



I **Larry Wright**, certify that I am employed by **Wellbenders Directional Services**. That I did on the day(s) of **02/27/19** thru **03/04/19** and **06/24/19** thru **07/01/19** conduct or supervise the taking of a **MWD Survey** from a depth of **140'** to a depth of **2934'** and from **9291'** to a depth of **16763'**; that the data is true, correct, complete and within the limitations of the tool as set forth by **Wellbenders Directional Services**; that I am authorized and qualified to make this report; that this survey was conducted at the request of **XTO Energy Inc** for the **Ross Draw 25-36 Fed 103H** API No. **30-015-45595** in **Eddy County, New Mexico**; and that I have reviewed this report and find that it conforms to the principles and procedures as set forth by **Wellbenders Directional Services**.

Larry Wright

Larry
Wright

Digitally signed
by Larry Wright
Date:
2019.12.12
14:45:41 -06'00'



True Performance
Directional Drilling
5075 E 52nd Street
Odessa, TX 79762
(281)-222-8366

To: New Mexico Energy, Minerals and
Natural Resources Department
1220 South St. Francis Drive
Santa Fe, NM 87505 (505) 476-3220

Re: Certified Survey Report / **ROSS DRAW 25-36 FED 103H / 30-015-45595**

Via: Electronic Filing

True Performance Directional Drilling, respectfully submits for filing the required directional certified survey performed on the referenced well by True Performance Directional Drilling. Other information required by your office is as follows:

<u>Name & Title of Supervisor</u>	<u>Surveyed Depths</u>	<u>Dates Performed</u>	<u>Type of Survey</u>
Greg Wilkie MWD Coordinator	OH 140' to 10265' ST 140' to 10597'	3-4-19 to 3-25-19	MWD

The directional MWD surveys performed by True Performance Directional Drilling are attached. A copy of the certified plat on which the final survey is drawn and the projected bottom-hole location is marked and identified is also attached.

Please file this certified survey report. If there are any questions or additional data required, please let me know at your earliest opportunity.

Thank You

Sincerely,

Greg Wilkie
MWD Operations Manager



Wellbenders End Of Well Report

Company:	XTO Energy	Local Co-ordinate Reference:	Well ROSS DRAW 25-36 FED 103H
Project:	Eddy County, NM (Nad-27 / East Zone)	TVD Reference:	2960+24 @ 2984.00usft (Hercules)
Site:	Ross Draw 25-36 Fed East	MD Reference:	2960+24 @ 2984.00usft (Hercules)
Well:	ROSS DRAW 25-36 FED 103H	North Reference:	Grid
Wellbore:	RD 25-36 Fed 103H ST	Survey Calculation Method:	Minimum Curvature
Design:	RD 25-36 Fed 103H ST AsDrilled	Database:	WBDS_SQL_2

Project	Eddy County, NM (Nad-27 / East Zone)		
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	Ross Draw 25-36 Fed East		
Site Position:		Northing:	371,027.10 usft
From:	Map	Easting:	622,374.30 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in
		Latitude:	32.019453
		Longitude:	-103.938489
		Grid Convergence:	0.209 °

Well		ROSS DRAW 25-36 FED 103H				
Well Position	+N/-S	0.00 usft	Northing:	371,032.90 usft	Latitude:	32.019468
	+E/-W	0.00 usft	Easting:	622,464.70 usft	Longitude:	-103.938197
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	2,960.00 usft

Wellbore	RD 25-36 Fed 103H ST				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	6/22/2019	6.891	59.791	47,574.94294132

Design	RD 25-36 Fed 103H ST AsDrilled			
Audit Notes:				
Version:	1.0	Phase:	ACTUAL	Tie On Depth: 9,278.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	181.27



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Well:	ROSS DRAW 25-36 FED 103H	North Reference:	Grid
Wellbore:	RD 25-36 Fed 103H ST	Survey Calculation Method:	Minimum Curvature
Design:	RD 25-36 Fed 103H ST AsDrilled	Database:	WBDS_SQL_2

Survey Program		Date	7/2/2019		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
140.00	2,934.00	Survey #1 Wbs (ROSS DRAW 25-36 FED	MWD	MWD - Standard	
3,051.00	9,278.00	Survey #2 (ROSS DRAW 25-36 FED 103H	MWD	MWD - Standard	
9,291.00	16,763.00	Survey #1 (RD 25-36 Fed 103H ST)	MWD	MWD - Standard	

