



XTO ENERGY, INC.

Eddy County, NM

Sec. 6, T25S, R29E

Cattle Baron State 1Y

Wellbore #1

30-015-44130

NM OIL CONSERVATION
ARTESIA DISTRICT

APR 02 2018

RECEIVED

Design: Wellbore #1

Standard Survey Report

11 May, 2017





Survey Report



Company:	XTO ENERGY INC	Local Co-ordinate Reference:	Well Cattle Baron State 1Y
Project:	Eddy County NM	TVD Reference:	RKB @ 2942 0usft (Frontier 27)
Site:	Sec 6 T25S, R29E	MD Reference:	RKB @ 2942 0usft (Frontier 27)
Well:	Cattle Baron State 1Y	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM5002

Project:	Eddy County NM		
Map System	US State Plane 1927 (Exact solution)	System Datum	Mean Sea Level
Geo Datum	NAD 1927 (NADCON CONUS)		
Map Zone	New Mexico East 3001		

Site:	Sec 6 T25S R29E		
Site Position		Northing	419 324 05 usft
From	Map	Easting	597 806 00 usft
Position Uncertainty	0 0 usft	Slot Radius	13-3/16 "
		Latitude	32° 9 8 798 N
		Longitude	104° 1 2 285 W
		Grid Convergence	0 17 °

Well	Cattle Baron State 1Y					
Well Position	+N-S	0 0 usft	Northing	419 321 20 usft	Latitude	32° 9 8 775 N
	+E-W	0 0 usft	Easting	597 645 10 usft	Longitude	104° 1' 4 157 W
Position Uncertainty		0 0 usft	Wellhead Elevation	0 0 usft	Ground Level	2 915 0 usft

Wellbore		Wellbore #1			
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	4/13/2017	7 17	59 93	47 870

Design		Wellbore #1			
Audit Notes					
Version	1 0	Phase	ACTUAL	Tie On Depth	0 0
Vertical Section	Depth From (TVD) (usft)	+N-S (usft)	+E-W (usft)	Direction (°)	
	0 0	0 0	0 0	0 23	

Survey Program		Date 5/11/2017		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
160 0	559 0	Tie In MWD (Wellbore #1)	MWD	OWSG MWD - Standard
619 0	16,932 0	MWD Surveys (Wellbore #1)	MWD	OWSG MWD - Standard

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N-S (usft)	+E-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0 0	0 00	0 00	0 0	0 0	0 0	0 0	0 00	0 00	0 00
160 0	0 90	246 00	160 0	-0 5	-1 1	-0 5	0 56	0 56	0 00
247 0	0 70	235 00	247 0	-1 1	-2 2	-1 1	0 29	-0 23	-12 64
343 0	1 00	214 00	343 0	-2 1	-3 2	-2 1	0 45	0 31	-21 88
434 0	0 90	224 00	434 0	-3 3	-4 1	-3 3	0 21	-0 11	10 99
529 0	1 90	187 00	528 9	-5 4	-4 8	-5 4	1 37	1 05	-38 95
559 0	2 00	187 00	558 9	-6 4	-4 9	-6 4	0 33	0 33	0 00
559 1	2 00	187 00	559 0	-6 4	-4 9	-6 4	0 00	0 00	0 00
Tie In @ 559' MD / TVD									
619 0	1 50	187 40	618 9	-8 2	-5 2	-8 2	0 83	-0 83	0 67

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Site	Sec 6 T25S R29E	MD Reference	RKB @ 2942 0usft (Frontier 27)
Well	Cattle Baron State 1Y	North Reference	Grnd
Wellbore	Wellbore #1	Survey Calculation Method	Minimum Curvature
Design	Wellbore #1	Database	EDM5002

