

XTOENERGY

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XTO Energy Inc

Lea County, NM (NAD27)

Ocioso 21 Federal Com

4H

Wellbore #1

Plan: Plan 1 05-01-15

Standard Planning Report

01 May, 2015

Database: Compass 5000 GCR
 Company: XTO Energy Inc
 Project: Lea County, NM (NAD27)
 Site: Ocioso 21 Federal Com
 Well: 4H
 Wellbore: Wellbore #1
 Design: Plan 1 05-01-15

Local Co-ordinate Reference: Well 4H
 TVD Reference: RKB @ 3603.00usft (Noram 25)
 MD Reference: RKB @ 3603.00usft (Noram 25)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature

Project	Lea County, NM (NAD27)		
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	Ocioso 21 Federal Com				
Site Position:		Northing:	595,808.50 usft	Latitude:	32° 38' 12.29691 N
From:	Map	Easting:	671,150.90 usft	Longitude:	103° 46' 38.46509 W
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.30 °

Well	4H					
Well Position	+N/-S	1,014.80 usft	Northing:	596,823.30 usft	Latitude:	32° 38' 22.34081 N
	+E/-W	-42.30 usft	Easting:	671,108.60 usft	Longitude:	103° 46' 38.89766 W
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	3,578.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	5/1/2015	7.42	60.67	48,621

Design	Plan 1 05-01-15			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	181.17

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
8,817.06	0.00	0.00	8,817.06	0.00	0.00	0.00	0.00	0.00	0.00	
9,713.06	89.60	181.17	9,390.00	-568.84	-11.66	10.00	10.00	0.00	181.17	
14,586.16	89.60	181.17	9,424.02	-5,440.80	-111.50	0.00	0.00	0.00	0.00	BHL_4H

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Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
841.00	0.00	0.00	841.00	0.00	0.00	0.00	0.00	0.00	0.00
Rustler									
973.00	0.00	0.00	973.00	0.00	0.00	0.00	0.00	0.00	0.00
Top Salt									
2,453.00	0.00	0.00	2,453.00	0.00	0.00	0.00	0.00	0.00	0.00
Base Salt									
2,630.00	0.00	0.00	2,630.00	0.00	0.00	0.00	0.00	0.00	0.00
Yates									
2,944.00	0.00	0.00	2,944.00	0.00	0.00	0.00	0.00	0.00	0.00
Seven Rivers									
4,759.00	0.00	0.00	4,759.00	0.00	0.00	0.00	0.00	0.00	0.00
Delaware									
5,842.00	0.00	0.00	5,842.00	0.00	0.00	0.00	0.00	0.00	0.00
Brushy Canyon									
7,264.00	0.00	0.00	7,264.00	0.00	0.00	0.00	0.00	0.00	0.00
Bone Spring									
8,447.00	0.00	0.00	8,447.00	0.00	0.00	0.00	0.00	0.00	0.00
First Bone Spring Sand									
8,817.06	0.00	0.00	8,817.06	0.00	0.00	0.00	0.00	0.00	0.00
KOP, Begin 10.00°/100' Build									
8,900.00	8.29	181.17	8,899.71	-5.99	-0.12	5.99	10.00	10.00	0.00
9,000.00	18.29	181.17	8,996.91	-28.95	-0.59	28.96	10.00	10.00	0.00
9,100.00	28.29	181.17	9,088.64	-68.44	-1.40	68.45	10.00	10.00	0.00
9,160.98	34.39	181.17	9,140.70	-100.14	-2.05	100.16	10.00	10.00	0.00
Second Bone Spring Sand									
9,200.00	38.29	181.17	9,172.12	-123.25	-2.53	123.28	10.00	10.00	0.00
9,300.00	48.29	181.17	9,244.81	-191.72	-3.93	191.76	10.00	10.00	0.00
9,400.00	58.29	181.17	9,304.51	-271.78	-5.57	271.83	10.00	10.00	0.00
9,500.00	68.29	181.17	9,349.39	-360.98	-7.40	361.05	10.00	10.00	0.00
9,600.00	78.29	181.17	9,378.10	-456.61	-9.36	456.71	10.00	10.00	0.00
9,700.00	88.29	181.17	9,389.76	-555.78	-11.39	555.90	10.00	10.00	0.00
9,713.06	89.60	181.17	9,390.00	-568.84	-11.66	568.96	10.00	10.00	0.00
LP, Hold 89.60° Inc									
9,800.00	89.60	181.17	9,390.61	-655.76	-13.44	655.90	0.00	0.00	0.00
9,900.00	89.60	181.17	9,391.31	-755.73	-15.49	755.89	0.00	0.00	0.00
10,000.00	89.60	181.17	9,392.01	-855.71	-17.54	855.89	0.00	0.00	0.00
10,100.00	89.60	181.17	9,392.71	-955.69	-19.59	955.89	0.00	0.00	0.00
10,200.00	89.60	181.17	9,393.40	-1,055.66	-21.63	1,055.89	0.00	0.00	0.00
10,300.00	89.60	181.17	9,394.10	-1,155.64	-23.68	1,155.88	0.00	0.00	0.00
10,400.00	89.60	181.17	9,394.80	-1,255.62	-25.73	1,255.88	0.00	0.00	0.00
10,500.00	89.60	181.17	9,395.50	-1,355.59	-27.78	1,355.88	0.00	0.00	0.00
10,600.00	89.60	181.17	9,396.20	-1,455.57	-29.83	1,455.88	0.00	0.00	0.00
10,700.00	89.60	181.17	9,396.89	-1,555.55	-31.88	1,555.87	0.00	0.00	0.00
10,800.00	89.60	181.17	9,397.59	-1,655.52	-33.93	1,655.87	0.00	0.00	0.00
10,900.00	89.60	181.17	9,398.29	-1,755.50	-35.98	1,755.87	0.00	0.00	0.00
11,000.00	89.60	181.17	9,398.99	-1,855.48	-38.02	1,855.87	0.00	0.00	0.00
11,100.00	89.60	181.17	9,399.69	-1,955.45	-40.07	1,955.86	0.00	0.00	0.00
11,200.00	89.60	181.17	9,400.38	-2,055.43	-42.12	2,055.86	0.00	0.00	0.00
11,300.00	89.60	181.17	9,401.08	-2,155.41	-44.17	2,155.86	0.00	0.00	0.00
11,400.00	89.60	181.17	9,401.78	-2,255.38	-46.22	2,255.86	0.00	0.00	0.00
11,500.00	89.60	181.17	9,402.48	-2,355.36	-48.27	2,355.85	0.00	0.00	0.00

