

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD Hobbs

FORM APPROVED
OMB NO. 1004-0137
Expires March 31, 2007

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on reverse side

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

XTO Energy Inc.

3a. Address

200 N. Loraine, Suite 800, Midland, TX 79701

3b. Phone No. (include area code)

432-620-6714

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

SHL: 350 FSL & 400 FWL; Lot 1, Sec 19, T23S, R32E

BHL: 350 FWL & 560 FWL; Lot 4, Sec 19, T23S, R32E

5. Lease Serial No.

NM 18848

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.

8. Well Name and No.

SDE 19 Federal 6H

9. API Well No.

30-025-40993

10. Field and Pool, or Exploratory Area

Sand Dunes; Bone Spring, S

11. County or Parish, State

Lea

NM

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

- ☒ Notice of Intent
- ☐ Subsequent Report
- ☐ Final Abandonment Notice

TYPE OF ACTION

- | | | | |
|--|---|--|---|
| ☐ Acidize | ☐ Deepen | ☐ Production (Start/Resume) | ☐ Water Shut-Off |
| ☐ Alter Casing | ☐ Fracture Treat | ☐ Reclamation | ☐ Well Integrity |
| ☐ Casing Repair | ☐ New Construction | ☐ Recomplete | ☐ Other |
| ☒ Change Plans | ☐ Plug and Abandon | ☐ Temporarily Abandon | |
| ☐ Convert to Injection | ☐ Plug Back | ☐ Water Disposal | |

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the final site is ready for final inspection.)

The purpose of this sundry is to amend approved APD to change pools, the csg & cmt program, directional drill survey & geological information for the new pool.

Production Casing: 7" 26#, New HCP-110, LT&C csg to be set at 11,100'.

Cement: Lead 260sx Tuned Light Cement + .5pps CFR-3 + 3pps Kol-Seal + .25pps D-Air 5000 + .2% HR-800 (10.5ppg, 2.68 ft3/sk, 11.94 gal/sx wtr)

Compr Strgth: 12hr - 676psi; 24hr-1398psi

Tail: 175sx VersaCem-PBSH2 + .5% Halad344 + .4% CFR-3 + 1pps Salt + 2pps Kol-Seal + .125pps Poly-E-Flake + .25pps D-Air 5000 (13.20ppg, 1.62 ft3/sk, 8.23 gal/sx wtr)

Compr Stgth: 12hr - 1382psi; 24hr - 1690psi

TOC: 3700'

No DV Tool to be Set

See Attached Drilling Plan & Directional Survey

14. I hereby certify that the foregoing is true and correct
Name (Printed/Typed)

Stephanie Rabadue

Title

Regulatory Analyst

Date

11/26/2013

APPROVED

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Title

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

BUREAU OF LAND MANAGEMENT

Title 18 U.S.C. Section 1001, and Title 43 U.S.C. Section 1212, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

JAN 08 2014

XTO ENERGY, INC.
DRILLING PLAN

HOBBS OCD

JAN 07 2014

RECEIVED

SDE 19 Federal 6H
SHL: 350 FNL & 400 FWL
Unit "D" Section 19, T. 23 S., R. 32 E.
BHL: 350 FSL & 660 FWL
Unit "M" Section 19, T. 23 S., R. 32 E.
Lea County, NM

1. The elevation of the unprepared ground is 3571 feet above sea level.
2. The geologic name of the surface formation is Quaternary - Alluvium.
3. A rotary rig will be utilized to drill the well to 14,940' and run casing. This equipment will then be rigged down and the well will be completed with a workover rig.
4. Proposed total depth is MD: 14,940' /TVD: 10,654'.
5. Estimated tops of important geologic markers:

Quaternary – Alluvium	Surface*
Rustler	973'
Top of Salt	1283'
Base of Salt	4338'
Base Castile	4576'
Bell Canyon	4593'
Cherry Canyon	5499'
Brushy Canyon	7201'
Basal Brushy Canyon	8151'
Brushy Canyon E3	8253'
Brushy Canyon E4	8305'
Brushy Canyon E5	8354'
Bone Spring	8429'
Bone Spring 2	9991'
Landing Point	10,654'
TVD	10,654' (165 degree F)

*Water at 180 ft.

6. Estimated depths at which anticipated water, oil, gas or other mineral bearing formations are expected to be encountered:

Bell Canyon	Oil (2021 psi)
Cherry Canyon	Oil (2420 psi)
Brushy Canyon	Oil (3168 psi)

7. CASING PROGRAM:

Hole Size	Depth	OD Csg.	Weight	Collar	Grade	New/Used	SF Burst	SF Collapse	SF Tension
17-1/2"	0' – 1020'	13-3/8"	48#	STC	H-40	New	3.3	1.41	4.87
12-1/4"	0' – 4550'	9-5/8"	40#	LTC	HCL-80	New	2.11	1.56	3.26
8-3/4"	0' – 11,000'	7"	26#	LTC	HCP-110	New	2.25	1.76	2.18
6-1/8"	10,850' – 14,940'	4-1/2"	11.6#	LTC	P-110	New	2.42	1.71	1.98

8. CEMENT PROGRAM: (Note yields and DV tool depths if multiple stages)**i. Surface Cement:**

Lead Slurry: Lead with 580 sks ExtendaCem - CZ (13.7 ppg, 1.68 cu ft/sk, 8.72 gal wtr/sk)
12hr compr strength – 470psi; 24hr compr strength – 1055psi

Tail Slurry: Tail-in with 340 sks HalCem – C, 2 % Calcium Chloride - Flake (Accelerator)
(14.8 ppg, 1.35 cu ft/sk, 6.39 gal wtr/sk)
12hr compr strength – 900psi; 24hr compr strength – 1500psi

100% excess. Cement to surface.

ii. Intermediate Cement:

Lead Slurry: Lead with 1255 sks, EconoCem – HLC, 5 % Salt (Salt), 5 lbm/sk Kol-Seal (Lost Circulation Additive) (12.9 ppg, 1.88 ft³/sk, 9.61 gal wtr/sk)
12hr compr strength – 319psi; 18hr compr strength – 5000psi; 24hr compr strength – 653psi

Tail Slurry: Tail-in with 250 sks, HalCem – C (14.8 ppg, 1.33 cu ft/sk, 6.34 gal wtr/sk)
12hr compr strength – 900psi; 24hr compr strength – 1500psi

100% excess. Cement to surface.

iii. Production Cement:

Lead Slurry: 500sx Tuned Light Cement + .5pps CFR-3 _ 3pps Kol-Seal + .25pps D-Air 5000 + .2% HR-800 (10.5ppg, 2.68 ft³/sk, 11.94 gal/sx wtr)
12 hr compr strength – 676psi; 24hr compr strength-1398psi

Tail Slurry: 175sx VersaCem-PBSH2 + .5% Halad344 + .4% CFR-3 + 1pps Salt + 2pps Kol-Seal + .125pps Poly-E-Flake + .25pps D-Air 5000 (13.2ppg, 1.62 ft³/sk, 8.23 gal/sx wtr)
12 hr compr strength – 1382psi; 24hr compr strength - 1690

TOC – 3700’.

