

XTO James Ranch Unit DI 2 #191H MWD 0ft to 26150ft MD Final Survey Geodetic Report (Def Survey)



Report Date: August 21, 2018 - 10:13 AM
Client: XTO
Field: NM Eddy County (NAD 27)
Structure / Slot: XTO James Ranch Unit DI 2 #191H / XTO James Ranch Unit DI 2 #191H
Well: XTO James Ranch Unit DI 2 #191H
Borehole: Original Borehole
UWI / API#: Unknown / Unknown
Survey Name: XTO James Ranch Unit DI 2 #191H MWD 0ft to 26150ft MD
Survey Date: June 22, 2018
Tort / AHD / DDI / ERD Ratio: 325.852' / 15429.413 R / 7.071 / 1.381
Coordinate Reference System: NAD27 New Mexico State Plane, Eastern Zone, US Feet
Location Lat / Long: N 32° 21' 44.83447" W 103° 50' 9.97051"
Location Grid N/E Y/X: N 495932.700 ftUS, E 653530.200 ftUS
CRS Grid Convergence Angle: 0.2662°
Grid Scale Factor: 0.99993609
Version / Patch: 2.10.740.0

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 266.847° (Grid North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: RKB
TVD Reference Elevation: 3368.000 ft above MSL
Seabed / Ground Elevation: 3343.000 ft above MSL
Magnetic Declination: 7.044°
Total Gravity Field Strength: 998.4608mg (9 80665 Based)
Gravity Model: GARM
Total Magnetic Field Strength: 48088.004 nT
Magnetic Dip Angle: 60.141°
Declination Date: July 16, 2018
Magnetic Declination Model: HDGM 2018
North Reference: Grid North
Grid Convergence Used: 0.2662°
Total Corr Mag North->Grid North: 6.7773°

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MAY 23 2019

DISTRICT II-ARTESIA O.C.D.

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (ft/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
SHL	0.00	0.00	0.00	0.00	-3368.00	0.00	0.00	0.00	N/A	495932.70	653530.20	N 32° 21' 44.83	W 103° 50' 9.97
	200.00	1.20	187.00	199.99	-3168.01	0.37	-2.08	-0.26	0.60	495930.62	653529.94	N 32° 21' 44.81	W 103° 50' 9.97
	298.00	1.20	193.00	297.96	-3070.04	0.84	-4.10	-0.61	0.13	495928.50	653529.59	N 32° 21' 44.79	W 103° 50' 9.98
	386.00	0.40	231.00	385.96	-2982.04	1.34	-5.19	-1.06	1.04	495927.51	653529.14	N 32° 21' 44.78	W 103° 50' 9.98
	476.00	0.90	199.00	475.95	-2892.05	1.86	-6.05	-1.53	0.67	495926.65	653528.67	N 32° 21' 44.77	W 103° 50' 9.99
	563.00	0.40	156.00	562.94	-2805.06	2.01	-6.98	-1.63	0.77	495925.72	653528.57	N 32° 21' 44.77	W 103° 50' 9.99
	643.00	0.20	148.00	642.94	-2725.06	1.84	-7.35	-1.44	0.25	495925.35	653528.76	N 32° 21' 44.76	W 103° 50' 9.99
	739.00	0.45	226.23	738.94	-2629.06	2.05	-7.75	-1.63	0.47	495924.95	653528.57	N 32° 21' 44.76	W 103° 50' 9.99
	834.00	0.30	101.79	833.94	-2534.06	2.09	-8.06	-1.65	0.70	495924.64	653528.55	N 32° 21' 44.75	W 103° 50' 9.99
	929.00	0.78	72.70	928.94	-2439.06	1.23	-7.92	-0.79	0.57	495924.78	653529.41	N 32° 21' 44.76	W 103° 50' 9.98
	1022.00	0.91	68.28	1021.93	-2346.07	-0.09	-7.46	0.50	0.16	495925.24	653530.70	N 32° 21' 44.76	W 103° 50' 9.97
	1118.00	0.80	74.97	1115.92	-2252.08	-1.44	-7.01	1.83	0.16	495925.69	653532.03	N 32° 21' 44.76	W 103° 50' 9.95
	1210.00	0.76	81.34	1209.91	-2158.09	-2.70	-6.75	3.08	0.10	495925.95	653533.28	N 32° 21' 44.77	W 103° 50' 9.94
	1305.00	0.83	81.43	1304.90	-2063.10	-4.01	-6.55	4.38	0.07	495926.15	653534.58	N 32° 21' 44.77	W 103° 50' 9.92
	1399.00	1.02	82.74	1398.89	-1969.11	-5.52	-6.35	5.88	0.20	495926.36	653536.08	N 32° 21' 44.77	W 103° 50' 9.90
