

Provide Signature Page for Directional Survey

Schlumberger

Oxy Turkey Track 4-3 State 31H Gyro + MWD 0-19017' MD Survey Geodetic

Report (Def Survey)



30-015-44334

Report Date: August 24, 2018 - 10:50 AM
Client: OXY
Field: NM Eddy County (NAD 83)
Structure / Slot: Oxy Turkey Track 4-3 State 31H / Oxy Turkey Track 4-3 State 31H
Well: Oxy Turkey Track 4-3 State 31H
Borehole: Original Borehole
UWI / API#: Unknown / Unknown
Survey Name: Oxy Turkey Track 4-3 State 31H Gyro + MWD 0-19017' MD
Survey Date: July 24, 2018
Tort / AHD / DDI / ERD Ratio: 215.990' / 11253.176 R / 6.720 / 1.278
Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet
Location Lat / Long: N 32° 41' 38.54500", W 104° 5' 11.21608"
Location Grid N/E Y/X: N 616311.490 NUS, E 617286.730 NUS
CRS Grid Convergence Angle: 0.1334°
Grid Scale Factor: 0.9999157
Version / Patch: 2.10.740.0

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 85.980° (Grid North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: RKB=26.5'
TVD Reference Elevation: 3441.300 ft above MSL
Seabed / Ground Elevation: 3414.800 ft above MSL
Magnetic Declination: 7.390°
Total Gravity Field Strength: 998.5154mgm (9.80665 Based)
Gravity Model: GARM
Total Magnetic Field Strength: 48075.258 nT
Magnetic Dip Angle: 60.487°
Declination Date: July 24, 2018
Magnetic Declination Model: HDGM 2018
North Reference: Grid North
Grid Convergence Used: 0.1334°
Total Corr Mag North->Grid North: 7.2567°
Local Coord Referenced To: Well Head