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
668 0	1 40	199 10	667 9	-9 4	-5 4	-9 5	0 64	-0 20	23 88
762 0	1 30	198 90	761 8	-11 5	-6 2	-11 5	0 11	-0 11	-0 21
857 0	1 50	194 30	856 8	-13 7	-6 8	-13 8	0 24	0 21	-4 84
953 0	1 50	199 80	952 8	-16 1	-7 6	-16 2	0 15	0 00	5 73
1 047 0	1 10	226 30	1 046 8	-17 9	-8 6	-18 0	0 76	-0 43	28 19
1 142 0	2 30	224 10	1 141 7	-19 9	-10 6	-20 0	1 26	1 26	-2 32
1 239 0	2 40	228 00	1 238 6	-22 7	-13 5	-22 7	0 19	0 10	4 02
1 334 0	2 30	231 80	1 333 6	-25 2	-16 4	-25 3	0 19	-0 11	4 00
1 428 0	2 80	226 50	1 427 5	-27 9	-19 6	-28 0	0 59	0 53	-5 64
1 524 0	2 90	224 50	1 523 3	-31 3	-23 0	-31 4	0 15	0 10	-2 08
1 619 0	2 40	222 40	1 618 2	-34 5	-26 0	-34 6	0 54	-0 53	-2 21
1 715 0	1 70	220 10	1 714 2	-37 0	-28 3	-37 2	0 73	-0 73	-2 40
1 811 0	1 20	216 60	1 810 2	-38 9	-29 8	-39 1	0 53	-0 52	-3 65
1 907 0	0 40	187 40	1 906 1	-40 1	-30 5	-40 2	0 91	-0 83	-30 42
2 003 0	0 70	116 20	2 002 1	-40 7	-30 0	-40 8	0 71	0 31	-74 17
2 098 0	1 80	108 60	2 097 1	-41 4	-28 0	-41 5	1 17	1 16	-8 00
2 194 0	1 10	87 50	2 193 1	-41 8	-25 7	-41 9	0 91	-0 73	-21 98
2 289 0	1 80	74 10	2 288 1	-41 4	-23 3	-41 5	0 81	0 74	-14 11
2 385 0	3 00	85 80	2 384 0	-40 8	-19 4	-40 9	1 34	1 25	12 19
2 480 0	2 40	66 90	2 478 9	-39 8	-15 1	-39 9	1 12	-0 63	-19 89
2 575 0	0 30	126 50	2 573 8	-39 2	-13 0	-39 3	2 38	-2 21	62 74
2 669 0	0 60	246 70	2 667 8	-39 5	-13 3	-39 6	0 85	0 32	127 87
2 760 0	1 10	264 80	2 758 8	-39 8	-14 6	-39 9	0 62	0 55	19 89
2 824 0	1 10	270 70	2 822 8	-39 9	-15 8	-39 9	0 18	0 00	9 22
2 920 0	0 90	264 30	2 918 8	-39 9	-17 5	-40 0	0 24	-0 21	-6 67
3 015 0	1 00	265 10	3 013 8	-40 1	-19 1	-40 1	0 11	0 11	0 84
3 110 0	1 00	267 50	3 108 8	-40 2	-20 7	-40 3	0 04	0 00	2 53
3 207 0	0 80	270 20	3 205 8	-40 2	-22 3	-40 3	0 21	-0 21	2 78
3 302 0	0 80	265 70	3 300 7	-40 3	-23 6	-40 4	0 07	0 00	-4 74
3 397 0	0 70	265 10	3 395 7	-40 4	-24 8	-40 5	0 11	-0 11	-0 63
3 493 0	0 60	262 90	3 491 7	-40 5	-25 9	-40 6	0 11	-0 10	-2 29
3 589 0	0 70	256 40	3 587 7	-40 7	-27 0	-40 8	0 13	0 10	-6 77
3 684 0	0 70	262 10	3 682 7	-40 9	-28 1	-41 0	0 07	0 00	6 00
3 778 0	0 80	264 80	3 776 7	-41 0	-29 3	-41 1	0 11	0 11	2 87
3 874 0	0 90	262 50	3 872 7	-41 2	-30 7	-41 3	0 11	0 10	-2 40
3 970 0	0 90	264 10	3 968 7	-41 4	-32 2	-41 5	0 03	0 00	1 67
4 066 0	1 00	262 60	4 064 7	-41 5	-33 8	-41 7	0 11	0 10	-1 56
4 162 0	1 00	262 90	4 160 7	-41 8	-35 5	-41 9	0 01	0 00	0 31
4 256 0	1 10	265 60	4 254 6	-41 9	-37 2	-42 1	0 12	0 11	2 87
4 351 0	1 10	266 10	4 349 6	-42 1	-39 0	-42 2	0 01	0 00	0 53
4,446 0	1 10	259 00	4 444 6	-42 3	-40 8	-42 5	0 14	0 00	-7 47
4 542 0	1 00	182 00	4 540 6	-43 3	-41 8	-43 5	1 36	-0 10	-80 21
4 638 0	1 00	155 70	4 636 6	-44 9	-41 4	-45 1	0 47	0 00	-27 40

