30-015-44510

Schlumberger

Oxy Corral Fly 02-01 State 24H Gyro+MWD 0-18,922' Survey Geodetic Report

(Def Survey)

Report Date	February 19 2018 09 07 AM	**Survey / DLS Computation**	Minimum Curvature / Lubinski
Client	OXY	**Vertical Section Azimuth**	84 026 (Grid North)
Field	NM Eddy County (NAD 83)	**Vertical Section Origin**	0 000 ft 0 000 ft
Structure / Slot	Oxy Corral Fly 02-01 State 24H / Oxy Corral Fly 02-01 State 24H	**TVD Reference Datum**	RKB=26 5
Well	Oxy Corral Fly 02-01 State 24H	**TVD Reference Elevation**	3052 900 ft above MSL
Borehole	Original Borehole	**Seabed / Ground Elevation**	3026 400 ft above MSL
UWI / APIs	Unknown / Unknown	**Magnetic Declination**	7 031
Survey Name	Oxy Corral Fly 02 01 State 24H Gyro+MWD 0-18 922'	**Total Gravity Field Strength**	998 4552mgn (9 80665 Based)
Survey Date	January 31 2018	**Gravity Model**	GARM
Tort / AHD / DDI / ERD Ratio	251 966 / 11370 112 ft / 6 777 / 1.254	**Total Magnetic Field Strength**	48025 132 nT
Coordinate Reference System	NAD83 New Mexico State Plane Eastern Zone US Feet	**Magnetic Dip Angle**	59 924
Location Lat / Long	N 32 9' 19 69604 W 103 57' 44 53203	**Declination Date**	January 31 2018
Location Grid N/E Y/X	N 420493 450 ftUS E 656137 590 ftUS	**Magnetic Declination Model**	HDGM 2017
CRS Grid Convergence Angle	0 1974	**North Reference**	Grid North
Grid Scale Factor	0 99992419	**Grid Convergence Used**	0 1974
Version / Patch	2 10 706 0	**Total Corr Mag North->Grid North**	6 8333
		Local Coord Referenced To	Well Head