30% excess, all volumes to be adjusted per caliper log.

9. PRESSURE CONTROL EQUIPMENT:

The blow out preventer equipment (BOP) diagram is attached to this Drilling Plan. The blowout preventer stack for the intermediate and production hole will consist of a double ram blowout preventer and annular preventer rated to 5000 psi working pressure. All BOP’s and accessory equipment will be tested according to Onshore Order #2 before drilling out. A hydraulic closing unit will be a part of this equipment and will be function tested daily.

10. PROPOSED MUD CIRCULATION SYSTEM:

INTERVAL	Hole Size	Mud Type	MW (ppg)	Viscosity (sec/qt)	Fluid Loss (cc)
0’ to 1020’	17-1/2”	FW/Native	8.8 – 9.3	35-40	NC
1020’ to 4550’	12-1/4”	Brine/ Gel Sweeps	9.8 – 10.0	30-32	NC
4550’ to 11,100’	8-3/4”	FW/Polymer Sweeps	8.8 – 9.4	29-32	NC-20
10,850’ to 14,940’	6-1/8”	FW/Polymer Sweeps	8.8-9.4	29-32	NC-20

The necessary mud products for weight addition and fluid loss control will be on location at all times.

Spud with fresh water/native mud. Drill out from under 13-3/8” surface casing with brine solution. Use fibrous materials as needed to control seepage and lost circulation. Pump viscous sweeps as needed for hole cleaning. Use available solids controls equipment to help keep mud weight down after mud up. Rig up solids control equipment to operate as a closed loop system.

11. AUXILIARY WELL CONTROL AND MONITORING EQUIPMENT:

- i. A kelly cock will be in the drill string at all times.
- ii. A full opening drill pipe stabbing valve having appropriate connections will be on the rig floor at all times.
- iii. Hydrogen sulfide detection equipment and breathing equipment will be in operation from drilling out the 9-5/8” casing shoe until the 7” casing is cemented.

12. LOGGING, CORING AND TESTING PROGRAM:

- A. Potential drill stem tests will be based on geological sample shows.
- B. No coring is anticipated.
- C. Mudlogger unit will be on and working from 4400’ to TD.
- D. Open hole logging to include Density/Neutron/PE/Dual Laterlog/Spectral Gamma from TD to intermediate casing, with Neutron/Gamma continuing to surface.

13. ABNORMAL PRESSURES AND TEMPERATURES / POTENTIAL HAZARDS:

No abnormal pressures are anticipated. Max bottom hole pressure should not exceed 4200 psi. BHT of 165-175° F is anticipated. No H₂S is expected but monitors will be in place to detect any H₂S occurrences. An H₂S contingency plan has also been submitted with this application. Lost circulation could occur but is not expected to be a serious problem in this area and hole seepage will be compensated for by additions of small amounts of LCM in the drilling fluid. Should any abnormal or hazardous circumstances be encountered personnel on location will take necessary steps to ensure safety of all personnel and environment. .

14. SPECIAL INSTRUCTIONS:

- A. Reports will be filled out on the XTO Drilling Report form, and the Casing/Cementing Detail Forms provided.
- B. Deviation:
 - Surface Hole: Maximum of 1° and not more than 1° change per 100'.
 - Production Hole: Maximum of 10° and not more than 1.5° change per 100'.
 - Note: Maximum distance between surveys is 500'.**
- C. WOC a minimum of 18 hours or before cement gains compressive strength of 500 psi, whichever is greater, before drilling out shoe joint on surface casing string. Use minimal WOB and RPM until drill collars are below the shoe joints.
- D. Check BOP blind rams each trip and pipe rams each day. Strap out of hole for logging and/or casing jobs.
- E. A trash trailer will be provided on each location. Keep trash picked up and the location as clean as possible. All drilling line, oil filters, etc. should be hauled away at the Drilling Contractor's expense. At the conclusion of drilling operations, the contents of the trash trailer will be disposed of into a commercial sanitary landfill.



HOBBS OCD

JAN 07 2014

Professional Directional

Wellpath Report



Company: XTO Energy Inc.
 Project: Lea County, NM
 Site: SDE Federal No. 6H
 Well: No. 6H
 Wellbore: Original Hole
 Design: Plan #1

RECEIVED

Local Co-ordinate Reference:
 TVD Reference:
 MD Reference:
 North Reference:
 Survey Calculation Method:
 Database:

Well No. 6H
 WELL @ 3590.00usft (RKB: 19' + GL: 3571')
 WELL @ 3590.00usft (RKB: 19' + GL: 3571')
 Grid
 Minimum Curvature
 Well Planner1

Project: Lea County, NM

Map System: US State Plane 1983
 Geo Datum: North American Datum 1983
 Map Zone: New Mexico Eastern Zone

System Datum: Mean Sea Level

Site: SDE Federal No. 6H

Site Position:	From: Map	Northing:	472,042.60 usft	Latitude:	32° 17' 46.453 N
		Easting:	730,336.10 usft	Longitude:	103° 43' 18.002 W
Position Uncertainty:	3.30 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.33 °

Well: No. 6H

Well Position	+N/-S	0.00 usft	Northing:	472,042.60 usft	Latitude:	32° 17' 46.453 N
	+E/-W	0.00 usft	Easting:	730,336.10 usft	Longitude:	103° 43' 18.002 W
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	3,571.00 usft

Wellbore: Original Hole

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	11/26/2013	7.36	60.17	48,397

Design: Plan #1

Audit Notes:

Version: Phase: PLAN Tie On Depth: 0.00

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	176.44

Survey Tool Program Date: 11/26/2013

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	14,939.84	Plan #1 (Original Hole)	MWD	MWD



