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Mewbourne Oil Company

Eddy County, N.M. Nad (83)

Section 11 12-19S-29E Sapphire 11 12 B3LK St Com 2

Sapphire 11 12 B3LK St Com 2H

Original Hole

Design: Original Hole

Standard Survey Report

08 March, 2019

STRYKER
DIRECTIONAL



Stryker Directional Survey Report



Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Sapphire 11 12 B3LK St Com 2H
Project:	Eddy County, N.M. Nad (83)	TVD Reference:	3376 + 27 @ 3403.0usft (Patterson 560)
Site:	Section 11 12-19S-29E Sapphire 11 12 B3LK St Com 2	MD Reference:	3376 + 27 @ 3403.0usft (Patterson 560)
Well:	Sapphire 11 12 B3LK St Com 2H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	STYKER_EDM

Project	Eddy 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 11 12-19S-29E Sapphire 11 12 B3LK St Com 2		
Site Position:		Northing:	608,196.60 usft
From:	Map	Easting:	627,547.00 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 40' 17.994 N
		Longitude:	104° 3' 11.399 W
		Grid Convergence:	0.15 °

Well	Sapphire 11 12 B3LK St Com 2H		
Well Position	+N/-S	0.0 usft	Northing: 608,196.60 usft
	+E/-W	0.0 usft	Easting: 627,547.00 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:	27.0 usft
		Latitude:	32° 40' 17.994 N
		Longitude:	104° 3' 11.399 W
		Ground Level:	3,376.0 usft

Wellbore	Original Hole		
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Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	01/02/19	7.05	60.38	47,992.90122814

Design	Original Hole		
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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	98.83

Survey Program	Date	03/08/19		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
486.0	16,490.0	MWD Survey (Original Hole)	MWD	MWD v3:standard declination

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)
377.0	0.70	198.10	377.0	-2.9	-0.7	-0.2	0.00	0.00	0.00
486.0	1.20	196.30	486.0	-4.6	-1.2	-0.5	0.46	0.46	-1.65
580.0	0.90	162.00	580.0	-6.3	-1.3	-0.3	0.73	-0.32	-36.49
675.0	0.70	177.20	675.0	-7.6	-1.0	0.2	0.31	-0.21	16.00
770.0	0.80	132.50	770.0	-8.6	-0.5	0.8	0.61	0.11	-47.05
845.0	0.80	128.40	844.9	-9.3	0.3	1.7	0.08	0.00	-5.47
940.0	0.60	99.40	939.9	-9.8	1.3	2.8	0.42	-0.21	-30.53
1,034.0	0.90	119.10	1,033.9	-10.2	2.4	4.0	0.42	0.32	20.96
1,129.0	0.90	113.30	1,128.9	-10.9	3.8	5.4	0.10	0.00	-6.11
1,224.0	0.70	59.20	1,223.9	-10.9	5.0	6.6	0.79	-0.21	-56.95



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Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	STYKER_EDM

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)
1,318.0	0.70	39.20	1,317.9	-10.1	5.8	7.3	0.26	0.00	-21.28
1,384.0	0.90	28.20	1,383.9	-9.4	6.3	7.7	0.38	0.30	-16.67
1,506.0	1.80	1.50	1,505.9	-6.6	6.8	7.7	0.88	0.74	-21.89
1,601.0	5.40	341.90	1,600.7	-0.8	5.5	5.5	3.95	3.79	-20.63
1,790.0	5.30	343.90	1,788.8	16.0	0.3	-2.2	0.11	-0.05	1.06
1,979.0	5.90	340.80	1,976.9	33.6	-5.3	-10.4	0.36	0.32	-1.64
2,168.0	5.20	342.70	2,165.1	50.9	-11.1	-18.8	0.38	-0.37	1.01
2,358.0	5.00	325.70	2,354.3	66.0	-18.3	-28.2	0.80	-0.11	-8.95
2,547.0	4.60	329.90	2,542.6	79.3	-26.7	-38.6	0.28	-0.21	2.22
2,736.0	4.80	329.50	2,731.0	92.7	-34.6	-48.4	0.11	0.11	-0.21
2,926.0	5.10	329.70	2,920.3	106.8	-42.9	-58.7	0.16	0.16	0.11
3,115.0	5.20	330.50	3,108.5	121.5	-51.3	-69.3	0.07	0.05	0.42
3,304.0	4.80	312.50	3,296.8	134.3	-61.4	-81.2	0.85	-0.21	-9.52
3,493.0	5.10	314.30	3,485.1	145.5	-73.2	-94.7	0.18	0.16	0.95
3,683.0	4.00	328.00	3,674.5	157.1	-82.8	-105.9	0.81	-0.58	7.21
3,872.0	3.60	328.00	3,863.1	167.7	-89.4	-114.1	0.21	-0.21	0.00
4,061.0	4.40	341.10	4,051.7	179.6	-94.9	-121.3	0.64	0.42	6.93
4,250.0	5.00	345.00	4,240.0	194.4	-99.4	-128.0	0.36	0.32	2.06
4,439.0	5.60	330.20	4,428.2	210.4	-106.1	-137.1	0.79	0.32	-7.83
4,628.0	5.50	325.70	4,616.3	225.8	-115.8	-149.0	0.24	-0.05	-2.38
4,818.0	4.70	325.80	4,805.6	239.8	-125.3	-160.6	0.42	-0.42	0.05
5,007.0	4.70	320.30	4,993.9	252.2	-134.6	-171.7	0.24	0.00	-2.91
5,197.0	5.00	319.80	5,183.3	264.5	-144.9	-183.8	0.16	0.16	-0.26
5,386.0	4.40	335.90	5,371.6	277.4	-153.2	-193.9	0.76	-0.32	8.52
5,576.0	4.00	331.20	5,561.1	289.8	-159.3	-201.9	0.28	-0.21	-2.47
5,765.0	3.80	311.50	5,749.7	299.8	-167.2	-211.2	0.71	-0.11	-10.42
5,955.0	4.40	302.80	5,939.2	307.9	-178.0	-223.2	0.45	0.32	-4.58
6,146.0	3.50	318.40	6,129.8	316.2	-188.1	-234.4	0.73	-0.47	8.17
6,335.0	2.70	325.80	6,318.5	324.2	-194.4	-241.8	0.47	-0.42	3.92
6,525.0	1.70	312.80	6,508.3	329.8	-199.0	-247.2	0.58	-0.53	-6.84
6,715.0	4.60	333.10	6,698.0	338.5	-204.5	-254.0	1.61	1.53	10.68
6,904.0	5.10	325.70	6,886.4	352.2	-212.7	-264.2	0.42	0.26	-3.92
7,095.0	5.60	331.60	7,076.5	367.5	-221.9	-275.6	0.39	0.26	3.09
7,284.0	4.70	330.20	7,264.8	382.3	-230.1	-286.0	0.48	-0.48	-0.74
7,474.0	5.40	331.80	7,454.0	396.9	-238.2	-296.3	0.38	0.37	0.84
7,663.0	5.90	336.00	7,642.1	413.6	-246.4	-306.9	0.34	0.26	2.22
7,852.0	3.60	338.90	7,830.5	428.0	-252.5	-315.1	1.22	-1.22	1.53
8,041.0	1.70	335.90	8,019.2	436.1	-255.7	-319.6	1.01	-1.01	-1.59
8,230.0	0.40	79.20	8,208.2	438.8	-256.2	-320.5	0.97	-0.69	54.66
8,321.6	0.77	62.08	8,299.8	439.2	-255.4	-319.7	0.44	0.40	-18.68
B.B. Sapphire 11 12 B3LK St Com 2H									
8,377.0	1.00	58.00	8,355.2	439.6	-254.6	-319.1	0.44	0.42	-7.37