Survey										
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	CL (usft)	CL Azi (°)	DLeg (°/100ft)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
140.00	0.20	197.30	140.00	-0.23	-0.07	0.23	140.00	197.30	0.14	
236.00	0.60	59.90	236.00	-0.14	0.31	0.13	96.00	76.55	0.79	
326.00	0.80	82.40	325.99	0.18	1.34	-0.21	90.00	72.78	0.37	
420.00	0.90	75.40	419.98	0.45	2.71	-0.51	94.00	78.69	0.15	
513.00	0.90	65.00	512.97	0.94	4.08	-1.03	93.00	70.20	0.18	
662.00	1.30	46.00	661.94	2.61	6.35	-2.75	149.00	53.76	0.36	
756.00	1.30	42.50	755.92	4.14	7.84	-4.31	94.00	44.25	0.08	
850.00	1.30	36.40	849.89	5.78	9.19	-5.99	94.00	39.45	0.15	
945.00	1.40	36.70	944.87	7.58	10.53	-7.81	95.00	36.56	0.11	
1,039.00	1.30	42.40	1,038.84	9.29	11.93	-9.55	94.00	39.44	0.18	
1,134.00	1.50	34.40	1,133.81	11.11	13.36	-11.41	95.00	38.11	0.29	
1,228.00	1.00	16.60	1,227.79	12.91	14.29	-13.23	94.00	27.29	0.67	
1,324.00	1.10	359.50	1,323.78	14.64	14.52	-14.96	96.00	7.64	0.34	
1,419.00	1.20	358.10	1,418.76	16.54	14.48	-16.86	95.00	358.77	0.11	
1,514.00	1.60	4.50	1,513.73	18.86	14.55	-19.18	95.00	1.76	0.45	
1,607.00	1.90	35.10	1,606.69	21.42	15.54	-21.75	93.00	21.14	1.04	
1,701.00	1.70	32.60	1,700.64	23.86	17.19	-24.24	94.00	33.92	0.23	
1,795.00	1.60	66.30	1,794.60	25.57	19.14	-25.99	94.00	48.92	1.02	
1,890.00	1.90	63.10	1,889.56	26.81	21.76	-27.29	95.00	64.56	0.33	



Wellbenders End Of Well Report

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Project:	Eddy County, NM (Nad-27 / East Zone)	TVD Reference:	2960+24 @ 2984.00usft (Hercules)
Site:	Ross Draw 25-36 Fed East	MD Reference:	2960+24 @ 2984.00usft (Hercules)
Well:	ROSS DRAW 25-36 FED 103H	North Reference:	Grid
Wellbore:	RD 25-36 Fed 103H ST	Survey Calculation Method:	Minimum Curvature
Design:	RD 25-36 Fed 103H ST AsDrilled	Database:	WBDS_SQL_2

