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DISTRICT II-ARTESIA O.C.D.

XTO Energy

Eddy County, NM (NAD-27)

Remuda North 25 State

#128H

Wellbore #1

Plan: PERMIT

Standard Planning Report

29 May, 2019



Project: Eddy County, NM (NAD-27)
Site: Remuda North 25 State
Well: #128H
Wellbore: Wellbore #1
Design: PERMIT

PROJECT DETAILS: Eddy County, NM (NAD-27)
Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico East 3001
System Datum: Mean Sea Level

DESIGN TARGET DETAILS

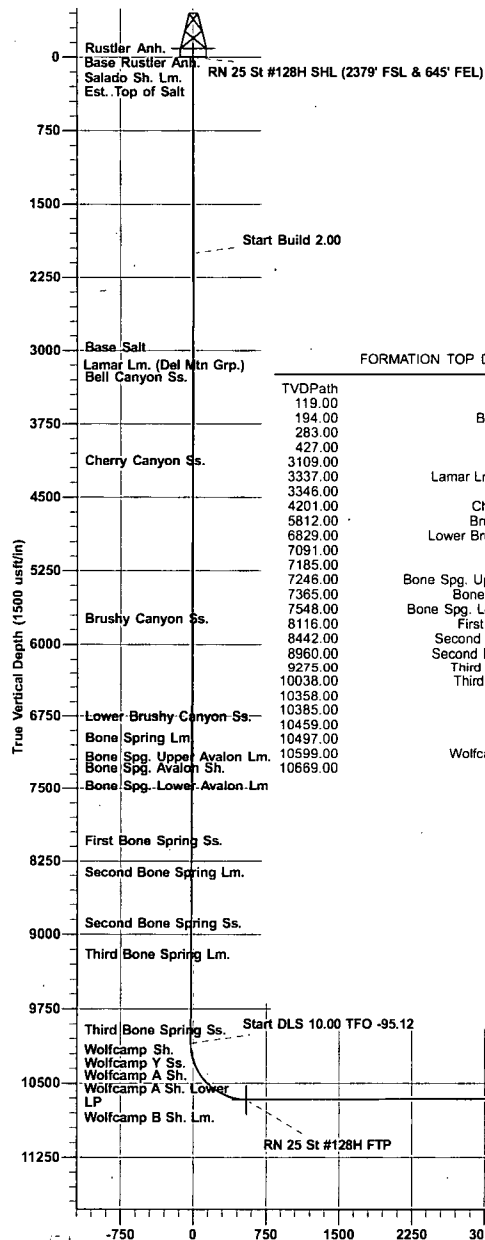
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
RN 25 St #128H SHL (2379' FSL & 645' FEL)	0.00	0.00	0.00	463989.30	624292.50	32.2749831	-103.9311795	Point
RN 25 St #128H PBHL (200' FNL & 330' FEL)	10647.00	8037.30	264.30	472026.60	624556.80	32.2970741	-103.9302267	Point
RN 25 St #128H LTP	10647.38	7907.30	265.30	471896.60	624557.80	32.2867167	-103.9302250	Point
RN 25 St #128H FTP	10669.00	550.20	312.70	464539.50	624605.20	32.2764923	-103.9301611	Point

WELL DETAILS: #128H

Rig Name: RKB = 25' @ 3099.00usft			
Ground Level: 3074.00			
+N/-S	+E/-W	Northing	Longitude
0.00	0.00	463989.30	-103.9311795

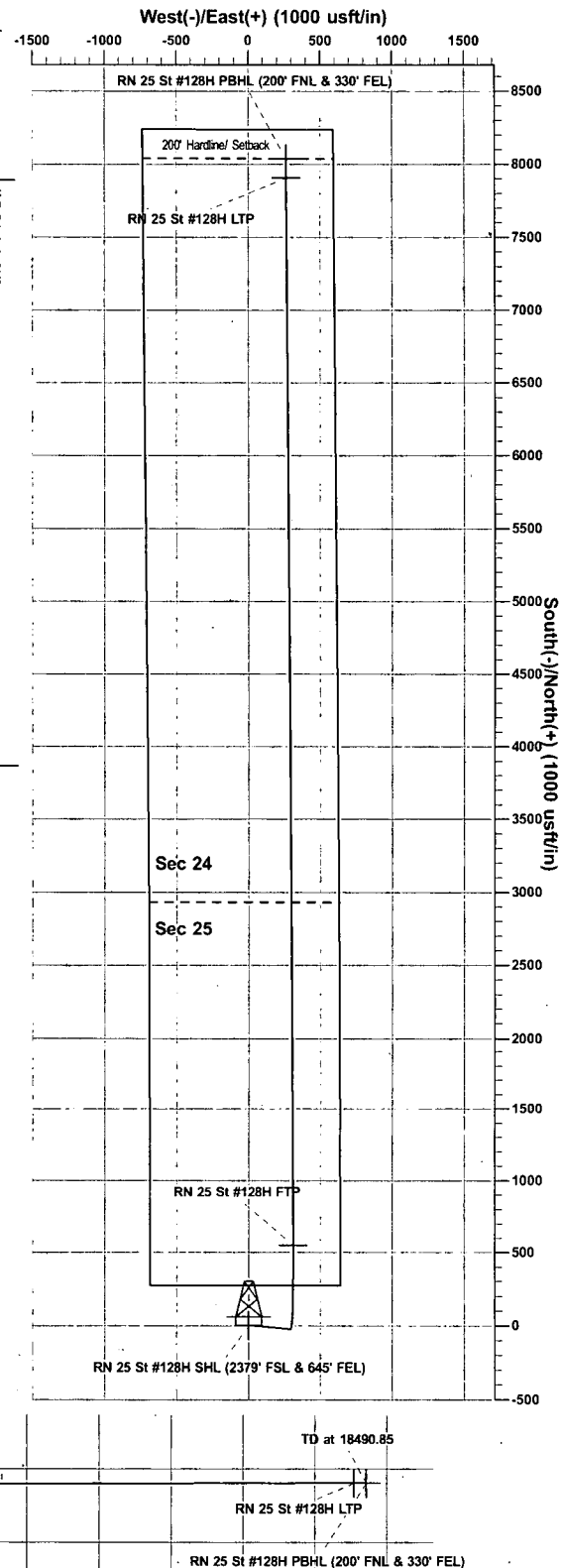
SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	2000.00	0.00	0.00	2000.00	0.00	0.00	0.00	0.00	0.00
3	2105.50	2.11	94.76	2105.48	-0.16	1.94	2.00	94.76	-0.17
4	10099.99	2.11	94.76	10094.55	-24.56	295.27	0.00	0.00	-26.47
5	11003.56	90.17	359.63	10669.00	550.20	312.70	10.00	-95.12	548.17
6	18360.85	90.17	359.63	10647.38	7907.30	265.14	0.00	0.00	7905.42
7	18490.85	90.17	359.63	10647.00	8037.30	264.30	0.00	0.00	8035.43



