

Results of Directional Survey

API number:	30-025-41003		
OGRID:		Operator:	XTO ENERGY, INC
		Property:	MIS AMIGOS # 2H

surface	ULSTR:	P	31	T	23S	R	33E
				330	FSL	660	FEL

BH Loc	ULSTR:	A	31	T	23S	R	33E
15525	MD	11083.0	TVD	330	FNL	734	FEL
				4950	FSL		

Top Perf/OH	ULSTR:	P	31	T	23S	R	33E
11380	MD	11114.3	TVD	809	FSL	656	FEL

Bot Perf/OH	ULSTR:	A	31	T	23S	R	33E
15280	MD	11088.0	TVD	575	FNL	729	FEL
				4705	FSL		

	MD	N/S	E/W	VD
	11360	459.72	4.20	11109.71
TOP PERFS/OH	11380	479.18	3.76	11114.28
	11391	489.89	3.52	11116.80
	15260	4355.00	-68.53	11088.15
BOT PERFS/OH	15280	4374.99	-69.00	11088.04
	15353	4447.97	-70.71	11087.66

NEXT TO LAST	15483	4577.90	-73.04	11084.31
LAST READING	15525	4619.87	-73.60	11082.97
TD	15525	4619.87	-73.60	11082.97

Surface Location	330	FS	660	FE
Projected BHL	4950	FS	734	FE
Location of				
Top Perfs/OH	809	FS	656	FE
Bottom Perfs/OH	4705	FS	729	FE

SUMMARY of Subsurface Locations

Surface Location	P-31-23S-33E	330	FS	660	FE	Vert. Depth
Top Perfs/OH	P-31-23S-33E	809	FS	656	FE	11114.28
Bottom Perfs/OH	A-31-23S-33E	4705	FS	729	FE	11088.04
Projected TD	A-31-23S-33E	4950	FS	734	FE	11082.97

APR 14 2014

Operator: XTO Energy
Well/Lease: Mls Amigos 2H
County: Lea, NM

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JAN 14 2014

STATE OF NEW MEXICO
DEVIATION REPORT

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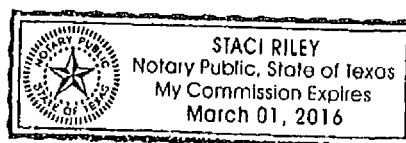
<u>Footage</u>	<u>Degree</u>	<u>Footage</u>	<u>Degree</u>
169	0.50	6330	0.40
345	0.50	6516	0.40
520	0.75	6703	0.20
663	0.75	7260	0.60
812	0.75	7446	0.80
998	1.00	7632	0.90
1184	1.00	7818	1.30
1302	0.80	8005	1.40
1489	0.60	8191	1.30
1675	0.70	8377	1.50
1861	1.70	8563	1.60
2047	1.30	8748	1.60
2232	1.50	9679	0.90
2419	0.90	9866	0.30
2791	0.60	10051	1.00
2977	1.20	10237	1.00
3163	2.20	10423	0.50
3350	1.70	10461	0.60
3536	1.40	10498	0.68
3722	0.40	10529	1.98
3909	2.50		
4095	1.70		
4281	1.80		
4468	1.90		
4654	2.20		
4840	2.00		
5083	0.80		
5587	0.70		
5773	0.80		
5959	0.70		
6145	0.70		

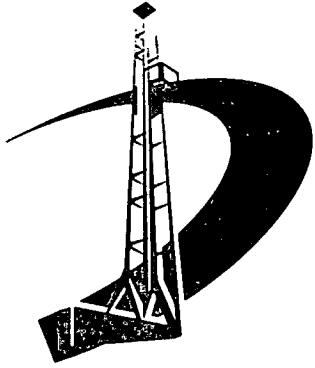
Signed By:

Roger Dyer
Roger Dyer, Operations Manager
Pioneer Drilling Company

Appeared before me on August 2, 2013

Staci Riley
Notary Public





PRODIRECTIONAL

P.O. Box 750, Conroe, TX 77305 Phone: 936-441-7266 Fax: 936-441-7268

July 16, 2013

XTO Energy, Inc.

Mis Amigas No.2H

Lea County, NM

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This is to certify surveys from 1,303' MD to a depth of 10,510' MD are true and correct MWD surveys. These surveys were taken from 06/27/2013 through 07/08/2013.

Sincerely,

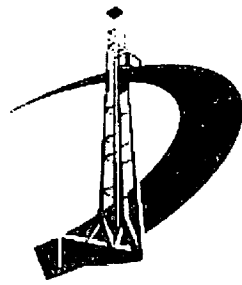
John Jordan

Well Planning

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PRODIRECTIONAL

P.O. Box 750, Conroe, TX 77305 Phone: 936-441-7266

XTO Energy Inc.

Mis Amigas No. 2H
Lea County, NM

July 16, 2013

Job Number LNM 5105113

Survey Completion Report

ORIGINAL



XTO Energy Inc.