Company	XTO ENERGY INC	Local Co-ordinate Reference	Well Cattle Baron State 1Y
Project	Eddy County NM	TVD Reference	RKB @ 2942 0usft (Frontier 27)
Site	Sec 6 T2S5 R29E	MD Reference	RKB @ 2942 0usft (Frontier 27)
Well	Cattle Baron State 1Y	North Reference	Gnd
Wellbore	Wellbore #1	Survey Calculation Method	Minimum Curvature
Design	Wellbore #1	Database	EDM5002

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/ S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4 735 0	1 00	179 00	4 733 6	-46 5	-41 1	-46 7	0 42	0 00	24 02
4 830 0	1 20	64 70	4 828 6	-46 9	-40 2	-47 1	1 95	0 21	-120 32
4 925 0	1 30	60 90	4 923 5	-46 0	-38 3	-46 1	0 14	0 11	-4 00
5 021 0	1 30	67 50	5 019 5	-45 0	-36 4	-45 2	0 16	0 00	6 88
5 116 0	1 10	67 90	5 114 5	-44 3	-34 5	-44 4	0 21	-0 21	0 42
5 209 0	1 10	74 20	5 207 5	-43 7	-32 8	-43 8	0 13	0 00	6 77
5 304 0	1 00	75 50	5 302 5	-43 2	-31 2	-43 4	0 11	-0 11	1 37
5 397 0	0 90	83 20	5 395 4	-43 0	-29 6	-43 1	0 17	-0 11	8 28
5 493 0	0 90	87 80	5 491 4	-42 8	-28 1	-42 9	0 08	0 00	4 79
5 589 0	1 00	93 20	5 587 4	-42 9	-26 6	-43 0	0 14	0 10	5 63
5 684 0	0 90	96 70	5 682 4	-43 0	-25 0	-43 1	0 12	-0 11	3 68
5 779 0	0 80	101 30	5 777 4	-43 2	-23 6	-43 3	0 13	-0 11	4 84
5 874 0	0 80	108 60	5 872 4	-43 5	-22 3	-43 6	0 11	0 00	7 68
5 970 0	0 80	112 10	5 968 4	-44 0	-21 1	-44 1	0 05	0 00	3 65
6 066 0	0 80	120 70	6 064 4	-44 6	-19 9	-44 7	0 12	0 00	8 96
6 162 0	0 90	125 00	6 160 4	-45 4	-18 7	-45 5	0 12	0 10	4 48
6 257 0	0 90	137 00	6 255 3	-46 4	-17 5	-46 4	0 20	0 00	12 63
6 353 0	1 00	149 70	6 351 3	-47 6	-16 6	-47 7	0 24	0 10	13 23
6 448 0	1 00	169 60	6 446 3	-49 2	-16 0	-49 2	0 36	0 00	20 95
6 544 0	1 00	158 00	6 542 3	-50 8	-15 6	-50 8	0 21	0 00	-12 08
6 638 0	0 70	172 00	6 636 3	-52 1	-15 2	-52 1	0 39	-0 32	14 89
6 732 0	0 70	192 40	6 730 3	-53 2	-15 2	-53 3	0 26	0 00	21 70
6 829 0	1 10	196 60	6 827 3	-54 7	-15 6	-54 8	0 42	0 41	4 33
6 925 0	1 30	189 40	6 923 3	-56 6	-16 1	-56 7	0 26	0 21	-7 50
7 021 0	1 50	185 30	7 019 2	-59 0	-16 4	-59 0	0 23	0 21	-4 27
7 116 0	1 70	177 20	7 114 2	-61 6	-16 4	-61 7	0 32	0 21	-8 53
7 212 0	1 40	170 30	7 210 2	-64 2	-16 1	-64 3	0 37	-0 31	-7 19
7 308 0	1 50	191 90	7 306 1	-66 6	-16 2	-66 6	0 58	0 10	22 50
7 403 0	1 00	264 40	7 401 1	-67 9	-17 3	-67 9	1 61	-0 53	76 32
7 498 0	1 00	273 00	7 496 1	-67 9	-18 9	-68 0	0 16	0 00	9 05
7 594 0	1 00	259 70	7 592 1	-68 0	-20 6	-68 1	0 24	0 00	-13 85
7 690 0	0 50	270 20	7 688 1	-68 2	-21 8	-68 3	0 54	-0 52	10 94
7 785 0	0 80	226 60	7 783 1	-68 6	-22 7	-68 7	0 59	0 32	-45 89
7 880 0	1 80	178 70	7 878 0	-70 6	-23 2	-70 7	1 47	1 05	-50 42
7 976 0	2 30	121 80	7 974 0	-73 1	-21 5	-73 2	2 09	0 52	-59 27
8 071 0	2 60	158 30	8 068 9	-76 1	-19 1	-76 2	1 64	0 32	38 42
8 167 0	0 90	137 90	8 164 9	-78 7	-17 8	-78 8	1 86	-1 77	-21 25
8 261 0	0 60	155 80	8 258 8	-79 7	-17 1	-79 7	0 40	-0 32	19 04
8 356 0	0 60	172 10	8 353 8	-80 6	-16 8	-80 7	0 18	0 00	17 16
8 452 0	0 70	182 70	8 449 8	-81 7	-16 8	-81 8	0 16	0 10	11 04
8 547 0	0 80	175 20	8 544 8	-83 0	-16 7	-83 0	0 15	0 11	-7 89
8 642 0	1 20	130 80	8 639 8	-84 3	-15 9	-84 3	0 89	0 42	-46 74
8 720 0	1 20	99 60	8 717 8	-84 9	-14 5	-85 0	0 83	0 00	-40 00

