

1625 N. French Dr., Hobbs, NM 88240

District II

811 S. First St., Artesia, NM 88210

District III

1000 Rio Brazos Rd., Aztec, NM 87410

District IV

1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources

Form C-104

Revised August 1, 2011

Oil Conservation Division

1220 South St. Francis Dr.

Santa Fe, NM 87505

Submit one copy to appropriate District Office

☐ AMENDED REPORT

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

¹ Operator name and Address XTO Energy, Inc. 6401 HOLIDAY HILL ROAD BLDG 5 MIDLAND, TX 79707		² OGRID Number 373075
		³ Reason for Filing Code/ Effective Date NW
⁴ API Number 30 - 015-45509	⁵ Pool Name PURPLE SAGE: WOLFMP CAMP	⁶ Pool Code 98220
⁷ Property Code 325599	⁸ Property Name POKER LAKE UNIT 28 BS	⁹ Well Number 905H

II. 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	28	25S	31E		2310	North	2010	East	EDDY

¹¹ Bottom Hole Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
O	4	26S	31E		236	South	2285	East	Eddy

¹² Lse Code F	¹³ Producing Method Code F	¹⁴ Gas Connection Date	¹⁵ C-129 Permit Number	¹⁶ C-129 Effective Date	¹⁷ C-129 Expiration Date
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III. Oil and Gas Transporters

¹⁸ Transporter OGRID	¹⁹ Transporter Name and Address	²⁰ O/G/W

IV. Well Completion Data

²¹ Spud Date 7/28/2019	²² Ready Date 12/17/2020	²³ TD 25822 MD 12620 TVD	²⁴ PBT 25808 MD 12620 TVD	²⁵ Perforations 13105 - 25703	²⁶ DHC, MC
²⁷ Hole Size	²⁸ Casing & Tubing Size	²⁹ Depth Set	³⁰ Sacks Cement		
24	18.625	1103	2330		
17.5	13.75	4122	3005		
12.25	9.625	11600	2045		
8.5	5.5/ 2.875	25810/ 12267	5530		

V. Well Test Data

³¹ Date New Oil 12/18/2020	³² Gas Delivery Date 12/18/2020	³³ Test Date 1/7/2021	³⁴ Test Length 24 hrs	³⁵ Tbg. Pressure 3406	³⁶ Csg. Pressure 2231
³⁷ Choke Size	³⁸ Oil 536	³⁹ Water 6238	⁴⁰ Gas 9031		⁴¹ Test Method Flowing

⁴² I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

Signature:

Cassie Evans

Printed name:

Cassie Evans

Title:

Regulatory Analyst

E-mail Address:

cassie.evans@exxonmobil.com

Date: 02/09/2021

Phone:

432.218.3671

OIL CONSERVATION DIVISION

Approved by: KURT SIMMONS

Title:

NMOCD, SANTA FE

Approval Date:

02/25/2021

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 AS-DRILLED PLAT

¹ API Number 30-015-45509	² Pool Code 98220	³ Pool Name PURPLE SAGE; WOLFCAMP (GAS)
⁴ Property Code 325599	⁵ Property Name POKER LAKE UNIT 28 BS	⁶ Well Number 905H
⁷ OGRID No. 373075	⁸ Operator Name XTO PERMIAN OPERATING, LLC.	⁹ Elevation 3,341'

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	28	25 S	31 E		2,310	NORTH	2,010	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	4	26 S	31 E		236	SOUTH	2,285	EAST	EDDY

¹² Dedicated Acres 800	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 GEODETIC COORDINATES NAD 27 NME SURFACE LOCATION Y= 401,300.2 X= 671,171.2 LAT.= 32.102084°N LONG.= 103.780549°W KICK OFF POINT NAD 27 NME Y= 401,323.0 X= 670,833.1 LAT.= 32.102152°N LONG.= 103.781641°W CORNER COORDINATES TABLE NAD 27 NME A - Y= 400,956.5 N, X= 670,521.7 E B - Y= 400,962.8 N, X= 671,850.9 E C - Y= 398,304.2 N, X= 670,514.6 E D - Y= 398,312.1 N, X= 671,845.7 E E - Y= 395,652.3 N, X= 670,529.0 E F - Y= 395,661.9 N, X= 671,859.4 E G - Y= 393,002.3 N, X= 670,543.3 E H - Y= 393,012.5 N, X= 671,873.1 E I - Y= 390,337.1 N, X= 670,552.3 E J - Y= 390,347.9 N, X= 671,881.5 E K - Y= 387,673.5 N, X= 670,561.3 E L - Y= 387,683.4 N, X= 671,889.6 E FIRST TAKE POINT NAD 83 NME Y= 400,677.5 X= 712,051.1 LAT.= 32.100342°N LONG.= 103.782026°W CORNER COORDINATES TABLE NAD 83 NME A - Y= 401,014.4 N, X= 711,707.3 E B - Y= 401,020.7 N, X= 713,036.5 E C - Y= 398,362.0 N, X= 711,700.3 E D - Y= 398,369.9 N, X= 713,031.4 E E - Y= 395,710.0 N, X= 711,714.8 E F - Y= 395,719.6 N, X= 713,045.2 E G - Y= 393,060.0 N, X= 711,729.2 E H - Y= 393,070.2 N, X= 713,059.0 E I - Y= 390,394.7 N, X= 711,738.3 E J - Y= 390,405.5 N, X= 713,067.5 E K - Y= 387,731.1 N, X= 711,747.4 E L - Y= 387,741.0 N, X= 713,075.8 E LAST TAKE POINT NAD 27 NME Y= 388,019.1 X= 670,929.5 LAT.= 32.065577°N LONG.= 103.781549°W BOTTOM HOLE LOCATION NAD 27 NME Y= 387,912.3 X= 670,932.5 LAT.= 32.065285°N LONG.= 103.781541°W GEODETIC COORDINATES NAD 83 NME SURFACE LOCATION Y= 401,358.1 X= 712,356.8 LAT.= 32.102208°N LONG.= 103.781027°W KICK OFF POINT NAD 83 NME Y= 401,380.9 X= 712,018.7 LAT.= 32.102276°N LONG.= 103.782119°W FIRST TAKE POINT NAD 83 NME Y= 400,677.5 X= 712,051.1 LAT.= 32.100342°N LONG.= 103.782026°W LAST TAKE POINT NAD 83 NME Y= 388,076.7 X= 712,115.6 LAT.= 32.065704°N LONG.= 103.782025°W BOTTOM HOLE LOCATION NAD 83 NME Y= 387,969.9 X= 712,118.6 LAT.= 32.065410°N LONG.= 103.782017°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. <i>Cassie Evans</i> 02/09/2021 Signature Date Cassie Evans Printed Name cassie.evans@exxonmobil.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. 2-3-2021 Date of Survey Signature and Seal of Professional Surveyor: <i>Mark Dillon Harp</i> MARK DILLON HARP 23786 Certificate Number LM/JC 2017070997
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Intent ☐ As Drilled ☒

API # 30-015-45509		
Operator Name: XTO PERMIAN OPERATING, LLC.	Property Name: POKER LAKE UNIT 28 BS	Well Number 905H

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
G	28	25S	31E		2,286	FNL	2,348	FEL	EDDY
Latitude 32.102276					Longitude 103.782119				NAD 83

First Take Point (FTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
J	28	25S	31E		2,313	FSL	2,314	FEL	EDDY
Latitude 32.100342					Longitude 103.782026				NAD 83

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
O	4	26S	31E		343	FSL	2,288	FEL	EDDY
Latitude 32.065704					Longitude 103.782025				NAD 83

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

KZ 06/29/2018



I Joseph Proske, certify that I am employed by Scout Downhole Inc. (SDI). That I did on the day(s) of 08/04/19 thru 09/30/19 conduct or supervise the taking of a MWD Survey from a depth of 1093' to a depth of 25616'; that the data is true, correct, complete and within the limitations of the tool as set forth by Scout Downhole Inc. (SDI).; that I am authorized and qualified to make this report; that this survey was conducted at the request of XTO ENERGY LLC. for the PLU 28 Big Sinks 905H API No. 30-015-45509 in Eddy County, New Mexico; and that I have reviewed this report and find that it conforms to the principles and procedures as set forth by Scout Downhole Inc. (SDI).

Joseph Proske

1125 Beach Airport Rd, Conroe, Texas
77301
PH 936-756-3255 FAX 936-756-3229



XTO Energy

Eddy County, NM

PLU 28 Big Sinks

PLU 28 Big Sinks 905H_165H

Wellbore #1

Survey: Scout MWD

Standard Survey Report

01 October, 2019





Survey Report



Company:	XTO Energy	Local Co-ordinate Reference:	Well PLU 28 Big Sinks 905H_165H
Project:	Eddy County, NM	TVD Reference:	GL 3341' + 30' KB @ 3371.00usft (Cactus 118)
Site:	PLU 28 Big Sinks	MD Reference:	GL 3341' + 30' KB @ 3371.00usft (Cactus 118)
Well:	PLU 28 Big Sinks 905H_165H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Surveys	Database:	EDM 5000.14 Single User Db

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

Site	PLU 28 Big Sinks		
Site Position:		Northing:	401,300.20 usft
From:	Map	Easting:	671,171.20 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 6' 7.503 N
		Longitude:	103° 46' 49.977 W
		Grid Convergence:	0.29 °

Well	PLU 28 Big Sinks 905H_165H		
Well Position	+N/-S	0.00 usft	Northing: 401,300.20 usft
	+E/-W	0.00 usft	Easting: 671,171.20 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:	usft
		Latitude:	32° 6' 7.503 N
		Longitude:	103° 46' 49.977 W
		Ground Level:	3,341.00 usft

Wellbore	Wellbore #1		
Magnetics	Model Name	Sample Date	Declination (°)
	HDGM	07/02/19	6.70
			Dip Angle (°) 59.72
			Field Strength (nT) 47,796.80000000

Design	Surveys		
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 (°) 179.83

Survey Program	Date	10/01/19		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
192.00	999.00	Invictus (Wellbore #1)	MWD	MWD - Standard
1,093.00	25,822.00	Scout MWD (Wellbore #1)	A008Mb_MWD+IFR1+MS	OWSG MWD + IFR1 + Multi-Station Correction

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)
999.00	0.40	313.00	998.93	7.30	-7.32	-7.32	0.00	0.00	0.00
1,093.00	0.50	314.56	1,092.93	7.81	-7.86	-7.84	0.11	0.11	1.66
First Scout MWD Survey @ 1093.00' MD									
1,153.00	0.18	243.53	1,152.93	7.95	-8.13	-7.98	0.79	-0.53	-118.38
1,247.00	0.31	271.74	1,246.93	7.90	-8.51	-7.92	0.18	0.14	30.01
1,341.00	0.40	266.12	1,340.93	7.88	-9.09	-7.91	0.10	0.10	-5.98
1,434.00	0.26	280.45	1,433.93	7.90	-9.63	-7.93	0.17	-0.15	15.41
1,528.00	0.57	270.34	1,527.92	7.94	-10.30	-7.97	0.34	0.33	-10.76
1,622.00	0.66	266.12	1,621.92	7.91	-11.31	-7.94	0.11	0.10	-4.49
1,716.00	0.75	265.42	1,715.91	7.82	-12.46	-7.86	0.10	0.10	-0.74



Survey Report



Company:	XTO Energy	Local Co-ordinate Reference:	Well PLU 28 Big Sinks 905H_165H
Project:	Eddy County, NM	TVD Reference:	GL 3341' + 30' KB @ 3371.00usft (Cactus 118)
Site:	PLU 28 Big Sinks	MD Reference:	GL 3341' + 30' KB @ 3371.00usft (Cactus 118)
Well:	PLU 28 Big Sinks 905H_165H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Surveys	Database:	EDM 5000.14 Single User Db