NM OIL CONSERVATION
ARTESIA DISTRICT

OCT 15 2018

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Comments	MD (ft)	Incl (°)	Azimuth (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (ft)	Northing (ft)	Easting (ft)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
Tie-In	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	616311.49	617286.73	N 32° 41' 38.55" W 104° 5' 11.22"	
Last Gyro	26.50	0.00	0.00	26.50	0.00	0.00	0.00	0.00	616311.49	617286.73	N 32° 41' 38.55" W 104° 5' 11.22"	
	154.50	0.10	0.31	154.50	0.01	0.11	0.00	0.00	616311.60	617286.73	N 32° 41' 38.55" W 104° 5' 11.22"	
	243.50	0.20	39.31	243.50	0.12	0.31	0.10	0.15	616311.80	617286.83	N 32° 41' 38.55" W 104° 5' 11.21"	
	338.50	0.40	325.31	338.50	0.07	0.71	0.02	0.42	616312.20	617286.75	N 32° 41' 38.55" W 104° 5' 11.22"	
	508.00	0.13	261.74	508.00	-0.43	1.17	-0.51	0.21	616312.66	617286.22	N 32° 41' 38.56" W 104° 5' 11.22"	
	689.00	0.08	313.40	689.00	-0.72	1.23	-0.81	0.06	616312.72	617285.92	N 32° 41' 38.56" W 104° 5' 11.23"	
	778.00	0.03	19.06	778.00	-0.75	1.29	-0.84	0.08	616312.78	617285.89	N 32° 41' 38.56" W 104° 5' 11.23"	
	963.00	0.03	62.56	963.00	-0.69	1.36	-0.79	0.01	616312.85	617285.95	N 32° 41' 38.56" W 104° 5' 11.23"	
	1147.00	0.03	91.33	1147.00	-0.60	1.38	-0.69	0.01	616312.87	617286.04	N 32° 41' 38.56" W 104° 5' 11.22"	
	1238.00	0.03	310.01	1238.00	-0.59	1.40	-0.69	0.06	616312.89	617286.04	N 32° 41' 38.56" W 104° 5' 11.22"	
	1419.00	0.03	1.97	1419.00	-0.62	1.47	-0.72	0.01	616312.96	617286.01	N 32° 41' 38.56" W 104° 5' 11.22"	
	1601.00	0.03	159.56	1601.00	-0.60	1.48	-0.70	0.03	616312.97	617286.03	N 32° 41' 38.56" W 104° 5' 11.22"	
	1691.00	0.03	334.67	1691.00	-0.60	1.48	-0.71	0.07	616312.97	617286.02	N 32° 41' 38.56" W 104° 5' 11.22"	
	1780.00	0.03	290.75	1780.00	-0.63	1.50	-0.74	0.03	616312.99	617285.99	N 32° 41' 38.56" W 104° 5' 11.22"	
	1871.00	0.03	357.64	1871.00	-0.65	1.54	-0.76	0.04	616313.03	617285.97	N 32° 41' 38.56" W 104° 5' 11.22"	
	1960.00	0.08	24.84	1960.00	-0.62	1.62	-0.74	0.06	616313.11	617285.99	N 32° 41' 38.56" W 104° 5' 11.22"	
	2055.00	0.03	30.91	2055.00	-0.58	1.70	-0.70	0.05	616313.19	617286.03	N 32° 41' 38.56" W 104° 5' 11.22"	
	2150.00	0.08	113.54	2150.00	-0.50	1.69	-0.62	0.09	616313.18	617286.11	N 32° 41' 38.56" W 104° 5' 11.22"	
	2244.00	0.03	171.38	2244.00	-0.44	1.64	-0.56	0.07	616313.13	617286.17	N 32° 41' 38.56" W 104° 5' 11.22"	
	2339.00	0.08	232.71	2339.00	-0.50	1.58	-0.61	0.07	616313.07	617286.12	N 32° 41' 38.56" W 104° 5' 11.22"	
	2433.00	0.03	69.18	2433.00	-0.53	1.55	-0.64	0.12	616313.04	617286.09	N 32° 41' 38.56" W 104° 5' 11.22"	
	2623.00	0.03	350.54	2623.00	-0.48	1.61	-0.60	0.02	616313.10	617286.13	N 32° 41' 38.56" W 104° 5' 11.22"	
	2690.00	0.03	181.85	2690.00	-0.49	1.61	-0.60	0.09	616313.10	617286.13	N 32° 41' 38.56" W 104° 5' 11.22"	
