

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 Blvd., Santa Fe, NM 87505
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

RECEIVED

State of New Mexico

RECEIVED

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 30-015-45453	² Pool Code 98220	³ Pool Name PURPLE SAGE; WOLFCAMP
⁴ Property Code 325573	⁵ Property Name PLU 15 TWIN WELLS RANCH	⁶ Well Number 903H
⁷ OGRID No. 373075	⁸ Operator Name XTO PERMIAN OPERATING, LLC.	⁹ Elevation 3,539'

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
N	15	24 S	31 E		330	SOUTH	1,805	WEST	EDDY

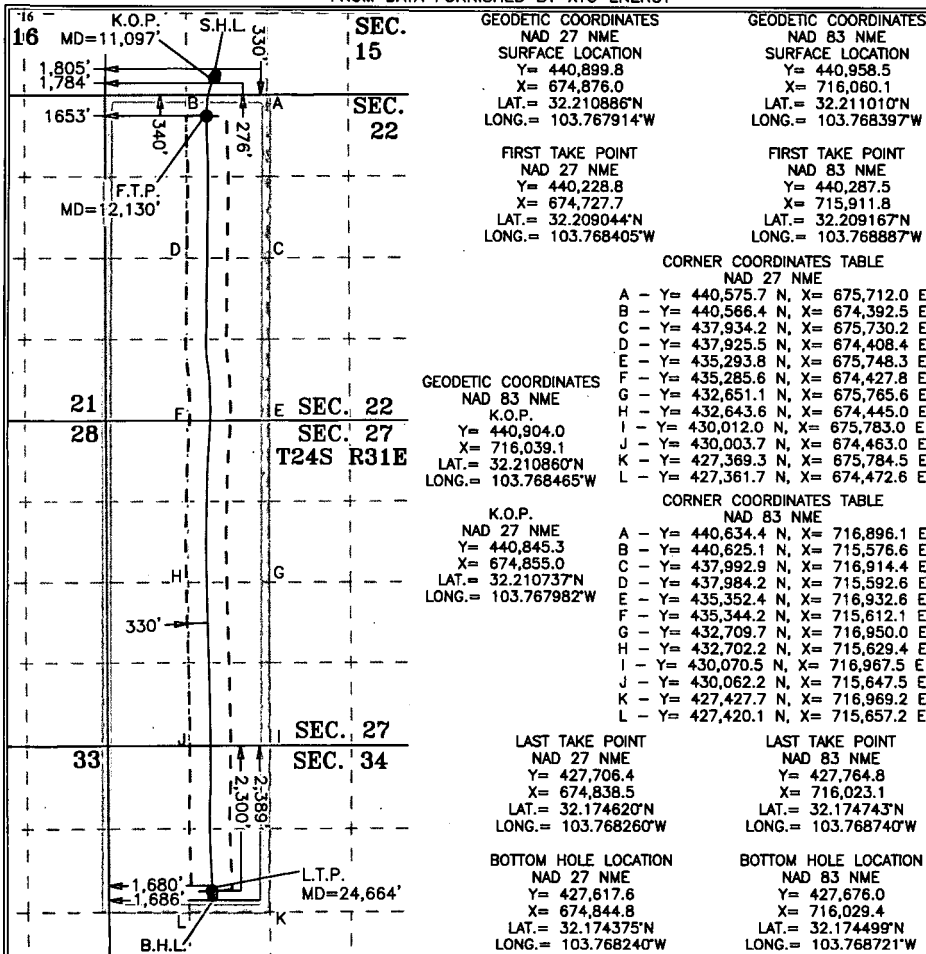
¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
F	34	24 S	31 E		2,389	NORTH	1,686	WEST	EDDY

¹² Dedicated Acres 800	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.

NOTE: AS-DRILLED BOTTOM HOLE PLOTTED
FROM DATA FURNISHED BY XTO ENERGY



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: Cheryl Rowell Date: 2/26/20
Printed Name: Cheryl Rowell
E-mail Address: cheryl_rowell@xtoenergy.com

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.

2-26-2020

Date of Survey

Signature and Seal of Professional Surveyor:

MARK DILLON HARP 23786
Certificate Number



JC

2017070972

RWP 4-21-20

Intent ☐ As Drilled ☒

API # 30-015-45453			
Operator Name: XTO PERMIAN OPERATING, LLC		Property Name: POKER LAKE UNIT 15 TWR	Well Number 903H

Kick Off Point (KOP)

UL N	Section 15	Township 24S	Range 31E	Lot	Feet 276	From N/S S	Feet 1784	From E/W W	County EDDY
Latitude 32.210860					Longitude 103.768465			NAD 83	

First Take Point (FTP)

UL C	Section 22	Township 24S	Range 31E	Lot	Feet 340	From N/S N	Feet 1653	From E/W W	County EDDY
Latitude 32.209167					Longitude 103.768887			NAD 83	

Last Take Point (LTP)

UL F	Section 34	Township 24S	Range 31E	Lot	Feet 2300	From N/S N	Feet 1680	From E/W W	County EDDY
Latitude 32.174743					Longitude 103.768740			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 # 30-015-45053			
Operator Name: XTO PERMIAN OPERATING, LLC		Property Name: POKER LAKE UNIT 15 TWR	Well Number 102H

KZ 06/29/2018



Crude Oilfield Solutions
11767 Katy Fwy Ste. 420
Houston, TX 77079
P: 832-338-9496

To: New Mexico Energy, Minerals and
Natural Resources Department
1220 South St. Francis Drive
Santa Fe, NM 87505 (505) 476-3220

Re: Certified Survey Report /PLU 15 Twin Wells Ranch 903H/ 30-015-45060

Via: Electronic Filing

Crude Oilfield Solutions, respectfully submits for filing the
required directional certified survey performed on the referenced well by
Crude Oilfield Solutions. Other information required by your office is as follows:

<u>Name & Title of Supervisor</u>	<u>Surveyed Depths</u>	<u>Dates Performed</u>	<u>Type of Survey</u>
Nicholas Flores MWD Coordinator	133' to 10670'	5-25-19 to 6-8-19	MWD

The directional MWD surveys performed by Crude Oilfield Solutions are attached.

Please file this certified survey report. If there are any questions or additional data
required, please let me know at your earliest opportunity.

Thank You

Sincerely,

Nicholas A. Flores

Nicholas Flores
MWD Manager

XTO ENERGY INC.

Project: Eddy County, NM (NMEZ) NAD27 Grid
 Site: PLU 15 Twin Wells Ranch 903H/104H
 Well: TWR 903H
 Wellbore: TWR 903H Lateral
 Design: TWR 903H Lateral AsDrilled



3539+22 @ 3561.00usft (Planning 22KB)
 NAD 1927 (NADCON CONUS)