Lea County, NM

Mis Amigos

No. 2H

OH

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Survey: ProDirectional

Survey Completion Report

16 July, 2013





Professional Directional
Survey Report



Company:	XTO Energy Inc.	Local Co-ordinate Reference:	Well No. 2H
Project:	Lea County, NM	TVD Reference:	WELL @ 3670.00usft (Original Well Elev)
Site:	Mis Amigos	MD Reference:	WELL @ 3670.00usft (Original Well Elev)
Well:	No. 2H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Well_Planner1

Project	Lea County, NM		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Mis Amigos		
Site Position:		Northing:	457,216.40 usft
From:	Map	Easting:	766,482.00 usft
Position Uncertainty:	3.30 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 15' 17.509 N
		Longitude:	103° 36' 18.070 W
		Grid Convergence:	0.39 °

Well	No. 2H		
Well Position	+N/-S	0.00 usft	Northing:
	+E/-W	0.00 usft	Easting:
Position Uncertainty	3.30 usft	Wellhead Elevation:	usft
		Latitude:	32° 15' 17.509 N
		Longitude:	103° 36' 18.070 W
		Ground Level:	3,657.00 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	7/11/2013	7.35	60.16	48,422

Design	OH			
Audit Notes:				
Version:	1.0	Phase:	ACTUAL	Tie On Depth: 0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	359.61

Survey Program	Date 7/11/2013			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
1,303.00	10,510.00	ProDirectional (OH)	MWD	MWD



Professional Directional
Survey Report



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Project: Lea County, NM
Site: Mis Amigos
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Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well No. 2H
TVD Reference: WELL @ 3670.00usft (Original Well Elev)
MD Reference: WELL @ 3670.00usft (Original Well Elev)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Well_Planner1

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	Northing (usft)	Easting (usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	457,216.40	766,482.00
1,303.00	0.80	209.70	1,302.96	-7.87	-7.90	-4.51	9.10	209.70	457,208.50	766,477.49
ProDirectional MWD										
1,489.00	0.60	233.80	1,488.94	-9.56	-9.60	-5.94	11.29	211.72	457,206.80	766,476.06
1,675.00	0.70	266.60	1,674.93	-10.19	-10.25	-7.86	12.91	217.48	457,206.15	766,474.14
1,861.00	1.90	267.90	1,860.88	-10.35	-10.43	-12.07	15.95	229.18	457,205.97	766,469.93
2,047.00	1.30	261.00	2,046.81	-10.75	-10.87	-17.24	20.38	237.76	457,205.53	766,464.76
2,233.00	1.50	248.10	2,232.75	-11.96	-12.11	-21.58	24.75	240.70	457,204.29	766,460.42
2,420.00	0.90	256.60	2,419.71	-13.19	-13.36	-25.28	28.59	242.14	457,203.04	766,456.72
2,605.00	1.40	259.30	2,604.67	-13.92	-14.12	-28.91	32.18	243.97	457,202.28	766,453.09
2,792.00	0.60	328.80	2,791.65	-13.49	-13.70	-31.67	34.50	246.60	457,202.70	766,450.33
2,978.00	1.20	2.40	2,977.63	-10.71	-10.93	-32.09	33.90	251.20	457,205.47	766,449.91
3,164.00	2.20	12.20	3,163.54	-5.28	-5.49	-31.25	31.73	260.04	457,210.91	766,450.75
3,350.00	1.70	21.60	3,349.43	0.76	0.56	-29.48	29.49	271.10	457,216.96	766,452.52
3,537.00	1.40	21.60	3,536.37	5.46	5.27	-27.62	28.12	280.80	457,221.67	766,454.38
3,723.00	0.40	137.60	3,722.35	7.08	6.90	-26.35	27.23	284.68	457,223.30	766,455.65
3,909.00	2.50	203.50	3,908.28	2.89	2.70	-27.53	27.66	275.60	457,219.10	766,454.47
4,095.00	1.70	208.90	4,094.16	-3.23	-3.44	-30.48	30.67	263.57	457,212.96	766,451.52
4,281.00	1.10	197.10	4,280.10	-7.34	-7.56	-32.34	33.21	256.85	457,208.84	766,449.66
4,468.00	1.90	140.80	4,467.04	-11.46	-11.68	-30.90	33.04	249.30	457,204.72	766,451.10
4,653.00	2.20	141.30	4,651.93	-16.64	-16.82	-26.75	31.60	237.83	457,199.58	766,455.25
4,840.00	2.00	129.20	4,838.80	-21.54	-21.69	-21.97	30.87	225.37	457,194.71	766,460.03
5,035.00	0.80	118.70	5,033.74	-24.37	-24.49	-18.14	30.48	216.53	457,191.91	766,463.86
5,215.00	0.70	93.50	5,213.72	-25.05	-25.16	-15.94	29.79	212.36	457,191.24	766,466.06
5,400.00	0.70	91.30	5,398.71	-25.16	-25.26	-13.68	28.73	208.45	457,191.14	766,468.32
5,586.00	0.70	85.30	5,584.70	-25.11	-25.19	-11.42	27.66	204.38	457,191.21	766,470.58
5,773.00	0.80	77.60	5,771.68	-24.75	-24.82	-9.00	26.40	199.94	457,191.58	766,473.00



Professional Directional Survey Report



Company: XTO Energy Inc.
Project: Lea County, NM
Site: Mis Amigos
Well: No. 2H
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well No. 2H
TVD Reference: WELL @ 3670.00usft (Original Well Elev)
MD Reference: WELL @ 3670.00usft (Original Well Elev)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Well_Planner1

