

Provide Signature Page for Directional Survey

30-015-44586

Schlumberger

Oxy Corral Fly 02-01 32H - Gyro + MWD 0-20261' MD Survey Geodetic Report (Def Survey)



Report Date: September 28, 2018 - 08:32 AM
Client: OXY
Field: NM Eddy County (NAD 83)
Structure / Blot: Oxy Corral Fly 02-01 State 32H / Corral Fly 02-01 State 32H
Well: Corral Fly 02-01 State 32H
Borehole: Original Borehole
UWI / API#: Unknown / Unknown
Survey Name: Oxy Corral Fly 02-01 32H - Gyro + MWD 0-20261' MD
Survey Date: September 12, 2018
Tort / AHD / ODI / ERD Ratio: 248.371' / 10739.031' / 6.714' / 1.038
Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet
Location Lat / Long: N 32° 9' 49.48085", W 103° 57' 47.90669"
Location Grid N/E Y/X: N 423502.190 HUS, E 655836.890 HUS
CRS Grid Convergence Angle: 0.1970°
Grid Scale Factor: 0.99992411
Version / Patch: 2.10.740.0

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 91.840° (Grid North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: RKD = 26.5
TVD Reference Elevation: 3021.600 ft above MSL
Seabed / Ground Elevation: 2995.100 ft above MSL
Magnetic Declination: 6.977°
Total Gravity Field Strength: 998.4591 mgn (9.80665 Based)
Gravity Model: GARM
Total Magnetic Field Strength: 47958.069 nT
Magnetic Dip Angle: 59.911°
Declination Date: September 12, 2018
Magnetic Declination Model: HDGM 12, 2018
North Reference: Grid North
Grid Convergence Used: 0.1970°
Total Corr Mag North→Grid: 6.7799°
North: Well Head
Local Coord Referenced To: Well Head

