

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK

DRILL ☒

DEEPEN ☐

b. TYPE OF WELL

OIL  
WELL ☐

GAS  
WELL ☒

OTHER

SINGLE  
ZONE ☐

MULTIPLE  
ZONE ☐

2. NAME OF OPERATOR

XTO ENERGY INC.

5. LEASE DESIGNATION AND SERIAL NO.

NM - 14921

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

22849

8. FARM OR LEASE NAME, WELL NO.

Valencia Canyon Unit #43B

9. API WELL NO.

30-039.26922

10. FIELD AND POOL, OR WILDCAT

Blanco Mesaverde

11. SEC., T., R., M., OR BLK.  
AND SURVEY OR AREA

1 Sec 27, T28N, R04W

12. COUNTY OR PARISH

Rio Arriba

13. STATE

NM

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)

At surface

1525' FSL & 735' FSL Sec 27, T28N, R04W

At proposed prod. zone

1980' FSL & 1,570' FSL Sec 27, T28N, R04W

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*

Approx 49 from the Post Office in Blanco, NM.

15. DISTANCE FROM PROPOSED\*  
LOCATION TO NEAREST  
PROPERTY OR LEASE LINE, FT.

(Also to nearest drilg. unit line, if any) 735'

16. NO. OF ACRES IN LEASE\*

320

17. NO. OF ACRES ASSIGNED  
TO THIS WELL

320

18. DISTANCE FROM PROPOSED LOCATION\*  
TO NEAREST WELL, DRILLING, COMPLETED,  
OR APPLIED FOR, ON THIS LEASE, FT.

15'

19. PROPOSED DEPTH

6,850'

20. ROTARY OR CABLE TOOLS

0-6,850' with Rotary Tools

21. ELEVATIONS (Show whether DF, RT, GR, etc.)

7,222' Ground Level

22. APPROX. DATE WORK WILL START\*

Summer of 2002

23.

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	9-5/8"	32.3#	+/- 80' 320	50 sx type III
8-3/4"	7"	20.0#	+/- 3,800'	300 sx cmt (total)
6-1/4"	4-1/2"	10.5#	+/- 6,850'	220 sx cmt (total)

This action is subject to technical and  
procedural review pursuant to 43 CFR 3165.3  
and appeal pursuant to 43 CFR 3165.4.

DRILLING OPERATIONS AUTHORIZED ARE  
SUBJECT TO COMPLIANCE WITH ATTACHED  
"GENERAL REQUIREMENTS"

See the attached Surface Use plan and Drilling Program for the above mentioned well.

HOLD C104 FOR Directional survey

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout prevention program, if any.

24.

SIGNED

*DW Patton*

TITLE

Drilling Engineer

DATE

1/30/02

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

Application approval 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.  
CONDITIONS OF APPROVAL, IF ANY:

*David J. Mankiewicz*

APR 14 2003

APPROVED BY

TITLE

DATE

\*See Instructions On Reverse Side

Title 18 U.S.C. Section 1001, 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.

DISTRICT I  
1625 N. French Dr., Hobbs, N.M. 88240

DISTRICT II  
811 South First, Artesia, N.M. 88210

DISTRICT III  
1000 Rio Brazos Rd., Aztec, N.M. 87410

DISTRICT IV  
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals & Natural Resources Department

Form C-102  
Revised August 15, 2000

OIL CONSERVATION DIVISION

2040 South Pacheco  
Santa Fe, NM 87505

Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number 30-039-26922	<sup>2</sup> Pool Code 77319	<sup>3</sup> Pool Name BLANCO MESA VERDE
<sup>4</sup> Property Code 22849	<sup>5</sup> Property Name VALENCIA CANYON UNIT	<sup>6</sup> Well Number 43B
<sup>7</sup> OGRID No. 167067	<sup>8</sup> Operator Name XTO ENERGY INC.	<sup>9</sup> Elevation 7222'

