



Diamondback Energy

Martin County, TX (NAD27 - Grid)

Sec 16, BLK 7, A-U22

UL MOCKINGBIRD 13-2 A 1JM

Wellbore #1

Design: Surveys

Standard Survey Report

23 March, 2022



Company:	Diamondback Energy	Local Co-ordinate Reference:	Well UL MOCKINGBIRD 13-2 A 1JM
Project:	Martin County, TX (NAD27 - Grid)	TVD Reference:	RKB +21' @ 2941.00usft (Unit 408)
Site:	Sec 16, BLK 7, A-U22	MD Reference:	RKB +21' @ 2941.00usft (Unit 408)
Well:	UL MOCKINGBIRD 13-2 A 1JM	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Surveys	Database:	EDM 5000.1 Single User Db

Project	Martin County, TX (NAD27 - Grid)		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Texas North Central 4202		

Site	Sec 16, BLK 7, A-U22		
Site Position:		Northing:	302,245.53 usft
From:	Map	Easting:	552,746.98 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32.4086261
		Longitude:	-102.1909911

Well	UL MOCKINGBIRD 13-2 A 1JM		
Well Position	+N/-S	0.00 usft	Northing: 302,245.53 usft
	+E/-W	0.00 usft	Easting: 552,746.98 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:	usft
Grid Convergence:	-2.56 °	Ground Level:	2,920.00 usft

Wellbore	Wellbore #1		
Magnetics	Model Name	Sample Date	Declination (°)
	HDGM_FILE	12/22/2021	5.93
			Dip Angle (°)
			60.07
			Field Strength (nT)
			47,524.00000000

Design	Surveys		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
		Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)
	0.00	0.00	0.00
			Direction (°)
			344.57

Survey Program	Date	3/23/2022		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
217.00	1,422.00	Survey #1 (Wellbore #1)	MWD+IFR1+FDIR	OWSG MWD + IFR1 + FDIR Correction
1,518.00	19,863.00	Survey #2 (Wellbore #1)	MWD+IFR1+FDIR	OWSG MWD + IFR1 + FDIR Correction

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)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
217.00	0.39	51.30	217.00	0.46	0.58	0.29	0.18	0.18	0.00	
309.00	0.34	2.23	309.00	0.93	0.83	0.68	0.33	-0.05	-53.34	
401.00	0.48	15.10	400.99	1.58	0.94	1.27	0.18	0.15	13.99	
493.00	0.63	10.20	492.99	2.44	1.13	2.06	0.17	0.16	-5.33	
584.00	0.62	329.07	583.99	3.36	0.97	2.98	0.48	-0.01	-45.20	
677.00	0.55	354.39	676.98	4.24	0.67	3.91	0.29	-0.08	27.23	
768.00	0.39	327.72	767.98	4.93	0.46	4.63	0.29	-0.18	-29.31	
859.00	0.40	347.01	858.98	5.50	0.22	5.25	0.15	0.01	21.20	

Company:	Diamondback Energy	Local Co-ordinate Reference:	Well UL MOCKINGBIRD 13-2 A 1JM
Project:	Martin County, TX (NAD27 - Grid)	TVD Reference:	RKB +21' @ 2941.00usft (Unit 408)
Site:	Sec 16, BLK 7, A-U22	MD Reference:	RKB +21' @ 2941.00usft (Unit 408)
Well:	UL MOCKINGBIRD 13-2 A 1JM	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Surveys	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)
951.00	0.54	14.94	950.97	6.24	0.26	5.94	0.29	0.15	30.36
1,043.00	0.78	7.80	1,042.97	7.27	0.46	6.89	0.28	0.26	-7.76
1,135.00	0.65	3.45	1,134.96	8.42	0.57	7.96	0.15	-0.14	-4.73
1,231.00	0.32	353.90	1,230.96	9.23	0.58	8.74	0.35	-0.34	-9.95
1,326.00	0.20	310.92	1,325.95	9.60	0.42	9.14	0.23	-0.13	-45.24
1,422.00	0.59	267.65	1,421.95	9.69	-0.20	9.39	0.48	0.41	-45.07
Last Survey									
1,518.00	0.55	248.43	1,517.95	9.50	-1.12	9.45	0.20	-0.04	-20.02
1,614.00	0.61	222.12	1,613.94	8.95	-1.89	9.13	0.28	0.06	-27.41
1,709.00	0.79	203.61	1,708.94	7.97	-2.49	8.35	0.30	0.19	-19.48
1,790.00	0.49	181.51	1,789.93	7.12	-2.72	7.58	0.47	-0.37	-27.28
1,881.00	0.32	203.54	1,880.93	6.49	-2.84	7.02	0.25	-0.19	24.21
1,977.00	1.09	334.77	1,976.92	7.07	-3.33	7.71	1.38	0.80	136.70
2,072.00	2.51	334.56	2,071.87	9.77	-4.61	10.65	1.49	1.49	-0.22
2,168.00	4.47	334.13	2,167.69	15.04	-7.15	16.40	2.04	2.04	-0.45
2,263.00	5.63	335.74	2,262.32	22.62	-10.68	24.64	1.23	1.22	1.69
2,359.00	6.33	327.25	2,357.80	31.36	-15.47	34.35	1.17	0.73	-8.84
2,455.00	7.47	325.29	2,453.10	40.94	-21.89	45.29	1.21	1.19	-2.04
2,550.00	8.47	324.62	2,547.18	51.72	-29.46	57.70	1.06	1.05	-0.71
2,646.00	9.88	324.10	2,641.95	64.16	-38.38	72.06	1.47	1.47	-0.54
2,741.00	10.48	325.96	2,735.46	77.92	-48.00	87.88	0.72	0.63	1.96
2,837.00	10.45	327.07	2,829.86	92.46	-57.62	104.46	0.21	-0.03	1.16
2,933.00	10.45	327.36	2,924.27	107.10	-67.05	121.08	0.05	0.00	0.30
3,028.00	10.39	326.17	3,017.70	121.47	-76.46	137.44	0.24	-0.06	-1.25
3,124.00	9.96	326.08	3,112.19	135.55	-85.91	153.53	0.45	-0.45	-0.09
3,219.00	9.55	327.57	3,205.82	149.02	-94.73	168.86	0.51	-0.43	1.57
3,315.00	10.08	329.16	3,300.41	162.96	-103.30	184.57	0.62	0.55	1.66
3,411.00	10.74	333.23	3,394.83	178.16	-111.64	201.44	1.03	0.69	4.24
3,507.00	10.52	332.14	3,489.19	193.89	-119.76	218.77	0.31	-0.23	-1.14
3,602.00	10.43	334.05	3,582.60	209.29	-127.58	235.69	0.38	-0.09	2.01
3,698.00	10.39	334.24	3,677.02	224.90	-135.14	252.75	0.05	-0.04	0.20
3,793.00	10.14	333.32	3,770.50	240.09	-142.62	269.38	0.31	-0.26	-0.97
3,889.00	10.07	327.99	3,865.02	254.76	-150.86	285.72	0.98	-0.07	-5.55
3,985.00	10.06	326.66	3,959.54	268.88	-159.92	301.74	0.24	-0.01	-1.39
4,079.00	9.64	328.50	4,052.15	282.45	-168.55	317.11	0.56	-0.45	1.96
4,175.00	9.50	326.69	4,146.82	295.92	-177.10	332.38	0.35	-0.15	-1.89
4,271.00	9.65	329.97	4,241.48	309.51	-185.47	347.70	0.59	0.16	3.42
4,365.00	10.58	328.50	4,334.02	323.69	-193.93	363.62	1.03	0.99	-1.56
4,460.00	10.43	327.01	4,427.43	338.34	-203.17	380.20	0.33	-0.16	-1.57
4,556.00	9.72	327.30	4,521.95	352.44	-212.27	396.22	0.74	-0.74	0.30
4,651.00	8.95	326.32	4,615.69	365.34	-220.71	410.90	0.83	-0.81	-1.03
4,747.00	10.04	326.93	4,710.37	378.57	-229.41	425.97	1.14	1.14	0.64
4,843.00	11.01	326.08	4,804.75	393.19	-239.09	442.64	1.02	1.01	-0.89