NM OIL CONSERVATION
ARTESIA DISTRICT

NOV 08 2018

RECEIVED

Comments	MD (ft)	Incl (°)	Azth Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (ft/100ft)	Northing (NAD83)	Easting (NAD83)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
RKB	0.00	0.00	0.00	0.00	0.00	0.00	0.00		423460.48	655836.89	N 32° 9' 49.48" W 103° 57' 47.91"	
SHL	26.50	0.00	0.00	26.50	0.00	0.00	0.00		423502.19	655836.89	N 32° 9' 49.48" W 103° 57' 47.91"	
	100.50	0.84	213.60	100.50	-0.29	-0.43	-0.30	1.14	423501.74	655836.59	N 32° 9' 49.48" W 103° 57' 47.91"	
	186.86	0.99	184.45	186.85	-0.65	-1.72	-0.71	0.56	423500.47	655836.18	N 32° 9' 49.48" W 103° 57' 47.92"	
	272.76	0.57	153.14	272.74	-0.48	-2.84	-0.57	0.68	423499.35	655836.32	N 32° 9' 49.45" W 103° 57' 47.92"	
	367.37	0.63	197.66	367.34	-0.40	-3.78	-0.52	0.48	423498.43	655836.37	N 32° 9' 49.44" W 103° 57' 47.92"	
Last Gyro	386.50	0.83	202.83	386.47	-0.48	-3.99	-0.60	1.10	423498.20	655836.29	N 32° 9' 49.44" W 103° 57' 47.92"	
	486.00	0.12	209.09	487.97	-0.79	-4.76	-0.94	0.70	423497.43	655835.95	N 32° 9' 49.43" W 103° 57' 47.92"	
	667.00	0.03	271.65	666.97	-0.92	-4.92	-1.08	0.08	423497.27	655835.81	N 32° 9' 49.43" W 103° 57' 47.92"	
	759.00	0.03	283.71	758.97	-0.97	-4.91	-1.13	0.01	423497.26	655835.76	N 32° 9' 49.43" W 103° 57' 47.92"	
	851.00	0.03	213.55	850.97	-1.00	-4.93	-1.16	0.04	423497.26	655835.73	N 32° 9' 49.43" W 103° 57' 47.92"	
	943.00	0.09	105.27	942.97	-0.95	-4.97	-1.11	0.11	423497.22	655835.78	N 32° 9' 49.43" W 103° 57' 47.92"	
	1036.00	0.08	89.89	1035.97	-0.81	-4.99	-0.97	0.03	423497.20	655835.02	N 32° 9' 49.43" W 103° 57' 47.92"	
	1127.00	0.06	120.50	1126.97	-0.71	-5.01	-0.87	0.05	423497.18	655835.06	N 32° 9' 49.43" W 103° 57' 47.92"	
	1220.00	0.06	355.04	1219.97	-0.67	-4.99	-0.83	0.11	423497.20	655835.06	N 32° 9' 49.43" W 103° 57' 47.92"	
	1312.00	0.03	58.93	1311.97	-0.65	-4.93	-0.81	0.06	423497.28	655835.08	N 32° 9' 49.43" W 103° 57' 47.92"	
	1404.00	0.03	240.34	1403.97	-0.65	-4.93	-0.81	0.07	423497.28	655835.08	N 32° 9' 49.43" W 103° 57' 47.92"	
	1497.00	0.03	111.31	1496.97	-0.65	-4.95	-0.81	0.05	423497.24	655835.08	N 32° 9' 49.43" W 103° 57' 47.92"	
	1591.00	0.03	218.88	1590.97	-0.64	-4.97	-0.80	0.03	423497.22	655835.09	N 32° 9' 49.43" W 103° 57' 47.92"	
	1780.00	0.03	319.09	1779.97	-0.71	-4.98	-0.87	0.02	423497.21	655835.02	N 32° 9' 49.43" W 103° 57' 47.92"	
	1875.00	0.03	143.03	1874.97	-0.71	-4.98	-0.87	0.06	423497.21	655835.02	N 32° 9' 49.43" W 103° 57' 47.92"	
	1969.00	0.03	128.48	1968.97	-0.67	-5.01	-0.83	0.01	423497.18	655835.06	N 32° 9' 49.43" W 103° 57' 47.92"	
	2064.00	0.03	195.48	2063.97	-0.68	-5.05	-0.82	0.03	423497.14	655835.07	N 32° 9' 49.43" W 103° 57' 47.92"	
	2158.00	0.03	124.53	2157.97	-0.64	-5.09	-0.81	0.04	423497.10	655835.08	N 32° 9' 49.43" W 103° 57' 47.92"	