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)
1,810.00	0.88	263.92	1,809.90	7.69	-13.79	-7.74	0.14	0.14	-1.60
1,904.00	0.92	261.02	1,903.89	7.50	-15.26	-7.55	0.06	0.04	-3.09
1,998.00	1.05	259.44	1,997.88	7.22	-16.85	-7.27	0.14	0.14	-1.68
2,092.00	1.27	256.10	2,091.86	6.82	-18.71	-6.87	0.24	0.23	-3.55
2,185.00	1.36	257.15	2,184.83	6.32	-20.78	-6.39	0.10	0.10	1.13
2,279.00	1.54	258.30	2,278.80	5.82	-23.11	-5.89	0.19	0.19	1.22
2,373.00	1.71	261.11	2,372.76	5.35	-25.73	-5.42	0.20	0.18	2.99
2,467.00	1.89	264.19	2,466.72	4.97	-28.66	-5.06	0.22	0.19	3.28
2,561.00	1.71	269.20	2,560.67	4.80	-31.60	-4.89	0.25	-0.19	5.33
2,654.00	1.54	272.80	2,653.63	4.84	-34.24	-4.94	0.21	-0.18	3.87
2,748.00	1.80	270.86	2,747.59	4.92	-36.98	-5.03	0.28	0.28	-2.06
2,842.00	1.98	270.07	2,841.54	4.95	-40.08	-5.06	0.19	0.19	-0.84
2,936.00	2.07	269.28	2,935.48	4.93	-43.40	-5.06	0.10	0.10	-0.84
3,029.00	2.20	269.81	3,028.42	4.90	-46.86	-5.04	0.14	0.14	0.57
3,123.00	2.42	268.49	3,122.34	4.84	-50.65	-4.99	0.24	0.23	-1.40
3,217.00	2.59	265.86	3,216.25	4.64	-54.75	-4.80	0.22	0.18	-2.80
3,310.00	2.59	266.03	3,309.16	4.34	-58.95	-4.51	0.01	0.00	0.18
3,404.00	2.81	265.42	3,403.05	4.01	-63.36	-4.20	0.24	0.23	-0.65
3,498.00	2.99	264.45	3,496.93	3.59	-68.10	-3.79	0.20	0.19	-1.03
3,592.00	2.99	260.14	3,590.81	2.93	-72.95	-3.15	0.24	0.00	-4.59
3,685.00	3.12	260.58	3,683.67	2.10	-77.84	-2.33	0.14	0.14	0.47
3,778.00	2.99	261.72	3,776.54	1.34	-82.74	-1.58	0.15	-0.14	1.23
3,872.00	2.95	263.57	3,870.42	0.71	-87.57	-0.97	0.11	-0.04	1.97
3,966.00	3.12	263.22	3,964.28	0.14	-92.51	-0.41	0.18	0.18	-0.37
4,040.00	3.25	261.99	4,038.17	-0.39	-96.59	0.10	0.20	0.18	-1.66
4,152.00	3.52	262.95	4,149.97	-1.25	-103.14	0.95	0.25	0.24	0.86
4,246.00	3.56	265.33	4,243.79	-1.85	-108.92	1.52	0.16	0.04	2.53
4,339.00	3.56	265.42	4,336.62	-2.31	-114.67	1.97	0.01	0.00	0.10
4,433.00	3.47	264.45	4,430.44	-2.82	-120.41	2.46	0.11	-0.10	-1.03
4,527.00	3.08	267.53	4,524.28	-3.20	-125.77	2.83	0.46	-0.41	3.28
4,621.00	3.21	262.60	4,618.14	-3.65	-130.90	3.26	0.32	0.14	-5.24
4,715.00	3.56	261.11	4,711.98	-4.44	-136.39	4.04	0.38	0.37	-1.59
4,809.00	3.91	263.83	4,805.78	-5.24	-142.46	4.81	0.42	0.37	2.89
4,903.00	4.84	270.69	4,899.51	-5.53	-149.61	5.09	1.13	0.99	7.30
4,997.00	4.84	273.59	4,993.17	-5.24	-157.54	4.77	0.26	0.00	3.09
5,090.00	5.01	270.16	5,085.83	-4.98	-165.51	4.49	0.37	0.18	-3.69
5,184.00	4.88	272.01	5,179.48	-4.83	-173.61	4.31	0.22	-0.14	1.97
5,278.00	4.62	270.95	5,273.15	-4.63	-181.39	4.09	0.29	-0.28	-1.13
5,371.00	4.57	270.25	5,365.86	-4.55	-188.84	3.99	0.08	-0.05	-0.75
5,465.00	4.53	272.18	5,459.56	-4.39	-196.30	3.81	0.17	-0.04	2.05
5,559.00	4.70	274.29	5,553.25	-3.96	-203.85	3.36	0.26	0.18	2.24
5,653.00	4.57	275.26	5,646.95	-3.33	-211.42	2.70	0.16	-0.14	1.03
5,747.00	4.75	275.87	5,740.64	-2.59	-219.02	1.94	0.20	0.19	0.65



Survey Report



Company:	XTO Energy	Local Co-ordinate Reference:	Well PLU 28 Big Sinks 905H_165H
Project:	Eddy County, NM	TVD Reference:	GL 3341' + 30' KB @ 3371.00usft (Cactus 118)
Site:	PLU 28 Big Sinks	MD Reference:	GL 3341' + 30' KB @ 3371.00usft (Cactus 118)
Well:	PLU 28 Big Sinks 905H_165H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Surveys	Database:	EDM 5000.14 Single User Db

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)
5,840.00	4.70	275.26	5,833.32	-1.85	-226.64	1.17	0.08	-0.05	-0.66
5,934.00	4.66	276.14	5,927.01	-1.08	-234.27	0.39	0.09	-0.04	0.94
6,028.00	4.40	277.02	6,020.71	-0.24	-241.65	-0.48	0.29	-0.28	0.94
6,121.00	4.40	276.67	6,113.44	0.62	-248.73	-1.35	0.03	0.00	-0.38
6,214.00	4.26	275.00	6,206.17	1.33	-255.72	-2.09	0.20	-0.15	-1.80
6,309.00	4.13	276.14	6,300.92	2.00	-262.63	-2.78	0.16	-0.14	1.20
6,402.00	4.00	276.49	6,393.69	2.73	-269.19	-3.53	0.14	-0.14	0.38
6,496.00	3.96	276.84	6,487.46	3.49	-275.67	-4.30	0.05	-0.04	0.37
6,589.00	3.87	276.58	6,580.24	4.23	-281.97	-5.06	0.10	-0.10	-0.28
6,683.00	2.86	281.68	6,674.08	5.07	-287.42	-5.92	1.12	-1.07	5.43
6,776.00	2.07	283.08	6,766.99	5.92	-291.33	-6.78	0.85	-0.85	1.51
6,870.00	0.88	291.61	6,860.96	6.57	-293.65	-7.44	1.28	-1.27	9.07
6,963.00	0.53	308.39	6,953.95	7.10	-294.66	-7.97	0.43	-0.38	18.04
7,057.00	0.79	313.23	7,047.95	7.81	-295.47	-8.69	0.28	0.28	5.15
7,150.00	0.79	312.53	7,140.94	8.68	-296.41	-9.56	0.01	0.00	-0.75
7,244.00	0.75	298.55	7,234.93	9.41	-297.43	-10.30	0.20	-0.04	-14.87
7,338.00	0.70	306.64	7,328.92	10.05	-298.43	-10.94	0.12	-0.05	8.61
7,431.00	0.62	279.74	7,421.91	10.48	-299.38	-11.36	0.34	-0.09	-28.92
7,525.00	0.53	299.25	7,515.91	10.77	-300.26	-11.67	0.23	-0.10	20.76
7,618.00	0.53	264.01	7,608.91	10.94	-301.06	-11.83	0.35	0.00	-37.89
7,712.00	0.44	298.81	7,702.90	11.07	-301.81	-11.96	0.32	-0.10	37.02
7,806.00	0.44	325.18	7,796.90	11.54	-302.33	-12.44	0.21	0.00	28.05
7,900.00	0.35	334.23	7,890.90	12.09	-302.66	-12.99	0.12	-0.10	9.63
7,993.00	0.26	335.03	7,983.90	12.54	-302.88	-13.44	0.10	-0.10	0.86
8,087.00	0.13	245.11	8,077.90	12.69	-303.06	-13.59	0.31	-0.14	-95.66
8,180.00	0.44	348.12	8,170.90	12.99	-303.23	-13.89	0.52	0.33	110.76
8,274.00	0.35	12.38	8,264.89	13.63	-303.25	-14.53	0.20	-0.10	25.81
8,367.00	0.48	312.96	8,357.89	14.17	-303.47	-15.07	0.46	0.14	-63.89
8,461.00	0.66	346.71	8,451.89	14.97	-303.88	-15.87	0.40	0.19	35.90
8,555.00	0.92	333.18	8,545.88	16.17	-304.35	-17.07	0.34	0.28	-14.39
8,648.00	0.97	328.08	8,638.87	17.50	-305.10	-18.41	0.11	0.05	-5.48
8,742.00	1.05	302.33	8,732.85	18.64	-306.25	-19.54	0.49	0.09	-27.39
8,835.00	0.97	307.08	8,825.84	19.57	-307.60	-20.48	0.12	-0.09	5.11
8,929.00	1.36	306.72	8,919.82	20.71	-309.13	-21.63	0.41	0.41	-0.38
9,023.00	1.49	300.66	9,013.79	22.00	-311.07	-22.93	0.21	0.14	-6.45
9,117.00	1.32	293.72	9,107.76	23.06	-313.11	-23.99	0.26	-0.18	-7.38
9,211.00	1.32	292.31	9,201.73	23.91	-315.11	-24.84	0.03	0.00	-1.50
9,304.00	1.45	286.42	9,294.71	24.65	-317.23	-25.59	0.21	0.14	-6.33
9,398.00	1.67	275.44	9,388.67	25.11	-319.73	-26.06	0.39	0.23	-11.68
9,492.00	1.80	267.44	9,482.63	25.18	-322.57	-26.14	0.29	0.14	-8.51
9,586.00	1.71	262.95	9,576.59	24.94	-325.44	-25.91	0.17	-0.10	-4.78
9,680.00	1.89	253.20	9,670.54	24.32	-328.31	-25.29	0.38	0.19	-10.37
9,774.00	0.84	217.95	9,764.51	23.33	-330.22	-24.31	1.38	-1.12	-37.50



Survey Report



Company:	XTO Energy	Local Co-ordinate Reference:	Well PLU 28 Big Sinks 905H_165H
Project:	Eddy County, NM	TVD Reference:	GL 3341' + 30' KB @ 3371.00usft (Cactus 118)
Site:	PLU 28 Big Sinks	MD Reference:	GL 3341' + 30' KB @ 3371.00usft (Cactus 118)
Well:	PLU 28 Big Sinks 905H_165H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Surveys	Database:	EDM 5000.14 Single User Db