	1493.00	0.52	17.19	1492.89	-1875.12	-6.51	-5.83	6.84	0.99	495926.87	653537.04	N 32° 21' 44.78	W 103° 50' 9.89
	1587.00	0.70	355.73	1586.87	-1781.13	-6.84	-4.85	6.92	0.31	495927.65	653537.12	N 32° 21' 44.79	W 103° 50' 9.88
	1681.00	0.60	5.64	1680.87	-1687.13	-6.71	-3.79	6.93	0.16	495928.91	653537.13	N 32° 21' 44.80	W 103° 50' 9.89
	1776.00	0.56	358.94	1775.86	-1592.14	-6.80	-2.83	6.97	0.08	495929.87	653537.17	N 32° 21' 44.81	W 103° 50' 9.89
	1870.00	0.66	1.18	1869.86	-1498.14	-6.86	-1.83	6.97	0.11	495930.87	653537.17	N 32° 21' 44.82	W 103° 50' 9.89
	1964.00	0.63	2.96	1963.85	-1404.15	-6.96	-0.77	7.01	0.04	495931.93	653537.21	N 32° 21' 44.83	W 103° 50' 9.89
	2059.00	0.60	16.62	2058.85	-1309.15	-7.18	0.23	7.18	0.16	495932.93	653537.38	N 32° 21' 44.84	W 103° 50' 9.89
	2153.00	0.55	22.99	2152.84	-1215.16	-7.54	1.11	7.49	0.09	495933.81	653537.69	N 32° 21' 44.85	W 103° 50' 9.88
	2248.00	0.68	26.38	2247.83	-1120.17	-8.02	2.04	7.92	0.14	495934.74	653538.12	N 32° 21' 44.85	W 103° 50' 9.88
	2342.00	0.75	33.98	2341.83	-1026.17	-8.67	3.05	8.52	0.13	495935.75	653538.71	N 32° 21' 44.86	W 103° 50' 9.87
	2437.00	0.79	36.17	2436.82	-931.18	-9.46	4.09	9.25	0.05	495936.79	653539.45	N 32° 21' 44.87	W 103° 50' 9.86
	2531.00	0.80	33.59	2530.81	-837.19	-10.26	5.16	9.99	0.04	495937.86	653540.19	N 32° 21' 44.89	W 103° 50' 9.85
	2627.00	0.90	40.04	2626.80	-741.20	-11.18	6.30	10.85	0.14	495939.08	653541.05	N 32° 21' 44.90	W 103° 50' 9.84
	2721.00	0.99	44.67	2720.79	-647.21	-12.29	7.44	11.90	0.13	495940.14	653542.10	N 32° 21' 44.91	W 103° 50' 9.83
	2815.00	0.95	51.56	2814.77	-553.23	-13.53	8.50	13.08	0.13	495941.24	653543.27	N 32° 21' 44.92	W 103° 50' 9.82
	2910.00	1.01	52.52	2909.76	-458.24	-14.86	9.50	14.36	0.07	495942.20	653544.56	N 32° 21' 44.93	W 103° 50' 9.80
	3005.00	1.14	85.51	3004.74	-363.26	-16.50	10.08	15.97	0.56	495942.78	653546.16	N 32° 21' 44.93	W 103° 50' 9.78
	3098.00	1.57	114.46	3097.72	-270.28	-18.55	9.63	18.05	0.85	495943.23	653548.25	N 32° 21' 44.93	W 103° 50' 9.76
	3193.00	1.23	145.99	3192.69	-175.31	-20.23	8.25	19.80	0.87	495943.94	653550.00	N 32° 21' 44.92	W 103° 50' 9.74
	3288.00	0.83	210.72	3287.68	-80.32	-20.37	6.81	20.02	1.21	495939.51	653550.22	N 32° 21' 44.90	W 103° 50' 9.74
	3382.00	1.14	197.10	3381.66	13.66	-19.66	5.33	19.40	0.41	495938.03	653549.80	N 32° 21' 44.89	W 103° 50' 9.74
	3477.00	1.37	177.79	3476.64	108.64	-19.32	3.29	19.16	0.50	495935.99	653549.36	N 32° 21' 44.87	W 103° 50' 9.75
	3571.00	1.30	183.78	3570.62	202.62	-19.17	1.10	19.14	0.17	495933.80	653549.34	N 32° 21' 44.84	W 103° 50' 9.75
	3666.00	0.69	249.80	3665.60	297.60	-18.49	-0.17	18.53	1.28	495932.53	653548.73	N 32° 21' 44.83	W 103° 50' 9.75
	3760.00	0.99	310.56	3759.60	391.60	-17.36	0.18	17.38	0.94	495932.86	653547.58	N 32° 21' 44.84	W 103° 50' 9.77
	3855.00	1.20	312.04	3854.58	486.58	-16.07	1.36	16.02	0.22	495934.06	653546.22	N 32° 21' 44.85	W 103° 50' 9.78
	3950.00	1.01	309.51	3949.56	581.56	-14.75	2.56	14.63	0.21	495935.26	653544.83	N 32° 21' 44.86	W 103° 50' 9.80
	4046.00	0.90	305.87	4045.55	677.55	-13.55	3.77	13.50	0.13	495936.24	653543.57	N 32° 21' 44.87	W 103° 50' 9.81
	4140.00	0.96	310.14	4139.54	771.54	-12.40	4.48	12.77	0.10	495937.18	653542.37	N 32° 21' 44.88	W 103° 50' 9.83
	4234.00	0.93	309.65	4233.52	865.52	-11.27	5.48	10.98	0.03	495938.18	653541.18	N 32° 21' 44.89	W 103° 50' 9.84