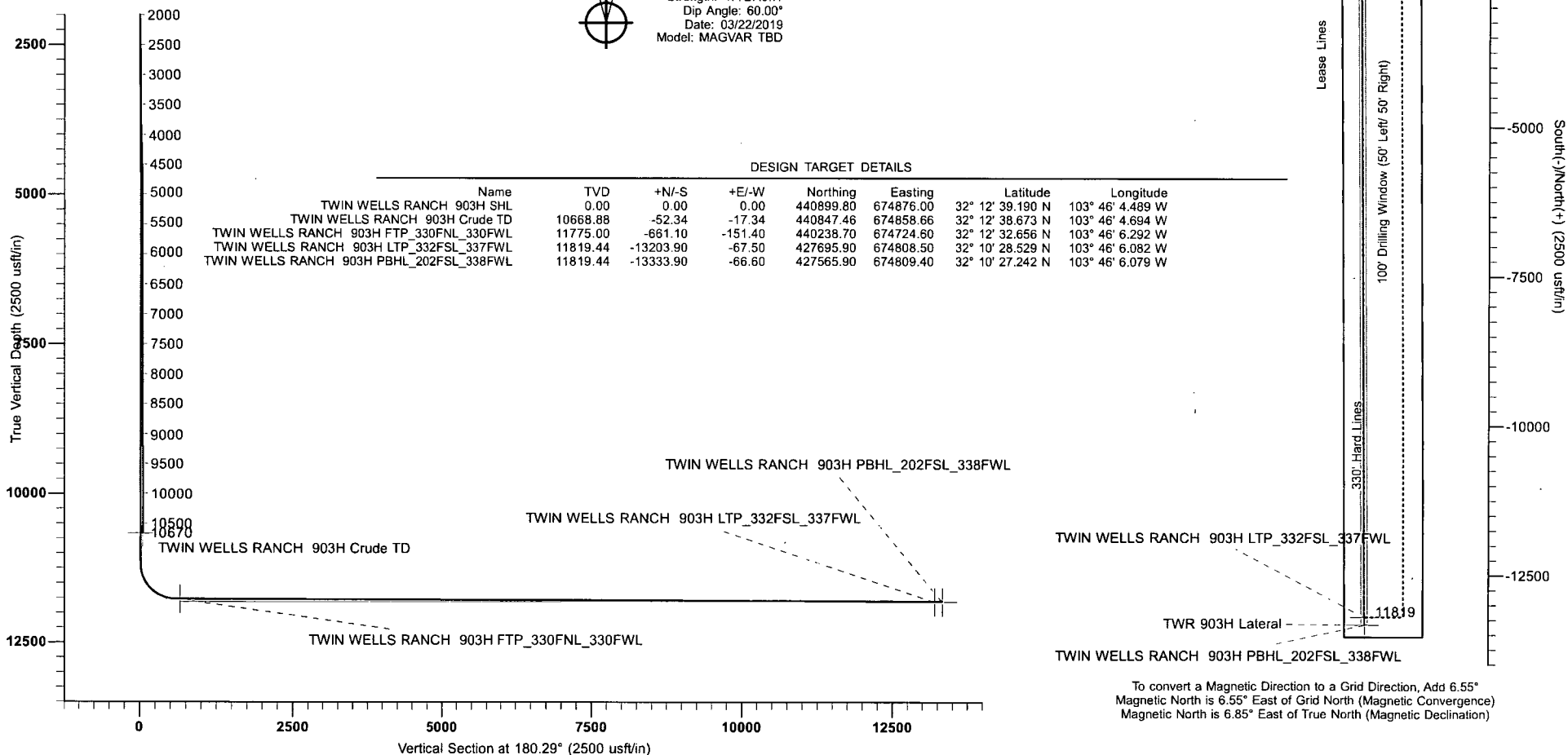


Azimuths to Grid North
 True North: -0.30°
 Magnetic North: 6.55°

Magnetic Field
 Strength: 47727.9nT
 Dip Angle: 60.00°
 Date: 03/22/2019
 Model: MAGVAR TBD

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
TWIN WELLS RANCH 903H SHL	0.00	0.00	0.00	440899.80	674876.00	32° 12' 39.190 N	103° 46' 4.489 W
TWIN WELLS RANCH 903H Crude TD	10668.88	-52.34	-17.34	440847.46	674858.66	32° 12' 38.673 N	103° 46' 4.694 W
TWIN WELLS RANCH 903H FTP_330FNL_330FWL	11775.00	-661.10	-151.40	440238.70	674724.60	32° 12' 32.656 N	103° 46' 6.292 W
TWIN WELLS RANCH 903H LTP_332FSL_337FWL	11819.44	-13203.90	-67.50	427695.90	674808.50	32° 10' 28.529 N	103° 46' 6.082 W
TWIN WELLS RANCH 903H PBHL_202FSL_338FWL	11819.44	-13333.90	-66.60	427565.90	674809.40	32° 10' 27.242 N	103° 46' 6.079 W



To convert a Magnetic Direction to a Grid Direction, Add 6.55°
 Magnetic North is 6.55° East of Grid North (Magnetic Convergence)
 Magnetic North is 6.85° East of True North (Magnetic Declination)

Design: TWR 903H Lateral AsDrilled (TWR 903H/TWR 903H Lateral)
 Created By: Mekka Williams
 eSomina Well Design
 mekka@esominawelldesign.com
 11:12, June 12 2019

CRUDE OILFIELD SOLUTIONS
 14427 Interdrive W Houston 77032
 832-230-2519



Survey Report

Company:	XTO ENERGY INC.	Local Co-ordinate Reference:	Well TWR 903H - Slot TWR 903H
Project:	Eddy County, NM (NMEZ) NAD27 Grid	TVD Reference:	3539+22 @ 3561.00usft (Planning 22KB)
Site:	PLU 15 Twin Wells Ranch 903H/104H	MD Reference:	3539+22 @ 3561.00usft (Planning 22KB)
Well:	TWR 903H	North Reference:	Grid
Wellbore:	TWR 903H Lateral	Survey Calculation Method:	Minimum Curvature
Design:	TWR 903H Lateral AsDrilled	Database:	CRUDE_EDM

Project	Eddy County, NM (NMEZ) NAD27 Grid		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site	PLU 15 Twin Wells Ranch 903H/104H		
Site Position:		Northing:	440,929.80 usft
From:	Map	Easting:	674,875.90 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13.20 in
		Latitude:	32° 12' 39.487 N
		Longitude:	103° 46' 4.488 W
		Grid Convergence:	0.30 °

Well	TWR 903H - Slot TWR 903H		
Well Position	+N/-S	0.00 usft	Northing: 440,899.80 usft
	+E/-W	0.00 usft	Easting: 674,876.00 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:	usft
		Latitude:	32° 12' 39.190 N
		Longitude:	103° 46' 4.489 W
		Ground Level:	3,539.00 usft

Wellbore	TWR 903H Lateral		
Magnetics	Model Name	Sample Date	Declination
	IGRF2015	03/22/19	(°)
			6.85
			Dip Angle (°)
			60.00
			Field Strength (nT)
			47,727.86206235

Design	TWR 903H Lateral AsDrilled		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
		Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.00	0.00	0.00
			Direction (°)
			180.29

Survey Program	Date	06/12/19		
From	To	Survey (Wellbore)	Tool Name	Description
(usft)	(usft)			
133.00	865.00	Survey #1 (TWR 903H Lateral)	MWD	OWSG MWD - Standard
941.00	10,593.00	Survey #2 (TWR 903H Lateral)	MWD	OWSG MWD - Standard
10,670.00	10,670.00	Survey #3 (TWR 903H Lateral)	Projection	Projection

Survey										
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Vertical	Dogleg	Build	Turn	
Depth	(°)	(°)	Depth	(usft)	(usft)	Section	Rate	Rate	Rate	
(usft)			(usft)			(usft)	(°/100ft)	(°/100ft)	(°/100ft)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
TWIN WELLS RANCH 104H SHL - TWIN WELLS RANCH 903H SHL										
133.00	0.40	158.00	133.00	-0.43	0.17	0.43	0.30	0.30	0.00	
231.00	0.70	47.00	231.00	-0.34	0.74	0.34	0.94	0.31	-113.27	
328.00	0.80	291.00	327.99	0.31	0.54	-0.31	1.31	0.10	-119.59	
423.00	1.10	317.00	422.98	1.21	-0.70	-1.21	0.55	0.32	27.37	
587.00	0.30	153.00	586.97	1.98	-1.58	-1.97	0.85	-0.49	-100.00	
681.00	0.50	166.00	680.97	1.36	-1.37	-1.36	0.23	0.21	13.83	
774.00	0.60	95.00	773.97	0.93	-0.78	-0.92	0.69	0.11	-76.34	

