

RECEIVED

Planning Report

JUN 07 2019

Database:	TP_EDM	Local Co-ordinate Reference:	Well RS25-166H - Slot RS25 166H SHL
Company:	XTO Energy	TVD Reference:	3061+22 @ 3083.00usft (Perseus)
Project:	Eddy County, NM (NAD27) NMEZ Grid	Grid Reference:	3061+22 @ 3083.00usft (Perseus)
Site:	Remuda South 25 State Pad	North Reference:	Grid
Well:	RS25-166H	Survey Calculation Method:	Minimum Curvature
Wellbore:	166H Lateral		
Design:	Plan #1		

Project	Eddy County, NM (NAD27) NMEZ Grid		
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	Remuda South 25 State Pad			
Site Position:		Northing:	464,641.33 ft	Latitude: 32° 16' 36.434 N
From:	Map	Easting:	622,881.65 ft	Longitude: 103° 56' 8.666 W
Position Uncertainty:	0.00 usft	Slot Radius:	13.20 in	Grid Convergence: 0.21 °

Well	RS25-166H - Slot RS25 166H SHL			
Well Position	+N/-S	0.00 usft	Northing:	464,641.33 ft
	+E/-W	59.80 usft	Easting:	622,941.45 ft
Position Uncertainty	0.00 usft	Wellhead Elevation:	Ground Level:	3,061.00 usft

Wellbore	166H Lateral				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	05/16/19	6.92	60.03	47,737

Design	Plan #1			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	177.33

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,677.71	2.78	113.86	3,677.61	-2.72	6.15	1.00	1.00	0.00	113.86	
10,766.37	2.78	113.86	10,757.94	-141.65	320.26	0.00	0.00	0.00	0.00	
11,651.95	89.69	179.75	11,319.00	-711.30	347.50	10.00	9.81	7.44	65.92	RS25 166H FTPr_33
19,091.13	89.69	179.75	11,359.00	-8,150.30	380.60	0.00	0.00	0.00	0.00	RS25 166H PBHL_33

Planning Report

Database:	TP_EDM	Local Co-ordinate Reference:	Well: RS25-166H - Slot RS25 166H SHL
Company:	XTO Energy	TVD Reference:	3061+22 @ 3083.00usft (Perseus)
Project:	Eddy County, NM (NAD27) NMEZ Grid	MD Reference:	3061+22 @ 3083.00usft (Perseus)
Site:	Remuda South 25 State Pad	North Reference:	Grid
Well:	RS25-166H	Survey Calculation Method:	Minimum Curvature
Wellbore:	166H Lateral		
Design:	Plan #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RS25 105H SHL (copy) - RS25 126H SHL (copy) - RS25 125H SHL (copy) - RS25 166H SHL (copy)									
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
228.00	0.00	0.00	228.00	0.00	0.00	0.00	0.00	0.00	0.00
Rustler Anh.									
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
304.00	0.00	0.00	304.00	0.00	0.00	0.00	0.00	0.00	0.00
Base Rustler Anh.									
325.00	0.00	0.00	325.00	0.00	0.00	0.00	0.00	0.00	0.00
Salado Sh. Lm.									
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
433.00	0.00	0.00	433.00	0.00	0.00	0.00	0.00	0.00	0.00
Est. Top of Salt									
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,010.00	0.00	0.00	3,010.00	0.00	0.00	0.00	0.00	0.00	0.00
Base Salt									
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00
3,284.00	0.00	0.00	3,284.00	0.00	0.00	0.00	0.00	0.00	0.00
Lamar Lm. (Del Mtn Grp.)									
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00
3,306.00	0.00	0.00	3,306.00	0.00	0.00	0.00	0.00	0.00	0.00
Bell Canyon Ss.									
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	1.00	113.86	3,500.00	-0.35	0.80	0.39	1.00	1.00	0.00
3,600.00	2.00	113.86	3,599.96	-1.41	3.19	1.56	1.00	1.00	0.00
3,677.71	2.78	113.86	3,677.61	-2.72	6.15	3.01	1.00	1.00	0.00

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Site:	Remuda South 25 State Pad	North Reference:	Grid
Well:	RS25-166H	Survey Calculation Method:	Minimum Curvature
Wellbore:	166H Lateral		
Design:	Plan #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
3,700.00	2.78	113.86	3,699.87	-3.16	7.14	3.49	0.00	0.00	0.00
3,800.00	2.78	113.86	3,799.75	-5.12	11.57	5.65	0.00	0.00	0.00
3,900.00	2.78	113.86	3,899.63	-7.08	16.00	7.82	0.00	0.00	0.00
4,000.00	2.78	113.86	3,999.51	-9.04	20.43	9.98	0.00	0.00	0.00
4,100.00	2.78	113.86	4,099.40	-11.00	24.87	12.15	0.00	0.00	0.00
4,148.66	2.78	113.86	4,148.00	-11.95	27.02	13.20	0.00	0.00	0.00
Cherry Canyon Ss.									
4,200.00	2.78	113.86	4,199.28	-12.96	29.30	14.31	0.00	0.00	0.00
4,300.00	2.78	113.86	4,299.16	-14.92	33.73	16.47	0.00	0.00	0.00
4,400.00	2.78	113.86	4,399.04	-16.88	38.16	18.64	0.00	0.00	0.00
4,500.00	2.78	113.86	4,498.93	-18.84	42.59	20.80	0.00	0.00	0.00
4,600.00	2.78	113.86	4,598.81	-20.80	47.02	22.97	0.00	0.00	0.00
4,700.00	2.78	113.86	4,698.69	-22.76	51.45	25.13	0.00	0.00	0.00
4,800.00	2.78	113.86	4,798.57	-24.72	55.88	27.30	0.00	0.00	0.00
4,900.00	2.78	113.86	4,898.46	-26.68	60.31	29.46	0.00	0.00	0.00
5,000.00	2.78	113.86	4,998.34	-28.64	64.75	31.63	0.00	0.00	0.00
5,100.00	2.78	113.86	5,098.22	-30.60	69.18	33.79	0.00	0.00	0.00
5,200.00	2.78	113.86	5,198.10	-32.56	73.61	35.95	0.00	0.00	0.00
5,300.00	2.78	113.86	5,297.99	-34.52	78.04	38.12	0.00	0.00	0.00
5,400.00	2.78	113.86	5,397.87	-36.48	82.47	40.28	0.00	0.00	0.00
5,500.00	2.78	113.86	5,497.75	-38.44	86.90	42.45	0.00	0.00	0.00
5,600.00	2.78	113.86	5,597.63	-40.40	91.33	44.61	0.00	0.00	0.00
5,700.00	2.78	113.86	5,697.52	-42.36	95.76	46.78	0.00	0.00	0.00
5,763.56	2.78	113.86	5,761.00	-43.60	98.58	48.15	0.00	0.00	0.00
Brushy Canyon Ss.									
5,800.00	2.78	113.86	5,797.40	-44.32	100.19	48.94	0.00	0.00	0.00
5,900.00	2.78	113.86	5,897.28	-46.28	104.62	51.11	0.00	0.00	0.00
6,000.00	2.78	113.86	5,997.16	-48.24	109.06	53.27	0.00	0.00	0.00
6,100.00	2.78	113.86	6,097.05	-50.20	113.49	55.43	0.00	0.00	0.00
6,200.00	2.78	113.86	6,196.93	-52.15	117.92	57.60	0.00	0.00	0.00
6,300.00	2.78	113.86	6,296.81	-54.11	122.35	59.76	0.00	0.00	0.00
6,400.00	2.78	113.86	6,396.69	-56.07	126.78	61.93	0.00	0.00	0.00
6,500.00	2.78	113.86	6,496.58	-58.03	131.21	64.09	0.00	0.00	0.00
6,600.00	2.78	113.86	6,596.46	-59.99	135.64	66.26	0.00	0.00	0.00
6,700.00	2.78	113.86	6,696.34	-61.95	140.07	68.42	0.00	0.00	0.00
6,799.78	2.78	113.86	6,796.00	-63.91	144.49	70.58	0.00	0.00	0.00
Lower Brushy Canyon Ss.									
6,800.00	2.78	113.86	6,796.22	-63.91	144.50	70.58	0.00	0.00	0.00
6,900.00	2.78	113.86	6,896.11	-65.87	148.94	72.75	0.00	0.00	0.00
7,000.00	2.78	113.86	6,995.99	-67.83	153.37	74.91	0.00	0.00	0.00
7,061.08	2.78	113.86	7,057.00	-69.03	156.07	76.24	0.00	0.00	0.00
Bone Spring Lm.									
7,100.00	2.78	113.86	7,095.87	-69.79	157.80	77.08	0.00	0.00	0.00
7,158.20	2.78	113.86	7,154.00	-70.93	160.38	78.34	0.00	0.00	0.00
Avalon Ss.									
7,200.00	2.78	113.86	7,195.75	-71.75	162.23	79.24	0.00	0.00	0.00
7,227.28	2.78	113.86	7,223.00	-72.29	163.44	79.83	0.00	0.00	0.00
Bone Spg. Upper Avalon Lm.									
7,300.00	2.78	113.86	7,295.64	-73.71	166.66	81.41	0.00	0.00	0.00
7,314.38	2.78	113.86	7,310.00	-74.00	167.30	81.72	0.00	0.00	0.00
Bone Spg. Avalon Sh.									
7,400.00	2.78	113.86	7,395.52	-75.67	171.09	83.57	0.00	0.00	0.00
7,500.00	2.78	113.86	7,495.40	-77.63	175.52	85.74	0.00	0.00	0.00

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Company:	XTO Energy	TVD Reference:	3061+22 @ 3083.00usft (Perseus)
Project:	Eddy County, NM (NAD27) NMEZ Grid	MD Reference:	3061+22 @ 3083.00usft (Perseus)
Site:	Remuda South 25 State Pad	North Reference:	Grid
Well:	RS25-166H	Survey Calculation Method:	Minimum Curvature
Wellbore:	166H Lateral		
Design:	Plan #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
7,522.62	2.78	113.86	7,518.00	-78.08	176.52	86.23	0.00	0.00	0.00
Bone Spg. Lower Avalon Lm									
7,600.00	2.78	113.86	7,595.28	-79.59	179.95	87.90	0.00	0.00	0.00
7,700.00	2.78	113.86	7,695.17	-81.55	184.38	90.06	0.00	0.00	0.00
7,800.00	2.78	113.86	7,795.05	-83.51	188.82	92.23	0.00	0.00	0.00
7,900.00	2.78	113.86	7,894.93	-85.47	193.25	94.39	0.00	0.00	0.00
8,000.00	2.78	113.86	7,994.82	-87.43	197.68	96.56	0.00	0.00	0.00
8,082.28	2.78	113.86	8,077.00	-89.04	201.32	98.34	0.00	0.00	0.00
First Bone Spring Ss.									
8,100.00	2.78	113.86	8,094.70	-89.39	202.11	98.72	0.00	0.00	0.00
8,200.00	2.78	113.86	8,194.58	-91.35	206.54	100.89	0.00	0.00	0.00
8,300.00	2.78	113.86	8,294.46	-93.31	210.97	103.05	0.00	0.00	0.00
8,396.65	2.78	113.86	8,391.00	-95.21	215.25	105.14	0.00	0.00	0.00
Second Bone Spring Lm.									
8,400.00	2.78	113.86	8,394.35	-95.27	215.40	105.21	0.00	0.00	0.00
8,500.00	2.78	113.86	8,494.23	-97.23	219.83	107.38	0.00	0.00	0.00
8,600.00	2.78	113.86	8,594.11	-99.19	224.26	109.54	0.00	0.00	0.00
8,700.00	2.78	113.86	8,693.99	-101.15	228.69	111.71	0.00	0.00	0.00
8,800.00	2.78	113.86	8,793.88	-103.11	233.13	113.87	0.00	0.00	0.00
8,900.00	2.78	113.86	8,893.76	-105.07	237.56	116.04	0.00	0.00	0.00
8,908.25	2.78	113.86	8,902.00	-105.23	237.92	116.22	0.00	0.00	0.00
Second Bone Spring Ss.									
9,000.00	2.78	113.86	8,993.64	-107.03	241.99	118.20	0.00	0.00	0.00
9,100.00	2.78	113.86	9,093.52	-108.99	246.42	120.37	0.00	0.00	0.00
9,200.00	2.78	113.86	9,193.41	-110.95	250.85	122.53	0.00	0.00	0.00
9,213.61	2.78	113.86	9,207.00	-111.22	251.45	122.82	0.00	0.00	0.00
Third Bone Spring Lm.									
9,300.00	2.78	113.86	9,293.29	-112.91	255.28	124.69	0.00	0.00	0.00
9,400.00	2.78	113.86	9,393.17	-114.87	259.71	126.86	0.00	0.00	0.00
9,500.00	2.78	113.86	9,493.05	-116.83	264.14	129.02	0.00	0.00	0.00
9,600.00	2.78	113.86	9,592.94	-118.79	268.57	131.19	0.00	0.00	0.00
9,700.00	2.78	113.86	9,692.82	-120.75	273.01	133.35	0.00	0.00	0.00
9,800.00	2.78	113.86	9,792.70	-122.71	277.44	135.52	0.00	0.00	0.00
9,900.00	2.78	113.86	9,892.58	-124.67	281.87	137.68	0.00	0.00	0.00
10,000.00	2.78	113.86	9,992.47	-126.63	286.30	139.85	0.00	0.00	0.00
10,001.54	2.78	113.86	9,994.00	-126.66	286.37	139.88	0.00	0.00	0.00
Third Bone Spring Ss.									
10,100.00	2.78	113.86	10,092.35	-128.59	290.73	142.01	0.00	0.00	0.00
10,200.00	2.78	113.86	10,192.23	-130.55	295.16	144.17	0.00	0.00	0.00
10,300.00	2.78	113.86	10,292.11	-132.51	299.59	146.34	0.00	0.00	0.00
10,313.90	2.78	113.86	10,306.00	-132.78	300.21	146.64	0.00	0.00	0.00
Wolfcamp Sh.									
10,353.95	2.78	113.86	10,346.00	-133.57	301.98	147.51	0.00	0.00	0.00
Wolfcamp X Ss.									
10,364.31	2.78	113.86	10,356.35	-133.77	302.44	147.73	0.00	0.00	0.00
RS25 105H FTP_329FNL_506FWL (copy)									
10,372.97	2.78	113.86	10,365.00	-133.94	302.83	147.92	0.00	0.00	0.00
LP									
10,400.00	2.78	113.86	10,392.00	-134.47	304.02	148.50	0.00	0.00	0.00
10,432.04	2.78	113.86	10,424.00	-135.10	305.44	149.20	0.00	0.00	0.00
Wolfcamp Y Ss.									
10,500.00	2.78	113.86	10,491.88	-136.43	308.45	150.67	0.00	0.00	0.00
10,600.00	2.78	113.86	10,591.76	-138.39	312.89	152.83	0.00	0.00	0.00