	2252.00	0.03	335.57	2251.97	-0.63	-5.08	-0.80	0.06	423497.11	655835.08	N 32° 9' 49.43" W 103° 57' 47.92"	
	2346.00	0.03	282.84	2345.97	-0.67	-5.05	-0.83	0.03	423497.14	655835.06	N 32° 9' 49.43" W 103° 57' 47.92"	
	2441.00	0.03	133.42	2440.97	-0.68	-5.06	-0.84	0.06	423497.09	655835.05	N 32° 9' 49.43" W 103° 57' 47.92"	
	2535.00	0.03	138.53	2534.97	-0.64	-5.10	-0.80	0.00	423497.09	655835.09	N 32° 9' 49.43" W 103° 57' 47.92"	
	2629.00	0.53	218.82	2628.97	-0.64	-5.14	-0.80	0.04	423497.05	655835.09	N 32° 9' 49.43" W 103° 57' 47.92"	
	2723.00	0.03	312.39	2722.97	-0.67	-5.14	-0.84	0.05	423497.05	655835.05	N 32° 9' 49.43" W 103° 57' 47.92"	
	2818.00	0.03	150.45	2817.97	-0.68	-5.15	-0.84	0.06	423497.04	655835.05	N 32° 9' 49.43" W 103° 57' 47.92"	
	2912.00	0.06	195.49	2911.97	-0.67	-5.21	-0.84	0.05	423496.88	655835.05	N 32° 9' 49.43" W 103° 57' 47.92"	
	3006.00	0.03	47.74	3005.97	-0.67	-5.25	-0.84	0.09	423496.94	655835.05	N 32° 9' 49.43" W 103° 57' 47.92"	
	3100.00	0.03	250.80	3099.97	-0.67	-5.24	-0.84	0.06	423496.95	655835.05	N 32° 9' 49.43" W 103° 57' 47.92"	
	3195.00	0.03	261.13	3194.97	-0.72	-5.25	-0.89	0.01	423496.94	655835.00	N 32° 9' 49.43" W 103° 57' 47.92"	
	3289.00	0.03	123.78	3288.97	-0.72	-5.27	-0.89	0.08	423496.92	655835.00	N 32° 9' 49.43" W 103° 57' 47.92"	
	3384.00	0.03	264.30	3383.97	-0.73	-5.28	-0.90	0.06	423496.91	655835.09	N 32° 9' 49.43" W 103° 57' 47.92"	
	3478.00	0.07	253.13	3477.97	-0.81	-5.30	-0.98	0.04	423496.89	655835.01	N 32° 9' 49.43" W 103° 57' 47.92"	
	3572.00	0.97	259.01	3571.96	-1.84	-5.47	-1.61	0.06	423496.72	655835.08	N 32° 9' 49.43" W 103° 57' 47.93"	
	3667.00	2.34	282.40	3666.92	-4.33	-5.86	-4.53	1.45	423496.31	655832.36	N 32° 9' 49.42" W 103° 57' 47.96"	
	3761.00	3.95	263.96	3760.78	-9.44	-6.47	-6.65	1.72	423495.72	655827.24	N 32° 9' 49.42" W 103° 57' 48.02"	
	3855.00	5.73	285.35	3854.44	-17.31	-7.20	-17.55	1.90	423494.90	655819.35	N 32° 9' 49.41" W 103° 57' 48.11"	
	3949.00	5.67	285.12	3947.97	-26.58	-7.97	-26.85	0.07	423494.22	655810.04	N 32° 9' 49.40" W 103° 57' 48.22"	
	4044.00	5.57	284.74	4042.52	-35.82	-8.79	-38.12	0.11	423493.40	655800.78	N 32° 9' 49.39" W 103° 57' 48.33"	
	4138.00	4.97	259.17	4136.12	-44.81	-9.98	-44.68	0.84	423492.21	655792.24	N 32° 9' 49.38" W 103° 57' 48.43"	
	4232.00	4.57	253.50	4229.79	-51.84	-11.81	-52.25	0.66	423490.30	655784.65	N 32° 9' 49.37" W 103° 57' 48.62"	
	4326.00	4.84	247.14	4323.49	-58.85	-14.35	-59.34	0.55	423487.65	655777.55	N 32° 9' 49.34" W 103° 57' 48.80"	
	4421.00	4.61	240.53	4418.18	-65.80	-17.72	-68.21	0.56	423484.47	655770.69	N 32° 9' 49.31" W 103° 57' 48.88"	
	4509.00	3.29	232.61	4505.73	-70.24	-24.71	-77.07	0.76	423477.48	655759.82	N 32° 9' 49.24" W 103° 57' 48.81"	
	4703.00	2.03	230.32	4699.63	-78.68	-27.27	-80.60	1.35	423474.92	655756.30	N 32° 9' 49.21" W 103° 57' 48.85"	