FORMATION TOP DETAILS

TVDPATH	FORMATION
119.00	Rustler Anh.
194.00	Base Rustler Anh.
283.00	Salado Sh. Lm.
427.00	Est. Top of Salt
3109.00	Base Salt
3337.00	Lamar Lm. (Del Mtn Grp.)
3346.00	Bell Canyon Ss.
4201.00	Cherry Canyon Ss.
5812.00	Brushy Canyon Ss.
6829.00	Lower Brushy Canyon Ss.
7091.00	Bone Spring Lm.
7185.00	Avalon Ss.
7246.00	Bone Ssg. Upper Avalon Lm.
7365.00	Bone Ssg. Avalon Sh.
7548.00	Bone Ssg. Lower Avalon Lm.
8116.00	First Bone Spring Ss.
8442.00	Second Bone Spring Lm.
8960.00	Second Bone Spring Ss.
9275.00	Third Bone Spring Lm.
10038.00	Third Bone Spring Ss.
10358.00	Wolfcamp Sh.
10385.00	Wolfcamp X Ss.
10459.00	Wolfcamp Y Ss.
10497.00	Wolfcamp A Sh.
10599.00	Wolfcamp A Sh. Lower LP
10669.00	



Vertical Section at 359.63° (1500 usft/in)

The customer should only rely on this document after independently verifying all paths, targets, coordinates, lease and hard lines represented. Any decisions made or wells drilled utilizing this or any other information supplied by Prototype are at the sole risk and responsibility of the user.

Plan: PERMIT (#128H/Wellbore #1)

Created By: Matthew May Date: 9:21, May 29 2019

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) 748-9720
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

¹ API Number 30-015-	² Pool Code	³ Pool Name
⁴ Property Code	⁵ Property Name REMUDA NORTH 25 STATE	⁶ Well Number 128H
⁷ OGRID No. 005380	⁸ Operator Name XTO ENERGY, INC.	⁹ Elevation 3,074'

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
I	25	23 S	29 E		2,379	SOUTH	645	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
A	24	23 S	29 E		200	NORTH	330	EAST	EDDY

¹² Dedicated Acres	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.

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.

¹⁶	GEODETIC COORDINATES NAD 27 NME SURFACE LOCATION Y= 463,989.3 X= 624,292.5 LAT.= 32.274983°N LONG.= 103.931179°W FIRST TAKE POINT NAD 27 NME Y= 464,539.5 X= 624,805.2 LAT.= 32.276492°N LONG.= 103.930161°W	GEODETIC COORDINATES NAD 83 NME SURFACE LOCATION Y= 464,048.7 X= 665,475.5 LAT.= 32.275106°N LONG.= 103.931670°W FIRST TAKE POINT NAD 83 NME Y= 464,598.9 X= 665,788.2 LAT.= 32.276615°N LONG.= 103.930652°W	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. Signature _____ Date _____ Printed Name _____ E-mail Address _____
	CORNER COORDINATES TABLE NAD 27 NME A - Y= 464,258.3 N, X= 624,936.3 E B - Y= 464,258.9 N, X= 623,667.2 E C - Y= 466,919.4 N, X= 624,926.4 E D - Y= 466,919.6 N, X= 623,603.9 E E - Y= 469,568.1 N, X= 624,904.6 E F - Y= 469,570.2 N, X= 623,580.9 E G - Y= 472,226.1 N, X= 624,885.4 E H - Y= 472,227.8 N, X= 623,559.3 E	CORNER COORDINATES TABLE NAD 83 NME A - Y= 464,317.7 N, X= 666,119.3 E B - Y= 464,318.3 N, X= 664,850.2 E C - Y= 466,978.9 N, X= 666,109.3 E D - Y= 466,979.1 N, X= 664,786.8 E E - Y= 469,627.6 N, X= 666,087.4 E F - Y= 469,629.7 N, X= 664,763.7 E G - Y= 472,285.7 N, X= 666,068.1 E H - Y= 472,287.4 N, X= 664,742.0 E	
	LAST TAKE POINT NAD 27 NME Y= 471,896.6 X= 624,557.8 LAT.= 32.296717°N LONG.= 103.930225°W BOTTOM HOLE LOCATION NAD 27 NME Y= 472,026.6 X= 624,556.8 LAT.= 32.297074°N LONG.= 103.930227°W	LAST TAKE POINT NAD 83 NME Y= 471,956.2 X= 665,740.5 LAT.= 32.296839°N LONG.= 103.930717°W BOTTOM HOLE LOCATION NAD 83 NME Y= 472,086.2 X= 665,739.5 LAT.= 32.297196°N LONG.= 103.930718°W	
	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. 05-13-2019 Date of Survey Signature and Seal of Professional Surveyor: _____ MARK DILLON HARP 23786 Certificate Number		



