Form 3160-3 (April 2004)

la. Type of work:

lb. Type of Well:

At surface

Name of Operator

3a. Address 382 ROAD 3100

RECEIVED

MAR 2 7 2008

DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENTAL of Land Management

✓ Multiple Zon

APPLICATION FOR PERMIT TO DRILL OR REENTER

REENTER

UNITED STATES

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

	· · · · · · · · · · · · · · · · · · ·	
5.	Lease Serial No. NMSF-080382A	
6	If Indian, Allotee, or Tribe Name	

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

	- "
	8. Lease Name and Well No.
е	SCHWERDTFEGER 9 R
	9. API Well No.
	30-045- 34665
	10. Field and Pool, or Exploratory
	KUTZ PICTURED CLIFFS, WEST

13. State

NM

<u>LTB000138</u>

(505) 333-3159 11. Sec., T. R. M. or Blk. and Survey or Area 4. Location of Well (Report location clearly and in accordance with any State requirements.*)

6 17-27N-11W NMPM

At proposed prod. zone SAME 12. County or Parish

Single Zone

3b. Phone No. (include area code)

8 AIR MILES SOUTH OF BLOOMFIELD SAN JUAN 15. Distance from proposed* 17. Spacing Unit dedicated to this well 16. No. of acres in lease location to nearest

property or lease line, ft.
(Also to nearest drig. unit line, if any) 1,005 2,081.12 NE4 (= 160 ACRES) 20. BLM/BIA Bond No. on file Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 19. Proposed Depth 248' (17 1-E) 2,100' **BLM NATIONWIDE 57-91-73**

Elevations (Show whether DF, KDB, RT, GL, etc.) 22. Approximate date work will start* 6,193' GL 07/01/2008

Estimated duration 2 WEEKS

24. Attachments

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

1. Well plat certified by a registered surveyor.

V DRILL

AZTEC, NM 87410

14. Distance in miles and direction from nearest town or post office*

Oil Well Gas Well

1030' FNL & 1635' FEL

XTO ENERGY INC.

2. A Drilling Plan.

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).

4. Bond to cover the operation while strong by the safe population the see Item 20 above).

Operator certification

Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature	Name (Printed/Typed) BRIAN WOOD	Date 03/20/2008
Title	PHONE: (505) 466-8120 FAX: (505) 466-9682	
Approved by (Sugnature)	Name (Printed/Typed)	Date /

Office Title

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.

A COMPLETE C-144 MUST BE SUBMITTED TO AND APPROVED BY THE NMOCD FOR: A PIT, CLOSED LOOP SYSTEM, BELOW GRADE TANK, OR PROPOSED ALTERNATIVE METHOD, PURSUANT TO NMOCD PART 19.15.17, PRIOR TO THE USE OR CONSTRUCTION OF THE ABOVE APPLICATIONS.



BLM'S APPROVAL OR ACCEPTANCE OF THIS ACTION DOES NOT RELIEVE THE LESSEE AND OPERATOR FROM OBTAINING ANY OTHER AUTHORIZATION REQUIRED FOR OPERATIONS

PRIOR TO CASING & CEMENT

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".

