

Manzano, LLC

Lea County, NM (NAD 83)

Trinity 22 State Com #2H

Trinity 22 State Com #2H

Wellbore #1

Design: Wellbore #1

Standard Survey Report

01 October, 2019

Survey Report

Company: Manzano, LLC
Project: Lea County, NM (NAD 83)
Site: Trinity 22 State Com #2H
Well: Trinity 22 State Com #2H
Wellbore: Wellbore #1
Design: Wellbore #1

Local Co-ordinate Reference: Well Trinity 22 State Com #2H
TVD Reference: GL 3796' + RBK 13' @ 3809.00ft (Norton 4)
MD Reference: GL 3796' + RBK 13' @ 3809.00ft (Norton 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM

Project Lea County, NM (NAD 83)
Map System: US State Plane 1983
Geo Datum: North American Datum 1983
Map Zone: New Mexico Eastern Zone

System Datum: Mean Sea Level

Site Trinity 22 State Com #2H

Site Position: **Northing:** 822,721.80 usft **Latitude:** 33° 15' 19.136 N
From: Map **Easting:** 924,047.10 usft **Longitude:** 103° 4' 53.120 W
Position Uncertainty: 0.00 ft **Slot Radius:** 13.200 in **Grid Convergence:** 0.69 °

Well Trinity 22 State Com #2H

Well Position **+N/-S** 0.00 ft **Northing:** 822,721.80 usft **Latitude:** 33° 15' 19.136 N
+E/-W 0.00 ft **Easting:** 924,047.10 usft **Longitude:** 103° 4' 53.120 W
Position Uncertainty 0.00 ft **Wellhead Elevation:** ft **Ground Level:** 3,796.00 ft

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	9/20/2019	6.55	61.04	48,359.14074090

Design Wellbore #1

Audit Notes:

Version: 1.0 **Phase:** ACTUAL **Tie On Depth:** 0.00
Vertical Section: **Depth From (TVD) (ft)** **+N/-S (ft)** **+E/-W (ft)** **Direction (°)**
 0.00 0.00 0.00 359.29

Survey Program Date 10/1/2019

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
71.00	2,248.00	Invictus Survey (Wellbore #1)	MWD	MWD - Standard
2,399.00	10,630.00	Driltech MWD (Wellbore #1)	MWD	MWD - Standard

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
71.00	0.80	173.86	71.00	-0.49	0.05	-0.49	1.13	1.13	0.00
71'MD: Begin Wildfire Invictus MWD									
101.00	0.90	196.86	100.99	-0.93	0.01	-0.93	1.18	0.33	76.67
196.00	0.30	321.86	195.99	-1.44	-0.36	-1.44	1.16	-0.63	131.58
284.00	0.10	119.86	283.99	-1.30	-0.44	-1.30	0.45	-0.23	179.55
373.00	0.80	97.86	372.99	-1.43	0.24	-1.43	0.80	0.79	-24.72
453.00	0.30	326.86	452.98	-1.33	0.68	-1.33	1.28	-0.63	-163.75
547.00	0.60	81.86	546.98	-1.05	1.04	-1.06	0.83	0.32	122.34
644.00	0.60	97.86	643.98	-1.05	2.04	-1.07	0.17	0.00	16.49

Survey Report

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Site:	Trinity 22 State Com #2H	MD Reference:	GL 3796' + RBK 13' @ 3809.00ft (Norton 4)
Well:	Trinity 22 State Com #2H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
700.00	0.50	48.86	699.98	-0.93	2.52	-0.96	0.83	-0.18	-87.50
832.00	0.60	125.86	831.97	-0.95	3.51	-1.00	0.52	0.08	58.33
927.00	0.40	277.86	926.97	-1.20	3.58	-1.24	1.02	-0.21	160.00
1,021.00	0.40	280.86	1,020.97	-1.09	2.94	-1.13	0.02	0.00	3.19
1,116.00	0.60	182.86	1,115.96	-1.53	2.59	-1.56	0.81	0.21	-103.16
1,210.00	0.70	197.86	1,209.96	-2.57	2.39	-2.59	0.21	0.11	15.96
1,305.00	0.90	288.86	1,304.95	-2.88	1.50	-2.90	1.21	0.21	95.79
1,399.00	1.00	230.86	1,398.94	-3.16	0.17	-3.16	0.98	0.11	-61.70
1,492.00	0.40	173.86	1,491.94	-3.99	-0.43	-3.99	0.92	-0.65	-61.29
1,681.00	0.70	337.86	1,680.93	-3.58	-0.79	-3.57	0.58	0.16	86.77
1,777.00	0.60	320.86	1,776.93	-2.64	-1.33	-2.63	0.23	-0.10	-17.71
1,872.00	0.70	140.86	1,871.92	-2.71	-1.28	-2.69	1.37	0.11	189.47
1,966.00	0.70	171.86	1,965.92	-3.72	-0.83	-3.71	0.40	0.00	32.98
2,060.00	0.50	175.86	2,059.91	-4.70	-0.72	-4.69	0.22	-0.21	4.26
2,155.00	0.50	326.86	2,154.91	-4.77	-0.92	-4.75	1.02	0.00	158.95
2,248.00	0.50	107.86	2,247.91	-4.55	-0.76	-4.54	1.01	0.00	151.61
2248'MD: Final Survey Invictus MWD									
2,399.00	0.62	337.56	2,398.91	-4.00	-0.44	-3.99	0.67	0.08	-86.29
2399'MD: DrillTech MWD									
2,493.00	0.88	3.49	2,492.90	-2.81	-0.59	-2.80	0.45	0.28	27.59
2,588.00	1.06	1.47	2,587.88	-1.20	-0.52	-1.19	0.19	0.19	-2.13
2,682.00	1.32	0.50	2,681.86	0.75	-0.49	0.76	0.28	0.28	-1.03
2,776.00	1.32	12.63	2,775.84	2.89	-0.25	2.89	0.30	0.00	12.90
2,871.00	0.53	71.25	2,870.83	4.10	0.41	4.09	1.20	-0.83	61.71
2,965.00	1.14	78.11	2,964.82	4.43	1.74	4.41	0.66	0.65	7.30
3,059.00	0.88	120.91	3,058.80	4.25	3.27	4.21	0.83	-0.28	45.53
3,152.00	0.88	140.86	3,151.79	3.33	4.33	3.28	0.33	0.00	21.45
3,246.00	0.44	105.97	3,245.79	2.67	5.14	2.61	0.61	-0.47	-37.12
3,341.00	0.88	88.13	3,340.78	2.60	6.22	2.52	0.51	0.46	-18.78
3,435.00	0.09	140.16	3,434.78	2.56	6.99	2.48	0.88	-0.84	55.35
3,530.00	0.44	67.30	3,529.78	2.65	7.37	2.56	0.44	0.37	-76.69
3,624.00	0.35	266.46	3,623.77	2.77	7.42	2.68	0.83	-0.10	-171.11
3,718.00	0.88	247.47	3,717.77	2.47	6.46	2.39	0.60	0.56	-20.20
3,813.00	0.70	281.84	3,812.76	2.31	5.22	2.25	0.52	-0.19	36.18
3,907.00	0.97	282.80	3,906.75	2.61	3.88	2.56	0.29	0.29	1.02
4,001.00	1.06	278.06	4,000.74	2.91	2.25	2.88	0.13	0.10	-5.04
4,095.00	0.97	291.86	4,094.72	3.32	0.65	3.32	0.28	-0.10	14.68
4,189.00	0.70	289.31	4,188.71	3.81	-0.63	3.82	0.29	-0.29	-2.71
4,252.00	0.88	317.87	4,251.71	4.30	-1.32	4.31	0.68	0.29	45.33
4,283.00	0.79	312.69	4,282.70	4.62	-1.64	4.64	0.38	-0.29	-16.71
4,315.00	2.02	345.12	4,314.69	5.31	-1.94	5.34	4.43	3.84	101.34
4,346.00	2.81	359.62	4,345.66	6.60	-2.09	6.63	3.20	2.55	46.77
4,378.00	4.13	5.16	4,377.61	8.53	-1.99	8.56	4.25	4.13	17.31