Survey										
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	CL (usft)	CL Azi (°)	DLeg (°/100ft)	
1,984.00	2.30	102.80	1,983.50	27.10	24.99	-27.65	94.00	84.92	1.57	
2,080.00	2.60	104.80	2,079.41	26.12	28.97	-26.75	96.00	103.86	0.32	
2,175.00	2.40	107.00	2,174.32	24.98	32.96	-25.71	95.00	105.86	0.23	
2,270.00	2.10	110.80	2,269.25	23.79	36.49	-24.59	95.00	108.77	0.35	
2,364.00	1.70	120.60	2,363.20	22.46	39.30	-23.33	94.00	115.18	0.55	
2,459.00	2.30	117.20	2,458.14	20.88	42.21	-21.81	95.00	118.65	0.64	
2,554.00	2.70	115.50	2,553.05	19.04	45.92	-20.05	95.00	116.28	0.43	
2,649.00	2.10	120.40	2,647.96	17.20	49.44	-18.29	95.00	117.64	0.67	
2,744.00	2.90	115.10	2,742.87	15.30	53.12	-16.47	95.00	117.33	0.88	
2,839.00	3.00	106.70	2,837.75	13.56	57.68	-14.84	95.00	110.83	0.47	
2,934.00	3.30	120.20	2,932.61	11.47	62.42	-12.85	95.00	113.77	0.84	
3,051.00	1.90	114.00	3,049.48	8.99	67.10	-10.47	117.00	117.93	1.22	
3,146.00	1.50	108.30	3,144.44	7.96	69.72	-9.50	95.00	111.49	0.46	
3,240.00	1.90	107.70	3,238.40	7.10	72.38	-8.70	94.00	107.96	0.43	
3,335.00	1.90	112.00	3,333.35	6.03	75.34	-7.70	95.00	109.85	0.15	
3,431.00	1.80	111.40	3,429.30	4.88	78.21	-6.62	96.00	111.71	0.11	
3,526.00	2.10	110.90	3,524.24	3.72	81.23	-5.52	95.00	111.13	0.32	
3,621.00	2.20	112.70	3,619.17	2.39	84.54	-4.27	95.00	111.82	0.13	
3,716.00	2.10	110.20	3,714.11	1.09	87.85	-3.04	95.00	111.48	0.14	
3,810.00	2.10	113.90	3,808.04	-0.20	91.04	-1.81	94.00	112.05	0.14	
3,904.00	2.20	109.40	3,901.98	-1.50	94.32	-0.59	94.00	111.60	0.21	
3,997.00	2.20	108.10	3,994.91	-2.65	97.70	0.48	93.00	108.75	0.05	
4,091.00	2.20	107.50	4,088.84	-3.75	101.14	1.51	94.00	107.80	0.02	
4,184.00	2.10	107.40	4,181.78	-4.80	104.47	2.48	93.00	107.45	0.11	
4,279.00	2.40	104.30	4,276.70	-5.81	108.05	3.41	95.00	105.75	0.34	
4,374.00	1.70	101.10	4,371.64	-6.57	111.36	4.10	95.00	102.97	0.75	
4,467.00	1.60	100.40	4,464.60	-7.07	114.00	4.54	93.00	100.76	0.11	



Wellbenders End Of Well Report

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Site:	Ross Draw 25-36 Fed East	MD Reference:	2960+24 @ 2984.00usft (Hercules)
Well:	ROSS DRAW 25-36 FED 103H	North Reference:	Grid
Wellbore:	RD 25-36 Fed 103H ST	Survey Calculation Method:	Minimum Curvature
Design:	RD 25-36 Fed 103H ST AsDrilled	Database:	WBDS_SQL_2

Survey										
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	CL (usft)	CL Azi (°)	DLeg (°/100ft)	
4,562.00	1.50	105.40	4,559.57	-7.64	116.50	5.06	95.00	102.82	0.18	
4,656.00	1.50	103.20	4,653.54	-8.25	118.88	5.61	94.00	104.30	0.06	
4,749.00	1.50	110.30	4,746.50	-8.95	121.21	6.26	93.00	106.75	0.20	
4,844.00	1.50	110.10	4,841.47	-9.81	123.54	7.07	95.00	110.20	0.01	
4,938.00	1.50	121.90	4,935.44	-10.88	125.74	8.09	94.00	116.00	0.33	
5,033.00	1.80	125.80	5,030.40	-12.41	128.01	9.57	95.00	124.03	0.34	
5,126.00	1.10	114.90	5,123.37	-13.64	130.00	10.76	93.00	121.67	0.81	
5,221.00	0.50	124.50	5,218.36	-14.26	131.17	11.35	95.00	117.90	0.64	
5,314.00	0.50	142.20	5,311.36	-14.81	131.75	11.89	93.00	133.35	0.17	
5,409.00	0.40	83.90	5,406.35	-15.10	132.34	12.17	95.00	116.60	0.47	
5,503.00	0.70	56.70	5,500.35	-14.75	133.14	11.80	94.00	66.53	0.41	
5,597.00	0.50	68.10	5,594.34	-14.28	134.01	11.31	94.00	61.45	0.25	
5,691.00	0.40	98.90	5,688.34	-14.18	134.71	11.19	94.00	81.75	0.27	
5,786.00	0.30	52.80	5,783.34	-14.08	135.24	11.08	95.00	79.33	0.30	
5,881.00	0.30	40.30	5,878.34	-13.74	135.59	10.73	95.00	46.55	0.07	
5,976.00	0.40	71.80	5,973.34	-13.45	136.07	10.43	95.00	58.36	0.22	
6,071.00	0.50	78.90	6,068.33	-13.27	136.79	10.23	95.00	75.74	0.12	
6,166.00	0.70	108.40	6,163.33	-13.37	137.75	10.31	95.00	96.16	0.38	
6,260.00	0.80	92.60	6,257.32	-13.58	138.95	10.50	94.00	99.97	0.24	
6,355.00	1.20	95.60	6,352.31	-13.71	140.60	10.59	95.00	94.40	0.42	
6,450.00	1.50	82.70	6,447.28	-13.65	142.83	10.48	95.00	88.43	0.45	
6,545.00	1.50	83.00	6,542.25	-13.34	145.29	10.11	95.00	82.85	0.01	
6,640.00	1.30	87.50	6,637.22	-13.14	147.60	9.86	95.00	85.09	0.24	
6,733.00	1.50	66.30	6,730.19	-12.60	149.77	9.28	93.00	76.13	0.59	
6,826.00	1.50	62.60	6,823.16	-11.55	151.97	8.18	93.00	64.45	0.10	
6,920.00	1.60	47.20	6,917.13	-10.10	154.02	6.68	94.00	54.65	0.45	
7,014.00	1.50	54.70	7,011.09	-8.49	155.99	5.03	94.00	50.83	0.24	