DISTRICT | 1625 N. French Or., Hobbs, N.M. 88240

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

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

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 October 12, 2005

Submit to Appropriate District Office

State Lease — 4 Copies Fee Lease — 3 Copies

WELL LOCATION AND ACREAGE DEDICATION PLAT 30-045-34665 79680 KUT2 PCTURED CLIFFS WEST *Property Code 30335 SCHWERDTFEGER *Operator Name 5380 **SCHWERDTFEGER* *Operator Name **Elevation *TO ENERGY INC. **Surface Location **UL or lot no Section Township Range Lot Idn Feet from the North/South line Feet from the East/West line County **Bottom Hole Location If Different From Surface **Dedicated Acres* **Dedicated Acres* **Joint or Infill **Consolidation Code **Consolidation Code **Operator Name **Elevation **To ENERGY INC. **Surface Location **Dedicated Acres* **Joint or Infill **Consolidation Code **Operator Name **Elevation **East/West line County **Dedicated Acres* **Joint or Infill **Consolidation Code **Operator Name **County **Dedicated Acres* **Joint or Infill **Consolidation Code **Joint or Infill **				
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**Dedicated Acres				
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OII CONS. DIV.				
1NE14 160 1				
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				
FD 2 1/2" BC. S 89-56-25 W U.S.G.LO. TO OPERATOR CERTIFICATION				
52/9.19 (M)				
is true and complete to the best of my knowledge and belief, and that this arganization either awas a working				
interest or unleased mineral interest in the land including the proposed bottom hale location or has a				
right to drill this well at this location pursuant to a contract with an owner of such a mineral or working				
1635' interest, or to a valuntary pooling agreement or a compulsory pooling order heretofare entered by the				
division.				
LAT: 36.57962* N. (NAD 83)				
LONG: 108.02377* W. (NAD 83)				
LAT 36'34'46.6" N. (NAD 27) LONG: 108'01'23.3" W. (NAD 27)				
signature 18 / Date				
hya valighar				
Printed Name				
LI 18 SURVEYOR CERTIFICATION 9				
(hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me ar under my supervision, and that the same is true and correct to the heart of my belief				
me or under my supervision, and that the same is true				
O S S AUGUST 15 2007				
O AUGUST 15, 2007				
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1 Con Merch				
I WAY OF STANKING				
8094				
FO. 2 1/2 BC. 1913 G L.O. Certificate Number F3S10HAL				

Drilling Program

1. ESTIMATED FORMATION TOPS

<u>Formation</u>	<u>GL Depth</u>	<u>KB Depth</u>	<u>Elevation</u>
Nacimiento Formation	000'	5'	+6,193'
Ojo Alamo Sandstone	763'	768'	+5,430'
Kirtland Shale	868'	873'	+5,325'
Fruitland Formation	1,698'	1,703'	+4,495'
Pictured Cliffs Sandstone	1,908'	1,913'	+4,285'
Lewis Shale	2,093'	2,098'	+4,100'
Total Depth (TD)	2,100'	2,105'	+4,093'

2. NOTABLE ZONES

Gas & Oil Zones	<u>Water Zones</u>	<u>Coal Zone</u>
Fruitland	Nacimiento	Fruitland
Pictured Cliffs	Ojo Alamo	
	Fruitland	

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.

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 $\approx 1,000$ 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) 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 will be ≤ 840 psi. BOP and mud system will control pressure.

4. CASING & CEMENT

Hole Size	<u>O. D.</u>	Weight (lb/ft)	<u>Grade</u>	<u>Age</u>	Connection	<u>Depth Set</u>
8-3/4"	7 "	20	K-55	New	ST&C	160'
6-1/4"	4-1/2"	10.5	K-55	New	ST&C	2,100'

Surface casing will be cemented to the surface with ≈ 50 cubic feet (≈ 43 sacks) Class B + 1/4 pound per sack cello-flake + 2% CaCl₂. Yield = 1.18 cubic feet per sack. Weight = 15.2 pounds per gallon. Volume: \geq 100% excess. A guide shoe and insert float will be used. W. O. C. =12 hours. Surface casing will be tested to $\approx 1,500$ psi for ≈ 30 minutes.

Production casing will be cemented to the surface. Total cement: \geq 431 cubic feet. Volumes are calculated at >100% excess. If cement does not circulate to the surface, then a temperature survey will be run to determine the actual cement top as needed. W. O. C. = 12 hours. Test to \approx 2,000 psi.



Lead cement will be ≈ 182 sacks Class B light cement (65% cement/35% Poz with 6% gel) with 5 pounds per sack gilsonite + 1/4 pound per sack cello-flake. Yield = 1.99 cubic feet per sack. Weight = 12.4 pounds per gallon.