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)	
9,867.00	0.84	197.39	9,857.50	22.14	-330.84	-23.12	0.32	0.00	-22.11	
9,961.00	0.92	204.24	9,951.49	20.79	-331.36	-21.78	0.14	0.09	7.29	
10,054.00	0.92	234.57	10,044.48	19.68	-332.27	-20.67	0.52	0.00	32.61	
10,148.00	1.19	254.96	10,138.47	18.99	-333.83	-19.98	0.49	0.29	21.69	
10,242.00	0.75	301.19	10,232.45	19.06	-335.30	-20.05	0.92	-0.47	49.18	
10,336.00	0.35	331.07	10,326.45	19.63	-335.96	-20.62	0.51	-0.43	31.79	
10,430.00	0.26	314.90	10,420.45	20.03	-336.25	-21.02	0.13	-0.10	-17.20	
10,523.00	0.31	287.48	10,513.45	20.25	-336.64	-21.25	0.15	0.05	-29.48	
10,617.00	0.35	247.05	10,607.44	20.22	-337.15	-21.22	0.25	0.04	-43.01	
10,711.00	0.79	256.63	10,701.44	19.95	-338.05	-20.96	0.48	0.47	10.19	
10,805.00	0.97	258.65	10,795.43	19.65	-339.46	-20.66	0.19	0.19	2.15	
10,898.00	1.19	259.61	10,888.41	19.32	-341.18	-20.33	0.24	0.24	1.03	
10,992.00	1.41	261.20	10,982.39	18.97	-343.28	-19.98	0.24	0.23	1.69	
11,086.00	0.48	295.65	11,076.37	18.96	-344.78	-19.98	1.12	-0.99	36.65	
11,179.00	1.19	56.85	11,169.37	19.66	-344.32	-20.68	1.61	0.76	130.32	
11,273.00	1.01	53.34	11,263.35	20.68	-342.84	-21.70	0.20	-0.19	-3.73	
11,367.00	0.97	65.73	11,357.34	21.51	-341.45	-22.52	0.23	-0.04	13.18	
11,460.00	0.79	74.43	11,450.33	22.00	-340.11	-23.01	0.24	-0.19	9.35	
11,536.00	0.66	60.19	11,526.32	22.36	-339.23	-23.37	0.29	-0.17	-18.74	
11,661.00	0.53	55.27	11,651.31	23.05	-338.13	-24.05	0.11	-0.10	-3.94	
11,755.00	0.14	54.28	11,745.31	23.36	-337.68	-24.36	0.41	-0.41	-1.05	
11,849.00	0.44	243.83	11,839.31	23.27	-337.91	-24.27	0.62	0.32	-181.33	
11,896.00	1.80	199.03	11,886.30	22.49	-338.31	-23.50	3.23	2.89	-95.32	
11,943.00	2.25	179.94	11,933.27	20.87	-338.55	-21.88	1.71	0.96	-40.62	
11,990.00	4.25	166.99	11,980.19	18.25	-338.16	-19.26	4.51	4.26	-27.55	
12,036.00	6.36	180.64	12,026.00	14.04	-337.80	-15.05	5.31	4.59	29.67	
12,083.00	8.56	194.74	12,072.60	8.06	-338.72	-9.06	6.06	4.68	30.00	
12,129.00	10.14	196.89	12,117.99	0.87	-340.77	-1.88	3.52	3.43	4.67	
12,177.00	11.80	200.01	12,165.11	-7.78	-343.68	6.77	3.67	3.46	6.50	
12,224.00	16.25	192.25	12,210.70	-18.73	-346.72	17.70	10.26	9.47	-16.51	
12,271.00	19.13	184.08	12,255.48	-32.85	-348.66	31.81	8.08	6.13	-17.38	
12,317.00	21.25	178.14	12,298.66	-48.70	-348.93	47.66	6.41	4.61	-12.91	
12,363.00	24.51	174.03	12,341.03	-66.53	-347.67	65.50	7.89	7.09	-8.93	
12,410.00	29.96	176.70	12,382.81	-87.96	-345.98	86.93	11.88	11.60	5.68	
12,457.00	36.14	175.76	12,422.19	-113.52	-344.27	112.50	13.19	13.15	-2.00	
12,504.00	41.50	172.11	12,458.80	-142.79	-341.11	141.78	12.40	11.40	-7.77	
12,551.00	45.89	172.56	12,492.77	-174.96	-336.78	173.96	9.36	9.34	0.96	
12,598.00	50.22	173.40	12,524.18	-209.65	-332.52	208.66	9.31	9.21	1.79	
12,645.00	55.99	174.23	12,552.38	-247.00	-328.48	246.03	12.36	12.28	1.77	
12,692.00	61.36	174.43	12,576.81	-286.94	-324.52	285.98	11.43	11.43	0.43	
12,739.00	64.38	174.61	12,598.24	-328.57	-320.53	327.62	6.43	6.43	0.38	
12,785.00	68.29	176.05	12,616.70	-370.56	-317.11	369.61	8.97	8.50	3.13	
12,832.00	71.12	177.87	12,633.00	-414.57	-314.77	413.63	7.03	6.02	3.87	
12,879.00	73.65	179.46	12,647.22	-459.35	-313.74	458.42	6.27	5.38	3.38	



Survey Report



Company:	XTO Energy	Local Co-ordinate Reference:	Well PLU 28 Big Sinks 905H_165H
Project:	Eddy County, NM	TVD Reference:	GL 3341' + 30' KB @ 3371.00usft (Cactus 118)
Site:	PLU 28 Big Sinks	MD Reference:	GL 3341' + 30' KB @ 3371.00usft (Cactus 118)
Well:	PLU 28 Big Sinks 905H_165H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Surveys	Database:	EDM 5000.14 Single User Db

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)	
12,926.00	74.66	180.51	12,660.06	-504.56	-313.72	503.63	3.04	2.15	2.23	
12,973.00	76.34	178.55	12,671.83	-550.06	-313.35	549.13	5.39	3.57	-4.17	
13,020.00	80.85	177.28	12,681.12	-596.09	-311.67	595.16	9.95	9.60	-2.70	
13,067.00	87.33	175.57	12,685.96	-642.72	-308.75	641.80	14.25	13.79	-3.64	
13,108.92	87.69	175.42	12,687.78	-684.47	-305.46	683.56	0.92	0.85	-0.37	
PLU 28 Big Sinks 905H_165H FTP										
13,113.00	87.72	175.40	12,687.94	-688.53	-305.13	687.63	0.92	0.85	-0.37	
13,207.00	88.84	176.67	12,690.76	-782.26	-298.64	781.37	1.80	1.19	1.35	
13,301.00	89.90	176.94	12,691.80	-876.11	-293.40	875.24	1.16	1.13	0.29	
13,394.00	90.04	181.04	12,691.85	-969.08	-291.76	968.21	4.41	0.15	4.41	
13,488.00	89.79	182.40	12,691.98	-1,063.03	-294.58	1,062.15	1.47	-0.27	1.45	
13,582.00	89.85	180.65	12,692.28	-1,156.99	-297.08	1,156.11	1.86	0.06	-1.86	
13,676.00	91.05	180.27	12,691.54	-1,250.99	-297.84	1,250.10	1.34	1.28	-0.40	
13,770.00	90.15	182.07	12,690.56	-1,344.96	-299.76	1,344.06	2.14	-0.96	1.91	
13,864.00	90.13	180.62	12,690.33	-1,438.93	-301.96	1,438.03	1.54	-0.02	-1.54	
13,957.00	89.76	180.17	12,690.42	-1,531.93	-302.60	1,531.02	0.63	-0.40	-0.48	
14,051.00	90.43	180.80	12,690.26	-1,625.92	-303.40	1,625.01	0.98	0.71	0.67	
14,145.00	89.76	179.91	12,690.11	-1,719.92	-303.98	1,719.01	1.19	-0.71	-0.95	
14,239.00	88.50	178.58	12,691.53	-1,813.89	-302.74	1,812.99	1.95	-1.34	-1.41	
14,332.00	89.87	179.26	12,692.86	-1,906.87	-300.99	1,905.96	1.64	1.47	0.73	
14,426.00	90.18	178.82	12,692.81	-2,000.85	-299.42	1,999.96	0.57	0.33	-0.47	
14,520.00	89.26	179.75	12,693.27	-2,094.84	-298.24	2,093.95	1.39	-0.98	0.99	
14,613.00	90.10	180.51	12,693.79	-2,187.84	-298.45	2,186.94	1.22	0.90	0.82	
14,707.00	90.57	179.85	12,693.24	-2,281.84	-298.75	2,280.94	0.86	0.50	-0.70	
14,801.00	90.83	181.45	12,692.10	-2,375.82	-299.82	2,374.92	1.72	0.28	1.70	
14,895.00	90.71	179.54	12,690.83	-2,469.80	-300.63	2,468.90	2.04	-0.13	-2.03	
14,988.00	89.59	178.02	12,690.59	-2,562.78	-298.65	2,561.88	2.03	-1.20	-1.63	
15,082.00	89.57	178.41	12,691.28	-2,656.73	-295.72	2,655.84	0.42	-0.02	0.41	
15,176.00	89.54	181.52	12,692.01	-2,750.71	-295.66	2,749.83	3.31	-0.03	3.31	
15,269.00	90.21	182.87	12,692.21	-2,843.64	-299.22	2,842.74	1.62	0.72	1.45	
15,363.00	91.78	181.08	12,690.58	-2,937.57	-302.46	2,936.66	2.53	1.67	-1.90	
15,457.00	91.58	178.29	12,687.82	-3,031.52	-301.95	3,030.61	2.97	-0.21	-2.97	
15,551.00	91.19	176.56	12,685.55	-3,125.39	-297.73	3,124.49	1.89	-0.41	-1.84	
15,644.00	89.99	174.46	12,684.59	-3,218.09	-290.45	3,217.22	2.60	-1.29	-2.26	
15,738.00	89.57	176.58	12,684.95	-3,311.80	-283.10	3,310.94	2.30	-0.45	2.26	
15,832.00	90.04	183.71	12,685.27	-3,405.74	-283.34	3,404.88	7.60	0.50	7.59	
15,925.00	88.84	185.33	12,686.18	-3,498.44	-290.67	3,497.56	2.17	-1.29	1.74	
16,019.00	89.59	182.94	12,687.47	-3,592.18	-297.45	3,591.28	2.66	0.80	-2.54	
16,112.00	90.13	181.21	12,687.70	-3,685.11	-300.81	3,684.20	1.95	0.58	-1.86	
16,206.00	93.80	179.61	12,684.47	-3,779.04	-301.49	3,778.12	4.26	3.90	-1.70	
16,300.00	94.81	178.64	12,677.42	-3,872.76	-300.06	3,871.85	1.49	1.07	-1.03	
16,394.00	88.53	176.87	12,674.68	-3,966.59	-296.37	3,965.70	6.94	-6.68	-1.88	
16,488.00	92.73	179.06	12,673.65	-4,060.50	-293.04	4,059.62	5.04	4.47	2.33	



Survey Report



Company:	XTO Energy	Local Co-ordinate Reference:	Well PLU 28 Big Sinks 905H_165H
Project:	Eddy County, NM	TVD Reference:	GL 3341' + 30' KB @ 3371.00usft (Cactus 118)
Site:	PLU 28 Big Sinks	MD Reference:	GL 3341' + 30' KB @ 3371.00usft (Cactus 118)
Well:	PLU 28 Big Sinks 905H_165H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Surveys	Database:	EDM 5000.14 Single User Db