AW 2019010073



Planning Report

Database:	EDM 5000.1.13 Single User Db	Local Co-ordinate Reference:	Well #128H
Company:	XTO Energy	TVD Reference:	RKB = 25' @ 3099.00usft
Project:	Eddy County, NM (NAD-27)	MD Reference:	RKB = 25' @ 3099.00usft
Site:	Remuda North 25 State	North Reference:	Grid
Well:	#128H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	PERMIT		

Project	Eddy County, NM (NAD-27)		
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 North 25 State		
Site Position:		Northing:	463,916.50 usft
From:	Map	Easting:	620,263.40 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32.2748238
		Longitude:	-103.9442164
		Grid Convergence:	0.21 °

Well	#128H		
Well Position	+N/-S	72.80 usft	Northing:
	+E/-W	4,029.10 usft	Easting:
Position Uncertainty	0.00 usft	Wellhead Elevation:	0.00 usft
		Latitude:	32.2749831
		Longitude:	-103.9311795
		Ground Level:	3,074.00 usft

Wellbore	Wellbore #1		
Magnetics	Model Name	Sample Date	Declination
			(°)
	IGRF2015	05/29/19	6.91
			Dip Angle
			(°)
			60.03
			Field Strength
			(nT)
			47,733

Design	PERMIT		
Audit Notes:			
Version:	Phase:	PLAN	Tie On Depth:
			0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.00	0.00	0.00
			Direction
			(°)
			359.63

Plan Sections										
Measured Depth	Inclination	Azimuth	Vertical Depth	+N/-S	+E/-W	Dogleg Rate	Build Rate	Turn Rate	TFO	Target
(usft)	(°)	(°)	(usft)	(usft)	(usft)	(°/100usft)	(°/100usft)	(°/100usft)	(°)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,105.50	2.11	94.76	2,105.48	-0.16	1.94	2.00	2.00	0.00	94.76	
10,099.99	2.11	94.76	10,094.55	-24.56	295.27	0.00	0.00	0.00	0.00	
11,003.56	90.17	359.63	10,669.00	550.20	312.70	10.00	9.75	-10.53	-95.12	RN 25 St #128H F1
18,360.85	90.17	359.63	10,647.38	7,907.30	265.14	0.00	0.00	0.00	0.00	RN 25 St #128H LT
18,490.85	90.17	359.63	10,647.00	8,037.30	264.30	0.00	0.00	0.00	0.00	RN 25 St #128H PE



Planning Report

Database:	EDM 5000.1.13 Single User Db	Local Co-ordinate Reference:	Well #128H
Company:	XTO Energy	TVD Reference:	RKB = 25' @ 3099.00usft
Project:	Eddy County, NM (NAD-27)	MD Reference:	RKB = 25' @ 3099.00usft
Site:	Remuda North 25 State	North Reference:	Grid
Well:	#128H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	PERMIT		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
119.00	0.00	0.00	119.00	0.00	0.00	0.00	0.00	0.00	0.00
Rustler Anh.									
194.00	0.00	0.00	194.00	0.00	0.00	0.00	0.00	0.00	0.00
Base Rustler Anh.									
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
283.00	0.00	0.00	283.00	0.00	0.00	0.00	0.00	0.00	0.00
Salado Sh. Lm.									
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
427.00	0.00	0.00	427.00	0.00	0.00	0.00	0.00	0.00	0.00
Est. Top of Salt									
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,105.50	2.11	94.76	2,105.48	-0.16	1.94	-0.17	2.00	2.00	0.00
2,200.00	2.11	94.76	2,199.91	-0.45	5.40	-0.48	0.00	0.00	0.00
2,300.00	2.11	94.76	2,299.84	-0.75	9.07	-0.81	0.00	0.00	0.00
2,400.00	2.11	94.76	2,399.78	-1.06	12.74	-1.14	0.00	0.00	0.00
2,500.00	2.11	94.76	2,499.71	-1.37	16.41	-1.47	0.00	0.00	0.00
2,600.00	2.11	94.76	2,599.64	-1.67	20.08	-1.80	0.00	0.00	0.00
2,700.00	2.11	94.76	2,699.57	-1.98	23.75	-2.13	0.00	0.00	0.00
2,800.00	2.11	94.76	2,799.51	-2.28	27.42	-2.46	0.00	0.00	0.00
2,900.00	2.11	94.76	2,899.44	-2.59	31.09	-2.79	0.00	0.00	0.00
3,000.00	2.11	94.76	2,999.37	-2.89	34.76	-3.12	0.00	0.00	0.00
3,100.00	2.11	94.76	3,099.30	-3.20	38.43	-3.44	0.00	0.00	0.00
3,109.70	2.11	94.76	3,109.00	-3.23	38.78	-3.48	0.00	0.00	0.00
Base Salt									
3,200.00	2.11	94.76	3,199.23	-3.50	42.10	-3.77	0.00	0.00	0.00
3,300.00	2.11	94.76	3,299.17	-3.81	45.76	-4.10	0.00	0.00	0.00
3,337.86	2.11	94.76	3,337.00	-3.92	47.15	-4.23	0.00	0.00	0.00
Lamar Lm. (Del Mtn Grp.)									
3,346.87	2.11	94.76	3,346.00	-3.95	47.48	-4.26	0.00	0.00	0.00
Bell Canyon Ss.									
3,400.00	2.11	94.76	3,399.10	-4.11	49.43	-4.43	0.00	0.00	0.00
3,500.00	2.11	94.76	3,499.03	-4.42	53.10	-4.76	0.00	0.00	0.00
3,600.00	2.11	94.76	3,598.96	-4.72	56.77	-5.09	0.00	0.00	0.00
3,700.00	2.11	94.76	3,698.90	-5.03	60.44	-5.42	0.00	0.00	0.00
3,800.00	2.11	94.76	3,798.83	-5.33	64.11	-5.75	0.00	0.00	0.00