	2825.00	0.16	68.49	2825.00	-0.31	1.65	-0.43	0.13	616313.14	617286.30	N 32° 41' 38.56" W 104° 5' 11.22"	
	2919.00	0.11	318.58	2919.00	-0.24	1.77	-0.37	0.23	616313.26	617286.36	N 32° 41' 38.56" W 104° 5' 11.22"	
	3108.00	0.11	214.37	3108.00	-0.47	1.76	-0.59	0.09	616313.25	617286.14	N 32° 41' 38.56" W 104° 5' 11.22"	
	3297.00	0.11	127.81	3297.00	-0.44	1.50	-0.55	0.08	616312.99	617286.18	N 32° 41' 38.56" W 104° 5' 11.22"	
	3392.00	0.13	77.81	3392.00	-0.27	1.47	-0.37	0.11	616312.96	617286.36	N 32° 41' 38.56" W 104° 5' 11.22"	
	3487.00	0.08	282.13	3487.00	-0.23	1.50	-0.33	0.22	616312.99	617286.40	N 32° 41' 38.56" W 104° 5' 11.22"	
	3581.00	0.11	251.89	3581.00	-0.38	1.49	-0.48	0.06	616312.98	617286.25	N 32° 41' 38.56" W 104° 5' 11.22"	
	3676.00	0.08	345.37	3676.00	-0.48	1.52	-0.59	0.15	616313.01	617286.14	N 32° 41' 38.56" W 104° 5' 11.22"	
	3771.00	0.11	291.53	3770.99	-0.57	1.62	-0.69	0.09	616313.11	617286.04	N 32° 41' 38.56" W 104° 5' 11.22"	
	3865.00	0.29	357.04	3864.99	-0.65	1.89	-0.78	0.28	616313.38	617285.95	N 32° 41' 38.56" W 104° 5' 11.23"	
	3960.00	1.08	347.82	3959.99	-0.77	3.01	-0.99	0.84	616314.50	617285.74	N 32° 41' 38.57" W 104° 5' 11.23"	
	4054.00	1.80	345.66	4053.96	-1.16	5.30	-1.54	0.77	616316.79	617285.19	N 32° 41' 38.60" W 104° 5' 11.23"	
	4149.00	2.37	341.91	4148.89	-1.91	8.62	-2.52	0.62	616320.11	617284.21	N 32° 41' 38.63" W 104° 5' 11.25"	
	4244.00	3.20	334.85	4243.78	-3.34	12.88	-4.25	0.94	616324.37	617282.48	N 32° 41' 38.67" W 104° 5' 11.27"	
	4338.00	4.42	324.55	4337.57	-8.18	18.21	-7.47	1.48	616329.70	617279.26	N 32° 41' 38.73" W 104° 5' 11.30"	
	4433.00	5.80	322.38	4432.19	-10.74	24.99	-12.52	1.47	616336.48	617274.21	N 32° 41' 38.79" W 104° 5' 11.36"	
	4528.00	7.01	318.82	4528.60	-16.90	33.16	-19.27	1.34	616344.65	617267.46	N 32° 41' 38.87" W 104° 5' 11.44"	
4622.00	8.28	318.38	4619.78	-24.49	42.54	-27.54	1.35	616354.02	617259.19	N 32° 41' 38.97" W 104° 5' 11.54"		
4717.00	9.55	318.37	4713.81	-33.48	53.54	-37.32	1.34	616365.03	617249.41	N 32° 41' 39.08" W 104° 5' 11.65"		
4811.00	10.31	316.97	4806.20	-43.53	65.52	-48.24	0.85	616377.00	617238.49	N 32° 41' 39.19" W 104° 5' 11.78"		
4906.00	10.97	315.14	4899.57	-54.79	78.14	-60.42	0.78	616389.62	617226.31	N 32° 41' 39.32" W 104° 5' 11.92"		
5001.00	11.94	315.19	4892.68	-67.13	91.92	-73.72	1.02	616403.00	617213.01	N 32° 41' 39.45" W 104° 5' 12.08"		
5190.00	13.62	313.33	5176.99	-94.98	120.66	-103.69	1.02	616432.14	617183.05	N 32° 41' 39.74" W 104° 5' 12.43"		
5380.00	12.89	313.83	5361.92	-124.36	150.69	-135.25	0.92	616462.17	617151.49	N 32° 41' 40.04" W 104° 5' 12.79"		
5474.00	12.79	313.51	5453.57	-138.42	165.11	-150.36	0.13	616476.59	617136.38	N 32° 41' 40.18" W 104° 5' 12.97"		
5569.00	12.82	314.76	5546.21	-152.46	179.78	-165.47	0.29	616491.25	617121.27	N 32° 41' 40.33" W 104° 5' 13.15"		