NM OIL CONSERVATION
ARTESIA DISTRICT
APR 16 2018
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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 ° ')
SHL	0 00	0 00	0 00	0 00	0 00	0 00	0 00	N/A	420493 45	656137 59	N 32 9 19 70	W 103 57 44 53
	100 74	0 66	181 09	100 74	0 07	-0 58	-0 01	0 66	420492 87	656137 58	N 32 9 19 69	W 103 57 44 53
	189 42	1 17	179 16	189 41	-0 22	2 00	-0 01	0 58	420491 45	656137 58	N 32 9 19 68	W 103 57 44 53
	278 24	1 59	203 19	278 20	-0 90	-4 04	-0 48	0 80	420489 41	656137 11	N 32 9 19 66	W 103 57 44 54
Last Gyro	369 65	2 60	218 46	369 55	2 99	-6 80	2 30	1 27	420486 65	656135 29	N 32 9 19 63	W 103 57 44 56
	512 00	2 70	223 20	511 75	7 83	11 74	-6 64	0 14	420481 71	656130 95	N 32 9 19 58	W 103 57 44 61
	607 00	2 11	229 36	606 66	10 96	14 51	9 50	0 68	420478 94	656128 09	N 32 9 19 55	W 103 57 44 64
	702 00	1 05	222 48	701 63	13 05	16 29	11 42	1 13	420477 16	656126 17	N 32 9 19 54	W 103 57 44 67
	797 00	0 23	150 80	796 62	13 63	17 10	11 91	1 05	420476 35	656125 68	N 32 9 19 53	W 103 57 44 67
	892 00	0 55	103 58	891 62	13 12	17 37	11 38	0 45	420476 08	656126 21	N 32 9 19 52	W 103 57 44 67
	987 00	0 48	78 20	986 61	12 30	17 40	10 54	0 25	420476 05	656127 05	N 32 9 19 52	W 103 57 44 66
	1082 00	0 78	2 89	1081 61	11 80	16 67	10 12	0 85	420476 78	656127 47	N 32 9 19 53	W 103 57 44 65
	1177 00	1 46	3 16	1176 59	11 51	14 82	10 02	0 72	420478 63	656127 57	N 32 9 19 55	W 103 57 44 65
	1272 00	1 85	7 42	1271 55	10 96	12 09	9 76	0 43	420481 36	656127 83	N 32 9 19 58	W 103 57 44 65
	1386 00	2 97	358 82	1385 45	10 29	7 31	-9 58	1 03	420486 14	656128 01	N 32 9 19 62	W 103 57 44 64
	1480 00	3 65	5 13	1479.29	9 51	1 89	9 36	0 82	420491 56	656128 23	N 32 9 19 68	W 103 57 44 64
	1575 00	4 08	6 78	1574 08	-8 18	4 47	-8 69	0 47	420497 92	656128 90	N 32 9 19 74	W 103 57 44 63
	1765 00	4 70	349 12	1763 53	7 35	18 83	-9 36	0 78	420512 28	656128 23	N 32 9 19 88	W 103 57 44 64
	1860 00	4 30	342 60	1858.23	8 39	26 05	11 16	0 68	420519 50	656126 43	N 32 9 19 95	W 103 57 44 66
	1931 00	4 01	341 36	1929 05	9 46	30 94	12 75	0 43	420524 39	656124 84	N 32 9 20 00	W 103 57 44 68
	2025 00	3 81	342 73	2022 83	10 80	37 04	14 73	0 23	420530 49	656122 86	N 32 9 20 06	W 103 57 44 70
	2120 00	3 71	340 06	2117 62	12 16	42 94	16 72	0 21	420536 39	656120 87	N 32 9 20 12	W 103 57 44 72
	2215 00	3 85	339 37	2212 42	13 71	48 82	18 89	0 15	420542 26	656118 70	N 32 9 20 18	W 103 57 44 75
	2310 00	4 30	337 13	2307 18	15 55	55 08	21 40	0 50	420548 53	656116 20	N 32 9 20 24	W 103 57 44 78
	2405 00	3 39	343 31	2401 96	17 11	61 06	23 59	1 05	420554 50	656114 00	N 32 9 20 30	W 103 57 44 80
	2500 00	2 96	13 26	2496 82	16 82	66 13	23 83	1 78	420559 58	656113 76	N 32 9 20 35	W 103 57 44 81
	2595 00	4 08	38 99	2591 65	13 62	71 15	21 14	2 01	420564 59	656116 45	N 32 9 20 40	W 103 57 44 78
	2689 00	5 03	47 07	2685 35	7 97	76 55	16 02	1 22	420570 00	656121 57	N 32 9 20 45	W 103 57 44 72
	2784 00	5 00	59 78	2779 99	-0 86	81 47	9 39	1 17	420574 92	656128 20	N 32 9 20 50	W 103 57 44 64
	2903 00	4 16	62 72	2898 61	7 89	86 06	1 08	0 73	420579 51	656136 51	N 32 9 20 55	W 103 57 44 54
	2973 00	3 54	57 06	2968 45	12 18	88 40	2 99	1 04	420581 85	656140 58	N 32 9 20 57	W 103 57 44 49
	3068 00	2 47	31 04	3063 32	16 02	91 75	6 51	1 80	420585 19	656144 10	N 32 9 20 60	W 103 57 44 45
	3163 00	2 28	6 38	3158.24	17 66	95 38	7 78	1 09	420588 83	656145 37	N 32 9 20 64	W 103 57 44 44
	3258 00	3 23	340 86	3253 14	17 46	99 79	7 11	1 61	420593 23	656144 70	N 32 9 20 68	W 103 57 44 45
	3353 00	4 28	334 22	3347 93	15 64	105 51	4 69	1 19	420598 95	656142 28	N 32 9 20 74	W 103 57 44 47
	3448 00	5 37	328 49	3442 59	12 53	112 49	0 82	1 25	420605 93	656138 41	N 32 9 20 81	W 103 57 44 52
	3543 00	6 67	331 51	3537 07	8 50	121 13	-4 13	1 41	420614 57	656133 46	N 32 9 20 89	W 103 57 44 58
	3638 00	7 27	333 02	3631 37	4 23	131 34	9 49	0 66	420624 78	656128 10	N 32 9 21 00	W 103 57 44 64
	3733 00	8 13	333 51	3725 51	0 28	142 71	15 21	0 91	420636 15	656122 38	N 32 9 21 11	W 103 57 44 70