Company	XTO ENERGY INC	Local Co-ordinate Reference	Well Cattle Baron State 1Y
Project	Eddy County NM	TVD Reference	RKB @ 2942 0usft (Frontier 27)
Site	Sec 6 T25S R29E	MD Reference	RKB @ 2942 0usft (Frontier 27)
Well	Cattle Baron State 1Y	North Reference	Gnd
Wellbore	Wellbore #1	Survey Calculation Method	Minimum Curvature
Design	Wellbore #1	Database	EDM5002

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8 814 0	1 10	76 40	8 811 8	-84 9	-12 7	-84 9	0 50	-0 11	-24 68
8 910 0	1 20	93 50	8 907 8	-84 7	-10 8	-84 8	0 37	0 10	17 81
9 006 0	0 90	97 20	9 003 7	-84 9	-9 0	-84 9	0 32	-0 31	3 85
9 037 0	1 90	38 70	9 034 7	-84 5	-8 5	-84 5	5 23	3 23	-188 71
9 069 0	5 90	23 70	9 066 7	-82 6	-7 5	-82 6	12 79	12 50	-46 88
9 101 0	10 00	22 50	9 098 3	-78 5	-5 7	-78 5	12 82	12 81	-3 75
9 133 0	13 50	27 80	9 129 7	-72 6	-2 9	-72 7	11 43	10 94	16 56
9 164 0	17 70	23 40	9 159 5	-65 1	0 6	-65 1	14 07	13 55	-14 19
9 194 0	18 90	19 10	9 188 0	-56 3	4 0	-56 3	6 02	4 00	-14 33
9 226 0	19 90	17 60	9 218 2	-46 3	7 4	-46 2	3 49	3 13	-4 69
9 258 0	22 00	17 30	9 248 1	-35 3	10 8	-35 3	6 57	6 56	-0 94
9 290 0	26 00	16 90	9 277 3	-22 9	14 6	-22 8	12 51	12 50	-1 25
9 322 0	31 30	18 20	9 305 4	-8 3	19 3	-8 2	16 68	16 56	4 06
9 354 0	35 30	17 30	9 332 1	8 5	24 6	8 5	12 59	12 50	-2 81
9 386 0	38 10	16 20	9 357 8	26 8	30 1	26 9	8 99	8 75	-3 44
9 418 0	40 40	13 90	9 382 5	46 3	35 4	46 5	8 50	7 19	-7 19
9 450 0	42 90	9 50	9 406 5	67 1	39 7	67 3	12 02	7 81	-13 75
9 482 0	44 40	8 20	9 429 6	89 0	43 0	89 1	5 46	4 69	-4 06
9 513 0	47 90	6 00	9 451 1	111 1	45 8	111 3	12 39	11 29	-7 10
9 546 0	50 90	3 00	9 472 6	136 1	47 7	136 3	11 41	9 09	-9 09
9 578 0	53 40	359 10	9 492 2	161 4	48 2	161 6	12 39	7 81	-12 19
9 610 0	55 30	356 00	9 510 9	187 3	47 1	187 5	9 86	5 94	-9 69
