

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720

District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 334-6170

District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170

District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

☒ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT AS-DRILLED PLAT

¹ API Number 30-015-44391	² Pool Code 98220	³ Pool Name Purple Sage; Wolfcamp
⁴ Property Code 317788	⁵ Property Name REMUDA SOUTH 25 STATE	⁶ Well Number 166H
⁷ OGRID No. 005380	⁸ Operator Name XTO ENERGY, INC.	⁹ Elevation 3,061'

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
G	25	23 S	29 E		2,280	NORTH	1,995	EAST	EDDY

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
O	36	23 S	29 E		193	SOUTH	1,638	EAST	EDDY

¹² Dedicated Acres 480	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division. NOTE: AS-DRILLED BOTTOM HOLE PLOTTED FROM DATA FURNISHED BY XTO ENERGY.

	16 <table border="0"> <tr> <td> GEODETIC COORDINATES NAD 27 NME SURFACE LOCATION Y= 464,640.4 X= 622,940.2 LAT.= 32.276787°N LONG.= 103.935547°W KICK OFF POINT NAD 27 NME Y= 464,561.6 X= 623,257.2 LAT.= 32.276567°N LONG.= 103.934522°W FIRST TAKE POINT NAD 27 NME Y= 463,814.3 X= 623,284.0 LAT.= 32.274512°N LONG.= 103.934445°W CORNER COORDINATES TABLE NAD 27 NME A - Y= 464,259.7 N, X= 622,286.2 E B - Y= 464,258.9 N, X= 623,667.2 E C - Y= 461,608.0 N, X= 622,291.1 E D - Y= 461,609.3 N, X= 623,619.4 E E - Y= 458,946.6 N, X= 622,304.5 E F - Y= 458,948.5 N, X= 623,632.7 E G - Y= 456,287.9 N, X= 622,317.8 E H - Y= 456,290.8 N, X= 623,644.7 E CORNER COORDINATES TABLE NAD 83 NME A - Y= 464,319.1 N, X= 663,469.2 E B - Y= 464,318.3 N, X= 664,850.2 E C - Y= 461,667.3 N, X= 663,474.1 E D - Y= 461,668.6 N, X= 664,802.5 E E - Y= 459,005.9 N, X= 663,487.6 E F - Y= 459,007.8 N, X= 664,815.8 E G - Y= 456,347.1 N, X= 663,501.0 E H - Y= 456,350.0 N, X= 664,827.9 E LAST TAKE POINT NAD 27 NME Y= 456,619.6 X= 623,337.4 LAT.= 32.254734°N LONG.= 103.934358°W BOTTOM HOLE LOCATION NAD 27 NME Y= 456,482.8 X= 623,332.3 LAT.= 32.254358°N LONG.= 103.934377°W </td> <td data-bbox="1039 968 1541 1953"> 17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. <i>Melanie Collins</i> 9-4-2020 Signature Date Melanie Collins Printed Name melanie.collins@xtoenergy.com E-mail Address 18 SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief. 8-31-2020 Date of Survey Signature and Seal of Professional Surveyor: <i>Mark Dillon Harp</i> MARK DILLON HARP 23786 Certificate Number JC 2019010052 </td> </tr> <tr> <td data-bbox="617 968 1039 1953"> GEODETIC COORDINATES NAD 83 NME SURFACE LOCATION Y= 464,699.8 X= 664,123.2 LAT.= 32.276909°N LONG.= 103.936038°W KICK OFF POINT NAD 83 NME Y= 464,621.0 X= 664,440.2 LAT.= 32.276889°N LONG.= 103.935013°W FIRST TAKE POINT NAD 83 NME Y= 463,873.7 X= 664,467.0 LAT.= 32.274635°N LONG.= 103.934935°W </td> <td data-bbox="1039 968 1541 1953"></td> </tr> </table>	GEODETIC COORDINATES NAD 27 NME SURFACE LOCATION Y= 464,640.4 X= 622,940.2 LAT.= 32.276787°N LONG.= 103.935547°W KICK OFF POINT NAD 27 NME Y= 464,561.6 X= 623,257.2 LAT.= 32.276567°N LONG.= 103.934522°W FIRST TAKE POINT NAD 27 NME Y= 463,814.3 X= 623,284.0 LAT.= 32.274512°N LONG.= 103.934445°W CORNER COORDINATES TABLE NAD 27 NME A - 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Intent ☐ As Drilled ☐

API #		
Operator Name:	Property Name:	Well Number

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
Latitude					Longitude				NAD

First Take Point (FTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
Latitude					Longitude				NAD

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
Latitude					Longitude				NAD

Is this well the defining well for the Horizontal Spacing Unit? ☐

Is this well an infill well? ☐

If infill is yes please provide API if available, Operator Name and well number for Defining well for Horizontal Spacing Unit.

API #		
Operator Name:	Property Name:	Well Number



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 / **REMUDA SOUTH 25 STATE 166H / 30-015-44391**

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	106' to 19154'	6-14-19 to 8-16-19	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,

A handwritten signature in black ink, appearing to read 'Greg Wilkie'.

Greg Wilkie
MWD Operations Manager

XTO Energy

Project: Eddy County, NM (NAD27) NMEZ Grid
Site: Remuda South 25 State Pad

Well: RS25-166H

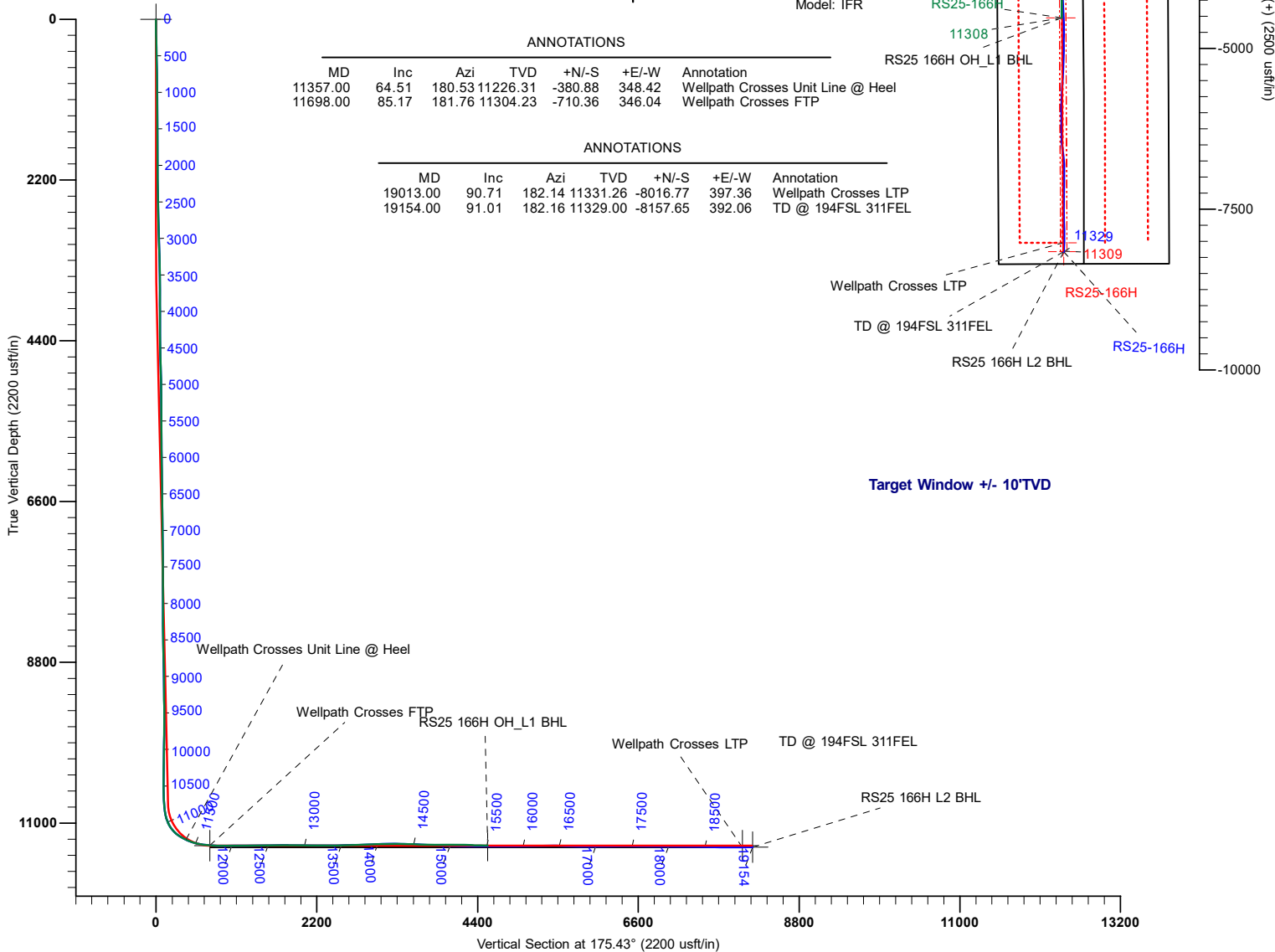
Wellbore: 166H Lateral
Design: 166H Lateral (AsDrilled) 3061+22 @ 3083.00usft (Perseus)
NAD 1927 (NADCON CONUS)

To convert a Magnetic Direction to a Grid Direction, Add 6.85°



Azimuths to Grid North
True North: -0.21°
Magnetic North: 6.85°

Magnetic Field
Strength: 47850.0nT
Dip Angle: 60.01°
Date: 07/08/2019
Model: IFR



ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Annotation
11357.00	64.51	180.53	11226.31	-380.88	348.42	Wellpath Crosses Unit Line @ Heel
11698.00	85.17	181.76	11304.23	-710.36	346.04	Wellpath Crosses FTP

ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Annotation
19013.00	90.71	182.14	11331.26	-8016.77	397.36	Wellpath Crosses LTP
19154.00	91.01	182.16	11329.00	-8157.65	392.06	TD @ 194FSL 311FEL

TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
RS25 166H SHL (copy)	0.00	0.00	0.00	464641.33	622941.45	Point
RS25 166H OH L1 BHL	11307.88	-4523.89	361.51	460117.43	623302.96	Point
RS25 166H FTP_329FNL_374FEL p3	11309.00	-710.50	347.50	463930.83	623288.95	Point
RS25 166H LTP_330FSL_325FEL p3	11309.00	-8020.30	380.00	456621.01	623321.45	Point
RS25 166H L2 BHL	11329.00	-8157.65	392.06	456483.66	623333.51	Rectangle (Sides: L7440.00 W100.00)

XTO Energy

Eddy County, NM (NAD27) NMEZ Grid

Remuda South 25 State Pad

RS25-166H - Slot RS25 166H SHL

166H Lateral

Design: 166H Lateral (AsDrilled)

Standard Survey Report

16 August, 2019

Survey 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)
Site:	Remuda South 25 State Pad	MD Reference:	3061+22 @ 3083.00usft (Perseus)
Well:	RS25-166H	North Reference:	Grid
Wellbore:	166H Lateral	Survey Calculation Method:	Minimum Curvature
Design:	166H Lateral (AsDrilled)	Database:	TP_EDM

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
From:	Map	Easting:	622,881.65 ft
Position Uncertainty:	0.00 usft	Slot Radius:	13.20 in
		Latitude:	32° 16' 36.434 N
		Longitude:	103° 56' 8.666 W
		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	0.00 usft	Easting: 622,941.45 ft
Position Uncertainty	0.00 usft	Wellhead Elevation:	usft
		Latitude:	32° 16' 36.432 N
		Longitude:	103° 56' 7.969 W
		Ground Level:	3,061.00 usft

Wellbore	166H Lateral		
Magnetics	Model Name	Sample Date	Declination (°)
	IGRF2015	05/16/19	6.92
	IFR	07/08/19	7.06
			Dip Angle (°)
			60.03
			60.01
			Field Strength (nT)
			47,737
			47,850

Design	166H Lateral (AsDrilled)		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
		Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)
	0.00	0.00	0.00
			Direction (°)
			175.43

Survey Program	Date	08/16/19		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
106.00	10,776.00	Survey #1 (166H Lateral)	MWD	OWSG MWD - Standard
10,824.00	15,465.00	Survey #2 (166H Lateral)	MWD+IFR1+MS	OWSG MWD + IFR1 + Multi-Station Correction
15,515.00	15,515.00	Survey #3 (166H Lateral)	Projection	Projection

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 126H SHL (copy) - RS25 166H SHL (copy)										
0.14	0.00	327.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00	
RS25 105H SHL (copy)										
106.00	0.50	327.00	106.00	0.39	-0.25	-0.41	0.47	0.47	0.00	
202.00	0.90	156.00	202.00	0.05	-0.17	-0.06	1.45	0.42	-178.12	
275.00	1.00	215.00	274.99	-1.00	-0.31	0.97	1.29	0.14	80.82	

Survey 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)
Site:	Remuda South 25 State Pad	MD Reference:	3061+22 @ 3083.00usft (Perseus)
Well:	RS25-166H	North Reference:	Grid
Wellbore:	166H Lateral	Survey Calculation Method:	Minimum Curvature
Design:	166H Lateral (AsDrilled)	Database:	TP_EDM

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)	
386.00	1.10	214.40	385.97	-2.67	-1.46	2.54	0.09	0.09	-0.54	
483.00	1.10	203.06	482.95	-4.29	-2.35	4.09	0.22	0.00	-11.69	
580.00	1.00	207.80	579.93	-5.90	-3.11	5.63	0.14	-0.10	4.89	
674.00	1.20	194.10	673.92	-7.58	-3.74	7.26	0.35	0.21	-14.57	
770.00	1.90	197.30	769.88	-10.07	-4.45	9.69	0.73	0.73	3.33	
864.00	1.90	204.00	863.83	-12.98	-5.55	12.50	0.24	0.00	7.13	
959.00	1.30	217.30	958.79	-15.28	-6.84	14.69	0.74	-0.63	14.00	
1,054.00	0.50	185.20	1,053.78	-16.55	-7.54	15.90	0.96	-0.84	-33.79	
1,150.00	0.50	41.60	1,149.78	-16.65	-7.30	16.02	0.99	0.00	-149.58	
1,246.00	0.30	118.80	1,245.78	-16.46	-6.80	15.87	0.54	-0.21	80.42	
1,340.00	0.60	94.40	1,339.77	-16.62	-6.09	16.08	0.37	0.32	-25.96	
1,435.00	0.40	78.20	1,434.77	-16.59	-5.27	16.12	0.26	-0.21	-17.05	
1,531.00	0.50	116.30	1,530.77	-16.71	-4.57	16.29	0.32	0.10	39.69	
1,626.00	0.30	165.50	1,625.77	-17.13	-4.13	16.75	0.40	-0.21	51.79	
1,719.00	0.80	192.10	1,718.76	-18.00	-4.21	17.61	0.59	0.54	28.60	
1,815.00	1.30	108.30	1,814.75	-19.00	-3.31	18.67	1.51	0.52	-87.29	
1,910.00	2.20	84.80	1,909.71	-19.17	-0.47	19.07	1.19	0.95	-24.74	
2,005.00	1.20	83.20	2,004.66	-18.89	2.33	19.01	1.05	-1.05	-1.68	
2,099.00	0.80	103.00	2,098.65	-18.92	3.95	19.17	0.56	-0.43	21.06	
2,194.00	0.50	159.00	2,193.64	-19.46	4.74	19.77	0.70	-0.32	58.95	
2,290.00	0.80	166.20	2,289.64	-20.50	5.05	20.83	0.32	0.31	7.50	
2,392.00	0.90	188.50	2,391.63	-21.98	5.10	22.32	0.34	0.10	21.86	
2,486.00	1.60	162.70	2,485.60	-23.96	5.38	24.32	0.94	0.74	-27.45	
2,586.00	2.20	127.70	2,585.55	-26.47	7.32	26.97	1.28	0.60	-35.00	
2,681.00	2.40	114.50	2,680.48	-28.41	10.57	29.16	0.59	0.21	-13.89	
2,776.00	2.70	114.60	2,775.38	-30.17	14.41	31.22	0.32	0.32	0.11	
2,871.00	3.40	121.00	2,870.25	-32.55	18.86	33.95	0.82	0.74	6.74	
2,966.00	3.30	125.60	2,965.08	-35.59	23.50	37.35	0.30	-0.11	4.84	
3,030.00	3.10	124.30	3,028.98	-37.64	26.43	39.63	0.33	-0.31	-2.03	
3,149.00	2.80	119.70	3,147.83	-40.89	31.61	43.28	0.32	-0.25	-3.87	
3,245.00	2.60	113.50	3,243.72	-42.92	35.65	45.63	0.37	-0.21	-6.46	
3,339.00	2.50	111.50	3,337.63	-44.52	39.51	47.53	0.14	-0.11	-2.13	
3,434.00	2.50	111.50	3,432.54	-46.04	43.36	49.35	0.00	0.00	0.00	
3,528.00	2.50	109.60	3,526.45	-47.48	47.20	51.09	0.09	0.00	-2.02	
3,622.00	2.20	90.50	3,620.37	-48.19	50.94	52.09	0.89	-0.32	-20.32	
3,717.00	2.50	84.90	3,715.29	-48.02	54.82	52.23	0.40	0.32	-5.89	
3,812.00	2.40	85.30	3,810.20	-47.67	58.87	52.21	0.11	-0.11	0.42	
3,908.00	2.60	91.80	3,906.11	-47.57	63.05	52.45	0.36	0.21	6.77	
4,003.00	2.80	89.80	4,001.01	-47.63	67.52	52.86	0.23	0.21	-2.11	
4,098.00	2.60	89.30	4,095.90	-47.60	72.00	53.18	0.21	-0.21	-0.53	
4,192.00	2.50	85.60	4,189.81	-47.42	76.18	53.33	0.20	-0.11	-3.94	
4,287.00	2.50	91.40	4,284.72	-47.31	80.31	53.55	0.27	0.00	6.11	
4,382.00	2.70	91.70	4,379.62	-47.42	84.62	54.01	0.21	0.21	0.32	
4,477.00	2.90	90.80	4,474.51	-47.52	89.26	54.48	0.22	0.21	-0.95	