	4329.00	0.93	315.69	4328.51	960.51	-10.19	6.52	9.85	0.10	495939.22	653540.05	N 32° 21' 44.90	W 103° 50' 9.86
	4425.00	0.97	317.74	4424.50	1056.50	-9.17	7.68	8.76	0.05	495940.38	653538.96	N 32° 21' 44.91	W 103° 50' 9.87
	4519.00	0.88	322.29	4518.48	1150.48	-8.26	8.84	7.78	0.12	495941.54	653537.98	N 32° 21' 44.92	W 103° 50' 9.88
	4614.00	0.85	327.04	4613.47	1245.47	-7.49	10.01	6.95	0.08	495942.71	653537.15	N 32° 21' 44.93	W 103° 50' 9.89
	4708.00	0.83	323.24	4707.46	1339.46	-6.77	11.14	6.17	0.06	495943.84	653536.36	N 32° 21' 44.94	W 103° 50' 9.90
	4803.00	0.80	318.38	4802.45	1434.45	-5.98	12.19	5.31	0.08	495944.88	653535.51	N 32° 21' 44.95	W 103° 50' 9.91
	4897.00	0.28	306.90	4896.45	1528.45	-5.39	12.81	4.89	0.56	495945.51	653534.89	N 32° 21' 44.96	W 103° 50' 9.92
	4992.00	0.08	319.76	4991.45	1623.45	-5.17	13.00	4.46	0.21	495945.70	653534.66	N 32° 21' 44.96	W 103° 50' 9.92
	5087.00	0.08	317.90	5086.45	1718.45	-5.09	13.10	4.38	0.00	495945.80	653534.58	N 32° 21' 44.96	W 103° 50' 9.92
	5182.00	0.13	343.73	5181.45	1813.45	-5.03	13.26	4.30	0.07	495945.96	653534.50	N 32° 21' 44.97	W 103° 50' 9.92
	5276.00	0.16	279.70	5275.45	1907.45	-4.87	13.38	4.14	0.17	495946.08	653534.34	N 32° 21' 44.97	W 103° 50' 9.92
	5371.00	0.28	291.67	5370.45	2002.45	-4.53	13.49	3.80	0.13	495946.19	653534.00	N 32° 21' 44.97	W 103° 50' 9.93
	5466.00	0.29	292.96	5465.45	2097.45	-4.11	13.67	3.36	0.01	495946.37	653533.56	N 32° 21' 44.97	W 103° 50' 9.93
	5561.00	0.28	292.67	5560.45	2192.45	-3.68	13.85	2.92	0.01	495946.55	653533.12	N 32° 21' 44.97	W 103° 50' 9.94
	5655.00	0.22	290.33	5654.44	2288.44	-3.31	14.00	2.54	0.06	495946.70	653532.74	N 32° 21' 44.97	W 103° 50' 9.94
	5750.00	0.23	287.13	5749.44	2381.44	-2.96	14.12	2.19	0.02	495946.82	653532.38	N 32° 21' 44.97	W 103° 50' 9.94
	5844.00	0.25	278.03	5843.44	2475.44	-2.59	14.21	1.81	0.05	495946.91	653532.01	N 32° 21' 44.97	W 103° 50' 9.95
	5939.00	0.23	265.93	5938.44	2570.44	-2.19	14.22	1.41	0.06	495946.92	653531.61	N 32° 21' 44.98	W 103° 50' 9.95
	6033.00	0.20	254.84	6032.44	2664.44	-1.84	14.17	1.06	0.07	495946.86	653531.26	N 32° 21' 44.97	W 103° 50' 9.96
	6128.00	0.24	268.99	6127.44	2759.44	-1.49	14.12	0.61	0.06	495946.82	653530.91	N 32° 21' 44.97	W 103° 50' 9.96
	6223.00	0.56	250.47	6222.44	2854.44	-0.84	13.96	0.07	0.36	495946.66	653530.27	N 32° 21' 44.97	W 103° 50'

Comments	MD (ft)	Incl (°)	Azim (°)	Grid (ft)	TVD (ft)	TVDSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (ft/100ft)	Northing (ft)	Easting (ft)	Latitude (N/S ° ' '')	Longitude (E/W ° ' '')
	8115.00	1.39	228.55	8114.26	4746.26	7.17	-9.02	-6.69	0.29	495923.68	653523.68	32 21 44.73	W 103 50 10.05	
	8209.00	1.93	244.97	8208.22	4840.22	9.51	-10.48	-8.95	0.80	495922.22	653521.25	32 21 44.73	W 103 50 10.08	
	8304.00	1.93	265.36	8303.16	4935.16	12.60	-11.28	-11.99	0.72	495921.42	653518.21	32 21 44.72	W 103 50 10.11	
	8398.00	1.61	267.90	8397.12	5029.12	15.50	-11.46	-14.89	0.35	495921.24	653515.31	32 21 44.72	W 103 50 10.14	
	8447.00	1.63	258.92	8446.10	5078.10	16.88	-11.62	-16.25	0.52	495921.08	653513.94	32 21 44.72	W 103 50 10.15	
	8527.00	1.03	78.79	8526.08	5258.08	17.81	-11.82	-17.18	1.48	495920.88	653513.02	32 21 44.72	W 103 50 10.17	
	8721.00	1.74	81.41	8720.05	5352.05	15.55	-11.46	-14.94	0.76	495921.24	653515.26	32 21 44.72	W 103 50 10.15	