Company:	Diamondback Energy	Local Co-ordinate Reference:	Well UL MOCKINGBIRD 13-2 A 1JM
Project:	Martin County, TX (NAD27 - Grid)	TVD Reference:	RKB +21' @ 2941.00usft (Unit 408)
Site:	Sec 16, BLK 7, A-U22	MD Reference:	RKB +21' @ 2941.00usft (Unit 408)
Well:	UL MOCKINGBIRD 13-2 A 1JM	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Surveys	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)
4,939.00	10.74	327.90	4,899.03	408.37	-248.96	459.90	0.45	-0.28	1.90
5,035.00	10.83	326.80	4,993.33	423.50	-258.66	477.06	0.23	0.09	-1.15
5,130.00	11.05	327.82	5,086.61	438.67	-268.39	494.28	0.31	0.23	1.07
5,226.00	11.24	328.15	5,180.80	454.41	-278.23	512.06	0.21	0.20	0.34
5,322.00	11.11	326.82	5,274.98	470.09	-288.23	529.84	0.30	-0.14	-1.39
5,417.00	9.93	326.74	5,368.38	484.60	-297.73	546.36	1.24	-1.24	-0.08
5,513.00	9.56	326.47	5,462.99	498.17	-306.67	561.82	0.39	-0.39	-0.28
5,609.00	9.48	326.22	5,557.67	511.39	-315.47	576.90	0.09	-0.08	-0.26
5,705.00	9.18	326.08	5,652.40	524.31	-324.14	591.67	0.31	-0.31	-0.15
5,801.00	8.77	327.28	5,747.23	536.83	-332.37	605.92	0.47	-0.43	1.25
5,897.00	8.84	329.46	5,842.09	549.34	-340.07	620.03	0.36	0.07	2.27
5,992.00	8.67	329.93	5,935.99	561.82	-347.37	634.00	0.19	-0.18	0.49
6,088.00	8.60	331.77	6,030.90	574.41	-354.39	648.00	0.30	-0.07	1.92
6,184.00	8.93	330.19	6,125.78	587.19	-361.49	662.22	0.43	0.34	-1.65
6,279.00	9.23	329.06	6,219.59	600.13	-369.07	676.70	0.37	0.32	-1.19
6,375.00	8.74	329.96	6,314.41	613.04	-376.68	691.18	0.53	-0.51	0.94
6,471.00	8.55	329.64	6,409.32	625.52	-383.94	705.13	0.20	-0.20	-0.33
6,566.00	7.72	329.12	6,503.36	637.09	-390.79	718.11	0.88	-0.87	-0.55
6,667.00	6.99	329.05	6,603.53	648.18	-397.43	730.57	0.72	-0.72	-0.07
6,797.00	6.65	324.79	6,732.61	661.11	-405.84	745.27	0.47	-0.26	-3.28
6,893.00	7.70	323.90	6,827.86	670.85	-412.83	756.52	1.10	1.09	-0.93
6,989.00	7.01	314.35	6,923.07	680.14	-420.81	767.60	1.46	-0.72	-9.95
7,084.00	7.09	315.72	7,017.35	688.39	-429.05	777.75	0.20	0.08	1.44
7,180.00	7.27	324.57	7,112.60	697.58	-436.71	788.64	1.17	0.19	9.22
7,275.00	7.80	334.59	7,206.79	708.31	-442.96	800.64	1.49	0.56	10.55
7,371.00	8.13	328.26	7,301.86	719.96	-449.32	813.57	0.98	0.34	-6.59
7,467.00	8.61	328.36	7,396.84	731.85	-456.66	826.99	0.50	0.50	0.10
7,563.00	8.53	328.74	7,491.77	744.06	-464.13	840.74	0.10	-0.08	0.40
7,658.00	6.92	324.89	7,585.90	754.76	-471.08	852.91	1.78	-1.69	-4.05
7,754.00	7.11	331.09	7,681.19	764.69	-477.27	864.13	0.81	0.20	6.46
7,850.00	4.80	324.45	7,776.66	773.16	-482.48	873.68	2.51	-2.41	-6.92
7,945.00	5.19	333.12	7,871.30	780.23	-486.74	881.62	0.89	0.41	9.13
8,041.00	2.77	343.49	7,967.07	786.33	-489.36	888.20	2.62	-2.52	10.80
8,137.00	1.51	6.17	8,063.00	789.81	-489.88	891.69	1.56	-1.31	23.63
8,232.00	0.78	38.25	8,157.98	791.56	-489.35	893.24	0.99	-0.77	33.77
8,328.00	1.03	82.09	8,253.97	792.19	-488.09	893.52	0.74	0.26	45.67
8,424.00	0.94	84.65	8,349.95	792.39	-486.45	893.26	0.10	-0.09	2.67
8,520.00	3.28	7.81	8,445.89	795.18	-485.29	895.65	3.33	2.44	-80.04
8,615.00	18.12	351.62	8,538.99	812.59	-487.09	912.91	15.79	15.62	-17.04
8,711.00	25.37	346.68	8,628.11	847.42	-494.01	948.33	7.78	7.55	-5.15
8,807.00	36.63	342.21	8,710.28	894.86	-507.54	997.66	11.96	11.73	-4.66
8,902.00	41.63	341.64	8,783.95	951.83	-526.15	1,057.53	5.28	5.26	-0.60
8,998.00	54.84	348.41	8,847.79	1,020.89	-544.17	1,128.89	14.72	13.76	7.05
9,094.00	62.74	343.77	8,897.51	1,100.46	-564.02	1,210.87	9.21	8.23	-4.83