	4798.00	1.02	229.80	4794.60	-81.68	-28.75	-82.65	1.08	423473.44	655754.25	N 32° 9' 49.20" W 103° 57' 48.87"	
	4892.00	0.22	238.48	4888.59	-82.45	-29.38	-83.44	0.85	423472.61	655753.46	N 32° 9' 49.19" W 103° 57' 48.88"	
	4986.00	0.06	233.14	4982.59	-82.85	-29.49	-83.94	0.17	423472.70	655753.26	N 32° 9' 49.18" W 103° 57' 48.88"	
	5080.00	0.03	237.06	5076.06	-82.72	-29.52	-83.71	0.03	423472.67	655753.18	N 32° 9' 49.18" W 103° 57' 48.88"	
	5175.00	0.03	27.60	5171.59	-82.73	-29.51	-83.72	0.06	423472.68	655753.18	N 32° 9' 49.18" W 103° 57' 48.88"	
	5269.00	0.06	224.01	5265.59	-82.78	-29.54	-83.75	0.12	423472.68	655753.14	N 32° 9' 49.18" W 103° 57' 48.89"	
	5363.00	0.03	341.27	5359.59	-82.81	-29.56	-83.81	0.10	423472.63	655753.09	N 32° 9' 49.18" W 103° 57' 48.89"	
	5458.00	0.06	280.84	5454.59	-82.87	-29.53	-83.86	0.05	423472.67	655753.03	N 32° 9' 49.19" W 103° 57' 48.89"	
	5553.00	0.06	138.16	5551.59	-82.89	-29.56	-83.88	0.09	423472.63	655753.01	N 32° 9' 49.19" W 103° 57' 48.89"	
	5649.00	0.06	147.34	5645.59	-82.83	-29.64	-83.82	0.01	423472.55	655753.07	N 32° 9' 49.19" W 103° 57' 48.89"	
	5744.00	0.06	80.96	5740.59	-82.75	-29.68	-83.75	0.07	423472.52	655753.15	N 32° 9' 49.19" W 103° 57' 48.89"	
	5839.00	0.08	117.86	5834.59	-82.65	-29.70	-83.64	0.03	423472.49	655753.25	N 32° 9' 49.18" W 103° 57' 48.88"	
	5934.00	0.06	171.79	5930.59	-82.58	-29.78	-83.58	0.07	423472.41	655753.32	N 32° 9' 49.19" W 103° 57' 48.88"	
	6029.00	0.08	159.98	6025.59	-82.54	-29.89	-83.55	0.03	423472.30	655753.35	N 32° 9' 49.19" W 103° 57' 48.88"	
	6150.00	0.06	202.49	6148.59	-82.54	-30.00	-83.54	0.06	423472.20	655753.35	N 32° 9' 49.19" W 103° 57' 48.88"	
	6339.00	0.13	192.79	6335.59	-82.61	-30.30	-83.63	0.04	423471.80	655753.27	N 32° 9' 49.18" W 103° 57' 48.88"	
	6527.00	0.00	6.79	6523.59	-82.65	-30.50	-83.68	0.07	423471.69	655753.22	N 32° 9' 49.18" W 103° 57' 48.88"	
	6521.00	0.00	6.79	6517.59	-82.65	-30.50	-83.68	0.00	423471.89	655753.22	N 32° 9' 49.18" W 103° 57' 48.88"	
	6715.00	0.06	260.10	6711.59	-82.70	-30.51	-83.72	0.06	423471.68	655753.17	N 32° 9' 49.18" W 103° 57' 48.88"	
	6809.00	0.00	6.79	6805.59	-82.75	-30.52	-83.77	0.06	423471.67	655753.12	N 32° 9' 49.18" W 103° 57' 48.88"	
	6901.00	0.06	177.24	6897.59	-82.75	-30.57	-83.77	0.07	423471.82	655753.13	N 32° 9' 49.18" W 103° 57' 48.89"	
	7039.00	0.11	234.27	7085.59	-82.88	-30.77	-83.91	0.05	423471.67	655752.08	N 32° 9' 49.18" W 103° 57' 48.89"	
	7277.00	0.03	222.20	7273.58	-83.74	-31.79	-84.08	0.17	423471.67	655749.01	N 32° 9' 49.17" W 103° 57' 48.99"	
	7371.00	0.51	165.16	7373.58	-83.87	-31.70	-84.33	0.46	423470.49	655725.56	N 32° 9' 49.17" W 103° 57' 48.99"	
	7468.00	2.58	184.49	7462.55	-83.25	-34.23	-84.39	2.20	423467.87	655732.51	N 32° 9' 49	

