

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

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

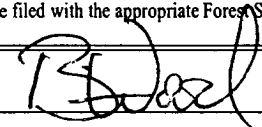
APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NMNM-14922
1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name N/A
2. Name of Operator XTO ENERGY INC		7. If Unit or CA Agreement, Name and No. VALENCIA CANYON NMNM 784298
3a. Address 2700 FARMINGTON AVE., BLDG. K-1 FARMINGTON, NM 87401		8. Lease Name and Well No. VALENCIA CANYON UNIT 45 C
3b. Phone No. (include area code) (505) 324-1090		9. API Well No. 30-039-29697
4. Location of Well (Report location clearly and in accordance with any State requirements.) At surface 1200 FSL & 1925 FEL - 0 At proposed prod. zone 1900 FSL & 2300 FWL - K		10. Field and Pool, or Exploratory BLANCO MESA VERDE
14. Distance in miles and direction from nearest town or post office* 26 AIR MILES SOUTHWEST OF DULCE		11. Sec., T. R. M. or Blk. and Survey or Area 0 34-28N-4W NMPM
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 740'	16. No. of acres in lease 640	17. Spacing Unit dedicated to this well S2 (320 ac.)
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 1767' (BHL to #35)	19. Proposed Depth 7,198'	20. BLM/BIA Bond No. on file BLM NATIONWIDE 57 91 73
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 7,197' GL	22. Approximate date work will start* 05/01/2006	23. Estimated duration 4 WEEKS

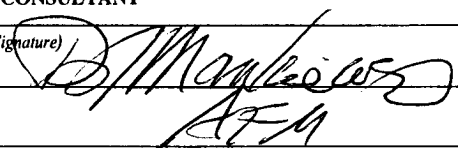
24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, shall be attached to this form:

- |   |  |
|---|--|
| 1. Well plat certified by a registered surveyor.  | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).    |
| 2. A Drilling Plan.   | 5. Operator certification  |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be required by the authorized officer. |

25. Signature 	Name (Printed/Typed) BRIAN WOOD	Date 11/05/2005
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Title CONSULTANT	PHONE: (505) 466-8120	FAX: (505) 466-9682
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Approved by (Signature) 	Name (Printed/Typed) D. M. Williams	Date 4/12/06
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Title AFM	Office FFO
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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, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make 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.

\*(Instructions on page 2)

HOLD C104 FOR directional survey



NMOCB

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

DISTRICT II  
1301 W. Grand Ave., Artesia, N.M. 88210

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

DISTRICT IV  
1220 South St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-102

Revised June 10, 2003

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 30-039-29697		<sup>2</sup> Pool Code 72139 72319		<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 45C
<sup>7</sup> OGRID No. 167067		<sup>8</sup> Operator Name XTO ENERGY INC.			<sup>9</sup> Elevation 7197

<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
0	34	28-N	4-W		1200	SOUTH	1925.	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
K	34	28N	4W		1900	SOUTH	2300	WEST	RIO ARRb.
<sup>12</sup> Dedicated Acres 320			<sup>13</sup> Joint or Infill		<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

<p>16</p> <p>LOCATION IS STAKED RELATIVE TO EXISTING WELLS AND DRY HOLES ON RECORD WITH N.M. OIL &amp; GAS CONSERVATION COMMISSION. SECTION AND QUARTER CORNERS ARE NON-EXISTANT IN THE AREA. DEPENDENT RESURVEY OF THE TOWNSHIP IS REQUIRED TO OBTAIN EXACT DIMENSIONS FROM THE SECTION LINES.</p> <p>34</p> <p>LAT: 36°36'45" N. (NAD 27) LONG: 107°14'10" W. (NAD 27)</p> <p>VALENCIA CANYON #45A</p> <p>1200'</p> <p>1925'</p>	<p>17 OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief</p> <p><i>Brian Wood</i></p> <p>Signature <b>BRIAN WOOD</b></p> <p>Printed Name <b>CONSULTANT</b></p> <p>Title <b>NOV. 5, 2005</b></p> <p>Date</p>
	<p>18 SURVEYOR CERTIFICATION</p> <p>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.</p> <p>Date of Survey</p> <p>Signature and Seal of Professional Surveyor</p> <p><b>JOHNA VORONICH</b> NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR 14831</p> <p>Certificate Number</p>