	3828 00	9 19	335 19	3819 42	5 08	155 61	21 39	1 15	420649 04	656116 20	N 32 9 21 24	W 103 57 44 77
	4018 00	10 29	334 09	4006 68	15 77	184 64	35 18	0 59	420678 08	656102 42	N 32 9 21 52	W 103 57 44 93
	4113 00	10 15	333 25	4100 18	21 63	199 75	-42 65	0 22	420693 18	656094 94	N 32 9 21 67	W 103 57 45 02
	4207 00	10 95	333 12	4192 59	27 75	215 11	50 41	0 85	420708 54	656087 18	N 32 9 21 83	W 103 57 45 11
	4302 00	11 78	333 18	4285 72	-34 43	231 81	58 87	0 87	420725 24	656078 72	N 32 9 21 99	W 103 57 45 21
	4397 00	12 80	333 72	4378 54	-41 53	249 90	-67 90	1 08	420743 33	656069 69	N 32 9 22 17	W 103 57 45 31
	4492 00	13 59	334 39	4471 04	-48 93	269 40	77 39	0 85	420762 83	656060 21	N 32 9 22 36	W 103 57 45 42
	4587 00	14 24	333 44	4563 25	-56 79	289 92	-87 44	0 73	420783 35	656050 16	N 32 9 22 57	W 103 57 45 54
	4682 00	13 95	333 19	4655 39	-64 97	310 59	97 83	0 31	420804 02	656039 77	N 32 9 22 77	W 103 57 45 66
	4776 00	13 54	333 39	4746 69	72 88	330 54	107 87	0 44	420823 97	656029 73	N 32 9 22 97	W 103 57 45 77
	4871 00	14 06	333 23	4838 95	-80 90	350 79	118 04	0 55	420844 21	656019 55	N 32 9 23 17	W 103 57 45 89
	4966 00	14 16	333 75	4931 09	-89 02	371 51	128 38	0 17	420864 93	656009 22	N 32 9 23 38	W 103 57 46 01
	5061 00	14 49	333 38	5023 13	97 24	392 56	138 85	0 36	420885 98	655998 75	N 32 9 23 59	W 103 57 46 13
	5250 00	14 23	334 12	5206 23	113 49	434 60	159 58	0 17	420928 01	655978 02	N 32 9 24 00	W 103 57 46 37
	5441 00	13 78	333 10	5391 55	129 60	476 00	180 12	0 27	420969 42	655957 48	N 32 9 24 41	W 103 57 46 61
	5535 00	14 29	333 48	5482 74	137 67	496 37	190 36	0 55	420989 78	655947 24	N 32 9 24 61	W 103 57 46 73
	5630 00	13 67	332 83	5574 93	145 85	516 85	200 73	0 67	421010 26	655938 88	N 32 9 24 82	W 103 57 46 85
	5725 00	13 47	333 43	5667 28	153 80	536 73	210 80	0 26	421030 14	655926 81	N 32 9 25 01	W 103 57 46 96
	5915 00	13 89	336 11	5851 89	168 60	577 37	229 93	0 40	421070 78	655907 67	N 32 9 25 42	W 103 57 47 18
	6010 00	13 91	334 68	5944 11	175 89	598 12	239 44	0 38	421091 53	655898 17	N 32 9 25 62	W 103 57 47 29
	6105 00	13 90	335 44	6036 32	183 31	618 82	249 06	0 19	421112 22	655888 55	N 32 9 25 83	W 103 57 47 40
	6295 00	13 98	335 93	6220 73	197 71	660 53	267 91	0 08	421153 93	655869 70	N 32 9 26 24	W 103 57 47 62
	6390 00	13 97	336 92	6312 91	204 65	681 56	277 08	0 25	421174 96	655860 53	N 32 9 26 45	W 103 57 47 73
	6579 00	13 54	340 11	6496 50	216 68	723 35	293 56	0 46	421216 75	655844 06	N 32 9 26 86	W 103 57 47 92
	6674 00	13 94	342 03	6588 78	221 74	744 70	-300 87	0 64	421238 09	655836 74	N 32 9 27 08	W 103 57 48 00
	6769 00	13 31	343 68	6681 11	226 08	766 08	-307 47	0 78	421259 47	655830 14	N 32 9 27 29	W 103 57 48 08
	6960 00	12 15	343 37	6867 41	233 74	806 44	319 40	0 61	421299 82	655818 21	N 32 9 27 69	W 103 57 48 22
	7054 00	12 09	339 53	6959 31	238 04	825 14	325 68	0 86	421318 52	655811 94	N 32 9 27 87	W 103 57 48 29
	7149 00	9 71	327 35	7052 61	244 13	841 21	-333 48	3 47	421334 59	655804 14	N 32 9 28 03	W 103 57 48 38
	7244 00	7 24	322 91	7146 56	250 82	852 73	341 41	2 69	421346 11	655796 20	N 32 9 28 15	W 103 57 48 47
	7307 00	6 35	330 52	7209 12	254 26	858 93	345 52	2 01	421352 31	655792 09	N 32 9 28 21	W 103 57 48 52
	7339 00	6 17	338 96	7240 93	255 41	862 08	347 01	2 93	421355 46	655790 61	N 32 9 28 24	W 103 57 48 53
	7433 00	5 12	0 76	7334 48	256 23	870 99	348 77	2 52	421364 37	655788 85	N 32 9 28 33	W 103 57 48 55
	7528 00	4 68	18 49	7429 14	254 13	878 90	347 48	1 65	421372 28	655790 13	N 32 9 28 40	W 103 57 48 54
	7623 00	4 18	27 05	7523 86	250 64	885 66	344 68	0 87	421379 04	655792 94	N 32 9 28 47	W 103 57 48 51
	7718 00	4 74	29 71	7618 57	246 46	892 15	341 16	0 63	421385 53	655796 46	N 32 9 28 54	W 103 57 48 46
	7813 00	4 70	31 43	7713 25	241 81	898 88	337 19	0 15	421392 26	655800 43	N 32 9 28 60	W 103 57 48 42
	7908 00	5 16	47 99	7807 90	235 99	905 06	331 98	1 57	421398 44	655805 63	N 32 9 28 66	W 103 57 48 36
	8003 00	5 93	67 38	7902 46	227 83	909 81	324 28	2 12	421403 19	655813 34	N 32 9 28 71	W 103 57 48 27