Comments	MD (ft)	Incl (°)	Asim Grid (°)	TVD (ft)	VSEC (ft)	N9 (ft)	EW (ft)	DLS (ft/100ft)	Northing (ft)	Easting (ft)	Latitude (NAD 83)	Longitude (WGS 84)
	7037.00	7.57	182.85	7032.18	-85.47	-87.56	-87.89	1.89	423434.84	655749.21	N 32° 04' 48.82"	W 103° 57' 48.93"
	8031.80	8.58	181.98	8025.25	-85.80	-86.75	-88.23	1.08	423421.45	655748.66	N 32° 04' 48.80"	W 103° 57' 48.94"
	8126.00	9.07	178.93	8118.13	-85.23	-85.32	-88.34	0.71	423406.88	655748.58	N 32° 04' 48.54"	W 103° 57' 48.94"
	8220.00	9.59	169.97	8211.69	-83.24	-110.44	-88.84	1.64	423391.78	655750.00	N 32° 04' 48.39"	W 103° 57' 48.92"
	8314.00	9.78	159.88	8304.55	-78.85	-125.84	-82.72	1.81	423376.58	655754.17	N 32° 04' 48.24"	W 103° 57' 48.88"
	8408.00	10.76	150.58	8397.05	-71.11	-140.78	-75.87	2.05	423361.42	655761.23	N 32° 04' 48.09"	W 103° 57' 48.80"
	8502.00	10.70	150.58	8489.41	-62.83	-156.43	-87.88	1.19	423345.77	655769.01	N 32° 04' 47.94"	W 103° 57' 48.71"
	8596.00	9.78	168.03	8581.92	-56.93	-172.17	-82.49	2.04	423330.03	655774.40	N 32° 04' 47.78"	W 103° 57' 48.64"
	8691.00	9.07	171.83	8675.84	-53.41	-187.40	-59.46	1.21	423314.81	655777.44	N 32° 04' 47.83"	W 103° 57' 48.61"
	8785.00	8.73	187.87	8768.51	-50.37	-201.70	-56.88	0.72	423300.50	655780.01	N 32° 04' 47.49"	W 103° 57' 48.58"
	8879.00	9.92	183.47	8861.27	-48.10	-216.44	-53.08	1.47	423285.77	655783.82	N 32° 04' 47.34"	W 103° 57' 48.54"
	8973.00	10.48	155.77	8953.79	-39.80	-231.88	-47.27	1.58	423270.23	655789.02	N 32° 04' 47.19"	W 103° 57' 48.47"
	9067.00	11.08	181.37	9048.14	-32.89	-248.32	-40.88	1.29	423253.89	655798.01	N 32° 04' 47.19"	W 103° 57' 48.40"
	9162.00	10.49	187.57	9139.48	-27.56	-265.42	-36.11	1.37	423236.79	655800.79	N 32° 04' 46.88"	W 103° 57' 48.34"
	9256.00	10.59	173.73	9231.88	-24.24	-282.36	-33.32	1.20	423219.65	655803.57	N 32° 04' 46.52"	W 103° 57' 48.31"
	9350.00	9.81	169.85	9324.39	-21.35	-298.83	-30.97	1.11	423203.38	655805.93	N 32° 04' 46.52"	W 103° 57' 48.25"
	9444.00	8.81	165.38	9417.18	-17.70	-313.52	-27.78	1.49	423188.09	655809.11	N 32° 04' 46.38"	W 103° 57' 48.25"
	9500.00	8.21	183.35	9472.58	-15.24	-321.41	-25.57	0.89	423180.80	655811.32	N 32° 04' 46.30"	W 103° 57' 48.22"
KOP Actual	9557.00	8.52	153.20	9626.29	-7.41	-340.11	-18.34	1.35	423162.11	655816.55	N 32° 04' 46.12"	W 103° 57' 48.14"
	9752.00	18.48	119.63	9721.35	7.14	-351.62	-4.15	12.22	423150.59	655823.74	N 32° 04' 46.00"	W 103° 57' 47.97"
	9846.00	31.12	105.78	9807.18	42.73	-364.80	31.03	16.57	423137.31	655837.92	N 32° 04' 45.87"	W 103° 57' 47.58"
	9940.00	37.07	102.49	9884.99	94.20	-377.65	62.12	6.82	423124.57	655819.00	N 32° 04' 45.74"	W 103° 57' 47.98"
	10034.00	30.31	103.75	9958.87	151.19	-390.86	138.71	2.52	423111.36	655875.59	N 32° 04' 45.81"	W 103° 57' 48.31"
Top Perf Cross	10128.00	48.74	88.73	10027.73	214.78	-397.20	202.11	13.41	423105.02	656038.98	N 32° 04' 45.94"	W 103° 57' 45.57"
	10152.00	40.70	88.19	10043.71	232.62	-396.72	220.00	12.45	423105.50	656056.87	N 32° 04' 45.55"	W 103° 57' 45.37"
	10223.00	58.47	88.84	10085.32	289.80	-394.18	277.38	12.45	423108.03	656114.25	N 32° 04' 45.57"	W 103° 57' 44.70"
	10317.00	64.93	92.18	10129.89	372.51	-393.60	380.08	8.50	423108.82	656198.92	N 32° 04' 45.57"	W 103° 57' 43.74"
Wellcamp Intersection	10392.00	69.18	92.88	10159.12	441.58	-398.88	429.04	5.73	423105.57	656265.90	N 32° 04' 45.54"	W 103° 57' 42.63"
	10411.00	70.28	93.03	10165.70	459.38	-397.58	448.84	9.73	423104.84	656283.70	N 32° 04' 45.53"	W 103° 57' 42.73"
	10505.00	84.33	90.71	10188.31	550.84	-400.53	538.26	18.18	423101.70	656375.11	N 32° 04' 45.50"	W 103° 57' 41.86"
	10589.00	90.15	10189.23	10189.23	644.89	-401.23	632.14	8.19	423100.99	656468.88	N 32° 04' 45.49"	W 103° 57' 40.57"
	10687.00	88.83	88.28	10187.66	732.82	-402.02	720.11	3.25	423100.20	656556.94	N 32° 04' 45.50"	W 103° 57' 38.59"
	10781.00	87.93	88.93	10185.70	826.41	-397.74	814.08	2.13	423104.49	656655.88	N 32° 04' 45.82"	W 103° 57' 38.46"
	10878.00	88.00	89.62	10193.08	921.25	-396.53	908.99	0.73	423105.89	656745.81	N 32° 04' 45.53"	W 103° 57' 37.35"
	10971.00	88.10	89.77	10196.31	1018.13	-396.03	1003.93	0.19	423106.19	656840.74	N 32° 04' 45.83"	W 103° 57' 38.25"
	11065.00	88.00	87.43	10199.51	1108.92	-393.73	1097.84	2.49	423108.49	656934.65	N 32° 04' 45.85"	W 103° 57' 35.18"
	11160.00	88.65	84.94	10202.29	1204.41	-387.42	1192.58	2.71	423114.80	657029.38	N 32° 04' 45.81"	W 103° 57' 34.05"