Survey Report

Company:	XTO ENERGY INC.	Local Co-ordinate Reference:	Well TWR 903H - Slot TWR 903H
Project:	Eddy County, NM (NMEZ) NAD27 Grid	TVD Reference:	3539+22 @ 3561.00usft (Planning 22KB)
Site:	PLU 15 Twin Wells Ranch 903H/104H	MD Reference:	3539+22 @ 3561.00usft (Planning 22KB)
Well:	TWR 903H	North Reference:	Grid
Wellbore:	TWR 903H Lateral	Survey Calculation Method:	Minimum Curvature
Design:	TWR 903H Lateral AsDrilled	Database:	CRUDE_EDM

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
865.00	0.30	29.00	864.96	1.09	-0.19	-1.09	0.61	-0.33	-72.53
941.00	0.44	157.46	940.96	1.00	0.01	-1.00	0.88	0.18	169.03
1,035.00	0.66	122.30	1,034.96	0.38	0.61	-0.38	0.42	0.23	-37.40
1,129.00	0.66	142.08	1,128.95	-0.34	1.40	0.33	0.24	0.00	21.04
1,223.00	0.84	124.50	1,222.94	-1.16	2.30	1.15	0.31	0.19	-18.70
1,317.00	0.13	221.62	1,316.94	-1.63	2.80	1.61	0.92	-0.76	103.32
1,411.00	0.53	302.65	1,410.94	-1.47	2.36	1.46	0.56	0.43	86.20
1,506.00	0.88	302.83	1,505.93	-0.84	1.38	0.83	0.37	0.37	0.19
1,600.00	1.14	299.93	1,599.92	0.02	-0.04	-0.02	0.28	0.28	-3.09
1,694.00	1.05	256.51	1,693.90	0.28	-1.69	-0.27	0.87	-0.10	-46.19
1,788.00	1.36	253.00	1,787.88	-0.24	-3.59	0.26	0.34	0.33	-3.73
1,882.00	1.45	250.97	1,881.85	-0.96	-5.78	0.99	0.11	0.10	-2.16
1,976.00	0.88	217.40	1,975.83	-1.92	-7.34	1.96	0.92	-0.61	-35.71
2,071.00	1.01	212.65	2,070.82	-3.20	-8.24	3.25	0.16	0.14	-5.00
2,165.00	1.36	210.02	2,164.80	-4.87	-9.24	4.91	0.38	0.37	-2.80
2,259.00	1.85	209.49	2,258.76	-7.15	-10.55	7.21	0.52	0.52	-0.56
2,354.00	0.84	219.86	2,353.74	-9.02	-11.75	9.08	1.09	-1.06	10.92
2,448.00	0.70	215.29	2,447.73	-10.02	-12.52	10.08	0.16	-0.15	-4.86
2,542.00	1.14	226.36	2,541.72	-11.13	-13.53	11.20	0.50	0.47	11.78
2,637.00	1.54	214.32	2,636.69	-12.84	-14.94	12.92	0.51	0.42	-12.67
2,732.00	1.36	242.10	2,731.66	-14.42	-16.65	14.51	0.76	-0.19	29.24
2,827.00	1.36	254.49	2,826.63	-15.25	-18.74	15.35	0.31	0.00	13.04
2,921.00	1.67	258.44	2,920.60	-15.82	-21.15	15.93	0.35	0.33	4.20
3,016.00	1.67	246.76	3,015.56	-16.65	-23.78	16.77	0.36	0.00	-12.29
3,110.00	0.13	354.60	3,109.55	-17.08	-25.05	17.21	1.82	-1.64	114.72
3,205.00	0.13	60.69	3,204.55	-16.92	-24.97	17.05	0.15	0.00	69.57
3,300.00	0.92	66.93	3,299.54	-16.57	-24.17	16.69	0.83	0.83	6.57
3,393.00	0.62	99.71	3,392.53	-16.36	-22.99	16.48	0.56	-0.32	35.25
3,486.00	0.97	148.32	3,485.53	-17.12	-22.08	17.23	0.78	0.38	52.27
3,580.00	1.19	156.93	3,579.51	-18.69	-21.28	18.80	0.29	0.23	9.16
3,673.00	1.19	163.96	3,672.49	-20.51	-20.63	20.61	0.16	0.00	7.56
3,766.00	0.92	174.25	3,765.47	-22.18	-20.29	22.28	0.35	-0.29	11.06
3,860.00	1.19	166.34	3,859.46	-23.88	-19.98	23.98	0.33	0.29	-8.41
3,953.00	1.32	163.87	3,952.44	-25.85	-19.46	25.95	0.15	0.14	-2.66
4,048.00	1.45	157.90	4,047.41	-28.01	-18.70	28.11	0.20	0.14	-6.28
4,142.00	1.89	156.14	4,141.37	-30.53	-17.63	30.62	0.47	0.47	-1.87
4,236.00	1.76	164.75	4,235.32	-33.34	-16.62	33.43	0.32	-0.14	9.16
4,293.00	1.76	169.76	4,292.29	-35.05	-16.23	35.13	0.27	0.00	8.79
4,423.00	1.93	178.29	4,422.23	-39.20	-15.81	39.28	0.25	0.13	6.56
4,517.00	0.62	186.46	4,516.20	-41.29	-15.82	41.37	1.40	-1.39	8.69
4,612.00	0.40	235.07	4,611.20	-41.99	-16.15	42.07	0.49	-0.23	51.17
4,706.00	0.44	261.87	4,705.19	-42.23	-16.78	42.31	0.21	0.04	28.51
4,800.00	0.62	251.94	4,799.19	-42.44	-17.62	42.53	0.21	0.19	-10.56

Survey Report

Company:	XTO ENERGY INC.	Local Co-ordinate Reference:	Well TWR 903H - Slot TWR 903H
Project:	Eddy County, NM (NMEZ) NAD27 Grid	TVD Reference:	3539+22 @ 3561.00usft (Planning 22KB)
Site:	PLU 15 Twin Wells Ranch 903H/104H	MD Reference:	3539+22 @ 3561.00usft (Planning 22KB)
Well:	TWR 903H	North Reference:	Grid
Wellbore:	TWR 903H Lateral	Survey Calculation Method:	Minimum Curvature
Design:	TWR 903H Lateral AsDrilled	Database:	CRUDE_EDM