Planning Report

Database:	TP_EDM	Local Co-ordinate Reference:	Well RS25-166H - Slot RS25 166H SHL
Company:	XTO Energy	TVD Reference:	3061+22 @ 3083.00usft (Perseus)
Project:	Eddy County, NM (NAD27) NMEZ Grid	MD Reference:	3061+22 @ 3083.00usft (Perseus)
Site:	Remuda South 25 State Pad	North Reference:	Grid
Well:	RS25-166H	Survey Calculation Method:	Minimum Curvature
Wellbore:	166H Lateral		
Design:	Plan #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
10,630.31	2.78	113.86	10,622.04	-138.98	314.23	153.49	0.00	0.00	0.00
RS25 125H FTP_329FNL_671FWL (copy)									
10,676.87	2.78	113.86	10,668.55	-139.89	316.29	154.50	0.00	0.00	0.00
RS25 125H FTP_329FNL_14FEL (copy)									
10,700.00	2.78	113.86	10,691.64	-140.35	317.32	155.00	0.00	0.00	0.00
10,766.37	2.78	113.86	10,757.94	-141.65	320.26	156.43	0.00	0.00	0.00
10,800.00	5.16	150.40	10,791.49	-143.29	321.75	158.15	10.00	7.09	108.66
10,850.00	9.83	164.95	10,841.05	-149.37	323.97	164.32	10.00	9.33	29.09
10,900.00	14.71	170.05	10,889.90	-159.75	326.18	174.79	10.00	9.77	10.21
10,950.00	19.65	172.64	10,937.65	-174.36	328.35	189.48	10.00	9.88	5.17
11,000.00	24.62	174.21	10,983.95	-193.07	330.48	208.27	10.00	9.93	3.15
11,050.00	29.60	175.29	11,028.44	-215.75	332.55	231.03	10.00	9.95	2.15
11,100.00	34.58	176.08	11,070.79	-242.23	334.53	257.57	10.00	9.97	1.58
11,150.00	39.56	176.69	11,110.68	-272.30	336.43	287.69	10.00	9.97	1.22
11,200.00	44.55	177.18	11,147.79	-305.73	338.21	321.18	10.00	9.98	0.99
11,250.00	49.54	177.59	11,181.84	-342.28	339.87	357.76	10.00	9.98	0.83
11,300.00	54.54	177.95	11,212.59	-381.66	341.40	397.17	10.00	9.98	0.71
11,350.00	59.53	178.27	11,239.79	-423.57	342.78	439.10	10.00	9.99	0.63
11,400.00	64.52	178.55	11,263.23	-467.70	344.00	483.24	10.00	9.99	0.57
11,450.00	69.52	178.81	11,282.75	-513.71	345.06	529.24	10.00	9.99	0.52
11,500.00	74.51	179.06	11,298.18	-561.24	345.95	576.77	10.00	9.99	0.49
11,550.00	79.51	179.29	11,309.42	-609.94	346.65	625.45	10.00	9.99	0.47
11,600.00	84.50	179.51	11,316.37	-659.44	347.17	674.91	10.00	9.99	0.45
11,651.15	89.61	179.74	11,319.00	-710.50	347.50	725.94	10.00	9.99	0.44
RS25 166H FTP_329FNL_374FEL (copy) - RS25 166H LP									
11,651.95	89.69	179.75	11,319.00	-711.30	347.50	726.73	10.00	9.99	0.44
RS25 166H FTP_330FNL_374FEL									
11,700.00	89.69	179.75	11,319.26	-759.35	347.71	774.74	0.00	0.00	0.00
11,800.00	89.69	179.75	11,319.80	-859.35	348.16	874.65	0.00	0.00	0.00
11,900.00	89.69	179.75	11,320.33	-959.34	348.60	974.56	0.00	0.00	0.00
12,000.00	89.69	179.75	11,320.87	-1,059.34	349.05	1,074.47	0.00	0.00	0.00
12,100.00	89.69	179.75	11,321.41	-1,159.34	349.49	1,174.38	0.00	0.00	0.00
12,200.00	89.69	179.75	11,321.95	-1,259.34	349.94	1,274.29	0.00	0.00	0.00
12,300.00	89.69	179.75	11,322.48	-1,359.34	350.38	1,374.20	0.00	0.00	0.00
12,400.00	89.69	179.75	11,323.02	-1,459.33	350.83	1,474.11	0.00	0.00	0.00
12,500.00	89.69	179.75	11,323.56	-1,559.33	351.27	1,574.02	0.00	0.00	0.00
12,600.00	89.69	179.75	11,324.10	-1,659.33	351.72	1,673.93	0.00	0.00	0.00
12,700.00	89.69	179.75	11,324.64	-1,759.33	352.16	1,773.84	0.00	0.00	0.00
12,800.00	89.69	179.75	11,325.17	-1,859.32	352.61	1,873.75	0.00	0.00	0.00
12,900.00	89.69	179.75	11,325.71	-1,959.32	353.05	1,973.66	0.00	0.00	0.00
13,000.00	89.69	179.75	11,326.25	-2,059.32	353.50	2,073.56	0.00	0.00	0.00
13,100.00	89.69	179.75	11,326.79	-2,159.32	353.94	2,173.47	0.00	0.00	0.00
13,200.00	89.69	179.75	11,327.32	-2,259.31	354.39	2,273.38	0.00	0.00	0.00
13,300.00	89.69	179.75	11,327.86	-2,359.31	354.83	2,373.29	0.00	0.00	0.00
13,400.00	89.69	179.75	11,328.40	-2,459.31	355.28	2,473.20	0.00	0.00	0.00
13,500.00	89.69	179.75	11,328.94	-2,559.31	355.72	2,573.11	0.00	0.00	0.00
13,600.00	89.69	179.75	11,329.47	-2,659.30	356.17	2,673.02	0.00	0.00	0.00
13,700.00	89.69	179.75	11,330.01	-2,759.30	356.61	2,772.93	0.00	0.00	0.00
13,800.00	89.69	179.75	11,330.55	-2,859.30	357.06	2,872.84	0.00	0.00	0.00
13,900.00	89.69	179.75	11,331.09	-2,959.30	357.50	2,972.75	0.00	0.00	0.00
14,000.00	89.69	179.75	11,331.63	-3,059.29	357.95	3,072.66	0.00	0.00	0.00
14,100.00	89.69	179.75	11,332.16	-3,159.29	358.39	3,172.57	0.00	0.00	0.00
14,200.00	89.69	179.75	11,332.70	-3,259.29	358.84	3,272.48	0.00	0.00	0.00

Planning Report

Database:	TP_EDM	Local Co-ordinate Reference:	Well RS25-166H - Slot RS25 166H SHL
Company:	XTO Energy	TVD Reference:	3061+22 @ 3083.00usft (Perseus)
Project:	Eddy County, NM (NAD27) NMEZ Grid	MD Reference:	3061+22 @ 3083.00usft (Perseus)
Site:	Remuda South 25 State Pad	North Reference:	Grid
Well:	RS25-166H	Survey Calculation Method:	Minimum Curvature
Wellbore:	166H Lateral		
Design:	Plan #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
14,300.00	89.69	179.75	11,333.24	-3,359.29	359.28	3,372.39	0.00	0.00	0.00
14,400.00	89.69	179.75	11,333.78	-3,459.28	359.73	3,472.30	0.00	0.00	0.00
14,500.00	89.69	179.75	11,334.31	-3,559.28	360.17	3,572.21	0.00	0.00	0.00
14,600.00	89.69	179.75	11,334.85	-3,659.28	360.62	3,672.12	0.00	0.00	0.00
14,700.00	89.69	179.75	11,335.39	-3,759.28	361.06	3,772.03	0.00	0.00	0.00
14,800.00	89.69	179.75	11,335.93	-3,859.27	361.51	3,871.94	0.00	0.00	0.00
14,900.00	89.69	179.75	11,336.46	-3,959.27	361.95	3,971.85	0.00	0.00	0.00
15,000.00	89.69	179.75	11,337.00	-4,059.27	362.40	4,071.75	0.00	0.00	0.00
15,100.00	89.69	179.75	11,337.54	-4,159.27	362.84	4,171.66	0.00	0.00	0.00
15,200.00	89.69	179.75	11,338.08	-4,259.26	363.29	4,271.57	0.00	0.00	0.00
15,300.00	89.69	179.75	11,338.62	-4,359.26	363.73	4,371.48	0.00	0.00	0.00
15,400.00	89.69	179.75	11,339.15	-4,459.26	364.18	4,471.39	0.00	0.00	0.00
15,500.00	89.69	179.75	11,339.69	-4,559.26	364.62	4,571.30	0.00	0.00	0.00
15,600.00	89.69	179.75	11,340.23	-4,659.25	365.07	4,671.21	0.00	0.00	0.00
15,700.00	89.69	179.75	11,340.77	-4,759.25	365.51	4,771.12	0.00	0.00	0.00
15,800.00	89.69	179.75	11,341.30	-4,859.25	365.96	4,871.03	0.00	0.00	0.00
15,900.00	89.69	179.75	11,341.84	-4,959.25	366.40	4,970.94	0.00	0.00	0.00
16,000.00	89.69	179.75	11,342.38	-5,059.25	366.85	5,070.85	0.00	0.00	0.00
16,100.00	89.69	179.75	11,342.92	-5,159.24	367.29	5,170.76	0.00	0.00	0.00
16,200.00	89.69	179.75	11,343.45	-5,259.24	367.74	5,270.67	0.00	0.00	0.00
16,300.00	89.69	179.75	11,343.99	-5,359.24	368.18	5,370.58	0.00	0.00	0.00
16,400.00	89.69	179.75	11,344.53	-5,459.24	368.63	5,470.49	0.00	0.00	0.00
16,500.00	89.69	179.75	11,345.07	-5,559.23	369.07	5,570.40	0.00	0.00	0.00
16,600.00	89.69	179.75	11,345.61	-5,659.23	369.52	5,670.31	0.00	0.00	0.00
16,700.00	89.69	179.75	11,346.14	-5,759.23	369.96	5,770.22	0.00	0.00	0.00
16,800.00	89.69	179.75	11,346.68	-5,859.23	370.41	5,870.13	0.00	0.00	0.00
16,900.00	89.69	179.75	11,347.22	-5,959.22	370.85	5,970.03	0.00	0.00	0.00
17,000.00	89.69	179.75	11,347.76	-6,059.22	371.30	6,069.94	0.00	0.00	0.00
17,100.00	89.69	179.75	11,348.29	-6,159.22	371.74	6,169.85	0.00	0.00	0.00
17,200.00	89.69	179.75	11,348.83	-6,259.22	372.19	6,269.76	0.00	0.00	0.00
17,300.00	89.69	179.75	11,349.37	-6,359.21	372.63	6,369.67	0.00	0.00	0.00
17,400.00	89.69	179.75	11,349.91	-6,459.21	373.08	6,469.58	0.00	0.00	0.00
17,500.00	89.69	179.75	11,350.44	-6,559.21	373.52	6,569.49	0.00	0.00	0.00
17,600.00	89.69	179.75	11,350.98	-6,659.21	373.97	6,669.40	0.00	0.00	0.00
17,700.00	89.69	179.75	11,351.52	-6,759.20	374.41	6,769.31	0.00	0.00	0.00
17,800.00	89.69	179.75	11,352.06	-6,859.20	374.86	6,869.22	0.00	0.00	0.00
17,900.00	89.69	179.75	11,352.60	-6,959.20	375.30	6,969.13	0.00	0.00	0.00
18,000.00	89.69	179.75	11,353.13	-7,059.20	375.75	7,069.04	0.00	0.00	0.00
18,100.00	89.69	179.75	11,353.67	-7,159.19	376.19	7,168.95	0.00	0.00	0.00
18,200.00	89.69	179.75	11,354.21	-7,259.19	376.64	7,268.86	0.00	0.00	0.00
18,300.00	89.69	179.75	11,354.75	-7,359.19	377.08	7,368.77	0.00	0.00	0.00
18,400.00	89.69	179.75	11,355.28	-7,459.19	377.52	7,468.68	0.00	0.00	0.00
18,500.00	89.69	179.75	11,355.82	-7,559.18	377.97	7,568.59	0.00	0.00	0.00
18,600.00	89.69	179.75	11,356.36	-7,659.18	378.41	7,668.50	0.00	0.00	0.00
18,700.00	89.69	179.75	11,356.90	-7,759.18	378.86	7,768.41	0.00	0.00	0.00
18,800.00	89.69	179.75	11,357.43	-7,859.18	379.30	7,868.32	0.00	0.00	0.00
18,900.00	89.69	179.75	11,357.97	-7,959.17	379.75	7,968.22	0.00	0.00	0.00
18,954.79	89.69	179.75	11,358.27	-8,013.96	379.99	8,022.97	0.00	0.00	0.00
RS25 105H LTP 200FSL 509FWL (copy)									
18,956.48	89.69	179.75	11,358.28	-8,015.65	380.00	8,024.65	0.00	0.00	0.00
RS25 125H LTP 200FSL 655FEL (copy)									
18,958.21	89.69	179.75	11,358.29	-8,017.38	380.01	8,026.38	0.00	0.00	0.00
RS25 126H LTP 200FSL 36FWL (copy)									