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4,409.00	6.16	11.31	4,408.48	11.28	-1.56	11.29	6.78	6.55	19.84
4,440.00	8.09	10.08	4,439.24	15.05	-0.86	15.06	6.24	6.23	-3.97
4,471.00	10.11	9.38	4,469.85	19.89	-0.03	19.89	6.53	6.52	-2.26
4,502.00	12.66	8.67	4,500.23	25.93	0.92	25.92	8.24	8.23	-2.29
4,533.00	15.21	7.88	4,530.32	33.32	1.99	33.29	8.25	8.23	-2.55
4,565.00	17.50	6.12	4,561.02	42.26	3.08	42.22	7.32	7.16	-5.50
4,596.00	19.70	4.10	4,590.40	52.11	3.95	52.06	7.39	7.10	-6.52
4,628.00	22.16	2.52	4,620.29	63.52	4.60	63.46	7.89	7.69	-4.94
4,659.00	24.36	1.29	4,648.77	75.75	5.01	75.69	7.27	7.10	-3.97
4,691.00	27.08	1.38	4,677.59	89.64	5.33	89.56	8.50	8.50	0.28
4,722.00	28.58	1.20	4,705.01	104.10	5.65	104.03	4.85	4.84	-0.58
4,754.00	30.78	0.76	4,732.81	119.95	5.92	119.86	6.91	6.88	-1.38
4,785.00	33.33	0.67	4,759.08	136.40	6.13	136.31	8.23	8.23	-0.29
4,816.00	36.32	1.38	4,784.52	154.09	6.45	154.00	9.73	9.65	2.29
4,848.00	38.95	1.47	4,809.86	173.63	6.94	173.53	8.22	8.22	0.28
4,879.00	41.42	1.03	4,833.54	193.62	7.37	193.52	8.02	7.97	-1.42
4,910.00	43.88	359.88	4,856.34	214.62	7.53	214.51	8.32	7.94	-3.71
4,922.00	44.76	359.62	4,864.93	223.01	7.49	222.90	7.49	7.33	-2.17
4,944.00	44.58	358.74	4,880.57	238.47	7.27	238.36	2.93	-0.82	-4.00
4,973.00	44.05	358.92	4,901.32	258.73	6.86	258.62	1.88	-1.83	0.62
5,004.00	43.62	358.92	4,923.69	280.19	6.46	280.09	1.39	-1.39	0.00
5,035.00	43.00	359.18	4,946.24	301.45	6.10	301.36	2.08	-2.00	0.84
5,067.00	42.47	358.57	4,969.75	323.17	5.68	323.07	2.10	-1.66	-1.91
5,098.00	42.03	358.57	4,992.69	344.00	5.16	343.91	1.42	-1.42	0.00
5,130.00	41.68	358.65	5,016.53	365.35	4.64	365.26	1.11	-1.09	0.25
5,161.00	42.82	358.30	5,039.48	386.18	4.08	386.10	3.75	3.68	-1.13
5,192.00	46.52	357.51	5,061.52	407.96	3.28	407.89	12.07	11.94	-2.55
5,224.00	50.39	357.86	5,082.74	431.88	2.32	431.82	12.12	12.09	1.09
5,255.00	54.96	357.42	5,101.53	456.51	1.30	456.46	14.79	14.74	-1.42
5,286.00	58.65	358.04	5,118.50	482.42	0.27	482.38	12.02	11.90	2.00
5,317.00	62.52	358.65	5,133.72	509.41	-0.50	509.38	12.60	12.48	1.97
5,348.00	67.09	359.27	5,146.91	537.45	-1.01	537.42	14.85	14.74	2.00
5,380.00	70.61	359.97	5,158.46	567.29	-1.20	567.26	11.19	11.00	2.19
5,411.00	74.74	359.97	5,167.69	596.88	-1.22	596.85	13.32	13.32	0.00
5,414.23	75.24	359.89	5,168.52	600.00	-1.22	599.97	15.81	15.61	-2.59
5414'MD: Crossing SL Sec.22									
5,442.00	79.58	359.18	5,174.57	627.09	-1.45	627.06	15.81	15.61	-2.54
5,474.00	83.10	0.06	5,179.39	658.72	-1.65	658.69	11.33	11.00	2.75
5,503.00	86.79	359.80	5,181.95	687.60	-1.69	687.57	12.76	12.72	-0.90
5,534.00	89.43	359.44	5,182.97	718.58	-1.90	718.55	8.59	8.52	-1.16
5,566.00	91.36	358.83	5,182.75	750.58	-2.38	750.55	6.33	6.03	-1.91
5,597.00	92.15	359.27	5,181.80	781.56	-2.89	781.53	2.92	2.55	1.42
5,628.00	91.71	359.18	5,180.75	812.54	-3.31	812.51	1.45	-1.42	-0.29
5,691.00	90.84	358.30	5,179.35	875.50	-4.70	875.50	1.96	-1.38	-1.40