Wellbenders End Of Well Report

Company:	XTO Energy	Local Co-ordinate Reference:	Well ROSS DRAW 25-36 FED 103H
Project:	Eddy County, NM (Nad-27 / East Zone)	TVD Reference:	2960+24 @ 2984.00usft (Hercules)
Site:	Ross Draw 25-36 Fed East	MD Reference:	2960+24 @ 2984.00usft (Hercules)
Well:	ROSS DRAW 25-36 FED 103H	North Reference:	Grid
Wellbore:	RD 25-36 Fed 103H ST	Survey Calculation Method:	Minimum Curvature
Design:	RD 25-36 Fed 103H ST AsDrilled	Database:	WBDS_SQL_2

Survey										
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	CL (usft)	CL Azi (°)	DLeg (°/100ft)	
7,108.00	1.50	73.70	7,105.06	-7.44	158.18	3.93	94.00	64.20	0.53	
7,203.00	2.00	54.00	7,200.02	-6.11	160.71	2.55	95.00	62.43	0.82	
7,297.00	1.70	41.00	7,293.97	-4.10	162.95	0.48	94.00	48.03	0.55	
7,393.00	1.70	36.70	7,389.93	-1.88	164.74	-1.77	96.00	38.85	0.13	
7,487.00	2.70	34.00	7,483.85	1.07	166.81	-4.77	94.00	35.04	1.07	
7,580.00	2.90	19.50	7,576.74	5.11	168.82	-8.85	93.00	26.49	0.79	
7,675.00	2.80	350.80	7,671.63	9.66	169.25	-13.41	95.00	5.41	1.49	
7,769.00	3.80	338.50	7,765.48	14.83	167.74	-18.54	94.00	343.72	1.30	
7,863.00	3.30	346.60	7,859.30	20.36	165.97	-24.03	94.00	342.26	0.75	
7,958.00	3.00	4.10	7,954.15	25.50	165.52	-29.16	95.00	354.93	1.06	
8,052.00	2.30	11.10	8,048.05	29.80	166.06	-33.47	94.00	7.14	0.82	
8,146.00	2.50	17.00	8,141.97	33.61	167.02	-37.31	94.00	14.17	0.34	
8,242.00	3.10	27.20	8,237.86	37.92	168.82	-41.66	96.00	22.65	0.81	
8,336.00	4.10	32.50	8,331.67	43.02	171.78	-46.82	94.00	30.22	1.12	
8,430.00	4.80	44.80	8,425.39	48.64	176.36	-52.54	94.00	39.13	1.26	
8,524.00	4.60	55.10	8,519.07	53.59	182.22	-57.62	94.00	49.84	0.92	
8,619.00	4.30	52.20	8,613.79	57.95	188.16	-62.11	95.00	53.70	0.39	
8,714.00	4.00	55.80	8,708.54	62.00	193.72	-66.28	95.00	53.94	0.42	
8,807.00	2.80	62.20	8,801.37	64.88	198.41	-69.26	93.00	58.44	1.35	
8,902.00	1.90	69.60	8,896.29	66.51	201.94	-70.97	95.00	65.19	1.00	
8,995.00	2.20	77.00	8,989.23	67.45	205.12	-71.98	93.00	73.57	0.43	
9,090.00	2.50	89.10	9,084.15	67.89	208.97	-72.51	95.00	83.44	0.61	
9,184.00	2.70	77.20	9,178.06	68.42	213.18	-73.12	94.00	82.92	0.61	
9,278.00	2.60	64.80	9,271.96	69.81	217.27	-74.61	94.00	71.12	0.62	
9,291.00	2.80	86.70	9,284.94	69.96	217.85	-74.77	13.00	76.16	8.03	
9,323.00	6.80	150.90	9,316.84	68.35	219.55	-73.20	32.00	133.42	19.13	
9,354.00	11.60	160.90	9,347.44	63.80	221.47	-68.69	31.00	157.20	16.26	