Survey 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)
Site:	Remuda South 25 State Pad	MD Reference:	3061+22 @ 3083.00usft (Perseus)
Well:	RS25-166H	North Reference:	Grid
Wellbore:	166H Lateral	Survey Calculation Method:	Minimum Curvature
Design:	166H Lateral (AsDrilled)	Database:	TP_EDM

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)	
4,572.00	3.40	110.80	4,569.37	-48.56	94.30	55.92	1.26	0.53	21.05	
4,665.00	2.70	141.50	4,662.24	-51.25	98.24	58.91	1.88	-0.75	33.01	
4,760.00	2.70	141.40	4,757.13	-54.75	101.03	62.63	0.00	0.00	-0.11	
4,856.00	1.90	144.40	4,853.06	-57.81	103.36	65.86	0.84	-0.83	3.12	
4,950.00	1.30	106.20	4,947.02	-59.38	105.30	67.58	1.27	-0.64	-40.64	
5,045.00	1.50	87.80	5,041.99	-59.63	107.57	68.01	0.51	0.21	-19.37	
5,141.00	2.20	94.00	5,137.94	-59.71	110.67	68.34	0.76	0.73	6.46	
5,235.00	2.60	89.50	5,231.86	-59.82	114.60	68.76	0.47	0.43	-4.79	
5,331.00	2.40	98.60	5,327.77	-60.10	118.76	69.37	0.46	-0.21	9.48	
5,426.00	2.30	94.30	5,422.69	-60.54	122.63	70.12	0.21	-0.11	-4.53	
5,521.00	2.30	94.80	5,517.61	-60.84	126.43	70.72	0.02	0.00	0.53	
5,616.00	3.10	96.70	5,612.51	-61.30	130.88	71.53	0.85	0.84	2.00	
5,711.00	4.00	93.60	5,707.32	-61.81	136.74	72.51	0.97	0.95	-3.26	
5,806.00	3.90	94.70	5,802.10	-62.28	143.27	73.50	0.13	-0.11	1.16	
5,902.00	3.70	95.20	5,897.89	-62.83	149.61	74.55	0.21	-0.21	0.52	
5,996.00	3.70	95.70	5,991.69	-63.41	155.64	75.60	0.03	0.00	0.53	
6,091.00	3.70	94.80	6,086.49	-63.97	161.75	76.65	0.06	0.00	-0.95	
6,186.00	3.60	95.10	6,181.30	-64.49	167.77	77.65	0.11	-0.11	0.32	
6,281.00	3.40	94.60	6,276.12	-64.98	173.55	78.60	0.21	-0.21	-0.53	
6,376.00	3.50	97.00	6,370.95	-65.56	179.24	79.63	0.18	0.11	2.53	
6,470.00	3.40	96.60	6,464.78	-66.23	184.86	80.74	0.11	-0.11	-0.43	
6,565.00	3.10	96.60	6,559.63	-66.85	190.21	81.79	0.32	-0.32	0.00	
6,660.00	3.00	98.10	6,654.49	-67.49	195.22	82.83	0.13	-0.11	1.58	
6,755.00	3.00	99.10	6,749.36	-68.24	200.13	83.96	0.06	0.00	1.05	
6,851.00	2.80	100.10	6,845.24	-69.05	204.92	85.15	0.21	-0.21	1.04	
6,947.00	2.70	102.30	6,941.13	-69.94	209.44	86.40	0.15	-0.10	2.29	
7,042.00	2.40	103.40	7,036.03	-70.88	213.56	87.66	0.32	-0.32	1.16	
7,137.00	2.30	104.70	7,130.95	-71.82	217.34	88.91	0.12	-0.11	1.37	
7,232.00	2.40	100.00	7,225.87	-72.65	221.14	90.04	0.23	0.11	-4.95	
7,326.00	2.20	96.40	7,319.80	-73.19	224.88	90.87	0.26	-0.21	-3.83	
7,420.00	1.40	93.40	7,413.75	-73.46	227.81	91.38	0.86	-0.85	-3.19	
7,515.00	1.90	89.00	7,508.71	-73.50	230.55	91.64	0.54	0.53	-4.63	
7,611.00	2.80	82.70	7,604.63	-73.18	234.46	91.62	0.97	0.94	-6.56	
7,705.00	3.00	88.20	7,698.51	-72.81	239.20	91.63	0.36	0.21	5.85	
7,799.00	2.20	91.90	7,792.41	-72.79	243.46	91.95	0.87	-0.85	3.94	
7,895.00	1.30	98.60	7,888.37	-73.02	246.38	92.41	0.96	-0.94	6.98	
7,990.00	1.80	93.40	7,983.33	-73.27	248.94	92.86	0.55	0.53	-5.47	
8,085.00	2.10	86.90	8,078.28	-73.26	252.16	93.11	0.39	0.32	-6.84	
8,181.00	1.80	96.80	8,174.22	-73.34	255.42	93.46	0.47	-0.31	10.31	
8,276.00	1.50	114.00	8,269.18	-74.03	258.03	94.34	0.61	-0.32	18.11	
8,370.00	1.60	103.40	8,363.15	-74.83	260.43	95.34	0.32	0.11	-11.28	
8,464.00	2.70	87.80	8,457.08	-75.05	263.92	95.83	1.32	1.17	-16.60	
8,558.00	2.80	90.70	8,550.97	-74.99	268.43	96.14	0.18	0.11	3.09	

Survey 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)
Site:	Remuda South 25 State Pad	MD Reference:	3061+22 @ 3083.00usft (Perseus)
Well:	RS25-166H	North Reference:	Grid
Wellbore:	166H Lateral	Survey Calculation Method:	Minimum Curvature
Design:	166H Lateral (AsDrilled)	Database:	TP_EDM

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)	
8,653.00	3.00	111.70	8,645.85	-75.94	273.06	97.45	1.13	0.21	22.11	
8,748.00	3.50	132.60	8,740.71	-78.82	277.51	100.68	1.34	0.53	22.00	
8,844.00	2.40	135.50	8,836.58	-82.24	281.07	104.37	1.16	-1.15	3.02	
8,939.00	1.50	151.60	8,931.52	-84.75	283.06	107.03	1.10	-0.95	16.95	
9,033.00	1.00	154.40	9,025.50	-86.57	284.00	108.92	0.54	-0.53	2.98	
9,128.00	0.60	92.00	9,120.49	-87.34	284.85	109.75	0.94	-0.42	-65.68	
9,223.00	1.00	77.30	9,215.48	-87.17	286.16	109.69	0.47	0.42	-15.47	
9,318.00	1.30	92.80	9,310.46	-87.04	288.04	109.71	0.45	0.32	16.32	
9,413.00	1.10	132.20	9,405.44	-87.71	289.80	110.52	0.87	-0.21	41.47	
9,507.00	0.30	110.10	9,499.44	-88.40	290.70	111.28	0.88	-0.85	-23.51	
9,602.00	0.60	332.60	9,594.43	-88.04	290.70	110.92	0.89	0.32	-144.74	
9,697.00	0.10	187.80	9,689.43	-87.68	290.46	110.54	0.72	-0.53	-152.42	
9,791.00	0.50	81.60	9,783.43	-87.71	290.85	110.60	0.57	0.43	-112.98	
9,885.00	2.10	50.10	9,877.40	-86.54	292.58	109.57	1.80	1.70	-33.51	
9,979.00	1.90	49.60	9,971.35	-84.43	295.09	107.66	0.21	-0.21	-0.53	
10,074.00	1.70	48.20	10,066.30	-82.47	297.34	105.89	0.22	-0.21	-1.47	
10,171.00	2.20	64.40	10,163.24	-80.70	300.09	104.35	0.76	0.52	16.70	
10,266.00	2.50	69.00	10,258.16	-79.17	303.67	103.11	0.37	0.32	4.84	
10,345.44	2.42	70.91	10,337.53	-78.00	306.87	102.20	0.15	-0.11	2.40	
RS25 105H FTP_329FNL_506FWL (copy)										
10,361.00	2.40	71.30	10,353.08	-77.79	307.49	102.04	0.15	-0.10	2.50	
10,386.00	2.20	72.90	10,378.06	-77.48	308.44	101.81	0.84	-0.80	6.40	
10,489.00	2.16	75.19	10,480.98	-76.41	312.21	101.03	0.09	-0.04	2.22	
10,584.00	2.20	128.20	10,575.92	-77.08	315.37	101.95	2.05	0.04	55.80	
10,632.00	2.29	140.72	10,623.89	-78.39	316.70	103.37	1.04	0.19	26.08	
10,646.83	2.59	140.99	10,638.70	-78.88	317.10	103.89	2.02	2.02	1.84	
RS25 125H FTP_329FNL_671FWL (copy)										
10,680.00	3.26	141.42	10,671.83	-80.20	318.16	105.29	2.02	2.02	1.29	
10,698.69	3.81	140.10	10,690.49	-81.09	318.89	106.23	2.96	2.93	-7.07	
RS25 126H FTP_329FNL_14FEL (copy)										
10,727.00	4.64	138.69	10,718.72	-82.67	320.25	107.92	2.96	2.94	-4.97	
10,776.00	5.46	141.92	10,767.53	-85.99	323.00	111.45	1.77	1.67	6.59	
10,824.00	7.89	146.10	10,815.20	-90.53	326.24	116.23	5.16	5.06	8.71	
10,862.00	10.40	147.48	10,852.71	-95.58	329.54	121.53	6.63	6.61	3.63	
10,903.00	13.22	149.40	10,892.84	-102.74	333.92	129.01	6.94	6.88	4.68	
10,935.00	16.09	155.32	10,923.80	-109.92	337.63	136.47	10.11	8.97	18.50	
10,966.00	19.17	161.59	10,953.34	-118.66	341.04	145.45	11.66	9.94	20.23	
10,998.00	22.98	167.90	10,983.20	-129.76	344.01	156.75	13.84	11.91	19.72	
11,030.00	27.09	171.39	11,012.19	-143.07	346.41	170.21	13.64	12.84	10.91	
11,062.00	30.78	174.84	11,040.19	-158.44	348.24	185.68	12.65	11.53	10.78	
11,094.00	34.87	177.27	11,067.08	-175.74	349.41	203.01	13.43	12.78	7.59	
11,125.00	39.57	178.84	11,091.76	-194.47	350.03	221.74	15.47	15.16	5.06	
11,157.00	43.53	179.19	11,115.70	-215.69	350.39	242.92	12.40	12.37	1.09	
11,188.00	48.24	180.18	11,137.27	-237.94	350.51	265.11	15.37	15.19	3.19	

Survey 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)
Site:	Remuda South 25 State Pad	MD Reference:	3061+22 @ 3083.00usft (Perseus)
Well:	RS25-166H	North Reference:	Grid
Wellbore:	166H Lateral	Survey Calculation Method:	Minimum Curvature
Design:	166H Lateral (AsDrilled)	Database:	TP_EDM

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)	
11,219.00	52.69	181.18	11,157.00	-261.84	350.22	288.91	14.57	14.35	3.23	
11,267.00	58.83	181.12	11,184.00	-301.49	349.42	328.37	12.79	12.79	-0.12	
11,315.00	62.40	180.61	11,207.54	-343.31	348.79	370.00	7.49	7.44	-1.06	
11,357.00	64.51	180.53	11,226.31	-380.88	348.42	407.42	5.02	5.02	-0.18	
Wellpath Crosses Unit Line @ Heel										
11,364.00	64.86	180.52	11,229.31	-387.20	348.36	413.72	5.02	5.02	-0.18	
11,411.00	68.73	179.25	11,247.82	-430.39	348.46	456.78	8.60	8.23	-2.70	
11,458.00	71.76	178.55	11,263.71	-474.61	349.31	500.93	6.60	6.45	-1.49	
11,506.00	75.61	178.90	11,277.19	-520.66	350.33	546.91	8.05	8.02	0.73	
11,554.00	79.14	179.71	11,287.68	-567.49	350.90	593.63	7.54	7.35	1.69	
11,601.00	83.02	182.37	11,294.97	-613.90	350.05	639.83	9.97	8.26	5.66	
11,649.00	84.93	182.71	11,300.00	-661.58	347.93	687.20	4.04	3.98	0.71	
11,697.00	85.16	181.76	11,304.15	-709.37	346.07	734.68	2.03	0.48	-1.98	
11,698.00	85.17	181.76	11,304.23	-710.36	346.04	735.67	1.48	1.40	-0.48	
Wellpath Crosses FTP										
11,698.49	85.18	181.75	11,304.28	-710.85	346.02	736.16	1.48	1.40	-0.48	
RS25 166H FTP_329FNL_374FEL p3										
11,699.25	85.19	181.75	11,304.34	-711.61	346.00	736.91	1.48	1.40	-0.48	
RS25 166H FTP_329FNL_374FEL (copy)										
11,745.00	85.83	181.53	11,307.92	-757.20	344.69	782.25	1.48	1.40	-0.48	
11,792.00	87.82	180.24	11,310.52	-804.12	343.97	828.96	5.04	4.23	-2.74	
11,839.00	91.12	180.49	11,310.96	-851.11	343.67	875.78	7.04	7.02	0.53	
11,935.00	89.27	181.52	11,310.63	-947.09	341.99	971.32	2.21	-1.93	1.07	
12,030.00	92.01	184.02	11,309.57	-1,041.95	337.40	1,065.52	3.90	2.88	2.63	
12,126.00	89.22	182.43	11,308.54	-1,137.78	332.00	1,160.61	3.34	-2.91	-1.66	
12,221.00	89.64	181.75	11,309.48	-1,232.71	328.53	1,254.97	0.84	0.44	-0.72	
12,315.00	90.87	182.95	11,309.07	-1,326.63	324.68	1,348.28	1.83	1.31	1.28	
12,410.00	90.98	182.23	11,307.53	-1,421.52	320.39	1,442.53	0.77	0.12	-0.76	
12,506.00	91.34	181.56	11,305.59	-1,517.45	317.21	1,537.89	0.79	0.37	-0.70	
12,600.00	89.69	178.28	11,304.74	-1,611.43	317.35	1,631.59	3.91	-1.76	-3.49	
12,696.00	91.85	178.41	11,303.45	-1,707.37	320.12	1,727.45	2.25	2.25	0.14	
12,791.00	87.70	176.27	11,303.83	-1,802.24	324.52	1,822.37	4.91	-4.37	-2.25	
12,888.00	91.46	177.89	11,304.54	-1,899.10	329.46	1,919.30	4.22	3.88	1.67	
12,983.00	88.77	177.00	11,304.35	-1,993.99	333.70	2,014.24	2.98	-2.83	-0.94	
13,078.00	88.66	178.02	11,306.48	-2,088.88	337.83	2,109.15	1.08	-0.12	1.07	
13,175.00	90.53	177.19	11,307.16	-2,185.78	341.88	2,206.07	2.11	1.93	-0.86	
13,270.00	89.41	176.47	11,307.21	-2,280.64	347.13	2,301.04	1.40	-1.18	-0.76	
13,366.00	89.02	178.12	11,308.53	-2,376.52	351.66	2,396.98	1.77	-0.41	1.72	
13,462.00	92.74	180.05	11,307.05	-2,472.47	353.20	2,492.75	4.37	3.87	2.01	
13,558.00	92.10	179.39	11,303.00	-2,568.38	353.66	2,588.39	0.96	-0.67	-0.69	
13,654.00	90.11	177.59	11,301.15	-2,664.32	356.19	2,684.23	2.79	-2.07	-1.87	
13,748.00	89.30	179.17	11,301.63	-2,758.28	358.85	2,778.10	1.89	-0.86	1.68	
13,843.00	93.81	182.87	11,299.06	-2,853.19	357.16	2,872.57	6.14	4.75	3.89	
13,939.00	94.01	181.89	11,292.51	-2,948.88	353.19	2,967.65	1.04	0.21	-1.02	