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)
16,581.00	91.13	181.30	12,670.51	-4,153.44	-293.33	4,152.55	2.96	-1.72	2.41
16,675.00	88.53	182.98	12,670.79	-4,247.36	-296.84	4,246.46	3.29	-2.77	1.79
16,769.00	88.22	181.83	12,673.46	-4,341.24	-300.78	4,340.33	1.27	-0.33	-1.22
16,863.00	87.41	179.66	12,677.04	-4,435.16	-302.00	4,434.24	2.46	-0.86	-2.31
16,956.00	89.20	180.50	12,679.79	-4,528.11	-302.13	4,527.20	2.13	1.92	0.90
17,050.00	90.60	182.47	12,679.96	-4,622.07	-304.57	4,621.15	2.57	1.49	2.10
17,144.00	91.08	182.41	12,678.58	-4,715.98	-308.57	4,715.04	0.51	0.51	-0.06
17,238.00	91.97	181.08	12,676.08	-4,809.90	-311.43	4,808.95	1.70	0.95	-1.41
17,331.00	89.76	178.58	12,674.67	-4,902.87	-311.16	4,901.93	3.59	-2.38	-2.69
17,421.00	90.27	180.33	12,674.65	-4,992.87	-310.30	4,991.92	2.03	0.57	1.94
17,515.00	89.73	179.83	12,674.65	-5,086.87	-310.43	5,085.92	0.78	-0.57	-0.53
17,609.00	89.71	178.12	12,675.11	-5,180.85	-308.75	5,179.91	1.82	-0.02	-1.82
17,703.00	89.65	177.70	12,675.63	-5,274.78	-305.32	5,273.85	0.45	-0.06	-0.45
17,796.00	90.27	175.10	12,675.70	-5,367.59	-299.48	5,366.68	2.87	0.67	-2.80
17,888.00	89.93	176.93	12,675.54	-5,459.36	-293.09	5,458.47	2.02	-0.37	1.99
17,982.00	89.90	177.70	12,675.68	-5,553.26	-288.69	5,552.38	0.82	-0.03	0.82
18,077.00	90.49	179.92	12,675.36	-5,648.23	-286.71	5,647.36	2.42	0.62	2.34
18,171.00	90.63	179.03	12,674.44	-5,742.22	-285.85	5,741.35	0.96	0.15	-0.95
18,265.00	90.99	178.56	12,673.11	-5,836.19	-283.88	5,835.32	0.63	0.38	-0.50
18,359.00	90.43	178.23	12,671.94	-5,930.15	-281.24	5,929.29	0.69	-0.60	-0.35
18,453.00	90.43	179.49	12,671.24	-6,024.12	-279.37	6,023.27	1.34	0.00	1.34
18,547.00	90.15	179.93	12,670.76	-6,118.12	-278.90	6,117.27	0.55	-0.30	0.47
18,641.00	90.55	178.68	12,670.19	-6,212.11	-277.76	6,211.26	1.40	0.43	-1.33
18,735.00	90.83	178.30	12,669.06	-6,306.07	-275.28	6,305.23	0.50	0.30	-0.40
18,829.00	90.83	178.55	12,667.69	-6,400.03	-272.70	6,399.19	0.27	0.00	0.27
18,923.00	90.77	179.19	12,666.38	-6,494.00	-270.84	6,493.17	0.68	-0.06	0.68
19,016.00	90.41	181.40	12,665.42	-6,586.99	-271.32	6,586.15	2.41	-0.39	2.38
19,109.00	90.27	185.47	12,664.87	-6,679.80	-276.89	6,678.95	4.38	-0.15	4.38
19,203.00	89.40	184.87	12,665.14	-6,773.41	-285.36	6,772.54	1.12	-0.93	-0.64
19,297.00	90.10	184.41	12,665.55	-6,867.10	-292.97	6,866.20	0.89	0.74	-0.49
19,391.00	89.99	183.96	12,665.48	-6,960.85	-299.83	6,959.93	0.49	-0.12	-0.48
19,485.00	90.63	183.85	12,664.97	-7,054.63	-306.23	7,053.69	0.69	0.68	-0.12
19,578.00	90.41	180.71	12,664.13	-7,147.54	-309.93	7,146.59	3.38	-0.24	-3.38
19,672.00	89.90	178.64	12,663.87	-7,241.54	-309.40	7,240.59	2.27	-0.54	-2.20
19,766.00	91.05	177.48	12,663.09	-7,335.48	-306.21	7,334.54	1.74	1.22	-1.23
19,861.00	90.71	176.25	12,661.63	-7,430.32	-301.02	7,429.39	1.34	-0.36	-1.29
19,955.00	90.63	174.46	12,660.53	-7,524.00	-293.41	7,523.10	1.91	-0.09	-1.90
20,050.00	89.09	176.19	12,660.77	-7,618.68	-285.66	7,617.80	2.44	-1.62	1.82
20,143.00	90.10	180.45	12,661.42	-7,711.61	-282.94	7,710.74	4.71	1.09	4.58
20,237.00	90.77	180.97	12,660.71	-7,805.60	-284.10	7,804.73	0.90	0.71	0.55
20,332.00	90.46	180.94	12,659.69	-7,900.58	-285.69	7,899.70	0.33	-0.33	-0.03
20,426.00	90.57	180.67	12,658.85	-7,994.57	-287.01	7,993.68	0.31	0.12	-0.29
20,521.00	90.80	180.82	12,657.71	-8,089.56	-288.24	8,088.67	0.29	0.24	0.16
20,615.00	90.57	180.30	12,656.59	-8,183.54	-289.16	8,182.65	0.60	-0.24	-0.55



Survey Report



Company:	XTO Energy	Local Co-ordinate Reference:	Well PLU 28 Big Sinks 905H_165H
Project:	Eddy County, NM	TVD Reference:	GL 3341' + 30' KB @ 3371.00usft (Cactus 118)
Site:	PLU 28 Big Sinks	MD Reference:	GL 3341' + 30' KB @ 3371.00usft (Cactus 118)
Well:	PLU 28 Big Sinks 905H_165H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Surveys	Database:	EDM 5000.14 Single User Db

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)
20,710.00	90.97	179.07	12,655.31	-8,278.53	-288.64	8,277.64	1.36	0.42	-1.29
20,804.00	90.21	178.38	12,654.34	-8,372.50	-286.55	8,371.62	1.09	-0.81	-0.73
20,898.00	89.54	178.38	12,654.55	-8,466.46	-283.89	8,465.59	0.71	-0.71	0.00
20,993.00	89.26	178.86	12,655.54	-8,561.43	-281.60	8,560.56	0.58	-0.29	0.51
21,087.00	90.60	177.80	12,655.66	-8,655.39	-278.86	8,654.52	1.82	1.43	-1.13
21,181.00	89.82	178.49	12,655.31	-8,749.34	-275.82	8,748.48	1.11	-0.83	0.73
21,275.00	90.04	178.20	12,655.43	-8,843.30	-273.11	8,842.45	0.39	0.23	-0.31
21,369.00	89.59	177.99	12,655.73	-8,937.24	-269.98	8,936.40	0.53	-0.48	-0.22
21,463.00	88.92	178.46	12,656.95	-9,031.19	-267.07	9,030.36	0.87	-0.71	0.50
21,556.00	89.82	178.97	12,657.97	-9,124.16	-264.98	9,123.33	1.11	0.97	0.55
21,650.00	90.29	177.82	12,657.88	-9,218.12	-262.35	9,217.30	1.32	0.50	-1.22
21,744.00	89.73	178.67	12,657.87	-9,312.08	-259.47	9,311.27	1.08	-0.60	0.90
21,832.00	90.27	180.10	12,657.87	-9,400.07	-258.53	9,399.26	1.74	0.61	1.63
21,926.00	90.77	182.36	12,657.01	-9,494.04	-260.55	9,493.22	2.46	0.53	2.40
22,019.00	90.41	183.45	12,656.06	-9,586.91	-265.26	9,586.08	1.23	-0.39	1.17
22,113.00	90.38	181.81	12,655.41	-9,680.81	-269.57	9,679.96	1.74	-0.03	-1.74
22,207.00	89.90	181.29	12,655.18	-9,774.77	-272.11	9,773.92	0.75	-0.51	-0.55
22,301.00	89.65	181.74	12,655.55	-9,868.74	-274.60	9,867.88	0.55	-0.27	0.48
22,395.00	89.45	181.43	12,656.29	-9,962.70	-277.20	9,961.83	0.39	-0.21	-0.33
22,489.00	89.54	181.03	12,657.11	-10,056.67	-279.22	10,055.80	0.44	0.10	-0.43
22,583.00	88.92	180.57	12,658.38	-10,150.65	-280.53	10,149.78	0.82	-0.66	-0.49
22,677.00	89.90	180.20	12,659.35	-10,244.65	-281.16	10,243.77	1.11	1.04	-0.39
22,771.00	91.02	179.62	12,658.59	-10,338.64	-281.01	10,337.76	1.34	1.19	-0.62
22,865.00	90.18	179.55	12,657.61	-10,432.63	-280.33	10,431.76	0.90	-0.89	-0.07
22,959.00	90.49	179.33	12,657.06	-10,526.63	-279.41	10,525.75	0.40	0.33	-0.23
23,053.00	91.27	178.00	12,655.61	-10,620.59	-277.22	10,619.72	1.64	0.83	-1.41
23,156.00	91.05	178.66	12,653.53	-10,723.52	-274.22	10,722.66	0.68	-0.21	0.64
23,251.00	91.33	181.79	12,651.56	-10,818.49	-274.60	10,817.63	3.31	0.29	3.29
23,346.00	91.47	182.02	12,649.23	-10,913.41	-277.75	10,912.54	0.28	0.15	0.24
23,441.00	91.81	180.21	12,646.52	-11,008.35	-279.60	11,007.47	1.94	0.36	-1.91
23,535.00	91.72	179.73	12,643.62	-11,102.30	-279.55	11,101.42	0.52	-0.10	-0.51
23,630.00	91.36	179.70	12,641.07	-11,197.27	-279.08	11,196.39	0.38	-0.38	-0.03
23,725.00	90.52	180.08	12,639.51	-11,292.25	-278.90	11,291.37	0.97	-0.88	0.40
23,819.00	90.52	179.46	12,638.66	-11,386.25	-278.52	11,385.37	0.66	0.00	-0.66
23,914.00	90.88	179.41	12,637.49	-11,481.24	-277.58	11,480.36	0.38	0.38	-0.05
24,008.00	90.94	179.32	12,636.00	-11,575.22	-276.54	11,574.35	0.12	0.06	-0.10
24,103.00	90.10	179.27	12,635.14	-11,670.21	-275.37	11,669.34	0.89	-0.88	-0.05
24,197.00	89.76	179.40	12,635.25	-11,764.20	-274.28	11,763.33	0.39	-0.36	0.14
24,291.00	90.10	178.93	12,635.37	-11,858.19	-272.91	11,857.33	0.62	0.36	-0.50
24,386.00	90.99	179.64	12,634.47	-11,953.18	-271.73	11,952.32	1.20	0.94	0.75
24,481.00	90.97	179.54	12,632.84	-12,048.16	-271.05	12,047.30	0.11	-0.02	-0.11
24,575.00	91.55	179.54	12,630.77	-12,142.13	-270.29	12,141.28	0.62	0.62	0.00
24,670.00	92.17	179.46	12,627.69	-12,237.08	-269.46	12,236.23	0.66	0.65	-0.08



Survey Report



Company:	XTO Energy	Local Co-ordinate Reference:	Well PLU 28 Big Sinks 905H_165H
Project:	Eddy County, NM	TVD Reference:	GL 3341' + 30' KB @ 3371.00usft (Cactus 118)
Site:	PLU 28 Big Sinks	MD Reference:	GL 3341' + 30' KB @ 3371.00usft (Cactus 118)
Well:	PLU 28 Big Sinks 905H_165H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Surveys	Database:	EDM 5000.14 Single User Db

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)
24,765.00	90.77	178.99	12,625.25	-12,332.04	-268.18	12,331.19	1.55	-1.47	-0.49
24,859.00	90.38	178.62	12,624.31	-12,426.01	-266.22	12,425.17	0.57	-0.41	-0.39
24,954.00	87.80	178.25	12,625.82	-12,520.95	-263.62	12,520.12	2.74	-2.72	-0.39
25,049.00	87.60	178.02	12,629.63	-12,615.83	-260.54	12,615.00	0.32	-0.21	-0.24
25,143.00	87.69	177.89	12,633.49	-12,709.69	-257.18	12,708.87	0.17	0.10	-0.14
25,238.00	90.91	178.67	12,634.65	-12,804.63	-254.33	12,803.81	3.49	3.39	0.82
25,333.00	92.12	178.77	12,632.14	-12,899.57	-252.21	12,898.76	1.28	1.27	0.11
25,427.00	92.40	178.47	12,628.44	-12,993.47	-249.95	12,992.67	0.44	0.30	-0.32
25,522.00	92.31	178.30	12,624.53	-13,088.35	-247.27	13,087.56	0.20	-0.09	-0.18
25,616.00	92.62	178.38	12,620.49	-13,182.22	-244.55	13,181.44	0.34	0.33	0.09
Last Scout MWD Survey @ 25616.00' MD									
25,727.06	92.62	178.38	12,615.41	-13,293.12	-241.42	13,292.35	0.00	0.00	0.00
PLU 28 Big Sinks 905H_165H LTP									
25,822.00	92.62	178.38	12,611.07	-13,387.92	-238.74	13,387.16	0.00	0.00	0.00
Projection to Bit @ 25822.00' MD - PLU 28 Big Sinks 905H_165H BHL									

Survey Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
1,093.00	1,092.93	7.81	-7.86	First Scout MWD Survey @ 1093.00' MD
25,616.00	12,620.49	-13,182.22	-244.55	Last Scout MWD Survey @ 25616.00' MD
25,822.00	12,611.07	-13,387.92	-238.74	Projection to Bit @ 25822.00' MD

Checked By: _____	Approved By: _____	Date: _____
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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 POKER LAKE UNIT 28 BS			⁶ Well Number 905H
⁷ OGRID No. 260737		⁸ Operator Name XTO PERMIAN OPERATING, LLC.			⁹ _____ 3,341'