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9,385.00	14.00	162.90	9,377.66	57.27	223.59	-62.21	31.00	161.99	7.87	
9,416.00	15.30	157.50	9,407.66	49.90	226.26	-54.90	31.00	160.08	6.08	
9,447.00	16.80	156.60	9,437.45	42.01	229.60	-47.09	31.00	157.03	4.90	
9,479.00	18.50	158.10	9,467.94	33.06	233.33	-38.22	32.00	157.38	5.50	
9,510.00	20.80	157.80	9,497.13	23.39	237.25	-28.65	31.00	157.94	7.43	
9,541.00	23.30	158.70	9,525.86	12.58	241.56	-17.94	31.00	158.27	8.14	
9,572.00	24.00	159.00	9,554.26	0.99	246.04	-6.44	31.00	158.85	2.29	
9,603.00	25.30	159.90	9,582.44	-11.12	250.58	5.56	31.00	159.46	4.36	
9,634.00	27.30	161.40	9,610.23	-24.08	255.12	18.42	31.00	160.68	6.80	
9,665.00	28.70	163.60	9,637.60	-37.96	259.49	32.20	31.00	162.53	5.61	
9,697.00	28.60	162.80	9,665.68	-52.65	263.93	46.78	32.00	163.20	1.24	
9,728.00	28.50	166.20	9,692.91	-66.92	267.89	60.96	31.00	164.50	5.25	
9,759.00	29.00	169.40	9,720.09	-81.49	271.03	75.46	31.00	167.81	5.22	
9,791.00	29.70	169.40	9,747.98	-96.90	273.92	90.81	32.00	169.40	2.19	
9,823.00	29.30	171.60	9,775.84	-112.44	276.52	106.29	32.00	170.49	3.61	
9,854.00	30.80	173.60	9,802.67	-127.84	278.51	121.63	31.00	172.62	5.82	
9,886.00	32.50	175.60	9,829.91	-144.55	280.09	138.31	32.00	174.62	6.24	
9,917.00	33.50	176.00	9,855.91	-161.39	281.32	155.11	31.00	175.80	3.30	
9,948.00	35.70	177.40	9,881.42	-178.96	282.33	172.66	31.00	176.72	7.55	
9,979.00	38.50	179.60	9,906.15	-197.65	282.81	191.33	31.00	178.54	9.99	
10,010.00	41.50	180.30	9,929.89	-217.57	282.82	211.25	31.00	179.96	9.79	
10,042.00	44.10	180.90	9,953.37	-239.31	282.59	232.99	32.00	180.61	8.22	
10,088.00	46.10	182.60	9,985.84	-271.88	281.59	265.57	46.00	181.76	5.07	
10,135.00	49.00	184.70	10,017.56	-306.48	279.36	300.21	47.00	183.67	7.00	
10,181.00	52.50	186.10	10,046.66	-341.93	276.00	335.73	46.00	185.42	7.97	
10,229.00	55.20	185.80	10,074.97	-380.48	271.99	374.36	48.00	185.95	5.65	
10,277.00	57.70	184.60	10,101.50	-420.32	268.37	414.26	48.00	185.19	5.61	