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	Northing (usft)	Easting (usft)
5,956.00	0.70	63.30	5,954.67	-23.99	-24.04	-6.76	24.97	195.70	457,192.36	766,475.24
6,144.00	0.70	78.50	6,142.65	-23.26	-23.29	-4.60	23.74	191.18	457,193.11	766,477.40
6,330.00	0.40	71.80	6,328.64	-22.84	-22.86	-2.87	23.04	187.17	457,193.54	766,479.13
6,517.00	0.40	79.00	6,515.64	-22.52	-22.54	-1.61	22.59	184.10	457,193.86	766,480.39
6,703.00	0.20	118.00	6,701.64	-22.56	-22.56	-0.69	22.57	181.75	457,193.84	766,481.31
6,889.00	0.30	121.50	6,887.63	-22.97	-22.97	0.01	22.97	179.97	457,193.43	766,482.01
7,074.00	0.40	166.80	7,072.63	-23.86	-23.85	0.57	23.86	178.62	457,192.55	766,482.57
7,260.00	0.60	182.10	7,258.62	-25.46	-25.46	0.69	25.47	178.46	457,190.94	766,482.69
7,446.00	0.80	208.20	7,444.61	-27.58	-27.58	0.04	27.58	179.93	457,188.82	766,482.04
7,632.00	0.90	216.80	7,630.59	-29.88	-29.89	-1.45	29.93	182.78	457,186.51	766,480.55
7,818.00	1.30	223.00	7,816.56	-32.58	-32.60	-3.77	32.82	186.59	457,183.80	766,478.23
8,004.00	1.40	219.00	8,002.50	-35.87	-35.91	-6.64	36.52	190.47	457,180.49	766,475.36
8,190.00	1.30	219.80	8,188.45	-39.23	-39.30	-9.42	40.41	193.47	457,177.10	766,472.58
8,377.00	1.50	223.50	8,375.40	-42.62	-42.70	-12.46	44.48	196.26	457,173.70	766,469.54
8,563.00	1.60	218.80	8,561.33	-46.38	-46.49	-15.76	49.09	198.73	457,169.91	766,466.24
8,748.00	1.60	221.40	8,746.26	-50.31	-50.44	-19.09	53.93	200.73	457,165.96	766,462.91
8,934.00	1.70	218.40	8,932.18	-54.40	-54.55	-22.52	59.02	202.43	457,161.85	766,459.48
9,120.00	1.40	215.50	9,118.11	-58.39	-58.57	-25.55	63.90	203.57	457,157.83	766,456.45
9,306.00	1.10	220.10	9,304.07	-61.59	-61.78	-28.02	67.84	204.40	457,154.62	766,453.98
9,493.00	1.10	258.80	9,491.03	-63.29	-63.50	-30.94	70.64	205.98	457,152.90	766,451.06
9,679.00	0.90	350.50	9,677.02	-62.18	-62.41	-32.93	70.56	207.82	457,153.99	766,449.07
9,866.00	0.30	317.20	9,864.00	-60.37	-60.60	-33.51	69.25	208.94	457,155.80	766,448.49
10,051.00	1.00	339.40	10,048.99	-58.50	-58.73	-34.40	68.07	210.36	457,157.67	766,447.60
10,237.00	1.00	331.10	10,234.96	-55.55	-55.79	-35.76	66.27	212.66	457,160.61	766,446.24
10,423.00	0.50	300.90	10,420.95	-53.70	-53.96	-37.24	65.56	214.61	457,162.44	766,444.76
10,461.00	0.60	278.30	10,458.95	-53.59	-53.84	-37.58	65.66	214.91	457,162.56	766,444.42



Professional Directional
Survey Report



Company: XTO Energy Inc.
Project: Lea County, NM
Site: Mis Amigos
Well: No. 2H
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well No. 2H
TVD Reference: WELL @ 3670.00usft (Original Well Elev)
MD Reference: WELL @ 3670.00usft (Original Well Elev)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Well_Planner1

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	Northing (usft)	Easting (usft)
10,510.00	0.60	278.30	10,507.94	-53.51	-53.77	-38.09	65.89	215.31	457,162.63	766,443.91

PTB @ 10,510' MD, 10,507.94' TVD

30-025-41003



XTO Energy Inc.

Location: Lea County, NM
 Field: (Mis Amigos) Sec 31, T23S, R33E
 Facility: Mis Amigos No.2H