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Well:	Sapphire 11 12 B3LK St Com 2H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	STYKER_EDM

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)
8,453.0	3.70	74.50	8,431.1	440.6	-251.7	-316.3	3.63	3.55	21.71
8,485.0	7.50	77.90	8,463.0	441.3	-248.7	-313.4	11.91	11.88	10.63
8,516.0	13.00	79.80	8,493.5	442.4	-243.3	-308.3	17.77	17.74	6.13
8,548.0	17.00	83.50	8,524.4	443.5	-235.1	-300.3	12.85	12.50	11.56
8,579.0	20.50	86.20	8,553.7	444.4	-225.1	-290.7	11.63	11.29	8.71
8,611.0	24.00	88.80	8,583.3	444.9	-213.0	-278.8	11.36	10.94	8.13
8,642.0	27.00	90.70	8,611.3	445.0	-199.7	-265.6	10.03	9.68	6.13
8,674.0	30.20	91.80	8,639.4	444.6	-184.4	-250.4	10.13	10.00	3.44
8,705.0	33.40	92.80	8,665.7	444.0	-168.1	-234.2	10.46	10.32	3.23
8,737.0	36.90	92.70	8,691.9	443.1	-149.7	-215.9	10.94	10.94	-0.31
8,769.0	40.20	92.10	8,716.9	442.2	-129.7	-196.1	10.38	10.31	-1.88
8,800.0	43.40	91.00	8,740.0	441.7	-109.1	-175.6	10.59	10.32	-3.55
8,832.0	46.70	90.60	8,762.6	441.4	-86.5	-153.2	10.35	10.31	-1.25
8,863.0	49.90	90.50	8,783.3	441.2	-63.3	-130.2	10.33	10.32	-0.32
LP Sapphire 11 12 B3LK St Com 2H									
8,895.0	53.30	90.60	8,803.1	440.9	-38.2	-105.4	10.63	10.63	0.31
8,926.0	56.69	91.10	8,820.9	440.5	-12.9	-80.3	11.01	10.94	1.61
8,958.0	59.90	91.40	8,837.7	439.9	14.4	-53.3	10.06	10.03	0.94
8,989.0	63.10	91.90	8,852.5	439.1	41.6	-26.3	10.42	10.32	1.61
9,021.0	66.40	91.30	8,866.2	438.3	70.5	2.4	10.45	10.31	-1.88
9,052.0	69.60	90.60	8,877.8	437.9	99.3	30.9	10.53	10.32	-2.26
9,084.0	72.70	89.90	8,888.1	437.7	129.5	60.8	9.91	9.69	-2.19
9,115.0	76.10	89.20	8,896.5	438.0	159.4	90.3	11.18	10.97	-2.26
9,146.0	79.60	88.40	8,903.0	438.6	189.7	120.1	11.57	11.29	-2.58
9,234.0	86.80	83.90	8,913.4	444.5	276.8	205.3	9.63	8.18	-5.11
9,266.0	86.80	85.70	8,915.2	447.4	308.6	236.3	5.62	0.00	5.63
9,297.0	87.00	86.00	8,916.9	449.6	339.5	266.5	1.16	0.65	0.97
9,392.0	87.20	86.10	8,921.7	456.2	434.1	359.0	0.24	0.21	0.11
9,487.0	87.90	88.50	8,925.7	460.6	528.9	452.0	2.63	0.74	2.53
9,581.0	88.00	90.80	8,929.1	461.2	622.9	544.7	2.45	0.11	2.45
9,676.0	89.20	91.50	8,931.4	459.3	717.8	638.8	1.46	1.26	0.74
9,770.0	86.80	91.80	8,934.7	456.6	811.7	732.0	2.57	-2.55	0.32
9,865.0	86.60	92.10	8,940.2	453.4	906.5	826.2	0.38	-0.21	0.32
9,960.0	86.80	92.10	8,945.6	449.9	1,001.3	920.4	0.21	0.21	0.00
10,054.0	87.50	90.20	8,950.3	448.0	1,095.1	1,013.4	2.15	0.74	-2.02
10,149.0	87.70	90.30	8,954.3	447.6	1,190.0	1,107.3	0.24	0.21	0.11
10,243.0	87.80	90.40	8,958.0	447.0	1,284.0	1,200.2	0.15	0.11	0.11
10,338.0	88.90	90.40	8,960.7	446.4	1,378.9	1,294.1	1.16	1.16	0.00
10,433.0	89.10	90.40	8,962.4	445.7	1,473.9	1,388.1	0.21	0.21	0.00
10,527.0	89.90	91.00	8,963.2	444.6	1,567.9	1,481.1	1.06	0.85	0.64
10,622.0	90.20	90.80	8,963.1	443.1	1,662.9	1,575.2	0.38	0.32	-0.21
10,716.0	90.50	91.00	8,962.5	441.6	1,756.9	1,668.3	0.38	0.32	0.21
10,811.0	88.40	90.50	8,963.4	440.3	1,851.9	1,762.4	2.27	-2.21	-0.53