Submit 3 Copies To Appropriate District Office  
District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Ave., Artesia, NM 88210  
District III  
1000 Rio Brazos Rd., Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals and Natural Resources

Form C-103  
May 27, 2004

OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

WELL API NO.	30-039-29697
5. Indicate Type of Lease	STATE <input type="checkbox"/> FEE <input type="checkbox"/>
6. State Oil & Gas Lease No.	NMNM-14922
7. Lease Name or Unit Agreement Name	VALENCIA CANYON UNIT
8. Well Number	45 C
9. OGRID Number	167067
10. Pool name or Wildcat	BLANCO MESA VERDE

11. Elevation (Show whether DR, RKB, RT, GR, etc.)  
7,197' GL

Pit or Below-grade Tank Application ☒ or Closure ☐

Pit type DRILLING Depth to Groundwater >100' Distance from nearest fresh water well >1,000' Distance from nearest surface water >100'

Pit Liner Thickness: 12 mil Below-Grade Tank: Volume \_\_\_\_\_ bbls; Construction Material \_\_\_\_\_

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	P AND A <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	MULTIPLE COMPL <input type="checkbox"/>	CASING/CEMENT JOB <input type="checkbox"/>	
OTHER: <u>DRILLING PIT</u> <input checked="" type="checkbox"/>		OTHER: <input type="checkbox"/>	

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that any pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☒ a general permit ☐ or an (attached) alternative OCD-approved plan ☐.

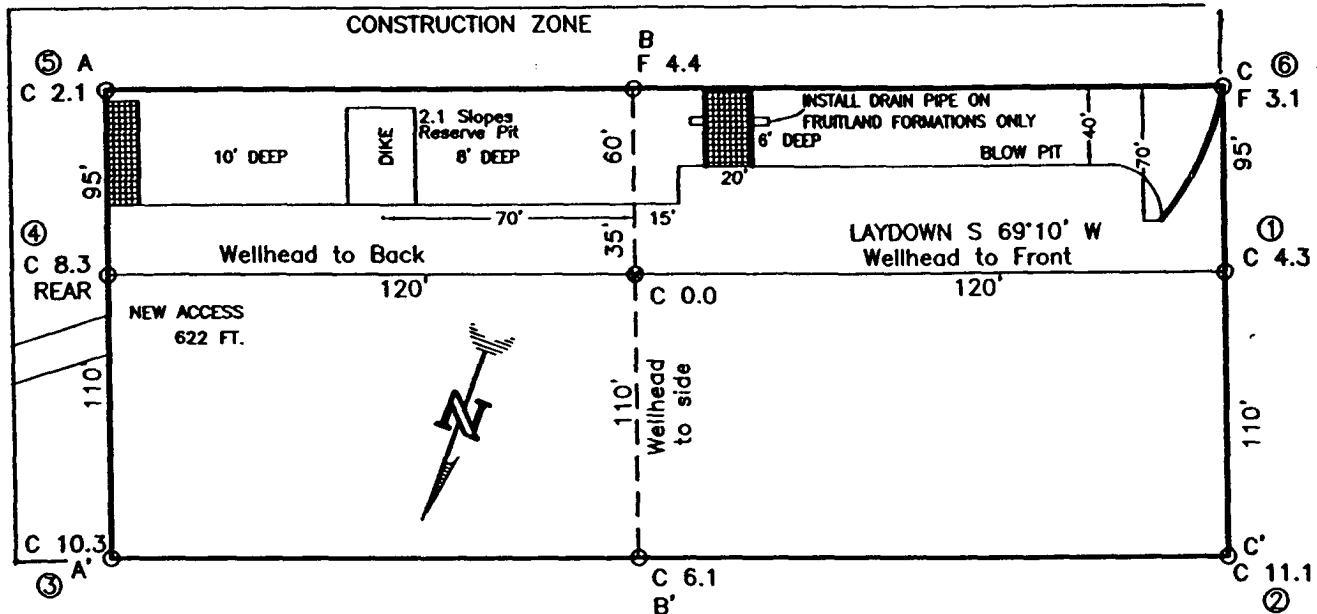
SIGNATURE Brian Wood TITLE CONSULTANT DATE 11-5-05