Wellbenders End Of Well Report

Company:	XTO Energy	Local Co-ordinate Reference:	Well ROSS DRAW 25-36 FED 103H
Project:	Eddy County, NM (Nad-27 / East Zone)	TVD Reference:	2960+24 @ 2984.00usft (Hercules)
Site:	Ross Draw 25-36 Fed East	MD Reference:	2960+24 @ 2984.00usft (Hercules)
Well:	ROSS DRAW 25-36 FED 103H	North Reference:	Grid
Wellbore:	RD 25-36 Fed 103H ST	Survey Calculation Method:	Minimum Curvature
Design:	RD 25-36 Fed 103H ST AsDrilled	Database:	WBDS_SQL_2

Survey									
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	CL (usft)	CL Azi (°)	DLeg (°/100ft)
10,323.00	60.40	183.70	10,125.16	-459.66	265.52	453.66	46.00	184.14	6.10
10,369.00	64.50	184.60	10,146.43	-500.33	262.56	494.38	46.00	184.16	9.08
10,418.00	69.50	185.70	10,165.57	-545.23	258.50	539.37	49.00	185.16	10.41
10,463.00	73.60	187.70	10,179.81	-587.62	253.52	581.85	45.00	186.71	10.04
10,512.00	77.60	187.80	10,191.99	-634.63	247.12	629.00	49.00	187.75	8.17
10,542.00	78.60	188.40	10,198.18	-663.69	242.98	658.15	30.00	188.10	3.87
10,617.00	82.46	187.69	10,210.51	-736.93	232.63	731.59	75.00	188.04	5.23
10,712.00	89.17	182.64	10,217.45	-831.21	224.13	826.04	95.00	185.15	8.83
10,806.00	91.27	182.01	10,217.09	-925.13	220.31	920.02	94.00	182.33	2.33
10,900.00	91.27	181.70	10,215.00	-1,019.05	217.27	1,013.99	94.00	181.85	0.33
10,995.00	93.55	183.44	10,211.01	-1,113.86	213.02	1,108.87	95.00	182.57	3.02
11,089.00	91.70	182.43	10,206.70	-1,207.64	208.21	1,202.73	94.00	182.93	2.24
11,183.00	91.58	181.19	10,204.01	-1,301.55	205.24	1,296.68	94.00	181.81	1.32
11,278.00	92.40	184.35	10,200.71	-1,396.37	200.66	1,391.58	95.00	182.77	3.43
11,371.00	91.02	183.97	10,197.94	-1,489.08	193.91	1,484.42	93.00	184.16	1.54
11,466.00	88.50	182.47	10,198.34	-1,583.92	188.58	1,579.35	95.00	183.22	3.09
11,560.00	88.75	182.04	10,200.59	-1,677.82	184.88	1,673.31	94.00	182.25	0.53
11,655.00	90.24	181.89	10,201.43	-1,772.76	181.62	1,768.29	95.00	181.96	1.58
11,749.00	91.36	183.27	10,200.12	-1,866.65	177.39	1,862.26	94.00	182.58	1.89
11,844.00	89.79	185.22	10,199.16	-1,961.37	170.36	1,957.12	95.00	184.25	2.64
11,938.00	90.69	185.43	10,198.77	-2,054.97	161.64	2,050.88	94.00	185.32	0.98
12,033.00	91.44	185.44	10,197.00	-2,149.52	152.64	2,145.61	95.00	185.43	0.79
12,127.00	89.87	184.39	10,195.93	-2,243.17	144.59	2,239.41	94.00	184.91	2.01
12,221.00	90.10	183.88	10,195.95	-2,336.92	137.81	2,333.29	94.00	184.13	0.60
12,316.00	90.69	183.20	10,195.30	-2,431.74	131.94	2,428.22	95.00	183.54	0.95
12,411.00	91.08	183.22	10,193.83	-2,526.58	126.63	2,523.15	95.00	183.21	0.41
12,505.00	91.92	183.44	10,191.37	-2,620.39	121.17	2,617.06	94.00	183.33	0.92



Wellbenders End Of Well Report

Company:	XTO Energy	Local Co-ordinate Reference:	Well ROSS DRAW 25-36 FED 103H
Project:	Eddy County, NM (Nad-27 / East Zone)	TVD Reference:	2960+24 @ 2984.00usft (Hercules)
Site:	Ross Draw 25-36 Fed East	MD Reference:	2960+24 @ 2984.00usft (Hercules)
Well:	ROSS DRAW 25-36 FED 103H	North Reference:	Grid
Wellbore:	RD 25-36 Fed 103H ST	Survey Calculation Method:	Minimum Curvature
Design:	RD 25-36 Fed 103H ST AsDrilled	Database:	WBDS_SQL_2