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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)
10,905.0	87.50	90.20	8,966.8	439.8	1,945.8	1,855.3	1.01	-0.96	-0.32
11,000.0	87.70	90.20	8,970.8	439.4	2,040.7	1,949.1	0.21	0.21	0.00
11,094.0	87.90	90.10	8,974.4	439.2	2,134.6	2,042.0	0.24	0.21	-0.11
11,189.0	88.40	90.00	8,977.5	439.1	2,229.6	2,135.8	0.54	0.53	-0.11
11,284.0	88.90	90.00	8,979.7	439.1	2,324.6	2,229.7	0.53	0.53	0.00
11,378.0	89.50	90.30	8,981.0	438.9	2,418.5	2,322.6	0.71	0.64	0.32
11,473.0	90.20	90.10	8,981.3	438.5	2,513.5	2,416.5	0.77	0.74	-0.21
11,568.0	88.00	90.90	8,982.7	437.7	2,608.5	2,510.5	2.46	-2.32	0.84
11,662.0	87.80	91.00	8,986.2	436.1	2,702.4	2,603.5	0.24	-0.21	0.11
11,757.0	88.80	91.30	8,989.0	434.2	2,797.4	2,697.6	1.10	1.05	0.32
11,852.0	86.80	91.50	8,992.7	431.9	2,892.3	2,791.8	2.12	-2.11	0.21
11,946.0	86.90	91.50	8,997.8	429.5	2,986.1	2,884.9	0.11	0.11	0.00
12,041.0	86.70	91.50	9,003.1	427.0	3,080.9	2,978.9	0.21	-0.21	0.00
12,136.0	86.50	91.60	9,008.8	424.4	3,175.7	3,073.0	0.24	-0.21	0.11
12,230.0	86.80	89.50	9,014.3	423.5	3,269.6	3,165.9	2.25	0.32	-2.23
12,325.0	88.90	89.10	9,017.8	424.7	3,364.5	3,259.5	2.25	2.21	-0.42
12,419.0	89.60	89.20	9,019.0	426.1	3,458.5	3,352.1	0.75	0.74	0.11
12,514.0	90.00	89.30	9,019.4	427.3	3,553.4	3,445.8	0.43	0.42	0.11
12,609.0	90.10	89.60	9,019.3	428.2	3,648.4	3,539.5	0.33	0.11	0.32
12,703.0	90.70	89.90	9,018.6	428.6	3,742.4	3,632.4	0.71	0.64	0.32
12,798.0	88.20	89.80	9,019.6	428.9	3,837.4	3,726.2	2.63	-2.63	-0.11
12,892.0	88.10	90.10	9,022.6	429.0	3,931.4	3,819.0	0.34	-0.11	0.32
12,987.0	88.20	90.00	9,025.7	428.9	4,026.3	3,912.9	0.15	0.11	-0.11
13,082.0	88.40	90.20	9,028.5	428.7	4,121.3	4,006.7	0.30	0.21	0.21
13,176.0	87.80	90.80	9,031.6	427.9	4,215.2	4,099.7	0.90	-0.64	0.64
13,270.0	87.80	90.80	9,035.2	426.6	4,309.2	4,192.7	0.00	0.00	0.00
13,365.0	87.80	90.80	9,038.8	425.3	4,404.1	4,286.7	0.00	0.00	0.00
13,459.0	88.00	90.90	9,042.3	423.9	4,498.0	4,379.7	0.24	0.21	0.11
13,554.0	88.10	90.90	9,045.5	422.4	4,592.9	4,473.7	0.11	0.11	0.00
13,649.0	88.40	90.90	9,048.4	420.9	4,687.9	4,567.8	0.32	0.32	0.00
13,743.0	88.90	90.80	9,050.6	419.5	4,781.8	4,660.9	0.54	0.53	-0.11
13,838.0	88.60	90.40	9,052.7	418.5	4,876.8	4,754.9	0.53	-0.32	-0.42
13,932.0	88.30	90.40	9,055.3	417.8	4,970.8	4,847.8	0.32	-0.32	0.00
14,027.0	88.60	90.50	9,057.8	417.1	5,065.7	4,941.8	0.33	0.32	0.11
14,122.0	88.40	89.60	9,060.3	417.0	5,160.7	5,035.6	0.97	-0.21	-0.95
14,216.0	88.90	89.60	9,062.5	417.7	5,254.7	5,128.4	0.53	0.53	0.00
14,311.0	89.10	89.60	9,064.2	418.3	5,349.7	5,222.1	0.21	0.21	0.00
14,405.0	89.70	89.90	9,065.2	418.7	5,443.7	5,315.0	0.71	0.64	0.32
14,500.0	87.90	90.10	9,067.2	418.7	5,538.6	5,408.8	1.91	-1.89	0.21
14,594.0	87.60	90.10	9,070.8	418.6	5,632.6	5,501.6	0.32	-0.32	0.00
14,689.0	87.90	90.40	9,074.6	418.2	5,727.5	5,595.5	0.45	0.32	0.32
14,783.0	87.80	89.80	9,078.1	418.0	5,821.4	5,688.4	0.65	-0.11	-0.64