5664.00	12.78	313.62	5638.65	-166.49	194.45	-180.56	0.27	616505.92	617106.18	N 32° 41' 40.47" W 104° 5' 13.32"		
5758.00	12.72	314.44	5730.53	-180.35	208.88	-195.48	0.20	616520.34	617091.27	N 32° 41' 40.62" W 104° 5' 13.50"		
5853.00	12.54	314.56	5823.24	-194.10	223.41	-210.28	0.21	616534.88	617076.47	N 32° 41' 40.76" W 104° 5' 13.67"		
5948.00	12.34	313.97	5916.01	-207.71	237.68	-224.93	0.23	616549.15	617061.82	N 32° 41' 40.90" W 104° 5' 13.84"		
6042.00	12.04	313.37	6007.89	-221.07	251.39	-239.28	0.35	616562.88	617047.47	N 32° 41' 41.04" W 104° 5' 14.01"		
6137.00	10.51	311.47	6101.06	-233.85	263.93	-252.98	1.68	616575.40	617033.77	N 32° 41' 41.16" W 104° 5' 14.17"		
6231.00	10.22	311.53	6103.52	-245.70	275.14	-265.64	0.31	616586.61	617021.11	N 32° 41' 41.27" W 104° 5' 14.32"		
6326.00	10.43	313.09	6286.98	-257.46	286.60	-278.23	0.37	616598.07	617008.52	N 32° 41' 41.39" W 104° 5' 14.46"		
6421.00	10.44	312.95	6380.41	-269.18	298.34	-290.81	0.03	616609.81	616995.94	N 32° 41' 41.50" W 104° 5' 14.61"		
6515.00	9.20	311.87	6473.03	-280.24	309.14	-302.66	1.34	616620.60	616984.10	N 32° 41' 41.61" W 104° 5' 14.75"		
6610.00	8.50	316.49	6566.90	-290.01	319.28	-313.17	1.07	616630.74	616973.59	N 32° 41' 41.71" W 104° 5' 14.87"		
6704.00	7.10	314.45	6660.03	-298.28	328.39	-322.10	1.52	616639.85	616964.66	N 32° 41' 41.80" W 104° 5' 14.98"		
6799.00	7.77	310.78	6754.23	-306.73	336.69	-331.15	0.86	616648.16	616955.61	N 32° 41' 41.88" W 104° 5' 15.08"		
6894.00	8.96	317.69	6848.22	-315.87	346.36	-340.99	1.64	616657.62	616945.77	N 32° 41' 41.98" W 104° 5' 15.20"		
6988.00	8.70	326.18	6941.11	-323.94	357.68	-349.88	1.41	616669.14	616936.86	N 32° 41' 42.09" W 104° 5' 15.30"		
7083.00	8.43	322.29	7035.05	-331.38	369.16	-358.14	0.67	616680.62	616928.62	N 32° 41' 42.21" W 104° 5' 15.49"		
7178.00	8.43	327.23	7129.03	-338.59	380.52	-366.17	0.78	616691.98	616920.60	N 32° 41' 42.32" W 104° 5' 15.58"		
7273.00	8.46	322.83	7223.00	-345.76	391.95	-374.16	0.68	616703.40	616912.60	N 32° 41' 42.43" W 104° 5' 15.55"		
7367.00	8.26	319.78	7316.00	-353.53	402.61	-382.70	0.52	616714.07	616904.07	N 32° 41' 42.54" W 104° 5' 15.68"		
7462.00	7.95	314.78	7410.05	-361.89	412.45	-391.77	0.49	616723.91	616895.00	N 32° 41' 42.63" W 104° 5' 15.79"		
7557.00	7.58	312.66	7504.18	-370.51	421.33	-401.04	0.81	616732.78	616885.73	N 32° 41' 42.72" W 104° 5' 15.90"		
7651.00	8.56	313.87	7597.25	-379.46	430.37	-410.64	1.08	616741.83	616876.13	N 32° 41' 42.81" W 104° 5' 16.01"		
7746.00	10.21	317.79	7690.98	-389.40	441.51	-421.39	1.86	616752.96	616865.37	N 32° 41' 42.92" W 104° 5' 16.16"		
7841.00	12.48	322.07	7784.12	-400.33	455.83	-433.35	2.53	616767.28	616853.42	N 32° 41' 43.07" W 104° 5' 16.26"		
7935.00	14.11	323.83	7875.60	-412.08	473.08	-446.35	1.81					