9 641 0	57 60	354 40	9 528 0	213 1	44 9	213 3	8 58	7 42	-5 16
9 671 0	60 90	353 70	9 543 3	238 7	42 2	238 9	11 18	11 00	-2 33
9 703 0	64 40	354 20	9 558 0	267 0	39 2	267 1	11 03	10 94	1 56
9 736 0	66 80	354 70	9 571 7	296 9	36 3	297 0	7 40	7 27	1 52
9 767 0	69 50	354 60	9 583 2	325 5	33 7	325 7	8 71	8 71	-0 32
9 799 0	71 10	354 80	9 594 0	355 5	30 9	355 6	5 03	5 00	0 63
9 831 0	72 30	354 80	9 604 0	385 8	28 1	385 9	3 75	3 75	0 00
9 863 0	74 20	355 60	9 613 2	416 3	25 6	416 4	6 40	5 94	2 50
9 895 0	74 00	354 10	9 622 0	447 0	22 8	447 1	4 55	-0 63	-4 69
9 927 0	74 70	351 50	9 630 6	477 5	18 9	477 6	8 12	2 19	-8 13
9 959 0	75 80	349 30	9 638 8	508 0	13 8	508 1	7 48	3 44	-6 88
9 991 0	77 50	347 90	9 646 2	538 6	7 6	538 6	6 81	5 31	-4 38
10 021 0	78 60	348 50	9 652 4	567 3	1 6	567 3	4 16	3 67	2 00
10 053 0	79 40	351 20	9 658 5	598 2	-3 9	598 2	8 65	2 50	8 44
10 083 0	81 00	354 00	9 663 6	627 5	-7 7	627 5	10 63	5 33	9 33
10 114 0	84 00	355 80	9 667 7	658 1	-10 5	658 1	11 26	9 68	5 81
10 146 0	86 60	357 20	9 670 3	690 0	-12 4	689 9	9 22	8 13	4 38
10 190 0	92 20	359 80	9 670 7	733 9	-13 6	733 9	14 03	12 73	5 91
10 234 0	94 30	0 30	9 668 2	777 8	-13 5	777 8	4 91	4 77	1 14
10 329 0	94 30	359 70	9 661 1	872 6	-13 5	872 5	0 63	0 00	-0 63
10 425 0	93 20	0 00	9 654 8	968 4	-13 8	968 3	1 19	-1 15	0 31
10 521 0	90 10	0 40	9 652 1	1 064 3	-13 4	1 064 3	3 26	-3 23	0 42

Company	XTO ENERGY INC	Local Co-ordinate Reference	Well Cattle Baron State 1Y
Project	Eddy County NM	TVD Reference	RKB @ 2942 0usft (Frontier 27)
Site	Sec 6 T25S R29E	MD Reference	RKB @ 2942 0usft (Frontier 27)
Well	Cattle Baron State 1Y	North Reference	Gnd
Wellbore	Wellbore #1	Survey Calculation Method	Minimum Curvature
Design	Wellbore #1	Database	EDM5002