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	28	25 S	31 E		2,310	NORTH	2,010	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	4	26 S	31 E		200	SOUTH	2,310	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= 401,300.2 X= 671,171.2 LAT.= 32.102084°N LONG.= 103.780549°W FIRST TAKE POINT NAD 27 NME Y= 400,616.2 X= 670,869.8 LAT.= 32.100208°N LONG.= 103.781534°W CORNER COORDINATES TABLE NAD 27 NME A - Y= 400,956.5 N, X= 670,521.7 E B - Y= 400,962.8 N, X= 671,850.9 E C - Y= 398,304.2 N, X= 670,514.6 E D - Y= 398,312.1 N, X= 671,845.7 E E - Y= 395,652.3 N, X= 670,529.0 E F - Y= 395,661.9 N, X= 671,859.4 E G - Y= 393,002.3 N, X= 670,543.3 E H - Y= 393,012.5 N, X= 671,873.1 E I - Y= 390,337.1 N, X= 670,552.3 E J - Y= 390,347.9 N, X= 671,881.5 E K - Y= 387,673.5 N, X= 670,561.3 E L - Y= 387,683.4 N, X= 671,889.6 E CORNER COORDINATES TABLE NAD 83 NME A - Y= 401,014.4 N, X= 711,707.3 E B - Y= 401,020.7 N, X= 713,036.5 E C - Y= 398,362.0 N, X= 711,700.3 E D - Y= 398,369.9 N, X= 713,031.4 E E - Y= 395,710.0 N, X= 711,714.8 E F - Y= 395,719.6 N, X= 713,045.2 E G - Y= 393,060.0 N, X= 711,729.2 E H - Y= 393,070.2 N, X= 713,059.0 E I - Y= 390,394.7 N, X= 711,738.3 E J - Y= 390,405.5 N, X= 713,067.5 E K - Y= 387,731.1 N, X= 711,747.4 E L - Y= 387,741.0 N, X= 713,075.8 E LAST TAKE POINT NAD 27 NME Y= 388,006.0 X= 670,907.2 LAT.= 32.065543°N LONG.= 103.781621°W BOTTOM HOLE LOCATION NAD 27 NME Y= 387,876.0 X= 670,907.6 LAT.= 32.065186°N LONG.= 103.781622°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 _____	
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. 05-14-2019 Date of Survey Signature and Seal of Professional Surveyor: MARK DILLON HARP 23786 Certificate Number AW/TM 2017070997		Diagram details: The diagram shows a grid of sections. Section 28 is labeled 'SEC. 28' and 'SEC. 33'. Section 4 is labeled 'SEC. 4'. The well location is marked with a red dot and labeled 'B.H.L.'. The surface location is marked with a black dot and labeled 'S.H.L.'. The first take point is marked with a black dot and labeled 'F.T.P.'. The last take point is marked with a black dot and labeled 'L.T.P.'. The diagram includes grid coordinates and distances: GRID AZ = 203°46'48" HORIZ. DIST. = 747.45', GRID AZ = 179°49'40" HORIZ. DIST. = 12,740.52'. Distances from the well location are given as 2010' and 2310'.	

Poker Lake Unit 28 BS Well No. 905H BHL:
25,822.00' MD, 92.62°INC, 178.38°AZM,
-13,387.92' N/S, -238.74' E/W



Invictus Tools LLC
501 Winscott Rd
Benbrook, TX 76126

May 7, 2020

State of New Mexico
Eddy County

I, Robert "BJ" Weber, certify that: I represent Invictus Tools, LLC; that I did on the day(s) of 28 July 2019 through 30 July 2019 conduct or supervise the taking of MWD surveys from a depth of 193 feet measured depth to a depth of 965 feet measured depth that the data is true, correct, complete, and within the limitations of the tool as set forth by Invictus Tools LLC; that I am authorized and qualified to make this report; that the survey was conducted at the request of XTO Energy Inc. for the POKER LAKE UNIT 28 BS No. 905BH (No.165H) (A.P. I. No.: 30-015-45509), Cactus Rig # 9 in Eddy County, New Mexico and that I have reviewed this report and find that it conforms to the principles and procedures as set forth by Invictus Tools, LLC.

A handwritten signature in black ink, appearing to read "BJ Weber". The signature is written in a cursive, flowing style. Below the signature is a solid black horizontal line.

Robert "BJ" Weber
Vice President
Invictus Tools, LLC

INVICTVS



Job:	POKER LAKE UNIT 28 BS No. 905BH (No.165H) (Job #14310)
Declination:	6.86°, This value was ADDED to the magnetic azimuth values sent by the tool to arrive at the Survey Azimuth values shown below.
Job Notes:	CACTUS 118 POKER LAKE UNIT 28 BS No. 905BH (No.165H) Corrected to true north and to the KB of the rig
Created On:	27 Jul 2019 at 08:17:38
File Contents:	12 Total Surveys in File. 11 are tagged as Accepted

The Vertical Depth and Departure values below were calculated using the Minimum Curvature Model. This information is intended for reference purposes ONLY. It is NOT intended to replace professional oversight or sound judgement. For more detail on the data and algorithms used to compute this information, contact INVICTUS TOOLS.

REPORT OF ALL ACCEPTED SURVEYS SORTED BY SURVEY DEPTH

SURVEY DEPTH	SURVEY ANGLE	SURVEY AZIMUTH	VERT DEPTH	N-S DEPART	E-W DEPART	TGF	TMF	DIP ANGLE	SURVEY #	TYPE	SURVEY DATE & TIME
0.0	0.00	0.00	0.00	0.0	0.0	0.998	0.000	0.0	0	Tie-In	27 Jul 2019 08:18
192.9	0.60	342.00	192.90	1.0	-0.3	0.000	0.000	0.0	1	Manual	28 Jul 2019 17:48
282.0	0.60	313.86	281.99	1.7	-0.8	0.996	-----	4.0	2	Survey	28 Jul 2019 18:03
374.0	0.70	356.86	373.99	2.6	-1.2	0.994	0.704	75.0	3	Survey	29 Jul 2019 20:55
410.0	1.00	317.86	409.98	3.1	-1.4	0.994	0.704	75.5	4	Survey	29 Jul 2019 22:22
562.0	0.80	306.86	561.96	4.7	-3.1	0.996	0.704	75.5	5	Survey	29 Jul 2019 23:46
656.0	0.70	297.86	655.96	5.4	-4.2	0.994	0.704	75.0	6	Survey	30 Jul 2019 01:09
750.0	0.60	299.86	749.95	5.9	-5.1	0.994	0.704	75.5	7	Survey	30 Jul 2019 02:21
844.0	0.50	288.86	843.95	6.2	-5.9	0.994	0.704	75.5	8	Survey	30 Jul 2019 04:00

INVICTVS**Wildfire**

SURVEY DEPTH	SURVEY ANGLE	SURVEY AZIMUTH	VERT DEPTH	N-S DEPART	E-W DEPART	TGF	TMF	DIP ANGLE	SURVEY #	SURVEY TYPE	SURVEY DATE & TIME			
937.0	0.90	304.86	936.94	6.8	-6.9	0.994	0.704	75.5	9	Survey	30	Jul	2019	06:00
965.0	0.40	312.86	964.94	7.0	-7.2	0.994	0.704	75.0	10	Survey	30	Jul	2019	07:52



I Joseph Proske, certify that I am employed by Scout Downhole Inc. (SDI). That I did on the day(s) of 08/04/19 thru 09/30/19 conduct or supervise the taking of a MWD Survey from a depth of 1093' to a depth of 25616'; that the data is true, correct, complete and within the limitations of the tool as set forth by Scout Downhole Inc. (SDI).; that I am authorized and qualified to make this report; that this survey was conducted at the request of XTO ENERGY LLC. for the PLU 28 Big Sinks 905H API No. 30-015-45509 in Eddy County, New Mexico; and that I have reviewed this report and find that it conforms to the principles and procedures as set forth by Scout Downhole Inc. (SDI).

Joseph Proske

Joseph
Proske

Digitally signed by: Joseph
Proske
DN: CN = Joseph Proske email
= jproske@scoutdrilltech.com
C = US O = Scout Downhole
OU = SDI
Date: 2020.04.29 16:09:33 -
05'00'

1125 Beach Airport Rd, Conroe, Texas
77301
PH 936-756-3255 FAX 936-756-3229



XTO Energy

Eddy County, NM

PLU 28 Big Sinks

PLU 28 Big Sinks 905H_165H

Wellbore #1

Survey: Scout MWD

Standard Survey Report

01 October, 2019





Survey Report



Company:	XTO Energy	Local Co-ordinate Reference:	Well PLU 28 Big Sinks 905H_165H
Project:	Eddy County, NM	TVD Reference:	GL 3341' + 30' KB @ 3371.00usft (Cactus 118)
Site:	PLU 28 Big Sinks	MD Reference:	GL 3341' + 30' KB @ 3371.00usft (Cactus 118)
Well:	PLU 28 Big Sinks 905H_165H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Surveys	Database:	EDM 5000.14 Single User Db

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

Site	PLU 28 Big Sinks		
Site Position:		Northing:	401,300.20 usft
From:	Map	Easting:	671,171.20 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 6' 7.503 N
		Longitude:	103° 46' 49.977 W
		Grid Convergence:	0.29 °

Well	PLU 28 Big Sinks 905H_165H		
Well Position	+N/-S	0.00 usft	Northing: 401,300.20 usft
	+E/-W	0.00 usft	Easting: 671,171.20 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:	usft
		Latitude:	32° 6' 7.503 N
		Longitude:	103° 46' 49.977 W
		Ground Level:	3,341.00 usft

Wellbore	Wellbore #1		
Magnetics	Model Name	Sample Date	Declination (°)
	HDGM	07/02/19	6.70
			Dip Angle (°)
			59.72
			Field Strength (nT)
			47,796.80000000

Design	Surveys		
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 (°)
			179.83

Survey Program	Date	10/01/19		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
192.00	999.00	Invictus (Wellbore #1)	MWD	MWD - Standard
1,093.00	25,822.00	Scout MWD (Wellbore #1)	A008Mb_MWD+IFR1+MS	OWSG MWD + IFR1 + Multi-Station Correction

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)
999.00	0.40	313.00	998.93	7.30	-7.32	-7.32	0.00	0.00	0.00
1,093.00	0.50	314.56	1,092.93	7.81	-7.86	-7.84	0.11	0.11	1.66
First Scout MWD Survey @ 1093.00' MD									
1,153.00	0.18	243.53	1,152.93	7.95	-8.13	-7.98	0.79	-0.53	-118.38
1,247.00	0.31	271.74	1,246.93	7.90	-8.51	-7.92	0.18	0.14	30.01
1,341.00	0.40	266.12	1,340.93	7.88	-9.09	-7.91	0.10	0.10	-5.98
1,434.00	0.26	280.45	1,433.93	7.90	-9.63	-7.93	0.17	-0.15	15.41
1,528.00	0.57	270.34	1,527.92	7.94	-10.30	-7.97	0.34	0.33	-10.76
1,622.00	0.66	266.12	1,621.92	7.91	-11.31	-7.94	0.11	0.10	-4.49
1,716.00	0.75	265.42	1,715.91	7.82	-12.46	-7.86	0.10	0.10	-0.74



Survey Report



Company:	XTO Energy	Local Co-ordinate Reference:	Well PLU 28 Big Sinks 905H_165H
Project:	Eddy County, NM	TVD Reference:	GL 3341' + 30' KB @ 3371.00usft (Cactus 118)
Site:	PLU 28 Big Sinks	MD Reference:	GL 3341' + 30' KB @ 3371.00usft (Cactus 118)
Well:	PLU 28 Big Sinks 905H_165H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Surveys	Database:	EDM 5000.14 Single User Db