Stryker Directional Survey Report



Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Sapphire 11 12 B3LK St Com 2H
Project:	Eddy County, N.M. Nad (83)	TVD Reference:	3376 + 27 @ 3403.0usft (Patterson 560)
Site:	Section 11 12-19S-29E Sapphire 11 12 B3LK St Com 2	MD Reference:	3376 + 27 @ 3403.0usft (Patterson 560)
Well:	Sapphire 11 12 B3LK St Com 2H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	STYKER_EDM

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)	
14,878.0	87.80	89.60	9,081.7	418.5	5,916.3	5,782.1	0.21	0.00	-0.21	
14,973.0	88.00	89.70	9,085.2	419.1	6,011.3	5,875.8	0.24	0.21	0.11	
15,067.0	88.10	89.70	9,088.4	419.6	6,105.2	5,968.6	0.11	0.11	0.00	
15,162.0	88.40	90.00	9,091.3	419.8	6,200.2	6,062.4	0.45	0.32	0.32	
15,256.0	88.40	90.10	9,094.0	419.7	6,294.1	6,155.2	0.11	0.00	0.11	
15,351.0	89.00	90.20	9,096.1	419.5	6,389.1	6,249.1	0.64	0.63	0.11	
15,445.0	89.50	90.20	9,097.3	419.2	6,483.1	6,342.0	0.53	0.53	0.00	
15,539.0	90.30	90.60	9,097.5	418.5	6,577.1	6,435.0	0.95	0.85	0.43	
15,634.0	88.50	91.70	9,098.5	416.6	6,672.1	6,529.2	2.22	-1.89	1.16	
15,728.0	88.50	91.80	9,101.0	413.7	6,766.0	6,622.4	0.11	0.00	0.11	
15,823.0	89.10	92.20	9,102.9	410.4	6,860.9	6,716.7	0.76	0.63	0.42	
15,918.0	87.10	93.00	9,106.1	406.1	6,955.8	6,811.1	2.27	-2.11	0.84	
16,012.0	87.30	92.80	9,110.7	401.4	7,049.5	6,904.5	0.30	0.21	-0.21	
16,107.0	87.20	92.80	9,115.2	396.7	7,144.3	6,998.8	0.11	-0.11	0.00	
16,201.0	87.10	93.00	9,119.9	392.0	7,238.1	7,092.2	0.24	-0.11	0.21	
16,296.0	87.00	93.40	9,124.8	386.7	7,332.8	7,186.6	0.43	-0.11	0.42	
16,390.0	87.10	93.70	9,129.6	380.9	7,426.5	7,280.1	0.34	0.11	0.32	
16,420.0	87.10	93.90	9,131.2	378.9	7,456.4	7,310.0	0.67	0.00	0.67	
16,490.0	87.10	93.90	9,134.7	374.1	7,526.1	7,379.6	0.00	0.00	0.00	
16490.0' MD Projected to Bit - PBHL Sapphire 11 12 B3LK St Com 2H										

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
16,490.0	9,134.7	374.1	7,526.1	16490.0' MD Projected to Bit



RECEIVED

JUL 19 2019

DISTRICT II-ARTESIA O.C.D.

March 21, 2019

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

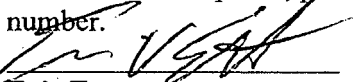
Attn: Jackie Lathan

Re: Mewbourne Oil Company
Sapphire 11 12 B3LK State Com #2H
Turkey Track – Bone Spring
Eddy County, New Mexico
API# 30-015-45559

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>
Victor Anguiano	Original Hole	486ft. to 16,420ft.	02-11-19 to 03-08-19	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	Mewbourne Oil Company
	Attn: Frosty Lathan	Attn: Robin Terrell
	P.O. Box 5720	P.O. Box 5720
	Hobbs, NM 88241	Hobbs, NM 88241

NMEMaNRD\Mewbourne Oil Company\Sapphire 11 12 B3LK State Com #2H\M191016

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



March 21, 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 February 11, 2019, through March 8, 2019 conduct or supervise the taking of a SEDS Original Hole MWD Survey from a depth of 486feet to a depth of 16,420feet; that I am authorized and qualified to make this report; that this survey was conducted at the request of Mewbourne Oil Company, for the Sapphire 11 12 B3LK State Com #2H well API # 30-015-45559 in Eddy 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



Stryker Directional MWD Surveys



Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Sapphire 11 12 B3LK St Com 2H
Project:	Eddy County, N.M. Nad (83)	TVD Reference:	3376 + 27 @ 3403.0usft (Patterson 560)
Site:	Section 11 12-19S-29E Sapphire 11 12 B3LK St C	MD Reference:	3376 + 27 @ 3403.0usft (Patterson 560)
Well:	Sapphire 11 12 B3LK St Com 2H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	STYKER_EDM

