

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE*
(Other instructions on
reverse side)

FORM APPROVED
OMB NO. 1004-0136
Expires: February 28, 1995

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

XT0 Energy Inc.

3. ADDRESS AND TELEPHONE NO.

2700 Farmington Ave., Bldg. K. Ste 1 Farmington, NM 87401

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

At surface

840' FNL & 1700' FWL in Sec 5, T30N, R12W

At proposed prod. zone

same as above

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

9 air miles northwest of the Flora Vista Post Office

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

(Also to nearest drlg. unit line, if any) 840'

16. NO. OF ACRES IN LEASE

+2,410.24

17. NO. OF ACRES ASSIGNED
TO THIS WELL

285.92

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

100'

19. PROPOSED DEPTH

2,475'

20. ROTARY OR CABLE TOOLS

0-2,475' with Rotary Tools

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

5,988' Ungraded Ground Level

22. APPROX. DATE WORK WILL START*

Winter 2003

23.

PROPOSED CASING AND CEMENTING PROGRAM

| SIZE OF HOLE | GRADE SIZE OF CASING | WEIGHT PER FOOT | SETTING DEPTH | QUANTITY OF CEMENT |
|--------------|----------------------|-----------------|---------------|-------------------------------|
| 8-3/4" | 7", J-55 | 20.0#/ft | +200' | 75 sx Type III or C1 B cement |
| 6-1/4" | 4-1/2", J-55 | 10.5#/ft | +2,475' | 195 sx Premium Lite cement |

XT0 ENERGY INC. Request approval to drill the above mentioned well as described in the enclosed Surface Use Plan and proposed Drilling Program.

Note: Due to this well being located on existing location, No pipeline ROW is required.

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

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

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

24.

SIGNED

TITLE

Drilling Engineer

DATE

2/18/03

(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:

/s/ David J. Mankiewicz

MAR - 3 2003

APPROVED BY

TITLE

*See Instructions On Reverse Side

DATE

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any Federal 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
E. gy. Minerals & Natural Resources Department

Form C-102
Revised August 15, 2000

OIL CONSERVATION DIVISION

2040 South Pacheco
Santa Fe, NM 87505

REC'D / SAN JUAN

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

DEC 13 2002

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

| | | |
|---|---|--|
| ¹ API Number 30-045-31412 | ² Pool Code 71629 | ³ Pool Name BASIN FRUITLAND COAL |
| ⁴ Property Code 23620 | ⁵ Property Name L. C. KELLY | ⁶ Well Number 16 |
| ⁷ OGRID No. 167067 | ⁸ Operator Name XTO ENERGY INC. | ⁹ Elevation 5988' |

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 |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|----------|
| C | 5 | 30-N | 12-W | | 840 | NORTH | 1700 | WEST | SAN JUAN |

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 |
|---|---------|----------|------------------------------------|---------|----------------------------------|------------------|-------------------------|----------------|--------|
| | | | | | | | | | |
| ¹² Dedicated Acres 285.92 W/2 | | | ¹³ Joint or Infill I | | 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

| | |
|--|--|
| <p>16 N 88-51-10 E 2623.22' (M) SEC. CORNER FD 3 1/4" BC BLM 1951</p> <p>LOT 7</p> <p>LOT 8</p> <p>LOT 9</p> <p>LOT 10</p> <p>LOT 11</p> <p>LOT 12</p> <p>LOT 13</p> <p>LOT 14</p> <p>LOT 15</p> <p>LOT 16</p> <p>LOT 17</p> <p>LOT 18</p> <p>LOT 19</p> <p>LOT 20</p> <p>QTR. CORNER FD 3 1/4" BC BLM 1951</p> <p>QTR. CORNER FD 3 1/4" BC BLM 1976</p> <p>LAT: 36°50'47" N. (NAD 83) LONG: 108°07'29" W.</p> <p>RECEIVED MAR 11 2003</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>Signature <u>Jeffrey W. Patton</u></p> <p>Printed Name <u>JEFFREY W. PATTON</u></p> <p>Title <u>DRILLING ENGINEER</u></p> <p>Date <u>2-18-03</u></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 <u>12-13-02</u></p> <p>Signature and Seal of Professional Surveyor <u>[Signature]</u></p> <p>Certificate Number <u>14827</u></p> |
|--|--|

XTO ENERGY INC.