Planning Report

Database:	TP_EDM	Local Co-ordinate Reference:	Well RS25-166H - Slot RS25 166H SHL
Company:	XTO Energy	TVD Reference:	3061+22 @ 3083.00usft (Perseus)
Project:	Eddy County, NM (NAD27) NMEZ Grid	MD Reference:	3061+22 @ 3083.00usft (Perseus)
Site:	Remuda South 25 State Pad	North Reference:	Grid
Well:	RS25-166H	Survey Calculation Method:	Minimum Curvature
Wellbore:	166H Lateral		
Design:	Plan #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
18,961.13	89.69	179.75	11,358.30	-8,020.30	380.02	8,029.30	0.00	0.00	0.00
RS25 166H LTP_200FSL_325FEL (copy)									
19,000.00	89.69	179.75	11,358.51	-8,059.17	380.19	8,068.13	0.00	0.00	0.00
19,084.79	89.69	179.75	11,358.97	-8,143.96	380.57	8,152.85	0.00	0.00	0.00
RS25 105H PBHL_330FSL_509FWL (copy) - RS25 125H PBHL_330FSL_654FEL (copy)									
19,091.13	89.69	179.75	11,359.00	-8,150.30	380.60	8,159.18	0.00	0.00	0.00
RS25 166H PBHL_330FSL_324FEL (copy)									

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (ft)	Easting (ft)	Latitude	Longitude
RS25 166H SHL (copy) - plan hits target center - Point	0.00	0.00	0.00	0.00	0.00	464,641.33	622,941.45	32° 16' 36.432 N	103° 56' 7.969 W
RS25 166H FTPr_330FI - plan hits target center - Point	0.00	0.00	11,319.00	-711.30	347.50	463,930.03	623,288.95	32° 16' 29.380 N	103° 56' 3.953 W
RS25 166H LP - plan misses target center by 0.01usft at 11651.15usft MD (11319.00 TVD, -710.50 N, 347.50 E) - Point	0.00	0.00	11,319.00	-710.50	347.50	463,930.83	623,288.95	32° 16' 29.388 N	103° 56' 3.953 W
RS25 166H PBHL_330F - plan hits target center - Rectangle (sides W100.00 H7,440.00 D0.00)	0.00	0.00	11,359.00	-8,150.30	380.60	456,491.01	623,322.05	32° 15' 15.762 N	103° 56' 3.889 W
RS25 166H LTP_200FS - plan misses target center by 0.70usft at 18961.13usft MD (11358.30 TVD, -8020.30 N, 380.02 E) - Point	0.00	0.01	11,359.00	-8,020.30	380.00	456,621.01	623,321.45	32° 15' 17.049 N	103° 56' 3.890 W

Planning Report

Database:	TP_EDM	Local Co-ordinate Reference:	Well RS25-166H - Slot RS25 166H SHL
Company:	XTO Energy	TVD Reference:	3061+22 @ 3083.00usft (Perseus)
Project:	Eddy County, NM (NAD27) NMEZ Grid	MD Reference:	3061+22 @ 3083.00usft (Perseus)
Site:	Remuda South 25 State Pad	North Reference:	Grid
Well:	RS25-166H	Survey Calculation Method:	Minimum Curvature
Wellbore:	166H Lateral		
Design:	Plan #1		

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
228.00	228.00	Rustler Anh.			
304.00	304.00	Base Rustler Anh.			
325.00	325.00	Salado Sh. Lm.			
433.00	433.00	Est. Top of Salt			
3,010.00	3,010.00	Base Salt			
3,284.00	3,284.00	Lamar Lm. (Del Mtn Grp.)			
3,306.00	3,306.00	Bell Canyon Ss.			
4,148.66	4,148.00	Cherry Canyon Ss.			
5,763.56	5,761.00	Brushy Canyon Ss.			
6,799.78	6,796.00	Lower Brushy Canyon Ss.			
7,061.08	7,057.00	Bone Spring Lm.			
7,158.20	7,154.00	Avalon Ss.			
7,227.28	7,223.00	Bone Spg. Upper Avalon Lm.			
7,314.38	7,310.00	Bone Spg. Avalon Sh.			
7,522.62	7,518.00	Bone Spg. Lower Avalon Lm			
8,082.28	8,077.00	First Bone Spring Ss.			
8,396.65	8,391.00	Second Bone Spring Lm.			
8,908.25	8,902.00	Second Bone Spring Ss.			
9,213.61	9,207.00	Third Bone Spring Lm.			
10,001.54	9,994.00	Third Bone Spring Ss.			
10,313.90	10,306.00	Wolfcamp Sh.			
10,353.95	10,346.00	Wolfcamp X Ss.			
10,372.97	10,365.00	LP			
10,432.04	10,424.00	Wolfcamp Y Ss.			

Anticollision Report

Company:	XTO Energy	Local Co-ordinate Reference:	Well RS25-166H - Slot RS25 166H SHL
Project:	Eddy County, NM (NAD27) NMEZ Grid	TVD Reference:	3061+22 @ 3083.00usft (Perseus)
Reference Site:	Remuda South 25 State Pad	MD Reference:	3061+22 @ 3083.00usft (Perseus)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	RS25-166H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	166H Lateral	Database:	TP_EDM
Reference Design:	Plan #1	Offset TVD Reference:	Reference Datum

Reference	Plan #1
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria
Interpolation Method:	MD Interval 50.00usft
Depth Range:	Unlimited
Results Limited by:	Maximum separation factor of 4.00
Warning Levels Evaluated at:	2.00 Sigma
Error Model:	ISCWSA
Scan Method:	Closest Approach 3D
Error Surface:	Sperry Type
Casing Method:	Not applied

Survey Tool Program		Date	05/22/19		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.00	19,091.13	Plan #1 (166H Lateral)	MWD+IFR1+MS	OWSG MWD + IFR1 + Multi-Station Correction	

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Remuda North 25 State						
Remuda Basin Unit 1 (Offset) - RBU1 (Offset) - RBU1 (O						Out of range
RN25-105H - 105H Lateral - Plan #1						Out of range
RN25-125H - 125H Lateral - Plan #1						Out of range
RN25-126H - 126H Lateral - Plan #1	10,640.21	11,229.82	250.69	173.89	3.264	CC, ES, SF
RN25-906H - 906H Lateral - Plan #1						Out of range
Remuda South 25 State Pad						
Remuda Basin SWD (Offset) - RB SWD OH - RB SWD O	12,940.00	11,295.09	530.81	258.41	1.949	CC, ES, SF
Remuda Basin Unit 1 (Offset) - RBU1 (Offset) - RBU1 (O						Out of range
RS25-105H - 105H Lateral - Plan #1	3,300.00	3,300.00	59.80	35.64	2.475	CC
RS25-105H - 105H Lateral - Plan #1	3,400.00	3,399.47	60.24	35.37	2.422	ES
RS25-105H - 105H Lateral - Plan #1	3,450.00	3,449.19	61.00	35.76	2.417	SF
RS25-125H - 125H Lateral - Plan #1	3,526.38	3,526.98	28.87	3.55	1.140	Level 2, CC
RS25-125H - 125H Lateral - Plan #1	3,600.00	3,600.74	29.11	3.27	1.126	Level 2, ES, SF
RS25-126H - 126H Lateral - Plan #1	3,300.00	3,300.00	30.00	6.31	1.266	Level 3, CC
RS25-126H - 126H Lateral - Plan #1	3,350.00	3,349.74	30.22	6.18	1.257	Level 3, ES, SF

Offset Design	Remuda North 25 State - RN25-126H - 126H Lateral - Plan #1											Offset Site Error:	0.00 usft
Survey Program:	O-MWD+IFR1+MS											Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Distance		Minimum Separation		Warning					
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,550.00	10,541.82	11,231.85	10,620.84	37.82	39.09	-24.66	-135.56	565.10	266.42	194.06	72.36	3.682	
10,600.00	10,591.76	11,230.72	10,620.85	38.00	39.09	-24.40	-136.69	565.11	253.90	178.27	75.63	3.357	
10,640.21	10,631.93	11,229.82	10,620.85	38.14	39.09	-24.20	-137.59	565.11	250.69	173.89	76.80	3.264	CC, ES, SF
10,650.00	10,641.70	11,229.60	10,620.85	38.18	39.09	-24.15	-137.81	565.11	250.88	174.05	76.84	3.265	
10,700.00	10,691.64	11,228.47	10,620.85	38.36	39.09	-23.89	-138.94	565.12	257.72	182.15	75.57	3.411	
10,750.00	10,741.59	11,227.34	10,620.86	38.54	39.09	-23.63	-140.06	565.13	273.67	201.17	72.50	3.775	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	XTO Energy	Local Co-ordinate Reference:	Well RS25-166H - Slot RS25.166H SHL
Project:	Eddy County, NM (NAD27) NMEZ Grid	TVD Reference:	3061+22 @ 3083.00usft (Perseus)
Reference Site:	Remuda South 25 State Pad	MD Reference:	3061+22 @ 3083.00usft (Perseus)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	RS25-166H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	166H Lateral	Database:	TP_EDM
Reference Design:	Plan #1	Offset TVD Reference:	Reference Datum

Offset Design Remuda South 25 State Pad - Remuda Basin SWD (Offset) - RB SWD OH - RB SWD OH													Offset Site Error:	0.00 usft
Survey Program: 3138-INC-ONLY													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
12,000.00	11,320.87	11,262.81	11,277.80	41.34	228.68	84.81	-2,000.84	-176.37	1,079.04	809.24	269.80	3.999		
12,050.00	11,321.14	11,264.55	11,279.54	41.38	228.73	85.00	-2,000.89	-176.42	1,035.83	765.94	269.88	3.838		
12,100.00	11,321.41	11,266.29	11,281.28	41.42	228.79	85.18	-2,000.94	-176.47	993.24	723.27	269.97	3.679		
12,150.00	11,321.68	11,268.03	11,283.01	41.47	228.85	85.37	-2,000.99	-176.52	951.38	681.32	270.06	3.523		
12,200.00	11,321.95	11,269.76	11,284.75	41.53	228.91	85.56	-2,001.04	-176.57	910.34	640.18	270.16	3.370		
12,250.00	11,322.22	11,271.49	11,286.47	41.60	228.96	85.74	-2,001.09	-176.63	870.23	599.97	270.26	3.220		
12,300.00	11,322.48	11,273.22	11,288.20	41.67	229.02	85.93	-2,001.14	-176.68	831.19	560.82	270.37	3.074		
12,350.00	11,322.75	11,274.94	11,289.92	41.75	229.08	86.11	-2,001.19	-176.73	793.38	522.89	270.49	2.933		
12,400.00	11,323.02	11,276.66	11,291.64	41.84	229.13	86.30	-2,001.24	-176.78	756.98	486.37	270.61	2.797		
12,450.00	11,323.29	11,278.38	11,293.36	41.93	229.19	86.48	-2,001.29	-176.83	722.20	451.46	270.74	2.667		
12,500.00	11,323.56	11,280.10	11,295.08	42.03	229.25	86.67	-2,001.33	-176.88	689.30	418.41	270.89	2.545		
12,550.00	11,323.83	11,281.81	11,296.79	42.14	229.30	86.85	-2,001.38	-176.94	658.54	387.50	271.04	2.430		
12,600.00	11,324.10	11,283.52	11,298.50	42.24	229.36	87.04	-2,001.43	-176.99	630.25	359.05	271.20	2.324		
12,650.00	11,324.37	11,285.23	11,300.21	42.36	229.41	87.22	-2,001.48	-177.04	604.78	333.40	271.37	2.229		
12,700.00	11,324.64	11,286.94	11,301.91	42.48	229.47	87.41	-2,001.53	-177.09	582.48	310.93	271.55	2.145		
12,750.00	11,324.90	11,288.64	11,303.61	42.60	229.53	87.59	-2,001.58	-177.14	563.75	292.01	271.74	2.075		
12,800.00	11,325.17	11,290.34	11,305.31	42.72	229.58	87.77	-2,001.63	-177.19	548.94	277.01	271.92	2.019		
12,850.00	11,325.44	11,292.04	11,307.00	42.85	229.64	87.96	-2,001.68	-177.24	538.37	266.27	272.11	1.979		
12,900.00	11,325.71	11,293.73	11,308.70	42.98	229.69	88.14	-2,001.72	-177.29	532.31	260.04	272.27	1.955		
12,940.00	11,325.93	11,295.09	11,310.05	43.09	229.74	88.29	-2,001.76	-177.33	530.81	258.41	272.39	1.949 CC, ES, SF		
12,950.00	11,325.98	11,295.42	11,310.39	43.12	229.75	88.32	-2,001.77	-177.34	530.90	258.48	272.42	1.949		
13,000.00	11,326.25	11,297.11	11,312.08	43.26	229.81	88.50	-2,001.82	-177.39	534.18	261.64	272.54	1.960		
13,050.00	11,326.52	11,298.80	11,313.76	43.40	229.86	88.69	-2,001.87	-177.44	542.07	269.43	272.64	1.988		
13,100.00	11,326.79	11,300.48	11,315.44	43.54	229.92	88.87	-2,001.92	-177.49	554.37	281.66	272.71	2.033		
13,150.00	11,327.06	11,302.17	11,317.12	43.69	229.97	89.05	-2,001.96	-177.54	570.79	298.04	272.75	2.093		
13,200.00	11,327.32	11,303.84	11,318.80	43.84	230.03	89.23	-2,002.01	-177.59	591.00	318.22	272.78	2.167		
13,250.00	11,327.59	11,305.52	11,320.47	44.00	230.08	89.41	-2,002.06	-177.64	614.61	341.82	272.79	2.253		
13,300.00	11,327.86	11,307.19	11,322.15	44.16	230.14	89.59	-2,002.10	-177.69	641.26	368.47	272.79	2.351		
13,350.00	11,328.13	11,308.86	11,323.82	44.32	230.19	89.77	-2,002.15	-177.74	670.57	397.79	272.78	2.458		
13,400.00	11,328.40	11,310.53	11,325.48	44.48	230.25	89.95	-2,002.20	-177.79	702.22	429.45	272.78	2.574		
13,450.00	11,328.67	11,312.20	11,327.15	44.65	230.30	90.13	-2,002.25	-177.84	735.91	463.14	272.77	2.698		
13,500.00	11,328.94	11,313.86	11,328.81	44.81	230.36	90.31	-2,002.29	-177.89	771.37	498.60	272.77	2.828		
13,550.00	11,329.21	11,315.52	11,330.47	44.99	230.41	90.49	-2,002.34	-177.94	808.36	535.59	272.77	2.963		
13,600.00	11,329.47	11,317.18	11,332.12	45.16	230.47	90.67	-2,002.39	-177.99	846.68	573.90	272.78	3.104		
13,650.00	11,329.74	11,318.83	11,333.77	45.34	230.52	90.85	-2,002.43	-178.04	886.17	613.38	272.79	3.249		
13,700.00	11,330.01	11,320.48	11,335.43	45.52	230.58	91.02	-2,002.48	-178.08	926.67	653.86	272.80	3.397		
13,750.00	11,330.28	11,322.13	11,337.07	45.70	230.63	91.20	-2,002.52	-178.13	968.05	695.23	272.82	3.548		
13,800.00	11,330.55	11,323.78	11,338.72	45.88	230.68	91.38	-2,002.57	-178.18	1,010.21	737.37	272.85	3.702		
13,850.00	11,330.82	11,325.42	11,340.36	46.07	230.74	91.56	-2,002.62	-178.23	1,053.06	780.18	272.87	3.859		