Company:	Diamondback Energy	Local Co-ordinate Reference:	Well UL MOCKINGBIRD 13-2 A 1JM
Project:	Martin County, TX (NAD27 - Grid)	TVD Reference:	RKB +21' @ 2941.00usft (Unit 408)
Site:	Sec 16, BLK 7, A-U22	MD Reference:	RKB +21' @ 2941.00usft (Unit 408)
Well:	UL MOCKINGBIRD 13-2 A 1JM	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Surveys	Database:	EDM 5000.1 Single User Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
9,190.00	61.96	343.70	8,942.06	1,182.09	-587.84	1,295.90	0.82	-0.81	-0.07
9,283.00	76.49	346.36	8,974.97	1,265.88	-610.14	1,382.60	15.85	15.62	2.86
9,377.00	81.57	345.49	8,992.85	1,355.36	-632.58	1,474.83	5.48	5.40	-0.93
9,440.86	81.65	345.69	9,002.17	1,416.55	-648.31	1,538.00	0.34	0.13	0.32
FTP - 9440.86' MD - 100' FSL / 834' FWL									
9,472.00	81.69	345.79	9,006.68	1,446.41	-655.89	1,568.80	0.34	0.13	0.32
9,542.00	89.36	346.67	9,012.14	1,514.15	-672.49	1,638.51	11.03	10.96	1.26
9,638.00	89.98	346.59	9,012.69	1,607.54	-694.69	1,734.44	0.65	0.65	-0.08
9,734.00	89.77	345.89	9,012.90	1,700.79	-717.52	1,830.40	0.76	-0.22	-0.73
9,829.00	90.09	345.43	9,013.02	1,792.82	-741.05	1,925.38	0.59	0.34	-0.48
9,925.00	90.52	345.77	9,012.50	1,885.81	-764.93	2,021.36	0.57	0.45	0.35
10,020.00	90.61	345.15	9,011.57	1,977.76	-788.77	2,116.35	0.66	0.09	-0.65
10,116.00	91.10	345.35	9,010.13	2,070.59	-813.21	2,212.33	0.55	0.51	0.21
10,212.00	90.51	344.66	9,008.79	2,163.31	-838.05	2,308.32	0.95	-0.61	-0.72
10,307.00	89.99	343.88	9,008.37	2,254.75	-863.80	2,403.31	0.99	-0.55	-0.82
10,403.00	90.51	345.99	9,007.95	2,347.44	-888.75	2,499.30	2.26	0.54	2.20
10,499.00	91.39	346.77	9,006.36	2,440.73	-911.36	2,595.24	1.22	0.92	0.81
10,595.00	89.70	345.40	9,005.45	2,533.90	-934.44	2,691.20	2.27	-1.76	-1.43
10,690.00	90.75	346.15	9,005.07	2,625.98	-957.78	2,786.17	1.36	1.11	0.79
10,786.00	90.05	346.79	9,004.40	2,719.32	-980.24	2,882.12	0.99	-0.73	0.67
10,882.00	90.70	347.32	9,003.78	2,812.87	-1,001.75	2,978.02	0.87	0.68	0.55
10,978.00	90.63	347.68	9,002.66	2,906.59	-1,022.52	3,073.89	0.38	-0.07	0.38
11,074.00	90.28	345.65	9,001.90	3,000.00	-1,044.66	3,169.82	2.15	-0.36	-2.11
11,169.00	90.44	344.76	9,001.30	3,091.84	-1,068.92	3,264.81	0.95	0.17	-0.94
11,264.00	89.84	343.13	9,001.07	3,183.13	-1,095.20	3,359.80	1.83	-0.63	-1.72
11,360.00	90.54	343.17	9,000.75	3,275.01	-1,123.02	3,455.77	0.73	0.73	0.04
11,456.00	89.57	345.83	9,000.66	3,367.51	-1,148.67	3,551.76	2.95	-1.01	2.77
11,551.00	90.41	346.15	9,000.68	3,459.68	-1,171.67	3,646.73	0.95	0.88	0.34
11,647.00	89.78	345.98	9,000.52	3,552.86	-1,194.79	3,742.70	0.68	-0.66	-0.18
11,743.00	88.48	345.49	9,001.98	3,645.88	-1,218.44	3,838.66	1.45	-1.35	-0.51
11,838.00	90.19	346.22	9,003.08	3,737.99	-1,241.66	3,933.63	1.96	1.80	0.77
11,934.00	87.90	345.85	9,004.68	3,831.14	-1,264.82	4,029.58	2.42	-2.39	-0.39
12,029.00	88.74	346.31	9,007.46	3,923.31	-1,287.66	4,124.50	1.01	0.88	0.48
12,122.00	89.81	346.48	9,008.64	4,013.69	-1,309.54	4,217.45	1.16	1.15	0.18
12,214.00	90.68	346.55	9,008.25	4,103.15	-1,330.99	4,309.39	0.95	0.95	0.08
12,305.00	88.99	345.74	9,008.51	4,191.50	-1,352.78	4,400.35	2.06	-1.86	-0.89
12,397.00	90.13	344.98	9,009.21	4,280.51	-1,376.03	4,492.34	1.49	1.24	-0.83
12,489.00	88.03	345.56	9,010.69	4,369.47	-1,399.42	4,584.31	2.37	-2.28	0.63
12,581.00	87.97	345.35	9,013.90	4,458.46	-1,422.51	4,676.25	0.24	-0.07	-0.23
12,672.00	88.85	344.88	9,016.43	4,546.37	-1,445.88	4,767.21	1.10	0.97	-0.52
12,764.00	89.62	345.33	9,017.66	4,635.27	-1,469.52	4,859.19	0.97	0.84	0.49
12,856.00	90.42	345.57	9,017.62	4,724.32	-1,492.64	4,951.18	0.91	0.87	0.26
12,948.00	91.81	345.58	9,015.83	4,813.40	-1,515.55	5,043.15	1.51	1.51	0.01