Project:	Eddy 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 11 12-19S-29E Sapphire 11 12 B3LK St Com 2		
Site Position:		Northing:	608,196.60 usft
From:	Map	Easting:	627,547.00 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 40' 17.994 N
		Longitude:	104° 3' 11.399 W
		Grid Convergence:	0.15 °

Well		Sapphire 11 12 B3LK St Com 2H				
Well Position	+N/-S	0.0 usft	Northing:	608,196.60 usft	Latitude:	32° 40' 17.994 N
	+E/-W	0.0 usft	Easting:	627,547.00 usft	Longitude:	104° 3' 11.399 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	27.0 usft	Ground Level:	3,376.0 usft

Wellbore:	Original Hole		
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Magnetics:	Model Name	Sample Date	Declination	Dip Angle	Field Strength
	IGRF2015	01/02/19	(°)	(°)	(nT)
			7.05	60.38	47,992.90122814

Design:	Original Hole		
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Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0

Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(usft)	(usft)	(usft)	(°)
	0.0	0.0	0.0	98.83

Survey Program	Date	03/08/19			
From	To	Survey (Wellbore)	Tool Name	Description	
(usft)	(usft)				
486.0	16,490.0	MWD Survey (Original Hole)	MWD	MWD v3:standard declination	



Stryker Directional MWD Surveys



Company: Mewbourne Oil Company
Project: Eddy County, N.M. Nad (83)
Site: Section 11 12-19S-29E Sapphire 11 12 B3LK St 0
Well: Sapphire 11 12 B3LK St Com 2H
Wellbore: Original Hole
Design: Original Hole

Local Co-ordinate Reference: Well Sapphire 11 12 B3LK St Com 2H
TVD Reference: 3376 + 27 @ 3403.0usft (Patterson 560)
MD Reference: 3376 + 27 @ 3403.0usft (Patterson 560)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: STYKER_EDM

Survey:

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	
377.0	0.70	198.10	377.0	3,026.0	-2.9	-0.7	3.0	193.57	Tie-In
377.0' MD Phoenix Gyro Survey									
486.0	1.20	196.30	486.0	2,917.0	-4.6	-1.2	4.8	194.85	
580.0	0.90	162.00	580.0	2,823.0	-6.3	-1.3	6.4	191.49	
675.0	0.70	177.20	675.0	2,728.0	-7.6	-1.0	7.6	187.65	
770.0	0.80	132.50	770.0	2,633.0	-8.6	-0.5	8.6	183.32	
845.0	0.80	128.40	844.9	2,558.1	-9.3	0.3	9.3	178.16	
940.0	0.60	99.40	939.9	2,463.1	-9.8	1.3	9.9	172.37	
1,034.0	0.90	119.10	1,033.9	2,369.1	-10.2	2.4	10.5	166.56	
1,129.0	0.90	113.30	1,128.9	2,274.1	-10.9	3.8	11.5	160.83	
1,224.0	0.70	59.20	1,223.9	2,179.1	-10.9	5.0	11.9	155.46	
1,318.0	0.70	39.20	1,317.9	2,085.1	-10.1	5.8	11.7	150.12	
1,384.0	0.90	28.20	1,383.9	2,019.1	-9.4	6.3	11.3	145.97	
1,506.0	1.80	1.50	1,505.9	1,897.1	-6.6	6.8	9.5	134.03	
1,601.0	5.40	341.90	1,600.7	1,802.3	-0.8	5.5	5.5	98.83	
1,790.0	5.30	343.90	1,788.8	1,614.2	16.0	0.3	16.0	1.02	
1,979.0	5.90	340.80	1,976.9	1,426.1	33.6	-5.3	34.0	350.97	
2,168.0	5.20	342.70	2,165.1	1,237.9	50.9	-11.1	52.1	347.73	
2,358.0	5.00	325.70	2,354.3	1,048.7	66.0	-18.3	68.5	344.50	
2,547.0	4.60	329.90	2,542.6	860.4	79.3	-26.7	83.7	341.37	
2,736.0	4.80	329.50	2,731.0	672.0	92.7	-34.6	98.9	339.55	
2,926.0	5.10	329.70	2,920.3	482.7	106.8	-42.9	115.1	338.14	
3,115.0	5.20	330.50	3,108.5	294.5	121.5	-51.3	131.9	337.11	
3,304.0	4.80	312.50	3,296.8	106.2	134.3	-61.4	147.7	335.45	
3,493.0	5.10	314.30	3,485.1	-82.1	145.5	-73.2	162.9	333.30	
3,683.0	4.00	328.00	3,674.5	-271.5	157.1	-82.8	177.5	332.22	
3,872.0	3.60	328.00	3,863.1	-460.1	167.7	-89.4	190.0	331.94	



Stryker Directional MWD Surveys



Company: Mewbourne Oil Company
Project: Eddy County, N.M. Nad (83)
Site: Section 11 12-19S-29E Sapphire 11 12 B3LK St
Well: Sapphire 11 12 B3LK St Com 2H
Wellbore: Original Hole
Design: Original Hole

Local Co-ordinate Reference: Well Sapphire 11 12 B3LK St Com 2H
TVD Reference: 3376 + 27 @ 3403.0usft (Patterson 560)
MD Reference: 3376 + 27 @ 3403.0usft (Patterson 560)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: STYKER_EDM