Slot: No.2H SHL
 Well: No.2H
 Wellbore: No.2H P1VB

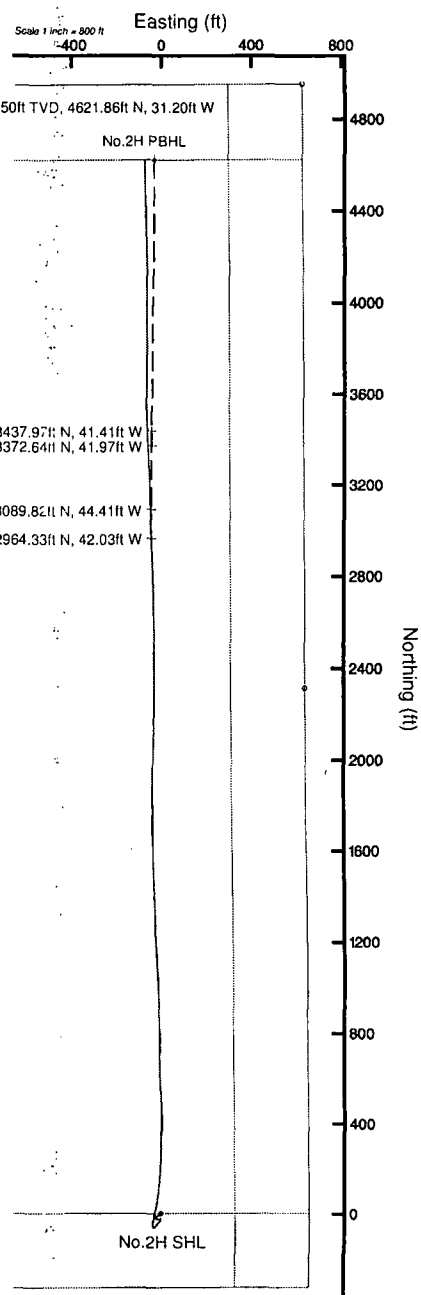


HOBBS OCD

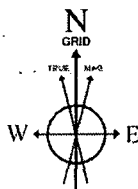
FEB 20 2014

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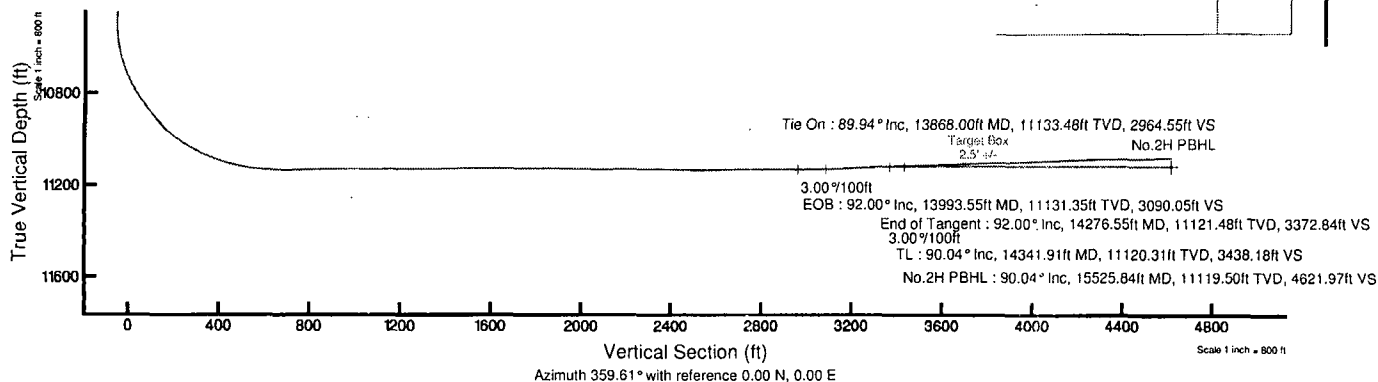
Well Profile Data								
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	13868.00	89.940	357.340	11133.48	2964.33	-42.03	0.00	2964.55
EOB	13993.55	92.000	0.494	11131.35	3089.82	-44.41	3.00	3090.05
End of Tangent	14276.55	92.000	0.494	11121.48	3372.64	-41.97	0.00	3372.84
TL	14341.91	90.039	0.494	11120.31	3437.97	-41.41	3.00	3438.18
No.2H PBHL	15525.84	90.039	0.494	11119.50	4621.86	-31.20	0.00	4621.97



Plot reference wellpath is Rev-D.0	
True vertical depths are referenced to Rig on No.2H SHL (KB)	Grid System: NAD27 / TM New Mexico SP, Eastern Zone (3001), US feet
Measured depths are referenced to Rig on No.2H SHL (KB)	North Reference: Grid north
Rig on No.2H SHL (KB) to Mean Sea Level: 3670 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: No.2H SHL): 3657 feet	Depths are in feet
Coordinates are in feet referenced to Facility Center	Created by: gentry on 07/19/2013



BGGM (1945.0 to 2015.0) Dip: 60.15° Field: 48416 nT
 Magnetic North is 7.45 degrees East of True North (at 07/03/2013)
 Grid North is 0.39 degrees East of True North
 To correct azimuth from True to Grid subtract 0.39 degrees
 To correct azimuth from Magnetic to Grid add 7.07 degrees
 For example: If the Magnetic North Azimuth = 90 degs, then the Grid North Azimuth = 90 + 7.07 = 97.07



Rev-D.0



HOBBS OCD
FEB 20 2014

Actual Wellpath Report

No.2H AWP
Page 1 of 4



REFERENCE WELLPATH IDENTIFICATION

Operator	XTO Energy Inc.	Slot	No.2H SHL
Area	Lea County, NM	Well	No.2H
Field	(Mis Amigos) Sec 31, T23S, R33E	Wellbore	No.2H AWB
Facility	Mis Amigos No.2H		

REPORT SETUP INFORMATION

Projection System	NAD27 / TM New Mexico SP, Eastern Zone (3001), US feet	Software System	WellArchitect® 3.0.0
North Reference	Grid	User	Gentbry
Scale	0.999967	Report Generated	07/24/2013 at 8:56:01 AM
Convergence at slot	0.39° East	Database/Source file	WA Midland/No.2H_AWB.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	0.00	0.00	725298.50	457157.50	32°15'17.066"N	103°36'16.337"W
Facility Reference Pt			725298.50	457157.50	32°15'17.066"N	103°36'16.337"W
Field Reference Pt			725298.50	457157.50	32°15'17.066"N	103°36'16.337"W

WELLPATH DATUM

Calculation method	Minimum curvature	Rig on No.2H SHL (KB) to Facility Vertical Datum	13.00ft
Horizontal Reference Pt	Facility Center	Rig on No.2H SHL (KB) to Mean Sea Level	3670.00ft
Vertical Reference Pt	Rig on No.2H SHL (KB)	Rig on No.2H SHL (KB) to Mud Line at Slot (No.2H SHL)	13.00ft
MD Reference Pt	Rig on No.2H SHL (KB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	359.61°



Actual Wellpath Report

No.2H AWP

Page 2 of 4



REFERENCE WELLPATH IDENTIFICATION

Operator	XTO Energy Inc.	Slot	No.2H SHL
Area	Lea County, NM	Well	No.2H
Field	(Mis Amigos) Sec 31, T23S, R33E	Wellbore	No.2H AWB
Facility	Mis Amigos No.2H		