Company:	Diamondback Energy	Local Co-ordinate Reference:	Well UL MOCKINGBIRD 13-2 A 1JM
Project:	Martin County, TX (NAD27 - Grid)	TVD Reference:	RKB +21' @ 2941.00usft (Unit 408)
Site:	Sec 16, BLK 7, A-U22	MD Reference:	RKB +21' @ 2941.00usft (Unit 408)
Well:	UL MOCKINGBIRD 13-2 A 1JM	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Surveys	Database:	EDM 5000.1 Single User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
13,044.00	90.95	345.70	9,013.52	4,906.38	-1,539.35	5,139.10	0.90	-0.90	0.13	
13,139.00	92.04	345.36	9,011.04	4,998.33	-1,563.08	5,234.06	1.20	1.15	-0.36	
13,235.00	90.76	346.55	9,008.70	5,091.43	-1,586.37	5,329.99	1.82	-1.33	1.24	
13,330.00	91.26	346.59	9,007.02	5,183.82	-1,608.43	5,424.92	0.53	0.53	0.04	
13,426.00	88.43	345.95	9,007.28	5,277.06	-1,631.21	5,520.87	3.02	-2.95	-0.67	
13,521.00	89.23	345.87	9,009.22	5,369.19	-1,654.34	5,615.82	0.85	0.84	-0.08	
13,617.00	90.36	345.76	9,009.57	5,462.26	-1,677.86	5,711.80	1.18	1.18	-0.11	
13,712.00	88.51	346.35	9,010.50	5,554.45	-1,700.75	5,806.76	2.04	-1.95	0.62	
13,808.00	89.20	346.29	9,012.42	5,647.70	-1,723.45	5,902.69	0.72	0.72	-0.06	
13,903.00	89.21	346.08	9,013.74	5,739.95	-1,746.13	5,997.64	0.22	0.01	-0.22	
13,999.00	90.33	346.14	9,014.12	5,833.14	-1,769.18	6,093.61	1.17	1.17	0.06	
14,094.00	89.41	346.00	9,014.34	5,925.34	-1,792.05	6,188.57	0.98	-0.97	-0.15	
14,190.00	88.21	345.86	9,016.33	6,018.44	-1,815.38	6,284.52	1.26	-1.25	-0.15	
14,285.00	88.84	345.74	9,018.78	6,110.51	-1,838.68	6,379.47	0.68	0.66	-0.13	
14,381.00	89.27	345.63	9,020.36	6,203.51	-1,862.41	6,475.44	0.46	0.45	-0.11	
14,477.00	87.77	345.48	9,022.84	6,296.45	-1,886.35	6,571.39	1.57	-1.56	-0.16	
14,572.00	88.00	345.45	9,026.35	6,388.34	-1,910.18	6,666.31	0.24	0.24	-0.03	
14,668.00	88.95	346.56	9,028.90	6,481.46	-1,933.38	6,762.25	1.52	0.99	1.16	
14,764.00	89.41	346.97	9,030.28	6,574.90	-1,955.36	6,858.16	0.64	0.48	0.43	
14,859.00	91.72	347.27	9,029.34	6,667.50	-1,976.53	6,953.06	2.45	2.43	0.32	
14,955.00	90.05	346.05	9,027.86	6,760.89	-1,998.68	7,048.98	2.15	-1.74	-1.27	
15,050.00	89.84	345.09	9,027.95	6,852.89	-2,022.35	7,143.96	1.03	-0.22	-1.01	
15,146.00	90.31	344.81	9,027.82	6,945.60	-2,047.28	7,239.96	0.57	0.49	-0.29	
15,241.00	89.86	343.87	9,027.68	7,037.07	-2,072.92	7,334.96	1.10	-0.47	-0.99	
15,337.00	90.34	343.94	9,027.51	7,129.31	-2,099.54	7,430.95	0.51	0.50	0.07	
15,433.00	91.15	344.20	9,026.27	7,221.61	-2,125.88	7,526.94	0.89	0.84	0.27	
15,528.00	89.90	346.30	9,025.40	7,313.47	-2,150.07	7,621.92	2.57	-1.32	2.21	
15,624.00	89.49	346.04	9,025.91	7,406.69	-2,173.02	7,717.88	0.51	-0.43	-0.27	
15,720.00	89.93	347.68	9,026.39	7,500.17	-2,194.84	7,813.80	1.77	0.46	1.71	
15,815.00	91.02	347.79	9,025.60	7,592.99	-2,215.02	7,908.65	1.15	1.15	0.12	
15,911.00	91.97	347.70	9,023.10	7,686.77	-2,235.39	8,004.47	0.99	0.99	-0.09	
16,006.00	90.88	347.34	9,020.74	7,779.50	-2,255.91	8,099.31	1.21	-1.15	-0.38	
16,102.00	90.10	347.54	9,019.92	7,873.20	-2,276.79	8,195.19	0.84	-0.81	0.21	
16,198.00	90.08	347.35	9,019.77	7,966.90	-2,297.65	8,291.07	0.20	-0.02	-0.20	
16,293.00	89.12	345.96	9,020.43	8,059.33	-2,319.58	8,386.00	1.78	-1.01	-1.46	
16,389.00	89.13	345.55	9,021.90	8,152.37	-2,343.20	8,481.96	0.43	0.01	-0.43	
16,485.00	91.20	345.73	9,021.62	8,245.36	-2,367.01	8,577.94	2.16	2.16	0.19	
16,580.00	89.44	345.36	9,021.09	8,337.35	-2,390.72	8,672.92	1.89	-1.85	-0.39	
16,676.00	90.14	345.25	9,021.44	8,430.21	-2,415.07	8,768.91	0.74	0.73	-0.11	
16,772.00	88.47	345.28	9,022.60	8,523.04	-2,439.49	8,864.90	1.74	-1.74	0.03	
16,867.00	87.64	345.20	9,025.83	8,614.85	-2,463.68	8,959.83	0.88	-0.87	-0.08	
16,963.00	87.56	345.15	9,029.85	8,707.58	-2,488.22	9,055.74	0.10	-0.08	-0.05	
17,059.00	89.20	345.77	9,032.56	8,800.46	-2,512.31	9,151.69	1.83	1.71	0.65	