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 Design: Wellbore #1

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5,785.00	90.66	357.69	5,178.12	969.44	-7.99	969.46	0.68	-0.19	-0.65
5,879.00	90.22	358.04	5,177.40	1,063.37	-11.49	1,063.43	0.60	-0.47	0.37
5,973.00	90.92	358.04	5,176.47	1,157.31	-14.70	1,157.40	0.74	0.74	0.00
6,067.00	90.84	359.27	5,175.02	1,251.27	-16.91	1,251.38	1.31	-0.09	1.31
6,161.00	90.13	359.00	5,174.23	1,345.26	-18.33	1,345.38	0.81	-0.76	-0.29
6,254.00	90.84	359.53	5,173.44	1,438.24	-19.52	1,438.38	0.95	0.76	0.57
6,348.00	90.57	359.44	5,172.28	1,532.23	-20.36	1,532.37	0.30	-0.29	-0.10
6,440.00	90.13	359.44	5,171.72	1,624.23	-21.26	1,624.37	0.48	-0.48	0.00
6,532.00	89.34	359.88	5,172.15	1,716.22	-21.81	1,716.36	0.98	-0.86	0.48
6,624.00	89.87	0.32	5,172.78	1,808.22	-21.65	1,808.35	0.75	0.58	0.48
6,716.00	91.54	359.36	5,171.65	1,900.21	-21.91	1,900.33	2.09	1.82	-1.04
6,808.00	90.31	358.57	5,170.16	1,992.18	-23.57	1,992.32	1.59	-1.34	-0.86
6,899.00	89.96	358.83	5,169.95	2,083.16	-25.63	2,083.31	0.48	-0.38	0.29
6,990.00	91.80	359.00	5,168.55	2,174.12	-27.35	2,174.30	2.03	2.02	0.19
7,082.00	91.01	359.44	5,166.29	2,266.09	-28.61	2,266.27	0.98	-0.86	0.48
7,174.00	90.13	359.36	5,165.38	2,358.08	-29.57	2,358.26	0.96	-0.96	-0.09
7,267.00	88.81	359.62	5,166.24	2,451.07	-30.40	2,451.26	1.45	-1.42	0.28
7,361.00	90.04	359.88	5,167.18	2,545.06	-30.81	2,545.25	1.34	1.31	0.28
7,455.00	89.16	359.88	5,167.84	2,639.06	-31.00	2,639.24	0.94	-0.94	0.00
7,549.00	91.10	358.83	5,167.63	2,733.04	-32.06	2,733.23	2.35	2.06	-1.12
7,643.00	90.13	358.48	5,166.62	2,827.01	-34.27	2,827.22	1.10	-1.03	-0.37
7,738.00	90.48	359.27	5,166.11	2,921.99	-36.13	2,922.21	0.91	0.37	0.83
7,832.00	90.48	359.44	5,165.32	3,015.98	-37.19	3,016.21	0.18	0.00	0.18
7,927.00	89.78	359.88	5,165.11	3,110.98	-37.76	3,111.21	0.87	-0.74	0.46
8,020.00	90.75	359.36	5,164.68	3,203.97	-38.37	3,204.20	1.18	1.04	-0.56
8,115.00	90.13	359.09	5,163.95	3,298.96	-39.66	3,299.20	0.71	-0.65	-0.28
8,210.00	90.48	358.83	5,163.44	3,393.94	-41.38	3,394.20	0.46	0.37	-0.27
8,304.00	90.04	359.36	5,163.02	3,487.93	-42.87	3,488.19	0.73	-0.47	0.56
8,399.00	89.60	359.00	5,163.31	3,582.92	-44.23	3,583.19	0.60	-0.46	-0.38
8,494.00	91.01	359.71	5,162.81	3,677.91	-45.30	3,678.19	1.66	1.48	0.75
8,588.00	89.78	358.92	5,162.16	3,771.90	-46.42	3,772.18	1.56	-1.31	-0.84
8,682.00	89.60	358.65	5,162.67	3,865.88	-48.41	3,866.18	0.35	-0.19	-0.29
8,777.00	89.16	358.57	5,163.70	3,960.84	-50.72	3,961.17	0.47	-0.46	-0.08
8,870.00	89.25	359.62	5,164.99	4,053.82	-52.19	4,054.16	1.13	0.10	1.13
8,965.00	90.31	0.76	5,165.35	4,148.82	-51.87	4,149.14	1.64	1.12	1.20
9,060.00	91.10	1.03	5,164.18	4,243.80	-50.39	4,244.10	0.88	0.83	0.28
9,153.00	89.60	0.85	5,163.62	4,336.78	-48.86	4,337.05	1.62	-1.61	-0.19
9,248.00	91.19	0.32	5,162.96	4,431.77	-47.89	4,432.02	1.76	1.67	-0.56
9,343.00	91.54	358.65	5,160.70	4,526.74	-48.75	4,526.99	1.80	0.37	-1.76
9,438.00	90.66	358.04	5,158.87	4,621.68	-51.49	4,621.96	1.13	-0.93	-0.64
9,532.00	89.69	357.77	5,158.59	4,715.61	-54.92	4,715.93	1.07	-1.03	-0.29
9,626.00	90.84	359.00	5,158.15	4,809.57	-57.57	4,809.91	1.79	1.22	1.31
9,721.00	90.31	358.48	5,157.20	4,904.54	-59.66	4,904.90	0.78	-0.56	-0.55

Manzano, LLC

Lea County, NM (NAD 83)

Trinity 22 State Com #2H

Trinity 22 State Com #2H

Wellbore #1

Design: Wellbore #1

Survey Report - Geographic

01 October, 2019

Survey Report - Geographic

Company:	Manzano, LLC	Local Co-ordinate Reference:	Well Trinity 22 State Com #2H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GL 3796' + RBK 13' @ 3809.00ft (Norton 4)
Site:	Trinity 22 State Com #2H	MD Reference:	GL 3796' + RBK 13' @ 3809.00ft (Norton 4)
Well:	Trinity 22 State Com #2H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM

Project	Lea County, NM (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	Trinity 22 State Com #2H				
Site Position:		Northing:	822,721.80 usft	Latitude:	33° 15' 19.136 N
From:	Map	Easting:	924,047.10 usft	Longitude:	103° 4' 53.120 W
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	0.69 °

Well	Trinity 22 State Com #2H				
Well Position	+N/-S	0.00 ft	Northing:	822,721.80 usft	Latitude: 33° 15' 19.136 N
	+E/-W	0.00 ft	Easting:	924,047.10 usft	Longitude: 103° 4' 53.120 W
Position Uncertainty	0.00 ft	Wellhead Elevation:	ft	Ground Level:	3,796.00 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	9/20/2019	6.55	61.04	48,359.14074090