Survey 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)
Site:	Remuda South 25 State Pad	MD Reference:	3061+22 @ 3083.00usft (Perseus)
Well:	RS25-166H	North Reference:	Grid
Wellbore:	166H Lateral	Survey Calculation Method:	Minimum Curvature
Design:	166H Lateral (AsDrilled)	Database:	TP_EDM

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)	
14,035.00	92.69	181.97	11,286.90	-3,044.66	349.96	3,062.86	1.38	-1.37	0.08	
14,131.00	89.80	180.66	11,284.81	-3,140.60	347.76	3,158.32	3.31	-3.01	-1.36	
14,228.00	89.27	179.87	11,285.60	-3,237.60	347.31	3,254.97	0.98	-0.55	-0.81	
14,323.00	88.80	179.42	11,287.20	-3,332.58	347.90	3,349.70	0.68	-0.49	-0.47	
14,418.00	89.94	179.60	11,288.25	-3,427.57	348.71	3,444.46	1.21	1.20	0.19	
14,513.00	87.64	179.38	11,290.25	-3,522.54	349.56	3,539.19	2.43	-2.42	-0.23	
14,608.00	86.78	179.33	11,294.88	-3,617.42	350.62	3,633.85	0.91	-0.91	-0.05	
14,704.00	87.76	178.22	11,299.45	-3,713.29	352.67	3,729.58	1.54	1.02	-1.16	
14,799.00	93.12	179.30	11,298.72	-3,808.23	354.73	3,824.38	5.76	5.64	1.14	
14,893.00	91.40	180.25	11,295.01	-3,902.15	355.10	3,918.03	2.09	-1.83	1.01	
14,988.00	88.18	177.59	11,295.36	-3,997.11	356.89	4,012.84	4.40	-3.39	-2.80	
15,083.00	88.52	179.67	11,298.10	-4,092.04	359.16	4,107.64	2.22	0.36	2.19	
15,178.00	89.72	179.27	11,299.55	-4,187.02	360.04	4,202.39	1.33	1.26	-0.42	
15,273.00	87.31	179.35	11,302.02	-4,281.97	361.18	4,297.14	2.54	-2.54	0.08	
15,368.00	89.44	179.62	11,304.71	-4,376.93	362.03	4,391.86	2.26	2.24	0.28	
15,465.00	88.43	180.49	11,306.51	-4,473.91	361.94	4,488.52	1.37	-1.04	0.90	
15,515.00	88.43	180.49	11,307.88	-4,523.89	361.51	4,538.31	0.00	0.00	0.00	
RS25 125H LTP_200FSL_655FEL (copy) - RS25 105H PBHL_330FSL_509FWL (copy) - RS25 166H PBHL_200FSL_324FEL p3 - RS25 166H										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (ft)	Easting (ft)	Latitude	Longitude	
RS25 166H SHL (copy)	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	
- hit/miss target										
- actual wellpath hits target center										
- Point										
RS25 166H OH_L1 BHL	0.00	0.00	11,307.88	-4,523.89	361.51	460,117.43	623,302.96	32° 15' 51.650 N	103° 56' 3.954 W	
- actual wellpath misses target center by 0.01usft at 15515.00usft MD (11307.88 TVD, -4523.89 N, 361.51 E)										
- Point										
RS25 166H LTP_330FS	0.00	0.01	11,309.00	-8,020.30	380.00	456,621.01	623,321.45	32° 15' 17.049 N	103° 56' 3.890 W	
- actual wellpath misses target center by 3496.46usft at 15515.00usft MD (11307.88 TVD, -4523.89 N, 361.51 E)										
- Point										
RS25 166H FTP_329FN	0.00	0.00	11,309.00	-710.50	347.50	463,930.83	623,288.95	32° 16' 29.388 N	103° 56' 3.953 W	
- actual wellpath misses target center by 4.96usft at 11698.49usft MD (11304.28 TVD, -710.85 N, 346.02 E)										
- Point										

Design Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
11,357.00	11,226.31	-380.88	348.42	Wellpath Crosses Unit Line @ Heel	
11,698.00	11,304.23	-710.36	346.04	Wellpath Crosses FTP	

Checked By: _____ Approved By: _____ Date: _____

XTO Energy

Eddy County, NM (NAD27) NMEZ Grid

Remuda South 25 State Pad

RS25-166H - Slot RS25 166H SHL

166 ST1 L2 (AsDrilled)

Design: 166 ST1 L2 (AsDrilled)

Standard Survey Report

16 August, 2019

Survey 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)
Site:	Remuda South 25 State Pad	MD Reference:	3061+22 @ 3083.00usft (Perseus)
Well:	RS25-166H	North Reference:	Grid
Wellbore:	166 ST1 L2 (AsDrilled)	Survey Calculation Method:	Minimum Curvature
Design:	166 ST1 L2 (AsDrilled)	Database:	TP_EDM

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
From:	Map	Easting:	622,881.65 ft
Position Uncertainty:	0.00 usft	Slot Radius:	13.20 in
		Latitude:	32° 16' 36.434 N
		Longitude:	103° 56' 8.666 W
		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	0.00 usft	Easting: 622,941.45 ft
Position Uncertainty	0.00 usft	Wellhead Elevation:	usft
		Latitude:	32° 16' 36.432 N
		Longitude:	103° 56' 7.969 W
		Ground Level:	3,061.00 usft

Wellbore	166 ST1 L2 (AsDrilled)		
Magnetics	Model Name	Sample Date	Declination (°)
	IGRF2015	08/02/19	6.90
			Dip Angle (°)
			60.03
			Field Strength (nT)
			47,715

Design	166 ST1 L2 (AsDrilled)		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
		Tie On Depth:	14,704.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)
	0.00	0.00	0.00
			Direction (°)
			177.25

Survey Program	Date	08/16/19		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
106.00	10,776.00	Survey #1 (166H Lateral)	MWD	OWSG MWD - Standard
10,824.00	14,704.00	Survey #2 (166H Lateral)	MWD+IFR1+MS	OWSG MWD + IFR1 + Multi-Station Correction
14,778.00	19,099.00	Survey #1 (166 ST1 L2 (AsDrilled))	MWD+IFR1+MS	OWSG MWD + IFR1 + Multi-Station Correction
19,154.00	19,154.00	Survey #2 (166 ST1 L2 (AsDrilled))	Projection	Projection

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
106.00	0.50	327.00	106.00	0.39	-0.25	-0.40	0.47	0.47	0.00
202.00	0.90	156.00	202.00	0.05	-0.17	-0.06	1.45	0.42	-178.12
275.00	1.00	215.00	274.99	-1.00	-0.31	0.98	1.29	0.14	80.82
386.00	1.10	214.40	385.97	-2.67	-1.46	2.59	0.09	0.09	-0.54
483.00	1.10	203.06	482.95	-4.29	-2.35	4.17	0.22	0.00	-11.69
580.00	1.00	207.80	579.93	-5.90	-3.11	5.74	0.14	-0.10	4.89
674.00	1.20	194.10	673.92	-7.58	-3.74	7.39	0.35	0.21	-14.57

Survey 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)
Site:	Remuda South 25 State Pad	MD Reference:	3061+22 @ 3083.00usft (Perseus)
Well:	RS25-166H	North Reference:	Grid
Wellbore:	166 ST1 L2 (AsDrilled)	Survey Calculation Method:	Minimum Curvature
Design:	166 ST1 L2 (AsDrilled)	Database:	TP_EDM

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)	
770.00	1.90	197.30	769.88	-10.07	-4.45	9.85	0.73	0.73	3.33	
864.00	1.90	204.00	863.83	-12.98	-5.55	12.70	0.24	0.00	7.13	
959.00	1.30	217.30	958.79	-15.28	-6.84	14.93	0.74	-0.63	14.00	
1,054.00	0.50	185.20	1,053.78	-16.55	-7.54	16.17	0.96	-0.84	-33.79	
1,150.00	0.50	41.60	1,149.78	-16.65	-7.30	16.28	0.99	0.00	-149.58	
1,246.00	0.30	118.80	1,245.78	-16.46	-6.80	16.12	0.54	-0.21	80.42	
1,340.00	0.60	94.40	1,339.77	-16.62	-6.09	16.31	0.37	0.32	-25.96	
1,435.00	0.40	78.20	1,434.77	-16.59	-5.27	16.32	0.26	-0.21	-17.05	
1,531.00	0.50	116.30	1,530.77	-16.71	-4.57	16.47	0.32	0.10	39.69	
1,626.00	0.30	165.50	1,625.77	-17.13	-4.13	16.91	0.40	-0.21	51.79	
1,719.00	0.80	192.10	1,718.76	-18.00	-4.21	17.78	0.59	0.54	28.60	
1,815.00	1.30	108.30	1,814.75	-19.00	-3.31	18.82	1.51	0.52	-87.29	
1,910.00	2.20	84.80	1,909.71	-19.17	-0.47	19.13	1.19	0.95	-24.74	
2,005.00	1.20	83.20	2,004.66	-18.89	2.33	18.98	1.05	-1.05	-1.68	
2,099.00	0.80	103.00	2,098.65	-18.92	3.95	19.09	0.56	-0.43	21.06	
2,194.00	0.50	159.00	2,193.64	-19.46	4.74	19.66	0.70	-0.32	58.95	
2,290.00	0.80	166.20	2,289.64	-20.50	5.05	20.72	0.32	0.31	7.50	
2,392.00	0.90	188.50	2,391.63	-21.98	5.10	22.20	0.34	0.10	21.86	
2,486.00	1.60	162.70	2,485.60	-23.96	5.38	24.19	0.94	0.74	-27.45	
2,586.00	2.20	127.70	2,585.55	-26.47	7.32	26.79	1.28	0.60	-35.00	
2,681.00	2.40	114.50	2,680.48	-28.41	10.57	28.89	0.59	0.21	-13.89	
2,776.00	2.70	114.60	2,775.38	-30.17	14.41	30.82	0.32	0.32	0.11	
2,871.00	3.40	121.00	2,870.25	-32.55	18.86	33.42	0.82	0.74	6.74	
2,966.00	3.30	125.60	2,965.08	-35.59	23.50	36.68	0.30	-0.11	4.84	
3,030.00	3.10	124.30	3,028.98	-37.64	26.43	38.86	0.33	-0.31	-2.03	
3,149.00	2.80	119.70	3,147.83	-40.89	31.61	42.36	0.32	-0.25	-3.87	
3,245.00	2.60	113.50	3,243.72	-42.92	35.65	44.58	0.37	-0.21	-6.46	
3,339.00	2.50	111.50	3,337.63	-44.52	39.51	46.37	0.14	-0.11	-2.13	
3,434.00	2.50	111.50	3,432.54	-46.04	43.36	48.07	0.00	0.00	0.00	
3,528.00	2.50	109.60	3,526.45	-47.48	47.20	49.69	0.09	0.00	-2.02	
3,622.00	2.20	90.50	3,620.37	-48.19	50.94	50.58	0.89	-0.32	-20.32	
3,717.00	2.50	84.90	3,715.29	-48.02	54.82	50.59	0.40	0.32	-5.89	
3,812.00	2.40	85.30	3,810.20	-47.67	58.87	50.44	0.11	-0.11	0.42	
3,908.00	2.60	91.80	3,906.11	-47.57	63.05	50.55	0.36	0.21	6.77	
4,003.00	2.80	89.80	4,001.01	-47.63	67.52	50.82	0.23	0.21	-2.11	
4,098.00	2.60	89.30	4,095.90	-47.60	72.00	51.00	0.21	-0.21	-0.53	
4,192.00	2.50	85.60	4,189.81	-47.42	76.18	51.02	0.20	-0.11	-3.94	
4,287.00	2.50	91.40	4,284.72	-47.31	80.31	51.11	0.27	0.00	6.11	
4,382.00	2.70	91.70	4,379.62	-47.42	84.62	51.43	0.21	0.21	0.32	
4,477.00	2.90	90.80	4,474.51	-47.52	89.26	51.75	0.22	0.21	-0.95	
4,572.00	3.40	110.80	4,569.37	-48.56	94.30	53.03	1.26	0.53	21.05	
4,665.00	2.70	141.50	4,662.24	-51.25	98.24	55.91	1.88	-0.75	33.01	
4,760.00	2.70	141.40	4,757.13	-54.75	101.03	59.54	0.00	0.00	-0.11	

Survey 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)
Site:	Remuda South 25 State Pad	MD Reference:	3061+22 @ 3083.00usft (Perseus)
Well:	RS25-166H	North Reference:	Grid
Wellbore:	166 ST1 L2 (AsDrilled)	Survey Calculation Method:	Minimum Curvature
Design:	166 ST1 L2 (AsDrilled)	Database:	TP_EDM

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)	
4,856.00	1.90	144.40	4,853.06	-57.81	103.36	62.71	0.84	-0.83	3.12	
4,950.00	1.30	106.20	4,947.02	-59.38	105.30	64.36	1.27	-0.64	-40.64	
5,045.00	1.50	87.80	5,041.99	-59.63	107.57	64.73	0.51	0.21	-19.37	
5,141.00	2.20	94.00	5,137.94	-59.71	110.67	64.95	0.76	0.73	6.46	
5,235.00	2.60	89.50	5,231.86	-59.82	114.60	65.25	0.47	0.43	-4.79	
5,331.00	2.40	98.60	5,327.77	-60.10	118.76	65.73	0.46	-0.21	9.48	
5,426.00	2.30	94.30	5,422.69	-60.54	122.63	66.36	0.21	-0.11	-4.53	
5,521.00	2.30	94.80	5,517.61	-60.84	126.43	66.84	0.02	0.00	0.53	
5,616.00	3.10	96.70	5,612.51	-61.30	130.88	67.51	0.85	0.84	2.00	
5,711.00	4.00	93.60	5,707.32	-61.81	136.74	68.30	0.97	0.95	-3.26	
5,806.00	3.90	94.70	5,802.10	-62.28	143.27	69.09	0.13	-0.11	1.16	
5,902.00	3.70	95.20	5,897.89	-62.83	149.61	69.94	0.21	-0.21	0.52	
5,996.00	3.70	95.70	5,991.69	-63.41	155.64	70.81	0.03	0.00	0.53	
6,091.00	3.70	94.80	6,086.49	-63.97	161.75	71.66	0.06	0.00	-0.95	
6,186.00	3.60	95.10	6,181.30	-64.49	167.77	72.47	0.11	-0.11	0.32	
6,281.00	3.40	94.60	6,276.12	-64.98	173.55	73.24	0.21	-0.21	-0.53	
6,376.00	3.50	97.00	6,370.95	-65.56	179.24	74.09	0.18	0.11	2.53	
6,470.00	3.40	96.60	6,464.78	-66.23	184.86	75.03	0.11	-0.11	-0.43	
6,565.00	3.10	96.60	6,559.63	-66.85	190.21	75.90	0.32	-0.32	0.00	
6,660.00	3.00	98.10	6,654.49	-67.49	195.22	76.79	0.13	-0.11	1.58	
6,755.00	3.00	99.10	6,749.36	-68.24	200.13	77.77	0.06	0.00	1.05	
6,851.00	2.80	100.10	6,845.24	-69.05	204.92	78.80	0.21	-0.21	1.04	
6,947.00	2.70	102.30	6,941.13	-69.94	209.44	79.91	0.15	-0.10	2.29	
7,042.00	2.40	103.40	7,036.03	-70.88	213.56	81.05	0.32	-0.32	1.16	
7,137.00	2.30	104.70	7,130.95	-71.82	217.34	82.17	0.12	-0.11	1.37	
7,232.00	2.40	100.00	7,225.87	-72.65	221.14	83.18	0.23	0.11	-4.95	
7,326.00	2.20	96.40	7,319.80	-73.19	224.88	83.90	0.26	-0.21	-3.83	
7,420.00	1.40	93.40	7,413.75	-73.46	227.81	84.31	0.86	-0.85	-3.19	
7,515.00	1.90	89.00	7,508.71	-73.50	230.55	84.49	0.54	0.53	-4.63	
7,611.00	2.80	82.70	7,604.63	-73.18	234.46	84.35	0.97	0.94	-6.56	
7,705.00	3.00	88.20	7,698.51	-72.81	239.20	84.21	0.36	0.21	5.85	
7,799.00	2.20	91.90	7,792.41	-72.79	243.46	84.40	0.87	-0.85	3.94	
7,895.00	1.30	98.60	7,888.37	-73.02	246.38	84.76	0.96	-0.94	6.98	
7,990.00	1.80	93.40	7,983.33	-73.27	248.94	85.13	0.55	0.53	-5.47	
8,085.00	2.10	86.90	8,078.28	-73.26	252.16	85.28	0.39	0.32	-6.84	
8,181.00	1.80	96.80	8,174.22	-73.34	255.42	85.52	0.47	-0.31	10.31	
8,276.00	1.50	114.00	8,269.18	-74.03	258.03	86.33	0.61	-0.32	18.11	
8,370.00	1.60	103.40	8,363.15	-74.83	260.43	87.25	0.32	0.11	-11.28	
8,464.00	2.70	87.80	8,457.08	-75.05	263.92	87.63	1.32	1.17	-16.60	
8,558.00	2.80	90.70	8,550.97	-74.99	268.43	87.79	0.18	0.11	3.09	
8,653.00	3.00	111.70	8,645.85	-75.94	273.06	88.96	1.13	0.21	22.11	
8,748.00	3.50	132.60	8,740.71	-78.82	277.51	92.05	1.34	0.53	22.00	
8,844.00	2.40	135.50	8,836.58	-82.24	281.07	95.64	1.16	-1.15	3.02	
8,939.00	1.50	151.60	8,931.52	-84.75	283.06	98.24	1.10	-0.95	16.95	