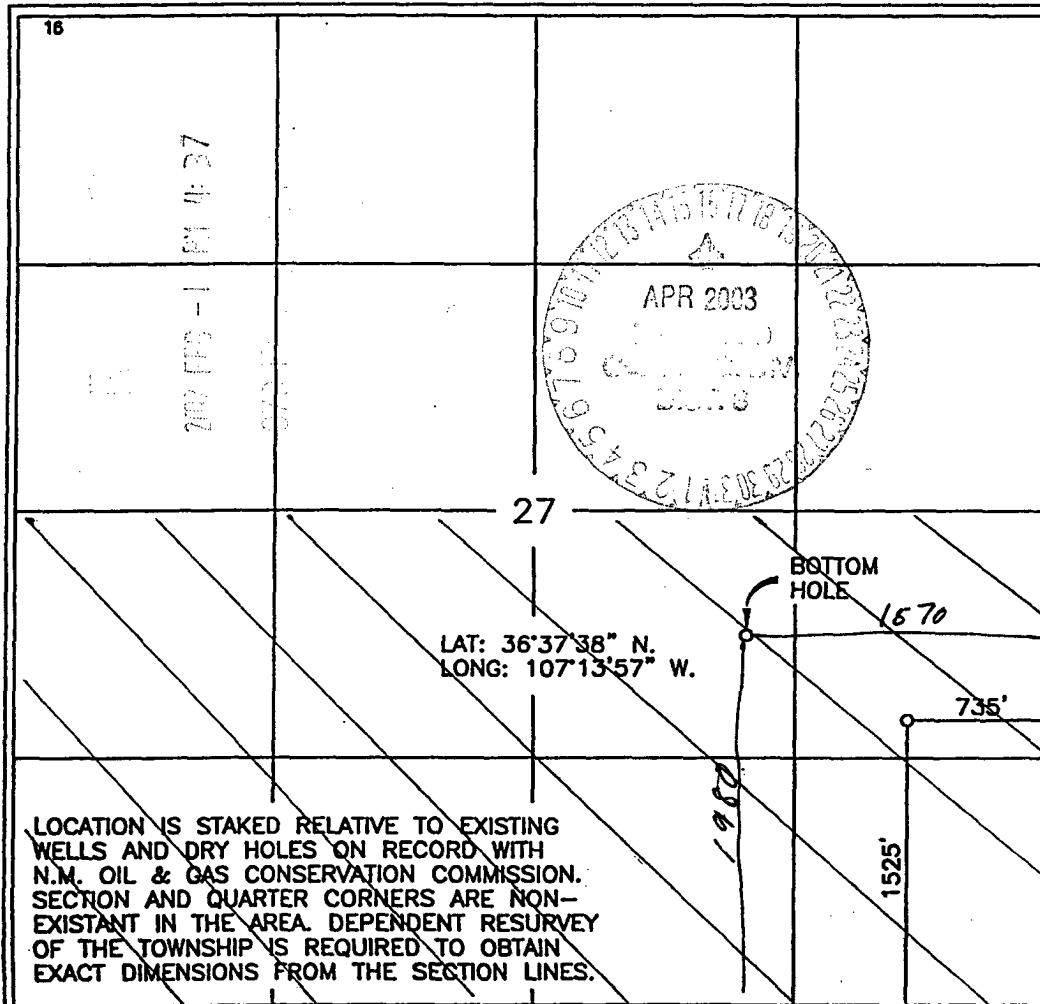
<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
I	27	28-N	4-W		1525'	SOUTH	735'	EAST	RIO ARRIBA

<sup>11</sup> 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
J	27	28-N	4-W		1980'	SOUTH	1570'	EAST	RIO ARRIBA
<sup>12</sup> Dedicated Acres 320 5/2		<sup>13</sup> Joint or Infill I		<sup>14</sup> Consolidation Code		<sup>15</sup> 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



17 OPERATOR CERTIFICATION

I hereby certify that the information contained herein  
is true and complete to the best of my knowledge and  
belief

Signature Jeffrey W. Patton  
Printed Name JEFFREY W. PATTON  
Title DRILLING ENGINEER  
Date 1-29-02

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.

Date of Survey 8-2-00  
Signature and Seal ROYO RUSH  
Professional Surveyor  
Certificate Number 8894

**XTO ENERGY INC.**  
**Valencia Canyon Unit #43B**  
**PROPOSED DRILLING PROGRAM**  
**APD Data**  
**January 31, 2002**

**Surface Location:** 1,525' FSL & 735' FEL, Sec 27, T28N, R04W **County:** Rio Arriba **State:** New Mexico  
**Bottomhole location :** 1,980' FSL & 1,570' FEL, Sec 27, T28N, R04W

**PROJECTED TOTAL DEPTH:** ±6,772' (TVD) ±6,850 (MD)  
**GR ELEV:** 7,222'

**OBJECTIVE:** Mesaverde  
**Est KB ELEV:** 7,235' (13' AGL)

**1. MUD PROGRAM:**

INTERVAL	0' to 80'	400' to 3,800'	3,800' to TD
HOLE SIZE	12-1/4"	8-3/4"	6-1/4"
MUD TYPE	FW/Native Mud	FW/Polymer	Air
WEIGHT	8.6-8.8	8.6-9.0	
VISCOSITY	28-32	29-34	
WATER LOSS	NC	NC	

**Remarks:** Use fibrous materials as needed to control seepage and lost circulation. Pump high viscosity sweeps as needed for hole cleaning. RU air compressors after setting the intermediate csg. Drill with air or foam to TD.