	8816.00	1.91	83.64	8815.00	5447.00	12.53	-11.07	-11.94	0.19	495921.63	653516.26	32 21 44.73	W 103 50 10.11	
	8910.00	1.86	90.22	8908.95	5540.95	9.44	-10.90	-8.86	0.24	495921.80	653521.34	32 21 44.73	W 103 50 10.07	
	9005.00	2.07	67.42	9003.90	5635.90	6.29	-10.25	-5.73	0.85	495922.45	653524.47	32 21 44.73	W 103 50 10.04	
	9099.00	1.88	74.84	9097.84	5729.84	3.18	-9.19	-2.68	0.34	495923.51	653527.52	32 21 44.74	W 103 50 10.00	
	9194.00	2.33	74.78	9192.78	5824.78	-0.23	-8.28	0.69	0.47	495924.42	653530.89	32 21 44.75	W 103 50 9.96	
	9288.00	2.40	80.10	9286.70	5918.70	-4.06	-7.44	4.47	0.25	495925.26	653534.67	32 21 44.76	W 103 50 9.92	
	9384.00	1.87	59.02	9382.63	6014.63	-7.44	-6.29	7.80	0.98	495926.41	653538.00	32 21 44.77	W 103 50 9.88	
	9478.00	0.91	60.20	9476.60	6108.60	-9.46	-5.13	9.76	1.02	495927.57	653539.96	32 21 44.78	W 103 50 9.86	
	9573.00	0.90	92.61	9571.59	6203.59	-10.88	-4.79	11.16	0.53	495927.91	653541.36	32 21 44.79	W 103 50 9.84	
	9668.00	1.03	93.22	9666.58	6298.58	-12.47	-4.87	12.76	0.14	495928.73	653542.96	32 21 44.79	W 103 50 9.82	
	9762.00	1.67	71.39	9760.55	6392.55	-14.63	-4.48	14.90	0.86	495929.22	653545.10	32 21 44.79	W 103 50 9.80	
	9857.00	0.62	91.26	9855.53	6487.53	-16.48	-4.05	16.72	1.17	495929.65	653548.92	32 21 44.79	W 103 50 9.78	
	9951.00	0.73	134.39	9949.53	6581.53	-17.39	-4.48	17.66	0.54	495929.22	653547.86	32 21 44.79	W 103 50 9.76	
	10046.00	0.83	233.67	10044.52	6676.52	-17.22	-5.31	17.54	1.25	495927.39	653547.74	32 21 44.78	W 103 50 9.77	
	10140.00	1.08	219.12	10138.51	6770.51	-16.05	-6.40	16.43	0.37	495926.30	653546.63	32 21 44.77	W 103 50 9.78	
	10235.00	1.20	199.57	10233.49	6865.49	-15.07	-8.03	15.43	0.43	495924.67	653545.73	32 21 44.75	W 103 50 9.79	
	10257.00	1.32	200.46	10255.49	6887.49	-14.88	-8.49	15.37	0.55	495924.21	653545.57	32 21 44.75	W 103 50 9.79	
	10320.00	2.01	197.37	10318.46	6950.46	-14.20	-10.22	14.78	1.10	495922.48	653544.98	32 21 44.73	W 103 50 9.80	
	10351.00	3.64	207.42	10349.42	6981.42	-13.51	-11.61	14.17	5.48	495921.09	653544.37	32 21 44.72	W 103 50 9.81	
	10383.00	5.72	212.46	10381.31	7013.31	-12.06	-13.86	12.84	6.62	495918.84	653543.04	32 21 44.70	W 103 50 9.82	
	10414.00	8.07	218.56	10412.09	7044.09	-9.72	-16.87	10.66	7.93	495915.84	653540.86	32 21 44.67	W 103 50 9.85	
	10445.00	9.52	222.97	10442.72	7074.72	-6.42	-20.44	7.56	5.16	495912.26	653537.75	32 21 44.63	W 103 50 9.88	
	10478.00	10.14	228.55	10475.44	7104.44	-2.24	-24.24	3.58	2.61	495908.26	653533.79	32 21 44.59	W 103 50 10.93	
	10509.00	10.24	228.54	10506.75	7137.75	2.00	-28.14	-4.45	1.22	495906.16	653530.65	32 21 44.58	W 103 50 9.98	
	10540.00	10.21	228.61	10536.26	7168.26	6.32	-31.79	-4.58	0.10	495900.92	653525.62	32 21 44.52	W 103 50 10.03	
	10572.00	11.53	227.76	10567.68	7199.68	11.03	-35.81	-9.08	4.16	495896.89	653521.12	32 21 44.48	W 103 50 10.08	
	10603.00	13.12	227.50	10597.97	7229.97	16.16	-40.27	-13.96	5.13	495892.43	653516.24	32 21 44.44	W 103 50 10.14	
	10635.00	14.26	231.18	10629.06	7261.06	22.17	-45.20	-19.71	4.48	495887.51	653510.49	32 21 44.39	W 103 50 10.20	
	10666.00	16.07	230.22	10658.98	7290.98	28.71	-50.33	-25.99	5.89	495882.37	653504.22	32 21 44.34	W 103 50 10.28	
	10698.00	17.29	231.70	10689.63	7321.63	36.16	-56.12	-33.12	4.04	495876.59	653497.08	32 21 44.28	W 103 50 10.36	
	10729.00	18.96	234.99	10719.09	7351.09	44.20	-61.86	-40.86	6.32	495870.84	653489.34	32 21 44.22	W 103 50 10.45	