Survey 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)
Site:	Remuda South 25 State Pad	MD Reference:	3061+22 @ 3083.00usft (Perseus)
Well:	RS25-166H	North Reference:	Grid
Wellbore:	166 ST1 L2 (AsDrilled)	Survey Calculation Method:	Minimum Curvature
Design:	166 ST1 L2 (AsDrilled)	Database:	TP_EDM

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)
9,033.00	1.00	154.40	9,025.50	-86.57	284.00	100.11	0.54	-0.53	2.98
9,128.00	0.60	92.00	9,120.49	-87.34	284.85	100.91	0.94	-0.42	-65.68
9,223.00	1.00	77.30	9,215.48	-87.17	286.16	100.81	0.47	0.42	-15.47
9,318.00	1.30	92.80	9,310.46	-87.04	288.04	100.77	0.45	0.32	16.32
9,413.00	1.10	132.20	9,405.44	-87.71	289.80	101.52	0.87	-0.21	41.47
9,507.00	0.30	110.10	9,499.44	-88.40	290.70	102.25	0.88	-0.85	-23.51
9,602.00	0.60	332.60	9,594.43	-88.04	290.70	101.90	0.89	0.32	-144.74
9,697.00	0.10	187.80	9,689.43	-87.68	290.46	101.53	0.72	-0.53	-152.42
9,791.00	0.50	81.60	9,783.43	-87.71	290.85	101.57	0.57	0.43	-112.98
9,885.00	2.10	50.10	9,877.40	-86.54	292.58	100.49	1.80	1.70	-33.51
9,979.00	1.90	49.60	9,971.35	-84.43	295.09	98.49	0.21	-0.21	-0.53
10,074.00	1.70	48.20	10,066.30	-82.47	297.34	96.65	0.22	-0.21	-1.47
10,171.00	2.20	64.40	10,163.24	-80.70	300.09	95.02	0.76	0.52	16.70
10,266.00	2.50	69.00	10,258.16	-79.17	303.67	93.66	0.37	0.32	4.84
10,361.00	2.40	71.30	10,353.08	-77.79	307.49	92.46	0.15	-0.11	2.42
10,386.00	2.20	72.90	10,378.06	-77.48	308.44	92.20	0.84	-0.80	6.40
10,489.00	2.16	75.19	10,480.98	-76.41	312.21	91.31	0.09	-0.04	2.22
10,584.00	2.20	128.20	10,575.92	-77.08	315.37	92.13	2.05	0.04	55.80
10,632.00	2.29	140.72	10,623.89	-78.39	316.70	93.50	1.04	0.19	26.08
10,680.00	3.26	141.42	10,671.83	-80.20	318.16	95.38	2.02	2.02	1.46
10,727.00	4.64	138.69	10,718.72	-82.67	320.25	97.95	2.96	2.94	-5.81
10,776.00	5.46	141.92	10,767.53	-85.99	323.00	101.40	1.77	1.67	6.59
10,824.00	7.89	146.10	10,815.20	-90.53	326.24	106.08	5.16	5.06	8.71
10,862.00	10.40	147.48	10,852.71	-95.58	329.54	111.29	6.63	6.61	3.63
10,903.00	13.22	149.40	10,892.84	-102.74	333.92	118.65	6.94	6.88	4.68
10,935.00	16.09	155.32	10,923.80	-109.92	337.63	126.00	10.11	8.97	18.50
10,966.00	19.17	161.59	10,953.34	-118.66	341.04	134.89	11.66	9.94	20.23
10,998.00	22.98	167.90	10,983.20	-129.76	344.01	146.12	13.84	11.91	19.72
11,030.00	27.09	171.39	11,012.19	-143.07	346.41	159.54	13.64	12.84	10.91
11,062.00	30.78	174.84	11,040.19	-158.44	348.24	174.97	12.65	11.53	10.78
11,094.00	34.87	177.27	11,067.08	-175.74	349.41	192.31	13.43	12.78	7.59
11,125.00	39.57	178.84	11,091.76	-194.47	350.03	211.05	15.47	15.16	5.06
11,157.00	43.53	179.19	11,115.70	-215.69	350.39	232.26	12.40	12.37	1.09
11,188.00	48.24	180.18	11,137.27	-237.94	350.51	254.49	15.37	15.19	3.19
11,219.00	52.69	181.18	11,157.00	-261.84	350.22	278.35	14.57	14.35	3.23
11,267.00	58.83	181.12	11,184.00	-301.49	349.42	317.92	12.79	12.79	-0.12
11,315.00	62.40	180.61	11,207.54	-343.31	348.79	359.66	7.49	7.44	-1.06
11,364.00	64.86	180.52	11,229.31	-387.20	348.36	403.48	5.02	5.02	-0.18
11,411.00	68.73	179.25	11,247.82	-430.39	348.46	446.62	8.60	8.23	-2.70
11,458.00	71.76	178.55	11,263.71	-474.61	349.31	490.83	6.60	6.45	-1.49
11,506.00	75.61	178.90	11,277.19	-520.66	350.33	536.88	8.05	8.02	0.73
11,554.00	79.14	179.71	11,287.68	-567.49	350.90	583.68	7.54	7.35	1.69
11,601.00	83.02	182.37	11,294.97	-613.90	350.05	629.99	9.97	8.26	5.66

Survey 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)
Site:	Remuda South 25 State Pad	MD Reference:	3061+22 @ 3083.00usft (Perseus)
Well:	RS25-166H	North Reference:	Grid
Wellbore:	166 ST1 L2 (AsDrilled)	Survey Calculation Method:	Minimum Curvature
Design:	166 ST1 L2 (AsDrilled)	Database:	TP_EDM

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)	
11,649.00	84.93	182.71	11,300.00	-661.58	347.93	677.52	4.04	3.98	0.71	
11,697.00	85.16	181.76	11,304.15	-709.37	346.07	725.16	2.03	0.48	-1.98	
11,699.26	85.19	181.75	11,304.34	-711.61	346.00	727.40	1.48	1.40	-0.48	
RS25 166H FTP_329FNL_374FEL (copy)										
11,745.00	85.83	181.53	11,307.92	-757.20	344.69	772.87	1.48	1.40	-0.48	
11,792.00	87.82	180.24	11,310.52	-804.12	343.97	819.70	5.04	4.23	-2.74	
11,839.00	91.12	180.49	11,310.96	-851.11	343.67	866.62	7.04	7.02	0.53	
11,935.00	89.27	181.52	11,310.63	-947.09	341.99	962.41	2.21	-1.93	1.07	
12,030.00	92.01	184.02	11,309.57	-1,041.95	337.40	1,056.95	3.90	2.88	2.63	
12,126.00	89.22	182.43	11,308.54	-1,137.78	332.00	1,152.41	3.34	-2.91	-1.66	
12,221.00	89.64	181.75	11,309.48	-1,232.71	328.53	1,247.06	0.84	0.44	-0.72	
12,315.00	90.87	182.95	11,309.07	-1,326.63	324.68	1,340.69	1.83	1.31	1.28	
12,410.00	90.98	182.23	11,307.53	-1,421.52	320.39	1,435.26	0.77	0.12	-0.76	
12,506.00	91.34	181.56	11,305.59	-1,517.45	317.21	1,530.93	0.79	0.37	-0.70	
12,600.00	89.69	178.28	11,304.74	-1,611.43	317.35	1,624.80	3.91	-1.76	-3.49	
12,696.00	91.85	178.41	11,303.45	-1,707.37	320.12	1,720.77	2.25	2.25	0.14	
12,791.00	87.70	176.27	11,303.83	-1,802.24	324.52	1,815.75	4.91	-4.37	-2.25	
12,888.00	91.46	177.89	11,304.54	-1,899.10	329.46	1,912.72	4.22	3.88	1.67	
12,983.00	88.77	177.00	11,304.35	-1,993.99	333.70	2,007.71	2.98	-2.83	-0.94	
13,078.00	88.66	178.02	11,306.48	-2,088.88	337.83	2,102.69	1.08	-0.12	1.07	
13,175.00	90.53	177.19	11,307.16	-2,185.78	341.88	2,199.68	2.11	1.93	-0.86	
13,270.00	89.41	176.47	11,307.21	-2,280.64	347.13	2,294.67	1.40	-1.18	-0.76	
13,366.00	89.02	178.12	11,308.53	-2,376.52	351.66	2,390.66	1.77	-0.41	1.72	
13,462.00	92.74	180.05	11,307.05	-2,472.47	353.20	2,486.58	4.37	3.87	2.01	
13,558.00	92.10	179.39	11,303.00	-2,568.38	353.66	2,582.40	0.96	-0.67	-0.69	
13,654.00	90.11	177.59	11,301.15	-2,664.32	356.19	2,678.35	2.79	-2.07	-1.87	
13,748.00	89.30	179.17	11,301.63	-2,758.28	358.85	2,772.33	1.89	-0.86	1.68	
13,843.00	93.81	182.87	11,299.06	-2,853.19	357.16	2,867.05	6.14	4.75	3.89	
13,939.00	94.01	181.89	11,292.51	-2,948.88	353.19	2,962.44	1.04	0.21	-1.02	
14,035.00	92.69	181.97	11,286.90	-3,044.66	349.96	3,057.95	1.38	-1.37	0.08	
14,131.00	89.80	180.66	11,284.81	-3,140.60	347.76	3,153.68	3.31	-3.01	-1.36	
14,228.00	89.27	179.87	11,285.60	-3,237.60	347.31	3,250.54	0.98	-0.55	-0.81	
14,323.00	88.80	179.42	11,287.20	-3,332.58	347.90	3,345.44	0.68	-0.49	-0.47	
14,418.00	89.94	179.60	11,288.25	-3,427.57	348.71	3,440.36	1.21	1.20	0.19	
14,513.00	87.64	179.38	11,290.25	-3,522.54	349.56	3,535.26	2.43	-2.42	-0.23	
14,608.00	86.78	179.33	11,294.88	-3,617.42	350.62	3,630.08	0.91	-0.91	-0.05	
14,704.00	87.76	178.22	11,299.45	-3,713.29	352.67	3,725.94	1.54	1.02	-1.16	
14,778.00	85.04	176.89	11,304.09	-3,787.06	355.82	3,799.78	4.09	-3.68	-1.80	
14,806.00	83.66	174.51	11,306.85	-3,814.85	357.91	3,827.63	9.79	-4.93	-8.50	
14,900.00	89.83	176.28	11,312.19	-3,908.34	365.44	3,921.38	6.83	6.56	1.88	
14,996.00	90.28	179.65	11,312.09	-4,004.27	368.85	4,017.36	3.54	0.47	3.51	
15,090.00	88.77	178.70	11,312.87	-4,098.25	370.20	4,111.30	1.90	-1.61	-1.01	
15,185.00	89.08	178.51	11,314.66	-4,193.21	372.51	4,206.26	0.38	0.33	-0.20	

Survey 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)
Site:	Remuda South 25 State Pad	MD Reference:	3061+22 @ 3083.00usft (Perseus)
Well:	RS25-166H	North Reference:	Grid
Wellbore:	166 ST1 L2 (AsDrilled)	Survey Calculation Method:	Minimum Curvature
Design:	166 ST1 L2 (AsDrilled)	Database:	TP_EDM

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)
15,281.00	87.34	176.59	11,317.65	-4,289.06	376.61	4,302.20	2.70	-1.81	-2.00
15,376.00	91.06	177.67	11,318.98	-4,383.92	381.37	4,397.17	4.08	3.92	1.14
15,472.00	87.79	176.47	11,319.94	-4,479.77	386.27	4,493.15	3.63	-3.41	-1.25
15,514.74	88.21	177.63	11,321.43	-4,522.43	388.47	4,535.86	2.88	0.99	2.71
RS25 166H OH_L1 BHL									
15,568.00	88.74	179.07	11,322.85	-4,575.65	390.01	4,589.09	2.88	0.99	2.71
15,663.00	90.76	179.40	11,323.27	-4,670.63	391.27	4,684.03	2.15	2.13	0.35
15,759.00	93.47	181.38	11,319.72	-4,766.55	390.62	4,779.81	3.50	2.82	2.06
15,852.00	92.55	180.45	11,314.84	-4,859.41	389.14	4,872.49	1.41	-0.99	-1.00
15,948.00	87.65	177.58	11,314.67	-4,955.36	390.79	4,968.40	5.91	-5.10	-2.99
16,043.00	90.98	180.92	11,315.81	-5,050.31	392.03	5,063.31	4.96	3.51	3.52
16,138.00	90.84	182.71	11,314.30	-5,145.25	389.02	5,157.99	1.89	-0.15	1.88
16,233.00	90.08	182.92	11,313.54	-5,240.13	384.36	5,252.54	0.83	-0.80	0.22
16,328.00	92.04	182.70	11,311.78	-5,335.00	379.70	5,347.07	2.08	2.06	-0.23
16,423.00	90.53	184.14	11,309.65	-5,429.80	374.04	5,441.49	2.20	-1.59	1.52
16,518.00	86.75	181.35	11,311.90	-5,524.64	369.49	5,536.00	4.94	-3.98	-2.94
16,613.00	86.24	181.64	11,317.71	-5,619.43	367.01	5,630.57	0.62	-0.54	0.31
16,708.00	90.84	182.18	11,320.13	-5,714.32	363.85	5,725.19	4.88	4.84	0.57
16,803.00	90.00	181.63	11,319.43	-5,809.26	360.69	5,819.88	1.06	-0.88	-0.58
16,899.00	87.39	180.54	11,321.62	-5,905.21	358.87	5,915.63	2.95	-2.72	-1.14
16,994.00	92.02	180.98	11,322.11	-6,000.17	357.61	6,010.42	4.90	4.87	0.46
17,089.00	90.56	178.91	11,319.97	-6,095.14	357.70	6,105.29	2.67	-1.54	-2.18
17,185.00	90.22	178.85	11,319.32	-6,191.12	359.58	6,201.24	0.36	-0.35	-0.06
17,280.00	91.26	179.18	11,318.09	-6,286.10	361.21	6,296.19	1.15	1.09	0.35
17,375.00	91.23	180.05	11,316.03	-6,381.07	361.85	6,391.09	0.92	-0.03	0.92
17,470.00	88.99	177.62	11,315.84	-6,476.04	363.78	6,486.04	3.48	-2.36	-2.56
17,563.00	88.66	172.84	11,317.75	-6,568.67	371.51	6,578.93	5.15	-0.35	-5.14
17,660.00	89.97	172.48	11,318.91	-6,664.87	383.90	6,675.61	1.40	1.35	-0.37
17,756.00	89.97	176.52	11,318.96	-6,760.40	393.10	6,771.48	4.21	0.00	4.21
17,851.00	88.29	179.02	11,320.40	-6,855.31	396.80	6,866.45	3.17	-1.77	2.63
17,947.00	89.83	180.37	11,321.98	-6,951.29	397.31	6,962.35	2.13	1.60	1.41
18,043.00	91.15	181.00	11,321.16	-7,047.28	396.16	7,058.17	1.52	1.37	0.66
18,139.00	88.77	181.01	11,321.23	-7,143.26	394.48	7,153.96	2.48	-2.48	0.01
18,235.00	89.30	181.20	11,322.84	-7,239.22	392.63	7,249.73	0.59	0.55	0.20
18,331.00	89.50	179.76	11,323.85	-7,335.21	391.82	7,345.57	1.51	0.21	-1.50
18,428.00	88.90	182.20	11,325.20	-7,432.18	390.16	7,442.34	2.59	-0.62	2.52
18,523.00	88.33	180.60	11,327.50	-7,527.12	387.84	7,537.06	1.79	-0.60	-1.68
18,616.00	88.63	175.73	11,329.97	-7,620.01	390.82	7,629.99	5.24	0.32	-5.24
18,714.00	90.92	177.86	11,330.35	-7,717.85	396.30	7,727.97	3.19	2.34	2.17
18,810.00	89.21	179.19	11,330.24	-7,813.81	398.77	7,823.94	2.26	-1.78	1.39
18,906.00	89.36	179.91	11,331.44	-7,909.80	399.52	7,919.86	0.77	0.16	0.75
19,000.00	90.67	182.14	11,331.42	-8,003.78	397.84	8,013.65	2.75	1.39	2.37
19,013.00	90.71	182.14	11,331.26	-8,016.77	397.36	8,026.60	0.34	0.34	0.02
Wellpath Crosses LTP									