Anticollision Report

Company:	XTO Energy	Local Co-ordinate Reference:	Well RS25-166H - Slot RS25 166H SHL
Project:	Eddy County, NM (NAD27) NMEZ Grd	TVD Reference:	3061+22 @ 3083.00usft (Perseus)
Reference Site:	Remuda South 25 State Pad	MD Reference:	3061+22 @ 3083.00usft (Perseus)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	RS25-166H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	166H Lateral	Database:	TP_EDM
Reference Design:	Plan #1	Offset TVD Reference:	Reference Datum

Offset Design Remuda South 25 State Pad - RS25-105H - 105H Lateral - Plan #1													Offset Site Error:
Survey Program: 0-MWD+IFR1+MS													Offset Well Error:
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
2,050.00	2,050.00	2,050.00	2,050.00	8.05	8.05	-90.00	0.00	-59.80	59.80	44.62	15.18	3.939	
2,100.00	2,100.00	2,100.00	2,100.00	8.23	8.23	-90.00	0.00	-59.80	59.80	44.26	15.54	3.848	
2,150.00	2,150.00	2,150.00	2,150.00	8.41	8.41	-90.00	0.00	-59.80	59.80	43.90	15.90	3.761	
2,200.00	2,200.00	2,200.00	2,200.00	8.60	8.60	-90.00	0.00	-59.80	59.80	43.54	16.26	3.677	
2,250.00	2,250.00	2,250.00	2,250.00	8.78	8.78	-90.00	0.00	-59.80	59.80	43.18	16.62	3.598	
2,300.00	2,300.00	2,300.00	2,300.00	8.96	8.96	-90.00	0.00	-59.80	59.80	42.82	16.98	3.522	
2,350.00	2,350.00	2,350.00	2,350.00	9.14	9.14	-90.00	0.00	-59.80	59.80	42.46	17.34	3.449	
2,400.00	2,400.00	2,400.00	2,400.00	9.32	9.32	-90.00	0.00	-59.80	59.80	42.10	17.70	3.379	
2,450.00	2,450.00	2,450.00	2,450.00	9.50	9.50	-90.00	0.00	-59.80	59.80	41.74	18.06	3.311	
2,500.00	2,500.00	2,500.00	2,500.00	9.68	9.68	-90.00	0.00	-59.80	59.80	41.38	18.42	3.247	
2,550.00	2,550.00	2,550.00	2,550.00	9.86	9.86	-90.00	0.00	-59.80	59.80	41.02	18.78	3.185	
2,600.00	2,600.00	2,600.00	2,600.00	10.04	10.04	-90.00	0.00	-59.80	59.80	40.66	19.14	3.125	
2,650.00	2,650.00	2,650.00	2,650.00	10.22	10.22	-90.00	0.00	-59.80	59.80	40.30	19.50	3.067	
2,700.00	2,700.00	2,700.00	2,700.00	10.40	10.40	-90.00	0.00	-59.80	59.80	39.95	19.85	3.012	
2,750.00	2,750.00	2,750.00	2,750.00	10.58	10.58	-90.00	0.00	-59.80	59.80	39.59	20.21	2.958	
2,800.00	2,800.00	2,800.00	2,800.00	10.76	10.76	-90.00	0.00	-59.80	59.80	39.23	20.57	2.907	
2,850.00	2,850.00	2,850.00	2,850.00	10.94	10.94	-90.00	0.00	-59.80	59.80	38.87	20.93	2.857	
2,900.00	2,900.00	2,900.00	2,900.00	11.12	11.12	-90.00	0.00	-59.80	59.80	38.51	21.29	2.809	
2,950.00	2,950.00	2,950.00	2,950.00	11.30	11.30	-90.00	0.00	-59.80	59.80	38.15	21.65	2.762	
3,000.00	3,000.00	3,000.00	3,000.00	11.48	11.48	-90.00	0.00	-59.80	59.80	37.79	22.01	2.717	
3,050.00	3,050.00	3,050.00	3,050.00	11.66	11.66	-90.00	0.00	-59.80	59.80	37.43	22.37	2.673	
3,100.00	3,100.00	3,100.00	3,100.00	11.84	11.84	-90.00	0.00	-59.80	59.80	37.07	22.73	2.631	
3,150.00	3,150.00	3,150.00	3,150.00	12.02	12.02	-90.00	0.00	-59.80	59.80	36.71	23.09	2.590	
3,200.00	3,200.00	3,200.00	3,200.00	12.20	12.20	-90.00	0.00	-59.80	59.80	36.35	23.45	2.551	
3,250.00	3,250.00	3,250.00	3,250.00	12.38	12.38	-90.00	0.00	-59.80	59.80	36.00	23.80	2.512	
3,300.00	3,300.00	3,300.00	3,300.00	12.56	12.56	-90.00	0.00	-59.80	59.80	35.64	24.16	2.475 CC	
3,350.00	3,350.00	3,349.74	3,349.74	12.74	12.72	-90.18	-0.19	-59.91	59.91	35.40	24.51	2.444	
3,400.00	3,400.00	3,399.47	3,399.47	12.92	12.88	-90.71	-0.75	-60.23	60.24	35.37	24.87	2.422 ES	
3,450.00	3,450.00	3,449.19	3,449.17	13.09	13.04	154.64	-1.68	-60.77	61.00	35.76	25.24	2.417 SF	
3,500.00	3,500.00	3,498.87	3,498.83	13.25	13.20	153.71	-2.99	-61.53	62.39	36.79	25.60	2.437	
3,550.00	3,549.98	3,548.52	3,548.44	13.41	13.36	152.67	-4.67	-62.49	64.43	38.46	25.96	2.481	
3,600.00	3,599.96	3,598.11	3,597.98	13.56	13.52	151.56	-6.71	-63.68	67.11	40.79	26.32	2.549	
3,650.00	3,649.92	3,647.64	3,647.43	13.72	13.68	150.43	-9.13	-65.07	70.44	43.76	26.68	2.640	
3,700.00	3,699.87	3,697.09	3,696.78	13.88	13.85	149.29	-11.91	-66.68	74.40	47.36	27.04	2.752	
3,750.00	3,749.81	3,746.48	3,746.03	14.04	14.01	148.06	-15.06	-68.49	78.70	51.31	27.39	2.873	
3,800.00	3,799.75	3,795.80	3,795.18	14.20	14.17	146.72	-18.57	-70.52	83.31	55.56	27.75	3.002	
3,850.00	3,849.69	3,845.03	3,844.21	14.36	14.33	145.32	-22.43	-72.75	88.24	60.13	28.11	3.140	
3,900.00	3,899.63	3,894.18	3,893.12	14.52	14.49	143.88	-26.66	-75.19	93.50	65.04	28.46	3.286	
3,950.00	3,949.57	3,943.76	3,942.43	14.68	14.66	142.46	-31.14	-77.78	98.99	70.18	28.82	3.435	
4,000.00	3,999.51	3,993.40	3,991.79	14.84	14.82	141.20	-35.64	-80.38	104.55	75.37	29.18	3.583	
4,050.00	4,049.45	4,043.04	4,041.16	15.01	14.99	140.06	-40.13	-82.97	110.14	80.61	29.54	3.729	
4,100.00	4,099.40	4,092.68	4,090.53	15.17	15.15	139.03	-44.62	-85.56	115.78	85.89	29.89	3.874	

Anticollision Report

Company:	XTO Energy	Local Co-ordinate Reference:	Well RS25-166H - Slot RS25 166H SHL
Project:	Eddy County, NM (NAD27) NMEZ Grid	TVD Reference:	3061+22 @ 3083.00usft (Perseus)
Reference Site:	Remuda South 25 State Pad	MD Reference:	3061+22 @ 3083.00usft (Perseus)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	RS25-166H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	166H Lateral	Database:	TP_EDM
Reference Design:	Plan #1	Offset TVD Reference:	Reference Datum