Design	Wellbore #1				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.00	0.00	0.00	359.29	

Survey Program	Date 10/1/2019				
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
71.00	2,248.00	Invictus Survey (Wellbore #1)	MWD	MWD - Standard	
2,399.00	10,630.00	Driltech MWD (Wellbore #1)	MWD	MWD - Standard	

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.00	0.00	0.00	0.00	0.00	0.00	822,721.80	924,047.10	33° 15' 19.136 N	103° 4' 53.120 W
71.00	0.80	173.86	71.00	-0.49	0.05	822,721.31	924,047.15	33° 15' 19.131 N	103° 4' 53.119 W
71'MD: Begin Wildfire Invictus MWD									
101.00	0.90	196.86	100.99	-0.93	0.01	822,720.87	924,047.11	33° 15' 19.127 N	103° 4' 53.120 W
196.00	0.30	321.86	195.99	-1.44	-0.36	822,720.35	924,046.74	33° 15' 19.122 N	103° 4' 53.124 W
284.00	0.10	119.86	283.99	-1.30	-0.44	822,720.50	924,046.66	33° 15' 19.123 N	103° 4' 53.125 W
373.00	0.80	97.86	372.99	-1.43	0.24	822,720.37	924,047.34	33° 15' 19.122 N	103° 4' 53.117 W
453.00	0.30	326.86	452.98	-1.33	0.68	822,720.47	924,047.78	33° 15' 19.123 N	103° 4' 53.112 W
547.00	0.60	81.86	546.98	-1.05	1.04	822,720.75	924,048.14	33° 15' 19.125 N	103° 4' 53.108 W
644.00	0.60	97.86	643.98	-1.05	2.04	822,720.75	924,049.14	33° 15' 19.125 N	103° 4' 53.096 W
700.00	0.50	48.86	699.98	-0.93	2.52	822,720.87	924,049.62	33° 15' 19.126 N	103° 4' 53.090 W

Survey Report - Geographic

Company: Manzano, LLC
 Project: Lea County, NM (NAD 83)
 Site: Trinity 22 State Com #2H
 Well: Trinity 22 State Com #2H
 Wellbore: Wellbore #1
 Design: Wellbore #1

Local Co-ordinate Reference: Well Trinity 22 State Com #2H
 TVD Reference: GL 3796' + RBK 13' @ 3809.00ft (Norton 4)
 MD Reference: GL 3796' + RBK 13' @ 3809.00ft (Norton 4)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Database: EDM