Professional Directional Wellpath Report



Company:	XTO Energy Inc.	Local Co-ordinate Reference:	Well No. 6H
Project:	Lea County, NM	TVD Reference:	WELL @ 3590.00usft (RKB: 19' + GL: 3571')
Site:	SDE Federal No. 6H	MD Reference:	WELL @ 3590.00usft (RKB: 19' + GL: 3571')
Well:	No. 6H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	Database:	Well Planner1

Planned Survey										
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	TFace (°)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00



Professional Directional

Wellpath Report



Company:	XTO Energy Inc.	Local Co-ordinate Reference:	Well No. 6H
Project:	Lea County, NM	TVD Reference:	WELL @ 3590.00usft (RKB: 19' + GL: 3571')
Site:	SDE Federal No. 6H	MD Reference:	WELL @ 3590.00usft (RKB: 19' + GL: 3571')
Well:	No. 6H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	Database:	Well Planner1

Planned Survey										
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	TFace (°)
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
3,900.00	0.00	0.00	3,900.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
4,100.00	0.00	0.00	4,100.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
4,200.00	0.00	0.00	4,200.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
4,300.00	0.00	0.00	4,300.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
4,400.00	0.00	0.00	4,400.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
4,500.00	0.00	0.00	4,500.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
4,600.00	0.00	0.00	4,600.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
4,700.00	0.00	0.00	4,700.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
4,800.00	0.00	0.00	4,800.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
4,900.00	0.00	0.00	4,900.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
5,000.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
5,100.00	0.00	0.00	5,100.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
5,200.00	0.00	0.00	5,200.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
5,300.00	0.00	0.00	5,300.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00



Professional Directional
Wellpath Report



Company:	XTO Energy Inc.	Local Co-ordinate Reference:	Well No: 6H
Project:	Lea County, NM	TVD Reference:	WELL @ 3590.00usft (RKB: 19' + GL: 3571')
Site:	SDE Federal No. 6H	MD Reference:	WELL @ 3590.00usft (RKB: 19' + GL: 3571')
Well:	No. 6H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	Database:	Well_Planner1

Planned Survey										
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	TFace (°)
5,400.00	0.00	0.00	5,400.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
5,500.00	0.00	0.00	5,500.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
5,600.00	0.00	0.00	5,600.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
5,700.00	0.00	0.00	5,700.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
5,800.00	0.00	0.00	5,800.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
5,900.00	0.00	0.00	5,900.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
6,000.00	0.00	0.00	6,000.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
6,100.00	0.00	0.00	6,100.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
6,200.00	0.00	0.00	6,200.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
6,300.00	0.00	0.00	6,300.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
6,400.00	0.00	0.00	6,400.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
6,500.00	0.00	0.00	6,500.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
6,600.00	0.00	0.00	6,600.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
6,700.00	0.00	0.00	6,700.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
6,800.00	0.00	0.00	6,800.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
6,900.00	0.00	0.00	6,900.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
7,000.00	0.00	0.00	7,000.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
7,100.00	0.00	0.00	7,100.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
7,200.00	0.00	0.00	7,200.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
7,300.00	0.00	0.00	7,300.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
7,400.00	0.00	0.00	7,400.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
7,500.00	0.00	0.00	7,500.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
7,600.00	0.00	0.00	7,600.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
7,700.00	0.00	0.00	7,700.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
7,800.00	0.00	0.00	7,800.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
7,900.00	0.00	0.00	7,900.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
8,000.00	0.00	0.00	8,000.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00



Professional Directional Wellpath Report



Company:	XTO Energy Inc.	Local Co-ordinate Reference:	Well No: 6H
Project:	Lea County, NM	TVD Reference:	WELL @ 3590.00usft (RKB: 19' + GL: 3571')
Site:	SDE Federal No: 6H	MD Reference:	WELL @ 3590.00usft (RKB: 19' + GL: 3571')
Well:	No. 6H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	Database:	Well: Planner1

Planned Survey										
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	TFace (°)
8,100.00	0.00	0.00	8,100.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
8,200.00	0.00	0.00	8,200.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
8,300.00	0.00	0.00	8,300.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
8,400.00	0.00	0.00	8,400.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
8,500.00	0.00	0.00	8,500.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
8,600.00	0.00	0.00	8,600.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
8,700.00	0.00	0.00	8,700.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
8,800.00	0.00	0.00	8,800.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
8,900.00	0.00	0.00	8,900.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
9,000.00	0.00	0.00	9,000.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
9,100.00	0.00	0.00	9,100.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
9,200.00	0.00	0.00	9,200.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
9,300.00	0.00	0.00	9,300.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
9,400.00	0.00	0.00	9,400.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
9,500.00	0.00	0.00	9,500.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
9,600.00	0.00	0.00	9,600.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
9,700.00	0.00	0.00	9,700.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
9,800.00	0.00	0.00	9,800.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
9,900.00	0.00	0.00	9,900.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
10,000.00	0.00	0.00	10,000.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
10,017.00	0.00	0.00	10,017.00	0.00	0.00	0.00	0.00	472,042.60	730,336.10	0.00
10,050.00	3.30	176.44	10,049.98	-0.95	0.06	0.95	10.00	472,041.65	730,336.16	176.44
10,100.00	8.30	176.44	10,099.71	-5.99	0.37	6.00	10.00	472,036.61	730,336.47	0.00
10,150.00	13.30	176.44	10,148.81	-15.34	0.95	15.37	10.00	472,027.26	730,337.05	0.00
10,200.00	18.30	176.44	10,196.90	-28.92	1.80	28.98	10.00	472,013.68	730,337.90	0.00
10,250.00	23.30	176.44	10,243.63	-46.64	2.90	46.73	10.00	471,995.96	730,339.00	0.00
10,300.00	28.30	176.44	10,288.63	-68.35	4.25	68.48	10.00	471,974.25	730,340.35	0.00



Professional Directional Wellpath Report



Company: XTO Energy Inc.
Project: Lea County, NM
Site: SDE Federal No. 6H
Well: No. 6H
Wellbore: Original Hole
Design: Plan #1

Local Co-ordinate Reference:
TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:
Database:

Well No: 6H
WELL @ 3590.00usft (RKB: 19' + GL: 3571')
WELL @ 3590.00usft (RKB: 19' + GL: 3571')
Grid:
Minimum Curvature
Well Planner1