Planning Report

Database:	EDM 5000.1.13 Single User Db	Local Co-ordinate Reference:	Well #128H
Company:	XTO Energy	TVD Reference:	RKB = 25' @ 3099.00usft
Project:	Eddy County, NM (NAD-27)	MD Reference:	RKB = 25' @ 3099.00usft
Site:	Remuda North 25 State	North Reference:	Grid
Well:	#128H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	PERMIT		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
3,900.00	2.11	94.76	3,898.76	-5.64	67.78	-6.08	0.00	0.00	0.00
4,000.00	2.11	94.76	3,998.69	-5.94	71.45	-6.40	0.00	0.00	0.00
4,100.00	2.11	94.76	4,098.62	-6.25	75.12	-6.73	0.00	0.00	0.00
4,200.00	2.11	94.76	4,198.56	-6.55	78.79	-7.06	0.00	0.00	0.00
4,202.45	2.11	94.76	4,201.00	-6.56	78.88	-7.07	0.00	0.00	0.00
Cherry Canyon Ss.									
4,300.00	2.11	94.76	4,298.49	-6.86	82.46	-7.39	0.00	0.00	0.00
4,400.00	2.11	94.76	4,398.42	-7.16	86.13	-7.72	0.00	0.00	0.00
4,500.00	2.11	94.76	4,498.35	-7.47	89.80	-8.05	0.00	0.00	0.00
4,600.00	2.11	94.76	4,598.28	-7.77	93.46	-8.38	0.00	0.00	0.00
4,700.00	2.11	94.76	4,698.22	-8.08	97.13	-8.71	0.00	0.00	0.00
4,800.00	2.11	94.76	4,798.15	-8.39	100.80	-9.04	0.00	0.00	0.00
4,900.00	2.11	94.76	4,898.08	-8.69	104.47	-9.36	0.00	0.00	0.00
5,000.00	2.11	94.76	4,998.01	-9.00	108.14	-9.69	0.00	0.00	0.00
5,100.00	2.11	94.76	5,097.95	-9.30	111.81	-10.02	0.00	0.00	0.00
5,200.00	2.11	94.76	5,197.88	-9.61	115.48	-10.35	0.00	0.00	0.00
5,300.00	2.11	94.76	5,297.81	-9.91	119.15	-10.68	0.00	0.00	0.00
5,400.00	2.11	94.76	5,397.74	-10.22	122.82	-11.01	0.00	0.00	0.00
5,500.00	2.11	94.76	5,497.67	-10.52	126.49	-11.34	0.00	0.00	0.00
5,600.00	2.11	94.76	5,597.61	-10.83	130.16	-11.67	0.00	0.00	0.00
5,700.00	2.11	94.76	5,697.54	-11.13	133.83	-12.00	0.00	0.00	0.00
5,800.00	2.11	94.76	5,797.47	-11.44	137.50	-12.33	0.00	0.00	0.00
5,814.54	2.11	94.76	5,812.00	-11.48	138.03	-12.37	0.00	0.00	0.00
Brushy Canyon Ss.									
5,900.00	2.11	94.76	5,897.40	-11.74	141.16	-12.65	0.00	0.00	0.00
6,000.00	2.11	94.76	5,997.34	-12.05	144.83	-12.98	0.00	0.00	0.00
6,100.00	2.11	94.76	6,097.27	-12.35	148.50	-13.31	0.00	0.00	0.00
6,200.00	2.11	94.76	6,197.20	-12.66	152.17	-13.64	0.00	0.00	0.00
6,300.00	2.11	94.76	6,297.13	-12.96	155.84	-13.97	0.00	0.00	0.00
6,400.00	2.11	94.76	6,397.06	-13.27	159.51	-14.30	0.00	0.00	0.00
6,500.00	2.11	94.76	6,497.00	-13.57	163.18	-14.63	0.00	0.00	0.00
6,600.00	2.11	94.76	6,596.93	-13.88	166.85	-14.96	0.00	0.00	0.00
6,700.00	2.11	94.76	6,696.86	-14.18	170.52	-15.29	0.00	0.00	0.00
6,800.00	2.11	94.76	6,796.79	-14.49	174.19	-15.61	0.00	0.00	0.00
6,832.23	2.11	94.76	6,829.00	-14.59	175.37	-15.72	0.00	0.00	0.00
Lower Brushy Canyon Ss.									
6,900.00	2.11	94.76	6,896.73	-14.79	177.86	-15.94	0.00	0.00	0.00
7,000.00	2.11	94.76	6,996.66	-15.10	181.53	-16.27	0.00	0.00	0.00
7,094.41	2.11	94.76	7,091.00	-15.39	184.99	-16.58	0.00	0.00	0.00
Bone Spring Lm.									
7,100.00	2.11	94.76	7,096.59	-15.41	185.20	-16.60	0.00	0.00	0.00
7,188.47	2.11	94.76	7,185.00	-15.68	188.44	-16.89	0.00	0.00	0.00
Avalon Ss.									
7,200.00	2.11	94.76	7,196.52	-15.71	188.86	-16.93	0.00	0.00	0.00
7,249.51	2.11	94.76	7,246.00	-15.86	190.68	-17.09	0.00	0.00	0.00
Bone Spg. Upper Avalon Lm.									
7,300.00	2.11	94.76	7,296.45	-16.02	192.53	-17.26	0.00	0.00	0.00
7,368.59	2.11	94.76	7,365.00	-16.22	195.05	-17.48	0.00	0.00	0.00
Bone Spg. Avalon Sh.									
7,400.00	2.11	94.76	7,396.39	-16.32	196.20	-17.59	0.00	0.00	0.00
7,500.00	2.11	94.76	7,496.32	-16.63	199.87	-17.92	0.00	0.00	0.00
7,551.72	2.11	94.76	7,548.00	-16.78	201.77	-18.09	0.00	0.00	0.00
Bone Spg. Lower Avalon Lm									