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 ° ' ")
	8098 00	6 65	78 12	7996 89	217 66	912 83	314 36	1 45	421406 21	655823 25	N 32 9 28 74	W 103 57 48 15
	8193 00	7 96	76 66	8091 12	205 66	915 48	302 58	1 39	421408 86	655835 03	N 32 9 28 77	W 103 57 48 02
	8301 00	7 80	75.23	8198 10	191 00	919 07	288 22	0 23	421412 45	655849 40	N 32 9 28 80	W 103 57 47 85
	8501 00	21 06	73 62	8391 36	142 03	932 73	240 40	6 63	421426 11	655897 20	N 32 9 28 93	W 103 57 47.29
	8599 00	36 64	68 53	8476 95	96 24	948 50	196 02	16 08	421441 87	655941 59	N 32 9 29 09	W 103 57 46 77
	8694 00	40 49	71 49	8551.22	38 79	968 67	140 36	4 49	421462 05	655997 24	N 32 9 29 29	W 103 57 46 13
	8789 00	37 57	82 89	8625 11	20 36	982 07	-82 29	8 15	421475 44	656055 31	N 32 9 29 42	W 103 57 45 45
	8884 00	46 03	89 36	8695 89	83 50	986 05	19 22	9 99	421479 42	656118 37	N 32 9 29 45	W 103 57 44 72
	8979 00	56 13	90 31	8755 50	156 93	986 22	54 59	10 66	421479 59	656192 18	N 32 9 29 45	W 103 57 43 86
	9073 00	68 40	90 31	8799 16	239 47	985 77	137 63	13 05	421479 14	656275 21	N 32 9 29 45	W 103 57 42 89
	9168 00	84 11	88 12	8821 67	331 09	987 09	229 61	16 69	421480 46	656367 18	N 32 9 29 46	W 103 57 41 82
	9222 00	84 28	88 64	8827 13	384 65	988 60	283 31	1 01	421481 98	656420 88	N 32 9 29 47	W 103 57 41 20
	9301 00	83 83	87 00	8835 31	463 05	991 59	361 82	2 14	421484 97	656499 39	N 32 9 29 50	W 103 57 40 28
	9395 00	82 41	87 39	8846 57	556 23	996 16	455 03	1 57	421489 53	656592 59	N 32 9 29 54	W 103 57 39.20
	9488 00	81 82	88 54	8859 33	648 13	999 43	547 09	1 38	421492 80	656684 64	N 32 9 29 57	W 103 57 38 13
	9581 00	81 86	91 60	8872 53	739 67	999 32	639 14	3 26	421492 69	656776 68	N 32 9 29 56	W 103 57 37 06
	9675 00	83 66	92 69	8884 38	831 98	995 83	732 32	2 23	421489 20	656869 85	N 32 9 29 52	W 103 57 35 97
	9768 00	86 59	94 30	8892 28	923 37	990 18	824 80	3 59	421483 55	656962 32	N 32 9 29 47	W 103 57 34 90
	9861 00	88 38	94 41	8896 36	1014 77	983 12	917 44	1 93	421476 50	657054 96	N 32 9 29 39	W 103 57 33 82
	9954 00	89 07	94.26	8898 43	1106 24	976 09	1010 15	0 76	421469 47	657147 66	N 32 9 29 32	W 103 57 32 74
	10048 00	89 07	92 13	8899 96	1199 03	970 86	1103 98	2 27	421464 23	657241 49	N 32 9 29 27	W 103 57 31 65
	10141 00	88 18	91 01	8902 19	1291 19	968 31	1196 92	1 54	421461 68	657334 42	N 32 9 29 24	W 103 57 30 57
	10234 00	89 28	91 65	8904 25	1383 41	966 15	1289 87	1 37	421459 53	657427 36	N 32 9 29 21	W 103 57 29 49
	10328 00	89 28	91 42	8905 43	1476 60	963 63	1383 83	0 24	421457 01	657521 31	N 32 9 29 18	W 103 57 28 40
	10421 00	89 21	91 43	8906 66	1568 82	961 32	1476 79	0 08	421454 70	657614 27	N 32 9 29 16	W 103 57 27 32
	10514 00	89 10	91 37	8908 03	1661 04	959 05	1569 75	0 13	421452 42	657707 22	N 32 9 29 13	W 103 57 26 23
	10607 00	89 00	91 21	8909 57	1753 28	956 95	1662 72	0.20	421450 33	657800 18	N 32 9 29 11	W 103 57 25 15