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)
1,810.00	0.88	263.92	1,809.90	7.69	-13.79	-7.74	0.14	0.14	-1.60
1,904.00	0.92	261.02	1,903.89	7.50	-15.26	-7.55	0.06	0.04	-3.09
1,998.00	1.05	259.44	1,997.88	7.22	-16.85	-7.27	0.14	0.14	-1.68
2,092.00	1.27	256.10	2,091.86	6.82	-18.71	-6.87	0.24	0.23	-3.55
2,185.00	1.36	257.15	2,184.83	6.32	-20.78	-6.39	0.10	0.10	1.13
2,279.00	1.54	258.30	2,278.80	5.82	-23.11	-5.89	0.19	0.19	1.22
2,373.00	1.71	261.11	2,372.76	5.35	-25.73	-5.42	0.20	0.18	2.99
2,467.00	1.89	264.19	2,466.72	4.97	-28.66	-5.06	0.22	0.19	3.28
2,561.00	1.71	269.20	2,560.67	4.80	-31.60	-4.89	0.25	-0.19	5.33
2,654.00	1.54	272.80	2,653.63	4.84	-34.24	-4.94	0.21	-0.18	3.87
2,748.00	1.80	270.86	2,747.59	4.92	-36.98	-5.03	0.28	0.28	-2.06
2,842.00	1.98	270.07	2,841.54	4.95	-40.08	-5.06	0.19	0.19	-0.84
2,936.00	2.07	269.28	2,935.48	4.93	-43.40	-5.06	0.10	0.10	-0.84
3,029.00	2.20	269.81	3,028.42	4.90	-46.86	-5.04	0.14	0.14	0.57
3,123.00	2.42	268.49	3,122.34	4.84	-50.65	-4.99	0.24	0.23	-1.40
3,217.00	2.59	265.86	3,216.25	4.64	-54.75	-4.80	0.22	0.18	-2.80
3,310.00	2.59	266.03	3,309.16	4.34	-58.95	-4.51	0.01	0.00	0.18
3,404.00	2.81	265.42	3,403.05	4.01	-63.36	-4.20	0.24	0.23	-0.65
3,498.00	2.99	264.45	3,496.93	3.59	-68.10	-3.79	0.20	0.19	-1.03
3,592.00	2.99	260.14	3,590.81	2.93	-72.95	-3.15	0.24	0.00	-4.59
3,685.00	3.12	260.58	3,683.67	2.10	-77.84	-2.33	0.14	0.14	0.47
3,778.00	2.99	261.72	3,776.54	1.34	-82.74	-1.58	0.15	-0.14	1.23
3,872.00	2.95	263.57	3,870.42	0.71	-87.57	-0.97	0.11	-0.04	1.97
3,966.00	3.12	263.22	3,964.28	0.14	-92.51	-0.41	0.18	0.18	-0.37
4,040.00	3.25	261.99	4,038.17	-0.39	-96.59	0.10	0.20	0.18	-1.66
4,152.00	3.52	262.95	4,149.97	-1.25	-103.14	0.95	0.25	0.24	0.86
4,246.00	3.56	265.33	4,243.79	-1.85	-108.92	1.52	0.16	0.04	2.53
4,339.00	3.56	265.42	4,336.62	-2.31	-114.67	1.97	0.01	0.00	0.10
4,433.00	3.47	264.45	4,430.44	-2.82	-120.41	2.46	0.11	-0.10	-1.03
4,527.00	3.08	267.53	4,524.28	-3.20	-125.77	2.83	0.46	-0.41	3.28
4,621.00	3.21	262.60	4,618.14	-3.65	-130.90	3.26	0.32	0.14	-5.24
4,715.00	3.56	261.11	4,711.98	-4.44	-136.39	4.04	0.38	0.37	-1.59
4,809.00	3.91	263.83	4,805.78	-5.24	-142.46	4.81	0.42	0.37	2.89
4,903.00	4.84	270.69	4,899.51	-5.53	-149.61	5.09	1.13	0.99	7.30
4,997.00	4.84	273.59	4,993.17	-5.24	-157.54	4.77	0.26	0.00	3.09
5,090.00	5.01	270.16	5,085.83	-4.98	-165.51	4.49	0.37	0.18	-3.69
5,184.00	4.88	272.01	5,179.48	-4.83	-173.61	4.31	0.22	-0.14	1.97
5,278.00	4.62	270.95	5,273.15	-4.63	-181.39	4.09	0.29	-0.28	-1.13
5,371.00	4.57	270.25	5,365.86	-4.55	-188.84	3.99	0.08	-0.05	-0.75
5,465.00	4.53	272.18	5,459.56	-4.39	-196.30	3.81	0.17	-0.04	2.05
5,559.00	4.70	274.29	5,553.25	-3.96	-203.85	3.36	0.26	0.18	2.24
5,653.00	4.57	275.26	5,646.95	-3.33	-211.42	2.70	0.16	-0.14	1.03
5,747.00	4.75	275.87	5,740.64	-2.59	-219.02	1.94	0.20	0.19	0.65



Survey Report



Company:	XTO Energy	Local Co-ordinate Reference:	Well PLU 28 Big Sinks 905H_165H
Project:	Eddy County, NM	TVD Reference:	GL 3341' + 30' KB @ 3371.00usft (Cactus 118)
Site:	PLU 28 Big Sinks	MD Reference:	GL 3341' + 30' KB @ 3371.00usft (Cactus 118)
Well:	PLU 28 Big Sinks 905H_165H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Surveys	Database:	EDM 5000.14 Single User Db

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)
5,840.00	4.70	275.26	5,833.32	-1.85	-226.64	1.17	0.08	-0.05	-0.66
5,934.00	4.66	276.14	5,927.01	-1.08	-234.27	0.39	0.09	-0.04	0.94
6,028.00	4.40	277.02	6,020.71	-0.24	-241.65	-0.48	0.29	-0.28	0.94
6,121.00	4.40	276.67	6,113.44	0.62	-248.73	-1.35	0.03	0.00	-0.38
6,214.00	4.26	275.00	6,206.17	1.33	-255.72	-2.09	0.20	-0.15	-1.80
6,309.00	4.13	276.14	6,300.92	2.00	-262.63	-2.78	0.16	-0.14	1.20
6,402.00	4.00	276.49	6,393.69	2.73	-269.19	-3.53	0.14	-0.14	0.38
6,496.00	3.96	276.84	6,487.46	3.49	-275.67	-4.30	0.05	-0.04	0.37
6,589.00	3.87	276.58	6,580.24	4.23	-281.97	-5.06	0.10	-0.10	-0.28
6,683.00	2.86	281.68	6,674.08	5.07	-287.42	-5.92	1.12	-1.07	5.43
6,776.00	2.07	283.08	6,766.99	5.92	-291.33	-6.78	0.85	-0.85	1.51
6,870.00	0.88	291.61	6,860.96	6.57	-293.65	-7.44	1.28	-1.27	9.07
6,963.00	0.53	308.39	6,953.95	7.10	-294.66	-7.97	0.43	-0.38	18.04
7,057.00	0.79	313.23	7,047.95	7.81	-295.47	-8.69	0.28	0.28	5.15
7,150.00	0.79	312.53	7,140.94	8.68	-296.41	-9.56	0.01	0.00	-0.75
7,244.00	0.75	298.55	7,234.93	9.41	-297.43	-10.30	0.20	-0.04	-14.87
7,338.00	0.70	306.64	7,328.92	10.05	-298.43	-10.94	0.12	-0.05	8.61
7,431.00	0.62	279.74	7,421.91	10.48	-299.38	-11.36	0.34	-0.09	-28.92
7,525.00	0.53	299.25	7,515.91	10.77	-300.26	-11.67	0.23	-0.10	20.76
7,618.00	0.53	264.01	7,608.91	10.94	-301.06	-11.83	0.35	0.00	-37.89
7,712.00	0.44	298.81	7,702.90	11.07	-301.81	-11.96	0.32	-0.10	37.02
7,806.00	0.44	325.18	7,796.90	11.54	-302.33	-12.44	0.21	0.00	28.05
7,900.00	0.35	334.23	7,890.90	12.09	-302.66	-12.99	0.12	-0.10	9.63
7,993.00	0.26	335.03	7,983.90	12.54	-302.88	-13.44	0.10	-0.10	0.86
8,087.00	0.13	245.11	8,077.90	12.69	-303.06	-13.59	0.31	-0.14	-95.66
8,180.00	0.44	348.12	8,170.90	12.99	-303.23	-13.89	0.52	0.33	110.76
8,274.00	0.35	12.38	8,264.89	13.63	-303.25	-14.53	0.20	-0.10	25.81
8,367.00	0.48	312.96	8,357.89	14.17	-303.47	-15.07	0.46	0.14	-63.89
8,461.00	0.66	346.71	8,451.89	14.97	-303.88	-15.87	0.40	0.19	35.90
8,555.00	0.92	333.18	8,545.88	16.17	-304.35	-17.07	0.34	0.28	-14.39
8,648.00	0.97	328.08	8,638.87	17.50	-305.10	-18.41	0.11	0.05	-5.48
8,742.00	1.05	302.33	8,732.85	18.64	-306.25	-19.54	0.49	0.09	-27.39
8,835.00	0.97	307.08	8,825.84	19.57	-307.60	-20.48	0.12	-0.09	5.11
8,929.00	1.36	306.72	8,919.82	20.71	-309.13	-21.63	0.41	0.41	-0.38
9,023.00	1.49	300.66	9,013.79	22.00	-311.07	-22.93	0.21	0.14	-6.45
9,117.00	1.32	293.72	9,107.76	23.06	-313.11	-23.99	0.26	-0.18	-7.38
9,211.00	1.32	292.31	9,201.73	23.91	-315.11	-24.84	0.03	0.00	-1.50
9,304.00	1.45	286.42	9,294.71	24.65	-317.23	-25.59	0.21	0.14	-6.33
9,398.00	1.67	275.44	9,388.67	25.11	-319.73	-26.06	0.39	0.23	-11.68
9,492.00	1.80	267.44	9,482.63	25.18	-322.57	-26.14	0.29	0.14	-8.51
9,586.00	1.71	262.95	9,576.59	24.94	-325.44	-25.91	0.17	-0.10	-4.78
9,680.00	1.89	253.20	9,670.54	24.32	-328.31	-25.29	0.38	0.19	-10.37
9,774.00	0.84	217.95	9,764.51	23.33	-330.22	-24.31	1.38	-1.12	-37.50



Survey Report



Company:	XTO Energy	Local Co-ordinate Reference:	Well PLU 28 Big Sinks 905H_165H
Project:	Eddy County, NM	TVD Reference:	GL 3341' + 30' KB @ 3371.00usft (Cactus 118)
Site:	PLU 28 Big Sinks	MD Reference:	GL 3341' + 30' KB @ 3371.00usft (Cactus 118)
Well:	PLU 28 Big Sinks 905H_165H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Surveys	Database:	EDM 5000.14 Single User Db