Survey									
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	CL (usft)	CL Azi (°)	DLeg (°/100ft)
12,600.00	92.26	183.80	10,187.91	-2,715.13	115.17	2,711.91	95.00	183.62	0.52
12,694.00	91.89	184.67	10,184.50	-2,808.81	108.24	2,805.72	94.00	184.24	1.01
12,788.00	91.36	184.42	10,181.84	-2,902.48	100.79	2,899.53	94.00	184.54	0.62
12,883.00	90.49	183.65	10,180.30	-2,997.23	94.11	2,994.41	95.00	184.03	1.22
12,977.00	90.55	183.58	10,179.45	-3,091.04	88.18	3,088.33	94.00	183.62	0.10
13,072.00	89.68	186.09	10,179.26	-3,185.69	80.17	3,183.13	95.00	184.84	2.80
13,166.00	89.45	185.83	10,179.97	-3,279.18	70.41	3,276.82	94.00	185.96	0.37
13,261.00	88.73	185.51	10,181.48	-3,373.70	61.03	3,371.52	95.00	185.67	0.83
13,355.00	88.14	185.37	10,184.05	-3,467.25	52.12	3,465.24	94.00	185.44	0.65
13,450.00	88.31	185.78	10,186.99	-3,561.75	42.90	3,559.92	95.00	185.58	0.47
13,544.00	91.02	183.90	10,187.54	-3,655.40	34.97	3,653.73	94.00	184.84	3.51
13,639.00	89.93	182.63	10,186.75	-3,750.24	29.56	3,748.66	95.00	183.26	1.76
13,733.00	92.42	184.64	10,184.83	-3,844.02	23.60	3,842.55	94.00	183.63	3.40
13,828.00	91.47	183.20	10,181.60	-3,938.74	17.11	3,937.39	95.00	183.92	1.82
13,922.00	87.52	180.95	10,182.43	-4,032.65	13.71	4,031.35	94.00	182.08	4.84
14,016.00	90.07	182.11	10,184.41	-4,126.58	11.20	4,125.32	94.00	181.53	2.98
14,111.00	88.00	181.35	10,186.01	-4,221.52	8.33	4,220.30	95.00	181.73	2.32
14,205.00	91.75	183.13	10,186.21	-4,315.43	4.66	4,314.27	94.00	182.24	4.42
14,299.00	91.11	183.22	10,183.87	-4,409.26	-0.55	4,408.18	94.00	183.18	0.69
14,394.00	89.99	182.05	10,182.95	-4,504.15	-4.92	4,503.15	95.00	182.63	1.70
14,488.00	89.51	182.41	10,183.36	-4,598.08	-8.57	4,597.14	94.00	182.23	0.64
14,582.00	90.83	184.94	10,183.09	-4,691.87	-14.60	4,691.04	94.00	183.67	3.04
14,676.00	90.15	185.07	10,182.28	-4,785.51	-22.80	4,784.84	94.00	185.01	0.74
14,770.00	89.73	185.15	10,182.38	-4,879.14	-31.17	4,878.63	94.00	185.11	0.45
14,864.00	90.85	186.63	10,181.90	-4,972.63	-40.82	4,972.32	94.00	185.89	1.97
14,959.00	89.34	185.26	10,181.75	-5,067.12	-50.66	5,067.00	95.00	185.94	2.15
15,053.00	87.94	184.78	10,183.98	-5,160.73	-58.88	5,160.77	94.00	185.02	1.57



Wellbenders End Of Well Report

Company:	XTO Energy	Local Co-ordinate Reference:	Well ROSS DRAW 25-36 FED 103H
Project:	Eddy County, NM (Nad-27 / East Zone)	TVD Reference:	2960+24 @ 2984.00usft (Hercules)
Site:	Ross Draw 25-36 Fed East	MD Reference:	2960+24 @ 2984.00usft (Hercules)
Well:	ROSS DRAW 25-36 FED 103H	North Reference:	Grid
Wellbore:	RD 25-36 Fed 103H ST	Survey Calculation Method:	Minimum Curvature
Design:	RD 25-36 Fed 103H ST AsDrilled	Database:	WBDS_SQL_2