Planned Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	TFace (°)
10,350.00	33.30	176.44	10,331.57	-93.89	5.84	94.08	10.00	471,948.71	730,341.94	0.00
10,400.00	38.30	176.44	10,372.11	-123.08	7.66	123.31	10.00	471,919.52	730,343.76	0.00
10,450.00	43.30	176.44	10,409.94	-155.67	9.69	155.97	10.00	471,886.93	730,345.79	0.00
10,500.00	48.30	176.44	10,444.79	-191.44	11.91	191.81	10.00	471,851.16	730,348.01	0.00
10,550.00	53.30	176.44	10,476.38	-230.10	14.32	230.54	10.00	471,812.50	730,350.42	0.00
10,600.00	58.30	176.44	10,504.48	-271.36	16.88	271.88	10.00	471,771.24	730,352.98	0.00
10,650.00	63.30	176.44	10,528.86	-314.91	19.59	315.52	10.00	471,727.69	730,355.69	0.00
10,667.00	65.00	176.44	10,536.28	-330.18	20.54	330.82	10.00	471,712.42	730,356.64	0.00
10,700.00	65.00	176.44	10,550.22	-360.03	22.40	360.72	0.00	471,682.57	730,358.50	0.00
10,787.00	65.00	176.44	10,586.99	-438.72	27.29	439.57	0.00	471,603.88	730,363.39	0.00
10,800.00	66.30	176.44	10,592.35	-450.54	28.03	451.42	10.00	471,592.06	730,364.13	0.01
10,850.00	71.30	176.44	10,610.43	-497.06	30.92	498.02	10.00	471,545.54	730,367.02	0.01
10,900.00	76.30	176.44	10,624.37	-544.96	33.90	546.02	10.00	471,497.64	730,370.00	0.01
10,950.00	81.30	176.44	10,634.08	-593.90	36.95	595.05	10.00	471,448.70	730,373.05	0.01
11,000.00	86.30	176.44	10,639.48	-643.50	40.03	644.74	10.00	471,399.10	730,376.13	0.01
11,035.04	89.80	176.44	10,640.67	-678.45	42.20	679.76	10.00	471,364.15	730,378.30	0.01
11,100.00	89.80	176.44	10,640.89	-743.28	46.23	744.71	0.00	471,299.32	730,382.33	0.00
11,200.00	89.80	176.44	10,641.23	-843.08	52.43	844.71	0.00	471,199.52	730,388.53	0.00
11,300.00	89.80	176.44	10,641.57	-942.89	58.63	944.71	0.00	471,099.71	730,394.73	0.00
11,400.00	89.80	176.44	10,641.91	-1,042.70	64.84	1,044.71	0.00	470,999.90	730,400.94	0.00
11,500.00	89.80	176.44	10,642.26	-1,142.51	71.04	1,144.71	0.00	470,900.09	730,407.14	0.00
11,600.00	89.80	176.44	10,642.60	-1,242.31	77.24	1,244.71	0.00	470,800.29	730,413.34	0.00
11,700.00	89.80	176.44	10,642.94	-1,342.12	83.45	1,344.71	0.00	470,700.48	730,419.55	0.00
11,800.00	89.80	176.44	10,643.28	-1,441.93	89.65	1,444.71	0.00	470,600.67	730,425.75	0.00
11,900.00	89.80	176.44	10,643.62	-1,541.73	95.85	1,544.71	0.00	470,500.87	730,431.95	0.00
12,000.00	89.80	176.44	10,643.96	-1,641.54	102.05	1,644.71	0.00	470,401.06	730,438.15	0.00
12,100.00	89.80	176.44	10,644.30	-1,741.35	108.26	1,744.71	0.00	470,301.25	730,444.36	0.00



Professional Directional
Wellpath Report



Company:	XTO Energy Inc.	Local Co-ordinate Reference:	Well No. 6H
Project:	Lea County, NM	TVD Reference:	WELL @ 3590.00usft (RKB: 19' + GL: 3571')
Site:	SDE Federal No. 6H	MD Reference:	WELL @ 3590.00usft (RKB: 19' + GL: 3571')
Well:	No. 6H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	Database:	Well_Planner1

Planned Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	TFace (°)
12,200.00	89.80	176.44	10,644.65	-1,841.15	114.46	1,844.71	0.00	470,201.45	730,450.56	0.00
12,300.00	89.80	176.44	10,644.99	-1,940.96	120.66	1,944.71	0.00	470,101.64	730,456.76	0.00
12,400.00	89.80	176.44	10,645.33	-2,040.77	126.86	2,044.71	0.00	470,001.83	730,462.96	0.00
12,500.00	89.80	176.44	10,645.67	-2,140.57	133.07	2,144.71	0.00	469,902.03	730,469.17	0.00
12,600.00	89.80	176.44	10,646.01	-2,240.38	139.27	2,244.71	0.00	469,802.22	730,475.37	0.00
12,700.00	89.80	176.44	10,646.35	-2,340.19	145.47	2,344.71	0.00	469,702.41	730,481.57	0.00
12,800.00	89.80	176.44	10,646.69	-2,439.99	151.67	2,444.70	0.00	469,602.61	730,487.77	0.00
12,900.00	89.80	176.44	10,647.04	-2,539.80	157.88	2,544.70	0.00	469,502.80	730,493.98	0.00
13,000.00	89.80	176.44	10,647.38	-2,639.61	164.08	2,644.70	0.00	469,402.99	730,500.18	0.00
13,100.00	89.80	176.44	10,647.72	-2,739.42	170.28	2,744.70	0.00	469,303.18	730,506.38	0.00
13,200.00	89.80	176.44	10,648.06	-2,839.22	176.48	2,844.70	0.00	469,203.38	730,512.58	0.00
13,300.00	89.80	176.44	10,648.40	-2,939.03	182.69	2,944.70	0.00	469,103.57	730,518.79	0.00
13,400.00	89.80	176.44	10,648.74	-3,038.84	188.89	3,044.70	0.00	469,003.76	730,524.99	0.00
13,500.00	89.80	176.44	10,649.08	-3,138.64	195.09	3,144.70	0.00	468,903.96	730,531.19	0.00
13,600.00	89.80	176.44	10,649.43	-3,238.45	201.29	3,244.70	0.00	468,804.15	730,537.39	0.00
13,700.00	89.80	176.44	10,649.77	-3,338.26	207.50	3,344.70	0.00	468,704.34	730,543.60	0.00
13,800.00	89.80	176.44	10,650.11	-3,438.06	213.70	3,444.70	0.00	468,604.54	730,549.80	0.00
13,900.00	89.80	176.44	10,650.45	-3,537.87	219.90	3,544.70	0.00	468,504.73	730,556.00	0.00
14,000.00	89.80	176.44	10,650.79	-3,637.68	226.11	3,644.70	0.00	468,404.92	730,562.21	0.00
14,100.00	89.80	176.44	10,651.13	-3,737.48	232.31	3,744.70	0.00	468,305.12	730,568.41	0.00
14,200.00	89.80	176.44	10,651.47	-3,837.29	238.51	3,844.70	0.00	468,205.31	730,574.61	0.00
14,300.00	89.80	176.44	10,651.82	-3,937.10	244.71	3,944.70	0.00	468,105.50	730,580.81	0.00
14,400.00	89.80	176.44	10,652.16	-4,036.90	250.92	4,044.70	0.00	468,005.70	730,587.02	0.00
14,500.00	89.80	176.44	10,652.50	-4,136.71	257.12	4,144.69	0.00	467,905.89	730,593.22	0.00
14,600.00	89.80	176.44	10,652.84	-4,236.52	263.32	4,244.69	0.00	467,806.08	730,599.42	0.00
14,700.00	89.80	176.44	10,653.18	-4,336.33	269.52	4,344.69	0.00	467,706.27	730,605.62	0.00
14,800.00	89.80	176.44	10,653.52	-4,436.13	275.73	4,444.69	0.00	467,606.47	730,611.83	0.00