Company:	Diamondback Energy	Local Co-ordinate Reference:	Well UL MOCKINGBIRD 13-2 A 1JM
Project:	Martin County, TX (NAD27 - Grid)	TVD Reference:	RKB +21' @ 2941.00usft (Unit 408)
Site:	Sec 16, BLK 7, A-U22	MD Reference:	RKB +21' @ 2941.00usft (Unit 408)
Well:	UL MOCKINGBIRD 13-2 A 1JM	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Surveys	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)
17,154.00	89.62	346.00	9,033.54	8,892.59	-2,535.48	9,246.66	0.50	0.44	0.24
17,250.00	89.17	345.79	9,034.55	8,985.69	-2,558.87	9,342.63	0.52	-0.47	-0.22
17,346.00	91.15	347.05	9,034.29	9,079.00	-2,581.41	9,438.57	2.44	2.06	1.31
17,441.00	91.97	346.81	9,031.70	9,171.50	-2,602.88	9,533.45	0.90	0.86	-0.25
17,537.00	91.19	346.92	9,029.05	9,264.95	-2,624.69	9,629.34	0.82	-0.81	0.11
17,633.00	89.91	346.59	9,028.13	9,358.39	-2,646.69	9,725.26	1.38	-1.33	-0.34
17,728.00	90.18	346.81	9,028.06	9,450.84	-2,668.54	9,820.20	0.37	0.28	0.23
17,824.00	90.97	347.00	9,027.09	9,544.34	-2,690.29	9,916.11	0.85	0.82	0.20
17,920.00	91.06	346.71	9,025.39	9,637.81	-2,712.12	10,012.02	0.32	0.09	-0.30
18,015.00	92.38	346.87	9,022.54	9,730.26	-2,733.82	10,106.90	1.40	1.39	0.17
18,111.00	90.95	346.72	9,019.75	9,823.67	-2,755.74	10,202.79	1.50	-1.49	-0.16
18,207.00	89.41	346.40	9,019.45	9,917.04	-2,778.05	10,298.73	1.64	-1.60	-0.33
18,302.00	89.16	346.27	9,020.64	10,009.35	-2,800.49	10,393.67	0.30	-0.26	-0.14
18,398.00	90.78	346.19	9,020.69	10,102.58	-2,823.34	10,489.63	1.69	1.69	-0.08
18,494.00	89.63	346.69	9,020.34	10,195.91	-2,845.85	10,585.58	1.31	-1.20	0.52
18,589.00	90.32	346.64	9,020.38	10,288.34	-2,867.76	10,680.51	0.73	0.73	-0.05
18,685.00	90.81	346.57	9,019.44	10,381.73	-2,890.00	10,776.45	0.52	0.51	-0.07
18,780.00	91.54	346.65	9,017.49	10,474.12	-2,911.99	10,871.37	0.77	0.77	0.08
18,876.00	89.76	345.25	9,016.40	10,567.24	-2,935.30	10,967.33	2.36	-1.85	-1.46
18,972.00	88.11	345.29	9,018.19	10,660.07	-2,959.70	11,063.30	1.72	-1.72	0.04
19,067.00	88.91	345.09	9,020.66	10,751.88	-2,983.97	11,158.26	0.87	0.84	-0.21
19,163.00	90.07	345.22	9,021.51	10,844.67	-3,008.57	11,254.25	1.22	1.21	0.14
19,259.00	90.86	345.19	9,020.73	10,937.48	-3,033.08	11,350.24	0.82	0.82	-0.03
19,354.00	88.07	345.08	9,021.62	11,029.29	-3,057.45	11,445.22	2.94	-2.94	-0.12
19,450.00	88.04	344.92	9,024.88	11,121.97	-3,082.28	11,541.16	0.17	-0.03	-0.17
19,545.00	88.10	344.86	9,028.08	11,213.63	-3,107.03	11,636.11	0.09	0.06	-0.06
19,641.00	88.14	344.55	9,031.22	11,306.18	-3,132.34	11,732.06	0.33	0.04	-0.32
19,736.00	88.69	344.39	9,033.85	11,397.67	-3,157.77	11,827.02	0.60	0.58	-0.17
19,808.02	89.14	344.16	9,035.21	11,466.99	-3,177.28	11,899.02	0.70	0.63	-0.32
LTP - 19808.02' MD - 100' FNL / 541' FWL									
19,809.00	89.15	344.16	9,035.23	11,467.93	-3,177.55	11,900.00	0.70	0.63	-0.32
Last Survey - 19809.00' MD									
19,863.00	89.15	344.16	9,036.03	11,519.87	-3,192.29	11,954.00	0.00	0.00	0.00
PTB - 19863.00' MD, 9036.03' TVD - 41' FNL / 537' FWL									

Company:	Diamondback Energy	Local Co-ordinate Reference:	Well UL MOCKINGBIRD 13-2 A 1JM
Project:	Martin County, TX (NAD27 - Grid)	TVD Reference:	RKB +21' @ 2941.00usft (Unit 408)
Site:	Sec 16, BLK 7, A-U22	MD Reference:	RKB +21' @ 2941.00usft (Unit 408)
Well:	UL MOCKINGBIRD 13-2 A 1JM	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Surveys	Database:	EDM 5000.1 Single User Db

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
1,422.00	1,421.95	9.69	-0.20	Last Survey
9,440.86	9,002.17	1,416.55	-648.31	FTP - 9440.86' MD - 100' FSL / 834' FWL
19,808.02	9,035.21	11,466.99	-3,177.28	LTP - 19808.02' MD - 100' FNL / 541' FWL
19,809.00	9,035.23	11,467.93	-3,177.55	Last Survey - 19809.00' MD
19,863.00	9,036.03	11,519.87	-3,192.29	PTB - 19863.00' MD, 9036.03' TVD - 41' FNL / 537' FWL

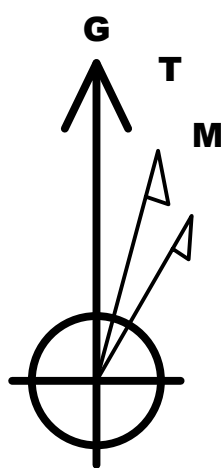
Checked By: _____ Approved By: _____ Date: _____