Survey										
MD (usft)	Inc (°)	Azi (azimuth) (°)		TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	CL (usft)	CL Azi (°)	DLeg (°/100ft)
15,148.00	91.58	183.87		10,184.38	-5,255.44	-66.04	5,255.61	95.00	184.32	3.95
15,243.00	93.41	187.48		10,180.24	-5,349.87	-75.42	5,350.22	95.00	185.67	4.26
15,337.00	91.02	185.55		10,176.61	-5,443.18	-86.08	5,443.75	94.00	186.51	3.27
15,432.00	89.03	184.23		10,176.56	-5,537.82	-94.17	5,538.55	95.00	184.89	2.51
15,526.00	89.20	184.07		10,178.02	-5,631.57	-100.98	5,632.42	94.00	184.15	0.25
15,621.00	87.07	182.85		10,181.11	-5,726.34	-106.71	5,727.29	95.00	183.46	2.58
15,715.00	90.21	182.48		10,183.34	-5,820.20	-111.08	5,821.23	94.00	182.66	3.36
15,810.00	91.53	182.14		10,181.90	-5,915.11	-114.90	5,916.20	95.00	182.31	1.43
15,904.00	90.99	181.47		10,179.83	-6,009.04	-117.86	6,010.17	94.00	181.80	0.92
15,998.00	93.77	181.47		10,175.93	-6,102.91	-120.27	6,104.08	94.00	181.47	2.96
16,093.00	92.20	180.95		10,170.98	-6,197.76	-122.28	6,198.95	95.00	181.21	1.74
16,187.00	89.62	180.09		10,169.49	-6,291.74	-123.13	6,292.92	94.00	180.52	2.89
16,282.00	91.89	181.31		10,168.23	-6,386.71	-124.29	6,387.90	95.00	180.70	2.71
16,376.00	91.11	180.61		10,165.77	-6,480.67	-125.86	6,481.86	94.00	180.96	1.11
16,469.00	90.57	180.04		10,164.41	-6,573.65	-126.39	6,574.84	93.00	180.32	0.84
16,564.00	91.50	182.45		10,162.69	-6,668.61	-128.45	6,669.82	95.00	181.24	2.72
16,659.00	91.39	182.64		10,160.30	-6,763.48	-132.67	6,764.76	95.00	182.55	0.23
16,713.00	90.46	182.08		10,159.43	-6,817.43	-134.89	6,818.75	54.00	182.36	2.01
16,763.00	90.46	182.08		10,159.03	-6,867.40	-136.71	6,868.74	50.00	182.08	0.00
Final Station Closure Distance= 6868.76 /Direction= 181.14 - Projection to Bit: 16763.00' MD/ 10159.03' TVD - TD: Latitude = 32.000591 / Longitude = -103.938719 - TD: Y= 364165.50 / X= 622327.99										



Wellbenders End Of Well Report

Company:	XTO Energy	Local Co-ordinate Reference:	Well ROSS DRAW 25-36 FED 103H
Project:	Eddy County, NM (Nad-27 / East Zone)	TVD Reference:	2960+24 @ 2984.00usft (Hercules)
Site:	Ross Draw 25-36 Fed East	MD Reference:	2960+24 @ 2984.00usft (Hercules)
Well:	ROSS DRAW 25-36 FED 103H	North Reference:	Grid
Wellbore:	RD 25-36 Fed 103H ST	Survey Calculation Method:	Minimum Curvature
Design:	RD 25-36 Fed 103H ST AsDrilled	Database:	WBDS_SQL_2

Design Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
16,763.00	10,159.03	-6,867.40	-136.71	Final Station Closure Distance= 6868.76 /Direction= 181.14	
16,763.00	10,159.03	-6,867.40	-136.71	Projection to Bit: 16763.00' MD/ 10159.03' TVD	
16,763.00	10,159.03	-6,867.40	-136.71	TD: Latitude = 32.000591 / Longitude = -103.938719	
16,763.00	10,159.03	-6,867.40	-136.71	TD: Y= 364165.50 / X= 622327.99	

Checked By: _____	Approved By: _____	Date: _____
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