Planning Report

Database:	EDM 5000.1.13 Single User Db	Local Co-ordinate Reference:	Well #128H
Company:	XTO Energy	TVD Reference:	RKB = 25' @ 3099.00usft
Project:	Eddy County, NM (NAD-27)	MD Reference:	RKB = 25' @ 3099.00usft
Site:	Remuda North 25 State	North Reference:	Grid
Well:	#128H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	PERMIT		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
7,600.00	2.11	94.76	7,596.25	-16.93	203.54	-18.25	0.00	0.00	0.00
7,700.00	2.11	94.76	7,696.18	-17.24	207.21	-18.57	0.00	0.00	0.00
7,800.00	2.11	94.76	7,796.12	-17.54	210.88	-18.90	0.00	0.00	0.00
7,900.00	2.11	94.76	7,896.05	-17.85	214.55	-19.23	0.00	0.00	0.00
8,000.00	2.11	94.76	7,995.98	-18.15	218.22	-19.56	0.00	0.00	0.00
8,100.00	2.11	94.76	8,095.91	-18.46	221.89	-19.89	0.00	0.00	0.00
8,120.10	2.11	94.76	8,116.00	-18.52	222.63	-19.96	0.00	0.00	0.00
First Bone Spring Ss.									
8,200.00	2.11	94.76	8,195.84	-18.76	225.56	-20.22	0.00	0.00	0.00
8,300.00	2.11	94.76	8,295.78	-19.07	229.23	-20.55	0.00	0.00	0.00
8,400.00	2.11	94.76	8,395.71	-19.37	232.90	-20.88	0.00	0.00	0.00
8,446.32	2.11	94.76	8,442.00	-19.51	234.60	-21.03	0.00	0.00	0.00
Second Bone Spring Lm.									
8,500.00	2.11	94.76	8,495.64	-19.68	236.56	-21.21	0.00	0.00	0.00
8,600.00	2.11	94.76	8,595.57	-19.98	240.23	-21.53	0.00	0.00	0.00
8,700.00	2.11	94.76	8,695.50	-20.29	243.90	-21.86	0.00	0.00	0.00
8,800.00	2.11	94.76	8,795.44	-20.59	247.57	-22.19	0.00	0.00	0.00
8,900.00	2.11	94.76	8,895.37	-20.90	251.24	-22.52	0.00	0.00	0.00
8,964.67	2.11	94.76	8,960.00	-21.10	253.61	-22.73	0.00	0.00	0.00
Second Bone Spring Ss.									
9,000.00	2.11	94.76	8,995.30	-21.20	254.91	-22.85	0.00	0.00	0.00
9,100.00	2.11	94.76	9,095.23	-21.51	258.58	-23.18	0.00	0.00	0.00
9,200.00	2.11	94.76	9,195.17	-21.81	262.25	-23.51	0.00	0.00	0.00
9,279.89	2.11	94.76	9,275.00	-22.06	265.18	-23.77	0.00	0.00	0.00
Third Bone Spring Lm.									
9,300.00	2.11	94.76	9,295.10	-22.12	265.92	-23.84	0.00	0.00	0.00
9,400.00	2.11	94.76	9,395.03	-22.43	269.59	-24.17	0.00	0.00	0.00
9,500.00	2.11	94.76	9,494.96	-22.73	273.26	-24.49	0.00	0.00	0.00
9,600.00	2.11	94.76	9,594.89	-23.04	276.93	-24.82	0.00	0.00	0.00
9,700.00	2.11	94.76	9,694.83	-23.34	280.60	-25.15	0.00	0.00	0.00
9,800.00	2.11	94.76	9,794.76	-23.65	284.26	-25.48	0.00	0.00	0.00
9,900.00	2.11	94.76	9,894.69	-23.95	287.93	-25.81	0.00	0.00	0.00
10,000.00	2.11	94.76	9,994.62	-24.26	291.60	-26.14	0.00	0.00	0.00
10,043.41	2.11	94.76	10,038.00	-24.39	293.20	-26.28	0.00	0.00	0.00
Third Bone Spring Ss.									
10,099.99	2.11	94.76	10,094.55	-24.56	295.27	-26.47	0.00	0.00	0.00
10,150.00	5.25	23.17	10,144.47	-22.53	297.09	-24.45	10.00	6.28	-143.15
10,200.00	10.03	11.61	10,194.01	-16.16	298.87	-18.09	10.00	9.56	-23.13
10,250.00	14.96	7.53	10,242.81	-5.49	300.59	-7.43	10.00	9.85	-8.15
10,300.00	19.92	5.45	10,290.50	9.40	302.25	7.44	10.00	9.92	-4.17
10,350.00	24.90	4.17	10,336.71	28.38	303.82	26.42	10.00	9.95	-2.55
10,373.71	27.26	3.72	10,358.00	38.78	304.54	36.81	10.00	9.97	-1.90
Wolfcamp Sh.									
10,400.00	29.88	3.30	10,381.09	51.33	305.31	49.35	10.00	9.97	-1.61
10,404.52	30.33	3.23	10,385.00	53.59	305.43	51.62	10.00	9.97	-1.46
Wolfcamp X Ss.									
10,450.00	34.87	2.65	10,423.31	78.05	306.68	76.07	10.00	9.98	-1.27
10,494.76	39.34	2.20	10,459.00	105.03	307.82	103.04	10.00	9.98	-1.01
Wolfcamp Y Ss.									
10,500.00	39.86	2.15	10,463.03	108.36	307.95	106.37	10.00	9.98	-0.90
10,545.82	44.43	1.78	10,497.00	139.08	309.00	137.09	10.00	9.99	-0.82
Wolfcamp A Sh.									
10,550.00	44.85	1.75	10,499.97	142.02	309.09	140.02	10.00	9.99	-0.74