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
832.00	0.60	125.86	831.97	-0.95	3.51	822,720.84	924,050.61	33° 15' 19.126 N	103° 4' 53.079 W
927.00	0.40	277.86	926.97	-1.20	3.58	822,720.60	924,050.69	33° 15' 19.124 N	103° 4' 53.078 W
1,021.00	0.40	280.86	1,020.97	-1.09	2.94	822,720.71	924,050.04	33° 15' 19.125 N	103° 4' 53.085 W
1,116.00	0.60	182.86	1,115.96	-1.53	2.59	822,720.27	924,049.69	33° 15' 19.120 N	103° 4' 53.090 W
1,210.00	0.70	197.86	1,209.96	-2.57	2.39	822,719.23	924,049.49	33° 15' 19.110 N	103° 4' 53.092 W
1,305.00	0.90	288.86	1,304.95	-2.88	1.50	822,718.92	924,048.60	33° 15' 19.107 N	103° 4' 53.103 W
1,399.00	1.00	230.86	1,398.94	-3.16	0.17	822,718.64	924,047.27	33° 15' 19.105 N	103° 4' 53.118 W
1,492.00	0.40	173.86	1,491.94	-3.99	-0.43	822,717.81	924,046.67	33° 15' 19.096 N	103° 4' 53.125 W
1,681.00	0.70	337.86	1,680.93	-3.58	-0.79	822,718.22	924,046.31	33° 15' 19.101 N	103° 4' 53.130 W
1,777.00	0.60	320.86	1,776.93	-2.64	-1.33	822,719.15	924,045.77	33° 15' 19.110 N	103° 4' 53.136 W
1,872.00	0.70	140.86	1,871.92	-2.71	-1.28	822,719.09	924,045.82	33° 15' 19.109 N	103° 4' 53.135 W
1,966.00	0.70	171.86	1,965.92	-3.72	-0.83	822,718.08	924,046.27	33° 15' 19.099 N	103° 4' 53.130 W
2,060.00	0.50	175.86	2,059.91	-4.70	-0.72	822,717.10	924,046.38	33° 15' 19.089 N	103° 4' 53.129 W
2,155.00	0.50	326.86	2,154.91	-4.77	-0.92	822,717.03	924,046.18	33° 15' 19.089 N	103° 4' 53.131 W
2,248.00	0.50	107.86	2,247.91	-4.55	-0.76	822,717.25	924,046.35	33° 15' 19.091 N	103° 4' 53.129 W
2248' MD: Final Survey Invictus MWD									
2,399.00	0.62	337.56	2,398.91	-4.00	-0.44	822,717.80	924,046.66	33° 15' 19.096 N	103° 4' 53.126 W
2399' MD: DrilTech MWD									
2,493.00	0.88	3.49	2,492.90	-2.81	-0.59	822,718.99	924,046.51	33° 15' 19.108 N	103° 4' 53.127 W
2,588.00	1.06	1.47	2,587.88	-1.20	-0.52	822,720.60	924,046.58	33° 15' 19.124 N	103° 4' 53.126 W
2,682.00	1.32	0.50	2,681.86	0.75	-0.49	822,722.55	924,046.61	33° 15' 19.143 N	103° 4' 53.126 W
2,776.00	1.32	12.63	2,775.84	2.89	-0.25	822,724.69	924,046.86	33° 15' 19.165 N	103° 4' 53.122 W
2,871.00	0.53	71.25	2,870.83	4.10	0.41	822,725.90	924,047.51	33° 15' 19.176 N	103° 4' 53.114 W
2,965.00	1.14	78.11	2,964.82	4.43	1.74	822,726.23	924,048.84	33° 15' 19.180 N	103° 4' 53.099 W
3,059.00	0.88	120.91	3,058.80	4.25	3.27	822,726.05	924,050.37	33° 15' 19.178 N	103° 4' 53.081 W
3,152.00	0.88	140.86	3,151.79	3.33	4.33	822,725.13	924,051.43	33° 15' 19.168 N	103° 4' 53.068 W
3,246.00	0.44	105.97	3,245.79	2.67	5.14	822,724.47	924,052.24	33° 15' 19.162 N	103° 4' 53.059 W
3,341.00	0.88	88.13	3,340.78	2.60	6.22	822,724.40	924,053.32	33° 15' 19.161 N	103° 4' 53.046 W
3,435.00	0.09	140.16	3,434.78	2.56	6.99	822,724.36	924,054.09	33° 15' 19.160 N	103° 4' 53.037 W
3,530.00	0.44	67.30	3,529.78	2.65	7.37	822,724.45	924,054.47	33° 15' 19.161 N	103° 4' 53.033 W
3,624.00	0.35	266.46	3,623.77	2.77	7.42	822,724.57	924,054.52	33° 15' 19.162 N	103° 4' 53.032 W
3,718.00	0.88	247.47	3,717.77	2.47	6.46	822,724.27	924,053.56	33° 15' 19.160 N	103° 4' 53.043 W
3,813.00	0.70	281.84	3,812.76	2.31	5.22	822,724.11	924,052.32	33° 15' 19.158 N	103° 4' 53.058 W
3,907.00	0.97	282.80	3,906.75	2.61	3.88	822,724.41	924,050.98	33° 15' 19.161 N	103° 4' 53.074 W
4,001.00	1.06	278.06	4,000.74	2.91	2.25	822,724.70	924,049.35	33° 15' 19.164 N	103° 4' 53.093 W
4,095.00	0.97	291.86	4,094.72	3.32	0.65	822,725.12	924,047.75	33° 15' 19.169 N	103° 4' 53.112 W
4,189.00	0.70	289.31	4,188.71	3.81	-0.63	822,725.61	924,046.47	33° 15' 19.174 N	103° 4' 53.127 W
4,252.00	0.88	317.87	4,251.71	4.30	-1.32	822,726.10	924,045.78	33° 15' 19.179 N	103° 4' 53.135 W
4,283.00	0.79	312.69	4,282.70	4.62	-1.64	822,726.42	924,045.46	33° 15' 19.182 N	103° 4' 53.138 W
4,315.00	2.02	345.12	4,314.69	5.31	-1.94	822,727.11	924,045.16	33° 15' 19.189 N	103° 4' 53.142 W
4,346.00	2.81	359.62	4,345.66	6.60	-2.09	822,728.40	924,045.01	33° 15' 19.201 N	103° 4' 53.143 W
4,378.00	4.13	5.16	4,377.61	8.53	-1.99	822,730.33	924,045.11	33° 15' 19.221 N	103° 4' 53.142 W
4,409.00	6.16	11.31	4,408.48	11.28	-1.56	822,733.07	924,045.54	33° 15' 19.248 N	103° 4' 53.137 W
4,440.00	8.09	10.08	4,439.24	15.05	-0.86	822,736.85	924,046.24	33° 15' 19.285 N	103° 4' 53.128 W
4,471.00	10.11	9.38	4,469.85	19.89	-0.03	822,741.69	924,047.07	33° 15' 19.333 N	103° 4' 53.117 W
4,502.00	12.66	8.67	4,500.23	25.93	0.92	822,747.73	924,048.02	33° 15' 19.392 N	103° 4' 53.105 W
4,533.00	15.21	7.88	4,530.32	33.32	1.99	822,755.12	924,049.09	33° 15' 19.465 N	103° 4' 53.092 W
4,565.00	17.50	6.12	4,561.02	42.26	3.08	822,764.06	924,050.18	33° 15' 19.554 N	103° 4' 53.078 W
4,596.00	19.70	4.10	4,590.40	52.11	3.95	822,773.91	924,051.05	33° 15' 19.651 N	103° 4' 53.066 W
4,628.00	22.16	2.52	4,620.29	63.52	4.60	822,785.32	924,051.70	33° 15' 19.764 N	103° 4' 53.057 W
4,659.00	24.36	1.29	4,648.77	75.75	5.01	822,797.55	924,052.11	33° 15' 19.885 N	103° 4' 53.050 W
4,691.00	27.08	1.38	4,677.59	89.64	5.33	822,811.43	924,052.43	33° 15' 20.022 N	103° 4' 53.044 W
4,722.00	28.58	1.20	4,705.01	104.10	5.65	822,825.90	924,052.76	33° 15' 20.165 N	103° 4' 53.039 W
4,754.00	30.78	0.76	4,732.81	119.95	5.92	822,841.74	924,053.02	33° 15' 20.322 N	103° 4' 53.033 W
4,785.00	33.33	0.67	4,759.08	136.40	6.13	822,858.19	924,053.23	33° 15' 20.484 N	103° 4' 53.028 W

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Company: Manzano, LLC
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 Site: Trinity 22 State Com #2H
 Well: Trinity 22 State Com #2H
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 Design: Wellbore #1

Local Co-ordinate Reference: Well Trinity 22 State Com #2H
 TVD Reference: GL 3796' + RBK 13' @ 3809.00ft (Norton 4)
 MD Reference: GL 3796' + RBK 13' @ 3809.00ft (Norton 4)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Database: EDM