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,894.00	0.31	222.67	4,893.19	-42.78	-18.28	42.87	0.41	-0.33	-31.14
4,988.00	0.53	252.12	4,987.19	-43.10	-18.86	43.20	0.32	0.23	31.33
5,082.00	0.35	225.22	5,081.18	-43.44	-19.48	43.54	0.29	-0.19	-28.62
5,177.00	0.13	259.85	5,176.18	-43.66	-19.79	43.76	0.27	-0.23	36.45
5,272.00	0.57	254.23	5,271.18	-43.81	-20.35	43.91	0.46	0.46	-5.92
5,365.00	0.13	207.56	5,364.18	-44.03	-20.85	44.13	0.53	-0.47	-50.18
5,459.00	0.35	288.68	5,458.18	-44.03	-21.17	44.14	0.38	0.23	86.30
5,551.00	0.26	309.42	5,550.18	-43.81	-21.60	43.92	0.15	-0.10	22.54
5,646.00	0.40	282.26	5,645.17	-43.60	-22.09	43.71	0.22	0.15	-28.59
5,740.00	0.35	178.55	5,739.17	-43.82	-22.40	43.93	0.63	-0.05	-110.33
5,835.00	0.18	119.23	5,834.17	-44.18	-22.26	44.29	0.32	-0.18	-62.44
5,929.00	0.26	219.42	5,928.17	-44.42	-22.27	44.53	0.36	0.09	106.58
6,024.00	0.35	254.49	6,023.17	-44.66	-22.69	44.78	0.21	0.09	36.92
6,118.00	0.18	298.87	6,117.17	-44.67	-23.09	44.78	0.27	-0.18	47.21
6,213.00	0.04	65.00	6,212.17	-44.58	-23.19	44.70	0.22	-0.15	132.77
6,308.00	0.09	157.11	6,307.17	-44.64	-23.13	44.75	0.11	0.05	96.96
6,402.00	0.48	177.67	6,401.17	-45.10	-23.09	45.21	0.42	0.41	21.87
6,498.00	0.31	148.41	6,497.17	-45.72	-22.94	45.84	0.27	-0.18	-30.48
6,592.00	0.40	126.96	6,591.16	-46.13	-22.54	46.25	0.17	0.10	-22.82
6,687.00	0.53	129.77	6,686.16	-46.61	-21.94	46.72	0.14	0.14	2.96
6,781.00	0.44	146.21	6,780.16	-47.19	-21.40	47.30	0.18	-0.10	17.49
6,875.00	0.48	156.40	6,874.15	-47.85	-21.05	47.96	0.10	0.04	10.84
6,970.00	0.44	154.82	6,969.15	-48.55	-20.73	48.65	0.04	-0.04	-1.66
7,063.00	0.40	154.03	7,062.15	-49.16	-20.44	49.27	0.04	-0.04	-0.85
7,157.00	0.35	175.30	7,156.15	-49.74	-20.27	49.85	0.16	-0.05	22.63
7,252.00	0.48	173.98	7,251.14	-50.43	-20.20	50.53	0.14	0.14	-1.39
7,346.00	0.53	180.31	7,345.14	-51.26	-20.16	51.36	0.08	0.05	6.73
7,439.00	0.57	177.41	7,438.14	-52.15	-20.15	52.25	0.05	0.04	-3.12
7,533.00	0.53	182.51	7,532.13	-53.05	-20.14	53.15	0.07	-0.04	5.43
7,627.00	0.75	30.28	7,626.13	-52.95	-19.85	53.05	1.32	0.23	-161.95
7,721.00	0.88	33.80	7,720.12	-51.82	-19.14	51.92	0.15	0.14	3.74
7,814.00	0.75	29.75	7,813.11	-50.70	-18.44	50.79	0.15	-0.14	-4.35
7,908.00	0.79	38.37	7,907.10	-49.66	-17.73	49.75	0.13	0.04	9.17
8,002.00	0.62	41.88	8,001.10	-48.77	-16.99	48.86	0.19	-0.18	3.73
8,097.00	0.48	39.60	8,096.09	-48.08	-16.40	48.16	0.15	-0.15	-2.40
8,190.00	0.48	61.04	8,189.09	-47.59	-15.81	47.67	0.19	0.00	23.05
8,283.00	0.40	68.51	8,282.08	-47.28	-15.16	47.36	0.11	-0.09	8.03
8,377.00	0.35	83.98	8,376.08	-47.13	-14.57	47.21	0.12	-0.05	16.46
8,471.00	0.18	45.66	8,470.08	-47.00	-14.18	47.07	0.25	-0.18	-40.77
8,566.00	0.26	224.34	8,565.08	-47.05	-14.23	47.12	0.46	0.08	188.08
8,661.00	0.44	224.34	8,660.08	-47.47	-14.63	47.54	0.19	0.19	0.00
8,756.00	0.70	204.22	8,755.08	-48.26	-15.12	48.33	0.34	0.27	-21.18
8,850.00	0.97	197.62	8,849.07	-49.54	-15.60	49.62	0.30	0.29	-7.02
8,945.00	1.05	165.37	8,944.05	-51.15	-15.62	51.22	0.60	0.08	-33.95

Survey Report

Company:	XTO ENERGY INC.	Local Co-ordinate Reference:	Well TWR 903H - Slot TWR 903H
Project:	Eddy County, NM (NMEZ) NAD27 Grid	TVD Reference:	3539+22 @ 3561.00usft (Planning 22KB)
Site:	PLU 15 Twin Wells Ranch 903H/104H	MD Reference:	3539+22 @ 3561.00usft (Planning 22KB)
Well:	TWR 903H	North Reference:	Grid
Wellbore:	TWR 903H Lateral	Survey Calculation Method:	Minimum Curvature
Design:	TWR 903H Lateral AsDrilled	Database:	CRUDE_EDM

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
9,039.00	1.32	143.84	9,038.03	-52.85	-14.77	52.93	0.55	0.29	-22.90
9,133.00	1.49	142.52	9,132.00	-54.70	-13.39	54.77	0.18	0.18	-1.40
9,227.00	1.32	133.55	9,225.97	-56.41	-11.86	56.47	0.30	-0.18	-9.54
9,321.00	0.92	119.75	9,319.96	-57.53	-10.42	57.59	0.51	-0.43	-14.68
9,416.00	0.48	122.04	9,414.95	-58.12	-9.42	58.17	0.46	-0.46	2.41
9,511.00	0.31	154.56	9,509.95	-58.57	-8.97	58.61	0.29	-0.18	34.23
9,605.00	0.13	55.59	9,603.95	-58.74	-8.77	58.78	0.38	-0.19	-105.29
9,699.00	0.18	359.61	9,697.95	-58.53	-8.69	58.57	0.16	0.05	-59.55
9,792.00	0.62	349.15	9,790.94	-57.89	-8.78	57.93	0.48	0.47	-11.25
9,886.00	0.66	326.91	9,884.94	-56.94	-9.17	56.98	0.27	0.04	-23.66
9,981.00	0.75	317.16	9,979.93	-56.02	-9.89	56.07	0.16	0.09	-10.26
10,077.00	0.53	310.21	10,075.93	-55.27	-10.66	55.33	0.24	-0.23	-7.24
10,171.00	0.57	312.15	10,169.92	-54.68	-11.34	54.74	0.05	0.04	2.06
10,266.00	0.62	317.86	10,264.92	-53.98	-12.03	54.04	0.08	0.05	6.01
10,360.00	0.92	291.14	10,358.91	-53.33	-13.08	53.40	0.49	0.32	-28.43
10,454.00	0.79	285.51	10,452.90	-52.89	-14.41	52.96	0.16	-0.14	-5.99
10,548.00	0.88	289.21	10,546.89	-52.48	-15.71	52.55	0.11	0.10	3.94
10,593.00	0.75	270.84	10,591.88	-52.36	-16.33	52.44	0.64	-0.29	-40.82
10,670.00	0.75	270.84	10,668.88	-52.34	-17.34	52.43	0.00	0.00	0.00
TWIN WELLS RANCH 104H FTP_330FNL_330FEL - TWIN WELLS RANCH 903H FTP_330FNL_330FWL - TWIN WELLS RANCH 104H LTP.									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
TWIN WELLS RANCH !	0.00	0.00	0.00	0.00	0.00	440,899.80	674,876.00	32° 12' 39.190 N	103° 46' 4.489 W
- actual wellpath hits target center									
- Point									
TWIN WELLS RANCH !	0.00	0.00	10,668.8	-52.34	-17.34	440,847.46	674,858.66	32° 12' 38.673 N	103° 46' 4.694 W
- actual wellpath misses target center by 0.01usft at 10670.00usft MD (10668.88 TVD, -52.34 N, -17.34 E)									
- Point									
TWIN WELLS RANCH !	0.00	0.00	11,775.00	-661.10	-151.40	440,238.70	674,724.60	32° 12' 32.656 N	103° 46' 6.292 W
- actual wellpath misses target center by 1269.67usft at 10670.00usft MD (10668.88 TVD, -52.34 N, -17.34 E)									
- Point									
TWIN WELLS RANCH !	0.00	0.00	11,819.44	-13,203.90	-67.50	427,695.90	674,808.50	32° 10' 28.529 N	103° 46' 6.082 W
- actual wellpath misses target center by 13201.89usft at 10670.00usft MD (10668.88 TVD, -52.34 N, -17.34 E)									
- Point									
TWIN WELLS RANCH !	0.00	0.00	11,819.44	-13,333.90	-66.60	427,565.90	674,809.40	32° 10' 27.242 N	103° 46' 6.079 W
- actual wellpath misses target center by 13331.39usft at 10670.00usft MD (10668.88 TVD, -52.34 N, -17.34 E)									
- Rectangle (sides W100.00 H12,673.58 D0.00)									