Professional Directional
Wellpath Report



Company:	XTO Energy Inc.	Local Co-ordinate Reference:	Well No: 6H
Project:	Lea County, NM	TVD Reference:	WELL @ 3590.00usft (RKB: 19' + GL: 3571')
Site:	SDE Federal No: 6H	MD Reference:	WELL @ 3590.00usft (RKB: 19' + GL: 3571')
Well:	No. 6H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	Database:	Well_Planner1

Planned Survey										
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	TFace (°)
14,900.00	89.80	176.44	10,653.86	-4,535.94	281.93	4,544.69	0.00	467,506.66	730,618.03	0.00
14,939.84	89.80	176.44	<u>10,654.00</u>	-4,575.70	284.40	4,584.53	0.00	467,466.90	730,620.50	0.00

Checked By: _____	Approved By: _____	Date: _____
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HOBBS OCD

JAN 07 2014

XTO Energy Inc.
Lea County, NM
SDE Federal No. 6H
No. 6H
Plan #1
RKB: 19' + GL: 3571'



RECEIVED

US State Plane 1983
North American Datum 1983
GRS 1980
New Mexico Eastern Zone
Mean Sea Level

RKB Elevation: WELL @ 3590.00usft (RKB: 19' + GL: 3571')

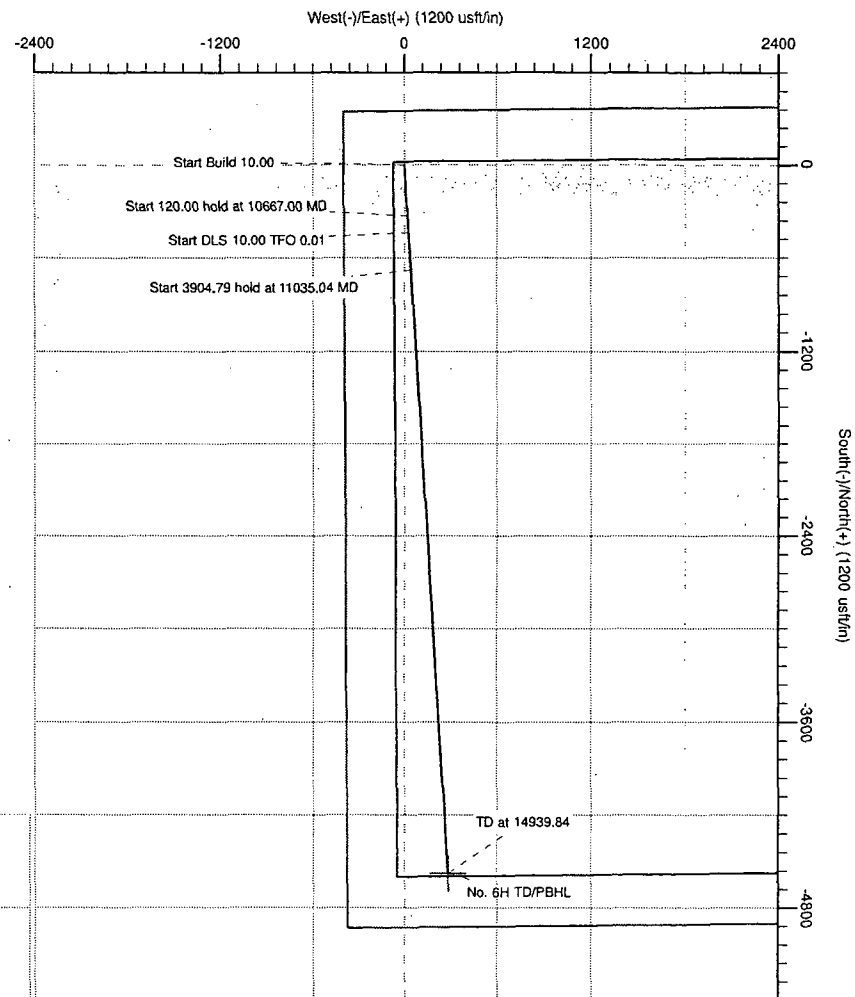
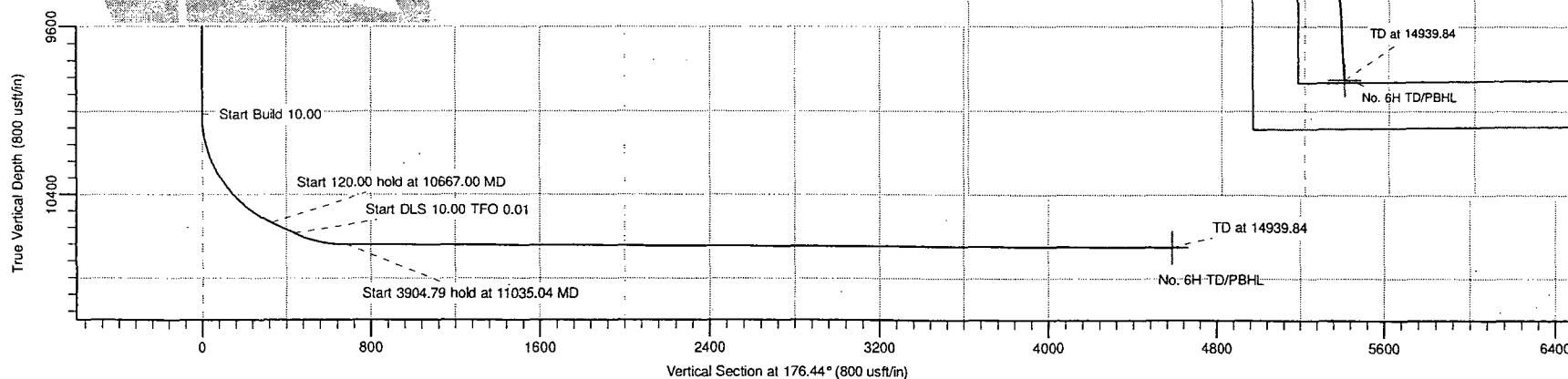
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	472042.60	730336.10	32° 17' 46.453 N	103° 43' 18.002 W	