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
4,816.00	36.32	1.38	4,784.52	154.09	6.45	822,875.89	924,053.55	33° 15' 20.659 N	103° 4' 53.022 W
4,848.00	38.95	1.47	4,809.86	173.63	6.94	822,895.42	924,054.04	33° 15' 20.853 N	103° 4' 53.014 W
4,879.00	41.42	1.03	4,833.54	193.62	7.37	822,915.42	924,054.47	33° 15' 21.050 N	103° 4' 53.006 W
4,910.00	43.88	359.88	4,856.34	214.62	7.53	822,936.42	924,054.63	33° 15' 21.258 N	103° 4' 53.001 W
4,922.00	44.76	359.62	4,864.93	223.01	7.49	822,944.81	924,054.60	33° 15' 21.341 N	103° 4' 53.000 W
4,944.00	44.58	358.74	4,880.57	238.47	7.27	822,960.27	924,054.37	33° 15' 21.494 N	103° 4' 53.001 W
4,973.00	44.05	358.92	4,901.32	258.73	6.86	822,980.52	924,053.96	33° 15' 21.694 N	103° 4' 53.003 W
5,004.00	43.62	358.92	4,923.69	280.19	6.46	823,001.99	924,053.56	33° 15' 21.907 N	103° 4' 53.004 W
5,035.00	43.00	359.18	4,946.24	301.45	6.10	823,023.25	924,053.20	33° 15' 22.117 N	103° 4' 53.005 W
5,067.00	42.47	358.57	4,969.75	323.17	5.68	823,044.96	924,052.78	33° 15' 22.332 N	103° 4' 53.007 W
5,098.00	42.03	358.57	4,992.69	344.00	5.16	823,065.80	924,052.26	33° 15' 22.538 N	103° 4' 53.011 W
5,130.00	41.68	358.65	5,016.53	365.35	4.64	823,087.15	924,051.74	33° 15' 22.749 N	103° 4' 53.014 W
5,161.00	42.82	358.30	5,039.48	386.18	4.08	823,107.98	924,051.18	33° 15' 22.956 N	103° 4' 53.017 W
5,192.00	46.52	357.51	5,061.52	407.96	3.28	823,129.76	924,050.38	33° 15' 23.171 N	103° 4' 53.024 W
5,224.00	50.39	357.86	5,082.74	431.88	2.32	823,153.68	924,049.42	33° 15' 23.408 N	103° 4' 53.032 W
5,255.00	54.96	357.42	5,101.53	456.51	1.30	823,178.31	924,048.40	33° 15' 23.652 N	103° 4' 53.040 W
5,286.00	58.65	358.04	5,118.50	482.42	0.27	823,204.22	924,047.38	33° 15' 23.908 N	103° 4' 53.049 W
5,317.00	62.52	358.65	5,133.72	509.41	-0.50	823,231.21	924,046.60	33° 15' 24.175 N	103° 4' 53.054 W
5,348.00	67.09	359.27	5,146.91	537.45	-1.01	823,259.25	924,046.09	33° 15' 24.452 N	103° 4' 53.056 W
5,380.00	70.61	359.97	5,158.46	567.29	-1.20	823,289.09	924,045.90	33° 15' 24.748 N	103° 4' 53.054 W
5,411.00	74.74	359.97	5,167.69	596.88	-1.22	823,318.67	924,045.88	33° 15' 25.040 N	103° 4' 53.050 W
5,414.23	75.24	359.89	5,168.52	600.00	-1.22	823,321.79	924,045.88	33° 15' 25.071 N	103° 4' 53.050 W
5414' MD: Crossing SL Sec.22									
5,442.00	79.58	359.18	5,174.57	627.09	-1.45	823,348.89	924,045.65	33° 15' 25.339 N	103° 4' 53.048 W
5,474.00	83.10	0.06	5,179.39	658.72	-1.65	823,380.52	924,045.45	33° 15' 25.652 N	103° 4' 53.046 W
5,503.00	86.79	359.80	5,181.95	687.60	-1.69	823,409.40	924,045.41	33° 15' 25.938 N	103° 4' 53.043 W
5,534.00	89.43	359.44	5,182.97	718.58	-1.90	823,440.38	924,045.20	33° 15' 26.244 N	103° 4' 53.041 W
5,566.00	91.36	358.83	5,182.75	750.58	-2.38	823,472.37	924,044.72	33° 15' 26.561 N	103° 4' 53.042 W
5,597.00	92.15	359.27	5,181.80	781.56	-2.89	823,503.35	924,044.21	33° 15' 26.867 N	103° 4' 53.044 W
5,628.00	91.71	359.18	5,180.75	812.54	-3.31	823,534.33	924,043.79	33° 15' 27.174 N	103° 4' 53.044 W
5,691.00	90.84	358.30	5,179.35	875.50	-4.70	823,597.30	924,042.40	33° 15' 27.797 N	103° 4' 53.052 W
5,785.00	90.66	357.69	5,178.12	969.44	-7.99	823,691.23	924,039.12	33° 15' 28.727 N	103° 4' 53.077 W
5,879.00	90.22	358.04	5,177.40	1,063.37	-11.49	823,785.17	924,035.61	33° 15' 29.656 N	103° 4' 53.105 W
5,973.00	90.92	358.04	5,176.47	1,157.31	-14.70	823,879.11	924,032.40	33° 15' 30.586 N	103° 4' 53.130 W
6,067.00	90.84	359.27	5,175.02	1,251.27	-16.91	823,973.07	924,030.19	33° 15' 31.516 N	103° 4' 53.142 W
6,161.00	90.13	359.00	5,174.23	1,345.26	-18.33	824,067.05	924,028.77	33° 15' 32.445 N	103° 4' 53.146 W
6,254.00	90.84	359.53	5,173.44	1,438.24	-19.52	824,160.04	924,027.58	33° 15' 33.365 N	103° 4' 53.147 W
6,348.00	90.57	359.44	5,172.28	1,532.23	-20.36	824,254.03	924,026.74	33° 15' 34.295 N	103° 4' 53.143 W
6,440.00	90.13	359.44	5,171.72	1,624.23	-21.26	824,346.02	924,025.84	33° 15' 35.205 N	103° 4' 53.141 W
6,532.00	89.34	359.88	5,172.15	1,716.22	-21.81	824,438.02	924,025.29	33° 15' 36.115 N	103° 4' 53.134 W
6,624.00	89.87	0.32	5,172.78	1,808.22	-21.65	824,530.01	924,025.45	33° 15' 37.025 N	103° 4' 53.120 W
6,716.00	91.54	359.36	5,171.65	1,900.21	-21.91	824,622.00	924,025.19	33° 15' 37.935 N	103° 4' 53.110 W
6,808.00	90.31	358.57	5,170.16	1,992.18	-23.57	824,713.97	924,023.53	33° 15' 38.845 N	103° 4' 53.116 W
6,899.00	89.96	358.83	5,169.95	2,083.16	-25.63	824,804.95	924,021.47	33° 15' 39.746 N	103° 4' 53.128 W
6,990.00	91.80	359.00	5,168.55	2,174.12	-27.35	824,895.92	924,019.75	33° 15' 40.646 N	103° 4' 53.135 W
7,082.00	91.01	359.44	5,166.29	2,266.09	-28.61	824,987.88	924,018.49	33° 15' 41.556 N	103° 4' 53.137 W
7,174.00	90.13	359.36	5,165.38	2,358.08	-29.57	825,079.87	924,017.53	33° 15' 42.466 N	103° 4' 53.135 W
7,267.00	88.81	359.62	5,166.24	2,451.07	-30.40	825,172.86	924,016.70	33° 15' 43.386 N	103° 4' 53.132 W
7,361.00	90.04	359.88	5,167.18	2,545.06	-30.81	825,266.85	924,016.29	33° 15' 44.315 N	103° 4' 53.123 W
7,455.00	89.16	359.88	5,167.84	2,639.06	-31.00	825,360.85	924,016.10	33° 15' 45.245 N	103° 4' 53.112 W
7,549.00	91.10	358.83	5,167.63	2,733.04	-32.06	825,454.84	924,015.04	33° 15' 46.175 N	103° 4' 53.112 W
7,643.00	90.13	358.48	5,166.62	2,827.01	-34.27	825,548.80	924,012.83	33° 15' 47.105 N	103° 4' 53.124 W
7,738.00	90.48	359.27	5,166.11	2,921.99	-36.13	825,643.78	924,010.97	33° 15' 48.045 N	103° 4' 53.133 W
7,832.00	90.48	359.44	5,165.32	3,015.98	-37.19	825,737.77	924,009.91	33° 15' 48.975 N	103° 4' 53.132 W
7,927.00	89.78	359.88	5,165.11	3,110.98	-37.76	825,832.77	924,009.34	33° 15' 49.914 N	103° 4' 53.125 W