DRILLING PROCEDURE

LC KELLY #16

Basin Fruitland Coal

February 18, 2003

Location: 840' FNL & 1,700' FWL, Sec 5, T30N, R12W County: San Juan State: New Mexico

PROJECTED TOTAL DEPTH: 2,475' OBJECTIVE: Fruitland Coal GR ELEV: 5,988'

1. MUD PROGRAM:

| | | |
|-------------------|-----------|------------|
| INTERVAL | 0'-200' | 200'-TD |
| HOLE SIZE | 8-3/4" | 6-1/4" |
| MUD TYPE | FW/Native | FW/Polymer |
| MUD WEIGHT, ppg | 8.6-9.0 | 8.6-9.1 |
| VISCOSITY, sec/qt | 28-32 | 28-33 |
| WATER LOSS, cc | NC | NC |

Remarks: Drill the surface hole with fresh water. Run and cement 7" surface casing, circulating cement to surface. NU and test BOP equipment, then drill out with fresh water. Use polymer sweeps as needed for hole cleaning. At TD, sweep the hole prior to TOH to log.

2. CASING PROGRAM:

Surface Casing: 7" casing to be set at $\pm 200'$ in 8.8 ppg mud.

| Interval | Length | Wt (ppf) | Gr | Cplg | Coll Rating (psi) | Burst Rating (psi) | Jt Str (M-lbs) | ID (in) | DD (in) | SF Coll | SF Burst | SF Tension |
|----------|--------|----------|------|------|-------------------|--------------------|----------------|---------|---------|---------|----------|------------|
| 0'-200' | 200' | 20# | J-55 | STC | 2,270 | 3,740 | 234 | 6.456 | 6.331 | 9.99 | 4.59 | 58.5 |

Optimum makeup torque for 7" 20#, J-55, STC casing is **2,340 ft-lbs** (Min - 1,760 ft-lbs, Max - 2,930 ft-lbs).

Production Casing: 4-1/2" casing to be set at $\pm 2,475'$ in 8.8 ppg mud.

| Interval | Length | Wt (ppf) | Gr | Cplg | Coll Rating (psi) | Burst Rating (psi) | Jt Str (M-lbs) | ID (in) | DD (in) | SF Coll | SF Burst | SF Tension |
|----------|--------|----------|------|------|-------------------|--------------------|----------------|---------|---------|---------|----------|------------|
| 0'-TD | 2,475' | 10.5# | J-55 | STC | 4,010 | 4,790 | 132 | 4.052 | 3.927 | 3.57 | 3.33 | 5.24 |

Optimum makeup torque for 4-1/2", 10.5#, J-55, casing is **1,320 ft-lbs** (Min - 990 ft-lbs, Max - 1,650 ft-lbs).

Capacity of 7", 20# casing is: 0.04048 bbl/ft

Capacity of 4-1/2", 10.5# casing is: 0.01595 bbl/ft

EXHIBIT D

3. **WELLHEAD:**

Casinghead: Larkin Fig 92 (or equivalent) 2,000 psig WP (4,000 psig test) with 7", 8rd pin on bottom and 8-5/8" API Modified 8rd thread on top.

Tubinghead: Larkin Model 612 (or equivalent) 2,000 psig WP (4,000 psig test) with 4-1/2", 8rd bottom thread and 8-5/8" 8rd API Modified top body thread, 4.090" minimum bore.

4. **CEMENT PROGRAM:**

A. **Surface:** 7", 20#, J-55, STC casing at $\pm 200'$.

Lead: 75 sx Type III cement (or equivalent) containing 1/4 pps celloflake, 2% CaCl₂ (mixed at 14.6 ppg, 1.39 ft³/sk, 6.67 gal wtr/sk).