**2. CASING PROGRAM:**

**Surface Casing:** <sup>320</sup> 9-5/8" casing to be set at ± ~~80'~~ in 8.6 ppg mud

Interval	Length	Wt	Gr	Cplg	Coll Rating (psi)	Burst Rating (psi)	Jt Str (M-lbs)	ID (in)	Drift (in)	SF Coll	SF Burst	SF Ten
0'- <del>80'</del> <sup>320</sup> 80'		32.3#	H-40	STC	1370	2270	254	9.001	8.972	5.98	5.68	15.73

**Intermediate Casing:** 7" casing to be set at ±3,800' (MD) 3,800' (TVD) in 9.0 ppg mud.

Interval	Length	Wt	Gr	Cplg	Coll Rating (psi)	Burst Rating (psi)	Jt Str (M-lbs)	ID (in)	Drift (in)	SF Coll	SF Burst	SF Ten
0'-3,800'	3,800'	20.0#	J-55	STC	2257	3740	234	6.456	6.331	1.15	1.31	2.57

**Production Casing:** 4-1/2" casing to be set at 6,772' (MD) 6,850' (TVD) in air.

Interval	Length	Wt	Gr	Cplg	Coll Rating (psi)	Burst Rating (psi)	Jt Str (M-lbs)	ID (in)	Drift (in)	SF Coll	SF Burst	SF Ten
0'-6,850' (MD)	6,850'	10.5#	J-55	STC	4010	4790	132	4.052	3.927	1.33	1.20	1.90

3. WELLHEAD:

- A. Braden Head: 9-5/8" x 7" 2,000 psig WP (4,000 psig test).
- B. Intermediate Casing Head: 7" x 4-1/2" 3,000 psig WP (6,000 psig test).

4. CEMENT PROGRAM (Slurry design may change slightly, but the plan is to circulate cement to surface on both casing strings):

- A. Surface: 9-5/8", 32.3#, H-40, STC casing to be set at  $\pm 320'$ .  
Lead: <sup>200</sup>50 sx of "Type III" cement containing 3% CaCl<sub>2</sub>, ¼ pps celloflake, mixed at 14.5 ppg, 1.39 ft<sup>3</sup>/sk, & 6.20 gal wtr/sk.

*Total slurry volume is <sup>278</sup>278 ft<sup>3</sup>, 277% excess of calculated annular volume to 80'.*

- B. Intermediate: 7", 20.0#, J-55, STC casing to be set at  $\pm 3,800'$  (MD).  
Lead: 200 sx of Premium Lite (65/35/6)(cement/poz/gel), ¼ pps celloflake and 2% Phenoseal mixed at 11.9 ppg, 2.21 ft<sup>3</sup>/sk, 10.25 gal wtr/sx.  
Tail: 100 sx of "Type III" cement containing ¼ pps celloflake and 2% Phenoseal mixed at 14.5 ppg, 1.41 ft<sup>3</sup>/sk, 6.30 gal wtr/sx.

*Total slurry volume is 583 ft<sup>3</sup>, circulated to surface. No excess has been added to the above volume of lead and tail cement. Based on actual drilling conditions an excess (usually 35-50%) will be added.*

- C. Production: 4-1/2", 10.5#, J-55, STC casing to be set at  $\pm 6,772'$  (TVD) 6,850' (MD).  
Lead: 70 sx of Premium Lite (65/35/6)(cement/poz/gel) containing 2% KCl, ¼ pps celloflake, 4% Phenoseal, 0.2% dispersant, 0.5% fluid loss mixed at 11.9 ppg, 2.21 ft<sup>3</sup>/sk, 10.25 gal wtr/sx.  
Tail: 150 sx of Class "H" cement containing ¼ pps celloflake, 4% Phenoseal and 0.6% FI-62 mixed at 15.6 ppg, 1.18 ft<sup>3</sup>/sk, 4.80 gal wtr/sx..

*Total estimated slurry volume for the 4-1/2" production casing is 332 ft<sup>3</sup> for 3,250' of fill. Est. TOC should be 200' into the 7" intermediate casing. The above cement volumes for both the lead & tail do not have any excess. Excess cement will be calculated from the caliper log + 40%.*

*Note: The slurry design may change slightly based upon actual conditions. Final cement volumes will be determined for the caliper logs plus 40%.*

5. LOGGING PROGRAM:

- A. Mud Logger: There are no plans to use a mud logger at this time.
- B. Open Hole Logs as follows: Run Dual Induction/SFL/GR/CAL/SP/CNL/LDT (lithodensity) from TD to the bottom of the intermediate csg. Run cased hole GR/CCL from TD to surface.

# BOP SCHEMATIC FOR DRILLING OPERATIONS CLASS 1 (2M) NORMAL PRESSURE

## TESTING PROCEDURE

### 1. Test BOP after installation:

Pressure test BOP to 200-300  
psig (low pressure) for 5 min.

Test BOP to Working Press or  
to 70% internal yield of surf csg  
(10 min).

### 2. Test operation of (both) rams on every trip.

### 3. Check and record Accumulator pressure on every tour.

### 4. Re-pressure test BOP stack after changing out rams.

### 5. Have kelly cock valve with handle available.

### 6. Have safety valve and subs to fit all sizes of drill string.