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (ft/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
100' FWL Cross	8388.00	25.88	37.54	8309.39	-426.93	586.19	-469.18	13.41	616897.83	616817.59	N 32 41 44.38 W 104	5 16.69
	8411.00	27.89	42.72	8329.91	-419.68	594.13	-462.47	13.41	616905.57	616824.30	N 32 41 44.43 W 104	5 16.81
	8506.00	32.55	60.49	8412.14	-380.33	623.12	-425.06	10.57	616934.55	616881.71	N 32 41 44.72 W 104	5 16.17
	8601.00	39.41	70.62	8489.04	-328.07	645.76	-374.27	9.54	616957.19	616912.50	N 32 41 44.94 W 104	5 15.58
	8695.00	48.94	75.39	8556.40	-264.30	664.65	-311.68	10.73	616976.08	616975.09	N 32 41 45.13 W 104	5 14.84
3rd Bone Spring	8731.00	53.26	76.50	8579.00	-236.72	671.44	-264.49	12.23	616982.87	617002.26	N 32 41 45.20 W 104	5 14.53
	8790.00	60.35	78.07	8611.29	-187.95	682.28	-236.38	12.23	616993.71	617050.39	N 32 41 45.30 W 104	5 13.96
	8884.00	73.43	84.17	8648.13	-102.02	695.36	-151.14	15.13	617006.79	617135.60	N 32 41 45.43 W 104	5 12.97
	8979.00	81.16	82.12	8669.01	-9.54	706.44	-59.21	8.40	617017.87	617227.53	N 32 41 45.54 W 104	5 11.89
	9051.00	81.02	81.26	8680.16	61.39	716.72	11.18	1.20	617028.15	617297.90	N 32 41 45.64 W 104	5 11.07
	9146.00	84.56	84.24	8692.08	155.47	728.60	104.65	4.85	617040.03	617391.37	N 32 41 45.75 W 104	5 9.97
	9240.00	89.59	88.34	8696.88	249.29	734.67	198.28	6.90	617046.09	617484.99	N 32 41 45.81 W 104	5 8.88
	9335.00	89.66	88.64	8697.50	344.20	737.17	293.24	0.32	617048.60	617579.95	N 32 41 45.83 W 104	5 7.78
	9524.00	89.69	88.46	8698.58	533.01	741.95	482.18	0.10	617053.38	617768.87	N 32 41 45.88 W 104	5 5.55
	9619.00	89.69	88.49	8699.09	627.92	744.48	577.14	0.03	617055.91	617863.82	N 32 41 45.90 W 104	5 4.44
	9808.00	89.90	88.26	8699.77	816.75	749.84	766.07	0.16	617061.26	618052.73	N 32 41 45.95 W 104	5 2.23
	9997.00	89.11	88.22	8701.40	1005.59	755.64	954.97	0.42	617067.07	618241.62	N 32 41 46.00 W 104	5 0.02
	10187.00	89.52	89.67	8703.67	1195.32	759.14	1144.92	0.79	617070.57	618431.55	N 32 41 46.03 W 104	4 57.80
	10282.00	89.35	90.31	8704.61	1290.08	759.16	1239.91	0.70	617070.58	618526.54	N 32 41 46.03 W 104	4 56.69
	10376.00	89.25	90.37	8705.76	1383.80	758.60	1333.90	0.12	617070.02	618620.52	N 32 41 46.02 W 104	4 55.59
	10563.00	89.35	90.42	8708.04	1570.23	757.31	1520.88	0.06	617068.74	618807.48	N 32 41 46.00 W 104	4 53.40
	10747.00	88.83	90.41	8710.96	1753.68	755.98	1704.86	0.28	617067.40	618991.44	N 32 41 45.98 W 104	4 51.25
	10836.00	88.70	90.51	8712.88	1842.37	755.26	1793.83	0.18	617066.69	619090.41	N 32 41 45.96 W 104	4 50.20
	11017.00	88.80	90.36	8716.83	2022.78	753.89	1974.78	0.10	617065.32	619291.34	N 32 41 45.96 W 104	4 48.09
	11109.00	88.35	90.98	8719.12	2114.44	752.81	2066.75	0.83	617064.24	619353.30	N 32 41 45.95 W 104	4 47.01
	11268.00	88.97	90.91	8723.30	2262.77	750.49	2245.68	0.43	617061.91	619532.22	N 32 41 45.92 W 104	4 44.92
	11468.00	88.83	90.19	8726.78	2472.21	749.39	2425.65	0.19	617060.81	619712.17	N 32 41 45.90 W 104	4 42.81
	11532.00	88.79	87.96	8728.09	2536.10	750.42	2489.62	3.48	617061.85	619776.14	N 32 41 45.91 W 104	4 42.06
	11653.00	88.79	89.37	8730.64	2656.94	753.24	2610.56	1.17	617064.67	619897.06	N 32 41 45.94 W 104	4 40.65
	11838.00	88.79	89.25	8734.55	2841.59	755.47	2795.50	0.08	617066.89	620081.99	N 32 41 45.95 W 104	4 38.48
	12027.00	88.76	92.11	8738.59	3029.89	753.23	2964.43	1.51	617064.65	620270.90	N 32 41 45.93 W 104	4 38.27
	12216.00	89.38	92.99	8741.68	3217.62	744.82	3173.21	0.57	617056.24	620459.67	N 32 41 45.84 W 104	4 34.08
	12311.00	89.59	92.18	8742.51	3311.99	740.55	3268.11	0.90	617051.98	620554.56	N 32 41 45.80 W 104	4 32.95
	12500.00	89.00	93.08	8744.84	3499.70	731.91	3456.90	0.58	617043.34	620743.33	N 32 41 45.71 W 104	4 30.75
	12595.00	89.14	92.96	8746.38	3593.97	726.91	3551.75	0.19	617038.33	620838.18	N 32 41 45.63 W 104	4 29.64
	12689.00	89.28	92.95	8747.68	3687.27	722.06	3645.62	0.15	617033.49	620932.03	N 32 41 45.60 W 104	4 28.54
	12879.00	89.10	93.12	8750.38	3875.81	712.00	3835.33	0.13	617023.43	621121.73	N 32 41 45.50 W 104	4 26.32
	12973.00	89.10	93.13	8751.84	3969.07	708.88	3929.18	0.01	617018.31	621215.57	N 32 41 45.45 W 104	4 25.22