Section Details

ec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	Vsect	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	10017.00	0.00	0.00	10017.00	0.00	0.00	0.00	0.00	
3	10667.00	65.00	176.44	10536.28	-330.18	20.54	10.00	330.82	
4	10787.00	65.00	176.44	10586.99	-438.72	27.29	0.00	439.57	
5	11035.04	89.80	176.44	10640.67	-678.45	42.20	10.00	679.76	
6	14939.84	89.80	176.44	10654.00	-4575.70	284.40	0.00	4584.53	No. 6H TD/PBHL

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
No. 6H TD/PBHL	10654.00	-4575.70	284.40	467466.90	730620.50	Point



Note: All data lines and hand lines are system
and are subject to customer approval.

Created By: Well Planner Date: 10:51, November 26 2013



HOBBS OCD

JAN 07 2014

XTO Energy Inc.
Lea County, NM
SDE Federal No. 6H
No. 6H
Plan #1
RKB: 19' + GL: 3571'



RECEIVED

US State Plane 1983
North American Datum 1983
GRS 1980
New Mexico Eastern Zone
Mean Sea Level

RKB Elevation: WELL @ 3590.00usft (RKB: 19' + GL: 3571')

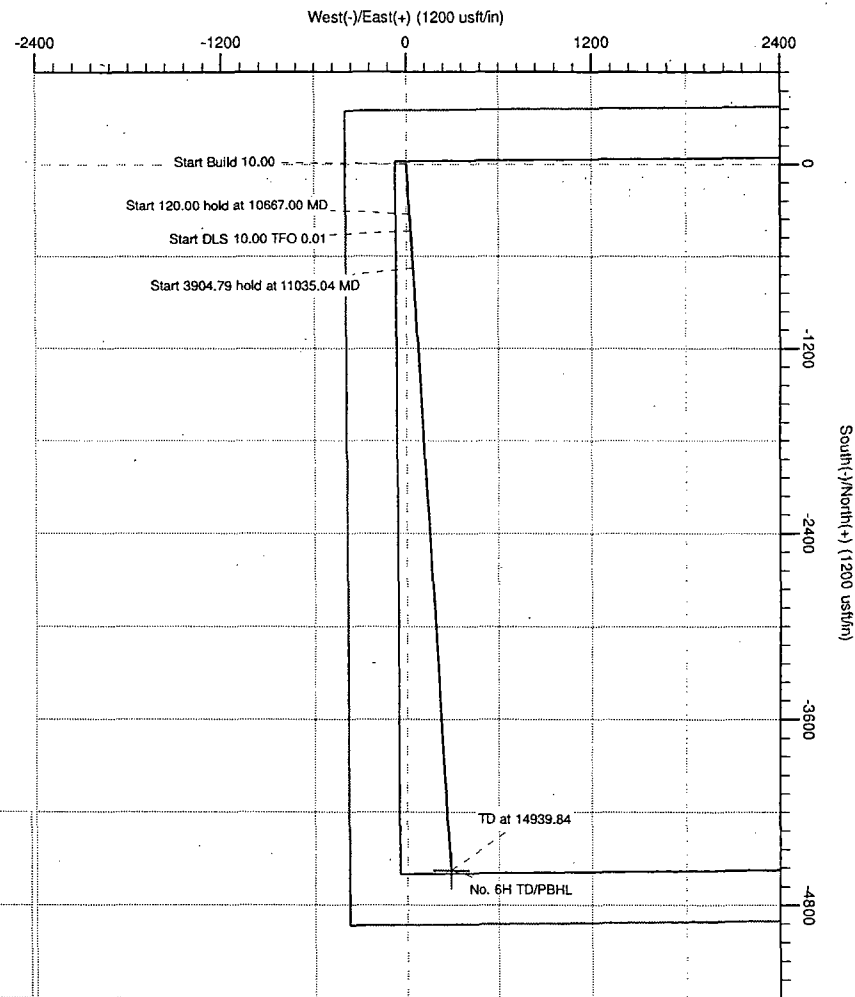
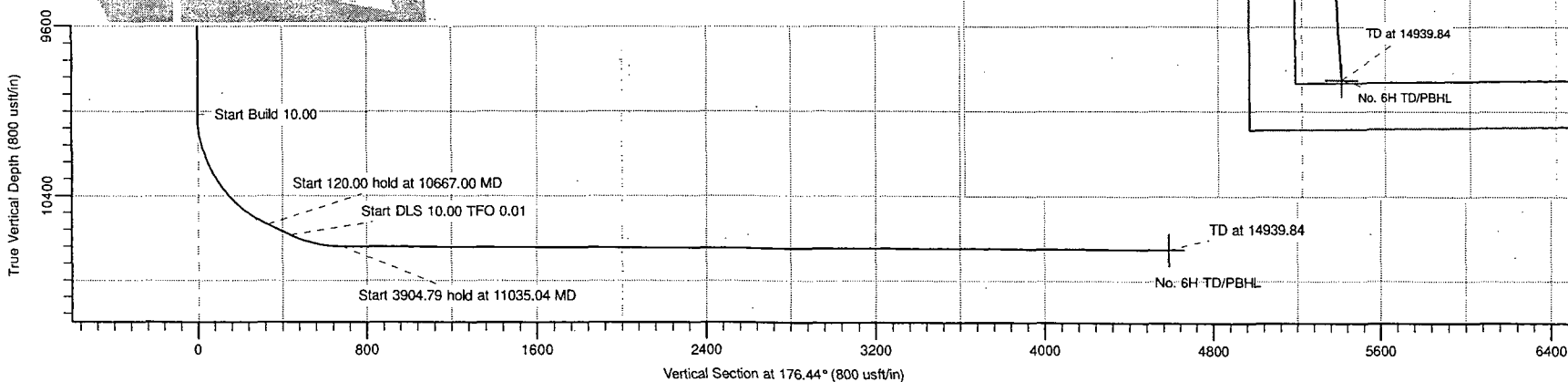
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	472042.60	730336.10	32° 17' 46.453 N	103° 43' 18.002 W	