Planning Report

Database:	EDM 5000.1.13 Single User Db	Local Co-ordinate Reference:	Well #128H
Company:	XTO Energy	TVD Reference:	RKB = 25' @ 3099.00usft
Project:	Eddy County, NM (NAD-27)	MD Reference:	RKB = 25' @ 3099.00usft
Site:	Remuda North 25 State	North Reference:	Grid
Well:	#128H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	PERMIT		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,600.00	49.84	1.41	10,533.84	178.77	310.10	176.76	10.00	9.99	-0.68
10,650.00	54.84	1.12	10,564.38	218.33	310.97	216.31	10.00	9.99	-0.59
10,700.00	59.83	0.86	10,591.35	260.40	311.69	258.38	10.00	9.99	-0.52
10,715.59	61.39	0.78	10,599.00	273.98	311.89	271.96	10.00	9.99	-0.48
Wolfcamp A Sh. Lower									
10,750.00	64.83	0.62	10,614.56	304.67	312.26	302.64	10.00	9.99	-0.46
10,800.00	69.83	0.41	10,633.83	350.79	312.68	348.76	10.00	9.99	-0.43
10,850.00	74.82	0.21	10,649.00	398.41	312.93	396.38	10.00	9.99	-0.40
10,900.00	79.82	0.01	10,659.98	447.18	313.02	445.14	10.00	9.99	-0.39
10,950.00	84.82	359.83	10,666.66	496.71	312.95	494.68	10.00	9.99	-0.37
11,003.56	90.17	359.63	10,669.00	550.20	312.70	548.17	10.00	9.99	-0.37
LP									
11,100.00	90.17	359.63	10,668.72	646.64	312.08	644.61	0.00	0.00	0.00
11,200.00	90.17	359.63	10,668.42	746.63	311.43	744.61	0.00	0.00	0.00
11,300.00	90.17	359.63	10,668.13	846.63	310.78	844.61	0.00	0.00	0.00
11,400.00	90.17	359.63	10,667.84	946.63	310.14	944.61	0.00	0.00	0.00
11,500.00	90.17	359.63	10,667.54	1,046.63	309.49	1,044.61	0.00	0.00	0.00
11,600.00	90.17	359.63	10,667.25	1,146.62	308.84	1,144.61	0.00	0.00	0.00
11,700.00	90.17	359.63	10,666.95	1,246.62	308.20	1,244.61	0.00	0.00	0.00
11,800.00	90.17	359.63	10,666.66	1,346.62	307.55	1,344.61	0.00	0.00	0.00
11,900.00	90.17	359.63	10,666.37	1,446.62	306.91	1,444.60	0.00	0.00	0.00
12,000.00	90.17	359.63	10,666.07	1,546.61	306.26	1,544.60	0.00	0.00	0.00
12,100.00	90.17	359.63	10,665.78	1,646.61	305.61	1,644.60	0.00	0.00	0.00
12,200.00	90.17	359.63	10,665.48	1,746.61	304.97	1,744.60	0.00	0.00	0.00
12,300.00	90.17	359.63	10,665.19	1,846.61	304.32	1,844.60	0.00	0.00	0.00
12,400.00	90.17	359.63	10,664.90	1,946.60	303.67	1,944.60	0.00	0.00	0.00
12,500.00	90.17	359.63	10,664.60	2,046.60	303.03	2,044.60	0.00	0.00	0.00
12,600.00	90.17	359.63	10,664.31	2,146.60	302.38	2,144.60	0.00	0.00	0.00
12,700.00	90.17	359.63	10,664.02	2,246.60	301.73	2,244.60	0.00	0.00	0.00
12,800.00	90.17	359.63	10,663.72	2,346.59	301.09	2,344.60	0.00	0.00	0.00
12,900.00	90.17	359.63	10,663.43	2,446.59	300.44	2,444.60	0.00	0.00	0.00
13,000.00	90.17	359.63	10,663.13	2,546.59	299.79	2,544.60	0.00	0.00	0.00
13,100.00	90.17	359.63	10,662.84	2,646.59	299.15	2,644.60	0.00	0.00	0.00
13,200.00	90.17	359.63	10,662.55	2,746.58	298.50	2,744.60	0.00	0.00	0.00
13,300.00	90.17	359.63	10,662.25	2,846.58	297.86	2,844.60	0.00	0.00	0.00
13,400.00	90.17	359.63	10,661.96	2,946.58	297.21	2,944.60	0.00	0.00	0.00
13,500.00	90.17	359.63	10,661.66	3,046.58	296.56	3,044.60	0.00	0.00	0.00
13,600.00	90.17	359.63	10,661.37	3,146.57	295.92	3,144.60	0.00	0.00	0.00
13,700.00	90.17	359.63	10,661.08	3,246.57	295.27	3,244.60	0.00	0.00	0.00
13,800.00	90.17	359.63	10,660.78	3,346.57	294.62	3,344.60	0.00	0.00	0.00
13,900.00	90.17	359.63	10,660.49	3,446.57	293.98	3,444.60	0.00	0.00	0.00
14,000.00	90.17	359.63	10,660.20	3,546.56	293.33	3,544.60	0.00	0.00	0.00
14,100.00	90.17	359.63	10,659.90	3,646.56	292.68	3,644.60	0.00	0.00	0.00
14,200.00	90.17	359.63	10,659.61	3,746.56	292.04	3,744.59	0.00	0.00	0.00
14,300.00	90.17	359.63	10,659.31	3,846.56	291.39	3,844.59	0.00	0.00	0.00
14,400.00	90.17	359.63	10,659.02	3,946.55	290.74	3,944.59	0.00	0.00	0.00
14,500.00	90.17	359.63	10,658.73	4,046.55	290.10	4,044.59	0.00	0.00	0.00
14,600.00	90.17	359.63	10,658.43	4,146.55	289.45	4,144.59	0.00	0.00	0.00
14,700.00	90.17	359.63	10,658.14	4,246.55	288.81	4,244.59	0.00	0.00	0.00
14,800.00	90.17	359.63	10,657.85	4,346.54	288.16	4,344.59	0.00	0.00	0.00
14,900.00	90.17	359.63	10,657.55	4,446.54	287.51	4,444.59	0.00	0.00	0.00
15,000.00	90.17	359.63	10,657.26	4,546.54	286.87	4,544.59	0.00	0.00	0.00
15,100.00	90.17	359.63	10,656.96	4,646.54	286.22	4,644.59	0.00	0.00	0.00
15,200.00	90.17	359.63	10,656.67	4,746.53	285.57	4,744.59	0.00	0.00	0.00