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)	
9,867.00	0.84	197.39	9,857.50	22.14	-330.84	-23.12	0.32	0.00	-22.11	
9,961.00	0.92	204.24	9,951.49	20.79	-331.36	-21.78	0.14	0.09	7.29	
10,054.00	0.92	234.57	10,044.48	19.68	-332.27	-20.67	0.52	0.00	32.61	
10,148.00	1.19	254.96	10,138.47	18.99	-333.83	-19.98	0.49	0.29	21.69	
10,242.00	0.75	301.19	10,232.45	19.06	-335.30	-20.05	0.92	-0.47	49.18	
10,336.00	0.35	331.07	10,326.45	19.63	-335.96	-20.62	0.51	-0.43	31.79	
10,430.00	0.26	314.90	10,420.45	20.03	-336.25	-21.02	0.13	-0.10	-17.20	
10,523.00	0.31	287.48	10,513.45	20.25	-336.64	-21.25	0.15	0.05	-29.48	
10,617.00	0.35	247.05	10,607.44	20.22	-337.15	-21.22	0.25	0.04	-43.01	
10,711.00	0.79	256.63	10,701.44	19.95	-338.05	-20.96	0.48	0.47	10.19	
10,805.00	0.97	258.65	10,795.43	19.65	-339.46	-20.66	0.19	0.19	2.15	
10,898.00	1.19	259.61	10,888.41	19.32	-341.18	-20.33	0.24	0.24	1.03	
10,992.00	1.41	261.20	10,982.39	18.97	-343.28	-19.98	0.24	0.23	1.69	
11,086.00	0.48	295.65	11,076.37	18.96	-344.78	-19.98	1.12	-0.99	36.65	
11,179.00	1.19	56.85	11,169.37	19.66	-344.32	-20.68	1.61	0.76	130.32	
11,273.00	1.01	53.34	11,263.35	20.68	-342.84	-21.70	0.20	-0.19	-3.73	
11,367.00	0.97	65.73	11,357.34	21.51	-341.45	-22.52	0.23	-0.04	13.18	
11,460.00	0.79	74.43	11,450.33	22.00	-340.11	-23.01	0.24	-0.19	9.35	
11,536.00	0.66	60.19	11,526.32	22.36	-339.23	-23.37	0.29	-0.17	-18.74	
11,661.00	0.53	55.27	11,651.31	23.05	-338.13	-24.05	0.11	-0.10	-3.94	
11,755.00	0.14	54.28	11,745.31	23.36	-337.68	-24.36	0.41	-0.41	-1.05	
11,849.00	0.44	243.83	11,839.31	23.27	-337.91	-24.27	0.62	0.32	-181.33	
11,896.00	1.80	199.03	11,886.30	22.49	-338.31	-23.50	3.23	2.89	-95.32	
11,943.00	2.25	179.94	11,933.27	20.87	-338.55	-21.88	1.71	0.96	-40.62	
11,990.00	4.25	166.99	11,980.19	18.25	-338.16	-19.26	4.51	4.26	-27.55	
12,036.00	6.36	180.64	12,026.00	14.04	-337.80	-15.05	5.31	4.59	29.67	
12,083.00	8.56	194.74	12,072.60	8.06	-338.72	-9.06	6.06	4.68	30.00	
12,129.00	10.14	196.89	12,117.99	0.87	-340.77	-1.88	3.52	3.43	4.67	
12,177.00	11.80	200.01	12,165.11	-7.78	-343.68	6.77	3.67	3.46	6.50	
12,224.00	16.25	192.25	12,210.70	-18.73	-346.72	17.70	10.26	9.47	-16.51	
12,271.00	19.13	184.08	12,255.48	-32.85	-348.66	31.81	8.08	6.13	-17.38	
12,317.00	21.25	178.14	12,298.66	-48.70	-348.93	47.66	6.41	4.61	-12.91	
12,363.00	24.51	174.03	12,341.03	-66.53	-347.67	65.50	7.89	7.09	-8.93	
12,410.00	29.96	176.70	12,382.81	-87.96	-345.98	86.93	11.88	11.60	5.68	
12,457.00	36.14	175.76	12,422.19	-113.52	-344.27	112.50	13.19	13.15	-2.00	
12,504.00	41.50	172.11	12,458.80	-142.79	-341.11	141.78	12.40	11.40	-7.77	
12,551.00	45.89	172.56	12,492.77	-174.96	-336.78	173.96	9.36	9.34	0.96	
12,598.00	50.22	173.40	12,524.18	-209.65	-332.52	208.66	9.31	9.21	1.79	
12,645.00	55.99	174.23	12,552.38	-247.00	-328.48	246.03	12.36	12.28	1.77	
12,692.00	61.36	174.43	12,576.81	-286.94	-324.52	285.98	11.43	11.43	0.43	
12,739.00	64.38	174.61	12,598.24	-328.57	-320.53	327.62	6.43	6.43	0.38	
12,785.00	68.29	176.05	12,616.70	-370.56	-317.11	369.61	8.97	8.50	3.13	
12,832.00	71.12	177.87	12,633.00	-414.57	-314.77	413.63	7.03	6.02	3.87	
12,879.00	73.65	179.46	12,647.22	-459.35	-313.74	458.42	6.27	5.38	3.38	



Survey Report



Company:	XTO Energy	Local Co-ordinate Reference:	Well PLU 28 Big Sinks 905H_165H
Project:	Eddy County, NM	TVD Reference:	GL 3341' + 30' KB @ 3371.00usft (Cactus 118)
Site:	PLU 28 Big Sinks	MD Reference:	GL 3341' + 30' KB @ 3371.00usft (Cactus 118)
Well:	PLU 28 Big Sinks 905H_165H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Surveys	Database:	EDM 5000.14 Single User Db

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)	
12,926.00	74.66	180.51	12,660.06	-504.56	-313.72	503.63	3.04	2.15	2.23	
12,973.00	76.34	178.55	12,671.83	-550.06	-313.35	549.13	5.39	3.57	-4.17	
13,020.00	80.85	177.28	12,681.12	-596.09	-311.67	595.16	9.95	9.60	-2.70	
13,067.00	87.33	175.57	12,685.96	-642.72	-308.75	641.80	14.25	13.79	-3.64	
13,108.92	87.69	175.42	12,687.78	-684.47	-305.46	683.56	0.92	0.85	-0.37	
PLU 28 Big Sinks 905H_165H FTP										
13,113.00	87.72	175.40	12,687.94	-688.53	-305.13	687.63	0.92	0.85	-0.37	
13,207.00	88.84	176.67	12,690.76	-782.26	-298.64	781.37	1.80	1.19	1.35	
13,301.00	89.90	176.94	12,691.80	-876.11	-293.40	875.24	1.16	1.13	0.29	
13,394.00	90.04	181.04	12,691.85	-969.08	-291.76	968.21	4.41	0.15	4.41	
13,488.00	89.79	182.40	12,691.98	-1,063.03	-294.58	1,062.15	1.47	-0.27	1.45	
13,582.00	89.85	180.65	12,692.28	-1,156.99	-297.08	1,156.11	1.86	0.06	-1.86	
13,676.00	91.05	180.27	12,691.54	-1,250.99	-297.84	1,250.10	1.34	1.28	-0.40	
13,770.00	90.15	182.07	12,690.56	-1,344.96	-299.76	1,344.06	2.14	-0.96	1.91	
13,864.00	90.13	180.62	12,690.33	-1,438.93	-301.96	1,438.03	1.54	-0.02	-1.54	
13,957.00	89.76	180.17	12,690.42	-1,531.93	-302.60	1,531.02	0.63	-0.40	-0.48	
14,051.00	90.43	180.80	12,690.26	-1,625.92	-303.40	1,625.01	0.98	0.71	0.67	
14,145.00	89.76	179.91	12,690.11	-1,719.92	-303.98	1,719.01	1.19	-0.71	-0.95	
14,239.00	88.50	178.58	12,691.53	-1,813.89	-302.74	1,812.99	1.95	-1.34	-1.41	
14,332.00	89.87	179.26	12,692.86	-1,906.87	-300.99	1,905.96	1.64	1.47	0.73	
14,426.00	90.18	178.82	12,692.81	-2,000.85	-299.42	1,999.96	0.57	0.33	-0.47	
14,520.00	89.26	179.75	12,693.27	-2,094.84	-298.24	2,093.95	1.39	-0.98	0.99	
14,613.00	90.10	180.51	12,693.79	-2,187.84	-298.45	2,186.94	1.22	0.90	0.82	
14,707.00	90.57	179.85	12,693.24	-2,281.84	-298.75	2,280.94	0.86	0.50	-0.70	
14,801.00	90.83	181.45	12,692.10	-2,375.82	-299.82	2,374.92	1.72	0.28	1.70	
14,895.00	90.71	179.54	12,690.83	-2,469.80	-300.63	2,468.90	2.04	-0.13	-2.03	
14,988.00	89.59	178.02	12,690.59	-2,562.78	-298.65	2,561.88	2.03	-1.20	-1.63	
15,082.00	89.57	178.41	12,691.28	-2,656.73	-295.72	2,655.84	0.42	-0.02	0.41	
15,176.00	89.54	181.52	12,692.01	-2,750.71	-295.66	2,749.83	3.31	-0.03	3.31	
15,269.00	90.21	182.87	12,692.21	-2,843.64	-299.22	2,842.74	1.62	0.72	1.45	
15,363.00	91.78	181.08	12,690.58	-2,937.57	-302.46	2,936.66	2.53	1.67	-1.90	
15,457.00	91.58	178.29	12,687.82	-3,031.52	-301.95	3,030.61	2.97	-0.21	-2.97	
15,551.00	91.19	176.56	12,685.55	-3,125.39	-297.73	3,124.49	1.89	-0.41	-1.84	
15,644.00	89.99	174.46	12,684.59	-3,218.09	-290.45	3,217.22	2.60	-1.29	-2.26	
15,738.00	89.57	176.58	12,684.95	-3,311.80	-283.10	3,310.94	2.30	-0.45	2.26	
15,832.00	90.04	183.71	12,685.27	-3,405.74	-283.34	3,404.88	7.60	0.50	7.59	
15,925.00	88.84	185.33	12,686.18	-3,498.44	-290.67	3,497.56	2.17	-1.29	1.74	
16,019.00	89.59	182.94	12,687.47	-3,592.18	-297.45	3,591.28	2.66	0.80	-2.54	
16,112.00	90.13	181.21	12,687.70	-3,685.11	-300.81	3,684.20	1.95	0.58	-1.86	
16,206.00	93.80	179.61	12,684.47	-3,779.04	-301.49	3,778.12	4.26	3.90	-1.70	
16,300.00	94.81	178.64	12,677.42	-3,872.76	-300.06	3,871.85	1.49	1.07	-1.03	
16,394.00	88.53	176.87	12,674.68	-3,966.59	-296.37	3,965.70	6.94	-6.68	-1.88	
16,488.00	92.73	179.06	12,673.65	-4,060.50	-293.04	4,059.62	5.04	4.47	2.33	



Survey Report



Company:	XTO Energy	Local Co-ordinate Reference:	Well PLU 28 Big Sinks 905H_165H
Project:	Eddy County, NM	TVD Reference:	GL 3341' + 30' KB @ 3371.00usft (Cactus 118)
Site:	PLU 28 Big Sinks	MD Reference:	GL 3341' + 30' KB @ 3371.00usft (Cactus 118)
Well:	PLU 28 Big Sinks 905H_165H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Surveys	Database:	EDM 5000.14 Single User Db