Offset Design Remuda South 25 State Pad - RS25-125H - 125H Lateral - Plan #1													Offset Site Error: 0.00 usft
Survey Program: O-MWD+IFR1+MS													Offset Well Error: 0.00 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
1,050.00	1,050.00	1,050.00	1,050.00	4.40	3.55	-90.00	0.00	-30.00	30.00	22.47	7.53	3.985	
1,100.00	1,100.00	1,100.00	1,100.00	4.58	3.72	-90.00	0.00	-30.00	30.00	22.11	7.89	3.803	
1,116.67	1,116.67	1,116.67	1,116.67	4.65	3.78	-90.00	0.00	-30.00	30.00	21.99	8.01	3.746	
1,150.00	1,150.00	1,150.00	1,150.00	4.77	3.90	-90.00	0.00	-30.00	30.00	21.75	8.25	3.637	
1,200.00	1,200.00	1,200.00	1,200.00	4.95	4.08	-90.00	0.00	-30.00	30.00	21.39	8.61	3.484	
1,250.00	1,250.00	1,250.00	1,250.00	5.14	4.26	-90.00	0.00	-30.00	30.00	21.03	8.97	3.345	
1,300.00	1,300.00	1,300.00	1,300.00	5.32	4.44	-90.00	0.00	-30.00	30.00	20.67	9.33	3.215	
1,350.00	1,350.00	1,350.00	1,350.00	5.50	4.62	-90.00	0.00	-30.00	30.00	20.31	9.69	3.096	
1,400.00	1,400.00	1,400.00	1,400.00	5.69	4.80	-90.00	0.00	-30.00	30.00	19.95	10.05	2.985	
1,450.00	1,450.00	1,450.00	1,450.00	5.87	4.98	-90.00	0.00	-30.00	30.00	19.59	10.41	2.882	
1,500.00	1,500.00	1,500.00	1,500.00	6.05	5.16	-90.00	0.00	-30.00	30.00	19.23	10.77	2.786	
1,550.00	1,550.00	1,550.00	1,550.00	6.24	5.34	-90.00	0.00	-30.00	30.00	18.87	11.13	2.696	
1,600.00	1,600.00	1,600.00	1,600.00	6.42	5.52	-90.00	0.00	-30.00	30.00	18.51	11.49	2.611	
1,650.00	1,650.00	1,650.00	1,650.00	6.60	5.70	-90.00	0.00	-30.00	30.00	18.15	11.85	2.532	
1,700.00	1,700.00	1,700.00	1,700.00	6.78	5.88	-90.00	0.00	-30.00	30.00	17.79	12.21	2.458	
1,716.67	1,716.67	1,716.67	1,716.67	6.84	5.94	-90.00	0.00	-30.00	30.00	17.67	12.33	2.434	
1,750.00	1,750.00	1,750.00	1,750.00	6.96	6.05	-90.00	0.00	-30.00	30.00	17.43	12.57	2.387	
1,800.00	1,800.00	1,800.00	1,800.00	7.15	6.23	-90.00	0.00	-30.00	30.00	17.07	12.93	2.321	
1,850.00	1,850.00	1,850.00	1,850.00	7.33	6.41	-90.00	0.00	-30.00	30.00	16.72	13.28	2.258	
1,900.00	1,900.00	1,900.00	1,900.00	7.51	6.59	-90.00	0.00	-30.00	30.00	16.36	13.64	2.199	
1,950.00	1,950.00	1,950.00	1,950.00	7.69	6.77	-90.00	0.00	-30.00	30.00	16.00	14.00	2.142	
2,000.00	2,000.00	2,000.00	2,000.00	7.87	6.95	-90.00	0.00	-30.00	30.00	15.64	14.36	2.089	
2,050.00	2,050.00	2,050.00	2,050.00	8.05	7.13	-90.00	0.00	-30.00	30.00	15.28	14.72	2.038	
2,100.00	2,100.00	2,100.00	2,100.00	8.23	7.31	-90.00	0.00	-30.00	30.00	14.92	15.08	1.989	
2,150.00	2,150.00	2,150.00	2,150.00	8.41	7.49	-90.00	0.00	-30.00	30.00	14.56	15.44	1.943	
2,200.00	2,200.00	2,200.00	2,200.00	8.60	7.67	-90.00	0.00	-30.00	30.00	14.20	15.80	1.899	
2,250.00	2,250.00	2,250.00	2,250.00	8.78	7.85	-90.00	0.00	-30.00	30.00	13.84	16.16	1.857	
2,300.00	2,300.00	2,300.00	2,300.00	8.96	8.03	-90.00	0.00	-30.00	30.00	13.48	16.52	1.816	
2,350.00	2,350.00	2,350.00	2,350.00	9.14	8.21	-90.00	0.00	-30.00	30.00	13.12	16.88	1.778	
2,400.00	2,400.00	2,400.00	2,400.00	9.32	8.38	-90.00	0.00	-30.00	30.00	12.77	17.23	1.741	
2,450.00	2,450.00	2,450.00	2,450.00	9.50	8.56	-90.00	0.00	-30.00	30.00	12.41	17.59	1.705	
2,500.00	2,500.00	2,500.00	2,500.00	9.68	8.74	-90.00	0.00	-30.00	30.00	12.05	17.95	1.671	
2,550.00	2,550.00	2,550.00	2,550.00	9.86	8.92	-90.00	0.00	-30.00	30.00	11.69	18.31	1.638	
2,600.00	2,600.00	2,600.00	2,600.00	10.04	9.10	-90.00	0.00	-30.00	30.00	11.33	18.67	1.607	
2,650.00	2,650.00	2,650.00	2,650.00	10.22	9.28	-90.00	0.00	-30.00	30.00	10.97	19.03	1.577	
2,700.00	2,700.00	2,700.00	2,700.00	10.40	9.46	-90.00	0.00	-30.00	30.00	10.61	19.39	1.547	
2,750.00	2,750.00	2,750.00	2,750.00	10.58	9.64	-90.00	0.00	-30.00	30.00	10.25	19.75	1.519	
2,800.00	2,800.00	2,800.00	2,800.00	10.76	9.82	-90.00	0.00	-30.00	30.00	9.89	20.11	1.492 Level 3	
2,850.00	2,850.00	2,850.00	2,850.00	10.94	10.00	-90.00	0.00	-30.00	30.00	9.54	20.46	1.466 Level 3	
2,900.00	2,900.00	2,900.00	2,900.00	11.12	10.18	-90.00	0.00	-30.00	30.00	9.18	20.82	1.441 Level 3	
2,950.00	2,950.00	2,950.00	2,950.00	11.30	10.36	-90.00	0.00	-30.00	30.00	8.82	21.18	1.416 Level 3	
3,000.00	3,000.00	3,000.00	3,000.00	11.48	10.54	-90.00	0.00	-30.00	30.00	8.46	21.54	1.393 Level 3	
3,050.00	3,050.00	3,050.00	3,050.00	11.66	10.71	-90.00	0.00	-30.00	30.00	8.10	21.90	1.370 Level 3	
3,100.00	3,100.00	3,100.00	3,100.00	11.84	10.89	-90.00	0.00	-30.00	30.00	7.74	22.26	1.348 Level 3	
3,150.00	3,150.00	3,150.00	3,150.00	12.02	11.07	-90.00	0.00	-30.00	30.00	7.38	22.62	1.326 Level 3	
3,200.00	3,200.00	3,200.00	3,200.00	12.20	11.25	-90.00	0.00	-30.00	30.00	7.02	22.98	1.306 Level 3	
3,250.00	3,250.00	3,250.00	3,250.00	12.38	11.43	-90.00	0.00	-30.00	30.00	6.67	23.33	1.286 Level 3	
3,300.00	3,300.00	3,300.00	3,300.00	12.56	11.61	-90.00	0.00	-30.00	30.00	6.31	23.69	1.266 Level 3	
3,350.00	3,350.00	3,350.15	3,350.15	12.74	11.78	-90.34	-0.18	-29.87	29.88	5.83	24.05	1.242 Level 2	
3,400.00	3,400.00	3,400.29	3,400.29	12.92	11.95	-91.40	-0.72	-29.50	29.51	5.09	24.41	1.209 Level 2	
3,450.00	3,450.00	3,450.42	3,450.40	13.09	12.12	153.13	-1.62	-28.87	29.11	4.34	24.77	1.175 Level 2	
3,500.00	3,500.00	3,500.54	3,500.50	13.25	12.28	151.14	-2.87	-27.99	28.90	3.77	25.13	1.150 Level 2	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	XTO Energy	Local Co-ordinate Reference:	Well RS25-166H - Slot RS25 166H SHL
Project:	Eddy County, NM (NAD27) NMEZ Grid	TVD Reference:	3061+22 @ 3083.00usft (Perseus)
Reference Site:	Remuda South 25 State Pad	MD Reference:	3061+22 @ 3083.00usft (Perseus)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	RS25-166H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at:	2.00 sigma
Reference Wellbore:	166H Lateral	Database:	TP_EDM
Reference Design:	Plan #1	Offset TVD Reference:	Reference Datum

Offset Design Remuda South 25 State Pad - RS25-125H - 125H Lateral - Plan #1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+IFR1+MS													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N-S (usft)	+E-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
3,526.38	3,526.37	3,526.98	3,526.92	13.33	12.37	149.94	-3.68	-27.42	28.87	3.55	25.32	1.140	Level 2, CC	
3,550.00	3,549.98	3,550.65	3,550.57	13.41	12.45	148.80	-4.49	-26.86	28.89	3.41	25.49	1.134	Level 2	
3,600.00	3,599.96	3,600.74	3,600.61	13.56	12.61	146.15	-6.46	-25.47	29.11	3.27	25.85	1.126	Level 2, ES, SF	
3,650.00	3,649.92	3,650.82	3,650.60	13.72	12.78	143.27	-8.80	-23.84	29.58	3.37	26.21	1.129	Level 2	
3,700.00	3,699.87	3,700.88	3,700.56	13.88	12.94	140.18	-11.48	-21.96	30.28	3.70	26.58	1.139	Level 2	
3,750.00	3,749.81	3,750.92	3,750.46	14.04	13.11	136.55	-14.53	-19.83	30.99	4.03	26.95	1.150	Level 2	
3,800.00	3,799.75	3,800.93	3,800.29	14.20	13.27	132.33	-17.93	-17.45	31.73	4.39	27.33	1.161	Level 2	
3,850.00	3,849.69	3,850.89	3,850.04	14.36	13.44	127.56	-21.68	-14.82	32.58	4.87	27.71	1.176	Level 2	
3,900.00	3,899.63	3,900.81	3,899.71	14.52	13.61	122.33	-25.78	-11.95	33.63	5.55	28.08	1.198	Level 2	
3,950.00	3,949.57	3,950.69	3,949.32	14.68	13.77	117.11	-30.05	-8.96	34.96	6.53	28.43	1.230	Level 2	
4,000.00	3,999.51	4,000.57	3,998.93	14.84	13.94	112.31	-34.32	-5.97	36.56	7.80	28.77	1.271	Level 3	
4,050.00	4,049.45	4,050.46	4,048.54	15.01	14.11	107.94	-38.59	-2.98	38.39	9.30	29.09	1.320	Level 3	
4,100.00	4,099.40	4,100.34	4,098.15	15.17	14.27	103.99	-42.87	0.01	40.43	11.02	29.41	1.375	Level 3	
4,150.00	4,149.34	4,150.23	4,147.76	15.33	14.44	100.43	-47.14	3.01	42.64	12.92	29.72	1.435	Level 3	
4,200.00	4,199.28	4,200.11	4,197.37	15.50	14.61	97.23	-51.41	6.00	45.00	14.96	30.04	1.498	Level 3	
4,250.00	4,249.22	4,250.00	4,246.98	15.66	14.78	94.36	-55.68	8.99	47.48	17.13	30.36	1.564		
4,300.00	4,299.16	4,299.88	4,296.59	15.83	14.95	91.78	-59.95	11.98	50.08	19.40	30.67	1.633		
4,350.00	4,349.10	4,349.77	4,346.21	15.99	15.12	89.45	-64.22	14.97	52.76	21.77	30.99	1.702		
4,400.00	4,399.04	4,399.65	4,395.82	16.16	15.29	87.35	-68.49	17.96	55.52	24.21	31.31	1.773		
4,450.00	4,448.98	4,449.53	4,445.43	16.32	15.46	85.46	-72.76	20.95	58.35	26.71	31.64	1.844		
4,500.00	4,498.93	4,499.42	4,495.04	16.49	15.63	83.74	-77.04	23.94	61.24	29.27	31.96	1.916		
4,550.00	4,548.87	4,549.30	4,544.65	16.66	15.80	82.18	-81.31	26.93	64.17	31.88	32.29	1.987		
4,600.00	4,598.81	4,599.19	4,594.26	16.83	15.97	80.75	-85.58	29.92	67.15	34.53	32.62	2.059		
4,650.00	4,648.75	4,649.07	4,643.87	16.99	16.14	79.45	-89.85	32.91	70.17	37.22	32.95	2.129		
4,700.00	4,698.69	4,698.96	4,693.48	17.16	16.31	78.25	-94.12	35.90	73.22	39.94	33.29	2.200		
4,750.00	4,748.63	4,748.84	4,743.10	17.33	16.48	77.15	-98.39	38.90	76.30	42.68	33.62	2.269		
4,800.00	4,798.57	4,798.73	4,792.71	17.50	16.65	76.14	-102.66	41.89	79.41	45.45	33.96	2.338		
4,850.00	4,848.51	4,848.61	4,842.32	17.67	16.83	75.20	-106.94	44.88	82.54	48.24	34.30	2.407		
4,900.00	4,898.46	4,898.49	4,891.93	17.84	17.00	74.33	-111.21	47.87	85.69	51.06	34.64	2.474		
4,950.00	4,948.40	4,948.38	4,941.54	18.01	17.17	73.52	-115.48	50.86	88.86	53.88	34.98	2.541		
5,000.00	4,998.34	4,998.26	4,991.15	18.18	17.34	72.77	-119.75	53.85	92.04	56.73	35.32	2.606		
5,050.00	5,048.28	5,048.15	5,040.76	18.35	17.52	72.07	-124.02	56.84	95.24	59.58	35.66	2.671		
5,100.00	5,098.22	5,098.03	5,090.37	18.52	17.69	71.41	-128.29	59.83	98.45	62.45	36.00	2.735		
5,150.00	5,148.16	5,147.92	5,139.98	18.69	17.86	70.80	-132.56	62.82	101.68	65.33	36.35	2.798		
5,200.00	5,198.10	5,197.80	5,189.60	18.86	18.04	70.22	-136.83	65.81	104.91	68.22	36.69	2.859		
5,250.00	5,248.04	5,248.40	5,239.94	19.03	18.21	69.74	-141.00	68.73	108.00	70.95	37.06	2.915		
5,300.00	5,297.99	5,299.08	5,290.40	19.20	18.39	69.43	-144.81	71.40	110.75	73.33	37.42	2.959		
5,350.00	5,347.93	5,349.80	5,340.95	19.37	18.57	69.27	-148.25	73.81	113.16	75.36	37.79	2.994		
5,400.00	5,397.87	5,400.55	5,391.56	19.55	18.74	69.26	-151.33	75.96	115.21	77.06	38.16	3.019		
5,450.00	5,447.81	5,451.33	5,442.23	19.72	18.92	69.39	-154.05	77.86	116.92	78.40	38.52	3.035		
5,500.00	5,497.75	5,502.12	5,492.94	19.89	19.10	69.64	-156.39	79.51	118.29	79.40	38.89	3.042		
5,550.00	5,547.69	5,552.93	5,543.69	20.06	19.27	70.03	-158.37	80.89	119.31	80.06	39.25	3.040		
5,600.00	5,597.63	5,603.74	5,594.46	20.24	19.45	70.54	-159.98	82.02	119.99	80.38	39.61	3.029		
5,650.00	5,647.58	5,654.54	5,645.24	20.41	19.63	71.19	-161.22	82.89	120.34	80.37	39.97	3.011		
5,700.00	5,697.52	5,705.32	5,696.01	20.58	19.80	71.98	-162.09	83.50	120.37	80.05	40.33	2.985		
5,750.00	5,747.46	5,756.08	5,746.77	20.76	19.98	72.90	-162.60	83.85	120.10	79.41	40.68	2.952		
5,800.00	5,797.40	5,806.71	5,797.40	20.93	20.16	73.97	-162.73	83.95	119.53	78.49	41.04	2.913		
5,850.00	5,847.34	5,856.65	5,847.34	21.10	20.33	75.09	-162.73	83.95	118.88	77.49	41.39	2.872		
5,900.00	5,897.28	5,906.59	5,897.28	21.28	20.50	76.22	-162.73	83.95	118.28	76.53	41.75	2.833		
5,950.00	5,947.22	5,956.54	5,947.22	21.45	20.68	77.37	-162.73	83.95	117.73	75.62	42.10	2.796		
6,000.00	5,997.16	6,006.48	5,997.16	21.63	20.85	78.52	-162.73	83.95	117.22	74.76	42.46	2.761		
6,050.00	6,047.11	6,056.42	6,047.11	21.80	21.03	79.69	-162.73	83.95	116.76	73.95	42.81	2.727		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	XTO Energy	Local Co-ordinate Reference:	Well RS25-166H - Slot RS25 166H SHL
Project:	Eddy County, NM (NAD27) NMEZ Grid	TVD Reference:	3061+22 @ 3083.00usft (Perseus)
Reference Site:	Remuda South 25 State Pad	MD Reference:	3061+22 @ 3083.00usft (Perseus)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	RS25-166H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	166H Lateral	Database:	TP_EDM
Reference Design:	Plan #1	Offset TVD Reference:	Reference Datum