Type or print name BRIAN WOOD E-mail address: brian@permitswest.com Telephone No. (505) 466-8120  
For State Use Only

APPROVED BY: [Signature] TITLE DEPUTY OIL & GAS INSPECTOR, DIST. 4 DATE APR 14 2006  
Conditions of Approval (if any): \_\_\_\_\_

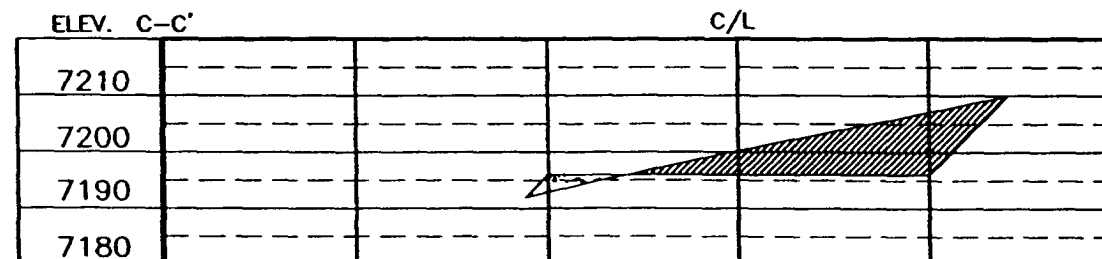
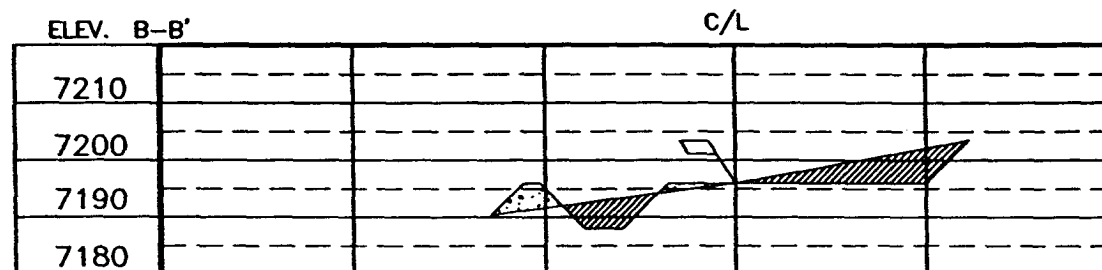
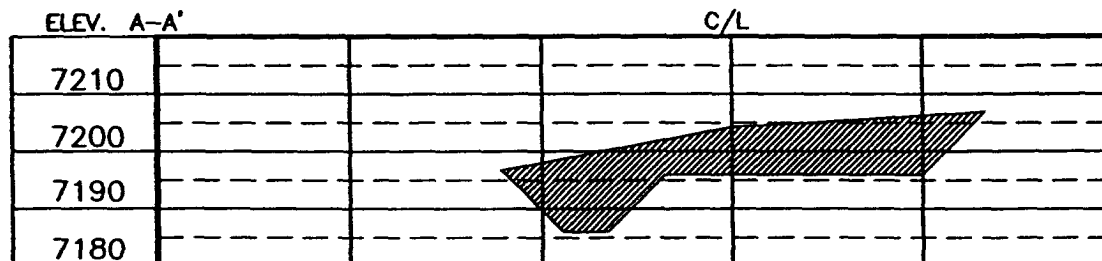
XTO ENERGY INC.  
 VALENCIA CANYON UNIT No. 45C  
 SECTION 34, T28N, R4W, N.M.P.M., RIO ARRIBA COUNTY, N. M.  
 GROUND ELEVATION: 7197', DATE: AUGUST 3, 2004

LAT. = 36°36'45" N.  
 LONG. = 107°14'10" W  
 NAD 27



RESERVE PIT DIKE: TO BE 8' ABOVE DEEP SIDE (OVERFLOW - 3' WIDE AND 1' ABOVE SHALLOW SIDE).  
 BLOW PIT: OVERFLOW PIPE HALFWAY BETWEEN TOP AND BOTTOM AND TO EXTEND OVER PLASTIC LINER AND INTO BLOW PIT.