Planning Report

Database:	EDM 5000.1.13 Single User Db	Local Co-ordinate Reference:	Well #128H
Company:	XTO Energy	TVD Reference:	RKB = 25' @ 3099.00usft
Project:	Eddy County, NM (NAD-27)	MD Reference:	RKB = 25' @ 3099.00usft
Site:	Remuda North 25 State	North Reference:	Grid
Well:	#128H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	PERMIT		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
15,300.00	90.17	359.63	10,656.38	4,846.53	284.93	4,844.59	0.00	0.00	0.00
15,400.00	90.17	359.63	10,656.08	4,946.53	284.28	4,944.59	0.00	0.00	0.00
15,500.00	90.17	359.63	10,655.79	5,046.53	283.63	5,044.59	0.00	0.00	0.00
15,600.00	90.17	359.63	10,655.49	5,146.52	282.99	5,144.59	0.00	0.00	0.00
15,700.00	90.17	359.63	10,655.20	5,246.52	282.34	5,244.59	0.00	0.00	0.00
15,800.00	90.17	359.63	10,654.91	5,346.52	281.69	5,344.59	0.00	0.00	0.00
15,900.00	90.17	359.63	10,654.61	5,446.52	281.05	5,444.59	0.00	0.00	0.00
16,000.00	90.17	359.63	10,654.32	5,546.51	280.40	5,544.59	0.00	0.00	0.00
16,100.00	90.17	359.63	10,654.03	5,646.51	279.76	5,644.59	0.00	0.00	0.00
16,200.00	90.17	359.63	10,653.73	5,746.51	279.11	5,744.59	0.00	0.00	0.00
16,300.00	90.17	359.63	10,653.44	5,846.51	278.46	5,844.59	0.00	0.00	0.00
16,400.00	90.17	359.63	10,653.14	5,946.50	277.82	5,944.59	0.00	0.00	0.00
16,500.00	90.17	359.63	10,652.85	6,046.50	277.17	6,044.59	0.00	0.00	0.00
16,600.00	90.17	359.63	10,652.56	6,146.50	276.52	6,144.58	0.00	0.00	0.00
16,700.00	90.17	359.63	10,652.26	6,246.50	275.88	6,244.58	0.00	0.00	0.00
16,800.00	90.17	359.63	10,651.97	6,346.49	275.23	6,344.58	0.00	0.00	0.00
16,900.00	90.17	359.63	10,651.67	6,446.49	274.58	6,444.58	0.00	0.00	0.00
17,000.00	90.17	359.63	10,651.38	6,546.49	273.94	6,544.58	0.00	0.00	0.00
17,100.00	90.17	359.63	10,651.09	6,646.49	273.29	6,644.58	0.00	0.00	0.00
17,200.00	90.17	359.63	10,650.79	6,746.48	272.64	6,744.58	0.00	0.00	0.00
17,300.00	90.17	359.63	10,650.50	6,846.48	272.00	6,844.58	0.00	0.00	0.00
17,400.00	90.17	359.63	10,650.21	6,946.48	271.35	6,944.58	0.00	0.00	0.00
17,500.00	90.17	359.63	10,649.91	7,046.48	270.71	7,044.58	0.00	0.00	0.00
17,600.00	90.17	359.63	10,649.62	7,146.47	270.06	7,144.58	0.00	0.00	0.00
17,700.00	90.17	359.63	10,649.32	7,246.47	269.41	7,244.58	0.00	0.00	0.00
17,800.00	90.17	359.63	10,649.03	7,346.47	268.77	7,344.58	0.00	0.00	0.00
17,900.00	90.17	359.63	10,648.74	7,446.47	268.12	7,444.58	0.00	0.00	0.00
18,000.00	90.17	359.63	10,648.44	7,546.46	267.47	7,544.58	0.00	0.00	0.00
18,100.00	90.17	359.63	10,648.15	7,646.46	266.83	7,644.58	0.00	0.00	0.00