Total slurry volume is 104.25 ft³, 250% excess of calculated annular volume required to circulate cement to surface.

B. **Production:** 4-1/2", 10.5#, J-55, STC casing at $\pm 2,475'$.

Lead: 125* sx of Type III cement containing 8% gel, 1/4 pps Celloflake & 2% Phenoseal (mixed at 11.4 ppg, 3.03 ft³/sk, 18.51 gal wtr/sk).

Tail: 70 sx Type III cement containing 1% CaCl₂, 1/4 pps Celloflake & 2% Phenoseal (mixed at 14.5 ppg, 1.41 ft³/sk, 6.72 gal wtr/sx).

Total estimated slurry volume is 477 ft³, $\pm 100\%$ excess of calculated annular volume required to circulate cement to surface.

* Actual cement volumes will be determined using log caliper volume plus 40% excess.

5. **DRILLING HAZARDS:**

- H₂S or other Poisonous Gases: No formations known to contain H₂S or any other poisonous gases will be penetrated with this wellbore.
- Abnormal Pressures: No overpressured zones are known to exist or are anticipated to be encountered during the drilling of this well.
- Lost Circulation: Seepage and/or lost circulation may be encountered below surface casing and can be controlled with conventional lost circulation materials added to the mud system.

6. **LOGGING PROGRAM:**

Array Induction/DFL/GR/SP/Cal
DSN/Spectral Density/GR/Cal/Pe

TD to bottom of surf csg.
TD to bottom of surf csg.

7. **FORMATION TOPS:**

| Formation | Subsea Depth | Well Depth |
|----------------------|--------------|------------|
| Ojo Alamo SS | +5,468' | 532' |
| Kirtland Shale | +5,369' | 631' |
| Fruitland Fm | +4,254' | 1,746' |
| Lower Fruitland Coal | +3,804' | 2,196' |
| Pictured Cliffs SS | +3,764' | 2,236' |
| Lewis Shale | +3,561' | 2,439' |
| T.D. | +3,525' | ±2,475' |

Note: These depths, indicated above, are approximate. Actual depths of the formation tops will be determined from the well logs.

Maximum anticipated bottomhole pressure encountered during drilling should not exceed 0.35-0.43 psi/ft.