Section Details

ec	MD	Inc	Azi	TVD	N-S	+E/-W	Dleg	V-Sect	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	10017.00	0.00	0.00	10017.00	0.00	0.00	0.00	0.00	
3	10667.00	65.00	176.44	10536.28	-330.18	20.54	10.00	330.82	
4	10787.00	65.00	176.44	10586.99	-438.72	27.29	10.00	439.57	
5	11035.04	89.80	176.44	10640.67	-678.45	42.20	10.00	679.76	
6	14939.84	89.80	176.44	10654.00	-4575.70	284.40	0.00	4584.53	No. 6H TD/PBHL

DESIGN TARGET DETAILS

Name	TVD	N-S	+E/-W	Northing	Easting	Shape
No. 6H TD/PBHL	10654.00	-4575.70	284.40	467466.90	730620.50	Point



Notes: All base lines and hard lines are estimates and are subject to customer approval.

Created By: Well Planner Date: 10:51, November 26 2013



HOBBS OCD

JAN 07 2014

XTO Energy Inc.
Lea County, NM
SDE Federal No. 6H
No. 6H
Plan #1
RKB: 19' + GL: 3571'



RECEIVED

US State Plane 1983
North American Datum 1983
GRS 1980
New Mexico Eastern Zone
Mean Sea Level

RKB Elevation: WELL @ 3590.00usft (RKB: 19' + GL: 3571')

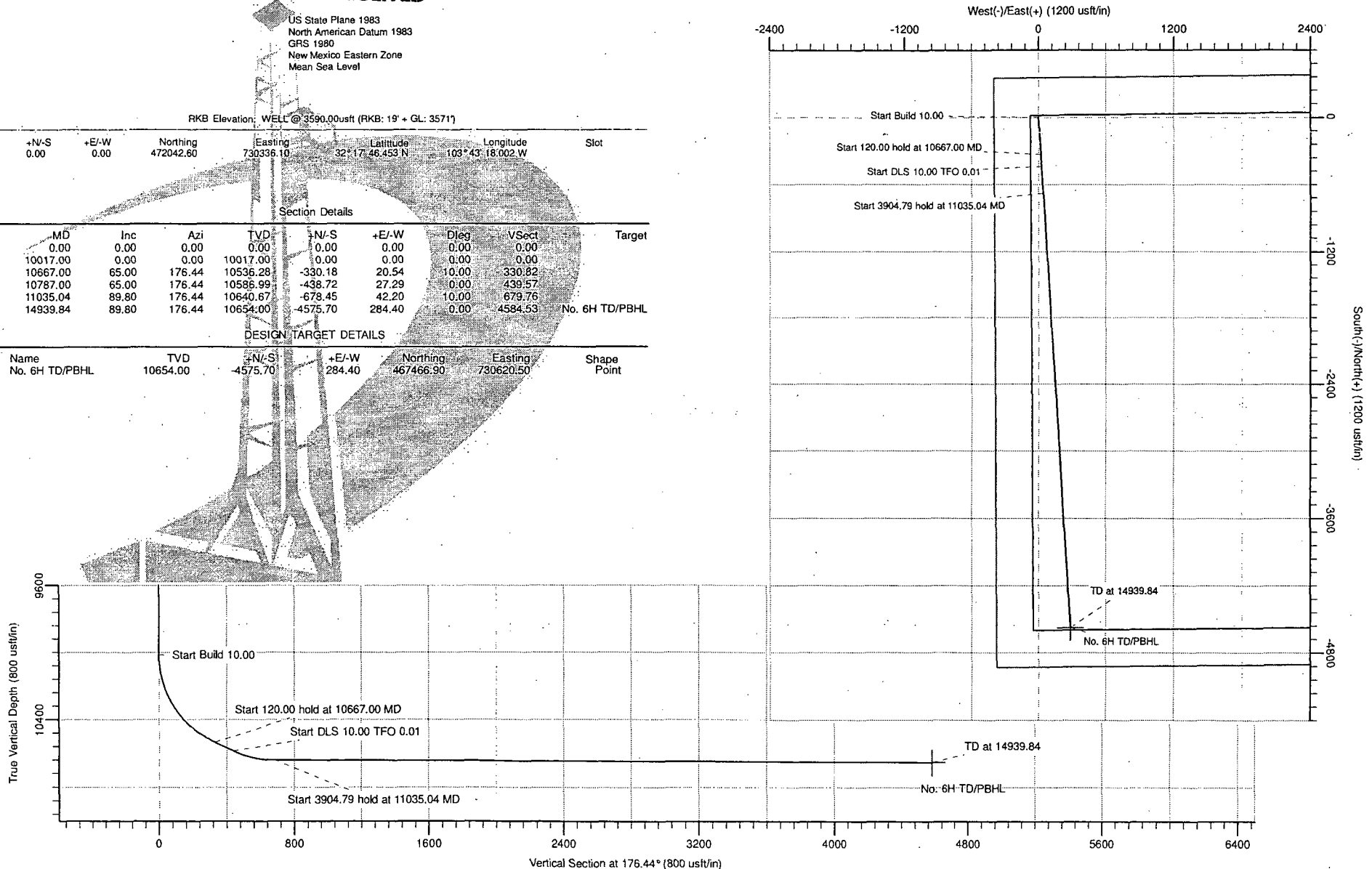
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	472042.60	730336.10	32° 17' 46.453 N	103° 43' 18.002 W	

Section Details

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	VSect	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	10017.00	0.00	0.00	10017.00	0.00	0.00	0.00	0.00	
3	10667.00	65.00	176.44	10536.28	-330.18	20.54	10.00	330.82	
4	10787.00	65.00	176.44	10586.99	-438.72	27.29	0.00	439.57	
5	11035.04	89.80	176.44	10640.67	-678.45	42.20	10.00	679.76	
6	14939.84	89.80	176.44	10654.00	-4575.70	284.40	0.00	4584.53	No. 6H TD/PBHL

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape Point
No. 6H TD/PBHL	10654.00	-4575.70	284.40	467466.90	730620.50	



Note: All State Lines and hard lines are estimates and are subject to customer's approval.