18,200.00	90.17	359.63	10,647.85	7,746.46	266.18	7,744.58	0.00	0.00	0.00
18,300.00	90.17	359.63	10,647.56	7,846.46	265.53	7,844.58	0.00	0.00	0.00
18,360.85	90.17	359.63	10,647.38	7,907.30	265.14	7,905.42	0.00	0.00	0.00
18,400.00	90.17	359.63	10,647.27	7,946.45	264.89	7,944.58	0.00	0.00	0.00
18,490.85	90.17	359.63	10,647.00	8,037.30	264.30	8,035.43	0.00	0.00	0.00



Planning Report

Database:	EDM 5000.1.13 Single User Db	Local Co-ordinate Reference:	Well #128H
Company:	XTO Energy	TVD Reference:	RKB = 25' @ 3099.00usft
Project:	Eddy County, NM (NAD-27)	MD Reference:	RKB = 25' @ 3099.00usft
Site:	Remuda North 25 State	North Reference:	Grid
Well:	#128H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	PERMIT		

Design Targets

Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
- Shape									
RN 25 St #128H SHL - plan hits target center - Point	0.00	0.00	0.00	0.00	0.00	463,989.30	624,292.50	32.2749831	-103.9311795
RN 25 St #128H PBH - plan hits target center - Point	0.00	0.00	10,647.00	8,037.30	264.30	472,026.60	624,556.80	32.2970741	-103.9302267
RN 25 St #128H LTP - plan misses target center by 0.16usft at 18360.85usft MD (10647.38 TVD, 7907.30 N, 265.14 E) - Point	0.00	0.00	10,647.38	7,907.30	265.30	471,896.60	624,557.80	32.2967167	-103.9302250
RN 25 St #128H FTP - plan hits target center - Point	0.00	0.00	10,669.00	550.20	312.70	464,539.50	624,605.20	32.2764923	-103.9301611

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
119.00	119.00	Rustler Anh.			
194.00	194.00	Base Rustler Anh.			
283.00	283.00	Salado Sh. Lm.			
427.00	427.00	Est. Top of Salt			
3,109.70	3,109.00	Base Salt			
3,337.86	3,337.00	Lamar Lm. (Del Mtn Grp.)			
3,346.87	3,346.00	Bell Canyon Ss.			
4,202.45	4,201.00	Cherry Canyon Ss.			
5,814.54	5,812.00	Brushy Canyon Ss.			
6,832.23	6,829.00	Lower Brushy Canyon Ss.			
7,094.41	7,091.00	Bone Spring Lm.			
7,188.47	7,185.00	Avalon Ss.			
7,249.51	7,246.00	Bone Spg. Upper Avalon Lm.			
7,368.59	7,365.00	Bone Spg. Avalon Sh.			
7,551.72	7,548.00	Bone Spg. Lower Avalon Lm			
8,120.10	8,116.00	First Bone Spring Ss.			
8,446.32	8,442.00	Second Bone Spring Lm.			
8,964.67	8,960.00	Second Bone Spring Ss.			
9,279.89	9,275.00	Third Bone Spring Lm.			
10,043.41	10,038.00	Third Bone Spring Ss.			
10,373.71	10,358.00	Wolfcamp Sh.			
10,404.52	10,385.00	Wolfcamp X Ss.			
10,494.76	10,459.00	Wolfcamp Y Ss.			
10,545.82	10,497.00	Wolfcamp A Sh.			
10,715.59	10,599.00	Wolfcamp A Sh. Lower			
11,003.56	10,669.00	LP			