	10760.00	20.02	230.44	10748.32	7380.32	52.75	-68.13	-49.08	5.97	495864.57	653481.12	32 21 44.16	W 103 50 10.55	
	10790.00	20.10	230.30	10776.50	7408.50	61.03	-74.69	-57.00	0.31	495858.01	653473.20	32 21 44.10	W 103 50 10.64	
	10821.00	21.46	230.27	10805.48	7437.48	69.86	-81.72	-65.46	4.39	495850.98	653464.74	32 21 44.03	W 103 50 10.74	
	10853.00	25.10	231.28	10834.87	7466.87	80.09	-89.71	-75.26	11.44	495843.00	653454.94	32 21 43.95	W 103 50 10.85	
	10884.00	28.93	232.98	10864.48	7496.48	90.36	-98.44	-86.39	12.60	495834.37	653443.82	32 21 43.87	W 103 50 10.98	
	10916.00	32.10	234.51	10890.05	7522.05	105.28	-107.94	-99.49	10.20	495824.77	653430.72	32 21 43.77	W 103 50 11.14	
	10948.00	34.51	235.97	10916.79	7548.79	120.24	-117.95	-113.93	7.94	495814.76	653416.28	32 21 43.67	W 103 50 11.31	
	10979.00	36.89	237.31	10941.96	7573.96	135.88	-127.89	-129.04	8.08	495804.82	653401.17	32 21 43.57	W 103 50 11.48	
	11010.00	39.93	237.86	10966.25	7598.25	152.68	-138.21	-145.30	9.87	495794.50	653384.91	32 21 43.47	W 103 50 11.67	
	11042.00	42.33	238.57	10990.35	7622.35	171.24	-149.13	-163.29	8.28	495783.58	653366.92	32 21 43.37	W 103 50 11.88	
	11074.00	45.14	240.62	11013.47	7646.47	191.00	-160.16	-182.46	9.07	495772.55	653347.75	32 21 43.26	W 103 50 12.11	
	11105.00	48.17	242.15	11034.75	7666.75	211.35	-170.95	-202.26	10.41	495761.76	653327.96	32 21 43.15	W 103 50 12.34	
	11137.00	50.91	243.81	11055.51	7687.51	233.62	-182.00	-223.94	9.43	495750.71	653306.27	32 21 43.04	W 103 50 12.59	
	11168.00	54.15	244.00	11074.37	7706.37	256.27	-192.82	-246.04	10.46	495739.89	653284.18	32 21 42.94	W 103 50 12.85	
	11199.00	57.42	244.07	11091.80	7723.80	279.90	-204.04	-269.08	10.55	495728.67	653261.14	32 21 42.83	W 103 50 13.12	
	11231.00	61.58	244.08	11108.03	7740.03	305.32	-218.09	-293.87	13.00	495716.62	653236.34	32 21 42.71	W 103 50 13.41	
	11262.00	64.29	244.11	11122.14	7754.14	330.83	-228.02	-318.77	8.93	495704.70	653211.45	32 21 42.59	W 103 50 13.70	
	11293.00	66.82	244.59	11134.97	7767.97	356.95	-240.10	-344.27	8.17	495692.81	653186.55	32 21 42.47	W 103 50 14.00	
	11325.00	70.72	244.99	11146.55	7778.55	384.60	-252.80	-371.25	12.24	495679.91	653158.97	32 21 42.35	W 103 50 14.31	
	11357.00	74.89	245.12	11156.01	7788.01	412.97	-265.69	-398.96	13.04	495667.02	653131.26	32 21 42.22	W 103 50 14.64	
	11388.00	78.86	245.17	11163.05	7795.05	441.02	-278.38	-428.35	12.81	495654.34	653103.88	32 21 42.10	W 103 50 14.96	
	11420.00	83.29	245.69	11168.01	7800.01	470.44	-291.52	-455.09	13.94	495641.20	653075.14	32 21 41.97	W 103 50 15.29	
	11451.00	87.51	245.46	11170.50	7802.50	499.23	-304.29	-483.22	13.63	495628.43	653047.01	32 21 41.85	W 103 50 15.62	
	11483.00	90.54	244.60	11171.04	7803.04	528.93	-317.80	-512.22	9.84	495614.92	653018.01	32 21 41.71	W 103 50 15.96	
	11514.00	90.88	244.38	11170.66	7802.66	557.60	-331.15	-540.20	1.31	495601.57	652990.04	32 21 41.58	W 103 50 16.29	
	11546.00	91.72	243.94	11169.20	7801.20	586.93	-359.04	-597.79	1.48	495573.69	652932.45	32 21 41.31	W 103 50 16.96	
	11578.00	92.89	242.24	11165.38	7797.38	703.51	-402.00	-682.43	2.17	495530.73	652847.82	32 21 41.09	W 103 50 17.95	
	11610.00	90.93	242.64	11162.25	7794.25	789.05	-445.46	-765.71	2.13	495487.27	652784.54	32 21 40.86	W 103 50 18.92	