Offset Design Remuda South 25 State Pad - RS25-125H - 125H Lateral - Plan #1													Offset Site Error:	0.00 usft
Survey Program: O-MWD+IFR1+MS													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N-S (usft)	+E-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
6,100.00	6,097.05	6,106.36	6,097.05	21.98	21.21	80.86	-162.73	83.95	116.35	73.18	43.17	2.695		
6,150.00	6,146.99	6,156.30	6,146.99	22.15	21.38	82.04	-162.73	83.95	115.99	72.47	43.52	2.665		
6,200.00	6,196.93	6,206.24	6,196.93	22.33	21.56	83.23	-162.73	83.95	115.68	71.80	43.87	2.637		
6,250.00	6,246.87	6,256.18	6,246.87	22.50	21.73	84.42	-162.73	83.95	115.42	71.19	44.23	2.610		
6,300.00	6,296.81	6,306.13	6,296.81	22.68	21.91	85.62	-162.73	83.95	115.21	70.63	44.58	2.584		
6,350.00	6,346.75	6,356.07	6,346.75	22.85	22.08	86.82	-162.73	83.95	115.05	70.12	44.93	2.561		
6,400.00	6,396.69	6,406.01	6,396.69	23.03	22.26	88.02	-162.73	83.95	114.94	69.66	45.28	2.538		
6,450.00	6,446.64	6,455.95	6,446.64	23.20	22.44	89.23	-162.73	83.95	114.88	69.25	45.63	2.518		
6,481.96	6,478.56	6,487.87	6,478.56	23.32	22.55	90.00	-162.73	83.95	114.87	69.01	45.86	2.505		
6,500.00	6,496.58	6,505.89	6,496.58	23.38	22.61	90.44	-162.73	83.95	114.87	68.89	45.98	2.498		
6,550.00	6,546.52	6,555.83	6,546.52	23.56	22.79	91.64	-162.73	83.95	114.92	68.59	46.33	2.480		
6,600.00	6,596.46	6,605.77	6,596.46	23.73	22.96	92.85	-162.73	83.95	115.01	68.33	46.68	2.464		
6,650.00	6,646.40	6,655.71	6,646.40	23.91	23.14	94.05	-162.73	83.95	115.16	68.13	47.03	2.449		
6,700.00	6,696.34	6,705.66	6,696.34	24.08	23.32	95.25	-162.73	83.95	115.35	67.98	47.38	2.435		
6,750.00	6,746.28	6,755.60	6,746.28	24.26	23.49	96.44	-162.73	83.95	115.60	67.88	47.72	2.422		
6,800.00	6,796.22	6,805.54	6,796.22	24.44	23.67	97.63	-162.73	83.95	115.90	67.83	48.07	2.411		
6,850.00	6,846.17	6,855.48	6,846.17	24.61	23.84	98.81	-162.73	83.95	116.25	67.83	48.42	2.401		
6,900.00	6,896.11	6,905.42	6,896.11	24.79	24.02	99.99	-162.73	83.95	116.64	67.88	48.76	2.392		
6,950.00	6,946.05	6,955.36	6,946.05	24.97	24.20	101.15	-162.73	83.95	117.09	67.98	49.11	2.384		
7,000.00	6,995.99	7,005.30	6,995.99	25.14	24.37	102.31	-162.73	83.95	117.58	68.13	49.45	2.378		
7,050.00	7,045.93	7,055.24	7,045.93	25.32	24.55	103.46	-162.73	83.95	118.12	68.32	49.80	2.372		
7,100.00	7,095.87	7,105.19	7,095.87	25.50	24.73	104.59	-162.73	83.95	118.71	68.57	50.14	2.367		
7,150.00	7,145.81	7,155.13	7,145.81	25.68	24.90	105.72	-162.73	83.95	119.34	68.86	50.49	2.364		
7,200.00	7,195.75	7,205.07	7,195.75	25.85	25.08	106.83	-162.73	83.95	120.02	69.19	50.83	2.361		
7,250.00	7,245.70	7,255.01	7,245.70	26.03	25.26	107.93	-162.73	83.95	120.75	69.57	51.18	2.359		
7,300.00	7,295.64	7,304.95	7,295.64	26.21	25.43	109.02	-162.73	83.95	121.52	70.00	51.52	2.359		
7,350.00	7,345.58	7,354.89	7,345.58	26.39	25.61	110.09	-162.73	83.95	122.33	70.46	51.86	2.359		
7,400.00	7,395.52	7,404.83	7,395.52	26.56	25.79	111.14	-162.73	83.95	123.18	70.97	52.21	2.359		
7,450.00	7,445.46	7,454.77	7,445.46	26.74	25.96	112.19	-162.73	83.95	124.08	71.53	52.55	2.361		
7,500.00	7,495.40	7,504.72	7,495.40	26.92	26.14	113.21	-162.73	83.95	125.01	72.12	52.89	2.363		
7,550.00	7,545.34	7,554.66	7,545.34	27.10	26.32	114.23	-162.73	83.95	125.99	72.75	53.24	2.366		
7,600.00	7,595.28	7,604.60	7,595.28	27.27	26.49	115.22	-162.73	83.95	127.00	73.42	53.58	2.370		
7,650.00	7,645.23	7,654.54	7,645.23	27.45	26.67	116.20	-162.73	83.95	128.05	74.13	53.93	2.375		
7,700.00	7,695.17	7,704.48	7,695.17	27.63	26.85	117.16	-162.73	83.95	129.14	74.87	54.27	2.380		
7,750.00	7,745.11	7,754.42	7,745.11	27.81	27.02	118.11	-162.73	83.95	130.27	75.65	54.62	2.385		
7,800.00	7,795.05	7,804.36	7,795.05	27.99	27.20	119.04	-162.73	83.95	131.43	76.47	54.96	2.391		
7,850.00	7,844.99	7,854.30	7,844.99	28.16	27.38	119.96	-162.73	83.95	132.62	77.32	55.31	2.398		
7,900.00	7,894.93	7,904.25	7,894.93	28.34	27.56	120.85	-162.73	83.95	133.85	78.20	55.65	2.405		
7,950.00	7,944.87	7,954.19	7,944.87	28.52	27.73	121.74	-162.73	83.95	135.11	79.11	56.00	2.413		
8,000.00	7,994.82	8,004.13	7,994.82	28.70	27.91	122.60	-162.73	83.95	136.40	80.06	56.34	2.421		
8,050.00	8,044.76	8,054.07	8,044.76	28.88	28.09	123.45	-162.73	83.95	137.72	81.03	56.69	2.430		
8,100.00	8,094.70	8,104.01	8,094.70	29.05	28.26	124.28	-162.73	83.95	139.07	82.04	57.03	2.438		
8,150.00	8,144.64	8,153.95	8,144.64	29.23	28.44	125.10	-162.73	83.95	140.45	83.07	57.38	2.448		
8,200.00	8,194.58	8,203.89	8,194.58	29.41	28.62	125.90	-162.73	83.95	141.86	84.13	57.73	2.458		
8,250.00	8,244.52	8,253.84	8,244.52	29.59	28.80	126.68	-162.73	83.95	143.29	85.22	58.07	2.468		
8,300.00	8,294.46	8,303.78	8,294.46	29.77	28.97	127.45	-162.73	83.95	144.76	86.34	58.42	2.478		
8,350.00	8,344.40	8,353.72	8,344.40	29.95	29.15	128.20	-162.73	83.95	146.24	87.48	58.77	2.489		
8,400.00	8,394.35	8,403.66	8,394.35	30.13	29.33	128.94	-162.73	83.95	147.75	88.64	59.11	2.500		
8,450.00	8,444.29	8,453.60	8,444.29	30.30	29.50	129.66	-162.73	83.95	149.29	89.83	59.46	2.511		
8,500.00	8,494.23	8,503.54	8,494.23	30.48	29.68	130.37	-162.73	83.95	150.85	91.04	59.81	2.522		
8,550.00	8,544.17	8,553.48	8,544.17	30.66	29.86	131.06	-162.73	83.95	152.43	92.27	60.16	2.534		
8,600.00	8,594.11	8,603.42	8,594.11	30.84	30.04	131.74	-162.73	83.95	154.03	93.53	60.51	2.546		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	XTO Energy	Local Co-ordinate Reference:	Well RS25-166H - Slot RS25 166H SHL
Project:	Eddy County, NM (NAD27) NMEZ Grid	TVD Reference:	3061+22 @ 3083.00usft (Perseus)
Reference Site:	Remuda South 25 State Pad	MD Reference:	3061+22 @ 3083.00usft (Perseus)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	RS25-166H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	166H Lateral	Database:	TP_EDM
Reference Design:	Plan #1	Offset TVD Reference:	Reference Datum

Offset Design Remuda South 25 State Pad - RS25-125H - 125H Lateral - Plan #1													Offset Site Error:
Survey Program: 0-MWD+IFR1+MS													Offset Well Error:
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
8,650.00	8,644.05	8,653.37	8,644.05	31.02	30.21	132.41	-162.73	83.95	155.66	94.80	60.85	2.558	
8,700.00	8,693.99	8,703.31	8,693.99	31.20	30.39	133.06	-162.73	83.95	157.30	96.10	61.20	2.570	
8,750.00	8,743.93	8,753.25	8,743.93	31.38	30.57	133.70	-162.73	83.95	158.97	97.42	61.55	2.583	
8,800.00	8,793.88	8,803.19	8,793.88	31.55	30.75	134.32	-162.73	83.95	160.65	98.75	61.90	2.595	
8,850.00	8,843.82	8,853.13	8,843.82	31.73	30.92	134.93	-162.73	83.95	162.35	100.10	62.25	2.608	
8,900.00	8,893.76	8,903.07	8,893.76	31.91	31.10	135.53	-162.73	83.95	164.08	101.47	62.60	2.621	
8,950.00	8,943.70	8,953.01	8,943.70	32.09	31.28	136.12	-162.73	83.95	165.81	102.86	62.95	2.634	
9,000.00	8,993.64	9,002.95	8,993.64	32.27	31.46	136.69	-162.73	83.95	167.57	104.27	63.30	2.647	
9,050.00	9,043.58	9,052.90	9,043.58	32.45	31.63	137.25	-162.73	83.95	169.34	105.69	63.65	2.660	
9,100.00	9,093.52	9,102.84	9,093.52	32.63	31.81	137.80	-162.73	83.95	171.13	107.13	64.00	2.674	
9,150.00	9,143.46	9,152.78	9,143.46	32.81	31.99	138.34	-162.73	83.95	172.93	108.58	64.36	2.687	
9,200.00	9,193.41	9,202.72	9,193.41	32.98	32.17	138.87	-162.73	83.95	174.75	110.04	64.71	2.701	
9,250.00	9,243.35	9,252.66	9,243.35	33.16	32.34	139.39	-162.73	83.95	176.58	111.53	65.06	2.714	
9,300.00	9,293.29	9,302.60	9,293.29	33.34	32.52	139.89	-162.73	83.95	178.43	113.02	65.41	2.728	
9,350.00	9,343.23	9,352.54	9,343.23	33.52	32.70	140.39	-162.73	83.95	180.29	114.53	65.76	2.742	
9,400.00	9,393.17	9,402.48	9,393.17	33.70	32.88	140.87	-162.73	83.95	182.17	116.05	66.11	2.755	
9,450.00	9,443.11	9,452.43	9,443.11	33.88	33.05	141.35	-162.73	83.95	184.05	117.59	66.47	2.769	
9,500.00	9,493.05	9,502.37	9,493.05	34.06	33.23	141.82	-162.73	83.95	185.95	119.13	66.82	2.783	
9,550.00	9,542.99	9,552.31	9,542.99	34.24	33.41	142.27	-162.73	83.95	187.86	120.69	67.17	2.797	
9,600.00	9,592.94	9,602.25	9,592.94	34.42	33.59	142.72	-162.73	83.95	189.78	122.26	67.52	2.811	
9,650.00	9,642.88	9,652.19	9,642.88	34.60	33.76	143.16	-162.73	83.95	191.72	123.84	67.88	2.825	
9,700.00	9,692.82	9,702.13	9,692.82	34.77	33.94	143.59	-162.73	83.95	193.66	125.43	68.23	2.838	
9,750.00	9,742.76	9,752.07	9,742.76	34.95	34.12	144.01	-162.73	83.95	195.62	127.04	68.58	2.852	
9,800.00	9,792.70	9,802.01	9,792.70	35.13	34.30	144.42	-162.73	83.95	197.59	128.65	68.94	2.866	
9,850.00	9,842.64	9,851.96	9,842.64	35.31	34.48	144.83	-162.73	83.95	199.56	130.27	69.29	2.880	
9,900.00	9,892.58	9,901.90	9,892.58	35.49	34.65	145.22	-162.73	83.95	201.55	131.90	69.64	2.894	
9,950.00	9,942.52	9,951.84	9,942.52	35.67	34.83	145.61	-162.73	83.95	203.54	133.54	70.00	2.908	
10,000.00	9,992.47	10,001.78	9,992.47	35.85	35.01	145.99	-162.73	83.95	205.55	135.20	70.35	2.922	
10,050.00	10,042.41	10,051.72	10,042.41	36.03	35.18	146.37	-162.73	83.95	207.56	136.86	70.70	2.936	
10,100.00	10,092.35	10,101.66	10,092.35	36.21	35.35	146.73	-164.03	83.86	209.59	138.86	71.03	2.955	
10,150.00	10,142.29	10,151.60	10,142.29	36.39	35.52	147.08	-168.68	83.53	213.18	141.89	71.29	2.990	
10,200.00	10,192.23	10,201.54	10,192.23	36.57	35.69	147.43	-176.82	82.96	217.62	146.11	71.51	3.043	
10,250.00	10,242.17	10,251.48	10,242.17	36.75	35.86	147.78	-187.93	82.19	223.53	151.91	71.62	3.121	
10,300.00	10,292.11	10,301.02	10,292.11	36.92	35.92	148.13	-201.50	81.24	231.31	159.73	71.59	3.231	
10,350.00	10,342.06	10,351.97	10,342.06	37.10	36.04	148.48	-216.98	80.15	241.36	170.02	71.34	3.383	
10,400.00	10,392.00	10,401.91	10,392.00	37.28	36.15	148.83	-233.74	78.98	254.00	183.16	70.83	3.586	
10,450.00	10,441.94	10,451.85	10,441.94	37.46	36.25	149.18	-251.42	77.75	269.45	199.36	70.09	3.844	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	XTO Energy	Local Co-ordinate Reference:	Well RS25-166H - Slot RS25 166H SHL
Project:	Eddy County, NM (NAD27) NMEZ Grid	TVD Reference:	3061+22 @ 3083.00usft (Perseus)
Reference Site:	Remuda South 25 State Pad	MD Reference:	3061+22 @ 3083.00usft (Perseus)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	RS25-166H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	166H Lateral	Database:	TP_EDM
Reference Design:	Plan #1	Offset TVD Reference:	Reference Datum