Checked By: _____	Approved By: _____	Date: _____
-------------------	--------------------	-------------



Weatherford

Drilling Services
10000 West County Rd. 116
P.O. Box 61028
Midland, TX USA 79711
Tel. (432) 561-8892 Fax (432) 561-8895

XTO Energy
6401 Holliday Hill Road
Midland, TX 79707

Date: July 1, 2019

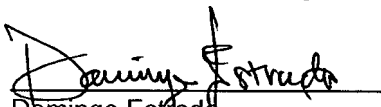
Attention: Court Atkins

Re: XTO Energy
Well: PLU 15 Twin Wells Ranch 903H
Eddy County, New Mexico

Enclosed, please find the original survey performed on the referenced well by Precision Energy Services, Inc. (P-5 No. 676004), a Weatherford company. Other information required by your office is as follows:

<u>Name & Title Of Surveyor</u>	<u>Well Number</u>	<u>Surveyed Depths</u>	<u>Dates Performed</u>	<u>Type of Survey</u>
Domingo Estrada	903H	10,774 MD	6/10/2019	Measurement
MWD Ops. Coordinator		24,753 MD	7/1/2019	While Drilling

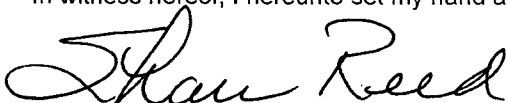
A notarized plan vs. actual is attached to the survey report. If any other information is required, please contact the undersigned at the letterhead address and phone number.

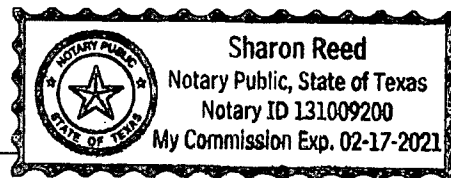


Domingo Estrada
MWD Ops. Coordinator

On this, the 3rd day of July, 2019, before me a notary public, the undersigned officer, personally appeared, Domingo Estrada, known to me (or satisfactorily proven) to be the person whose name is subscribed to the within instrument, and acknowledged that he executed the same for the purposes therein contained.

In witness hereof, I hereunto set my hand and official seal.


Notary Public



**5D Survey Report**

XTO Energy

Field Name: *XTO NAD 27 NME*
Site Name: *PLU 15 Twin Wells Ranch*
Well Name: *PLU 15 TWR 903H*
File number: *13826726*
Survey: *Definitive survey*

1 July 2019





PLU 15 TWR 903H

Field Name: XTO NAD 27 NME	Map Units: US ft		Company Name: XTO Energy	
	Vertical Reference Datum (VRD): Mean Sea Level			
	Projected Coordinate System: NAD27 / New Mexico East			
	Comment:			
Site: PLU 15 Twin Wells Ranch	Units: US ft	North Reference: Grid	Convergence Angle: 0.30	
	Position:	Northing: 440924.90 US ft	Latitude: 32° 12' 39.47"	
		Easting: 674200.80 US ft	Longitude: -103° 46' 12.35"	
	Elevation above MSL: 3530.00 US ft		Comment: Eddy Co, NM	
Slot: PLU 15 TWR 903H	Position (Relative to Site Centre)			
	+N/-S: -25.10 US ft	Northing: 440899.80 US ft	Latitude: 32° 12' 39.19"	
	+E/-W: 675.20 US ft	Easting: 674876.00 US ft	Longitude: -103° 46' 4.49"	
	Elevation above MSL: 3539.00 US ft		Comment: Akita 22	
Well: PLU 15 TWR 903H	Type: Main well	UWI:		
	File Number: 13826726	Comment:		
	Closure Distance: 13344.1 US ft	Closure Azimuth: 180.12°		
	Vertical Section: Position of Origin (Relative to Slot centre)			
	+N/-S: 0.00 US ft	+E/-W: -0.00 US ft	Az: 180.29°	

Drill floor: Survey Name: Definitive Survey

Rig Height (Well TVD Reference): Elevation above MSL: 3561.00 US ft **Inclination:** 0.00° **Azimuth:** 0.00°
22.00 US ft

Survey Name: Definitive Survey

Date: 06/Jun/2019 **Survey Tool:** See Survey **Comment:** **Company:**
Tool Ranges below.

Magnetic Model:

Model Name: MagVar **Date:** 06/Jun/2019 **Field Strength:** **Declination:** 6.86° **Dip:** 59.90°
47876.0 nT

Tie Point:

MD: 0.00 US ft **Inclination:** **Azimuth:** 0.00° **TVD:** -0.00 US ft **North Offset:** 0.00 US **East Offset:** -0.00 US ft
0.00°

Survey Tool Ranges:

Name	Start MD(USFt)	End MD(USFt)	Source Survey
MWD	0.00	865.00	MWD
MWD + IFR	865.00	10593.00	MWD+IFR

5D Survey Report

Survey Tool Ranges:			
Name	Start MD(USFt)	End MD(USFt)	Source Survey
MWD + IFR + MS	10593.00	11227.00	WFT MWD+IFR+MS Svy_1
MWD + IFR + MS	11227.00	13316.00	WFT MWD+IFR+MS Svy_2
MWD + IFR + MS	13316.00	18815.00	WFT MWD+IFR+MS Svy_3
MWD + IFR + MS	18815.00	24815.00	WFT MWD+IFR+MS Svy_4

Wellpath created using minimum curvature.