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10 616 0	89 60	0 20	9 652 3	1 159 3	-12 9	1 159 3	0 57	-0 53	-0 21
10 711 0	88 60	359 50	9 653 8	1 254 3	-13 2	1 254 2	1 28	-1 05	-0 74
10 806 0	89 80	359 60	9 655 1	1 349 3	-13 9	1 349 2	1 27	1 26	0 11
10 902 0	90 40	359 50	9 655 0	1 445 3	-14 7	1 445 2	0 63	0 63	-0 10
10 998 0	90 70	359 60	9 654 1	1 541 3	-15 4	1 541 2	0 33	0 31	0 10
11 094 0	90 20	359 50	9 653 3	1 637 3	-16 2	1 637 2	0 53	-0 52	-0 10
11 189 0	89 70	359 00	9 653 4	1 732 3	-17 4	1 732 2	0 74	-0 53	-0 53
11 284 0	89 50	359 30	9 654 1	1 827 2	-18 8	1 827 2	0 38	-0 21	0 32
11 378 0	88 40	359 50	9 655 8	1 921 2	-19 8	1 921 1	1 19	-1 17	0 21
11 474 0	90 10	0 30	9 657 0	2 017 2	-20 0	2 017 1	1 96	1 77	0 83
11 569 0	89 90	0 40	9 657 0	2 112 2	-19 4	2 112 1	0 24	-0 21	0 11
11 666 0	89 90	0 30	9 657 2	2 209 2	-18 8	2 209 1	0 10	0 00	-0 10
11 762 0	88 90	0 50	9 658 2	2 305 2	-18 2	2 305 1	1 06	-1 04	0 21
11 857 0	89 60	0 20	9 659 4	2 400 2	-17 6	2 400 1	0 80	0 74	-0 32
11 952 0	90 80	0 30	9 659 1	2 495 2	-17 2	2 495 1	1 27	1 26	0 11
12 048 0	90 10	0 50	9 658 4	2 591 2	-16 5	2 591 1	0 76	-0 73	0 21
12 143 0	89 50	0 50	9 658 7	2 686 2	-15 7	2 686 1	0 63	-0 63	0 00
12 237 0	90 40	0 90	9 658 8	2 780 2	-14 5	2 780 1	1 05	0 96	0 43
12 331 0	89 70	359 90	9 658 7	2 874 2	-13 9	2 874 1	1 30	-0 74	-1 06
12 425 0	90 50	359 10	9 658 5	2 968 2	-14 7	2 968 1	1 20	0 85	-0 85
12 521 0	90 00	358 60	9 658 1	3 064 1	-16 6	3 064 0	0 74	-0 52	-0 52
12 616 0	89 10	358 90	9 658 9	3 159 1	-18 7	3 159 0	1 00	-0 95	0 32
12 712 0	90 80	358 00	9 658 9	3 255 1	-21 3	3 255 0	2 00	1 77	-0 94
12 806 0	90 50	358 10	9 657 9	3 349 0	-24 5	3 348 9	0 34	-0 32	0 11
12 902 0	90 10	358 80	9 657 4	3 445 0	-27 1	3 444 8	0 84	-0 42	0 73
12 997 0	89 40	358 90	9 657 8	3 540 0	-29 0	3 539 8	0 74	-0 74	0 11
13 093 0	90 50	359 10	9 657 9	3 635 9	-30 6	3 635 8	1 16	1 15	0 21
13 189 0	89 70	0 00	9 657 7	3 731 9	-31 4	3 731 8	1 25	-0 83	0 94
13 285 0	89 00	0 10	9 658 8	3 827 9	-31 3	3 827 8	0 74	-0 73	0 10
13 380 0	88 90	0 30	9 660 5	3 922 9	-31 0	3 922 8	0 24	-0 11	0 21
13 476 0	88 00	0 20	9 663 1	4 018 9	-30 6	4 018 7	0 94	-0 94	-0 10
13 571 0	89 00	0 80	9 665 6	4 113 8	-29 7	4 113 7	1 23	1 05	0 63
13 666 0	89 20	0 20	9 667 1	4 208 8	-28 9	4 208 7	0 67	0 21	-0 63
13 760 0	89 50	359 80	9 668 2	4 302 8	-28 9	4 302 7	0 53	0 32	-0 43
13 856 0	90 80	0 80	9 667 9	4 398 8	-28 4	4 398 7	1 71	1 35	1 04
13 952 0	89 90	1 80	9 667 3	4 494 8	-26 2	4 494 6	1 40	-0 94	1 04
14 048 0	91 30	1 30	9 666 3	4 590 7	-23 6	4 590 6	1 55	1 46	-0 52
14 144 0	91 60	1 60	9 663 9	4 686 7	-21 2	4 686 5	0 44	0 31	0 31
14 240 0	92 10	1 20	9 660 8	4 782 6	-18 9	4 782 5	0 67	0 52	-0 42
14 335 0	90 60	0 30	9 658 6	4 877 6	-17 6	4 877 4	1 84	-1 58	-0 95
14 430 0	90 90	359 80	9 657 3	4 972 5	-17 5	4 972 4	0 61	0 32	-0 53
14 525 0	89 70	359 80	9 656 8	5 067 5	-17 9	5 067 4	1 26	-1 26	0 00
14 610 0	89 70	359 60	9 657 3	5 152 5	-18 3	5 152 4	0 24	0 00	-0 24