	11254.00	88.41	85.40	10204.70	1297.74	-379.50	1286.22	0.55	423122.72	657123.01	N 32° 04' 45.88"	W 103° 57' 32.96"
	11348.00	88.27	84.70	10207.45	1392.04	-371.31	1380.63	0.75	423130.91	657217.81	N 32° 04' 45.78"	W 103° 57' 31.86"
	11443.00	88.45	83.00	10210.14	1485.30	-362.88	1474.41	0.37	423139.34	657311.18	N 32° 04' 45.84"	W 103° 57' 30.77"
	11537.00	88.51	84.99	10212.63	1579.80	-354.68	1568.02	0.00	423147.54	657404.78	N 32° 04' 45.92"	W 103° 57' 29.86"
	11632.00	89.17	84.10	10214.58	1672.81	-345.85	1662.58	1.17	423156.57	657499.33	N 32° 04' 46.00"	W 103° 57' 28.58"
	11726.00	89.00	84.05	10216.08	1765.93	-335.95	1756.05	0.19	423168.27	657592.80	N 32° 04' 46.10"	W 103° 57' 27.50"
Exit Target Box	11821.00	89.03	84.35	10217.69	1860.07	-326.33	1850.55	0.32	423175.87	657687.30	N 32° 04' 46.19"	W 103° 57' 26.40"
	11915.00	89.01	84.69	10217.88	1870.68	-325.30	1861.50	2.98	423178.92	657768.24	N 32° 04' 46.20"	W 103° 57' 25.21"
	12009.00	88.89	87.15	10219.40	1953.52	-319.38	1944.27	2.96	423182.83	657871.01	N 32° 04' 46.25"	W 103° 57' 20.37"
	12103.00	88.79	87.85	10221.13	2047.28	-315.69	2038.18	1.28	423188.52	657874.91	N 32° 04' 46.29"	W 103° 57' 24.21"
	12198.00	88.68	88.57	10222.84	2141.03	-312.33	2132.10	0.88	423189.88	657968.82	N 32° 04' 46.32"	W 103° 57' 23.12"
	12292.00	89.58	91.85	10224.89	2235.80	-308.12	2227.02	1.09	423193.10	658063.74	N 32° 04' 46.35"	W 103° 57' 22.02"
	12386.00	89.31	94.05	10227.08	2329.74	-309.48	2321.00	2.57	423192.78	658159.71	N 32° 04' 46.34"	W 103° 57' 20.82"
	12480.00	89.10	94.27	10228.38	2423.71	-314.30	2414.87	2.38	423187.92	658251.57	N 32° 04' 46.29"	W 103° 57' 19.83"
Enter Target Box	12480.00	89.03	94.28	10228.38	2517.63	-321.12	2508.81	0.32	423181.10	658345.30	N 32° 04' 46.22"	W 103° 57' 18.74"
	12572.00	88.48	94.34	10230.33	2609.52	-328.02	2600.33	0.88	423174.19	658435.27	N 32° 04' 46.21"	W 103° 57' 18.82"
	12666.00	89.51	94.82	10232.03	2706.39	-335.77	2697.00	1.17	423166.45	658533.88	N 32° 04' 46.07"	W 103° 57' 16.55"
	12760.00	89.06	94.78	10234.39	2809.12	-351.58	2885.32	0.24	423150.84	658672.19	N 32° 04' 45.80"	W 103° 57' 14.36"
	12854.00	89.24	94.59	10235.78	2909.00	-359.26	2978.00	0.28	423142.96	658815.66	N 32° 04' 45.82"	W 103° 57' 13.27"
	12948.00	89.75	95.35	10238.61	3082.85	-367.40	3072.84	0.97	423134.82	658909.29	N 32° 04' 45.74"	W 103° 57' 12.18"
	13042.00	89.27	94.76	10237.41	3178.70	-375.88	3168.27	0.81	423126.54	659002.91	N 32° 04' 45.85"	W 103° 57' 11.09"
	13136.00	90.54	94.83	10237.57	3271.58	-383.48	3260.95	1.34	423118.78	659097.59	N 32° 04' 45.87"	W 103° 57' 9.99"
	13230.00	89.03	93.45	10237.93	3368.51	-390.15	3355.71	2.02	423110.07	659192.34	N 32° 04' 45.50"	W 103° 57' 8.89"
	13324.00	89.31	94.97	10239.29	3460.41	-397.05	3449.44	1.64	423105.17	659286.06	N 32° 04' 46.43"	W 103° 57' 7.80"
	13418.00	89.68	95.50	10240.12	3554.37	-401.53	3543.31	4.77	423100.69	659379.92	N 32° 04' 46.38"	W 103° 57' 6.71"
	13512.00	89.58	88.96	10240.73	3649.22	-399.43	3638.27	3.73	423102.79	659474.78	N 32° 04' 46.37"	W 103° 57' 5.90"
	13606.00	89.88	88.85	10241.34	3743.85	-394.13	3733.12	0.34	423106.09	659569.72	N 32° 04' 46.35"	W 103° 57' 4.50"
	13700.00	89.42	90.81	10241.87	3837.44	-388.45	3828.94	0.24	423113.77	659663.54	N 32° 04' 46.50"	W 103° 57' 3.41"
	13794.00	89.55	88.90	10242.50	3931.08	-382.98	3920.78	0.53	423114.94	659757.37	N 32° 04' 46.54"	W 103° 57' 2.32"
	13888.00	89.68	88.68	10243.13	4024.69	-377.70	4014.83	0.29	423124.52	659851.21	N 32° 04' 46.60"	W 103° 57' 1.22"
	13982.00	89.44	87.00	10243.85	4118.33	-372.50	4108.49	0.44	423128.72	659945.06	N 32° 04' 46.55"	W 103° 57' 0.13"
	14076.00	89.85	90.41	10245.38	4207.01	-368.23	4207.40	1.81	423133.89	660038.96	N 32° 04' 46.69"	W 103° 56' 57.83"
	14170.00	89.58	90.89	10245.99	4301.89	-369.31	4302.39	0.51	423132.81	660132.81	N 32° 04' 46.87"	W 103° 56' 56.63"
	14264.00	89.48	91.05	10246.77	4405.87	-370.80	4408.38	0.20	423131.32	660226.64	N 32° 04' 46.85"	W 103° 56' 55.74"
	14358.00	89.37	91.17	10247.71	4509.96	-372.72	4510.38	0.17	423129.50	660320.48	N 32° 04' 46.83"	W 103° 56' 54.64"
	14452.00	89.34	91.19	10248.63	4614.04	-374.59	4614.38	0.02	423127.68	660414.32	N 32° 04' 46.59"	W 103° 56' 52.46"
	14546.00	89.00	90.97	10249.55	4718.12	-377.54	4718.29	1.35	423124.88	660508.16	N 32° 04' 46.58"	W 103°