	13162.00	89.48	93.16	8754.18	4156.58	696.51	4117.88	0.20	617007.94	621404.26	N 32 41 45.34 W 104	4 23.01
	13257.00	89.24	92.29	8755.24	4250.91	691.99	4212.77	0.95	617003.42	621499.13	N 32 41 45.29 W 104	4 21.90
	13351.00	88.73	90.40	8756.91	4344.48	689.79	4306.72	2.08	617001.22	621593.08	N 32 41 45.27 W 104	4 20.80
	13541.00	89.90	88.09	8759.18	4534.15	692.29	4496.68	1.38	617003.72	621783.02	N 32 41 45.29 W 104	4 18.58
	13730.00	90.07	87.67	8759.23	4723.04	699.28	4685.55	0.24	617010.71	621971.87	N 32 41 45.35 W 104	4 16.37
	13824.00	89.35	88.38	8759.70	4816.98	702.52	4779.49	1.08	617013.95	622065.81	N 32 41 45.38 W 104	4 15.27
	14014.00	89.34	89.20	8761.88	5006.74	706.53	4969.43	0.43	617017.96	622255.73	N 32 41 45.42 W 104	4 13.05
	14203.00	88.55	87.97	8765.36	5195.50	711.20	5158.34	0.77	617022.63	622444.62	N 32 41 45.46 W 104	4 10.84
	14392.00	89.07	88.51	8769.28	5384.31	717.00	5347.21	0.40	617028.43	622633.47	N 32 41 45.51 W 104	4 8.63
	14561.00	90.10	89.10	8770.51	5553.10	720.53	5516.16	0.70	617031.98	622820.42	N 32 41 45.54 W 104	4 6.65
	14679.00	90.55	91.11	8769.84	5670.79	720.31	5634.15	1.75	617031.74	622920.40	N 32 41 45.54 W 104	4 5.27
	14868.00	90.82	90.71	8767.58	5859.07	717.31	5823.11	0.26	617028.74	623109.34	N 32 41 45.50 W 104	4 3.06
	14962.00	90.58	91.07	8766.43	5952.72	715.85	5917.10	0.46	617027.28	623203.32	N 32 41 45.49 W 104	4 1.96
	15058.00	90.58	91.19	8765.46	6046.33	713.96	6013.07	0.12	617025.39	623299.28	N 32 41 45.47 W 104	4 0.83
	15153.00	90.48	91.44	8764.58	6142.91	711.78	6108.04	0.28	617023.21	623394.25	N 32 41 45.44 W 104	3 59.72
	15341.00	90.27	90.75	8763.35	6330.16	708.19	6296.00	0.38	617019.61	623582.19	N 32 41 45.40 W 104	3 57.52
	15436.00	90.78	89.29	8762.49	6424.92	708.15	6391.00	1.62	617019.58	623677.18	N 32 41 45.40 W 104	3 56.41
	15531.00	90.24	88.82	8761.68	6519.78	709.72	6485.98	0.74	617021.15	623772.15	N 32 41 45.41 W 104	3 55.30
	15720.00	89.00	89.07	8762.92	6708.52	713.20	6674.94	0.67	617024.63	623961.09	N 32 41 45.44 W 104	3 53.09
	15814.00	89.07	88.79	8764.50	6802.38	714.95	6768.91	0.31	617026.38	624055.06	N 32 41 45.46 W 104	3 51.99
	15909.00	89.10	88.94	8766.02	6897.25	716.84	6863.88	0.16	617028.26	624150.02	N 32 41 45.47 W 104	3 50.88
	16003.00	88.97	88.99	8767.60	6991.10	718.53	6957.85	0.15	617029.96	624243.98	N 32 41 45.49 W 104	3 49.78
	16193.00	89.21	88.27	8770.62	7180.88	723.07	7147.77	0.40	617034.50	624433.88	N 32 41 45.53 W 104	3 47.56
	16287.00	90.10	87.77	8771.18	7274.81	726.32	7241.71	1.09	617037.75	624527.82	N 32 41 45.56 W 104	3 46.46
	16382.00	91.24	87.64	8770.07	7369.76	730.13	7336.63	1.21	617041.55	624622.72	N 32 41 45.59 W 104	3 45.35
	16476.00	91.34	87.24	8767.98	7463.71	734.32	7430.51	0.44	617045.75	624716.60	N 32 41 45.63 W 104	3 44.25
Exit Target Box	16508.00	91.61	86.96	8767.13	7495.69	735.94	7462.48	1.21	617047.37	624748.54	N 32 41 45.65 W 104	3 43.87
	16571.00	92.13	86.41	8765.08	7558.65	739.58	7525.32	1.21	617051.01	624811.40	N 32 41 45.68 W 104	3 43.14
	16684.00	93.38	85.52	8760.61	7651.54	746.12	7617.98	1.65	617057.54	624904.05	N 32 41 45.74 W 104	3 42.05
	16853.00	92.14	91.80	8751.50	7840.02	750.53	7806.81	3.38	617061.95	625092.67	N 32 41 45.78 W 104	3 39.85
	17042.00	89.53	98.26	8748.74	8026.53	733.98	7994.75	3.69	617045.39	625280.79	N 32 41 45.81 W 104	3 37.65
Enter Target Box	17043.00	89.52	98.25	8748.75	8027.51	733.82	7995.73	1.45	617045.25	625281.77	N 32 41 45.81 W 104	3 37.63
	17137.00	88.39	97.49	8750.47	8119.47	720.95	8088.83	1.45	617032.38	625374.86	N 32 41 45.48 W 104	3 36.85
	17231.00	89.05	94.45	8752.57	8212.01	711.18	8182.29	3.31	617022.61	625468.31	N 32 41 45.38 W 104	3 35.45
	17326.00	89.05	92.27	8754.14	8306.21	706.61	8277.10	2.29	617017.04	625563.12	N 32 41 45.33 W 104	3 34.34
	17420.00	87.67	91.55	8756.83	8399.66	702.48	8371.01	1.68	617013.91	625657.02	N 32 41 45.29 W 104	3 33.24
	17515.00	87.84	91.47	8760.56	8494.15	699.98	8465.91	0.20	617011.41	625751.90	N 32 41 45.26 W 104	3 32.13
	17609.00	87.77	91.36	8764.16	8587.66	697.66	8559.81	0.14	617009.09	625845.80	N 32 41 45.24 W 104	3 31.03
	17											