Survey Report



Company	XTO ENERGY INC	Local Co-ordinate Reference	Well Cattle Baron State 1Y
Project	Eddy County NM	TVD Reference	RKB @ 2942 0usft (Frontier 27)
Site	Sec 6 T25S R29E	MD Reference	RKB @ 2942 0usft (Frontier 27)
Well	Cattle Baron State 1Y	North Reference	Grnd
Wellbore	Wellbore #1	Survey Calculation Method	Minimum Curvature
Design	Wellbore #1	Database	EDM5002

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
14 642 0	89 40	359 60	9 657 5	5 184 5	-18 5	5 184 4	0 94	-0 94	0 00
14 737 0	89 50	359 30	9 658 4	5 279 5	-19 4	5 279 4	0 33	0 11	-0 32
14 832 0	88 50	0 20	9 660 1	5 374 5	-19 9	5 374 4	1 42	-1 05	0 95
14 929 0	89 20	0 10	9 662 0	5 471 5	-19 6	5 471 4	0 73	0 72	-0 10
15 023 0	89 40	0 60	9 663 2	5 565 5	-19 0	5 565 4	0 57	0 21	0 53
15 118 0	88 50	1 10	9 664 9	5 660 5	-17 6	5 660 3	1 08	-0 95	0 53
15 213 0	89 20	0 40	9 666 8	5 755 4	-16 4	5 755 3	1 04	0 74	-0 74
15 308 0	88 70	0 90	9 668 6	5 850 4	-15 3	5 850 3	0 74	-0 53	0 53
15 403 0	89 80	1 70	9 669 8	5 945 4	-13 1	5 945 3	1 43	1 16	0 84
15 498 0	90 00	0 70	9 670 0	6 040 3	-11 2	6 040 3	1 07	0 21	-1 05
15 593 0	89 40	0 50	9 670 5	6 135 3	-10 2	6 135 2	0 67	-0 63	-0 21
15 689 0	90 10	359 60	9 670 9	6 231 3	-10 1	6 231 2	1 19	0 73	-0 94
15 784 0	89 20	0 00	9 671 5	6 326 3	-10 4	6 326 2	1 04	-0 95	0 42
15 879 0	89 80	0 20	9 672 3	6 421 3	-10 2	6 421 2	0 67	0 63	0 21
15 974 0	90 90	359 40	9 671 7	6 516 3	-10 6	6 516 2	1 43	1 16	-0 84
16 070 0	90 80	359 80	9 670 3	6 612 3	-11 2	6 612 2	0 43	-0 10	0 42
16 166 0	90 50	0 90	9 669 2	6 708 3	-10 7	6 708 2	1 19	-0 31	1 15
16 261 0	89 80	0 90	9 669 0	6 803 3	-9 2	6 803 2	0 74	-0 74	0 00
16 357 0	90 50	0 50	9 668 7	6 899 3	-8 0	6 899 2	0 84	0 73	-0 42
16 452 0	91 80	359 70	9 666 8	6 994 3	-7 8	6 994 2	1 61	1 37	-0 84
16 547 0	92 10	0 20	9 663 6	7 089 2	-7 9	7 089 1	0 61	0 32	0 53
16 643 0	91 90	0 40	9 660 2	7 185 1	-7 4	7 185 1	0 29	-0 21	0 21
16 738 0	90 80	359 60	9 658 0	7 280 1	-7 4	7 280 0	1 43	-1 16	-0 84
16 932 0	90 80	359 60	9 655 3	7 474 1	-8 8	7 474 0	0 00	0 00	0 00

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
559 1	559 0	-6 4	-4 9	Tie In @ 559 MD / TVD
16 932 0	9 655 3	7 474 1	-8 8	TD @ 16932 0 MD / 9655 3 TVD