	11642.00	90.99	242.41	11160.66	7792.66	875.61	-489.28	-849.98	0.25	495444.45	652680.27	32 21 40.53	W 103 50 19.91	
	11674.00	90.38	241.11	11156.52	7781.52	961.64	-534.23	-934.67	1.51	495396.51	652586.60	32 21 39.59	W 103 50 20.98	
	12051.00	90.72	243.46	11158.62	7790.62	1047.12	-577.94	-1016.87	2.53	495354.80	652513.40	32 21 39.37	W 103 50 21.86	
	12146.00	90.54	245.49	11157.58	7789.58	1134.96	-618.87	-1102.59	2.15	495313.87	652427.68	32 21 38.76	W 103 50 22.86	
	12241.00	90.88	248.43	11156.40	7788.40	1224.28	-655.05	-1190.00	3.12	495276.70	652340.28	32 21 38.40	W 103 50 23.88	
	12335.00	91.10	251.77	11154.77	7786.77	1314.27	-688.03	-1278.36	3.56	495244.71	652251.93	32 21 38.08	W 103 5	

Comments	MD (ft)	Incl (°)	Azim (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (ft/100ft)	Northing (ft)	Easting (ft)	Latitude (N/S ° ' '')	Longitude (E/W ° ' '')
	16527.00	91.01	270.06	11045.43	7677.43	5486.53	-810.63	-5450.19	1.82	495122.12	648080.37	N 32 21 37.06	W 103 51 13.55
	16622.00	92.08	271.59	11042.87	7674.87	5481.26	-809.26	-5545.14	1.96	495123.49	647985.42	N 32 21 37.08	W 103 51 14.66
	16717.00	92.02	271.03	11039.47	7671.47	5475.91	-807.09	-5640.05	0.59	495125.66	647890.52	N 32 21 37.10	W 103 51 15.76
	16811.00	91.23	271.07	11036.81	7668.81	5469.62	-805.37	-5734.00	0.94	495127.38	647795.58	N 32 21 37.12	W 103 51 16.86
	16893.00	89.38	270.27	11036.37	7668.37	5461.43	-804.41	-5815.99	2.46	495128.34	647714.59	N 32 21 37.14	W 103 51 17.92
	16899.00	88.88	270.43	11037.83	7669.83	5467.24	-803.83	-5911.98	0.55	495128.93	647618.61	N 32 21 37.15	W 103 51 18.93
	17083.00	89.33	270.90	11039.30	7671.30	5461.02	-802.74	-6005.96	0.69	495130.02	647524.54	N 32 21 37.16	W 103 51 20.03
	17177.00	90.11	270.96	11038.76	7671.76	5454.78	-801.21	-6099.94	0.83	495131.54	647430.66	N 32 21 37.18	W 103 51 21.13
	17272.00	88.99	269.48	11040.50	7672.50	5429.61	-800.85	-6194.94	1.95	495131.91	647335.67	N 32 21 37.19	W 103 51 22.23
	17366.00	89.44	269.05	11041.79	7673.79	5423.52	-802.05	-6288.92	0.66	495130.70	647241.70	N 32 21 37.18	W 103 51 23.33
	17461.00	88.38	269.66	11043.60	7675.60	5418.41	-803.12	-6383.89	1.29	495129.63	647146.73	N 32 21 37.17	W 103 51 24.44
	17554.00	88.04	270.16	11046.50	7678.50	5411.23	-803.27	-6476.85	0.65	495129.49	647053.78	N 32 21 37.18	W 103 51 25.52
	17649.00	88.21	270.20	11049.61	7681.61	5406.02	-802.97	-6571.80	0.18	495129.78	646958.84	N 32 21 37.18	W 103 51 26.63
	17743.00	88.26	269.44	11052.51	7684.51	5400.84	-803.26	-6665.75	0.81	495129.49	646864.89	N 32 21 37.19	W 103 51 27.72
	17838.00	89.44	268.67	11054.41	7686.41	5394.75	-804.83	-6760.72	1.48	495127.92	646769.93	N 32 21 37.17	W 103 51 28.83
	17932.00	90.90	268.80	11054.14	7686.14	5388.60	-806.90	-6854.69	1.56	495125.85	646675.96	N 32 21 37.16	W 103 51 29.92
	18027.00	89.78	268.11	11053.57	7685.57	5383.45	-809.47	-6949.65	1.38	495123.29	646581.01	N 32 21 37.14	W 103 51 31.03
	18121.00	91.46	268.81	11052.55	7684.55	5377.61	-811.99	-7043.61	1.94	495120.76	646487.06	N 32 21 37.12	W 103 51 32.13
	18216.00	91.34	267.53	11050.23	7682.23	5372.55	-815.03	-7138.53	1.35	495117.73	646392.14	N 32 21 37.09	W 103 51 33.23
	18311.00	92.13	268.21	11047.36	7679.36	5367.49	-818.55	-7233.42	1.10	495114.20	646297.26	N 32 21 37.06	W 103 51 34.34
	18405.00	92.97	268.82	11043.17	7675.17	5363.36	-820.99	-7327.29	1.10	495111.77	646203.39	N 32 21 37.04	W 103 51 35.43