NOTE: DAGGETT ENTERPRISES, INC. IS NOT LIABLE FOR UNDERGROUND UTILITIES OR PIPELINES. NEW MEXICO ONE CALL TO BE NOTIFIED 48 HOURS PRIOR TO EXCAVATION OR CONSTRUCTION.



NOTE: CONTRACTOR SHOULD CALL ONE-CALL FOR LOCATION OF ANY MARKED OR UNMARKED BURIED PIPELINES OR CABLES ON WELL PAD AND OR ACCESS ROAD AT LEAST TWO (2) WORKING DAYS PRIOR TO CONSTRUCTION.

REVISION	DATE	REVISION BY	DATE

**Daggett Enterprises, Inc.**  
 Surveying and Oil Field Services  
 P. O. Box 15008 • Farmington, NM 87401  
 Phone (505) 328-1772 • Fax (505) 328-8019  
 NEW MEXICO L.S. No. 14831

Drawn by: B.L.  
 Check: CR249

DATE: 08/13/04

XTO Energy Inc.

PAGE 1

Valencia Canyon Unit 45 C

Surface: 1200' FSL & 1925' FEL

BHL: 1900' FSL & 2300' FWL

Sec. 34, T. 28 N., R. 4 W., Rio Arriba County, New Mexico

## Drilling Program

### 1. ESTIMATED FORMATION TOPS

<u>Formation Name</u>	<u>TV Depth</u>	<u>KB Depth</u>	<u>Elevation</u>
San Jose	000'	12'	+7,197'
Ojo Alamo Sandstone	3,297'	3,309'	+3,900'
Kirtland Shale	3,672'	3,684'	+3,525'
Fruitland Coal	3,997'	4,009'	+3,200'
Pictured Cliffs Ss	4,097'	4,109'	+3,100'
Lewis Shale	4,397'	4,409'	+2,800'
Cliff House Sandstone	5,922'	5,934'	+1,275'
Menefee Shale	5,997'	6,009'	+1,200'
Mesa Verde Sandstone	6,197'	6,209'	+1,000'
Mancos Shale	6,597'	6,609'	+600'
Total Depth*	7,000'	6,912'	+197'

\*Measured Depth 7,198'

### 2. NOTABLE ZONES

#### Gas or Oil Zones

Fruitland  
Pictured Cliffs  
Mesa Verde

#### Water Zones

San Jose  
Ojo Alamo  
Fruitland

#### Coal Zones

Fruitland  
Menefee

Water zones will be protected with casing, cement, and weighted mud. Fresh water found while drilling will be recorded. Oil or gas shows will be tested for commercial potential based on the geologist's recommendations.

XTO Energy Inc.

PAGE 2

Valencia Canyon Unit 45 C

Surface: 1200' FSL & 1925' FEL

BHL: 1900' FSL & 2300' FWL

Sec. 34, T. 28 N., R. 4 W., Rio Arriba County, New Mexico

### 3. PRESSURE CONTROL

The drilling contract has not yet been awarded, thus the exact BOP model to be used is not yet known. (A typical 2,000 psi model is on PAGE 3.) An 8-5/8" x 11" 2,000 pound double ram BOP system with a choke manifold and mud cross will be tested to 200 psi and then to 1,000 psi. Upper and lower Kelly cocks with valve handle and subs to fit all drill string connections which are in use will be available on the rig floor.

Tests will be run when:

- 1) installed
- 2) anytime a pressure seal is broken (test only affected equipment)
- 3) at least every 30 days
- 4) blind & pipe rams will be activated each trip, but no more than daily

BOP systems will be consistent with API RP 53. Blowout preventers will be installed and tested before drilling surface casing plug and will remain in use until the well is completed or abandoned. Preventers will be inspected and operated daily to ensure good mechanical working order and this inspection recorded on the daily drilling report. Preventers and casing will be pressure tested before drilling casing cement plugs. Maximum expected bottom hole pressure is  $\approx$ 2,800 psi. BOP and mud system will control pressure.