	10702 00	89 14	91 23	8911 11	1847 52	954 93	1757 68	0 15	421448 31	657895 14	N 32 9 29 08	W 103 57 24 05
	10797 00	89 38	89 30	8912 34	1941 94	954 49	1852 67	2 05	421447 87	657990 12	N 32 9 29 08	W 103 57 22 94
	10892 00	89 34	89 37	8913 40	2036 53	955 60	1947 66	0 08	421448 97	658085 10	N 32 9 29 08	W 103 57 21 84
	10987 00	88 90	89 46	8914 86	2131 10	956 57	2042 64	0 47	421449 94	658180 07	N 32 9 29 09	W 103 57 20 73
	11082 00	88 49	88 83	8917 02	2225 69	957 98	2137 61	0 79	421451 36	658275 03	N 32 9 29 10	W 103 57 19 63
	11177 00	89 14	89 30	8918 99	2320 31	959 53	2232 57	0 84	421452 91	658369 99	N 32 9 29 11	W 103 57 18 52
	11272 00	90 48	89 74	8919 30	2414 87	960 33	2327 57	1 48	421453 70	658464 97	N 32 9 29 12	W 103 57 17 42
	11366 00	89 59	89 21	8919.25	2508 44	961 19	2421 56	1 10	421454 56	658558 96	N 32 9 29 12	W 103 57 16 33
	11461 00	89 35	89 03	8920 13	2603 06	962 65	2516 54	0 32	421456 02	658653 94	N 32 9 29 13	W 103 57 15 22
	11556 00	89 24	89 10	8921.29	2697 69	964 20	2611 52	0 14	421457 57	658748 91	N 32 9 29 15	W 103 57 14 12
	11651 00	88 76	89 13	8922 95	2792 30	965 67	2706 50	0 51	421459 04	658843 88	N 32 9 29 16	W 103 57 13 01
	11746 00	89 04	89 47	8924 78	2886 88	966 83	2801 47	0 46	421460 20	658938 85	N 32 9 29 17	W 103 57 11 91
	11841 00	89 41	89 74	8926 06	2981 42	967 48	2896 46	0 48	421460 86	659033 83	N 32 9 29 17	W 103 57 10 80
	11936 00	89 24	90 54	8927 18	3075 87	967 25	2991 45	0 86	421460 62	659128 81	N 32 9 29 16	W 103 57 9 70
	12031 00	88 55	89 03	8929 01	3170 37	967 60	3086 43	1 75	421460 98	659223 78	N 32 9 29 16	W 103 57 8 59
	12126 00	90 00	90 68	8930 21	3264 87	967 84	3181 42	2 31	421461 22	659318 76	N 32 9 29 16	W 103 57 7 49
	12220 00	88 52	89 82	8931 43	3358 30	967 43	3275 41	1 82	421460 81	659412 74	N 32 9 29 16	W 103 57 6 39
	12315 00	87 90	89 05	8934 40	3452 83	968 37	3370 38	1 04	421461 75	659507 68	N 32 9 29 16	W 103 57 5 29
	12410 00	88 24	89 47	8937 60	3547 38	969 60	3465 29	0 57	421462 97	659602 61	N 32 9 29 17	W 103 57 4 18
	12504 00	88 24	89 36	8940 48	3640 92	970 56	3559 24	0 12	421463 93	659696 56	N 32 9 29 18	W 103 57 3 09
	12599 00	88 52	89 53	8943 17	3735 46	971 48	3654 20	0 34	421464 85	659791 51	N 32 9 29 18	W 103 57 1 99
	12694 00	88 55	89 47	8945 60	3830 00	972 31	3749 17	0 07	421465 68	659886 46	N 32 9 29 19	W 103 57 0 88
	12789 00	88 93	90 54	8947 69	3924 45	972 30	3844 14	1 19	421465 67	659981 43	N 32 9 29 18	W 103 56 59 78
	12884 00	88 25	90 00	8950 02	4018 86	971 85	3939 11	0 91	421465 22	660076 39	N 32 9 29 18	W 103 56 58 67
	12979 00	88 11	88 71	8953 04	4113 40	972 92	4034 06	1 37	421466 29	660171 33	N 32 9 29 18	W 103 56 57 57
	13074 00	88 21	88 25	8956 09	4208 07	975 44	4128 97	0 50	421468 81	660266 24	N 32 9 29 20	W 103 56 56 46
	13169 00	89 04	89 59	8958 37	4302 69	977 23	4223 93	1 66	421470 60	660361 19	N 32 9 29 22	W 103 56 55 36
	13264 00	88 11	88 59	8960 73	4397 29	978 73	4318 88	1 44	421472 11	660456 14	N 32 9 29 23	W 103 56 54 25