Tail cement will be ≈ 50 sacks 50/50 Class B Poz with 2% gel + 1/4 pound per sack cello-flake + 0.5% Halad-9. Yield = 1.38 cubic feet per sack. Weight = 13.5 pounds per gallon.

Cement equipment will include a guide shoe, float collar, and approximately 10 centralizers.

5. MUD PROGRAM

<u>RANGE</u>	<u>MUD TYPE</u>	<u>WEIGHT</u>
0' - 160'	Fresh-Spud	8.4
160' - TD	LSND	8.6

Lost circulation and absorption material will be on location.

7. DOWN HOLE CONDITIONS

No abnormal pressures, temperatures, or hydrogen sulfide are expected. Maximum expected bottom hole pressure will be \leq 840 psi.

8. OTHER INFORMATION

The anticipated spud date is upon approval. It is expected it will take about 1 week to drill and about 1 week to complete the well.



1. DIRECTIONS & EXISTING ROADS (See PAGES 9 & 10)

From Bloomfield ...

Go South 9 miles on US 550 to the equivalent of Milepost 143.2 Then turn right and go West 1.4 miles on Road 3003 Then turn left and go South 0.9 mile on a paved road Then turn left and go East 0.6 mile on a dirt road onto the pad

Roads will be maintained to at least equal their present condition.

2. ROAD TO BE BUILT OR UPGRADED

No construction or upgrade is needed. The proposed pad overlaps an existing road and two existing XTO producing well sites.

3. EXISTING WELLS (See PAGE 10)

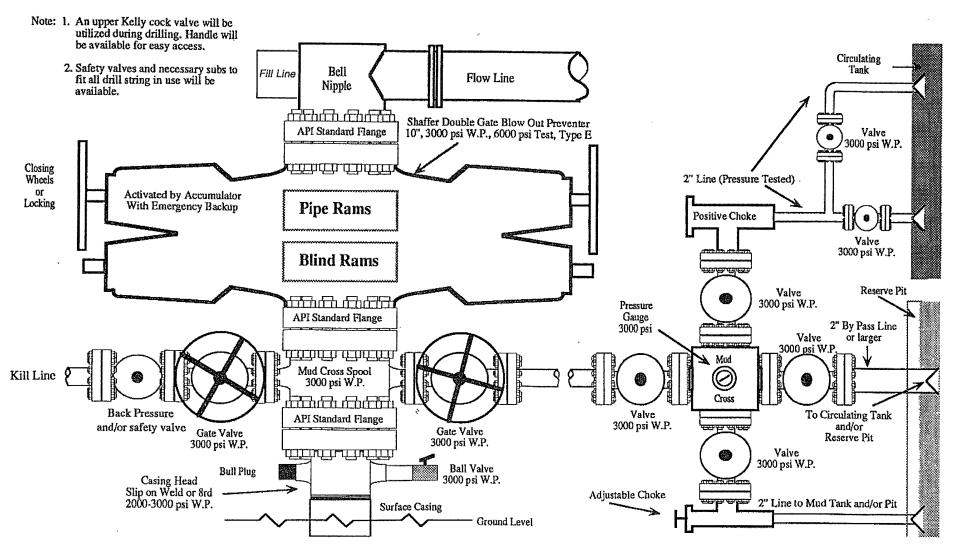
There are 21 oil or gas wells and 9 plugged wells within a mile radius. There are no water, injection, or disposal wells within a mile.

4. PROPOSED PRODUCTION FACILITIES (See PAGE 11)

A \approx 60 barrel fiberglass open top tank, meter run, and separator will be installed on the pad. All surface equipment will be painted a flat juniper green color. No pump, compressor, or power line is needed. Gas will flow under its own pressure. Enterprise will bury a 573.37' long steel \approx 4.5" O. D. gas pipeline. Wall thickness = 0.156". Enterprise will apply for its own 45' wide right-of-way.



2,000 PSI BOP SYSTEM



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.