Survey 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)
Site:	Remuda South 25 State Pad	MD Reference:	3061+22 @ 3083.00usft (Perseus)
Well:	RS25-166H	North Reference:	Grid
Wellbore:	166 ST1 L2 (AsDrilled)	Survey Calculation Method:	Minimum Curvature
Design:	166 ST1 L2 (AsDrilled)	Database:	TP_EDM

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)	
19,017.52	90.73	182.14	11,331.20	-8,021.28	397.19	8,031.10	0.34	0.34	0.02	
RS25 166H LTP_330FSL_325FEL p3										
19,099.00	91.01	182.16	11,329.96	-8,102.70	394.13	8,112.27	0.34	0.34	0.02	
19,147.44	91.01	182.16	11,329.11	-8,151.10	392.30	8,160.53	0.00	0.00	0.00	
RS25 166H PBHL_200FSL_324FEL p3										
19,154.00	91.01	182.16	11,329.00	-8,157.65	392.06	8,167.06	0.00	0.00	0.00	
TD @ 194FSL 311FEL - RS25 166H L2 BHL										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (ft)	Easting (ft)	Latitude	Longitude	
RS25 166H OH_L1 BHL	0.00	0.00	11,307.88	-4,523.89	361.51	460,117.43	623,302.96	32° 15' 51.650 N	103° 56' 3.954 W	
- actual wellpath misses target center by 30.21usft at 15514.34usft MD (11321.42 TVD, -4522.03 N, 388.45 E)										
- Point										
RS25 166H LTP_330FS	0.00	0.01	11,309.00	-8,020.30	380.00	456,621.01	623,321.45	32° 15' 17.049 N	103° 56' 3.890 W	
- actual wellpath misses target center by 28.09usft at 19017.46usft MD (11331.20 TVD, -8021.22 N, 397.19 E)										
- Point										
RS25 166H FTP_329FN	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	
- actual wellpath misses target center by 14.78usft at 11699.26usft MD (11304.34 TVD, -711.61 N, 346.00 E)										
- Point										
RS25 166H L2 BHL	0.00	0.00	11,329.00	-8,157.65	392.06	456,483.66	623,333.51	32° 15' 15.689 N	103° 56' 3.756 W	
- actual wellpath misses target center by 0.01usft at 19154.00usft MD (11329.00 TVD, -8157.65 N, 392.06 E)										
- Rectangle (sides W100.00 H7,440.00 D0.00)										

Design Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
19,013.00	11,331.26	-8,016.77	397.36	Wellpath Crosses LTP	
19,154.00	11,329.00	-8,157.65	392.06	TD @ 194FSL 311FEL	

Checked By: _____ Approved By: _____ Date: _____

XTO Energy

Project: Eddy County, NM (NAD27) NMEZ Grid

Site: Remuda South 25 State Pad

Well: RS25-166H

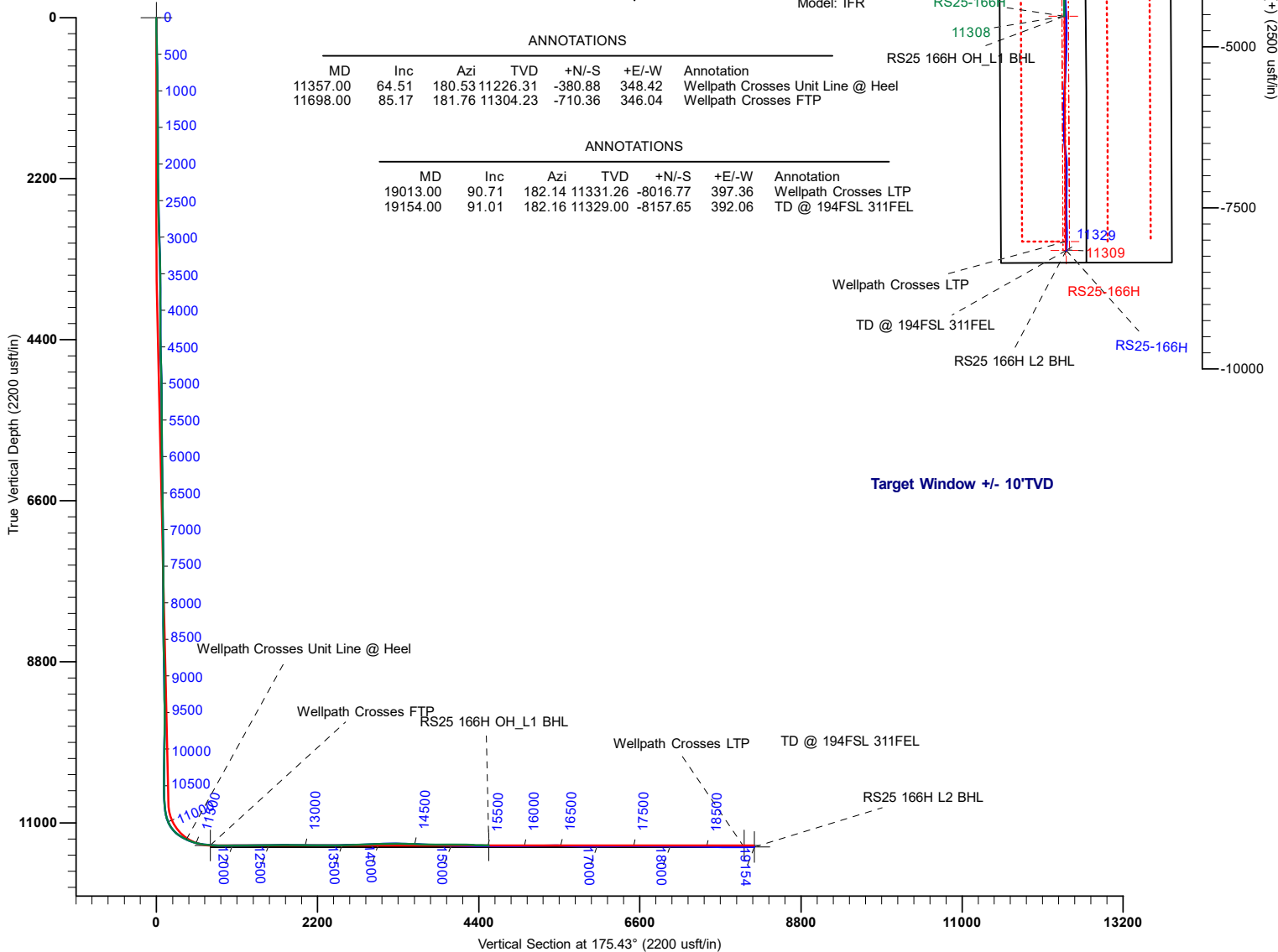
Wellbore: 166H Lateral
Design: 166H Lateral (AsDrilled) 3061+22 @ 3083.00usft (Perseus)
NAD 1927 (NADCON CONUS)

To convert a Magnetic Direction to a Grid Direction, Add 6.85°



Azimuths to Grid North
True North: -0.21°
Magnetic North: 6.85°

Magnetic Field
Strength: 47850.0nT
Dip Angle: 60.01°
Date: 07/08/2019
Model: IFR



ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Annotation
11357.00	64.51	180.53	11226.31	-380.88	348.42	Wellpath Crosses Unit Line @ Heel
11698.00	85.17	181.76	11304.23	-710.36	346.04	Wellpath Crosses FTP

ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Annotation
19013.00	90.71	182.14	11331.26	-8016.77	397.36	Wellpath Crosses LTP
19154.00	91.01	182.16	11329.00	-8157.65	392.06	TD @ 194FSL 311FEL

TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
RS25 166H SHL (copy)	0.00	0.00	0.00	464641.33	622941.45	Point
RS25 166H OH L1 BHL	11307.88	-4523.89	361.51	460117.43	623302.96	Point
RS25 166H FTP_329FNL_374FEL p3	11309.00	-710.50	347.50	463930.83	623288.95	Point
RS25 166H LTP_330FSL_325FEL p3	11309.00	-8020.30	380.00	456621.01	623321.45	Point
RS25 166H L2 BHL	11329.00	-8157.65	392.06	456483.66	623333.51	Rectangle (Sides: L7440.00 W100.00)

XTO Energy

Eddy County, NM (NAD27) NMEZ Grid

Remuda South 25 State Pad

RS25-166H - Slot RS25 166H SHL

166H Lateral

Design: 166H Lateral (AsDrilled)

Standard Survey Report

16 August, 2019

Survey 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)
Site:	Remuda South 25 State Pad	MD Reference:	3061+22 @ 3083.00usft (Perseus)
Well:	RS25-166H	North Reference:	Grid
Wellbore:	166H Lateral	Survey Calculation Method:	Minimum Curvature
Design:	166H Lateral (AsDrilled)	Database:	TP_EDM

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
From:	Map	Easting:	622,881.65 ft
Position Uncertainty:	0.00 usft	Slot Radius:	13.20 in
		Latitude:	32° 16' 36.434 N
		Longitude:	103° 56' 8.666 W
		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	0.00 usft	Easting: 622,941.45 ft
Position Uncertainty	0.00 usft	Wellhead Elevation:	usft
		Latitude:	32° 16' 36.432 N
		Longitude:	103° 56' 7.969 W
		Ground Level:	3,061.00 usft

Wellbore	166H Lateral		
Magnetics	Model Name	Sample Date	Declination (°)
	IGRF2015	05/16/19	6.92
	IFR	07/08/19	7.06
			Dip Angle (°)
			60.03
			60.01
			Field Strength (nT)
			47,737
			47,850

Design	166H Lateral (AsDrilled)		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
		Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)
	0.00	0.00	0.00
			Direction (°)
			175.43

Survey Program	Date	08/16/19		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
106.00	10,776.00	Survey #1 (166H Lateral)	MWD	OWSG MWD - Standard
10,824.00	15,465.00	Survey #2 (166H Lateral)	MWD+IFR1+MS	OWSG MWD + IFR1 + Multi-Station Correction
15,515.00	15,515.00	Survey #3 (166H Lateral)	Projection	Projection

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 126H SHL (copy) - RS25 166H SHL (copy)										
0.14	0.00	327.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00	
RS25 105H SHL (copy)										
106.00	0.50	327.00	106.00	0.39	-0.25	-0.41	0.47	0.47	0.00	
202.00	0.90	156.00	202.00	0.05	-0.17	-0.06	1.45	0.42	-178.12	
275.00	1.00	215.00	274.99	-1.00	-0.31	0.97	1.29	0.14	80.82	

Survey 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)
Site:	Remuda South 25 State Pad	MD Reference:	3061+22 @ 3083.00usft (Perseus)
Well:	RS25-166H	North Reference:	Grid
Wellbore:	166H Lateral	Survey Calculation Method:	Minimum Curvature
Design:	166H Lateral (AsDrilled)	Database:	TP_EDM

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)	
386.00	1.10	214.40	385.97	-2.67	-1.46	2.54	0.09	0.09	-0.54	
483.00	1.10	203.06	482.95	-4.29	-2.35	4.09	0.22	0.00	-11.69	
580.00	1.00	207.80	579.93	-5.90	-3.11	5.63	0.14	-0.10	4.89	
674.00	1.20	194.10	673.92	-7.58	-3.74	7.26	0.35	0.21	-14.57	
770.00	1.90	197.30	769.88	-10.07	-4.45	9.69	0.73	0.73	3.33	
864.00	1.90	204.00	863.83	-12.98	-5.55	12.50	0.24	0.00	7.13	
959.00	1.30	217.30	958.79	-15.28	-6.84	14.69	0.74	-0.63	14.00	
1,054.00	0.50	185.20	1,053.78	-16.55	-7.54	15.90	0.96	-0.84	-33.79	
1,150.00	0.50	41.60	1,149.78	-16.65	-7.30	16.02	0.99	0.00	-149.58	
1,246.00	0.30	118.80	1,245.78	-16.46	-6.80	15.87	0.54	-0.21	80.42	
1,340.00	0.60	94.40	1,339.77	-16.62	-6.09	16.08	0.37	0.32	-25.96	
1,435.00	0.40	78.20	1,434.77	-16.59	-5.27	16.12	0.26	-0.21	-17.05	
1,531.00	0.50	116.30	1,530.77	-16.71	-4.57	16.29	0.32	0.10	39.69	
1,626.00	0.30	165.50	1,625.77	-17.13	-4.13	16.75	0.40	-0.21	51.79	
1,719.00	0.80	192.10	1,718.76	-18.00	-4.21	17.61	0.59	0.54	28.60	
1,815.00	1.30	108.30	1,814.75	-19.00	-3.31	18.67	1.51	0.52	-87.29	
1,910.00	2.20	84.80	1,909.71	-19.17	-0.47	19.07	1.19	0.95	-24.74	
2,005.00	1.20	83.20	2,004.66	-18.89	2.33	19.01	1.05	-1.05	-1.68	
2,099.00	0.80	103.00	2,098.65	-18.92	3.95	19.17	0.56	-0.43	21.06	
2,194.00	0.50	159.00	2,193.64	-19.46	4.74	19.77	0.70	-0.32	58.95	
2,290.00	0.80	166.20	2,289.64	-20.50	5.05	20.83	0.32	0.31	7.50	
2,392.00	0.90	188.50	2,391.63	-21.98	5.10	22.32	0.34	0.10	21.86	
2,486.00	1.60	162.70	2,485.60	-23.96	5.38	24.32	0.94	0.74	-27.45	
2,586.00	2.20	127.70	2,585.55	-26.47	7.32	26.97	1.28	0.60	-35.00	
2,681.00	2.40	114.50	2,680.48	-28.41	10.57	29.16	0.59	0.21	-13.89	
2,776.00	2.70	114.60	2,775.38	-30.17	14.41	31.22	0.32	0.32	0.11	
2,871.00	3.40	121.00	2,870.25	-32.55	18.86	33.95	0.82	0.74	6.74	
2,966.00	3.30	125.60	2,965.08	-35.59	23.50	37.35	0.30	-0.11	4.84	
3,030.00	3.10	124.30	3,028.98	-37.64	26.43	39.63	0.33	-0.31	-2.03	
3,149.00	2.80	119.70	3,147.83	-40.89	31.61	43.28	0.32	-0.25	-3.87	
3,245.00	2.60	113.50	3,243.72	-42.92	35.65	45.63	0.37	-0.21	-6.46	
3,339.00	2.50	111.50	3,337.63	-44.52	39.51	47.53	0.14	-0.11	-2.13	
3,434.00	2.50	111.50	3,432.54	-46.04	43.36	49.35	0.00	0.00	0.00	
3,528.00	2.50	109.60	3,526.45	-47.48	47.20	51.09	0.09	0.00	-2.02	
3,622.00	2.20	90.50	3,620.37	-48.19	50.94	52.09	0.89	-0.32	-20.32	
3,717.00	2.50	84.90	3,715.29	-48.02	54.82	52.23	0.40	0.32	-5.89	
3,812.00	2.40	85.30	3,810.20	-47.67	58.87	52.21	0.11	-0.11	0.42	
3,908.00	2.60	91.80	3,906.11	-47.57	63.05	52.45	0.36	0.21	6.77	
4,003.00	2.80	89.80	4,001.01	-47.63	67.52	52.86	0.23	0.21	-2.11	
4,098.00	2.60	89.30	4,095.90	-47.60	72.00	53.18	0.21	-0.21	-0.53	
4,192.00	2.50	85.60	4,189.81	-47.42	76.18	53.33	0.20	-0.11	-3.94	
4,287.00	2.50	91.40	4,284.72	-47.31	80.31	53.55	0.27	0.00	6.11	
4,382.00	2.70	91.70	4,379.62	-47.42	84.62	54.01	0.21	0.21	0.32	
4,477.00	2.90	90.80	4,474.51	-47.52	89.26	54.48	0.22	0.21	-0.95	

Survey 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)
Site:	Remuda South 25 State Pad	MD Reference:	3061+22 @ 3083.00usft (Perseus)
Well:	RS25-166H	North Reference:	Grid
Wellbore:	166H Lateral	Survey Calculation Method:	Minimum Curvature
Design:	166H Lateral (AsDrilled)	Database:	TP_EDM