	18500.00	93.36	269.41	11037.93	7669.93	5356.14	-822.45	-7422.14	0.74	495110.30	646108.55	N 32 21 37.03	W 103 51 36.54
	18595.00	93.59	268.99	11032.17	7664.17	5350.89	-823.78	-7516.95	0.50	495108.98	646013.74	N 32 21 37.02	W 103 51 37.65
	18692.00	92.52	267.32	11027.00	7659.00	5344.72	-826.90	-7613.76	2.04	495105.86	645918.94	N 32 21 36.99	W 103 51 38.77
	18786.00	92.80	268.09	11022.64	7654.64	5339.41	-830.66	-7707.58	0.87	495102.10	645823.13	N 32 21 36.96	W 103 51 39.87
	18881.00	93.03	268.50	11017.81	7649.81	5334.15	-833.48	-7802.42	0.49	495099.28	645728.30	N 32 21 36.94	W 103 51 40.97
	18976.00	90.00	270.54	11015.30	7647.30	5330.30	-834.27	-7897.36	0.84	495098.48	645633.36	N 32 21 36.93	W 103 51 42.08
	19071.00	90.45	270.50	11014.92	7646.92	5326.10	-833.41	-7992.36	0.48	495099.34	645538.37	N 32 21 36.95	W 103 51 43.19
	19166.00	89.78	270.39	11014.73	7646.73	5321.91	-832.67	-8087.36	0.71	495100.08	645443.38	N 32 21 36.96	W 103 51 44.30
	19260.00	89.04	269.57	11014.52	7646.52	5317.75	-832.16	-8182.33	2.05	495100.55	645348.40	N 32 21 36.95	W 103 51 45.39
	19355.00	88.37	271.46	11019.50	7651.50	5313.59	-831.85	-8276.28	2.02	495100.90	645254.47	N 32 21 36.97	W 103 51 46.50
	19449.00	90.22	272.71	11020.65	7652.65	5309.43	-828.43	-8370.20	2.38	495104.32	645160.55	N 32 21 37.01	W 103 51 47.59
	19545.00	89.66	272.67	11020.75	7652.75	5305.28	-823.93	-8466.10	0.58	495108.83	645066.66	N 32 21 37.06	W 103 51 48.71
	19639.00	88.65	272.20	11022.14	7654.14	5301.14	-819.93	-8560.00	1.19	495112.82	644970.76	N 32 21 37.10	W 103 51 49.81
	19733.00	88.49	271.90	11024.49	7656.49	5297.00	-816.57	-8653.91	0.36	495116.18	644876.86	N 32 21 37.14	W 103 51 50.90
	19827.00	87.87	270.00	11027.47	7659.47	5292.87	-815.01	-8747.85	2.13	495117.74	644782.93	N 32 21 37.16	W 103 51 51.99
	19921.00	87.65	270.41	11031.15	7663.15	5288.70	-814.68	-8841.77	0.49	495118.07	644689.01	N 32 21 37.17	W 103 51 53.09
	20016.00	88.88	270.45	11034.02	7666.02	5284.54	-813.97	-8935.73	1.30	495118.79	644595.06	N 32 21 37.18	W 103 51 54.20
	20111.00	90.22	270.57	11034.77	7666.77	5280.39	-813.12	-9031.72	1.42	495119.63	644499.08	N 32 21 37.19	W 103 51 55.30
	20205.00	91.01	270.30	11033.76	7665.76	5276.24	-812.41	-9125.71	0.89	495120.35	644405.09	N 32 21 37.20	W 103 51 56.40
	20300.00	92.47	270.71	11030.87	7662.87	5272.09	-811.57	-9220.66	1.60	495121.18	644310.15	N 32 21 37.21	W 103 51 57.51
	20394.00	92.75	269.68	11028.59	7659.59	5267.93	-811.25	-9314.56	1.13	495121.50	644216.26	N 32 21 37.22	W 103 51 58.61
	20489.00	91.98	269.22	11026.69	7656.69	5263.78	-810.49	-9408.47	0.96	495120.59	644121.35	N 32 21 37.22	W 103 51 59.71
	20584.00	91.23	269.28	11020.05	7650.05	5259.63	-813.40	-9504.43	0.77	495119.35	644026.40	N 32 21 37.21	W 103 52 0.81
	20678.00	91.06	269.21	11018.17	7648.17	5255.48	-814.64	-9598.40	0.20	495118.11	643932.43	N 32 21 37.20	W 103 52 1.91
	20773.00	91.29	269.38	11016.22	7646.22	5251.33	-815.81	-9693.37	0.30	495116.94	643837.47	N 32 21 37.19	W 103 52 3.02
	20868.00	90.06	270.03	11015.10	7647.10	5247.18	-816.30	-9788.36	1.46	495116.45	643742.48	N 32 21 37.19	W 103 52 4.12
	20962.00	89.05	270.17	11015.83	7647.83	5243.03	-816.14	-9882.36	1.08	495116.62	643648.49	N 32 21 37.20	W 103 52 5.22