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLB F/100ft	Northing (ft)	Easting (ft)	Latitude (N/S ° ° °)	Longitude (E/W ° ° °)
	18135.00	88.53	88.71	10319.37	8189.53	-369.80	8157.86	0.40	423132.32	683894.11	N 32° 04' 53" W	103° 58' 13.03" E
	18230.00	88.62	88.52	10321.40	8280.36	-367.80	8252.81	0.38	423134.02	684088.06	N 32° 04' 55" W	103° 58' 11.82" E
	18325.00	87.69	88.09	10324.48	8355.12	-364.79	8347.72	1.08	423137.43	684183.98	N 32° 04' 56" W	103° 58' 10.82" E
	18418.00	88.07	88.63	10327.94	8448.89	-362.10	8441.81	0.70	423140.11	684277.84	N 32° 04' 56" W	103° 58' 9.72" E
	18513.00	89.52	88.18	10329.91	8542.69	-359.47	8535.55	1.62	423142.75	684371.78	N 32° 04' 58" W	103° 58' 8.63" E
	18608.00	89.72	88.05	10330.54	8637.49	-356.33	8630.50	0.24	423145.89	684466.72	N 32° 04' 58" W	103° 58' 7.53" E
	18702.00	90.03	88.35	10330.75	8731.30	-353.38	8724.45	0.46	423148.84	684560.68	N 32° 04' 58" W	103° 58' 6.43" E
	18892.00	90.00	90.88	10330.70	8821.14	-352.10	8814.43	1.33	423150.12	684750.63	N 32° 04' 58" W	103° 58' 4.22" E
	18987.00	90.62	88.78	10330.18	8918.07	-351.80	8909.42	2.33	423150.41	684845.61	N 32° 04' 58" W	103° 58' 3.12" E
	19081.00	89.62	91.08	10329.99	9110.01	-351.67	9103.42	2.89	423150.55	684938.60	N 32° 04' 58" W	103° 58' 2.03" E
	19178.00	89.66	90.43	10330.58	9204.89	-352.82	9199.41	0.69	423149.29	685034.58	N 32° 04' 58" W	103° 58' 0.92" E
	19274.00	90.38	93.08	10330.55	9302.98	-355.92	9298.35	2.80	423148.28	685132.52	N 32° 04' 58" W	103° 58' 59.78" E
	19368.00	88.88	92.47	10331.34	9398.98	-380.48	9390.23	1.94	423141.74	685228.39	N 32° 04' 58" W	103° 58' 58.89" E
	19463.00	89.98	93.38	10332.48	9491.84	-365.32	9485.10	1.87	423138.90	685321.25	N 32° 04' 53" W	103° 58' 57.59" E
	19558.00	90.17	94.19	10332.37	9588.88	-371.59	9579.89	0.88	423130.63	685418.03	N 32° 04' 58" W	103° 58' 56.48" E
	19653.00	89.62	93.98	10332.55	9681.81	-378.36	9674.65	0.82	423125.86	685510.78	N 32° 04' 58" W	103° 58' 55.38" E
	19841.00	89.24	85.59	10334.42	9889.51	-377.88	9882.47	4.47	423124.56	685608.59	N 32° 04' 58" W	103° 58' 53.20" E
	19936.00	88.04	84.04	10338.68	9983.77	-369.07	9957.05	2.08	423133.14	685793.18	N 32° 04' 58" W	103° 58' 52.10" E
	20029.00	88.31	84.30	10339.64	10055.89	-359.63	10049.52	0.40	423142.59	685885.83	N 32° 04' 57" W	103° 58' 51.02" E
Bottom Perf Cross	20118.00	89.51	85.11	10342.11	10144.18	-351.42	10138.11	0.93	423150.80	685974.21	N 32° 04' 54" W	103° 58' 49.99" E
	20124.00	88.52	85.16	10342.27	10150.12	-350.91	10144.08	0.93	423151.31	685980.18	N 32° 04' 58" W	103° 58' 49.92" E
Final MWD Survey	20218.00	88.63	85.31	10344.44	10243.47	-343.10	10237.73	0.37	423159.11	686073.83	N 32° 04' 52" W	103° 58' 48.83" E
Proj to Bit	20261.00	88.83	85.31	10345.32	10288.18	-339.59	10280.58	0.00	423162.83	686118.67	N 32° 04' 57" W	103° 58' 48.33" E