Survey Report - Geographic

Company: Manzano, LLC
Project: Lea County, NM (NAD 83)
Site: Trinity 22 State Com #2H
Well: Trinity 22 State Com #2H
Wellbore: Wellbore #1
Design: Wellbore #1

Local Co-ordinate Reference: Well Trinity 22 State Com #2H
TVD Reference: GL 3796' + RBK 13' @ 3809.00ft (Norton 4)
MD Reference: GL 3796' + RBK 13' @ 3809.00ft (Norton 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
8,020.00	90.75	359.36	5,164.68	3,203.97	-38.37	825,925.77	924,008.73	33° 15' 50.834 N	103° 4' 53.119 W
8,115.00	90.13	359.09	5,163.95	3,298.96	-39.66	826,020.75	924,007.44	33° 15' 51.774 N	103° 4' 53.121 W
8,210.00	90.48	358.83	5,163.44	3,393.94	-41.38	826,115.74	924,005.72	33° 15' 52.714 N	103° 4' 53.128 W
8,304.00	90.04	359.36	5,163.02	3,487.93	-42.87	826,209.72	924,004.23	33° 15' 53.644 N	103° 4' 53.132 W
8,399.00	89.60	359.00	5,163.31	3,582.92	-44.23	826,304.71	924,002.87	33° 15' 54.584 N	103° 4' 53.135 W
8,494.00	91.01	359.71	5,162.81	3,677.91	-45.30	826,399.70	924,001.80	33° 15' 55.523 N	103° 4' 53.134 W
8,588.00	89.78	358.92	5,162.16	3,771.90	-46.42	826,493.69	924,000.68	33° 15' 56.453 N	103° 4' 53.134 W
8,682.00	89.60	358.65	5,162.67	3,865.88	-48.41	826,587.67	923,998.69	33° 15' 57.383 N	103° 4' 53.144 W
8,777.00	89.16	358.57	5,163.70	3,960.84	-50.72	826,682.63	923,996.38	33° 15' 58.323 N	103° 4' 53.158 W
8,870.00	89.25	359.62	5,164.99	4,053.82	-52.19	826,775.61	923,994.91	33° 15' 59.243 N	103° 4' 53.162 W
8,965.00	90.31	0.76	5,165.35	4,148.82	-51.87	826,870.61	923,995.23	33° 16' 0.182 N	103° 4' 53.145 W
9,060.00	91.10	1.03	5,164.18	4,243.80	-50.39	826,965.59	923,996.71	33° 16' 1.122 N	103° 4' 53.114 W
9,153.00	89.60	0.85	5,163.62	4,336.78	-48.86	827,058.57	923,998.24	33° 16' 2.041 N	103° 4' 53.083 W
9,248.00	91.19	0.32	5,162.96	4,431.77	-47.89	827,153.56	923,999.21	33° 16' 2.981 N	103° 4' 53.058 W
9,343.00	91.54	358.65	5,160.70	4,526.74	-48.75	827,248.52	923,998.36	33° 16' 3.920 N	103° 4' 53.055 W
9,438.00	90.66	358.04	5,158.87	4,621.68	-51.49	827,343.47	923,995.61	33° 16' 4.860 N	103° 4' 53.074 W
9,532.00	89.69	357.77	5,158.59	4,715.61	-54.92	827,437.40	923,992.18	33° 16' 5.789 N	103° 4' 53.101 W
9,626.00	90.84	359.00	5,158.15	4,809.57	-57.57	827,531.36	923,989.53	33° 16' 6.719 N	103° 4' 53.119 W
9,721.00	90.31	358.48	5,157.20	4,904.54	-59.66	827,626.33	923,987.44	33° 16' 7.659 N	103° 4' 53.130 W
9,814.00	89.60	357.42	5,157.27	4,997.48	-62.99	827,719.27	923,984.11	33° 16' 8.579 N	103° 4' 53.156 W
9,909.00	89.78	357.60	5,157.79	5,092.39	-67.12	827,814.18	923,979.98	33° 16' 9.518 N	103° 4' 53.191 W
10,004.00	90.57	359.09	5,157.50	5,187.35	-69.86	827,909.13	923,977.24	33° 16' 10.458 N	103° 4' 53.210 W
10,099.00	89.60	359.09	5,157.35	5,282.33	-71.37	828,004.12	923,975.73	33° 16' 11.397 N	103° 4' 53.215 W
10,193.00	90.13	0.85	5,157.58	5,376.33	-71.42	828,098.12	923,975.68	33° 16' 12.327 N	103° 4' 53.202 W
10,287.00	91.10	359.80	5,156.57	5,470.32	-70.88	828,192.11	923,976.22	33° 16' 13.257 N	103° 4' 53.182 W
10,383.00	91.28	359.18	5,154.57	5,566.29	-71.74	828,288.08	923,975.36	33° 16' 14.206 N	103° 4' 53.179 W
10,478.00	90.84	359.00	5,152.82	5,661.27	-73.25	828,383.05	923,973.85	33° 16' 15.146 N	103° 4' 53.183 W
10,572.00	90.84	358.04	5,151.44	5,755.22	-75.68	828,477.01	923,971.43	33° 16' 16.076 N	103° 4' 53.199 W
10572'MD: Final DriTech MWD									
10,603.80	90.84	358.04	5,150.97	5,787.00	-76.76	828,508.79	923,970.34	33° 16' 16.390 N	103° 4' 53.207 W
10604'MD: Crossing 100' FNL									
10,630.00	90.84	358.04	5,150.59	5,813.18	-77.66	828,534.97	923,969.44	33° 16' 16.649 N	103° 4' 53.214 W
10630'MD: Projection to Total Depth									