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)	
4,572.00	3.40	110.80	4,569.37	-48.56	94.30	55.92	1.26	0.53	21.05	
4,665.00	2.70	141.50	4,662.24	-51.25	98.24	58.91	1.88	-0.75	33.01	
4,760.00	2.70	141.40	4,757.13	-54.75	101.03	62.63	0.00	0.00	-0.11	
4,856.00	1.90	144.40	4,853.06	-57.81	103.36	65.86	0.84	-0.83	3.12	
4,950.00	1.30	106.20	4,947.02	-59.38	105.30	67.58	1.27	-0.64	-40.64	
5,045.00	1.50	87.80	5,041.99	-59.63	107.57	68.01	0.51	0.21	-19.37	
5,141.00	2.20	94.00	5,137.94	-59.71	110.67	68.34	0.76	0.73	6.46	
5,235.00	2.60	89.50	5,231.86	-59.82	114.60	68.76	0.47	0.43	-4.79	
5,331.00	2.40	98.60	5,327.77	-60.10	118.76	69.37	0.46	-0.21	9.48	
5,426.00	2.30	94.30	5,422.69	-60.54	122.63	70.12	0.21	-0.11	-4.53	
5,521.00	2.30	94.80	5,517.61	-60.84	126.43	70.72	0.02	0.00	0.53	
5,616.00	3.10	96.70	5,612.51	-61.30	130.88	71.53	0.85	0.84	2.00	
5,711.00	4.00	93.60	5,707.32	-61.81	136.74	72.51	0.97	0.95	-3.26	
5,806.00	3.90	94.70	5,802.10	-62.28	143.27	73.50	0.13	-0.11	1.16	
5,902.00	3.70	95.20	5,897.89	-62.83	149.61	74.55	0.21	-0.21	0.52	
5,996.00	3.70	95.70	5,991.69	-63.41	155.64	75.60	0.03	0.00	0.53	
6,091.00	3.70	94.80	6,086.49	-63.97	161.75	76.65	0.06	0.00	-0.95	
6,186.00	3.60	95.10	6,181.30	-64.49	167.77	77.65	0.11	-0.11	0.32	
6,281.00	3.40	94.60	6,276.12	-64.98	173.55	78.60	0.21	-0.21	-0.53	
6,376.00	3.50	97.00	6,370.95	-65.56	179.24	79.63	0.18	0.11	2.53	
6,470.00	3.40	96.60	6,464.78	-66.23	184.86	80.74	0.11	-0.11	-0.43	
6,565.00	3.10	96.60	6,559.63	-66.85	190.21	81.79	0.32	-0.32	0.00	
6,660.00	3.00	98.10	6,654.49	-67.49	195.22	82.83	0.13	-0.11	1.58	
6,755.00	3.00	99.10	6,749.36	-68.24	200.13	83.96	0.06	0.00	1.05	
6,851.00	2.80	100.10	6,845.24	-69.05	204.92	85.15	0.21	-0.21	1.04	
6,947.00	2.70	102.30	6,941.13	-69.94	209.44	86.40	0.15	-0.10	2.29	
7,042.00	2.40	103.40	7,036.03	-70.88	213.56	87.66	0.32	-0.32	1.16	
7,137.00	2.30	104.70	7,130.95	-71.82	217.34	88.91	0.12	-0.11	1.37	
7,232.00	2.40	100.00	7,225.87	-72.65	221.14	90.04	0.23	0.11	-4.95	
7,326.00	2.20	96.40	7,319.80	-73.19	224.88	90.87	0.26	-0.21	-3.83	
7,420.00	1.40	93.40	7,413.75	-73.46	227.81	91.38	0.86	-0.85	-3.19	
7,515.00	1.90	89.00	7,508.71	-73.50	230.55	91.64	0.54	0.53	-4.63	
7,611.00	2.80	82.70	7,604.63	-73.18	234.46	91.62	0.97	0.94	-6.56	
7,705.00	3.00	88.20	7,698.51	-72.81	239.20	91.63	0.36	0.21	5.85	
7,799.00	2.20	91.90	7,792.41	-72.79	243.46	91.95	0.87	-0.85	3.94	
7,895.00	1.30	98.60	7,888.37	-73.02	246.38	92.41	0.96	-0.94	6.98	
7,990.00	1.80	93.40	7,983.33	-73.27	248.94	92.86	0.55	0.53	-5.47	
8,085.00	2.10	86.90	8,078.28	-73.26	252.16	93.11	0.39	0.32	-6.84	
8,181.00	1.80	96.80	8,174.22	-73.34	255.42	93.46	0.47	-0.31	10.31	
8,276.00	1.50	114.00	8,269.18	-74.03	258.03	94.34	0.61	-0.32	18.11	
8,370.00	1.60	103.40	8,363.15	-74.83	260.43	95.34	0.32	0.11	-11.28	
8,464.00	2.70	87.80	8,457.08	-75.05	263.92	95.83	1.32	1.17	-16.60	
8,558.00	2.80	90.70	8,550.97	-74.99	268.43	96.14	0.18	0.11	3.09	

Survey 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)
Site:	Remuda South 25 State Pad	MD Reference:	3061+22 @ 3083.00usft (Perseus)
Well:	RS25-166H	North Reference:	Grid
Wellbore:	166H Lateral	Survey Calculation Method:	Minimum Curvature
Design:	166H Lateral (AsDrilled)	Database:	TP_EDM

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)	
8,653.00	3.00	111.70	8,645.85	-75.94	273.06	97.45	1.13	0.21	22.11	
8,748.00	3.50	132.60	8,740.71	-78.82	277.51	100.68	1.34	0.53	22.00	
8,844.00	2.40	135.50	8,836.58	-82.24	281.07	104.37	1.16	-1.15	3.02	
8,939.00	1.50	151.60	8,931.52	-84.75	283.06	107.03	1.10	-0.95	16.95	
9,033.00	1.00	154.40	9,025.50	-86.57	284.00	108.92	0.54	-0.53	2.98	
9,128.00	0.60	92.00	9,120.49	-87.34	284.85	109.75	0.94	-0.42	-65.68	
9,223.00	1.00	77.30	9,215.48	-87.17	286.16	109.69	0.47	0.42	-15.47	
9,318.00	1.30	92.80	9,310.46	-87.04	288.04	109.71	0.45	0.32	16.32	
9,413.00	1.10	132.20	9,405.44	-87.71	289.80	110.52	0.87	-0.21	41.47	
9,507.00	0.30	110.10	9,499.44	-88.40	290.70	111.28	0.88	-0.85	-23.51	
9,602.00	0.60	332.60	9,594.43	-88.04	290.70	110.92	0.89	0.32	-144.74	
9,697.00	0.10	187.80	9,689.43	-87.68	290.46	110.54	0.72	-0.53	-152.42	
9,791.00	0.50	81.60	9,783.43	-87.71	290.85	110.60	0.57	0.43	-112.98	
9,885.00	2.10	50.10	9,877.40	-86.54	292.58	109.57	1.80	1.70	-33.51	
9,979.00	1.90	49.60	9,971.35	-84.43	295.09	107.66	0.21	-0.21	-0.53	
10,074.00	1.70	48.20	10,066.30	-82.47	297.34	105.89	0.22	-0.21	-1.47	
10,171.00	2.20	64.40	10,163.24	-80.70	300.09	104.35	0.76	0.52	16.70	
10,266.00	2.50	69.00	10,258.16	-79.17	303.67	103.11	0.37	0.32	4.84	
10,345.44	2.42	70.91	10,337.53	-78.00	306.87	102.20	0.15	-0.11	2.40	
RS25 105H FTP_329FNL_506FWL (copy)										
10,361.00	2.40	71.30	10,353.08	-77.79	307.49	102.04	0.15	-0.10	2.50	
10,386.00	2.20	72.90	10,378.06	-77.48	308.44	101.81	0.84	-0.80	6.40	
10,489.00	2.16	75.19	10,480.98	-76.41	312.21	101.03	0.09	-0.04	2.22	
10,584.00	2.20	128.20	10,575.92	-77.08	315.37	101.95	2.05	0.04	55.80	
10,632.00	2.29	140.72	10,623.89	-78.39	316.70	103.37	1.04	0.19	26.08	
10,646.83	2.59	140.99	10,638.70	-78.88	317.10	103.89	2.02	2.02	1.84	
RS25 125H FTP_329FNL_671FWL (copy)										
10,680.00	3.26	141.42	10,671.83	-80.20	318.16	105.29	2.02	2.02	1.29	
10,698.69	3.81	140.10	10,690.49	-81.09	318.89	106.23	2.96	2.93	-7.07	
RS25 126H FTP_329FNL_14FEL (copy)										
10,727.00	4.64	138.69	10,718.72	-82.67	320.25	107.92	2.96	2.94	-4.97	
10,776.00	5.46	141.92	10,767.53	-85.99	323.00	111.45	1.77	1.67	6.59	
10,824.00	7.89	146.10	10,815.20	-90.53	326.24	116.23	5.16	5.06	8.71	
10,862.00	10.40	147.48	10,852.71	-95.58	329.54	121.53	6.63	6.61	3.63	
10,903.00	13.22	149.40	10,892.84	-102.74	333.92	129.01	6.94	6.88	4.68	
10,935.00	16.09	155.32	10,923.80	-109.92	337.63	136.47	10.11	8.97	18.50	
10,966.00	19.17	161.59	10,953.34	-118.66	341.04	145.45	11.66	9.94	20.23	
10,998.00	22.98	167.90	10,983.20	-129.76	344.01	156.75	13.84	11.91	19.72	
11,030.00	27.09	171.39	11,012.19	-143.07	346.41	170.21	13.64	12.84	10.91	
11,062.00	30.78	174.84	11,040.19	-158.44	348.24	185.68	12.65	11.53	10.78	
11,094.00	34.87	177.27	11,067.08	-175.74	349.41	203.01	13.43	12.78	7.59	
11,125.00	39.57	178.84	11,091.76	-194.47	350.03	221.74	15.47	15.16	5.06	
11,157.00	43.53	179.19	11,115.70	-215.69	350.39	242.92	12.40	12.37	1.09	
11,188.00	48.24	180.18	11,137.27	-237.94	350.51	265.11	15.37	15.19	3.19	

Survey 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)
Site:	Remuda South 25 State Pad	MD Reference:	3061+22 @ 3083.00usft (Perseus)
Well:	RS25-166H	North Reference:	Grid
Wellbore:	166H Lateral	Survey Calculation Method:	Minimum Curvature
Design:	166H Lateral (AsDrilled)	Database:	TP_EDM

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)	
11,219.00	52.69	181.18	11,157.00	-261.84	350.22	288.91	14.57	14.35	3.23	
11,267.00	58.83	181.12	11,184.00	-301.49	349.42	328.37	12.79	12.79	-0.12	
11,315.00	62.40	180.61	11,207.54	-343.31	348.79	370.00	7.49	7.44	-1.06	
11,357.00	64.51	180.53	11,226.31	-380.88	348.42	407.42	5.02	5.02	-0.18	
Wellpath Crosses Unit Line @ Heel										
11,364.00	64.86	180.52	11,229.31	-387.20	348.36	413.72	5.02	5.02	-0.18	
11,411.00	68.73	179.25	11,247.82	-430.39	348.46	456.78	8.60	8.23	-2.70	
11,458.00	71.76	178.55	11,263.71	-474.61	349.31	500.93	6.60	6.45	-1.49	
11,506.00	75.61	178.90	11,277.19	-520.66	350.33	546.91	8.05	8.02	0.73	
11,554.00	79.14	179.71	11,287.68	-567.49	350.90	593.63	7.54	7.35	1.69	
11,601.00	83.02	182.37	11,294.97	-613.90	350.05	639.83	9.97	8.26	5.66	
11,649.00	84.93	182.71	11,300.00	-661.58	347.93	687.20	4.04	3.98	0.71	
11,697.00	85.16	181.76	11,304.15	-709.37	346.07	734.68	2.03	0.48	-1.98	
11,698.00	85.17	181.76	11,304.23	-710.36	346.04	735.67	1.48	1.40	-0.48	
Wellpath Crosses FTP										
11,698.49	85.18	181.75	11,304.28	-710.85	346.02	736.16	1.48	1.40	-0.48	
RS25 166H FTP_329FNL_374FEL p3										
11,699.25	85.19	181.75	11,304.34	-711.61	346.00	736.91	1.48	1.40	-0.48	
RS25 166H FTP_329FNL_374FEL (copy)										
11,745.00	85.83	181.53	11,307.92	-757.20	344.69	782.25	1.48	1.40	-0.48	
11,792.00	87.82	180.24	11,310.52	-804.12	343.97	828.96	5.04	4.23	-2.74	
11,839.00	91.12	180.49	11,310.96	-851.11	343.67	875.78	7.04	7.02	0.53	
11,935.00	89.27	181.52	11,310.63	-947.09	341.99	971.32	2.21	-1.93	1.07	
12,030.00	92.01	184.02	11,309.57	-1,041.95	337.40	1,065.52	3.90	2.88	2.63	
12,126.00	89.22	182.43	11,308.54	-1,137.78	332.00	1,160.61	3.34	-2.91	-1.66	
12,221.00	89.64	181.75	11,309.48	-1,232.71	328.53	1,254.97	0.84	0.44	-0.72	
12,315.00	90.87	182.95	11,309.07	-1,326.63	324.68	1,348.28	1.83	1.31	1.28	
12,410.00	90.98	182.23	11,307.53	-1,421.52	320.39	1,442.53	0.77	0.12	-0.76	
12,506.00	91.34	181.56	11,305.59	-1,517.45	317.21	1,537.89	0.79	0.37	-0.70	
12,600.00	89.69	178.28	11,304.74	-1,611.43	317.35	1,631.59	3.91	-1.76	-3.49	
12,696.00	91.85	178.41	11,303.45	-1,707.37	320.12	1,727.45	2.25	2.25	0.14	
12,791.00	87.70	176.27	11,303.83	-1,802.24	324.52	1,822.37	4.91	-4.37	-2.25	
12,888.00	91.46	177.89	11,304.54	-1,899.10	329.46	1,919.30	4.22	3.88	1.67	
12,983.00	88.77	177.00	11,304.35	-1,993.99	333.70	2,014.24	2.98	-2.83	-0.94	
13,078.00	88.66	178.02	11,306.48	-2,088.88	337.83	2,109.15	1.08	-0.12	1.07	
13,175.00	90.53	177.19	11,307.16	-2,185.78	341.88	2,206.07	2.11	1.93	-0.86	
13,270.00	89.41	176.47	11,307.21	-2,280.64	347.13	2,301.04	1.40	-1.18	-0.76	
13,366.00	89.02	178.12	11,308.53	-2,376.52	351.66	2,396.98	1.77	-0.41	1.72	
13,462.00	92.74	180.05	11,307.05	-2,472.47	353.20	2,492.75	4.37	3.87	2.01	
13,558.00	92.10	179.39	11,303.00	-2,568.38	353.66	2,588.39	0.96	-0.67	-0.69	
13,654.00	90.11	177.59	11,301.15	-2,664.32	356.19	2,684.23	2.79	-2.07	-1.87	
13,748.00	89.30	179.17	11,301.63	-2,758.28	358.85	2,778.10	1.89	-0.86	1.68	
13,843.00	93.81	182.87	11,299.06	-2,853.19	357.16	2,872.57	6.14	4.75	3.89	
13,939.00	94.01	181.89	11,292.51	-2,948.88	353.19	2,967.65	1.04	0.21	-1.02	

Survey 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)
Site:	Remuda South 25 State Pad	MD Reference:	3061+22 @ 3083.00usft (Perseus)
Well:	RS25-166H	North Reference:	Grid
Wellbore:	166H Lateral	Survey Calculation Method:	Minimum Curvature
Design:	166H Lateral (AsDrilled)	Database:	TP_EDM

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)	
14,035.00	92.69	181.97	11,286.90	-3,044.66	349.96	3,062.86	1.38	-1.37	0.08	
14,131.00	89.80	180.66	11,284.81	-3,140.60	347.76	3,158.32	3.31	-3.01	-1.36	
14,228.00	89.27	179.87	11,285.60	-3,237.60	347.31	3,254.97	0.98	-0.55	-0.81	
14,323.00	88.80	179.42	11,287.20	-3,332.58	347.90	3,349.70	0.68	-0.49	-0.47	
14,418.00	89.94	179.60	11,288.25	-3,427.57	348.71	3,444.46	1.21	1.20	0.19	
14,513.00	87.64	179.38	11,290.25	-3,522.54	349.56	3,539.19	2.43	-2.42	-0.23	
14,608.00	86.78	179.33	11,294.88	-3,617.42	350.62	3,633.85	0.91	-0.91	-0.05	
14,704.00	87.76	178.22	11,299.45	-3,713.29	352.67	3,729.58	1.54	1.02	-1.16	
14,799.00	93.12	179.30	11,298.72	-3,808.23	354.73	3,824.38	5.76	5.64	1.14	
14,893.00	91.40	180.25	11,295.01	-3,902.15	355.10	3,918.03	2.09	-1.83	1.01	
14,988.00	88.18	177.59	11,295.36	-3,997.11	356.89	4,012.84	4.40	-3.39	-2.80	
15,083.00	88.52	179.67	11,298.10	-4,092.04	359.16	4,107.64	2.22	0.36	2.19	
15,178.00	89.72	179.27	11,299.55	-4,187.02	360.04	4,202.39	1.33	1.26	-0.42	
15,273.00	87.31	179.35	11,302.02	-4,281.97	361.18	4,297.14	2.54	-2.54	0.08	
15,368.00	89.44	179.62	11,304.71	-4,376.93	362.03	4,391.86	2.26	2.24	0.28	
15,465.00	88.43	180.49	11,306.51	-4,473.91	361.94	4,488.52	1.37	-1.04	0.90	
15,515.00	88.43	180.49	11,307.88	-4,523.89	361.51	4,538.31	0.00	0.00	0.00	
RS25 125H LTP_200FSL_655FEL (copy) - RS25 105H PBHL_330FSL_509FWL (copy) - RS25 166H PBHL_200FSL_324FEL p3 - RS25 166H										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (ft)	Easting (ft)	Latitude		Longitude
RS25 166H SHL (copy)	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
- hit/miss target										
- Shape										
- actual wellpath hits target center										
- Point										
RS25 166H OH_L1 BHL	0.00	0.00	11,307.88	-4,523.89	361.51	460,117.43	623,302.96	32° 15' 51.650 N		103° 56' 3.954 W
- actual wellpath misses target center by 0.01usft at 15515.00usft MD (11307.88 TVD, -4523.89 N, 361.51 E)										
- Point										
RS25 166H LTP_330FS	0.00	0.01	11,309.00	-8,020.30	380.00	456,621.01	623,321.45	32° 15' 17.049 N		103° 56' 3.890 W
- actual wellpath misses target center by 3496.46usft at 15515.00usft MD (11307.88 TVD, -4523.89 N, 361.51 E)										
- Point										
RS25 166H FTP_329FN	0.00	0.00	11,309.00	-710.50	347.50	463,930.83	623,288.95	32° 16' 29.388 N		103° 56' 3.953 W
- actual wellpath misses target center by 4.96usft at 11698.49usft MD (11304.28 TVD, -710.85 N, 346.02 E)										
- Point										