Offset Design Remuda South 25 State Pad - RS25-126H - 126H Lateral - Plan #1													Offset Site Error:
Survey Program: 0-MWD+IFR1+MS													0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/S (usft)	+E/W (usft)	Between Centres (usft)	Between Ellipses (usft)			
1,050.00	1,050.00	1,050.00	1,050.00	4.40	3.55	90.19	-0.10	30.00	30.00	22.47	7.53	3.986	
1,100.00	1,100.00	1,100.00	1,100.00	4.58	3.72	90.19	-0.10	30.00	30.00	22.11	7.89	3.804	
1,116.67	1,116.67	1,116.67	1,116.67	4.65	3.78	90.19	-0.10	30.00	30.00	21.99	8.01	3.747	
1,150.00	1,150.00	1,150.00	1,150.00	4.77	3.90	90.19	-0.10	30.00	30.00	21.75	8.25	3.638	
1,200.00	1,200.00	1,200.00	1,200.00	4.95	4.08	90.19	-0.10	30.00	30.00	21.39	8.61	3.486	
1,250.00	1,250.00	1,250.00	1,250.00	5.14	4.26	90.19	-0.10	30.00	30.00	21.03	8.97	3.346	
1,300.00	1,300.00	1,300.00	1,300.00	5.32	4.44	90.19	-0.10	30.00	30.00	20.67	9.33	3.217	
1,350.00	1,350.00	1,350.00	1,350.00	5.50	4.62	90.19	-0.10	30.00	30.00	20.31	9.69	3.097	
1,400.00	1,400.00	1,400.00	1,400.00	5.69	4.80	90.19	-0.10	30.00	30.00	19.95	10.05	2.986	
1,450.00	1,450.00	1,450.00	1,450.00	5.87	4.98	90.19	-0.10	30.00	30.00	19.59	10.41	2.883	
1,500.00	1,500.00	1,500.00	1,500.00	6.05	5.16	90.19	-0.10	30.00	30.00	19.23	10.77	2.787	
1,550.00	1,550.00	1,550.00	1,550.00	6.24	5.34	90.19	-0.10	30.00	30.00	18.87	11.13	2.697	
1,600.00	1,600.00	1,600.00	1,600.00	6.42	5.52	90.19	-0.10	30.00	30.00	18.52	11.48	2.612	
1,650.00	1,650.00	1,650.00	1,650.00	6.60	5.70	90.19	-0.10	30.00	30.00	18.16	11.84	2.533	
1,700.00	1,700.00	1,700.00	1,700.00	6.78	5.88	90.19	-0.10	30.00	30.00	17.80	12.20	2.458	
1,716.67	1,716.67	1,716.67	1,716.67	6.84	5.94	90.19	-0.10	30.00	30.00	17.68	12.32	2.434	
1,750.00	1,750.00	1,750.00	1,750.00	6.96	6.05	90.19	-0.10	30.00	30.00	17.44	12.56	2.388	
1,800.00	1,800.00	1,800.00	1,800.00	7.15	6.23	90.19	-0.10	30.00	30.00	17.08	12.92	2.322	
1,850.00	1,850.00	1,850.00	1,850.00	7.33	6.41	90.19	-0.10	30.00	30.00	16.72	13.28	2.259	
1,900.00	1,900.00	1,900.00	1,900.00	7.51	6.59	90.19	-0.10	30.00	30.00	16.36	13.64	2.199	
1,950.00	1,950.00	1,950.00	1,950.00	7.69	6.77	90.19	-0.10	30.00	30.00	16.00	14.00	2.143	
2,000.00	2,000.00	2,000.00	2,000.00	7.87	6.95	90.19	-0.10	30.00	30.00	15.64	14.36	2.089	
2,050.00	2,050.00	2,050.00	2,050.00	8.05	7.13	90.19	-0.10	30.00	30.00	15.28	14.72	2.038	
2,100.00	2,100.00	2,100.00	2,100.00	8.23	7.31	90.19	-0.10	30.00	30.00	14.92	15.08	1.990	
2,150.00	2,150.00	2,150.00	2,150.00	8.41	7.49	90.19	-0.10	30.00	30.00	14.56	15.44	1.943	
2,200.00	2,200.00	2,200.00	2,200.00	8.60	7.67	90.19	-0.10	30.00	30.00	14.20	15.80	1.899	
2,250.00	2,250.00	2,250.00	2,250.00	8.78	7.85	90.19	-0.10	30.00	30.00	13.85	16.15	1.857	
2,300.00	2,300.00	2,300.00	2,300.00	8.96	8.03	90.19	-0.10	30.00	30.00	13.49	16.51	1.817	
2,350.00	2,350.00	2,350.00	2,350.00	9.14	8.21	90.19	-0.10	30.00	30.00	13.13	16.87	1.778	
2,400.00	2,400.00	2,400.00	2,400.00	9.32	8.38	90.19	-0.10	30.00	30.00	12.77	17.23	1.741	
2,450.00	2,450.00	2,450.00	2,450.00	9.50	8.56	90.19	-0.10	30.00	30.00	12.41	17.59	1.706	
2,500.00	2,500.00	2,500.00	2,500.00	9.68	8.74	90.19	-0.10	30.00	30.00	12.05	17.95	1.671	
2,550.00	2,550.00	2,550.00	2,550.00	9.86	8.92	90.19	-0.10	30.00	30.00	11.69	18.31	1.639	
2,600.00	2,600.00	2,600.00	2,600.00	10.04	9.10	90.19	-0.10	30.00	30.00	11.33	18.67	1.607	
2,650.00	2,650.00	2,650.00	2,650.00	10.22	9.28	90.19	-0.10	30.00	30.00	10.97	19.03	1.577	
2,700.00	2,700.00	2,700.00	2,700.00	10.40	9.46	90.19	-0.10	30.00	30.00	10.62	19.38	1.548	
2,750.00	2,750.00	2,750.00	2,750.00	10.58	9.64	90.19	-0.10	30.00	30.00	10.26	19.74	1.520	
2,800.00	2,800.00	2,800.00	2,800.00	10.76	9.82	90.19	-0.10	30.00	30.00	9.90	20.10	1.492 Level 3	
2,850.00	2,850.00	2,850.00	2,850.00	10.94	10.00	90.19	-0.10	30.00	30.00	9.54	20.46	1.466 Level 3	
2,900.00	2,900.00	2,900.00	2,900.00	11.12	10.18	90.19	-0.10	30.00	30.00	9.18	20.82	1.441 Level 3	
2,950.00	2,950.00	2,950.00	2,950.00	11.30	10.36	90.19	-0.10	30.00	30.00	8.82	21.18	1.417 Level 3	
3,000.00	3,000.00	3,000.00	3,000.00	11.48	10.54	90.19	-0.10	30.00	30.00	8.46	21.54	1.393 Level 3	
3,050.00	3,050.00	3,050.00	3,050.00	11.66	10.71	90.19	-0.10	30.00	30.00	8.10	21.90	1.370 Level 3	
3,100.00	3,100.00	3,100.00	3,100.00	11.84	10.89	90.19	-0.10	30.00	30.00	7.75	22.25	1.348 Level 3	
3,150.00	3,150.00	3,150.00	3,150.00	12.02	11.07	90.19	-0.10	30.00	30.00	7.39	22.61	1.327 Level 3	
3,200.00	3,200.00	3,200.00	3,200.00	12.20	11.25	90.19	-0.10	30.00	30.00	7.03	22.97	1.306 Level 3	
3,250.00	3,250.00	3,250.00	3,250.00	12.38	11.43	90.19	-0.10	30.00	30.00	6.67	23.33	1.286 Level 3	
3,300.00	3,300.00	3,300.00	3,300.00	12.56	11.61	90.19	-0.10	30.00	30.00	6.31	23.69	1.266 Level 3, CC	
3,350.00	3,350.00	3,349.74	3,349.74	12.74	11.78	90.19	-0.10	30.22	30.22	6.18	24.04	1.257 Level 3, ES, SF	
3,400.00	3,400.00	3,399.47	3,399.46	12.92	11.96	90.19	-0.10	30.86	30.87	6.48	24.39	1.266 Level 3	
3,450.00	3,450.00	3,449.19	3,449.17	13.09	12.13	-23.83	-0.10	31.94	31.75	7.03	24.72	1.285 Level 3	
3,500.00	3,500.00	3,498.90	3,498.86	13.25	12.30	-24.29	-0.10	33.45	32.67	7.62	25.05	1.304 Level 3	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	XTO Energy	Local Co-ordinate Reference:	Well RS25-166H - Slot RS25 166H SHL
Project:	Eddy County, NM (NAD27) NMEZ Grid	TVD Reference:	3061+22 @ 3083.00usft (Perseus)
Reference Site:	Remuda South 25 State Pad	MD Reference:	3061+22 @ 3083.00usft (Perseus)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	RS25-166H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	166H Lateral	Database:	TP_EDM
Reference Design:	Plan #1	Offset TVD Reference:	Reference Datum