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)
4,061.0	4.40	341.10	4,051.7	-648.7	179.6	-94.9	203.1	332.15
4,250.0	5.00	345.00	4,240.0	-837.0	194.4	-99.4	218.3	332.93
4,439.0	5.60	330.20	4,428.2	-1,025.2	210.4	-106.1	235.6	333.24
4,628.0	5.50	325.70	4,616.3	-1,213.3	225.8	-115.8	253.8	332.86
4,818.0	4.70	325.80	4,805.6	-1,402.6	239.8	-125.3	270.6	332.42
5,007.0	4.70	320.30	4,993.9	-1,590.9	252.2	-134.6	285.8	331.91
5,197.0	5.00	319.80	5,183.3	-1,780.3	264.5	-144.9	301.6	331.28
5,386.0	4.40	335.90	5,371.6	-1,968.6	277.4	-153.2	316.9	331.09
5,576.0	4.00	331.20	5,561.1	-2,158.1	289.8	-159.3	330.8	331.20
5,765.0	3.80	311.50	5,749.7	-2,346.7	299.8	-167.2	343.2	330.85
5,955.0	4.40	302.80	5,939.2	-2,536.2	307.9	-178.0	355.7	329.96
6,146.0	3.50	318.40	6,129.8	-2,726.8	316.2	-188.1	367.9	329.26
6,335.0	2.70	325.80	6,318.5	-2,915.5	324.2	-194.4	378.0	329.05
6,525.0	1.70	312.80	6,508.3	-3,105.3	329.8	-199.0	385.2	328.90
6,715.0	4.60	333.10	6,698.0	-3,295.0	338.5	-204.5	395.5	328.87
6,904.0	5.10	325.70	6,886.4	-3,483.4	352.2	-212.7	411.5	328.88
7,095.0	5.60	331.60	7,076.5	-3,673.5	367.5	-221.9	429.3	328.87
7,284.0	4.70	330.20	7,264.8	-3,861.8	382.3	-230.1	446.2	328.95
7,474.0	5.40	331.80	7,454.0	-4,051.0	396.9	-238.2	462.9	329.03
7,663.0	5.90	336.00	7,642.1	-4,239.1	413.6	-246.4	481.4	329.22
7,852.0	3.60	338.90	7,830.5	-4,427.5	428.0	-252.5	496.9	329.47
8,041.0	1.70	335.90	8,019.2	-4,616.2	436.1	-255.7	505.6	329.61
8,230.0	0.40	79.20	8,208.2	-4,805.2	438.8	-256.2	508.2	329.72
8,321.6	0.77	62.08	8,299.8	-4,896.8	439.2	-255.4	508.0	329.82
B.B. Sapphire 11 12 B3LK St Com 2H								
8,377.0	1.00	58.00	8,355.2	-4,952.2	439.6	-254.6	508.0	329.92
8,453.0	3.70	74.50	8,431.1	-5,028.1	440.6	-251.7	507.4	330.26



Stryker Directional MWD Surveys



Company: Mewbourne Oil Company
Project: Eddy County, N.M. Nad (83)
Site: Section 11 12-19S-29E Sapphire 11 12 B3LK St (C
Well: Sapphire 11 12 B3LK St Com 2H
Wellbore: Original Hole
Design: Original Hole

Local Co-ordinate Reference: Well Sapphire 11 12 B3LK St Com 2H
TVD Reference: 3376 + 27 @ 3403.0usft (Patterson 560)
MD Reference: 3376 + 27 @ 3403.0usft (Patterson 560)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: STYKER_EDM

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)
8,485.0	7.50	77.90	8,463.0	-5,060.0	441.3	-248.7	506.6	330.60
8,516.0	13.00	79.80	8,493.5	-5,090.5	442.4	-243.3	504.8	331.19
8,548.0	17.00	83.50	8,524.4	-5,121.4	443.5	-235.1	502.0	332.08
8,579.0	20.50	86.20	8,553.7	-5,150.7	444.4	-225.1	498.2	333.13
8,611.0	24.00	88.80	8,583.3	-5,180.3	444.9	-213.0	493.3	334.41
8,642.0	27.00	90.70	8,611.3	-5,208.3	445.0	-199.7	487.7	335.83
8,674.0	30.20	91.80	8,639.4	-5,236.4	444.6	-184.4	481.3	337.48
8,705.0	33.40	92.80	8,665.7	-5,262.7	444.0	-168.1	474.7	339.26
8,737.0	36.90	92.70	8,691.9	-5,288.9	443.1	-149.7	467.7	341.33
8,769.0	40.20	92.10	8,716.9	-5,313.9	442.2	-129.7	460.9	343.65
8,800.0	43.40	91.00	8,740.0	-5,337.0	441.7	-109.1	455.0	346.13
8,832.0	46.70	90.60	8,762.6	-5,359.6	441.4	-86.5	449.8	348.92
8,863.0	49.90	90.50	8,783.3	-5,380.3	441.2	-63.3	445.7	351.83
LP Sapphire 11 12 B3LK St Com 2H								
8,895.0	53.30	90.60	8,803.1	-5,400.1	440.9	-38.2	442.6	355.04
8,926.0	56.69	91.10	8,820.9	-5,417.9	440.5	-12.9	440.7	358.33
8,958.0	59.90	91.40	8,837.7	-5,434.7	439.9	14.4	440.2	1.87
8,989.0	63.10	91.90	8,852.5	-5,449.5	439.1	41.6	441.1	5.41
9,021.0	66.40	91.30	8,866.2	-5,463.2	438.3	70.5	444.0	9.14
9,052.0	69.60	90.60	8,877.8	-5,474.8	437.9	99.3	449.0	12.77
9,084.0	72.70	89.90	8,888.1	-5,485.1	437.7	129.5	456.5	16.48
9,115.0	76.10	89.20	8,896.5	-5,493.5	438.0	159.4	466.1	20.00
9,146.0	79.60	88.40	8,903.0	-5,500.0	438.6	189.7	477.9	23.39
9,234.0	86.80	83.90	8,913.4	-5,510.4	444.5	276.8	523.6	31.91
9,266.0	86.80	85.70	8,915.2	-5,512.2	447.4	308.6	543.5	34.60
9,297.0	87.00	86.00	8,916.9	-5,513.9	449.6	339.5	563.4	37.05
9,392.0	87.20	86.10	8,921.7	-5,518.7	456.2	434.1	629.7	43.58