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' '')	Longitude (E/W ° ' '')
		1	26.500	26.500	Act Strs	30.000	30.000	NAL_NSQ+MSHOT-Depth Only			Original Borehole / Oxy Turkey Track 4-3 State 31H Gyro + MWD 0-19017' MD	
		1	26.500	19017.000	Act Strs	30.000	30.000	NAL_NSQ+MSHOT			Original Borehole / Oxy Turkey Track 4-3 State 31H Gyro + MWD	

Schlumberger

OXY



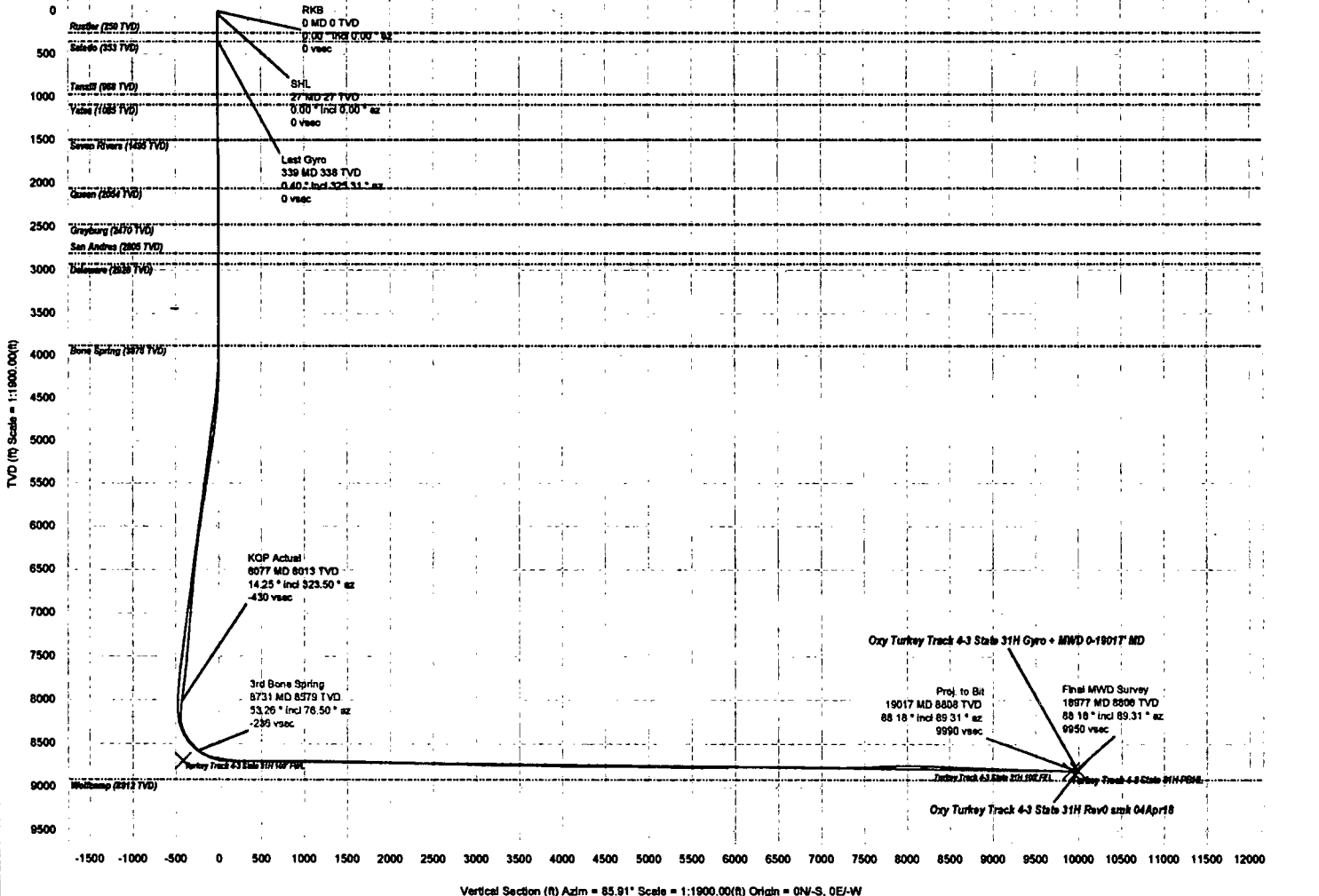
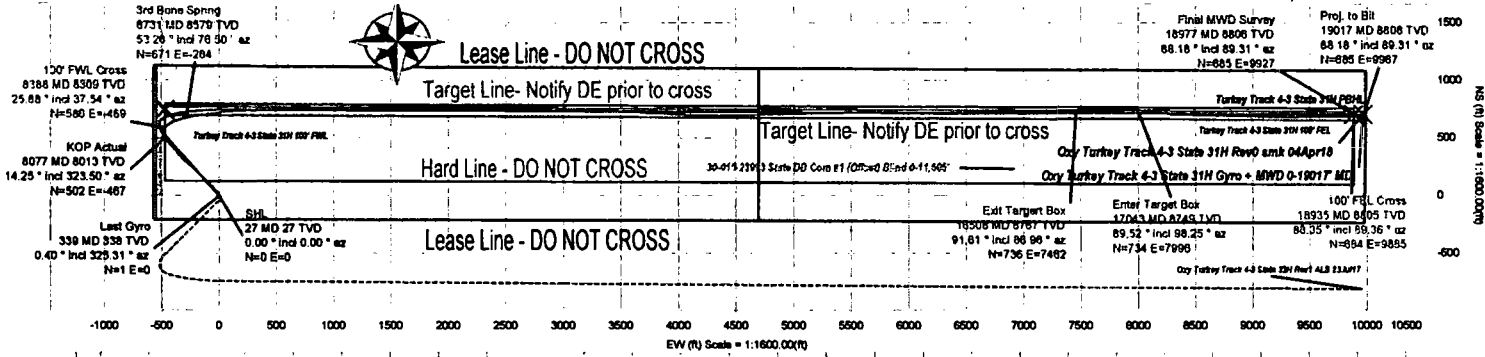
Borehole:	Well:	Field:	Structure:
Original Borehole	Oxy Turkey Track 4-3 State 31H	NM Eddy County (NAD 83)	Oxy Turkey Track 4-3 State 31H
Gravity & Magnetic Parameters	Surface Location	NAD83 New Mexico State Plane, Eastern Zone, US Feet	Miscellaneous
Model: HGM 2018	Dip: 60.437°	Lat: N 32.41 28.68	State: Oxy Turkey Track 4-3 State 31H
MagDec: 7.39°	FS: 42076.35mT	Northings: 816211.438US	TVD Ref: RKB=26.5' (3441.32 above MSL)
Gravity FS: 988.618mg (9.80665 Based)	Lon: W 104 6 11.23	Eastings: 617286.731US	Plan: Oxy Turkey Track 4-3 State 31H Gyro + MWD 0-19017' MD
		Grid Conv: 0.1334°	
		Scale Fact: 0.9999167	