Design Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
11,357.00	11,226.31	-380.88	348.42	Wellpath Crosses Unit Line @ Heel	
11,698.00	11,304.23	-710.36	346.04	Wellpath Crosses FTP	

Checked By: _____ Approved By: _____ Date: _____

XTO Energy

Eddy County, NM (NAD27) NMEZ Grid

Remuda South 25 State Pad

RS25-166H - Slot RS25 166H SHL

166 ST1 L2 (AsDrilled)

Design: 166 ST1 L2 (AsDrilled)

Standard Survey Report

16 August, 2019

Survey 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)
Site:	Remuda South 25 State Pad	MD Reference:	3061+22 @ 3083.00usft (Perseus)
Well:	RS25-166H	North Reference:	Grid
Wellbore:	166 ST1 L2 (AsDrilled)	Survey Calculation Method:	Minimum Curvature
Design:	166 ST1 L2 (AsDrilled)	Database:	TP_EDM

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	Latitude:	32° 16' 36.432 N
	+E/-W	0.00 usft	Easting:	622,941.45 ft	Longitude:	103° 56' 7.969 W
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	3,061.00 usft

Wellbore	166 ST1 L2 (AsDrilled)				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	08/02/19	6.90	60.03	47,715

Design	166 ST1 L2 (AsDrilled)				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	14,704.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.00	0.00	0.00	177.25	

Survey Program	Date	08/16/19			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
106.00	10,776.00	Survey #1 (166H Lateral)	MWD	OWSG MWD - Standard	
10,824.00	14,704.00	Survey #2 (166H Lateral)	MWD+IFR1+MS	OWSG MWD + IFR1 + Multi-Station Correction	
14,778.00	19,099.00	Survey #1 (166 ST1 L2 (AsDrilled))	MWD+IFR1+MS	OWSG MWD + IFR1 + Multi-Station Correction	
19,154.00	19,154.00	Survey #2 (166 ST1 L2 (AsDrilled))	Projection	Projection	

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	
106.00	0.50	327.00	106.00	0.39	-0.25	-0.40	0.47	0.47	0.00	
202.00	0.90	156.00	202.00	0.05	-0.17	-0.06	1.45	0.42	-178.12	
275.00	1.00	215.00	274.99	-1.00	-0.31	0.98	1.29	0.14	80.82	
386.00	1.10	214.40	385.97	-2.67	-1.46	2.59	0.09	0.09	-0.54	
483.00	1.10	203.06	482.95	-4.29	-2.35	4.17	0.22	0.00	-11.69	
580.00	1.00	207.80	579.93	-5.90	-3.11	5.74	0.14	-0.10	4.89	
674.00	1.20	194.10	673.92	-7.58	-3.74	7.39	0.35	0.21	-14.57	

Survey 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)
Site:	Remuda South 25 State Pad	MD Reference:	3061+22 @ 3083.00usft (Perseus)
Well:	RS25-166H	North Reference:	Grid
Wellbore:	166 ST1 L2 (AsDrilled)	Survey Calculation Method:	Minimum Curvature
Design:	166 ST1 L2 (AsDrilled)	Database:	TP_EDM

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)	
770.00	1.90	197.30	769.88	-10.07	-4.45	9.85	0.73	0.73	3.33	
864.00	1.90	204.00	863.83	-12.98	-5.55	12.70	0.24	0.00	7.13	
959.00	1.30	217.30	958.79	-15.28	-6.84	14.93	0.74	-0.63	14.00	
1,054.00	0.50	185.20	1,053.78	-16.55	-7.54	16.17	0.96	-0.84	-33.79	
1,150.00	0.50	41.60	1,149.78	-16.65	-7.30	16.28	0.99	0.00	-149.58	
1,246.00	0.30	118.80	1,245.78	-16.46	-6.80	16.12	0.54	-0.21	80.42	
1,340.00	0.60	94.40	1,339.77	-16.62	-6.09	16.31	0.37	0.32	-25.96	
1,435.00	0.40	78.20	1,434.77	-16.59	-5.27	16.32	0.26	-0.21	-17.05	
1,531.00	0.50	116.30	1,530.77	-16.71	-4.57	16.47	0.32	0.10	39.69	
1,626.00	0.30	165.50	1,625.77	-17.13	-4.13	16.91	0.40	-0.21	51.79	
1,719.00	0.80	192.10	1,718.76	-18.00	-4.21	17.78	0.59	0.54	28.60	
1,815.00	1.30	108.30	1,814.75	-19.00	-3.31	18.82	1.51	0.52	-87.29	
1,910.00	2.20	84.80	1,909.71	-19.17	-0.47	19.13	1.19	0.95	-24.74	
2,005.00	1.20	83.20	2,004.66	-18.89	2.33	18.98	1.05	-1.05	-1.68	
2,099.00	0.80	103.00	2,098.65	-18.92	3.95	19.09	0.56	-0.43	21.06	
2,194.00	0.50	159.00	2,193.64	-19.46	4.74	19.66	0.70	-0.32	58.95	
2,290.00	0.80	166.20	2,289.64	-20.50	5.05	20.72	0.32	0.31	7.50	
2,392.00	0.90	188.50	2,391.63	-21.98	5.10	22.20	0.34	0.10	21.86	
2,486.00	1.60	162.70	2,485.60	-23.96	5.38	24.19	0.94	0.74	-27.45	
2,586.00	2.20	127.70	2,585.55	-26.47	7.32	26.79	1.28	0.60	-35.00	
2,681.00	2.40	114.50	2,680.48	-28.41	10.57	28.89	0.59	0.21	-13.89	
2,776.00	2.70	114.60	2,775.38	-30.17	14.41	30.82	0.32	0.32	0.11	
2,871.00	3.40	121.00	2,870.25	-32.55	18.86	33.42	0.82	0.74	6.74	
2,966.00	3.30	125.60	2,965.08	-35.59	23.50	36.68	0.30	-0.11	4.84	
3,030.00	3.10	124.30	3,028.98	-37.64	26.43	38.86	0.33	-0.31	-2.03	
3,149.00	2.80	119.70	3,147.83	-40.89	31.61	42.36	0.32	-0.25	-3.87	
3,245.00	2.60	113.50	3,243.72	-42.92	35.65	44.58	0.37	-0.21	-6.46	
3,339.00	2.50	111.50	3,337.63	-44.52	39.51	46.37	0.14	-0.11	-2.13	
3,434.00	2.50	111.50	3,432.54	-46.04	43.36	48.07	0.00	0.00	0.00	
3,528.00	2.50	109.60	3,526.45	-47.48	47.20	49.69	0.09	0.00	-2.02	
3,622.00	2.20	90.50	3,620.37	-48.19	50.94	50.58	0.89	-0.32	-20.32	
3,717.00	2.50	84.90	3,715.29	-48.02	54.82	50.59	0.40	0.32	-5.89	
3,812.00	2.40	85.30	3,810.20	-47.67	58.87	50.44	0.11	-0.11	0.42	
3,908.00	2.60	91.80	3,906.11	-47.57	63.05	50.55	0.36	0.21	6.77	
4,003.00	2.80	89.80	4,001.01	-47.63	67.52	50.82	0.23	0.21	-2.11	
4,098.00	2.60	89.30	4,095.90	-47.60	72.00	51.00	0.21	-0.21	-0.53	
4,192.00	2.50	85.60	4,189.81	-47.42	76.18	51.02	0.20	-0.11	-3.94	
4,287.00	2.50	91.40	4,284.72	-47.31	80.31	51.11	0.27	0.00	6.11	
4,382.00	2.70	91.70	4,379.62	-47.42	84.62	51.43	0.21	0.21	0.32	
4,477.00	2.90	90.80	4,474.51	-47.52	89.26	51.75	0.22	0.21	-0.95	
4,572.00	3.40	110.80	4,569.37	-48.56	94.30	53.03	1.26	0.53	21.05	
4,665.00	2.70	141.50	4,662.24	-51.25	98.24	55.91	1.88	-0.75	33.01	
4,760.00	2.70	141.40	4,757.13	-54.75	101.03	59.54	0.00	0.00	-0.11	

Survey 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)
Site:	Remuda South 25 State Pad	MD Reference:	3061+22 @ 3083.00usft (Perseus)
Well:	RS25-166H	North Reference:	Grid
Wellbore:	166 ST1 L2 (AsDrilled)	Survey Calculation Method:	Minimum Curvature
Design:	166 ST1 L2 (AsDrilled)	Database:	TP_EDM

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)	
4,856.00	1.90	144.40	4,853.06	-57.81	103.36	62.71	0.84	-0.83	3.12	
4,950.00	1.30	106.20	4,947.02	-59.38	105.30	64.36	1.27	-0.64	-40.64	
5,045.00	1.50	87.80	5,041.99	-59.63	107.57	64.73	0.51	0.21	-19.37	
5,141.00	2.20	94.00	5,137.94	-59.71	110.67	64.95	0.76	0.73	6.46	
5,235.00	2.60	89.50	5,231.86	-59.82	114.60	65.25	0.47	0.43	-4.79	
5,331.00	2.40	98.60	5,327.77	-60.10	118.76	65.73	0.46	-0.21	9.48	
5,426.00	2.30	94.30	5,422.69	-60.54	122.63	66.36	0.21	-0.11	-4.53	
5,521.00	2.30	94.80	5,517.61	-60.84	126.43	66.84	0.02	0.00	0.53	
5,616.00	3.10	96.70	5,612.51	-61.30	130.88	67.51	0.85	0.84	2.00	
5,711.00	4.00	93.60	5,707.32	-61.81	136.74	68.30	0.97	0.95	-3.26	
5,806.00	3.90	94.70	5,802.10	-62.28	143.27	69.09	0.13	-0.11	1.16	
5,902.00	3.70	95.20	5,897.89	-62.83	149.61	69.94	0.21	-0.21	0.52	
5,996.00	3.70	95.70	5,991.69	-63.41	155.64	70.81	0.03	0.00	0.53	
6,091.00	3.70	94.80	6,086.49	-63.97	161.75	71.66	0.06	0.00	-0.95	
6,186.00	3.60	95.10	6,181.30	-64.49	167.77	72.47	0.11	-0.11	0.32	
6,281.00	3.40	94.60	6,276.12	-64.98	173.55	73.24	0.21	-0.21	-0.53	
6,376.00	3.50	97.00	6,370.95	-65.56	179.24	74.09	0.18	0.11	2.53	
6,470.00	3.40	96.60	6,464.78	-66.23	184.86	75.03	0.11	-0.11	-0.43	
6,565.00	3.10	96.60	6,559.63	-66.85	190.21	75.90	0.32	-0.32	0.00	
6,660.00	3.00	98.10	6,654.49	-67.49	195.22	76.79	0.13	-0.11	1.58	
6,755.00	3.00	99.10	6,749.36	-68.24	200.13	77.77	0.06	0.00	1.05	
6,851.00	2.80	100.10	6,845.24	-69.05	204.92	78.80	0.21	-0.21	1.04	
6,947.00	2.70	102.30	6,941.13	-69.94	209.44	79.91	0.15	-0.10	2.29	
7,042.00	2.40	103.40	7,036.03	-70.88	213.56	81.05	0.32	-0.32	1.16	
7,137.00	2.30	104.70	7,130.95	-71.82	217.34	82.17	0.12	-0.11	1.37	
7,232.00	2.40	100.00	7,225.87	-72.65	221.14	83.18	0.23	0.11	-4.95	
7,326.00	2.20	96.40	7,319.80	-73.19	224.88	83.90	0.26	-0.21	-3.83	
7,420.00	1.40	93.40	7,413.75	-73.46	227.81	84.31	0.86	-0.85	-3.19	
7,515.00	1.90	89.00	7,508.71	-73.50	230.55	84.49	0.54	0.53	-4.63	
7,611.00	2.80	82.70	7,604.63	-73.18	234.46	84.35	0.97	0.94	-6.56	
7,705.00	3.00	88.20	7,698.51	-72.81	239.20	84.21	0.36	0.21	5.85	
7,799.00	2.20	91.90	7,792.41	-72.79	243.46	84.40	0.87	-0.85	3.94	
7,895.00	1.30	98.60	7,888.37	-73.02	246.38	84.76	0.96	-0.94	6.98	
7,990.00	1.80	93.40	7,983.33	-73.27	248.94	85.13	0.55	0.53	-5.47	
8,085.00	2.10	86.90	8,078.28	-73.26	252.16	85.28	0.39	0.32	-6.84	
8,181.00	1.80	96.80	8,174.22	-73.34	255.42	85.52	0.47	-0.31	10.31	
8,276.00	1.50	114.00	8,269.18	-74.03	258.03	86.33	0.61	-0.32	18.11	
8,370.00	1.60	103.40	8,363.15	-74.83	260.43	87.25	0.32	0.11	-11.28	
8,464.00	2.70	87.80	8,457.08	-75.05	263.92	87.63	1.32	1.17	-16.60	
8,558.00	2.80	90.70	8,550.97	-74.99	268.43	87.79	0.18	0.11	3.09	
8,653.00	3.00	111.70	8,645.85	-75.94	273.06	88.96	1.13	0.21	22.11	
8,748.00	3.50	132.60	8,740.71	-78.82	277.51	92.05	1.34	0.53	22.00	
8,844.00	2.40	135.50	8,836.58	-82.24	281.07	95.64	1.16	-1.15	3.02	
8,939.00	1.50	151.60	8,931.52	-84.75	283.06	98.24	1.10	-0.95	16.95	

Survey 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)
Site:	Remuda South 25 State Pad	MD Reference:	3061+22 @ 3083.00usft (Perseus)
Well:	RS25-166H	North Reference:	Grid
Wellbore:	166 ST1 L2 (AsDrilled)	Survey Calculation Method:	Minimum Curvature
Design:	166 ST1 L2 (AsDrilled)	Database:	TP_EDM