Stryker Directional MWD Surveys



Company: Mewbourne Oil Company
Project: Eddy County, N.M. Nad (83)
Site: Section 11 12-19S-29E Sapphire 11 12 B3LK St C
Well: Sapphire 11 12 B3LK St Com 2H
Wellbore: Original Hole
Design: Original Hole

Local Co-ordinate Reference: Well Sapphire 11 12 B3LK St Com 2H
TVD Reference: 3376 + 27 @ 3403.0usft (Patterson 560)
MD Reference: 3376 + 27 @ 3403.0usft (Patterson 560)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: STYKER_EDM

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)
9,487.0	87.90	88.50	8,925.7	-5,522.7	460.6	528.9	701.4	48.95
9,581.0	88.00	90.80	8,929.1	-5,526.1	461.2	622.9	775.0	53.48
9,676.0	89.20	91.50	8,931.4	-5,528.4	459.3	717.8	852.2	57.39
9,770.0	86.80	91.80	8,934.7	-5,531.7	456.6	811.7	931.3	60.64
9,865.0	86.60	92.10	8,940.2	-5,537.2	453.4	906.5	1,013.5	63.43
9,960.0	86.80	92.10	8,945.6	-5,542.6	449.9	1,001.3	1,097.7	65.80
10,054.0	87.50	90.20	8,950.3	-5,547.3	448.0	1,095.1	1,183.2	67.75
10,149.0	87.70	90.30	8,954.3	-5,551.3	447.6	1,190.0	1,271.4	69.39
10,243.0	87.80	90.40	8,958.0	-5,555.0	447.0	1,284.0	1,359.6	70.80
10,338.0	88.90	90.40	8,960.7	-5,557.7	446.4	1,378.9	1,449.4	72.06
10,433.0	89.10	90.40	8,962.4	-5,559.4	445.7	1,473.9	1,539.8	73.17
10,527.0	89.90	91.00	8,963.2	-5,560.2	444.6	1,567.9	1,629.7	74.17
10,622.0	90.20	90.80	8,963.1	-5,560.1	443.1	1,662.9	1,720.9	75.08
10,716.0	90.50	91.00	8,962.5	-5,559.5	441.6	1,756.9	1,811.5	75.89
10,811.0	88.40	90.50	8,963.4	-5,560.4	440.3	1,851.9	1,903.5	76.62
10,905.0	87.50	90.20	8,966.8	-5,563.8	439.8	1,945.8	1,994.9	77.26
11,000.0	87.70	90.20	8,970.8	-5,567.8	439.4	2,040.7	2,087.5	77.85
11,094.0	87.90	90.10	8,974.4	-5,571.4	439.2	2,134.6	2,179.3	78.37
11,189.0	88.40	90.00	8,977.5	-5,574.5	439.1	2,229.6	2,272.4	78.86
11,284.0	88.90	90.00	8,979.7	-5,576.7	439.1	2,324.6	2,365.7	79.30
11,378.0	89.50	90.30	8,981.0	-5,578.0	438.9	2,418.5	2,458.0	79.72
11,473.0	90.20	90.10	8,981.3	-5,578.3	438.5	2,513.5	2,551.5	80.10
11,568.0	88.00	90.90	8,982.7	-5,579.7	437.7	2,608.5	2,645.0	80.47
11,662.0	87.80	91.00	8,986.2	-5,583.2	436.1	2,702.4	2,737.4	80.83
11,757.0	88.80	91.30	8,989.0	-5,586.0	434.2	2,797.4	2,830.9	81.18
11,852.0	86.80	91.50	8,992.7	-5,589.7	431.9	2,892.3	2,924.4	81.51
11,946.0	86.90	91.50	8,997.8	-5,594.8	429.5	2,986.1	3,016.8	81.82



Stryker Directional MWD Surveys



Company: Mewbourne Oil Company
Project: Eddy County, N.M. Nad (83)
Site: Section 11 12-19S-29E Sapphire 11 12 B3LK St
Well: Sapphire 11 12 B3LK St Com 2H
Wellbore: Original Hole
Design: Original Hole

Local Co-ordinate Reference: Well Sapphire 11 12 B3LK St Com 2H
TVD Reference: 3376 + 27 @ 3403.0usft (Patterson 560)
MD Reference: 3376 + 27 @ 3403.0usft (Patterson 560)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: STYKER_EDM

Survey:

