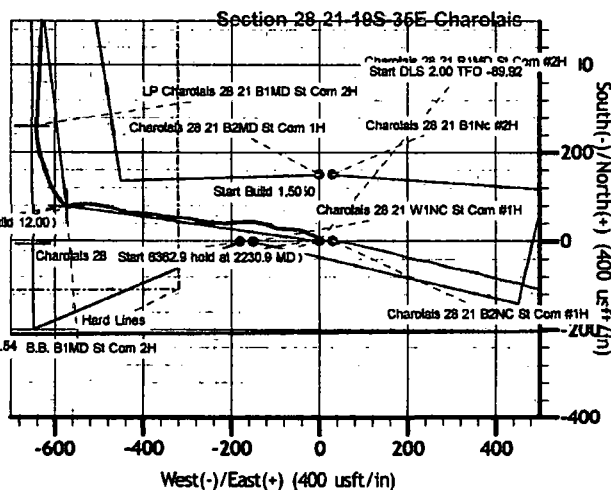
PBHL: 100' FNL: 660' FWL

Section 21-19S-35E



Azimuths to Grid North
True North: -0.47°
Strength: 48007.4nT
Magnetic North: 6.28°
Magnetic Field

Dig Start 185.5 Start Build 12.00
Date: 03/04/2019
Model: IGRF2015



TD at 19596.3