Critical Points

Critical Point	MD	INCL	AZIM	TVD	VSEC	N(+)/S(-)	E(+)/W(-)	DLS
RKB	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
SHL	26.50	0.00	0.00	26.50	0.00	0.00	0.00	0.00
Last Gyro	338.50	0.40	325.31	338.50	0.07	0.71	0.02	0.42
KOP Actual	8077.00	14.25	323.50	8013.21	-430.35	501.62	-468.68	1.05
100' FWL Cross	8388.00	25.88	37.54	8309.39	-426.93	588.19	-489.18	13.41
3rd Bone Spring	8731.00	53.26	76.50	8579.00	-236.72	671.44	-284.49	12.23
Exit Target Box	16508.00	91.61	88.96	8767.13	7495.69	735.94	7482.48	1.21
Enter Target Box	17043.00	89.52	98.25	8748.75	8027.51	733.82	7995.73	1.45
100' FEL Cross	18935.00	88.35	89.36	8805.05	9908.54	684.49	9884.87	0.42
Final MWD Survey	18977.00	88.18	89.31	8806.32	9950.45	684.98	9926.85	0.42
Proj. to Bit	19017.00	88.18	89.31	8807.59	9990.36	685.46	9968.83	0.00

Grid
True
Mag

Grid North
Tot Corr (M>G 7.257")
Mag Dec (7.390")
Grid Conv (0.133")



Vertical Section (R) Azim = 85.91° Scale = 1:1900.00(R) Origin = 0N-S, 0E-W