MD (usft)	Inc (°)	Azi. (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)
12,041.0	86.70	91.50	9,003.1	-5,600.1	427.0	3,080.9	3,110.4	82.11
12,136.0	86.50	91.60	9,008.8	-5,605.8	424.4	3,175.7	3,204.0	82.39
12,230.0	86.80	89.50	9,014.3	-5,611.3	423.5	3,269.6	3,296.9	82.62
12,325.0	88.90	89.10	9,017.8	-5,614.8	424.7	3,364.5	3,391.2	82.81
12,419.0	89.60	89.20	9,019.0	-5,616.0	426.1	3,458.5	3,484.6	82.98
12,514.0	90.00	89.30	9,019.4	-5,616.4	427.3	3,553.4	3,579.1	83.14
12,609.0	90.10	89.60	9,019.3	-5,616.3	428.2	3,648.4	3,673.5	83.31
12,703.0	90.70	89.90	9,018.6	-5,615.6	428.6	3,742.4	3,766.9	83.47
12,798.0	88.20	89.80	9,019.6	-5,616.6	428.9	3,837.4	3,861.3	83.62
12,892.0	88.10	90.10	9,022.6	-5,619.6	429.0	3,931.4	3,954.7	83.77
12,987.0	88.20	90.00	9,025.7	-5,622.7	428.9	4,026.3	4,049.1	83.92
13,082.0	88.40	90.20	9,028.5	-5,625.5	428.7	4,121.3	4,143.5	84.06
13,176.0	87.80	90.80	9,031.6	-5,628.6	427.9	4,215.2	4,236.9	84.20
13,270.0	87.80	90.80	9,035.2	-5,632.2	426.6	4,309.2	4,330.2	84.35
13,365.0	87.80	90.80	9,038.8	-5,635.8	425.3	4,404.1	4,424.6	84.48
13,459.0	88.00	90.90	9,042.3	-5,639.3	423.9	4,498.0	4,517.9	84.62
13,554.0	88.10	90.90	9,045.5	-5,642.5	422.4	4,592.9	4,612.3	84.75
13,649.0	88.40	90.90	9,048.4	-5,645.4	420.9	4,687.9	4,706.7	84.87
13,743.0	88.90	90.80	9,050.6	-5,647.6	419.5	4,781.8	4,800.2	84.99
13,838.0	88.60	90.40	9,052.7	-5,649.7	418.5	4,876.8	4,894.7	85.10
13,932.0	88.30	90.40	9,055.3	-5,652.3	417.8	4,970.8	4,988.3	85.20
14,027.0	88.60	90.50	9,057.8	-5,654.8	417.1	5,065.7	5,082.9	85.29
14,122.0	88.40	89.60	9,060.3	-5,657.3	417.0	5,160.7	5,177.5	85.38
14,216.0	88.90	89.60	9,062.5	-5,659.5	417.7	5,254.7	5,271.2	85.46
14,311.0	89.10	89.60	9,064.2	-5,661.2	418.3	5,349.7	5,366.0	85.53
14,405.0	89.70	89.90	9,065.2	-5,662.2	418.7	5,443.7	5,459.7	85.60
14,500.0	87.90	90.10	9,067.2	-5,664.2	418.7	5,538.6	5,554.4	85.68



Stryker Directional MWD Surveys



Company: Mewbourne Oil Company
Project: Eddy County, N.M. Nad (83)
Site: Section 11 12-19S-29E Sapphire 11 12 B3LK St C
Well: Sapphire 11 12 B3LK St Com 2H
Wellbore: Original Hole
Design: Original Hole

Local Co-ordinate Reference: Well Sapphire 11 12 B3LK St Com 2H
TVD Reference: 3376 + 27 @ 3403.0usft (Patterson 560)
MD Reference: 3376 + 27 @ 3403.0usft (Patterson 560)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: STYKER_EDM

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)
14,594.0	87.60	90.10	9,070.8	-5,667.8	418.6	5,632.6	5,648.1	85.75
14,689.0	87.90	90.40	9,074.6	-5,671.6	418.2	5,727.5	5,742.7	85.82
14,783.0	87.80	89.80	9,078.1	-5,675.1	418.0	5,821.4	5,836.4	85.89
14,878.0	87.80	89.60	9,081.7	-5,678.7	418.5	5,916.3	5,931.1	85.95
14,973.0	88.00	89.70	9,085.2	-5,682.2	419.1	6,011.3	6,025.9	86.01
15,067.0	88.10	89.70	9,088.4	-5,685.4	419.6	6,105.2	6,119.6	86.07
15,162.0	88.40	90.00	9,091.3	-5,688.3	419.8	6,200.2	6,214.4	86.13
15,256.0	88.40	90.10	9,094.0	-5,691.0	419.7	6,294.1	6,308.1	86.18
15,351.0	89.00	90.20	9,096.1	-5,693.1	419.5	6,389.1	6,402.9	86.24
15,445.0	89.50	90.20	9,097.3	-5,694.3	419.2	6,483.1	6,496.6	86.30
15,539.0	90.30	90.60	9,097.5	-5,694.5	418.5	6,577.1	6,590.4	86.36
15,634.0	88.50	91.70	9,098.5	-5,695.5	416.6	6,672.1	6,685.1	86.43
15,728.0	88.50	91.80	9,101.0	-5,698.0	413.7	6,766.0	6,778.6	86.50
15,823.0	89.10	92.20	9,102.9	-5,699.9	410.4	6,860.9	6,873.2	86.58
15,918.0	87.10	93.00	9,106.1	-5,703.1	406.1	6,955.8	6,967.6	86.66
16,012.0	87.30	92.80	9,110.7	-5,707.7	401.4	7,049.5	7,060.9	86.74
16,107.0	87.20	92.80	9,115.2	-5,712.2	396.7	7,144.3	7,155.3	86.82
16,201.0	87.10	93.00	9,119.9	-5,716.9	392.0	7,238.1	7,248.7	86.90
16,296.0	87.00	93.40	9,124.8	-5,721.8	386.7	7,332.8	7,343.0	86.98
16,390.0	87.10	93.70	9,129.6	-5,726.6	380.9	7,426.5	7,436.3	87.06
16,420.0	87.10	93.90	9,131.2	-5,728.2	378.9	7,456.4	7,466.0	87.09
16,490.0	87.10	93.90	9,134.7	-5,731.7	374.1	7,526.1	7,535.4	87.15

16490.0' MD Projected to Bit - PBHL Sapphire 11 12 B3LK St Com 2H