Survey Points: (Relative to Slot centre)(TVD relative to Well TVD Reference)											
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	VS (US ft)	N. Offset (US ft)	E. Offset (US ft)	Northing (US ft)	Easting (US ft)	Clos. Dist (US ft)	Clos. Az (°)	Comment
10593.00	0.75	270.84	10591.88	52.44	-52.36	-16.33	440847.44	674859.67	54.85	197.33	Tie On
10774.00	0.63	255.40	10772.87	52.68	-52.59	-18.48	440847.21	674857.52	55.74	199.36	First WFT SVY
10868.00	0.51	255.02	10866.86	52.93	-52.83	-19.39	440846.97	674856.61	56.27	200.15	
10962.00	0.43	257.33	10960.86	53.12	-53.01	-20.13	440846.79	674855.87	56.71	200.80	
11056.00	0.42	205.68	11054.86	53.51	-53.40	-20.63	440846.40	674855.37	57.25	201.12	
11150.00	2.93	195.57	11148.81	56.14	-56.03	-21.42	440843.77	674854.58	59.98	200.92	
11197.00	4.94	209.17	11195.70	59.07	-58.95	-22.73	440840.85	674853.27	63.18	201.09	
11227.00	7.89	201.00	11225.51	62.12	-62.00	-24.10	440837.80	674851.90	66.52	201.24	
11290.00	12.78	212.71	11287.47	72.06	-71.91	-29.42	440827.89	674846.58	77.69	202.25	
11336.00	18.54	209.54	11331.75	82.74	-82.56	-35.78	440817.24	674840.22	89.98	203.43	
11383.00	24.03	207.62	11375.53	97.78	-97.55	-43.91	440802.25	674832.09	106.98	204.23	
11430.00	28.81	206.37	11417.61	116.46	-116.19	-53.38	440783.61	674822.62	127.86	204.67	
11477.00	32.43	202.83	11458.05	138.28	-137.96	-63.30	440761.84	674812.70	151.79	204.65	
11523.00	36.45	199.69	11495.98	162.57	-162.21	-72.70	440737.59	674803.30	177.75	204.14	
11570.00	40.80	197.87	11532.69	190.39	-189.98	-82.12	440709.82	674793.88	206.97	203.38	
11616.00	44.22	196.80	11566.60	220.11	-219.65	-91.37	440680.15	674784.63	237.90	202.59	
11663.00	49.03	194.89	11598.87	253.01	-252.51	-100.67	440647.29	674775.33	271.84	201.74	
11711.00	53.41	193.56	11628.93	289.33	-288.77	-109.85	440611.03	674766.15	308.96	200.83	
11758.00	56.40	192.11	11655.94	326.86	-326.26	-118.38	440573.54	674757.62	347.08	199.94	
11804.00	59.87	190.11	11680.23	365.22	-364.59	-125.90	440535.21	674750.10	385.72	199.05	
11851.00	62.88	188.01	11702.74	405.99	-405.33	-132.38	440494.47	674743.62	426.40	198.09	
11899.00	66.77	186.13	11723.16	449.12	-448.43	-137.71	440451.37	674738.29	469.10	197.07	
11946.00	69.40	184.43	11740.70	492.55	-491.84	-141.72	440407.96	674734.28	511.85	196.07	
11994.00	73.39	183.44	11756.01	537.94	-537.22	-144.84	440362.58	674731.16	556.40	195.09	
12041.00	78.73	181.97	11767.33	583.50	-582.76	-146.98	440317.04	674729.02	601.01	194.16	
12087.00	82.91	181.00	11774.67	628.89	-628.15	-148.16	440271.65	674727.84	645.38	193.27	
12182.00	89.02	179.41	11781.35	723.61	-722.86	-148.49	440176.94	674727.51	737.96	191.61	
12276.00	91.40	179.31	11781.01	817.59	-816.85	-147.44	440082.95	674728.56	830.05	190.23	
12371.00	92.66	180.05	11777.64	912.52	-911.79	-146.91	439988.01	674729.09	923.55	189.15	
12466.00	93.29	179.01	11772.71	1007.38	-1006.65	-146.13	439893.15	674729.87	1017.21	188.26	
12560.00	90.35	178.50	11769.72	1101.29	-1100.57	-144.09	439799.23	674731.91	1109.97	187.46	
12655.00	90.07	177.10	11769.38	1196.20	-1195.50	-140.44	439704.30	674735.56	1203.72	186.70	
12750.00	88.74	175.57	11770.36	1290.96	-1290.30	-134.37	439609.50	674741.63	1297.27	185.95	
12844.00	89.09	176.54	11772.14	1384.69	-1384.06	-127.91	439515.74	674748.09	1389.95	185.28	
12939.00	88.46	178.27	11774.17	1479.54	-1478.93	-123.61	439420.87	674752.39	1484.09	184.78	
13033.00	91.19	180.12	11774.46	1573.51	-1572.91	-122.29	439326.89	674753.71	1577.66	184.45	
13127.00	92.66	180.96	11771.30	1667.45	-1666.85	-123.17	439232.95	674752.83	1671.39	184.23	
13222.00	89.93	180.12	11769.16	1762.42	-1761.81	-124.07	439137.99	674751.93	1766.17	184.03	
13316.00	90.00	178.52	11769.21	1856.40	-1855.80	-122.95	439044.00	674753.05	1859.87	183.79	
13449.00	89.88	180.14	11769.35	1989.38	-1988.79	-121.39	438911.01	674754.61	1992.49	183.49	
13544.00	89.20	182.83	11770.12	2084.34	-2083.74	-123.86	438816.06	674752.14	2087.42	183.40	
13637.00	87.77	181.78	11772.58	2177.25	-2176.63	-127.60	438723.17	674748.40	2180.37	183.35	
13731.00	88.58	180.82	11775.57	2271.19	-2270.56	-129.73	438629.24	674746.27	2274.26	183.27	
13825.00	87.40	180.10	11778.87	2365.13	-2364.49	-130.48	438535.31	674745.52	2368.09	183.16	
13919.00	87.90	179.09	11782.72	2459.04	-2458.41	-129.82	438441.39	674746.18	2461.84	183.02	
14013.00	87.65	180.47	11786.37	2552.96	-2552.34	-129.46	438347.46	674746.54	2555.62	182.90	
14107.00	87.28	180.73	11790.53	2646.87	-2646.24	-130.44	438253.56	674745.56	2649.45	182.82	
14201.00	88.70	181.02	11793.82	2740.80	-2740.17	-131.87	438159.63	674744.13	2743.34	182.76	
14294.00	87.34	180.36	11797.04	2833.74	-2833.10	-132.99	438066.70	674743.01	2836.22	182.69	