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Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
11,600.00	89.60	181.17	9,403.18	-2,455.34	-50.32	2,455.85	0.00	0.00	0.00
11,700.00	89.60	181.17	9,403.87	-2,555.31	-52.37	2,555.85	0.00	0.00	0.00
11,800.00	89.60	181.17	9,404.57	-2,655.29	-54.42	2,655.85	0.00	0.00	0.00
11,900.00	89.60	181.17	9,405.27	-2,755.27	-56.46	2,755.84	0.00	0.00	0.00
12,000.00	89.60	181.17	9,405.97	-2,855.24	-58.51	2,855.84	0.00	0.00	0.00
12,100.00	89.60	181.17	9,406.67	-2,955.22	-60.56	2,955.84	0.00	0.00	0.00
12,200.00	89.60	181.17	9,407.36	-3,055.20	-62.61	3,055.84	0.00	0.00	0.00
12,300.00	89.60	181.17	9,408.06	-3,155.17	-64.66	3,155.83	0.00	0.00	0.00
12,400.00	89.60	181.17	9,408.76	-3,255.15	-66.71	3,255.83	0.00	0.00	0.00
12,500.00	89.60	181.17	9,409.46	-3,355.13	-68.76	3,355.83	0.00	0.00	0.00
12,600.00	89.60	181.17	9,410.16	-3,455.10	-70.81	3,455.83	0.00	0.00	0.00
12,700.00	89.60	181.17	9,410.85	-3,555.08	-72.86	3,555.83	0.00	0.00	0.00
12,800.00	89.60	181.17	9,411.55	-3,655.06	-74.90	3,655.82	0.00	0.00	0.00
12,900.00	89.60	181.17	9,412.25	-3,755.03	-76.95	3,755.82	0.00	0.00	0.00
13,000.00	89.60	181.17	9,412.95	-3,855.01	-79.00	3,855.82	0.00	0.00	0.00
13,100.00	89.60	181.17	9,413.65	-3,954.98	-81.05	3,955.82	0.00	0.00	0.00
13,200.00	89.60	181.17	9,414.34	-4,054.96	-83.10	4,055.81	0.00	0.00	0.00
13,300.00	89.60	181.17	9,415.04	-4,154.94	-85.15	4,155.81	0.00	0.00	0.00
13,400.00	89.60	181.17	9,415.74	-4,254.91	-87.20	4,255.81	0.00	0.00	0.00
13,500.00	89.60	181.17	9,416.44	-4,354.89	-89.25	4,355.81	0.00	0.00	0.00
13,600.00	89.60	181.17	9,417.14	-4,454.87	-91.29	4,455.80	0.00	0.00	0.00
13,700.00	89.60	181.17	9,417.83	-4,554.84	-93.34	4,555.80	0.00	0.00	0.00
13,800.00	89.60	181.17	9,418.53	-4,654.82	-95.39	4,655.80	0.00	0.00	0.00
13,900.00	89.60	181.17	9,419.23	-4,754.80	-97.44	4,755.80	0.00	0.00	0.00
14,000.00	89.60	181.17	9,419.93	-4,854.77	-99.49	4,855.79	0.00	0.00	0.00
14,100.00	89.60	181.17	9,420.63	-4,954.75	-101.54	4,955.79	0.00	0.00	0.00
14,200.00	89.60	181.17	9,421.32	-5,054.73	-103.59	5,055.79	0.00	0.00	0.00
14,300.00	89.60	181.17	9,422.02	-5,154.70	-105.64	5,155.79	0.00	0.00	0.00
14,400.00	89.60	181.17	9,422.72	-5,254.68	-107.69	5,255.78	0.00	0.00	0.00
14,500.00	89.60	181.17	9,423.42	-5,354.66	-109.73	5,355.78	0.00	0.00	0.00
14,586.16	89.60	181.17	9,424.02	-5,440.80	-111.50	5,441.94	0.00	0.00	0.00
TD at 14586.16' MD									