	13359 00	88 21	88 67	8963 78	4491 93	981 00	4413 81	0 13	421474 38	660551 05	N 32 9 29 25	W 103 56 53 15
	13454 00	89 35	90 34	8965 81	4586 47	981 82	4508 78	2 13	421475 20	660646 01	N 32 9 29 25	W 103 56 52 05
	13549 00	88 69	89 93	8967 43	4680 92	981 60	4603 76	0 82	421474 97	660740 99	N 32 9 29 25	W 103 56 50 94
	13644 00	88 45	88 55	8969 80	4775 49	982 86	4698 72	1 47	421476 23	660835 94	N 32 9 29 26	W 103 56 49 84
	13739 00	88 31	88 68	8972 49	4870 15	985 16	4793 65	0 20	421478 53	660930 87	N 32 9 29 28	W 103 56 48 73
	13834 00	88 35	87 81	8975 26	4964 85	988 06	4888 57	0 92	421481 44	661025 78	N 32 9 29 30	W 103 56 47 63
	13929 00	88 90	88 80	8977 54	5059 56	990 87	4983 50	1 19	421484 25	661120 70	N 32 9 29 33	W 103 56 46 52
	14024 00	88 66	88 30	8979 56	5154 24	993 28	5078 45	0 58	421486 65	661215 64	N 32 9 29 35	W 103 56 45 42
	14119 00	88 59	88 19	8981 84	5248 96	996 19	5173 37	0 14	421489 56	661310 56	N 32 9 29 37	W 103 56 44 31
	14213 00	89 62	89 77	8983 31	5342 59	997 86	5267 34	2 01	421491 23	661404 52	N 32 9 29 39	W 103 56 43 22
	14308 00	89 31	88 93	8984 19	5437 17	998 94	5362 33	0 94	421492 31	661499 50	N 32 9 29 39	W 103 56 42 12
	14403 00	89 55	88 85	8985 14	5531 83	1000 78	5457 31	0 27	421494 15	661594 47	N 32 9 29 41	W 103 56 41 01
	14498 00	89 52	88 87	8985 91	5626 49	1002 67	5552 29	0 04	421496 04	661689 45	N 32 9 29 42	W 103 56 39 91
	14592 00	89 38	88 67	8986 81	5720 16	1004 68	5646 26	0 26	421498 06	661783 41	N 32 9 29 44	W 103 56 38 81
	14687 00	89 45	88 66	8987 78	5814 84	1006 90	5741 23	0 07	421500 27	661878 37	N 32 9 29 46	W 103 56 37 71
	14782 00	89 24	88 43	8988 87	5909 54	1009 31	5836 19	0 33	421502 68	661973 33	N 32 9 29 48	W 103 56 36 60
	14877 00	89 28	88 54	8990 10	6004.25	1011 82	5931 15	0 12	421505 19	662068 28	N 32 9 29 50	W 103 56 35 50
	14972 00	89 38	88 61	8991 21	6098 94	1014 18	6026 12	0 13	421507 55	662163 24	N 32 9 29 52	W 103 56 34 39
	15067 00	88 86	88 51	8992 67	6193 63	1016 57	6121 08	0 56	421509 94	662258 19	N 32 9 29 54	W 103 56 33.29
	15162 00	89 21	88 60	8994 26	6288 32	1018 97	6216 03	0 38	421512 34	662353 14	N 32 9 29 56	W 103 56 32 18
	15257 00	89 21	88 84	8995 57	6382 99	1021 09	6311 00	0 25	421514 46	662448 10	N 32 9 29 58	W 103 56 31 08
	15352 00	88 56	88 47	8997 42	6477 67	1023 32	6405 95	0 79	421516 69	662543 05	N 32 9 29 60	W 103 56 29 98
	15448 00	89 48	89 96	8999 07	6573 25	1024 63	6501 93	1 82	421518 00	662639 01	N 32 9 29 61	W 103 56 28 86
	15542 00	89 35	89 05	9000 03	6666 82	1025 44	6595 92	0 98	421518 81	662732 99	N 32 9 29 61	W 103 56 27 77
	15637 00	89 35	88 65	9001 10	6761 48	1027 35	6690 89	0 42	421520 72	662827 96	N 32 9 29 63	W 103 56 26 66
	15732 00	89 48	88 94	9002 07	6856 14	1029 35	6785 87	0 33	421522 72	662922 93	N 32 9 29 64	W 103 56 25 56
	15827 00	88 38	87 96	9003 85	6950 84	1031 92	6880 81	1 55	421525 29	663017 87	N 32 9 29 67	W 103 56 24 45