5D Survey Report

Survey Points: (Relative to Slot centre)(TVD relative to Well TVD Reference)											Comment
MD (US ft)	Inc. (°)	Az (°)	TVD (US ft)	VS (US ft)	N. Offset (US ft)	E. Offset (US ft)	Northing (US ft)	Easting (US ft)	Clos. Dist (US ft)	Clos. Az (°)	
14388.00	90.74	181.11	11798.61	2927.71	-2927.07	-134.20	437972.73	674741.80	2930.14	182.63	
14482.00	89.69	179.04	11798.26	3021.70	-3021.06	-134.32	437878.74	674741.68	3024.05	182.55	
14577.00	91.73	180.27	11797.08	3116.68	-3116.05	-133.75	437783.75	674742.25	3118.92	182.46	
14671.00	91.98	181.40	11794.04	3210.63	-3209.99	-135.12	437689.81	674740.88	3212.83	182.41	
14765.00	90.87	181.08	11791.70	3304.58	-3303.93	-137.15	437595.87	674738.85	3306.78	182.38	
14859.00	90.49	180.89	11790.59	3398.57	-3397.91	-138.77	437501.89	674737.23	3400.74	182.34	
14955.00	91.61	180.75	11788.83	3494.55	-3493.88	-140.14	437405.92	674735.86	3496.69	182.30	
15049.00	88.70	181.08	11788.57	3588.53	-3587.86	-141.64	437311.94	674734.36	3590.66	182.26	
15144.00	89.75	180.46	11789.86	3683.52	-3682.84	-142.92	437216.96	674733.08	3685.61	182.22	
15238.00	89.94	179.47	11790.11	3777.52	-3776.84	-142.86	437122.96	674733.14	3779.54	182.17	
15332.00	89.81	178.59	11790.32	3871.49	-3870.83	-141.27	437028.97	674734.73	3873.40	182.09	
15427.00	90.37	179.19	11790.17	3966.46	-3965.81	-139.43	436933.99	674736.57	3968.26	182.01	
15522.00	90.68	180.56	11789.30	4061.45	-4060.80	-139.22	436839.00	674736.78	4063.19	181.96	
15615.00	89.94	183.27	11788.79	4154.41	-4153.74	-142.33	436746.06	674733.67	4156.18	181.96	
15710.00	88.70	183.78	11789.92	4249.25	-4248.55	-148.17	436651.25	674727.83	4251.13	182.00	
15803.00	87.90	178.74	11792.68	4342.16	-4341.46	-150.22	436558.34	674725.78	4344.05	181.98	
15898.00	89.07	177.03	11795.19	4437.04	-4436.35	-146.71	436463.45	674729.29	4438.78	181.89	
15992.00	89.20	176.48	11796.61	4530.85	-4530.19	-141.39	436369.61	674734.61	4532.40	181.79	
16085.00	87.90	172.80	11798.97	4623.35	-4622.74	-132.71	436277.06	674743.29	4624.64	181.64	
16180.00	89.57	171.70	11801.06	4717.39	-4716.84	-119.90	436182.96	674756.10	4718.36	181.46	
16273.00	89.63	172.06	11801.71	4809.39	-4808.91	-106.77	436090.89	674769.23	4810.09	181.27	
16367.00	90.49	173.93	11801.62	4902.62	-4902.20	-95.30	435997.60	674780.70	4903.13	181.11	
16461.00	90.62	177.88	11800.70	4996.32	-4995.94	-88.59	435903.86	674787.41	4996.72	181.02	
16555.00	90.37	179.28	11799.89	5090.27	-5089.90	-86.26	435809.90	674789.74	5090.63	180.97	
16648.00	89.75	179.24	11799.79	5183.26	-5182.89	-85.06	435716.91	674790.94	5183.59	180.94	
16742.00	90.00	175.80	11800.00	5277.13	-5276.79	-80.99	435623.01	674795.01	5277.41	180.88	
16837.00	91.42	178.41	11798.82	5371.97	-5371.65	-76.20	435528.15	674799.80	5372.19	180.81	
16930.00	90.99	181.29	11796.87	5464.94	-5464.62	-75.95	435435.18	674800.05	5465.15	180.80	
17023.00	89.88	182.76	11796.16	5557.89	-5557.56	-79.24	435342.24	674796.76	5558.12	180.82	
17117.00	89.01	181.22	11797.07	5651.84	-5651.49	-82.50	435248.31	674793.50	5652.09	180.84	
17211.00	90.74	181.24	11797.28	5745.82	-5745.47	-84.52	435154.33	674791.48	5746.09	180.84	
17306.00	89.75	183.69	11796.87	5840.74	-5840.37	-88.61	435059.43	674787.39	5841.04	180.87	
17402.00	89.88	184.39	11797.18	5936.54	-5936.13	-95.37	434963.67	674780.63	5936.90	180.92	
17494.00	89.26	183.72	11797.87	6028.33	-6027.90	-101.88	434871.90	674774.12	6028.76	180.97	
17590.00	89.63	183.30	11798.80	6124.18	-6123.71	-107.75	434776.09	674768.25	6124.66	181.01	
17685.00	89.57	182.99	11799.46	6219.06	-6218.56	-112.96	434681.24	674763.04	6219.59	181.04	
17779.00	89.75	182.72	11800.02	6312.96	-6312.45	-117.65	434587.35	674758.35	6313.54	181.07	
17873.00	89.88	182.04	11800.32	6406.90	-6406.36	-121.55	434493.44	674754.45	6407.52	181.09	
17967.00	91.24	182.56	11799.41	6500.83	-6500.28	-125.32	434399.52	674750.68	6501.49	181.10	
18061.00	89.75	180.54	11798.59	6594.80	-6594.24	-127.86	434305.56	674748.14	6595.48	181.11	
18155.00	91.55	180.91	11797.53	6688.79	-6688.22	-129.05	434211.58	674746.95	6689.46	181.11	
18248.00	90.86	180.66	11795.57	6781.76	-6781.19	-130.33	434118.61	674745.67	6782.44	181.10	
18342.00	90.25	180.79	11794.66	6875.75	-6875.18	-131.52	434024.62	674744.48	6876.43	181.10	
18436.00	90.25	181.25	11794.25	6969.75	-6969.16	-133.19	433930.64	674742.81	6970.43	181.09	
18530.00	90.49	181.50	11793.64	7063.73	-7063.13	-135.44	433836.67	674740.56	7064.43	181.10	
18625.00	88.70	181.23	11794.32	7158.70	-7158.10	-137.71	433741.70	674738.29	7159.42	181.10	
18720.00	89.75	181.51	11795.60	7253.68	-7253.06	-139.98	433646.74	674736.02	7254.41	181.11	
18815.00	90.62	182.60	11795.29	7348.63	-7348.00	-143.39	433551.80	674732.61	7349.40	181.12	
18897.00	89.65	180.57	11795.10	7430.60	-7429.96	-145.65	433469.84	674730.35	7431.39	181.12	
18992.00	88.60	179.07	11796.55	7525.58	-7524.94	-145.36	433374.86	674730.64	7526.35	181.11	
19086.00	90.70	180.26	11797.13	7619.57	-7618.93	-144.81	433280.87	674731.19	7620.31	181.09	
19179.00	88.74	178.68	11797.58	7712.55	-7711.92	-143.95	433187.88	674732.05	7713.26	181.07	
19273.00	88.74	178.60	11799.65	7806.49	-7805.87	-141.72	433093.93	674734.28	7807.16	181.04	
19366.00	90.49	178.61	11800.27	7899.44	-7898.84	-139.45	433000.96	674736.55	7900.07	181.01	
19461.00	89.23	178.81	11800.50	7994.40	-7993.81	-137.31	432905.99	674738.69	7994.99	180.98	
19554.00	89.58	178.93	11801.47	8087.37	-8086.79	-135.48	432813.01	674740.52	8087.92	180.96	
19648.00	90.00	178.98	11801.81	8181.34	-8180.77	-133.76	432719.03	674742.24	8181.87	180.94	
19741.00	90.07	179.14	11801.76	8274.32	-8273.76	-132.24	432626.04	674743.76	8274.82	180.92	
19834.00	89.72	179.23	11801.93	8367.31	-8366.75	-130.92	432533.05	674745.08	8367.77	180.90	