Project: Martin County, TX (NAD27 - Grid)
Site: Sec 16, BLK 7, A-U22
Well: UL MOCKINGBIRD 13-2 A 1JM
Wellbore: Wellbore #1
Design: Surveys

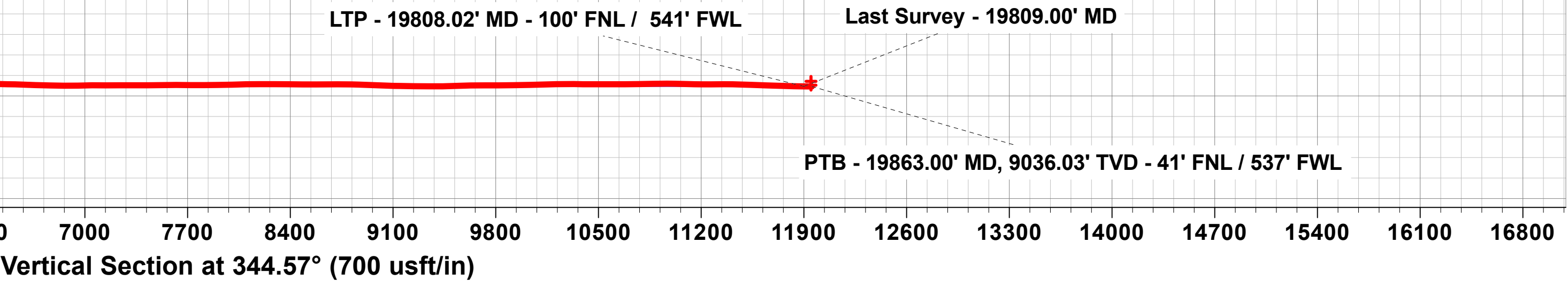
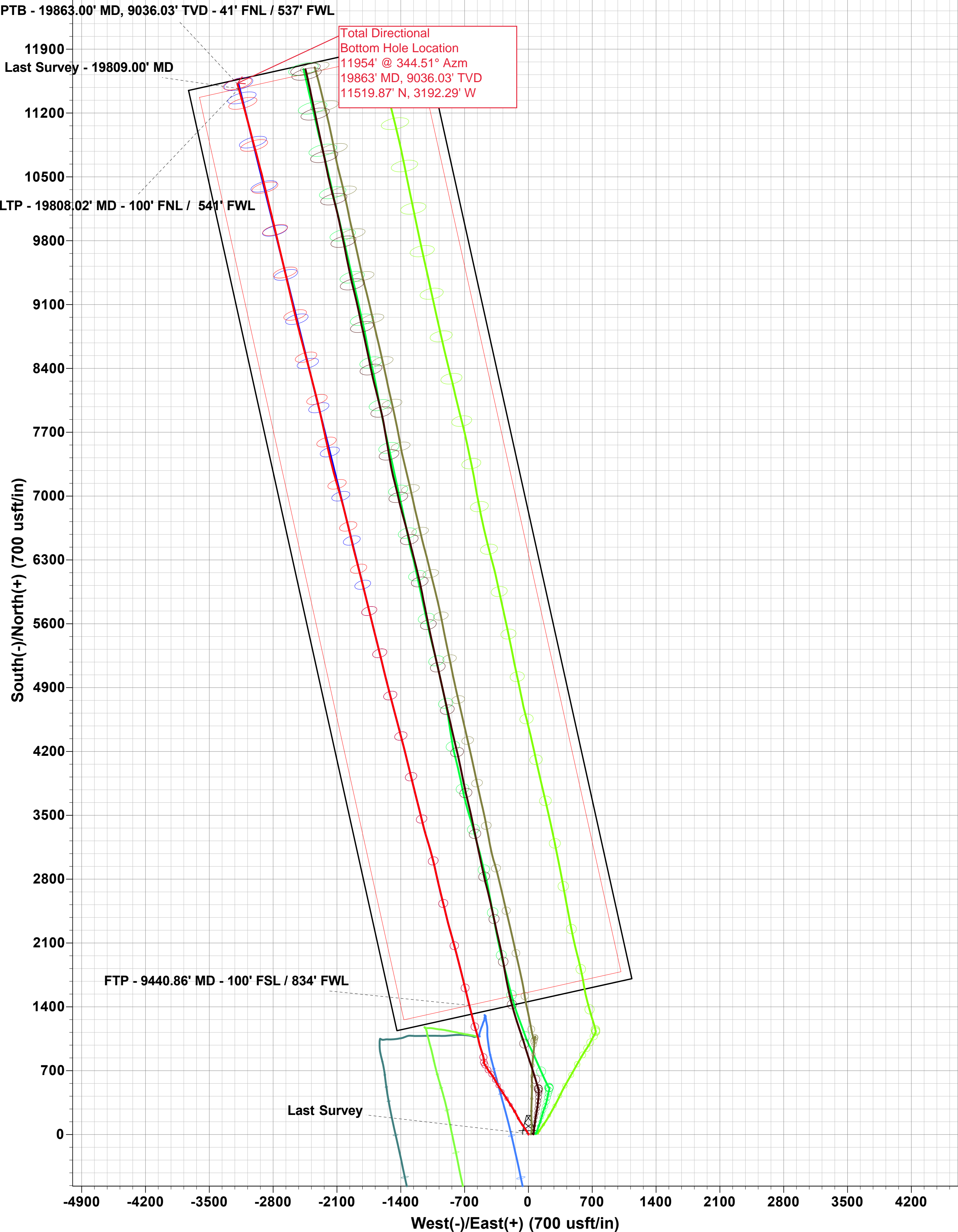
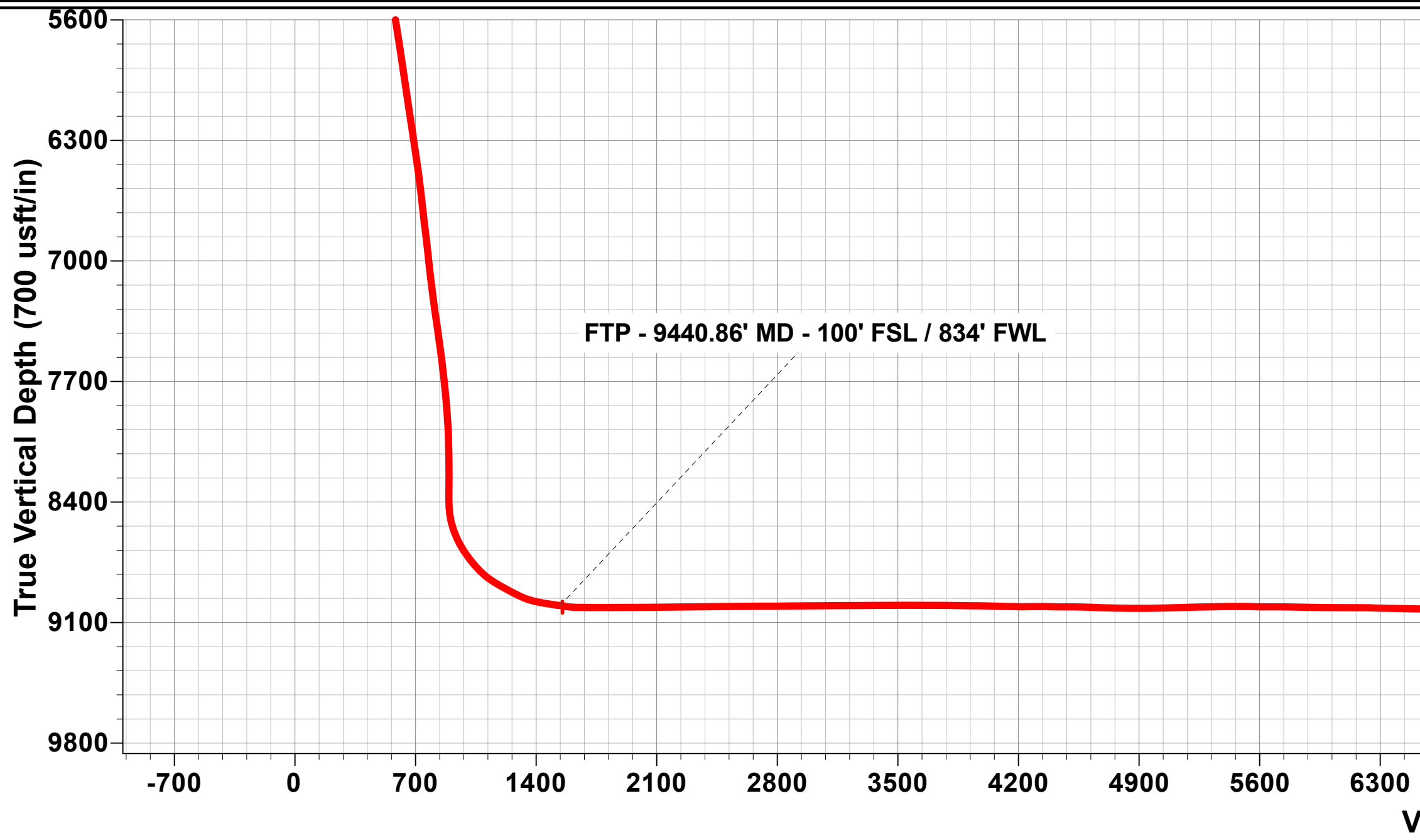
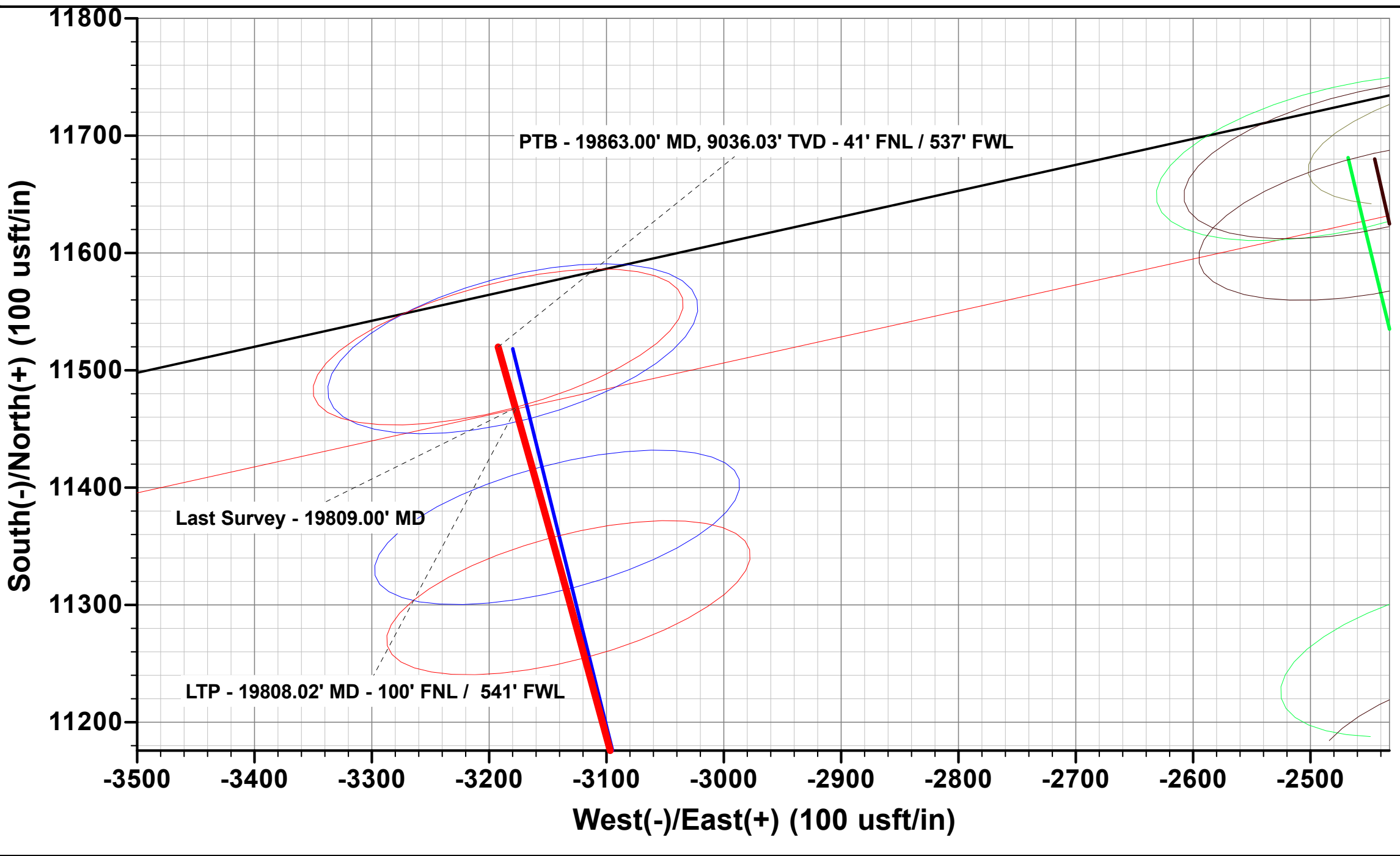
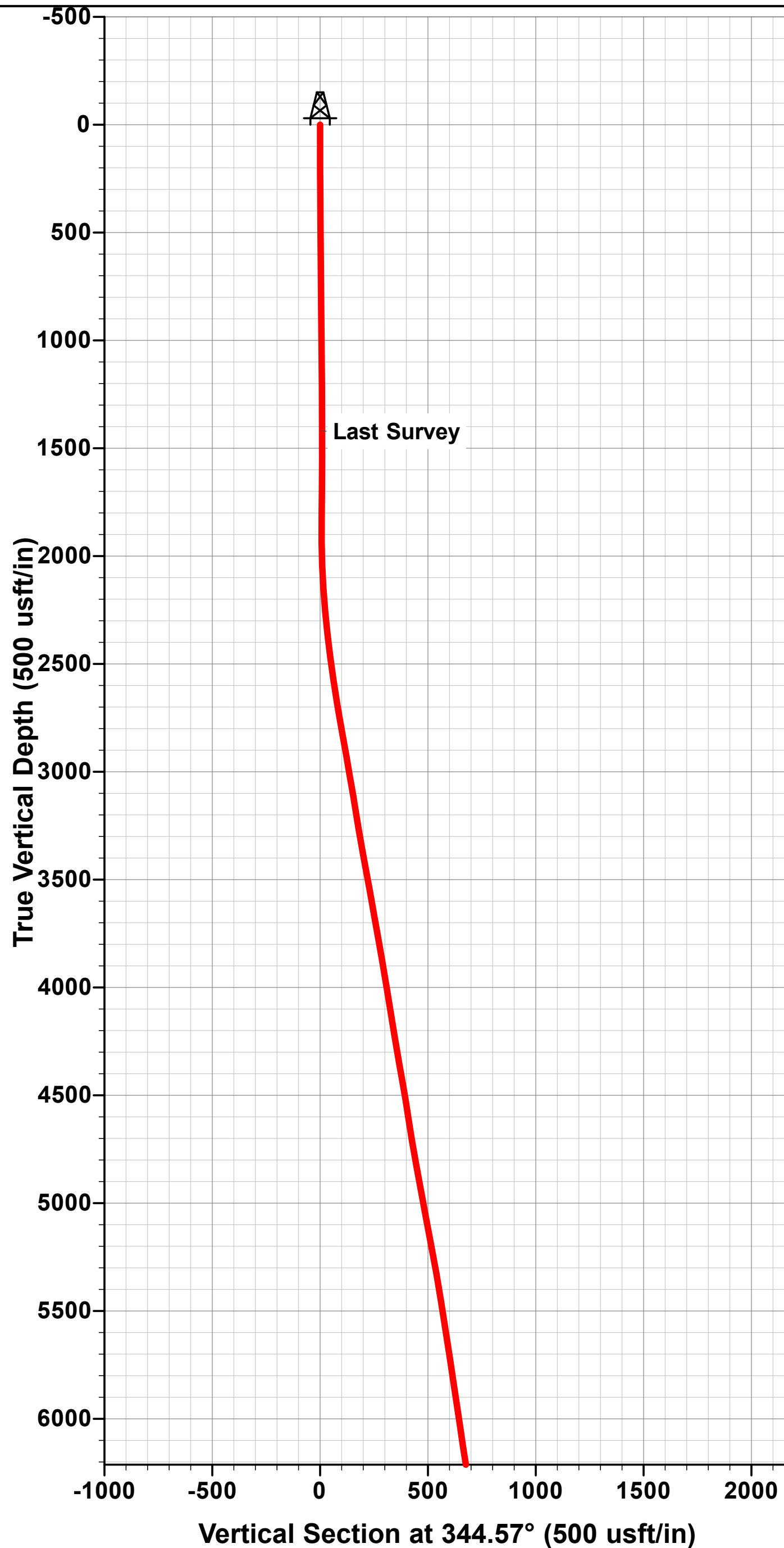
ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	VSect	Dep	Annotation
1422.00	0.59	267.65	1421.95	9.69	-0.20	9.39	11.06	Last Survey
9440.86	81.65	345.69	9002.17	1416.55	-648.31	1538.00	1592.31	FTP - 9440.86' MD - 100' FSL / 834' FWL