### 4. CASING & CEMENT

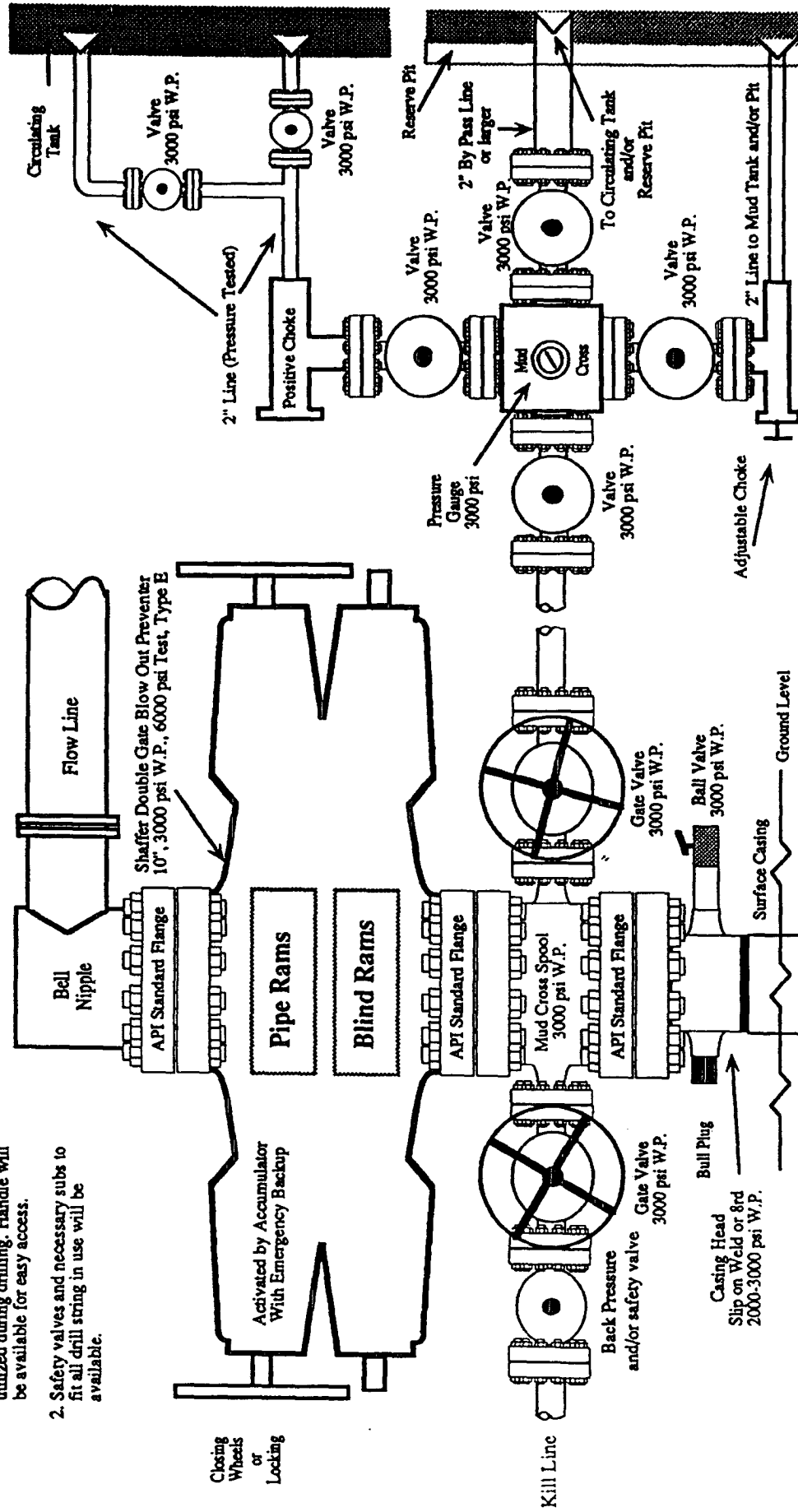
<u>Hole Size</u>	<u>O. D.</u>	<u>Weight (lb/ft)</u>	<u>Grade</u>	<u>Age</u>	<u>Connections</u>	<u>Setting Depth</u>
12-1/4"	9-5/8"	36	J-55	New	S T & C	320'
8-3/4"	7"	20	J-55	New	S T & C	3,800'
6-1/4"	4-1/2"	10.5	J-55	New	S T & C	7,198'