5D Survey Report

Survey Points: (Relative to Slot centre)(TVD relative to Well TVD Reference)											
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	VS (US ft)	N.Offset (US ft)	E.Offset (US ft)	Northing (US ft)	Easting (US ft)	Clos Dist (US ft)	Clos Az (°)	Comment
19929.00	89.93	179.09	11802.22	8462.29	-8461.74	-129.52	432438.06	674746.48	8462.73	180.88	
20023.00	88.53	178.64	11803.48	8556.25	-8555.71	-127.66	432344.09	674748.34	8556.66	180.85	
20117.00	88.04	178.34	11806.29	8650.16	-8649.63	-125.19	432250.17	674750.81	8650.54	180.83	
20210.00	87.76	178.72	11809.70	8743.05	-8742.54	-122.80	432157.26	674753.20	8743.40	180.80	
20305.00	91.68	178.21	11810.17	8837.98	-8837.49	-120.26	432062.31	674755.74	8838.31	180.78	
20399.00	90.21	177.28	11808.62	8931.87	-8931.40	-116.56	431968.40	674759.44	8932.16	180.75	
20493.00	89.58	176.71	11808.79	9025.72	-9025.27	-111.63	431874.53	674764.37	9025.96	180.71	
20586.00	90.84	178.60	11808.45	9118.61	-9118.18	-107.83	431781.62	674768.17	9118.82	180.68	
20680.00	91.47	179.10	11806.55	9212.56	-9212.14	-105.94	431687.66	674770.06	9212.75	180.66	
20775.00	89.86	178.94	11805.45	9307.53	-9307.12	-104.32	431592.68	674771.68	9307.71	180.64	
20870.00	89.30	178.83	11806.15	9402.50	-9402.10	-102.47	431497.70	674773.53	9402.66	180.62	
20964.00	88.81	178.36	11807.70	9496.44	-9496.06	-100.16	431403.74	674775.84	9496.59	180.60	
21058.00	88.32	177.80	11810.05	9590.34	-9589.98	-97.01	431309.82	674778.99	9590.47	180.58	
21152.00	87.13	177.60	11813.78	9684.17	-9683.82	-93.24	431215.98	674782.76	9684.27	180.55	
21247.00	88.88	177.90	11817.09	9779.02	-9778.69	-89.52	431121.11	674786.48	9779.10	180.52	
21341.00	91.26	179.86	11816.97	9872.98	-9872.66	-87.68	431027.14	674788.32	9873.05	180.51	
21434.00	91.54	179.89	11814.70	9965.95	-9965.63	-87.48	430934.17	674788.52	9966.02	180.50	
21528.00	89.37	178.32	11813.96	10059.92	-10059.61	-86.01	430840.19	674789.99	10059.98	180.49	
21622.00	90.77	178.15	11813.84	10153.85	-10153.56	-83.11	430746.24	674792.89	10153.90	180.47	
21716.00	91.26	177.71	11812.18	10247.76	-10247.49	-79.72	430652.31	674796.28	10247.80	180.45	
21810.00	90.00	178.63	11811.14	10341.69	-10341.43	-76.72	430558.37	674799.28	10341.71	180.43	
21904.00	88.74	177.43	11812.18	10435.60	-10435.36	-73.49	430464.44	674802.51	10435.62	180.40	
21998.00	89.30	178.64	11813.78	10529.51	-10529.29	-70.26	430370.51	674805.74	10529.53	180.38	
22092.00	90.00	180.34	11814.36	10623.50	-10623.28	-69.43	430276.52	674806.57	10623.51	180.37	
22186.00	90.42	180.41	11814.01	10717.50	-10717.28	-70.04	430182.52	674805.96	10717.51	180.37	
22280.00	91.19	179.93	11812.69	10811.49	-10811.27	-70.32	430088.53	674805.68	10811.50	180.37	
22373.00	89.51	180.44	11812.12	10904.48	-10904.26	-70.62	429995.54	674805.38	10904.49	180.37	
22467.00	89.09	180.57	11813.27	10998.47	-10998.25	-71.45	429901.55	674804.55	10998.49	180.37	
22561.00	89.51	179.94	11814.42	11092.47	-11092.24	-71.87	429807.56	674804.13	11092.48	180.37	
22655.00	89.93	179.65	11814.88	11186.46	-11186.24	-71.53	429713.56	674804.47	11186.47	180.37	
22749.00	90.35	179.04	11814.65	11280.45	-11280.24	-70.46	429619.56	674805.54	11280.46	180.36	
22843.00	90.91	178.67	11813.62	11374.41	-11374.21	-68.58	429525.59	674807.42	11374.42	180.35	
22937.00	89.65	179.45	11813.16	11468.39	-11468.19	-67.04	429431.61	674808.96	11468.39	180.33	
23031.00	88.88	182.19	11814.36	11562.37	-11562.17	-68.38	429337.63	674807.62	11562.37	180.34	
23125.00	89.37	182.73	11815.80	11656.29	-11656.07	-72.42	429243.73	674803.58	11656.29	180.36	
23220.00	88.88	182.50	11817.25	11751.20	-11750.96	-76.75	429148.84	674799.25	11751.21	180.37	
23314.00	89.44	182.86	11818.63	11845.10	-11844.85	-81.15	429054.95	674794.85	11845.12	180.39	
23408.00	88.53	181.06	11820.29	11939.04	-11938.77	-84.36	428961.03	674791.64	11939.07	180.40	
23596.00	88.95	178.13	11824.43	12126.96	-12126.70	-83.03	428773.10	674792.97	12126.98	180.39	
23690.00	90.49	178.60	11824.89	12220.91	-12220.66	-80.35	428679.14	674795.65	12220.92	180.38	
23784.00	90.77	177.98	11823.85	12314.84	-12314.61	-77.54	428585.19	674798.46	12314.85	180.36	
23878.00	90.35	177.15	11822.94	12408.73	-12408.52	-73.55	428491.28	674802.45	12408.74	180.34	
23972.00	88.53	176.01	11823.85	12502.53	-12502.34	-67.94	428397.46	674808.06	12502.53	180.31	
24066.00	89.44	177.23	11825.52	12596.31	-12596.16	-62.40	428303.64	674813.60	12596.31	180.28	
24160.00	90.91	178.78	11825.23	12690.23	-12690.10	-59.13	428209.70	674816.87	12690.24	180.27	
24253.00	91.19	178.77	11823.53	12783.19	-12783.06	-57.14	428116.74	674818.86	12783.19	180.26	
24347.00	88.88	177.57	11823.47	12877.11	-12877.00	-54.14	428022.80	674821.86	12877.12	180.24	
24440.00	90.07	177.82	11824.32	12970.01	-12969.92	-50.40	427929.88	674825.60	12970.02	180.22	
24534.00	89.09	177.17	11825.01	13063.90	-13063.83	-46.29	427835.97	674829.71	13063.91	180.20	
24628.00	87.55	175.99	11827.77	13157.65	-13157.62	-40.69	427742.18	674835.31	13157.68	180.18	
24722.00	88.18	175.98	11831.27	13251.32	-13251.32	-34.11	427648.48	674841.89	13251.37	180.15	
24753.00	88.81	175.90	11832.08	13282.22	-13282.23	-31.92	427617.57	674844.08	13282.27	180.14	Last WFT SVY
24815.00	88.81	175.59	11833.37	13344.02	-13344.05	-27.32	427555.75	674848.68	13344.08	180.12	PTB

Formation Points: (Relative to Slot centre)(TVD relative to Well TVD Reference)										
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	TVD (MSL) (US ft)	Northing (US ft)	Easting (US ft)	Name	Comment
704.03	0.45	147.69	704.00	1.19	-1.30	-2857.00	440900.99	674874.70	Rustler	
1062.04	0.65	127.96	1062.00	0.20	0.86	-2499.00	440900.00	674876.86	Top Salt	

5D Survey Report

Formation Points: (Relative to Slot centre)(TVD relative to Well TVD Reference)										
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	TVD (MSL) (US ft)	Northing (US ft)	Easting (US ft)	Name	Comment
4248.69	1.76	165.86	4248.00	-33.72	-16.52	687.00	440866.08	674859.48	Base of Salt (Anhydrite)	
4471.79	1.25	180.39	4471.00	-40.55	-15.79	910.00	440859.25	674860.21	Bell Canyon Ss./ Delaware	
5383.82	0.13	238.66	5383.00	-44.06	-20.88	1822.00	440855.74	674855.12	Cherry Canyon Ss.	
7007.85	0.42	154.52	7007.00	-48.81	-20.61	3446.00	440850.99	674855.39	Brushy Canyon Ss.	
8324.92	0.37	74.89	8324.00	-47.20	-14.90	4763.00	440852.60	674861.10	Bone Spring Lm.	
8405.92	0.29	77.13	8405.00	-47.11	-14.41	4844.00	440852.69	674861.59	Avalon Ss.	
8426.92	0.25	70.06	8426.00	-47.08	-14.32	4865.00	440852.72	674861.68	Bone Spg. Upper Avalon Shale	
8861.94	0.96	193.42	8861.00	-49.73	-15.65	5300.00	440850.07	674860.35	Bone Spg. Lower Avalon Shale	
9202.02	1.36	136.15	9201.00	-56.00	-12.27	5640.00	440843.80	674863.73	1st Bone Spring Lime.	
9393.05	0.59	121.17	9392.00	-58.01	-9.60	5831.00	440841.79	674866.40	1st Bone Spring Ss.	
9782.06	0.57	349.50	9781.00	-57.99	-8.76	6220.00	440841.81	674867.24	2nd Bone Spring Carb.	
9979.07	0.75	317.33	9978.00	-56.04	-9.88	6417.00	440843.76	674866.12	2nd Bone Spring Ss.	
10488.11	0.82	286.95	10487.00	-52.75	-14.87	6926.00	440847.05	674861.13	3rd Bone Spring Carb.	
11226.49	7.84	201.09	11225.00	-61.94	-24.07	7664.00	440837.86	674851.93	3rd Bone Spring Ss.	
11471.03	31.97	203.24	11453.00	-135.04	-62.06	7892.00	440764.76	674813.94	War Wink Ss.	
11633.58	46.01	196.05	11579.00	-231.60	-94.89	8018.00	440668.20	674781.11	Red Hills Ss.	
11770.91	57.37	191.53	11663.00	-336.85	-120.60	8102.00	440562.95	674755.40	Wolfcamp Sh	
11809.55	60.22	189.86	11683.00	-369.33	-126.73	8122.00	440530.47	674749.27	Wolfcamp X Sd	
12012.60	75.50	182.85	11761.00	-555.11	-145.82	8200.00	440344.69	674730.18	Wolfcamp Y Sd	
14293.18	87.35	180.37	11797.00	-2832.29	-132.99	8236.00	438067.51	674743.01	Wolfcamp A Sh.	