Remuda South 25 State Pad - RS25-126H - 126H Lateral - Plan #1													Offset Site Error:
Survey Program: 0-MWD+IFR1+MS													Offset Well Error:
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
3,550.00	3,549.98	3,548.60	3,548.52	13.41	12.47	-25.02	-0.10	35.39	33.64	8.26	25.38	1.325	Level 3
3,600.00	3,599.96	3,598.29	3,598.16	13.56	12.64	-26.00	-0.10	37.76	34.64	8.94	25.70	1.348	Level 3
3,650.00	3,649.92	3,647.97	3,647.76	13.72	12.81	-27.20	-0.10	40.56	35.70	9.68	26.03	1.372	Level 3
3,700.00	3,699.87	3,697.64	3,697.32	13.88	12.98	-28.57	-0.10	43.79	36.87	10.51	26.35	1.399	Level 3
3,750.00	3,749.81	3,747.28	3,746.83	14.04	13.15	-29.83	-0.10	47.45	38.42	11.75	26.68	1.440	Level 3
3,800.00	3,799.75	3,796.90	3,796.27	14.20	13.32	-30.92	-0.10	51.53	40.42	13.43	27.00	1.497	Level 3
3,850.00	3,849.69	3,846.47	3,845.65	14.36	13.50	-31.83	-0.10	56.04	42.87	15.55	27.32	1.569	
3,900.00	3,899.63	3,896.01	3,894.94	14.52	13.67	-32.56	-0.10	60.97	45.75	18.11	27.63	1.655	
3,950.00	3,949.57	3,945.49	3,944.13	14.68	13.84	-33.12	-0.10	66.32	49.06	21.11	27.95	1.755	
4,000.00	3,999.51	3,994.92	3,993.22	14.84	14.01	-33.52	-0.10	72.09	52.80	24.54	28.26	1.868	
4,050.00	4,049.45	4,044.71	4,042.64	15.01	14.18	-33.83	-0.10	78.16	56.80	28.18	28.61	1.985	
4,100.00	4,099.40	4,094.55	4,092.11	15.17	14.36	-34.11	-0.10	84.23	60.80	31.83	28.97	2.099	
4,150.00	4,149.34	4,144.39	4,141.57	15.33	14.53	-34.34	-0.10	90.30	64.80	35.48	29.32	2.210	
4,200.00	4,199.28	4,194.23	4,191.04	15.50	14.71	-34.55	-0.10	96.38	68.80	39.13	29.66	2.319	
4,250.00	4,249.22	4,244.07	4,240.51	15.66	14.88	-34.74	-0.10	102.45	72.80	42.79	30.01	2.426	
4,300.00	4,299.16	4,293.91	4,289.98	15.83	15.06	-34.91	-0.10	108.53	76.80	46.45	30.36	2.530	
4,350.00	4,349.10	4,343.75	4,339.44	15.99	15.23	-35.06	-0.10	114.60	80.81	50.10	30.70	2.632	
4,400.00	4,399.04	4,393.59	4,388.91	16.16	15.41	-35.19	-0.10	120.67	84.81	53.76	31.05	2.732	
4,450.00	4,448.98	4,443.42	4,438.38	16.32	15.58	-35.32	-0.10	126.75	88.81	57.42	31.39	2.829	
4,500.00	4,498.93	4,493.26	4,487.85	16.49	15.76	-35.43	-0.10	132.82	92.82	61.08	31.74	2.924	
4,550.00	4,548.87	4,543.10	4,537.31	16.66	15.93	-35.53	-0.10	138.90	96.82	64.74	32.09	3.018	
4,600.00	4,598.81	4,592.94	4,586.78	16.83	16.11	-35.63	-0.10	144.97	100.83	68.40	32.43	3.109	
4,650.00	4,648.75	4,642.78	4,636.25	16.99	16.28	-35.72	-0.10	151.04	104.84	72.06	32.78	3.198	
4,700.00	4,698.69	4,692.62	4,685.72	17.16	16.46	-35.80	-0.10	157.12	108.84	75.72	33.12	3.286	
4,750.00	4,748.63	4,742.46	4,735.18	17.33	16.64	-35.88	-0.10	163.19	112.85	79.38	33.47	3.372	
4,800.00	4,798.57	4,792.30	4,784.65	17.50	16.81	-35.95	-0.10	169.26	116.85	83.04	33.81	3.456	
4,850.00	4,848.51	4,842.14	4,834.12	17.67	16.99	-36.01	-0.10	175.34	120.86	86.70	34.16	3.538	
4,900.00	4,898.46	4,891.98	4,883.59	17.84	17.16	-36.07	-0.10	181.41	124.87	90.36	34.51	3.619	
4,950.00	4,948.40	4,941.81	4,933.05	18.01	17.34	-36.13	-0.10	187.49	128.88	94.02	34.85	3.698	
5,000.00	4,998.34	4,991.65	4,982.52	18.18	17.52	-36.19	-0.10	193.56	132.88	97.68	35.20	3.775	
5,050.00	5,048.28	5,041.49	5,031.99	18.35	17.70	-36.24	-0.10	199.63	136.89	101.34	35.55	3.851	
5,100.00	5,098.22	5,091.33	5,081.46	18.52	17.87	-36.29	-0.10	205.71	140.90	105.00	35.90	3.925	
5,150.00	5,148.16	5,141.17	5,130.92	18.69	18.05	-36.33	-0.10	211.78	144.90	108.66	36.24	3.998	
7,700.00	7,695.17	7,715.05	7,695.17	27.63	27.21	-46.14	-0.10	383.53	215.16	160.72	54.44	3.953	
7,750.00	7,745.11	7,764.99	7,745.11	27.81	27.38	-46.61	-0.10	383.53	213.48	158.69	54.79	3.896	
7,800.00	7,795.05	7,814.93	7,795.05	27.99	27.56	-47.08	-0.10	383.53	211.83	156.68	55.15	3.841	
7,850.00	7,844.99	7,864.87	7,844.99	28.16	27.74	-47.57	-0.10	383.53	210.18	154.68	55.50	3.787	
7,900.00	7,894.93	7,914.81	7,894.93	28.34	27.91	-48.06	-0.10	383.53	208.56	152.70	55.86	3.734	
7,950.00	7,944.87	7,964.75	7,944.87	28.52	28.09	-48.56	-0.10	383.53	206.94	150.73	56.21	3.681	
8,000.00	7,994.82	8,014.69	7,994.82	28.70	28.27	-49.06	-0.10	383.53	205.35	148.78	56.57	3.630	
8,050.00	8,044.76	8,064.64	8,044.76	28.88	28.44	-49.58	-0.10	383.53	203.77	146.84	56.92	3.580	
8,100.00	8,094.70	8,114.58	8,094.70	29.05	28.62	-50.10	-0.10	383.53	202.20	144.92	57.28	3.530	
8,150.00	8,144.64	8,164.52	8,144.64	29.23	28.80	-50.63	-0.10	383.53	200.66	143.02	57.64	3.481	
8,200.00	8,194.58	8,214.46	8,194.58	29.41	28.97	-51.17	-0.10	383.53	199.13	141.13	57.99	3.434	
8,250.00	8,244.52	8,264.40	8,244.52	29.59	29.15	-51.71	-0.10	383.53	197.62	139.26	58.35	3.387	
8,300.00	8,294.46	8,314.34	8,294.46	29.77	29.33	-52.27	-0.10	383.53	196.12	137.41	58.71	3.341	
8,350.00	8,344.40	8,364.28	8,344.40	29.95	29.50	-52.83	-0.10	383.53	194.65	135.58	59.07	3.295	
8,400.00	8,394.35	8,414.22	8,394.35	30.13	29.68	-53.41	-0.10	383.53	193.19	133.77	59.42	3.251	
8,450.00	8,444.29	8,464.17	8,444.29	30.30	29.86	-53.99	-0.10	383.53	191.76	131.98	59.78	3.208	
8,500.00	8,494.23	8,514.11	8,494.23	30.48	30.03	-54.58	-0.10	383.53	190.34	130.20	60.14	3.165	
8,550.00	8,544.17	8,564.05	8,544.17	30.66	30.21	-55.17	-0.10	383.53	188.95	128.45	60.50	3.123	
8,600.00	8,594.11	8,613.99	8,594.11	30.84	30.39	-55.78	-0.10	383.53	187.57	126.72	60.86	3.082	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	XTO Energy	Local Co-ordinate Reference:	Well RS25-166H - Slot RS25 166H SHL
Project:	Eddy County, NM (NAD27) NMEZ Grid	TVD Reference:	3061+22 @ 3083.00usft (Perseus)
Reference Site:	Remuda South 25 State Pad	MD Reference:	3061+22 @ 3083.00usft (Perseus)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	RS25-166H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	166H Lateral	Database:	TP_EDM
Reference Design:	Plan #1	Offset TVD Reference:	Reference Datum

Offset Design Remuda South 25 State Pad - RS25-126H - 126H Lateral - Plan #1													Offset Site Error:	0.00 usft
Survey Program: O-MWD+IFR1+MS													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
8,650.00	8,644.05	8,663.93	8,644.05	31.02	30.56	-56.40	-0.10	383.53	186.22	125.01	61.21	3.042		
8,700.00	8,693.99	8,713.87	8,693.99	31.20	30.74	-57.02	-0.10	383.53	184.89	123.32	61.57	3.003		
8,750.00	8,743.93	8,763.81	8,743.93	31.38	30.92	-57.65	-0.10	383.53	183.58	121.65	61.93	2.964		
8,800.00	8,793.88	8,813.75	8,793.88	31.55	31.09	-58.30	-0.10	383.53	182.30	120.00	62.29	2.927		
8,850.00	8,843.82	8,863.70	8,843.82	31.73	31.27	-58.95	-0.10	383.53	181.03	118.38	62.65	2.890		
8,900.00	8,893.76	8,913.64	8,893.76	31.91	31.45	-59.61	-0.10	383.53	179.79	116.78	63.01	2.853		
8,950.00	8,943.70	8,963.58	8,943.70	32.09	31.63	-60.28	-0.10	383.53	178.58	115.21	63.37	2.818		
9,000.00	8,993.64	9,013.52	8,993.64	32.27	31.80	-60.96	-0.10	383.53	177.39	113.66	63.73	2.783		
9,050.00	9,043.58	9,063.46	9,043.58	32.45	31.98	-61.65	-0.10	383.53	176.23	112.14	64.09	2.750		
9,100.00	9,093.52	9,113.40	9,093.52	32.63	32.16	-62.34	-0.10	383.53	175.09	110.64	64.45	2.717		
9,150.00	9,143.46	9,163.34	9,143.46	32.81	32.33	-63.05	-0.10	383.53	173.98	109.16	64.81	2.684		
9,200.00	9,193.41	9,213.28	9,193.41	32.98	32.51	-63.76	-0.10	383.53	172.89	107.72	65.17	2.653		
9,250.00	9,243.35	9,263.23	9,243.35	33.16	32.69	-64.49	-0.10	383.53	171.83	106.30	65.53	2.622		
9,300.00	9,293.29	9,313.17	9,293.29	33.34	32.87	-65.22	-0.10	383.53	170.80	104.91	65.90	2.592		
9,350.00	9,343.23	9,363.11	9,343.23	33.52	33.04	-65.96	-0.10	383.53	169.80	103.54	66.26	2.563		
9,400.00	9,393.17	9,413.05	9,393.17	33.70	33.22	-66.71	-0.10	383.53	168.83	102.21	66.62	2.534		
9,450.00	9,443.11	9,462.99	9,443.11	33.88	33.40	-67.47	-0.10	383.53	167.88	100.90	66.98	2.506		
9,500.00	9,493.05	9,512.93	9,493.05	34.06	33.57	-68.24	-0.10	383.53	166.97	99.63	67.34	2.479		
9,550.00	9,542.99	9,562.87	9,542.99	34.24	33.75	-69.01	-0.10	383.53	166.08	98.38	67.70	2.453		
9,600.00	9,592.94	9,612.81	9,592.94	34.42	33.93	-69.80	-0.10	383.53	165.23	97.16	68.07	2.427		
9,650.00	9,642.88	9,662.76	9,642.88	34.60	34.11	-70.59	-0.10	383.53	164.41	95.98	68.43	2.403		
9,700.00	9,692.82	9,712.70	9,692.82	34.77	34.28	-71.39	-0.10	383.53	163.62	94.83	68.79	2.378		
9,750.00	9,742.76	9,762.64	9,742.76	34.95	34.46	-72.20	-0.10	383.53	162.86	93.71	69.16	2.355		
9,800.00	9,792.70	9,812.58	9,792.70	35.13	34.64	-73.01	-0.10	383.53	162.14	92.62	69.52	2.332		
9,850.00	9,842.64	9,862.52	9,842.64	35.31	34.82	-73.83	-0.10	383.53	161.44	91.56	69.88	2.310		
9,900.00	9,892.58	9,912.46	9,892.58	35.49	34.99	-74.66	-0.10	383.53	160.79	90.54	70.24	2.289		
9,950.00	9,942.52	9,962.40	9,942.52	35.67	35.17	-75.49	-0.10	383.53	160.16	89.55	70.61	2.268		
10,000.00	9,992.47	10,012.34	9,992.47	35.85	35.35	-76.34	-0.10	383.53	159.57	88.60	70.97	2.248		
10,050.00	10,042.41	10,064.13	10,044.24	36.03	35.53	-76.97	-0.64	383.97	158.86	87.54	71.32	2.228		
10,100.00	10,092.35	10,117.39	10,097.23	36.21	35.71	-76.07	-4.57	387.22	157.21	85.60	71.61	2.195		
10,150.00	10,142.29	10,169.68	10,148.58	36.39	35.89	-73.44	-12.10	393.45	154.73	82.83	71.90	2.152		
10,200.00	10,192.23	10,220.20	10,197.15	36.57	36.06	-69.14	-22.77	402.28	152.04	79.81	72.23	2.105		
10,250.00	10,242.17	10,268.30	10,242.09	36.75	36.21	-63.42	-35.96	413.19	150.16	77.57	72.59	2.069		
10,272.01	10,264.16	10,288.58	10,260.58	36.82	36.28	-60.54	-42.38	418.50	149.91	77.19	72.72	2.061		
10,300.00	10,292.11	10,313.53	10,282.90	36.92	36.36	-56.66	-50.96	425.60	150.38	77.57	72.81	2.065		
10,350.00	10,342.06	10,355.63	10,319.39	37.10	36.49	-49.40	-67.12	438.97	154.05	81.49	72.56	2.123		
10,400.00	10,392.00	10,394.50	10,351.64	37.28	36.61	-42.21	-83.83	452.79	162.25	90.69	71.56	2.267		
10,450.00	10,441.94	10,430.18	10,379.88	37.46	36.72	-35.53	-100.62	466.69	175.52	105.66	69.86	2.513		
10,500.00	10,491.88	10,462.81	10,404.48	37.64	36.81	-29.60	-117.14	480.35	193.80	126.06	67.74	2.861		
10,550.00	10,541.82	10,492.57	10,425.82	37.82	36.90	-24.50	-133.12	493.57	216.63	151.09	65.54	3.306		
10,600.00	10,591.76	10,519.69	10,444.30	38.00	36.97	-20.18	-148.41	506.22	243.36	179.92	63.44	3.836		