Design Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
71.00	71.00	-0.49	0.05	71'MD: Begin Wildfire Invictus MWD
2,248.00	2,247.91	-4.55	-0.76	2248'MD: Final Survey Invictus MWD
2,399.00	2,398.91	-4.00	-0.44	2399'MD: DriTech MWD
5,414.23	5,168.52	600.00	-1.22	5414'MD: Crossing SL Sec.22
10,572.00	5,151.44	5,755.22	-75.68	10572'MD: Final DriTech MWD
10,603.80	5,150.97	5,787.00	-76.76	10604'MD: Crossing 100' FNL
10,630.00	5,150.59	5,813.18	-77.66	10630'MD: Projection to Total Depth

Checked By: _____ Approved By: _____ Date: _____

Survey Report

Company: Manzano, LLC
Project: Lea County, NM (NAD 83)
Site: Trinity 22 State Com #2H
Well: Trinity 22 State Com #2H
Wellbore: Wellbore #1
Design: Wellbore #1

Local Co-ordinate Reference: Well Trinity 22 State Com #2H
TVD Reference: GL 3796' + RBK 13' @ 3809.00ft (Norton 4)
MD Reference: GL 3796' + RBK 13' @ 3809.00ft (Norton 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
9,814.00	89.60	357.42	5,157.27	4,997.48	-62.99	4,997.88	1.37	-0.76	-1.14
9,909.00	89.78	357.60	5,157.79	5,092.39	-67.12	5,092.83	0.27	0.19	0.19
10,004.00	90.57	359.09	5,157.50	5,187.35	-69.86	5,187.81	1.78	0.83	1.57
10,099.00	89.60	359.09	5,157.35	5,282.33	-71.37	5,282.81	1.02	-1.02	0.00
10,193.00	90.13	0.85	5,157.58	5,376.33	-71.42	5,376.80	1.96	0.56	1.87
10,287.00	91.10	359.80	5,156.57	5,470.32	-70.88	5,470.78	1.52	1.03	-1.12
10,383.00	91.28	359.18	5,154.57	5,566.29	-71.74	5,566.76	0.67	0.19	-0.65
10,478.00	90.84	359.00	5,152.82	5,661.27	-73.25	5,661.74	0.50	-0.46	-0.19
10,572.00	90.84	358.04	5,151.44	5,755.22	-75.68	5,755.72	1.02	0.00	-1.02
10572'MD: Final DriTech MWD									
10,603.80	90.84	358.04	5,150.97	5,787.00	-76.76	5,787.51	0.00	0.00	0.00
10604'MD: Crossing 100' FNL									
10,630.00	90.84	358.04	5,150.59	5,813.18	-77.66	5,813.70	0.00	0.00	0.00
10630'MD: Projection to Total Depth									

Design Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
71.00	71.00	-0.49	0.05	71'MD: Begin Wildfire Invictus MWD
2,248.00	2,247.91	-4.55	-0.76	2248'MD: Final Survey Invictus MWD
2,399.00	2,398.91	-4.00	-0.44	2399'MD: DriTech MWD
5,414.23	5,168.52	600.00	-1.22	5414'MD: Crossing SL Sec.22
10,572.00	5,151.44	5,755.22	-75.68	10572'MD: Final DriTech MWD
10,603.80	5,150.97	5,787.00	-76.76	10604'MD: Crossing 100' FNL
10,630.00	5,150.59	5,813.18	-77.66	10630'MD: Projection to Total Depth

Checked By: _____ Approved By: _____ Date: _____

Manzano, LLC

DrilTech, LLC

Lea County, NM (NAD 83)
Trinity 22 State Com #2H
Wellbore #1
Plan #1
Norton 4



SURFACE LOCATION

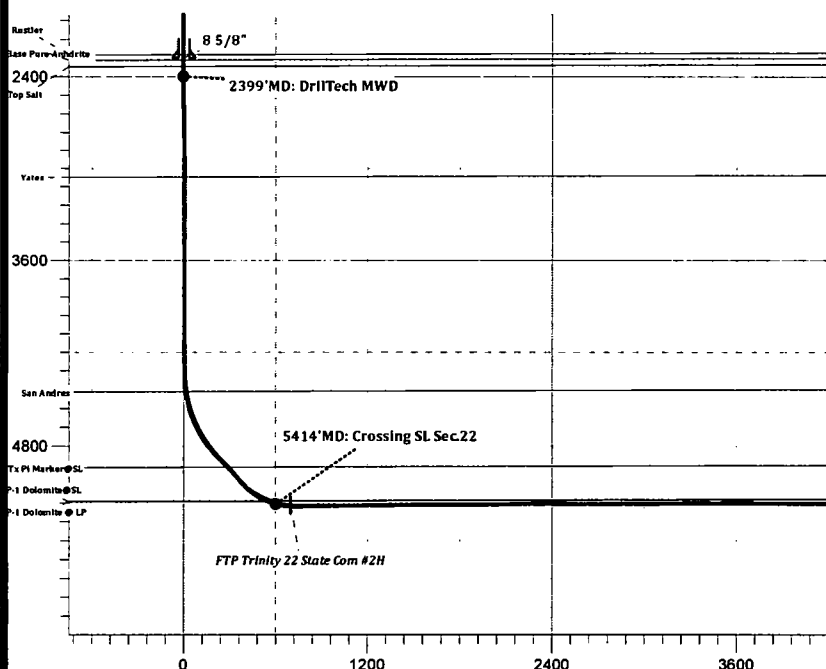
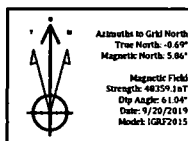
US State Plane 1983
New Mexico Eastern Zone
Elevation: GL 3796' + RBK 13' @ 3809.00ft (Norton 4)
Northing 822721.80 Easting 924047.10 Latitude 33° 15' 19.136 N Longitude 103° 4' 53.120 W

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4358.34	0.00	0.00	4358.34	0.00	0.00	0.00	0.00	0.00
4920.84	45.00	359.29	4864.76	209.75	-2.60	8.00	359.29	209.77
5120.84	45.00	359.29	5006.19	351.16	-4.35	0.00	0.00	351.19
5572.54	90.17	359.29	5174.00	757.98	-9.38	10.00	0.00	758.04
10600.78	90.17	359.29	5159.00	5785.81	-71.60	0.00	0.00	5786.25
10650.78	90.17	359.29	5158.85	5835.81	-72.22	0.00	0.00	5836.26

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting
SHL Trinity 22 State Com #2H	0.00	0.00	0.00	822721.80	924047.10
PBHL Trinity 22 State Com #2H	5158.85	5835.81	-72.20	828557.60	923974.90
LTP Trinity 22 State Com #2H	5159.00	5785.81	-71.60	828507.60	923975.50
FTP Trinity 22 State Com #2H	5174.00	699.90	-8.90	823421.70	924038.20



Vertical Section at 359.29° (1200 ft/in)