Survey Type: Def Survey

Survey Error Model: ISCWSA Rev 0 *** 3-D 95.000% Confidence 2.7855 sigma
Survey Program:

Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size Casing Diameter (in)	Survey Tool Type	Borehole / Survey
	1	0.000	26.500	1/98 425	30.000	NAL_NSQ+MSHOT-Depth Only	Original Borehole / Oxy Corral Fly 02-01 32H - Gyro + MWD 0- 20261' MD
	1	26.500	28.500	Act Sbs	30.000	NAL_NSQ+MSHOT-Depth Only	Original Borehole / Oxy Corral Fly 02-01 32H - Gyro + MWD 0- 20261' MD
	1	28.500	386.500	Act Sbs	30.000	NAL_NSQ+MSHOT	Original Borehole / Oxy Corral Fly 02-01 32H - Gyro + MWD 0- 20261' MD
	1	386.500	20261.000	Act Sbs	30.000	NAL_MWD_IFR1+MS	Original Borehole / Oxy Corral Fly 02-01 32H - Gyro + MWD 0-

...Corral Fly 02-01 State 32H\Original Borehole\Oxy Corral Fly 02-01 32H - Gyro + MWD 0-20261' MD

Schlumberger

OXY



Borehole:	Well:	Field:	Structure:					
Original Borehole	Corral Fly 02-01 State 32H	NM Eddy County (NAD 83)	Oxy Corral Fly 02-01 State 32H					
Gravity & Magnetic Parameters								
Model: MAGM 3018	Do: 02 011'	Date: 13-Sep-2018	Surface Location: NAD83 New Mexico State Plane, Eastern Zone, US Feet					
MagDec: 6.977°	FS: 47902 85mT	Gravity FS: 950 42mGal (3.0000 Gauss)	Lat: N 33 9 43.88 Northings: 423803.19162 East Convs: 0.197					
			Lon: W 103 07 47.91 Searings: 586336.99162 Scale Fact: 0.9982611					
			Miscellaneous: Corral Fly 02-01 TVD Ref: RKB = 26.5 (3021 RM above MLL)					
			Plan: Oxy Corral Fly 02-01 32H - Gyro = MWD 0-20281' MD					
Critical Points								
Critical Point	MD	INCL	AZIM	TVD	VSEC	N(=N1)	E(=N1E)	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	386.50	0.83	202.83	386.47	-0.48	-3.99	-0.60	1.10
KOP Actual	9657.00	6.52	153.20	9626.29	-7.41	-340.11	-18.34	1.35
Top Perf Cross	10152.00	49.70	88.19	10043.71	232.62	-386.72	220.00	12.45
Wellcamp Intersection	10382.00	69.18	92.88	10159.12	441.56	-398.66	429.04	5.73
Exit Target Box	11832.00	69.01	84.68	10217.86	1870.98	-325.30	1861.50	2.98
Enter Target Box	12490.00	69.03	94.28	10228.55	2327.62	-321.88	2518.58	0.86
Exit Target Box 2	16353.00	69.03	91.45	10270.03	3386.55	-401.68	6378.94	1.74
Enter Target Box 2	16608.00	88.35	89.18	10275.23	6841.29	-400.34	8631.86	0.55
Bottom Perf Cross	20118.00	88.51	85.11	10342.11	10144.16	-351.42	10138.11	0.83
Final MWD Survey	20218.00	88.83	85.31	10344.44	10243.47	-343.10	10237.73	0.37
Proj to Bt	20261.00	88.83	85.31	10345.32	10266.18	-339.59	10280.58	0.00