WELLPATH DATA (133 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
0.00	0.000	209.700	0.00	0.00	0.00	0.00	725298.50	457157.50	32°15'17.066"N	103°36'16.337"W	0.00	
1303.00	0.800	209.700	1302.96	-7.87	-7.90	-4.51	725293.99	457149.60	32°15'16.989"N	103°36'16.390"W	0.06	
1489.00	0.600	233.800	1488.94	-9.56	-9.60	-5.94	725292.56	457147.90	32°15'16.972"N	103°36'16.406"W	0.19	
1675.00	0.700	266.600	1674.93	-10.19	-10.25	-7.86	725290.64	457147.25	32°15'16.966"N	103°36'16.429"W	0.20	
1861.00	1.900	267.900	1860.88	-10.35	-10.43	-12.07	725286.43	457147.07	32°15'16.964"N	103°36'16.478"W	0.65	
2047.00	1.300	261.000	2046.81	-10.75	-10.87	-17.24	725281.26	457146.63	32°15'16.960"N	103°36'16.538"W	0.34	
2233.00	1.500	248.100	2232.75	-11.96	-12.11	-21.58	725276.92	457145.39	32°15'16.948"N	103°36'16.589"W	0.20	
2420.00	0.900	256.600	2419.71	-13.19	-13.36	-25.28	725273.22	457144.14	32°15'16.936"N	103°36'16.632"W	0.33	
2605.00	1.400	259.300	2604.67	-13.92	-14.12	-28.91	725269.59	457143.38	32°15'16.929"N	103°36'16.674"W	0.27	
2792.00	0.600	328.800	2791.65	-13.49	-13.70	-31.67	725266.84	457143.80	32°15'16.933"N	103°36'16.706"W	0.70	
2978.00	1.200	2.400	2977.63	-10.71	-10.93	-32.09	725266.41	457146.57	32°15'16.960"N	103°36'16.711"W	0.42	
3164.00	2.200	12.200	3163.54	-5.28	-5.49	-31.25	725267.25	457152.01	32°15'17.014"N	103°36'16.701"W	0.56	
3350.00	1.700	21.600	3349.43	0.76	0.56	-29.48	725269.02	457158.06	32°15'17.074"N	103°36'16.680"W	0.32	
3537.00	1.400	21.600	3536.37	5.45	5.27	-27.62	725270.88	457162.77	32°15'17.120"N	103°36'16.658"W	0.16	
3723.00	0.400	137.600	3722.35	7.08	6.90	-26.35	725272.15	457164.40	32°15'17.136"N	103°36'16.643"W	0.87	
3909.00	2.500	203.500	3908.28	2.89	2.70	-27.53	725270.97	457160.20	32°15'17.095"N	103°36'16.657"W	1.27	
4095.00	1.700	208.900	4094.16	-3.23	-3.44	-30.48	725268.02	457154.06	32°15'17.034"N	103°36'16.692"W	0.44	
4281.00	1.100	197.100	4280.10	-7.34	-7.56	-32.34	725266.17	457149.94	32°15'16.994"N	103°36'16.714"W	0.36	
4468.00	1.900	140.800	4467.04	-11.47	-11.68	-30.90	725267.60	457145.83	32°15'16.953"N	103°36'16.697"W	0.85	
4654.00	2.200	141.300	4652.93	-16.67	-16.85	-26.72	725271.78	457140.65	32°15'16.901"N	103°36'16.649"W	0.16	
4840.00	2.000	129.200	4838.80	-21.54	-21.69	-21.98	725276.53	457135.81	32°15'16.853"N	103°36'16.594"W	0.26	
5035.00	0.800	118.700	5033.74	-24.37	-24.49	-18.14	725280.36	457133.01	32°15'16.825"N	103°36'16.550"W	0.63	
5215.00	0.700	93.500	5213.72	-25.06	-25.16	-15.94	725282.56	457132.34	32°15'16.819"N	103°36'16.524"W	0.19	
5400.00	0.700	91.300	5398.71	-25.17	-25.26	-13.69	725284.81	457132.24	32°15'16.817"N	103°36'16.498"W	0.01	
5587.00	0.700	85.300	5585.70	-25.11	-25.19	-11.41	725287.09	457132.31	32°15'16.818"N	103°36'16.471"W	0.04	
5773.00	0.800	77.600	5771.68	-24.76	-24.82	-9.01	725289.49	457132.68	32°15'16.821"N	103°36'16.443"W	0.08	
5956.00	0.700	63.300	5954.67	-24.00	-24.04	-6.76	725291.74	457133.46	32°15'16.829"N	103°36'16.417"W	0.12	
6144.00	0.700	78.500	6142.65	-23.27	-23.30	-4.61	725293.89	457134.20	32°15'16.836"N	103°36'16.392"W	0.10	
6330.00	0.400	71.800	6328.64	-22.85	-22.87	-2.88	725295.62	457134.63	32°15'16.840"N	103°36'16.372"W	0.16	
6517.00	0.400	79.000	6515.64	-22.53	-22.54	-1.62	725296.88	457134.96	32°15'16.844"N	103°36'16.357"W	0.03	
6703.00	0.200	118.000	6701.64	-22.56	-22.57	-0.69	725297.81	457134.93	32°15'16.843"N	103°36'16.346"W	0.15	
6889.00	0.300	121.500	6887.63	-22.97	-22.97	0.01	725298.51	457134.53	32°15'16.839"N	103°36'16.338"W	0.05	
7074.00	0.400	166.800	7072.63	-23.86	-23.86	0.57	725299.07	457133.64	32°15'16.830"N	103°36'16.332"W	0.15	
7260.00	0.600	182.100	7258.62	-25.47	-25.46	0.68	725299.18	457132.04	32°15'16.814"N	103°36'16.331"W	0.13	
7446.00	0.800	208.200	7444.61	-27.58	-27.58	0.03	725298.53	457129.92	32°15'16.794"N	103°36'16.338"W	0.20	
7632.00	0.900	216.800	7630.59	-29.88	-29.89	-1.46	725297.04	457127.61	32°15'16.771"N	103°36'16.356"W	0.09	
7818.00	1.300	223.000	7816.56	-32.58	-32.61	-3.77	725294.73	457124.89	32°15'16.744"N	103°36'16.383"W	0.22	
8004.00	1.400	219.000	8002.50	-35.87	-35.92	-6.64	725291.86	457121.59	32°15'16.711"N	103°36'16.417"W	0.07	
8190.00	1.300	219.800	8188.45	-39.24	-39.30	-9.42	725289.08	457118.20	32°15'16.678"N	103°36'16.449"W	0.05	
8377.00	1.500	223.500	8375.40	-42.62	-42.71	-12.46	725286.04	457114.79	32°15'16.645"N	103°36'16.485"W	0.12	
8563.00	1.600	218.800	8561.33	-46.39	-46.50	-15.77	725282.74	457111.00	32°15'16.607"N	103°36'16.524"W	0.09	
8748.00	1.600	221.400	8746.26	-50.32	-50.45	-19.09	725279.41	457107.05	32°15'16.569"N	103°36'16.563"W	0.04	
8934.00	1.700	218.400	8932.18	-54.40	-54.56	-22.52	725275.98	457102.95	32°15'16.528"N	103°36'16.603"W	0.07	
9120.00	1.400	215.500	9118.11	-58.40	-58.57	-25.56	725272.95	457098.93	32°15'16.489"N	103°36'16.639"W	0.17	
9306.00	1.100	220.100	9304.07	-61.59	-61.78	-28.03	725270.48	457095.72	32°15'16.457"N	103°36'16.668"W	0.17	