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
TP1_4H - hit/miss target - Shape - Point	0.00	0.00	9,390.85	-689.90	-14.10	596,133.40	671,094.50	32° 38' 15.51480 N	103° 46' 39.10476 W
- plan misses target center by 0.04usft at 9834.15usft MD (9390.85 TVD, -689.90 N, -14.14 E)									
TP2_4H - plan misses target center by 0.04usft at 14456.13usft MD (9423.11 TVD, -5310.80 N, -108.84 E) - Point	0.00	0.00	9,423.12	-5,310.80	-108.80	591,512.50	670,999.80	32° 37' 29.79465 N	103° 46' 40.49468 W
BHL_4H - plan hits target center - Rectangle (sides W100.00 H4,873.10 D0.00)	0.40	181.17	9,424.02	-5,440.80	-111.50	591,382.50	670,997.10	32° 37' 28.50840 N	103° 46' 40.53419 W

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Site: Ocioso 21 Federal Com
Well: 4H
Wellbore: Wellbore #1
Design: Plan 1 05-01-15

Local Co-ordinate Reference: Well 4H
TVD Reference: RKB @ 3603.00usft (Noram 25)
MD Reference: RKB @ 3603.00usft (Noram 25)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
841.00	841.00	Rustler		0.40	181.17	
973.00	973.00	Top Salt		0.40	181.17	
2,453.00	2,453.00	Base Salt		0.40	181.17	
2,630.00	2,630.00	Yates		0.40	181.17	
2,944.00	2,944.00	Seven Rivers		0.40	181.17	
4,759.00	4,759.00	Delaware		0.40	181.17	
5,842.00	5,842.00	Brushy Canyon		0.40	181.17	
7,264.00	7,264.00	Bone Spring		0.40	181.17	
8,447.00	8,447.00	First Bone Spring Sand		0.40	181.17	
9,160.98	9,140.70	Second Bone Spring Sand		0.40	181.17	

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
8,817.06	8,817.06	0.00	0.00	KOP, Begin 10.00°/100' Build	
9,713.06	9,390.00	-568.84	-11.66	LP, Hold 89.60° Inc	
14,586.16	9,424.02	-5,440.80	-111.50	TD at 14586.16' MD	