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)
16,581.00	91.13	181.30	12,670.51	-4,153.44	-293.33	4,152.55	2.96	-1.72	2.41
16,675.00	88.53	182.98	12,670.79	-4,247.36	-296.84	4,246.46	3.29	-2.77	1.79
16,769.00	88.22	181.83	12,673.46	-4,341.24	-300.78	4,340.33	1.27	-0.33	-1.22
16,863.00	87.41	179.66	12,677.04	-4,435.16	-302.00	4,434.24	2.46	-0.86	-2.31
16,956.00	89.20	180.50	12,679.79	-4,528.11	-302.13	4,527.20	2.13	1.92	0.90
17,050.00	90.60	182.47	12,679.96	-4,622.07	-304.57	4,621.15	2.57	1.49	2.10
17,144.00	91.08	182.41	12,678.58	-4,715.98	-308.57	4,715.04	0.51	0.51	-0.06
17,238.00	91.97	181.08	12,676.08	-4,809.90	-311.43	4,808.95	1.70	0.95	-1.41
17,331.00	89.76	178.58	12,674.67	-4,902.87	-311.16	4,901.93	3.59	-2.38	-2.69
17,421.00	90.27	180.33	12,674.65	-4,992.87	-310.30	4,991.92	2.03	0.57	1.94
17,515.00	89.73	179.83	12,674.65	-5,086.87	-310.43	5,085.92	0.78	-0.57	-0.53
17,609.00	89.71	178.12	12,675.11	-5,180.85	-308.75	5,179.91	1.82	-0.02	-1.82
17,703.00	89.65	177.70	12,675.63	-5,274.78	-305.32	5,273.85	0.45	-0.06	-0.45
17,796.00	90.27	175.10	12,675.70	-5,367.59	-299.48	5,366.68	2.87	0.67	-2.80
17,888.00	89.93	176.93	12,675.54	-5,459.36	-293.09	5,458.47	2.02	-0.37	1.99
17,982.00	89.90	177.70	12,675.68	-5,553.26	-288.69	5,552.38	0.82	-0.03	0.82
18,077.00	90.49	179.92	12,675.36	-5,648.23	-286.71	5,647.36	2.42	0.62	2.34
18,171.00	90.63	179.03	12,674.44	-5,742.22	-285.85	5,741.35	0.96	0.15	-0.95
18,265.00	90.99	178.56	12,673.11	-5,836.19	-283.88	5,835.32	0.63	0.38	-0.50
18,359.00	90.43	178.23	12,671.94	-5,930.15	-281.24	5,929.29	0.69	-0.60	-0.35
18,453.00	90.43	179.49	12,671.24	-6,024.12	-279.37	6,023.27	1.34	0.00	1.34
18,547.00	90.15	179.93	12,670.76	-6,118.12	-278.90	6,117.27	0.55	-0.30	0.47
18,641.00	90.55	178.68	12,670.19	-6,212.11	-277.76	6,211.26	1.40	0.43	-1.33
18,735.00	90.83	178.30	12,669.06	-6,306.07	-275.28	6,305.23	0.50	0.30	-0.40
18,829.00	90.83	178.55	12,667.69	-6,400.03	-272.70	6,399.19	0.27	0.00	0.27
18,923.00	90.77	179.19	12,666.38	-6,494.00	-270.84	6,493.17	0.68	-0.06	0.68
19,016.00	90.41	181.40	12,665.42	-6,586.99	-271.32	6,586.15	2.41	-0.39	2.38
19,109.00	90.27	185.47	12,664.87	-6,679.80	-276.89	6,678.95	4.38	-0.15	4.38
19,203.00	89.40	184.87	12,665.14	-6,773.41	-285.36	6,772.54	1.12	-0.93	-0.64
19,297.00	90.10	184.41	12,665.55	-6,867.10	-292.97	6,866.20	0.89	0.74	-0.49
19,391.00	89.99	183.96	12,665.48	-6,960.85	-299.83	6,959.93	0.49	-0.12	-0.48
19,485.00	90.63	183.85	12,664.97	-7,054.63	-306.23	7,053.69	0.69	0.68	-0.12
19,578.00	90.41	180.71	12,664.13	-7,147.54	-309.93	7,146.59	3.38	-0.24	-3.38
19,672.00	89.90	178.64	12,663.87	-7,241.54	-309.40	7,240.59	2.27	-0.54	-2.20
19,766.00	91.05	177.48	12,663.09	-7,335.48	-306.21	7,334.54	1.74	1.22	-1.23
19,861.00	90.71	176.25	12,661.63	-7,430.32	-301.02	7,429.39	1.34	-0.36	-1.29
19,955.00	90.63	174.46	12,660.53	-7,524.00	-293.41	7,523.10	1.91	-0.09	-1.90
20,050.00	89.09	176.19	12,660.77	-7,618.68	-285.66	7,617.80	2.44	-1.62	1.82
20,143.00	90.10	180.45	12,661.42	-7,711.61	-282.94	7,710.74	4.71	1.09	4.58
20,237.00	90.77	180.97	12,660.71	-7,805.60	-284.10	7,804.73	0.90	0.71	0.55
20,332.00	90.46	180.94	12,659.69	-7,900.58	-285.69	7,899.70	0.33	-0.33	-0.03
20,426.00	90.57	180.67	12,658.85	-7,994.57	-287.01	7,993.68	0.31	0.12	-0.29
20,521.00	90.80	180.82	12,657.71	-8,089.56	-288.24	8,088.67	0.29	0.24	0.16
20,615.00	90.57	180.30	12,656.59	-8,183.54	-289.16	8,182.65	0.60	-0.24	-0.55



Survey Report



Company:	XTO Energy	Local Co-ordinate Reference:	Well PLU 28 Big Sinks 905H_165H
Project:	Eddy County, NM	TVD Reference:	GL 3341' + 30' KB @ 3371.00usft (Cactus 118)
Site:	PLU 28 Big Sinks	MD Reference:	GL 3341' + 30' KB @ 3371.00usft (Cactus 118)
Well:	PLU 28 Big Sinks 905H_165H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Surveys	Database:	EDM 5000.14 Single User Db

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)
20,710.00	90.97	179.07	12,655.31	-8,278.53	-288.64	8,277.64	1.36	0.42	-1.29
20,804.00	90.21	178.38	12,654.34	-8,372.50	-286.55	8,371.62	1.09	-0.81	-0.73
20,898.00	89.54	178.38	12,654.55	-8,466.46	-283.89	8,465.59	0.71	-0.71	0.00
20,993.00	89.26	178.86	12,655.54	-8,561.43	-281.60	8,560.56	0.58	-0.29	0.51
21,087.00	90.60	177.80	12,655.66	-8,655.39	-278.86	8,654.52	1.82	1.43	-1.13
21,181.00	89.82	178.49	12,655.31	-8,749.34	-275.82	8,748.48	1.11	-0.83	0.73
21,275.00	90.04	178.20	12,655.43	-8,843.30	-273.11	8,842.45	0.39	0.23	-0.31
21,369.00	89.59	177.99	12,655.73	-8,937.24	-269.98	8,936.40	0.53	-0.48	-0.22
21,463.00	88.92	178.46	12,656.95	-9,031.19	-267.07	9,030.36	0.87	-0.71	0.50
21,556.00	89.82	178.97	12,657.97	-9,124.16	-264.98	9,123.33	1.11	0.97	0.55
21,650.00	90.29	177.82	12,657.88	-9,218.12	-262.35	9,217.30	1.32	0.50	-1.22
21,744.00	89.73	178.67	12,657.87	-9,312.08	-259.47	9,311.27	1.08	-0.60	0.90
21,832.00	90.27	180.10	12,657.87	-9,400.07	-258.53	9,399.26	1.74	0.61	1.63
21,926.00	90.77	182.36	12,657.01	-9,494.04	-260.55	9,493.22	2.46	0.53	2.40
22,019.00	90.41	183.45	12,656.06	-9,586.91	-265.26	9,586.08	1.23	-0.39	1.17
22,113.00	90.38	181.81	12,655.41	-9,680.81	-269.57	9,679.96	1.74	-0.03	-1.74
22,207.00	89.90	181.29	12,655.18	-9,774.77	-272.11	9,773.92	0.75	-0.51	-0.55
22,301.00	89.65	181.74	12,655.55	-9,868.74	-274.60	9,867.88	0.55	-0.27	0.48
22,395.00	89.45	181.43	12,656.29	-9,962.70	-277.20	9,961.83	0.39	-0.21	-0.33
22,489.00	89.54	181.03	12,657.11	-10,056.67	-279.22	10,055.80	0.44	0.10	-0.43
22,583.00	88.92	180.57	12,658.38	-10,150.65	-280.53	10,149.78	0.82	-0.66	-0.49
22,677.00	89.90	180.20	12,659.35	-10,244.65	-281.16	10,243.77	1.11	1.04	-0.39
22,771.00	91.02	179.62	12,658.59	-10,338.64	-281.01	10,337.76	1.34	1.19	-0.62
22,865.00	90.18	179.55	12,657.61	-10,432.63	-280.33	10,431.76	0.90	-0.89	-0.07
22,959.00	90.49	179.33	12,657.06	-10,526.63	-279.41	10,525.75	0.40	0.33	-0.23
23,053.00	91.27	178.00	12,655.61	-10,620.59	-277.22	10,619.72	1.64	0.83	-1.41
23,156.00	91.05	178.66	12,653.53	-10,723.52	-274.22	10,722.66	0.68	-0.21	0.64
23,251.00	91.33	181.79	12,651.56	-10,818.49	-274.60	10,817.63	3.31	0.29	3.29
23,346.00	91.47	182.02	12,649.23	-10,913.41	-277.75	10,912.54	0.28	0.15	0.24
23,441.00	91.81	180.21	12,646.52	-11,008.35	-279.60	11,007.47	1.94	0.36	-1.91
23,535.00	91.72	179.73	12,643.62	-11,102.30	-279.55	11,101.42	0.52	-0.10	-0.51
23,630.00	91.36	179.70	12,641.07	-11,197.27	-279.08	11,196.39	0.38	-0.38	-0.03
23,725.00	90.52	180.08	12,639.51	-11,292.25	-278.90	11,291.37	0.97	-0.88	0.40
23,819.00	90.52	179.46	12,638.66	-11,386.25	-278.52	11,385.37	0.66	0.00	-0.66
23,914.00	90.88	179.41	12,637.49	-11,481.24	-277.58	11,480.36	0.38	0.38	-0.05
24,008.00	90.94	179.32	12,636.00	-11,575.22	-276.54	11,574.35	0.12	0.06	-0.10
24,103.00	90.10	179.27	12,635.14	-11,670.21	-275.37	11,669.34	0.89	-0.88	-0.05
24,197.00	89.76	179.40	12,635.25	-11,764.20	-274.28	11,763.33	0.39	-0.36	0.14
24,291.00	90.10	178.93	12,635.37	-11,858.19	-272.91	11,857.33	0.62	0.36	-0.50
24,386.00	90.99	179.64	12,634.47	-11,953.18	-271.73	11,952.32	1.20	0.94	0.75
24,481.00	90.97	179.54	12,632.84	-12,048.16	-271.05	12,047.30	0.11	-0.02	-0.11
24,575.00	91.55	179.54	12,630.77	-12,142.13	-270.29	12,141.28	0.62	0.62	0.00
24,670.00	92.17	179.46	12,627.69	-12,237.08	-269.46	12,236.23	0.66	0.65	-0.08



Survey Report



Company:	XTO Energy	Local Co-ordinate Reference:	Well PLU 28 Big Sinks 905H_165H
Project:	Eddy County, NM	TVD Reference:	GL 3341' + 30' KB @ 3371.00usft (Cactus 118)
Site:	PLU 28 Big Sinks	MD Reference:	GL 3341' + 30' KB @ 3371.00usft (Cactus 118)
Well:	PLU 28 Big Sinks 905H_165H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Surveys	Database:	EDM 5000.14 Single User Db

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)
24,765.00	90.77	178.99	12,625.25	-12,332.04	-268.18	12,331.19	1.55	-1.47	-0.49
24,859.00	90.38	178.62	12,624.31	-12,426.01	-266.22	12,425.17	0.57	-0.41	-0.39
24,954.00	87.80	178.25	12,625.82	-12,520.95	-263.62	12,520.12	2.74	-2.72	-0.39
25,049.00	87.60	178.02	12,629.63	-12,615.83	-260.54	12,615.00	0.32	-0.21	-0.24
25,143.00	87.69	177.89	12,633.49	-12,709.69	-257.18	12,708.87	0.17	0.10	-0.14
25,238.00	90.91	178.67	12,634.65	-12,804.63	-254.33	12,803.81	3.49	3.39	0.82
25,333.00	92.12	178.77	12,632.14	-12,899.57	-252.21	12,898.76	1.28	1.27	0.11
25,427.00	92.40	178.47	12,628.44	-12,993.47	-249.95	12,992.67	0.44	0.30	-0.32
25,522.00	92.31	178.30	12,624.53	-13,088.35	-247.27	13,087.56	0.20	-0.09	-0.18
25,616.00	92.62	178.38	12,620.49	-13,182.22	-244.55	13,181.44	0.34	0.33	0.09
Last Scout MWD Survey @ 25616.00' MD									
25,727.06	92.62	178.38	12,615.41	-13,293.12	-241.42	13,292.35	0.00	0.00	0.00
PLU 28 Big Sinks 905H_165H LTP									
25,822.00	92.62	178.38	12,611.07	-13,387.92	-238.74	13,387.16	0.00	0.00	0.00
Projection to Bit @ 25822.00' MD - PLU 28 Big Sinks 905H_165H BHL									

Survey Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
1,093.00	1,092.93	7.81	-7.86	First Scout MWD Survey @ 1093.00' MD
25,616.00	12,620.49	-13,182.22	-244.55	Last Scout MWD Survey @ 25616.00' MD
25,822.00	12,611.07	-13,387.92	-238.74	Projection to Bit @ 25822.00' MD

Checked By: _____ Approved By: _____ Date: _____

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1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
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811 S. First St., Artesia, NM 88210
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Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
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State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 18155

CONDITIONS OF APPROVAL

Operator: XTO PERMIAN OPERATING LLC. BUILDING 5 MIDLAND, TX79707		6401 HOLIDAY HILL ROAD	OGRID: 373075	Action Number: 18155	Action Type: C-104C
OCD Reviewer ksimmons			Condition None		