Actual Wellpath Report

No.2H AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	XTO Energy Inc.	Slot	No.2H SHL
Area	Lea County, NM	Well	No.2H
Field	(Mis Amigos) Sec 31, T23S, R33E	Wellbore	No.2H AWB
Facility	Mis Amigos No.2H		

WELLPATH DATA (133 stations)												
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
9493.00	1.100	258.800	9491.03	-63.30	-63.51	-30.94	725267.56	457094.00	32°15'16.440"N	103°36'16.702"W	0.39	
9679.00	0.900	350.500	9677.02	-62.19	-62.41	-32.93	725265.57	457095.09	32°15'16.451"N	103°36'16.725"W	0.78	
9866.00	0.300	317.200	9864.00	-60.38	-60.60	-33.51	725264.99	457096.90	32°15'16.469"N	103°36'16.732"W	0.36	
10051.00	1.000	339.400	10048.99	-58.50	-58.74	-34.41	725264.09	457098.76	32°15'16.488"N	103°36'16.742"W	0.40	
10237.00	1.000	331.100	10234.96	-55.55	-55.80	-35.76	725262.74	457101.70	32°15'16.517"N	103°36'16.757"W	0.08	
10423.00	0.500	300.900	10420.95	-53.71	-53.96	-37.24	725261.26	457103.54	32°15'16.535"N	103°36'16.774"W	0.33	
10461.00	0.600	278.500	10458.95	-53.59	-53.85	-37.58	725260.92	457103.66	32°15'16.536"N	103°36'16.778"W	0.62	
10498.00	0.680	289.130	10495.94	-53.49	-53.74	-37.98	725260.52	457103.76	32°15'16.537"N	103°36'16.783"W	0.39	
10529.00	1.980	356.440	10526.94	-52.89	-53.15	-38.19	725260.31	457104.35	32°15'16.543"N	103°36'16.785"W	5.90	
10559.00	6.350	7.870	10556.85	-50.73	-50.99	-37.99	725260.51	457106.51	32°15'16.564"N	103°36'16.783"W	14.76	
10590.00	10.250	10.620	10587.52	-46.32	-46.58	-37.25	725261.25	457110.92	32°15'16.608"N	103°36'16.774"W	12.64	
10622.00	12.920	10.620	10618.86	-40.02	-40.26	-36.07	725262.44	457117.24	32°15'16.670"N	103°36'16.760"W	8.34	
10652.00	15.820	12.630	10647.92	-32.74	-32.97	-34.55	725263.95	457124.53	32°15'16.742"N	103°36'16.741"W	9.81	
10683.00	19.490	12.270	10677.46	-23.57	-23.79	-32.53	725265.97	457133.71	32°15'16.833"N	103°36'16.717"W	11.84	
10709.00	22.300	10.990	10701.75	-14.50	-14.71	-30.67	725267.83	457142.79	32°15'16.923"N	103°36'16.695"W	10.95	
10740.00	25.350	11.220	10730.10	-2.23	-2.42	-28.25	725270.25	457155.08	32°15'17.044"N	103°36'16.666"W	9.84	
10771.00	27.540	12.100	10757.86	11.27	11.09	-25.46	725273.04	457168.59	32°15'17.178"N	103°36'16.632"W	7.18	
10801.00	30.410	11.720	10784.10	25.46	25.31	-22.46	725276.04	457182.81	32°15'17.318"N	103°36'16.596"W	9.59	
10833.00	33.950	10.750	10811.18	42.16	42.03	-19.15	725279.35	457199.53	32°15'17.484"N	103°36'16.556"W	11.18	
10864.00	37.030	9.160	10836.12	59.86	59.75	-16.05	725282.45	457217.25	32°15'17.659"N	103°36'16.519"W	10.37	
10894.00	38.800	7.610	10860.98	78.08	77.99	-13.37	725285.13	457235.49	32°15'17.839"N	103°36'16.486"W	6.70	
10926.00	40.460	7.440	10884.73	98.29	98.22	-10.69	725287.81	457255.72	32°15'18.039"N	103°36'16.453"W	5.20	
10957.00	41.430	6.770	10908.14	118.43	118.38	-8.18	725290.32	457275.88	32°15'18.238"N	103°36'16.422"W	3.43	
10987.00	43.700	6.310	10930.24	138.58	138.54	-5.87	725292.63	457296.04	32°15'18.438"N	103°36'16.394"W	7.64	
11018.00	46.680	6.030	10952.08	160.42	160.40	-3.51	725294.99	457317.90	32°15'18.654"N	103°36'16.365"W	9.63	
11049.00	49.800	4.970	10972.73	183.42	183.42	-1.30	725297.20	457340.91	32°15'18.881"N	103°36'16.337"W	10.38	
11080.00	53.410	3.720	10991.98	207.63	207.64	0.53	725299.03	457365.13	32°15'19.121"N	103°36'16.314"W	12.07	
11112.00	56.790	2.350	11010.28	233.83	233.84	1.92	725300.42	457391.34	32°15'19.380"N	103°36'16.296"W	11.13	
11143.00	58.890	1.620	11026.78	260.04	260.07	2.82	725301.32	457417.56	32°15'19.640"N	103°36'16.283"W	7.06	
11174.00	61.020	1.070	11042.30	286.87	286.90	3.45	725301.95	457444.39	32°15'19.905"N	103°36'16.274"W	7.04	
11205.00	63.840	1.070	11056.65	314.33	314.37	3.97	725302.47	457471.86	32°15'20.177"N	103°36'16.266"W	9.10	
11236.00	66.710	0.690	11069.62	342.48	342.52	4.40	725302.90	457500.01	32°15'20.455"N	103°36'16.258"W	9.32	
11267.00	68.730	0.250	11081.37	371.16	371.20	4.63	725303.13	457528.69	32°15'20.739"N	103°36'16.253"W	6.65	
11298.00	71.220	359.800	11091.98	400.29	400.33	4.64	725303.14	457557.81	32°15'21.027"N	103°36'16.251"W	8.15	
11329.00	73.320	359.550	11101.42	429.81	429.85	4.48	725302.98	457587.34	32°15'21.320"N	103°36'16.250"W	6.82	
11360.00	75.670	359.390	11109.71	459.68	459.72	4.20	725302.70	457617.20	32°15'21.615"N	103°36'16.251"W	7.60	
11391.00	77.880	358.020	11116.80	489.85	489.89	3.52	725302.02	457647.37	32°15'21.914"N	103°36'16.257"W	8.33	
11422.00	79.750	356.910	11122.81	520.24	520.27	2.17	725300.67	457677.75	32°15'22.214"N	103°36'16.270"W	6.98	
11453.00	82.430	356.650	11127.62	550.83	550.84	0.45	725298.95	457708.32	32°15'22.517"N	103°36'16.288"W	8.68	
11483.00	85.590	357.600	11130.75	580.63	580.64	-1.05	725297.45	457738.12	32°15'22.812"N	103°36'16.303"W	10.99	
11514.00	87.440	358.400	11132.63	611.56	611.56	-2.13	725296.37	457769.04	32°15'23.118"N	103°36'16.313"W	6.50	
11545.00	88.030	359.200	11133.86	642.53	642.53	-2.77	725295.73	457800.00	32°15'23.425"N	103°36'16.318"W	3.20	
11576.00	88.580	359.490	11134.77	673.52	673.51	-3.13	725295.37	457830.99	32°15'23.731"N	103°36'16.320"W	2.01	
11607.00	90.460	359.260	11135.03	704.51	704.51	-3.47	725295.03	457861.98	32°15'24.038"N	103°36'16.321"W	6.11	
11700.00	92.500	359.670	11132.53	797.48	797.47	-4.34	725294.16	457954.94	32°15'24.958"N	103°36'16.324"W	2.24	