	21057.00	89.89	269.85	11016.71	7648.71	5238.88	-816.12	-9977.35	0.95	495116.63	643553.50	N 32 21 37.20	W 103 52 6.33
	21151.00	90.34	269.93	11016.52	7648.52	5234.73	-816.30	-10071.35	0.49	495116.45	643458.51	N 32 21 37.20	W 103 52 7.42
	21246.00	91.91	269.60	11014.66	7646.66	5230.58	-816.69	-10166.33	1.69	495116.06	643364.54	N 32 21 37.21	W 103 52 8.53
	21340.00	92.07	269.09	11011.39	7643.39	5226.43	-817.76	-10260.27	0.57	495114.99	643270.61	N 32 21 37.20	W 103 52 9.63
	21435.00	91.34	268.63	11008.56	7640.56	5222.28	-819.65	-10355.21	0.91	495113.10	643175.68	N 32 21 37.18	W 103 52 10.73
	21529.00	90.84	267.83	11006.78	7638.78	5218.13	-822.56	-10449.14	1.00	495110.20	643081.75	N 32 21 37.16	W 103 52 11.83
	21624.00	90.90	267.97	11005.33	7637.33	5213.98	-826.04	-10543.07	0.16	495106.72	642986.83	N 32 21 37.13	W 103 52 12.94
	21719.00	91.23	268.26	11003.57	7635.57	5209.83	-829.33	-10637.02	1.46	495104.42	642891.88	N 32 21 37.11	W 103 52 14.04
	21814.00	90.45	271.31	11002.18	7634.18	5205.68	-827.86	-10731.00	2.31	495104.89	642796.90	N 32 21 37.12	W 103 52 15.15
	21909.00	88.21	272.94	11003.29	7635.29	5201.54	-824.34	-10825.92	2.92	495108.42	642701.99	N 32 21 37.16	W 103 52 16.26
	22003.00	87.93	272.81	11006.45	7638.45	5197.39	-819.63	-10920.75	0.33	495113.13	642608.17	N 32 21 37.21	W 103 52 17.35
	22097.00	89.22	271.89	11008.79	7640.79	5193.24	-815.77	-11016.64	1.69	495116.98	642514.29	N 32 21 37.25	W 103 52 18.44
	22192.00	88.88	270.84	11010.36	7642.36	5189.09	-813.51	-11111.60	1.16	495119.24	642419.33	N 32 21 37.28	W 103 52 19.55
	22286.00	87.87	269.76	11013.03	7645.03	5184.94	-813.02	-11205.56	1.57	495119.73	642325.38	N 32 21 37.29	W 103 52 20.65
	22381.00	88.15	268.24	11016.33	7648.33	5180.79	-814.68	-11300.48	1.63	495118.08	642230.46	N 32 21 37.27	W 103 52 21.75
	22475.00	88.32	267.09	11019.22	7651.22	5176.64	-818.50	-11394.36	1.24	495114.25	642136.59	N 32 21 37.24	W 103 52 22.85
	22570.00	90.22	268.21	11020.43	7652.43	5172.49	-822.40	-11489.27	2.32	495110.36	642041.69	N 32 21 37.21	W 103 52 23.95
	22665.00	91.29	269.00	11018.18	7651.18	5168.34	-824.71	-11584.23	1.40	495108.04	641946.74	N 32 21 37.19	W 103 52 25.06
	22760.00	92.07	268.71	11016.40	7649.40	5164.19	-826.81	-11679.17	0.88	495106.15	641851.80	N 32 21 37.17	W 103 52 26.17
	22855.00	92.86	268.97	11012.31	7644.31	5159.04	-828.60	-11774.05	0.65	495104.16	641756.92	N 32 21 37.16	W 103 52 27.27
	22949.00	91.57	269.89	11008.68	7640.68	5154.89	-829.61	-11868.98	1.72	495104.42	641662.00	N 32 21 37.15	W 103 52 28.37
	23044.00	91.74	269.90	11									

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS ("/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
		1	0.000	25.000	1/98.425	17.500	13.375	NAL_MWD_PLUS_0.5_DEG- Depth Only		Original Borehole / XTO James Ranch Unit DI 2 #191H MWD 0ft to 26150ft MD			
		1	25.000	25.000	Act Sins	17.500	13.375	NAL_MWD_PLUS_0.5_DEG- Depth Only		Original Borehole / XTO James Ranch Unit DI 2 #191H MWD 0ft to 26150ft MD			
		1	25.000	600.000	Act Sins	17.500	13.375	NAL_MWD_PLUS_0.5_DEG		Original Borehole / XTO James Ranch Unit DI 2 #191H MWD 0ft			
		1	600.000	8447.000	Act Sins	12.250	9.625	NAL_MWD_PLUS_0.5_DEG		Original Borehole / XTO James Ranch Unit DI 2 #191H MWD 0ft			
		1	8447.000	26150.000	Act Sins	8.750	5.500	NAL_MWD_PLUS_0.5_DEG		Original Borehole / XTO James Ranch Unit DI 2 #191H MWD 0ft			