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)
9,033.00	1.00	154.40	9,025.50	-86.57	284.00	100.11	0.54	-0.53	2.98
9,128.00	0.60	92.00	9,120.49	-87.34	284.85	100.91	0.94	-0.42	-65.68
9,223.00	1.00	77.30	9,215.48	-87.17	286.16	100.81	0.47	0.42	-15.47
9,318.00	1.30	92.80	9,310.46	-87.04	288.04	100.77	0.45	0.32	16.32
9,413.00	1.10	132.20	9,405.44	-87.71	289.80	101.52	0.87	-0.21	41.47
9,507.00	0.30	110.10	9,499.44	-88.40	290.70	102.25	0.88	-0.85	-23.51
9,602.00	0.60	332.60	9,594.43	-88.04	290.70	101.90	0.89	0.32	-144.74
9,697.00	0.10	187.80	9,689.43	-87.68	290.46	101.53	0.72	-0.53	-152.42
9,791.00	0.50	81.60	9,783.43	-87.71	290.85	101.57	0.57	0.43	-112.98
9,885.00	2.10	50.10	9,877.40	-86.54	292.58	100.49	1.80	1.70	-33.51
9,979.00	1.90	49.60	9,971.35	-84.43	295.09	98.49	0.21	-0.21	-0.53
10,074.00	1.70	48.20	10,066.30	-82.47	297.34	96.65	0.22	-0.21	-1.47
10,171.00	2.20	64.40	10,163.24	-80.70	300.09	95.02	0.76	0.52	16.70
10,266.00	2.50	69.00	10,258.16	-79.17	303.67	93.66	0.37	0.32	4.84
10,361.00	2.40	71.30	10,353.08	-77.79	307.49	92.46	0.15	-0.11	2.42
10,386.00	2.20	72.90	10,378.06	-77.48	308.44	92.20	0.84	-0.80	6.40
10,489.00	2.16	75.19	10,480.98	-76.41	312.21	91.31	0.09	-0.04	2.22
10,584.00	2.20	128.20	10,575.92	-77.08	315.37	92.13	2.05	0.04	55.80
10,632.00	2.29	140.72	10,623.89	-78.39	316.70	93.50	1.04	0.19	26.08
10,680.00	3.26	141.42	10,671.83	-80.20	318.16	95.38	2.02	2.02	1.46
10,727.00	4.64	138.69	10,718.72	-82.67	320.25	97.95	2.96	2.94	-5.81
10,776.00	5.46	141.92	10,767.53	-85.99	323.00	101.40	1.77	1.67	6.59
10,824.00	7.89	146.10	10,815.20	-90.53	326.24	106.08	5.16	5.06	8.71
10,862.00	10.40	147.48	10,852.71	-95.58	329.54	111.29	6.63	6.61	3.63
10,903.00	13.22	149.40	10,892.84	-102.74	333.92	118.65	6.94	6.88	4.68
10,935.00	16.09	155.32	10,923.80	-109.92	337.63	126.00	10.11	8.97	18.50
10,966.00	19.17	161.59	10,953.34	-118.66	341.04	134.89	11.66	9.94	20.23
10,998.00	22.98	167.90	10,983.20	-129.76	344.01	146.12	13.84	11.91	19.72
11,030.00	27.09	171.39	11,012.19	-143.07	346.41	159.54	13.64	12.84	10.91
11,062.00	30.78	174.84	11,040.19	-158.44	348.24	174.97	12.65	11.53	10.78
11,094.00	34.87	177.27	11,067.08	-175.74	349.41	192.31	13.43	12.78	7.59
11,125.00	39.57	178.84	11,091.76	-194.47	350.03	211.05	15.47	15.16	5.06
11,157.00	43.53	179.19	11,115.70	-215.69	350.39	232.26	12.40	12.37	1.09
11,188.00	48.24	180.18	11,137.27	-237.94	350.51	254.49	15.37	15.19	3.19
11,219.00	52.69	181.18	11,157.00	-261.84	350.22	278.35	14.57	14.35	3.23
11,267.00	58.83	181.12	11,184.00	-301.49	349.42	317.92	12.79	12.79	-0.12
11,315.00	62.40	180.61	11,207.54	-343.31	348.79	359.66	7.49	7.44	-1.06
11,364.00	64.86	180.52	11,229.31	-387.20	348.36	403.48	5.02	5.02	-0.18
11,411.00	68.73	179.25	11,247.82	-430.39	348.46	446.62	8.60	8.23	-2.70
11,458.00	71.76	178.55	11,263.71	-474.61	349.31	490.83	6.60	6.45	-1.49
11,506.00	75.61	178.90	11,277.19	-520.66	350.33	536.88	8.05	8.02	0.73
11,554.00	79.14	179.71	11,287.68	-567.49	350.90	583.68	7.54	7.35	1.69
11,601.00	83.02	182.37	11,294.97	-613.90	350.05	629.99	9.97	8.26	5.66

Survey 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)
Site:	Remuda South 25 State Pad	MD Reference:	3061+22 @ 3083.00usft (Perseus)
Well:	RS25-166H	North Reference:	Grid
Wellbore:	166 ST1 L2 (AsDrilled)	Survey Calculation Method:	Minimum Curvature
Design:	166 ST1 L2 (AsDrilled)	Database:	TP_EDM

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)	
11,649.00	84.93	182.71	11,300.00	-661.58	347.93	677.52	4.04	3.98	0.71	
11,697.00	85.16	181.76	11,304.15	-709.37	346.07	725.16	2.03	0.48	-1.98	
11,699.26	85.19	181.75	11,304.34	-711.61	346.00	727.40	1.48	1.40	-0.48	
RS25 166H FTP_329FNL_374FEL (copy)										
11,745.00	85.83	181.53	11,307.92	-757.20	344.69	772.87	1.48	1.40	-0.48	
11,792.00	87.82	180.24	11,310.52	-804.12	343.97	819.70	5.04	4.23	-2.74	
11,839.00	91.12	180.49	11,310.96	-851.11	343.67	866.62	7.04	7.02	0.53	
11,935.00	89.27	181.52	11,310.63	-947.09	341.99	962.41	2.21	-1.93	1.07	
12,030.00	92.01	184.02	11,309.57	-1,041.95	337.40	1,056.95	3.90	2.88	2.63	
12,126.00	89.22	182.43	11,308.54	-1,137.78	332.00	1,152.41	3.34	-2.91	-1.66	
12,221.00	89.64	181.75	11,309.48	-1,232.71	328.53	1,247.06	0.84	0.44	-0.72	
12,315.00	90.87	182.95	11,309.07	-1,326.63	324.68	1,340.69	1.83	1.31	1.28	
12,410.00	90.98	182.23	11,307.53	-1,421.52	320.39	1,435.26	0.77	0.12	-0.76	
12,506.00	91.34	181.56	11,305.59	-1,517.45	317.21	1,530.93	0.79	0.37	-0.70	
12,600.00	89.69	178.28	11,304.74	-1,611.43	317.35	1,624.80	3.91	-1.76	-3.49	
12,696.00	91.85	178.41	11,303.45	-1,707.37	320.12	1,720.77	2.25	2.25	0.14	
12,791.00	87.70	176.27	11,303.83	-1,802.24	324.52	1,815.75	4.91	-4.37	-2.25	
12,888.00	91.46	177.89	11,304.54	-1,899.10	329.46	1,912.72	4.22	3.88	1.67	
12,983.00	88.77	177.00	11,304.35	-1,993.99	333.70	2,007.71	2.98	-2.83	-0.94	
13,078.00	88.66	178.02	11,306.48	-2,088.88	337.83	2,102.69	1.08	-0.12	1.07	
13,175.00	90.53	177.19	11,307.16	-2,185.78	341.88	2,199.68	2.11	1.93	-0.86	
13,270.00	89.41	176.47	11,307.21	-2,280.64	347.13	2,294.67	1.40	-1.18	-0.76	
13,366.00	89.02	178.12	11,308.53	-2,376.52	351.66	2,390.66	1.77	-0.41	1.72	
13,462.00	92.74	180.05	11,307.05	-2,472.47	353.20	2,486.58	4.37	3.87	2.01	
13,558.00	92.10	179.39	11,303.00	-2,568.38	353.66	2,582.40	0.96	-0.67	-0.69	
13,654.00	90.11	177.59	11,301.15	-2,664.32	356.19	2,678.35	2.79	-2.07	-1.87	
13,748.00	89.30	179.17	11,301.63	-2,758.28	358.85	2,772.33	1.89	-0.86	1.68	
13,843.00	93.81	182.87	11,299.06	-2,853.19	357.16	2,867.05	6.14	4.75	3.89	
13,939.00	94.01	181.89	11,292.51	-2,948.88	353.19	2,962.44	1.04	0.21	-1.02	
14,035.00	92.69	181.97	11,286.90	-3,044.66	349.96	3,057.95	1.38	-1.37	0.08	
14,131.00	89.80	180.66	11,284.81	-3,140.60	347.76	3,153.68	3.31	-3.01	-1.36	
14,228.00	89.27	179.87	11,285.60	-3,237.60	347.31	3,250.54	0.98	-0.55	-0.81	
14,323.00	88.80	179.42	11,287.20	-3,332.58	347.90	3,345.44	0.68	-0.49	-0.47	
14,418.00	89.94	179.60	11,288.25	-3,427.57	348.71	3,440.36	1.21	1.20	0.19	
14,513.00	87.64	179.38	11,290.25	-3,522.54	349.56	3,535.26	2.43	-2.42	-0.23	
14,608.00	86.78	179.33	11,294.88	-3,617.42	350.62	3,630.08	0.91	-0.91	-0.05	
14,704.00	87.76	178.22	11,299.45	-3,713.29	352.67	3,725.94	1.54	1.02	-1.16	
14,778.00	85.04	176.89	11,304.09	-3,787.06	355.82	3,799.78	4.09	-3.68	-1.80	
14,806.00	83.66	174.51	11,306.85	-3,814.85	357.91	3,827.63	9.79	-4.93	-8.50	
14,900.00	89.83	176.28	11,312.19	-3,908.34	365.44	3,921.38	6.83	6.56	1.88	
14,996.00	90.28	179.65	11,312.09	-4,004.27	368.85	4,017.36	3.54	0.47	3.51	
15,090.00	88.77	178.70	11,312.87	-4,098.25	370.20	4,111.30	1.90	-1.61	-1.01	
15,185.00	89.08	178.51	11,314.66	-4,193.21	372.51	4,206.26	0.38	0.33	-0.20	

Survey 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)
Site:	Remuda South 25 State Pad	MD Reference:	3061+22 @ 3083.00usft (Perseus)
Well:	RS25-166H	North Reference:	Grid
Wellbore:	166 ST1 L2 (AsDrilled)	Survey Calculation Method:	Minimum Curvature
Design:	166 ST1 L2 (AsDrilled)	Database:	TP_EDM

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)
15,281.00	87.34	176.59	11,317.65	-4,289.06	376.61	4,302.20	2.70	-1.81	-2.00
15,376.00	91.06	177.67	11,318.98	-4,383.92	381.37	4,397.17	4.08	3.92	1.14
15,472.00	87.79	176.47	11,319.94	-4,479.77	386.27	4,493.15	3.63	-3.41	-1.25
15,514.74	88.21	177.63	11,321.43	-4,522.43	388.47	4,535.86	2.88	0.99	2.71
RS25 166H OH_L1 BHL									
15,568.00	88.74	179.07	11,322.85	-4,575.65	390.01	4,589.09	2.88	0.99	2.71
15,663.00	90.76	179.40	11,323.27	-4,670.63	391.27	4,684.03	2.15	2.13	0.35
15,759.00	93.47	181.38	11,319.72	-4,766.55	390.62	4,779.81	3.50	2.82	2.06
15,852.00	92.55	180.45	11,314.84	-4,859.41	389.14	4,872.49	1.41	-0.99	-1.00
15,948.00	87.65	177.58	11,314.67	-4,955.36	390.79	4,968.40	5.91	-5.10	-2.99
16,043.00	90.98	180.92	11,315.81	-5,050.31	392.03	5,063.31	4.96	3.51	3.52
16,138.00	90.84	182.71	11,314.30	-5,145.25	389.02	5,157.99	1.89	-0.15	1.88
16,233.00	90.08	182.92	11,313.54	-5,240.13	384.36	5,252.54	0.83	-0.80	0.22
16,328.00	92.04	182.70	11,311.78	-5,335.00	379.70	5,347.07	2.08	2.06	-0.23
16,423.00	90.53	184.14	11,309.65	-5,429.80	374.04	5,441.49	2.20	-1.59	1.52
16,518.00	86.75	181.35	11,311.90	-5,524.64	369.49	5,536.00	4.94	-3.98	-2.94
16,613.00	86.24	181.64	11,317.71	-5,619.43	367.01	5,630.57	0.62	-0.54	0.31
16,708.00	90.84	182.18	11,320.13	-5,714.32	363.85	5,725.19	4.88	4.84	0.57
16,803.00	90.00	181.63	11,319.43	-5,809.26	360.69	5,819.88	1.06	-0.88	-0.58
16,899.00	87.39	180.54	11,321.62	-5,905.21	358.87	5,915.63	2.95	-2.72	-1.14
16,994.00	92.02	180.98	11,322.11	-6,000.17	357.61	6,010.42	4.90	4.87	0.46
17,089.00	90.56	178.91	11,319.97	-6,095.14	357.70	6,105.29	2.67	-1.54	-2.18
17,185.00	90.22	178.85	11,319.32	-6,191.12	359.58	6,201.24	0.36	-0.35	-0.06
17,280.00	91.26	179.18	11,318.09	-6,286.10	361.21	6,296.19	1.15	1.09	0.35
17,375.00	91.23	180.05	11,316.03	-6,381.07	361.85	6,391.09	0.92	-0.03	0.92
17,470.00	88.99	177.62	11,315.84	-6,476.04	363.78	6,486.04	3.48	-2.36	-2.56
17,563.00	88.66	172.84	11,317.75	-6,568.67	371.51	6,578.93	5.15	-0.35	-5.14
17,660.00	89.97	172.48	11,318.91	-6,664.87	383.90	6,675.61	1.40	1.35	-0.37
17,756.00	89.97	176.52	11,318.96	-6,760.40	393.10	6,771.48	4.21	0.00	4.21
17,851.00	88.29	179.02	11,320.40	-6,855.31	396.80	6,866.45	3.17	-1.77	2.63
17,947.00	89.83	180.37	11,321.98	-6,951.29	397.31	6,962.35	2.13	1.60	1.41
18,043.00	91.15	181.00	11,321.16	-7,047.28	396.16	7,058.17	1.52	1.37	0.66
18,139.00	88.77	181.01	11,321.23	-7,143.26	394.48	7,153.96	2.48	-2.48	0.01
18,235.00	89.30	181.20	11,322.84	-7,239.22	392.63	7,249.73	0.59	0.55	0.20
18,331.00	89.50	179.76	11,323.85	-7,335.21	391.82	7,345.57	1.51	0.21	-1.50
18,428.00	88.90	182.20	11,325.20	-7,432.18	390.16	7,442.34	2.59	-0.62	2.52
18,523.00	88.33	180.60	11,327.50	-7,527.12	387.84	7,537.06	1.79	-0.60	-1.68
18,616.00	88.63	175.73	11,329.97	-7,620.01	390.82	7,629.99	5.24	0.32	-5.24
18,714.00	90.92	177.86	11,330.35	-7,717.85	396.30	7,727.97	3.19	2.34	2.17
18,810.00	89.21	179.19	11,330.24	-7,813.81	398.77	7,823.94	2.26	-1.78	1.39
18,906.00	89.36	179.91	11,331.44	-7,909.80	399.52	7,919.86	0.77	0.16	0.75
19,000.00	90.67	182.14	11,331.42	-8,003.78	397.84	8,013.65	2.75	1.39	2.37
19,013.00	90.71	182.14	11,331.26	-8,016.77	397.36	8,026.60	0.34	0.34	0.02
Wellpath Crosses LTP									

Survey 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)
Site:	Remuda South 25 State Pad	MD Reference:	3061+22 @ 3083.00usft (Perseus)
Well:	RS25-166H	North Reference:	Grid
Wellbore:	166 ST1 L2 (AsDrilled)	Survey Calculation Method:	Minimum Curvature
Design:	166 ST1 L2 (AsDrilled)	Database:	TP_EDM

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)	
19,017.52	90.73	182.14	11,331.20	-8,021.28	397.19	8,031.10	0.34	0.34	0.02	
RS25 166H LTP_330FSL_325FEL p3										
19,099.00	91.01	182.16	11,329.96	-8,102.70	394.13	8,112.27	0.34	0.34	0.02	
19,147.44	91.01	182.16	11,329.11	-8,151.10	392.30	8,160.53	0.00	0.00	0.00	
RS25 166H PBHL_200FSL_324FEL p3										
19,154.00	91.01	182.16	11,329.00	-8,157.65	392.06	8,167.06	0.00	0.00	0.00	
TD @ 194FSL 311FEL - RS25 166H L2 BHL										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (ft)	Easting (ft)	Latitude	Longitude	
RS25 166H OH_L1 BHL	0.00	0.00	11,307.88	-4,523.89	361.51	460,117.43	623,302.96	32° 15' 51.650 N	103° 56' 3.954 W	
- actual wellpath misses target center by 30.21usft at 15514.34usft MD (11321.42 TVD, -4522.03 N, 388.45 E)										
- Point										
RS25 166H LTP_330FS	0.00	0.01	11,309.00	-8,020.30	380.00	456,621.01	623,321.45	32° 15' 17.049 N	103° 56' 3.890 W	
- actual wellpath misses target center by 28.09usft at 19017.46usft MD (11331.20 TVD, -8021.22 N, 397.19 E)										
- Point										
RS25 166H FTP_329FN	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	
- actual wellpath misses target center by 14.78usft at 11699.26usft MD (11304.34 TVD, -711.61 N, 346.00 E)										
- Point										
RS25 166H L2 BHL	0.00	0.00	11,329.00	-8,157.65	392.06	456,483.66	623,333.51	32° 15' 15.689 N	103° 56' 3.756 W	
- actual wellpath misses target center by 0.01usft at 19154.00usft MD (11329.00 TVD, -8157.65 N, 392.06 E)										
- Rectangle (sides W100.00 H7,440.00 D0.00)										

Design Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
19,013.00	11,331.26	-8,016.77	397.36	Wellpath Crosses LTP	
19,154.00	11,329.00	-8,157.65	392.06	TD @ 194FSL 311FEL	

Checked By: _____ Approved By: _____ Date: _____