Actual Wellpath Report

No.2H AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	XTO Energy Inc.	Slot	No.2H SHL
Area	Lea County, NM	Well	No.2H
Field	(Mis Amigos) Sec 31, T23S, R33E	Wellbore	No.2H AWP
Facility	Mis Amigos No.2H		

WELLPATH DATA (133 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
11793.00	90.890	357.610	11129.88	890.42	890.39	-6.54	725291.96	458047.86	32°15'25.877"N	103°36'16.342"W	2.81	
11886.00	88.800	357.080	11130.13	983.34	983.29	-10.85	725287.65	458140.75	32°15'26.797"N	103°36'16.385"W	2.32	
11979.00	90.000	357.050	11131.10	1076.24	1076.16	-15.61	725282.89	458233.62	32°15'27.716"N	103°36'16.433"W	1.29	
12072.00	91.020	357.040	11130.28	1169.14	1169.03	-20.41	725278.10	458326.49	32°15'28.636"N	103°36'16.482"W	1.10	
12166.00	89.540	358.240	11129.82	1263.08	1262.94	-24.28	725274.22	458420.40	32°15'29.565"N	103°36'16.519"W	2.03	
12258.00	90.370	357.920	11129.89	1355.04	1354.89	-27.36	725271.14	458512.34	32°15'30.475"N	103°36'16.548"W	0.97	
12352.00	91.540	358.060	11128.32	1448.99	1448.82	-30.65	725267.85	458606.27	32°15'31.405"N	103°36'16.579"W	1.25	
12445.00	89.690	359.110	11127.32	1541.97	1541.78	-32.95	725265.55	458699.23	32°15'32.325"N	103°36'16.598"W	2.29	
12537.00	90.490	359.320	11127.18	1633.96	1633.77	-34.21	725264.29	458791.21	32°15'33.235"N	103°36'16.606"W	0.90	
12630.00	89.510	359.700	11127.18	1726.96	1726.77	-35.01	725263.49	458884.21	32°15'34.155"N	103°36'16.608"W	1.13	
12723.00	90.490	359.730	11127.18	1819.96	1819.76	-35.47	725263.03	458977.20	32°15'35.076"N	103°36'16.606"W	1.05	
12817.00	88.340	0.890	11128.14	1913.94	1913.75	-34.96	725263.54	459071.18	32°15'36.006"N	103°36'16.592"W	2.60	
12909.00	89.010	1.110	11130.27	2005.89	2005.71	-33.36	725265.15	459163.14	32°15'36.916"N	103°36'16.566"W	0.77	
13002.00	90.120	1.190	11130.97	2098.85	2098.69	-31.49	725267.01	459256.11	32°15'37.835"N	103°36'16.537"W	1.20	
13095.00	90.620	0.650	11130.97	2191.83	2191.67	-30.00	725268.50	459349.10	32°15'38.755"N	103°36'16.513"W	0.79	
13188.00	90.250	0.700	11129.67	2284.81	2284.66	-28.90	725269.60	459442.08	32°15'39.676"N	103°36'16.492"W	0.40	
13281.00	87.550	0.210	11131.45	2377.77	2377.63	-28.16	725270.34	459535.05	32°15'40.595"N	103°36'16.477"W	2.95	
13375.00	88.770	359.540	11134.47	2471.72	2471.58	-28.37	725270.13	459629.00	32°15'41.525"N	103°36'16.471"W	1.48	
13464.00	90.090	358.620	11135.36	2560.71	2560.56	-29.80	725268.70	459717.98	32°15'42.406"N	103°36'16.481"W	1.81	
13495.00	90.430	358.510	11135.21	2591.70	2591.55	-30.57	725267.93	459748.96	32°15'42.712"N	103°36'16.488"W	1.15	
13588.00	92.000	358.470	11133.24	2684.66	2684.50	-33.02	725265.48	459841.91	32°15'43.632"N	103°36'16.509"W	1.69	
13681.00	89.260	358.400	11132.22	2777.63	2777.45	-35.56	725262.94	459934.85	32°15'44.552"N	103°36'16.531"W	2.95	