Created By: Well Planner Date: 10:51, November 26 2013



HOBBS OCD

JAN 07 2014

RECEIVED

XTO Energy Inc.
Lea County, NM
SDE Federal No. 6H
No. 6H
Plan #1
RKB: 19' + GL: 3571'



US State Plane 1983
North American Datum 1983
GRS 1980
New Mexico Eastern Zone
Mean Sea Level

RKB Elevation: WELL @ 3590.00usft (RKB: 19' + GL: 3571')

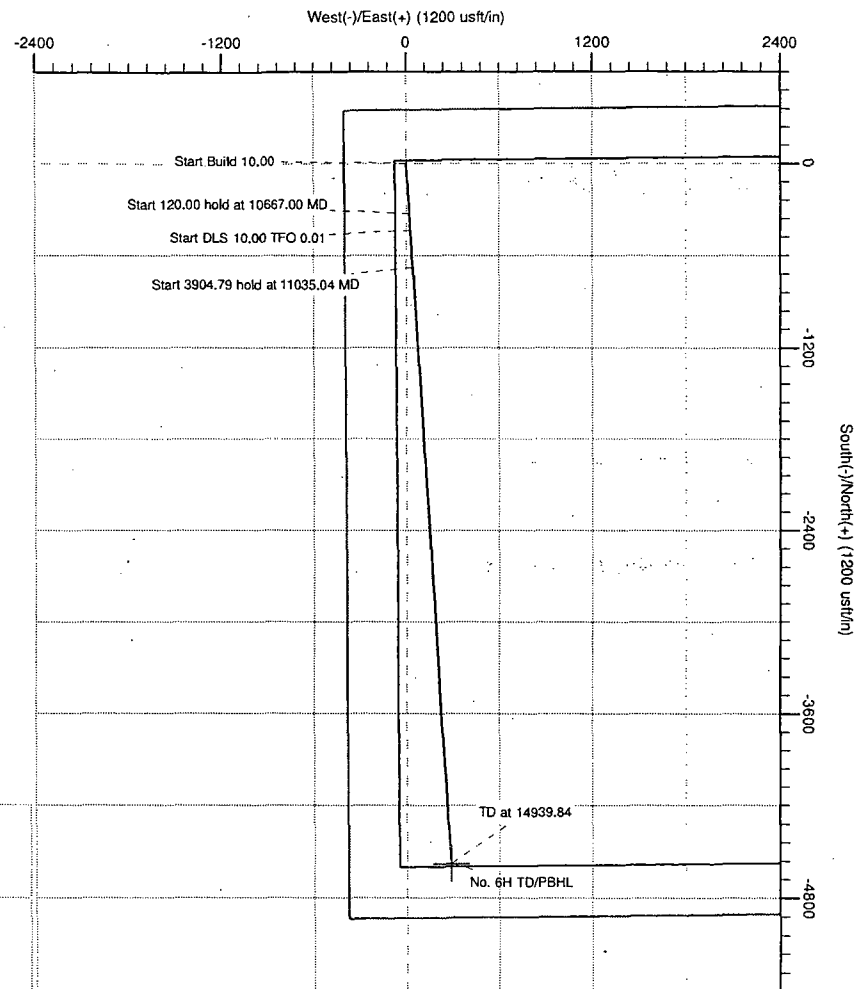
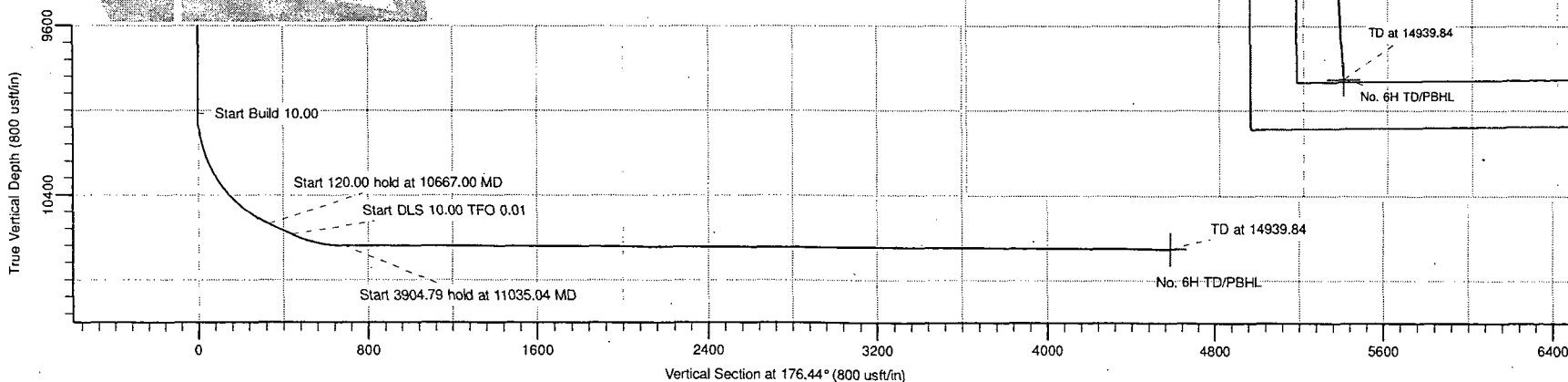
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	472042.60	730336.10	32° 17' 46.453 N	103° 43' 18.002 W	

Section Details

ec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Diag	VSect	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	10017.00	0.00	0.00	10017.00	0.00	0.00	0.00	0.00	
3	10667.00	65.00	176.44	10536.28	-330.18	20.54	10.00	330.82	
4	10787.00	65.00	176.44	10586.99	-438.72	27.29	0.00	439.57	
5	11035.04	89.80	176.44	10640.67	-678.45	42.20	10.00	679.76	
6	14939.84	89.80	176.44	10654.00	-4575.70	284.40	0.00	4584.53	No. 6H TD/PBHL

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape Point
No. 6H TD/PBHL	10654.00	-4575.70	284.40	467466.90	730620.50	



Note: All Basin Brack and Hard Lines are estimates and are subject to customer approval.

Created By: Well Planner Date: 10:51, November 26 2013