	15922 00	88 59	88 26	9006 36	7045 57	1035 05	6975 73	0 39	421528 42	663112 77	N 32 9 29 69	W 103 56 23 35
	16017 00	89 21	88 80	9008 18	7140 25	1037 49	7070 68	0 87	421530 85	663207 72	N 32 9 29 71	W 103 56 22 24
	16112 00	88 90	89 69	9009 75	7234 85	1038 74	7165 66	0 99	421532 11	663302 69	N 32 9 29 72	W 103 56 21 14
	16207 00	89 24	90 35	9011 29	7329 31	1038 70	7260 64	0 78	421532 07	663397 67	N 32 9 29 72	W 103 56 20 03
	16303 00	89 69	91 18	9012 19	7424 65	1037 42	7356 63	0 98	421530 79	663493 65	N 32 9 29 70	W 103 56 18 92
	16397 00	88 76	90 39	9013 46	7517 98	1036 13	7450 61	1 30	421529 50	663587 62	N 32 9 29 69	W 103 56 17 82
	16492 00	88 07	90 43	9016 09	7612 36	1035 45	7545 57	0 73	421528 82	663682 57	N 32 9 29 68	W 103 56 16 72
	16587 00	88 80	90 67	9018 68	7706 71	1034 54	7640 53	0 81	421527 91	663777 52	N 32 9 29 66	W 103 56 15 61
	16682 00	90 10	92 07	9019 59	7800 92	1032 27	7735 49	2 01	421525 64	663872 48	N 32 9 29 64	W 103 56 14 51
	16777 00	88 76	90 78	9020 54	7895 12	1029 91	7830 46	1 96	421523 28	663967 44	N 32 9 29 61	W 103 56 13 41
	16872 00	88 69	90 83	9022 65	7989 43	1028 57	7925 42	0 09	421521 94	664062 40	N 32 9 29 59	W 103 56 12 30
	16967 00	88 73	90 71	9024 79	8083 75	1027 30	8020 39	0 13	421520 67	664157 36	N 32 9 29 58	W 103 56 11.20
	17062 00	88 25	90 59	9027.29	8178 08	1026 22	8115 35	0 52	421519 59	664252 31	N 32 9 29 56	W 103 56 10 09
	17157 00	90 31	93 14	9028 49	8272 17	1023 13	8210 28	3 45	421516 50	664347 23	N 32 9 29 53	W 103 56 8 99
	17252 00	89 31	91 16	9028 80	8366 21	1019 57	8305 21	2 33	421512 94	664442 15	N 32 9 29 49	W 103 56 7 88
	17347 00	88 69	90 57	9030 46	8460 52	1018 13	8400 18	0 90	421511 50	664537 12	N 32 9 29 47	W 103 56 6 78
	17442 00	88 83	88 78	9032 52	8555 04	1018 67	8495 15	1 89	421512 04	664632 08	N 32 9 29 48	W 103 56 5 67
	17537 00	89 79	89 35	9033 66	8649 66	1020 22	8590 13	1 18	421513 59	664727 05	N 32 9 29 49	W 103 56 4 57
	17633 00	88 73	88 32	9034 90	8745 31	1022 17	8686 10	1 54	421515 54	664823 01	N 32 9 29 50	W 103 56 3 45
	17728 00	88 59	88 54	9037 12	8840 01	1024 77	8781 04	0.27	421518 14	664917 95	N 32 9 29 53	W 103 56 2 35
	17823 00	89 52	89 50	9038 69	8934 63	1026 40	8876 01	1 41	421519 77	665012 91	N 32 9 29 54	W 103 56 1 24
	17918 00	89 38	90 42	9039 60	9029 12	1026 47	8971 00	0 98	421519 84	665107 90	N 32 9 29 54	W 103 56 0 14
	18012 00	88 73	89 02	9041 15	9122 64	1026 92	9064 99	1 64	421520 29	665201 87	N 32 9 29 54	W 103 55 59 05
	18107 00	88 69	88 62	9043 29	9217 28	1028 88	9159 94	0 42	421522 25	665296 82	N 32 9 29 55	W 103 55 57 94
	18202 00	88 18	88 24	9045 89	9311 96	1031 48	9254 87	0 67	421524 85	665391 74	N 32 9 29 57	W 103 55 56 84
	18297 00	88 38	88 24	9048 74	9406 66	1034 40	9349 78	0 21	421527 77	665486 65	N 32 9 29 60	W 103 55 55 73
	18392 00	87 42	87 37	9052 22	9501 39	1038 03	9444 65	1 36	421531 40	665581 50	N 32 9 29 63	W 103 55 54 63