Surface casing will be cemented to surface with  $\approx$ 256 cubic feet ( $\approx$ 200 sacks) Type III + 1/4 pound per sack cello-flake + 2% CaCl<sub>2</sub>. Yield = 1.28 cubic feet per sack. Weight = 15.2 pounds per gallon. Excess: >100%.

# 2,000 PSI BOP SYSTEM

Note: 1. An upper Kelly cock valve will be utilized during drilling. Handle will be available for easy access.

2. Safety valves and necessary subs to fit all drill string in use will be available.



Note: This equipment is designed to meet requirements for a 2-M rating standard per 43 CFR part 3160 (amended). Proper operation and testing of equipment will be carried out per standard. 2,000 psi equipment can be substituted in the drawing to meet minimum requirements per standard.

XTO Energy Inc.

PAGE 4

Valencia Canyon Unit 45 C

Surface: 1200' FSL & 1925' FEL

BHL: 1900' FSL & 2300' FWL

Sec. 34, T. 28 N., R. 4 W., Rio Arriba County, New Mexico

Conventional centralizers will be set on the bottom two joints of the surface casing and every fourth joint to surface.

Intermediate casing will be cemented to the surface with >70% excess. Lead with  $\approx 300$  sacks ( $\approx 780$  cubic feet) Type III + 8% gel + 1%  $\text{CaCl}_2$  + 1/4 pound per sack cello flake mixed at 11.9 pounds per gallon and 2.60 cubic feet per sack. Tail will be  $\approx 150$  sacks ( $\approx 211$  cubic feet) Type III + 1%  $\text{CaCl}_2$  + 1/4 pound per sack cello flake mixed at 14.5 pounds per gallon and 1.41 cubic feet per sack. Intermediate casing will be set at least 50' into the Kirtland.

Production casing will be cemented to  $\approx 3,300'$  (i. e.,  $\approx 500'$  overlap) with  $\approx 90\%$  excess. Lead with  $\approx 165$  sacks ( $\approx 500$  cubic feet) Type III + 8% gel + 0.5% FL-52 + 0.2% CD-32 + 2% Pheno seal mixed at 11.4 pounds per gallon and 3.03 cubic feet per sack. Tail with  $\approx 150$  sacks ( $\approx 301$  cubic feet) Premium Light HS + 2% KCl + 0.2% CD-32 + 0.5% FL-52 + 1/2 pound per sack cello flake + 2% Pheno seal mixed at 12.5 pounds per gallon and 2.01 cubic feet per sack. Conventional centralizers will be set on the bottom two joints, every second joint to  $\approx 6,000'$  and every fourth joint from  $\approx 2,000'$  to surface.

## 5. MUD PROGRAM

<u>RANGE</u>	<u>MUD TYPE</u>	<u>WEIGHT</u>	<u>VISCOSITY</u>	<u>WATER LOSS</u>	<u>ADDITIVES</u>
0' - 350'	Fresh-Spud	8.5-8.8	30	NC	Gel, lime
350' - 4,500'	Fresh Water	8.5-8.8	28	NC	Gel, lime sweeps
4,500' - TD	Fresh Water	8.5-8.8	35	10 cc	Gel, soda ash, LCM

## 6. CORES, TESTS, & LOGS

No cores or drill stem tests are planned. Induction log will be run from TD to 3,000'. Neutron density - GR log will be run from TD to base of surface casing.



**VCU #45C**  
**Vertical Section, Feet**