13775.00	89.630	358.160	11133.13	2871.60	2871.40	-38.38	725260.12	460028.80	32°15'45.482"N	103°36'16.557"W	0.47	
13868.00	89.940	357.340	11133.48	2964.55	2964.33	-42.03	725256.47	460121.73	32°15'46.402"N	103°36'16.592"W	0.94	
13961.00	91.360	357.930	11132.42	3057.48	3057.24	-45.87	725252.63	460214.63	32°15'47.321"N	103°36'16.629"W	1.65	
14054.00	91.700	358.360	11129.94	3150.42	3150.16	-48.88	725249.62	460307.55	32°15'48.241"N	103°36'16.657"W	0.59	
14147.00	93.150	357.700	11126.01	3243.30	3243.02	-52.07	725246.43	460400.40	32°15'49.160"N	103°36'16.687"W	1.71	
14236.00	93.200	357.250	11121.08	3332.10	3331.79	-55.99	725242.51	460489.18	32°15'50.039"N	103°36'16.725"W	0.51	
14329.00	91.330	357.940	11117.40	3424.96	3424.64	-59.89	725238.61	460582.02	32°15'50.958"N	103°36'16.763"W	2.14	
14422.00	91.540	357.740	11115.07	3517.89	3517.54	-63.39	725235.11	460674.92	32°15'51.877"N	103°36'16.797"W	0.31	
14515.00	91.640	0.490	11112.49	3610.84	3610.48	-64.83	725233.67	460767.86	32°15'52.797"N	103°36'16.806"W	2.96	
14608.00	92.710	0.520	11108.96	3703.76	3703.41	-64.01	725234.49	460860.78	32°15'53.717"N	103°36'16.789"W	1.15	
14701.00	91.220	0.660	11105.77	3796.69	3796.35	-63.05	725235.45	460953.72	32°15'54.636"N	103°36'16.771"W	1.61	
14795.00	91.660	359.830	11103.41	3890.65	3890.32	-62.65	725235.85	461047.68	32°15'55.566"N	103°36'16.759"W	1.00	
14888.00	92.440	0.060	11100.08	3983.59	3983.26	-62.74	725235.76	461140.62	32°15'56.486"N	103°36'16.752"W	0.87	
14981.00	92.120	358.930	11096.38	4076.52	4076.18	-63.56	725234.94	461233.54	32°15'57.405"N	103°36'16.754"W	1.26	
15074.00	91.720	358.820	11093.27	4169.46	4169.11	-65.38	725233.12	461326.46	32°15'58.325"N	103°36'16.768"W	0.45	
15167.00	92.310	359.060	11090.00	4262.39	4262.03	-67.10	725231.40	461419.39	32°15'59.245"N	103°36'16.781"W	0.68	
15260.00	89.970	359.180	11088.15	4355.36	4355.00	-68.53	725229.97	461512.35	32°16'00.165"N	103°36'16.790"W	2.52	
15353.00	90.630	358.130	11087.66	4448.35	4447.97	-70.71	725227.79	461605.32	32°16'01.085"N	103°36'16.808"W	1.33	
15446.00	91.990	359.510	11085.54	4541.31	4540.92	-72.63	725225.87	461698.26	32°16'02.005"N	103°36'16.823"W	2.08	
15483.00	91.820	359.230	11084.31	4578.29	4577.90	-73.04	725225.47	461735.24	32°16'02.370"N	103°36'16.825"W	0.88	
15525.00	91.820	359.230	11082.97	4620.27	4619.87	-73.60	725224.90	461777.21	32°16'02.786"N	103°36'16.828"W	0.00	Proj to Bit

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
No.2H PBHL		11119.50	4621.86	-31.20	725267.30	461779.20	32°16'02.803"N	103°36'16.334"W	rectangle

WELLPATH COMPOSITION - Ref Wellbore: No.2H AWB Ref Wellpath: No.2H AWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	10461.00	ISCWSA MWD, Rev. 2 (Standard)	Pro MWD <1303-10461>	No.2H AWB
10461.00	15483.00	AT Curve (Short Spaced)	BHI MWD AT-Curve <10498-XXXX>	No.2H AWB
15483.00	15525.00	Blind Drilling (std)	Projection to bit	No.2H AWB