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 ° ')
	18487 00	88 45	88 35	9055 64	9596 12	1041 58	9539 52	1 50	421534 95	665676 37	N 32 9 29 66	W 103 55 53 52
	18582 00	88 66	88 68	9058 04	9690 79	1044 04	9634 46	0 41	421537 41	665771 30	N 32 9 29 68	W 103 55 52 42
	18677 00	89 21	89 00	9059 80	9785 44	1045 96	9729 42	0 67	421539 33	665866 25	N 32 9 29 70	W 103 55 51 32
	18772 00	88 76	88 50	9061 49	9880 10	1048 04	9824 38	0 71	421541 40	665961 21	N 32 9 29 72	W 103 55 50 21
Final MWD Survey	18867 00	89 00	88 43	9063 34	9974 80	1050 58	9919 33	0 26	421543 95	666056 15	N 32 9 29 74	W 103 55 49 11
Proj to Bit	18922 00	89 00	88 43	9064 30	10029 63	1052 09	9974 30	0 00	421545 45	666111 11	N 32 9 29 75	W 103 55 48 47

Survey Type Def Survey

Survey Error Model ISCWSA Rev 0 ** 3-D 95 000% Confidence 2 7955 sigma

Survey Program

Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Survey Tool Type	Borehole / Survey
	1	0 000	26 500	1/98 425	30 000	30 000	NAL_NSG+MSHOT Depth Only	Original Borehole / Oxy Corral Fly 02-01 State 24H Gyro+MWD 0-18 922
	1	26 500	26 500	Act Stns	30 000	30 000	NAL_NSG+MSHOT Depth Only	Original Borehole / Oxy Corral Fly 02-01 State 24H Gyro+MWD 0-18 922
	1	26 500	369 650	Act Stns	30 000	30 000	NAL_NSG+MSHOT	Original Borehole / Oxy Corral Fly 02-01 State 24H Gyro+MWD 0-
	1	369 650	9222 000	Act Stns	30 000	30 000	NAL_MWD_PLUS_0 5_DEG	Original Borehole / Oxy Corral Fly 02-01 State 24H Gyro+MWD 0-
	1	9222 000	18922 000	Act Stns	30 000	30 000	NAL_MWD_HDGM+MS	Original Borehole / Oxy Corral Fly 02-01 State 24H Gyro+MWD 0-

Schlumberger

OXY

Borehole	Well	Field	Structure
Original Borehole	Oxy Corral Fly 02-01 State 24H	NM Eddy County (NAD 83)	Oxy Corral Fly 02-01 State 24H

Gravity & Magnetic Parameters						Surface Location	NAD83 New Mexico State Plane, Eastern Zone, US Feet					Miscellaneous			
Model	HDGM 2017	Dip.	59.834°	Date:	31-Jan-2018	Lat:	N 32 9 19 70	Northing	420493.48ftUS	Grid Conv:	0.1974°	Slot:	Oxy Corral Fly 02-01 State 24H	TVD Ref:	RKB=26.5'(3062.5ft above MSL)
MagDec	7.031	FS.	48029.132nT	Gravity FS	999.468mgn (9.80665 Based)	Lon:	W 103 57 44.63	Easting:	658137.59ftUS	Scale Fact:	0.99992419	Plan	Oxy Corral Fly 02-01 State 24H Rev1 APS 31Jan18