19808.02	89.14	344.16	9035.21	11466.99	-3177.28	11899.02	11957.28	LTP - 19808.02' MD - 100' FNL / 541' FWL
19809.00	89.15	344.16	9035.23	11467.93	-3177.55	11900.00	11958.26	Last Survey - 19809.00' MD
19863.00	89.15	344.16	9036.03	11519.87	-3192.29	11954.00	12012.25	PTB - 19863.00' MD, 9036.03' TVD - 41' FNL / 537' FWL



Azimuths to Grid North
True North: 2.56°
Magnetic North: 8.49°

Magnetic Field
Strength: 47524.0nT
Dip Angle: 60.07°
Date: 12/22/2021
Model: HDGM_FILE





Final MWD Survey Certification

Location: Martin County, Tx

Client: Diamondback Energy

Well Name: UL Mockingbird 13-2 A 1JM

Total Job No: SW-211450

API No: 42-317-43700

Start Date: 01/03/2022

End Date: 03/06/2022

Measured Start Depth: 0 feet

Measured End Depth: 19,863 feet

I, Andrew Berting, MWD Operator, hereby certify that; I am employed by Total Directional Services, LLC and we conducted or supervised the taking of these open hole MWD surveys at the request of this client. This data is true, correct, complete and within the limitations of the tool as set forth by Total Directional Services, LLC. I am authorized and qualified to make this report and have reviewed this report and find that it conforms to the principals and procedures as set forth by Total Directional Services, LLC.

Date: 03/06/2022

Signed: *Andrew Berting*