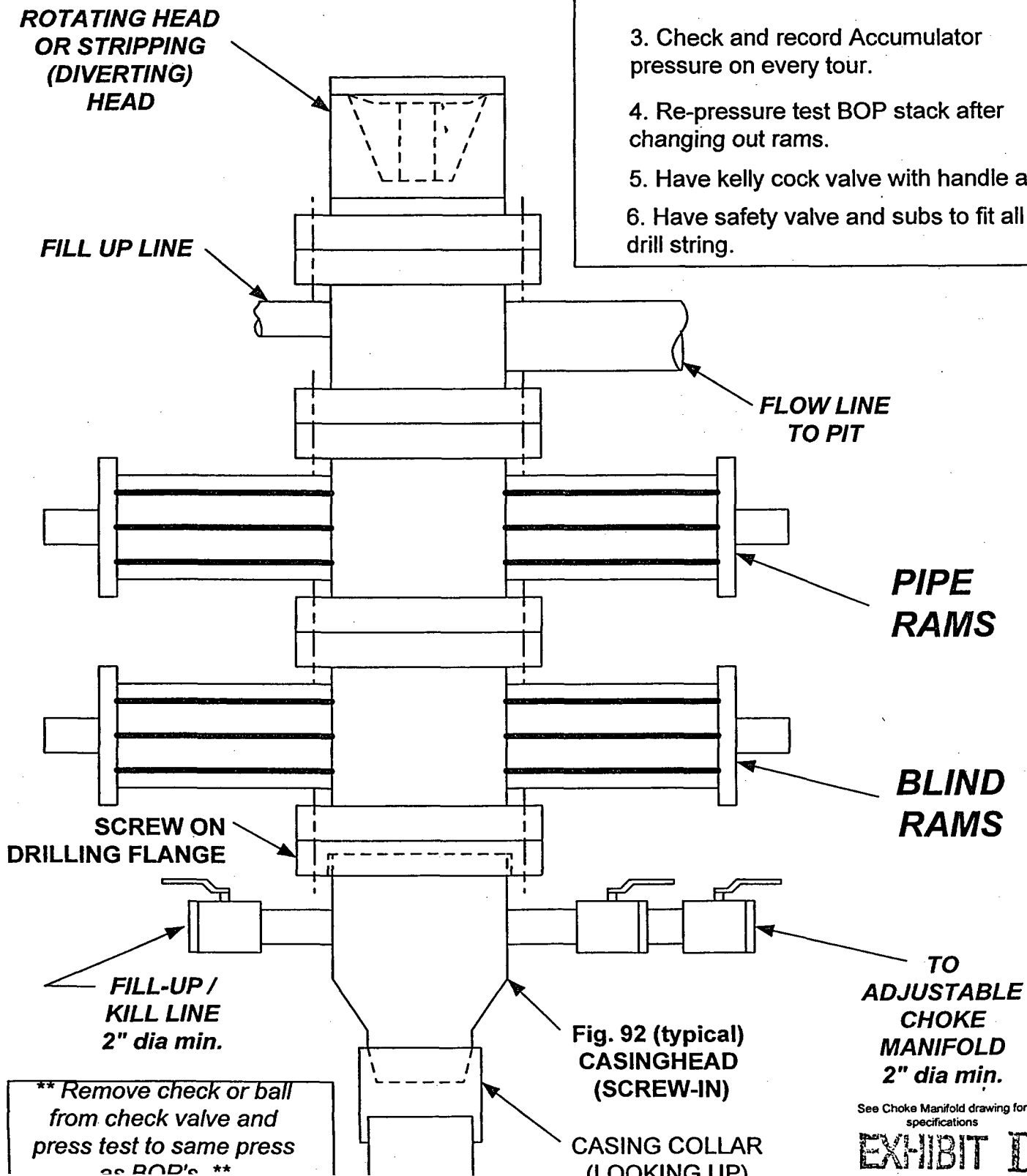
8. **COMPANY PERSONNEL:**

| Name | Title | Office Phone | Home Phone |
|-------------------|--------------------|---------------------------------------|--------------|
| Dennis Elrod | Drilling Foreman | 505-324-1090 505-486-6460 cellular | 505-326-2024 |
| Jeff Patton | Drilling Engineer | 505-324-1090 505-330-2957 cellular | 505-632-7882 |
| Glen Christiansen | Project Geologist | 817-885-2352 | 817-341-8834 |
| Robin Tracy | Reservoir Engineer | 817-885-2422 | |

9. **SPECIAL INSTRUCTIONS:**

- A. Daily drilling reports should be called in to the San Juan District office at (505) 324-1090 or faxed to (505) 564-6700 by 8:00 a.m.
- B. Deviation:
 Surface Hole: Maximum of 1° and not more than 1° change per 100'.
 Production Hole: Maximum of 4° and not more than 1° change per 100'.
Note: Maximum distance between surveys is 500'.
- C. NU & Pressure Test BOP, choke manifold & surface casing to 250/800 psig for 30 minutes. Report the pressure test on the IADC form as required.
- D. Drill out below surface casing after WOC 12 hours. Drill cement and float equipment with minimum weight and RPM until drill collars are below the bottom of the surface casing. Keep location clean and water usage to a minimum.
- E. Check BOP blind rams each trip and pipe rams each day. Strap the pipe on the last bit trip prior to reaching TD, or on the TOH to log.

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



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.

**TESTING
PROCEDURE**

See Choke Manifold drawing for specifications

EXHIBIT D