RECEIVED

MAY 1 5 2008

RCVD APR 22'09 OIL CONS. DIV.

FORM APPROVED 3 07

Form 3160-3 (April 2004)

UNITED STATES

Bureau or Land Management

	OMB 1 Expires		
-	 	 	

DEPARTMENT OF THE BUREAU OF LAND MAN	5. Lease Serial No. NMSF-078872A			
APPLICATION FOR PERMIT TO	6. If Indian, Allotee or Tribe Name N/A			
la. Type of work: DRILL REENT	7. If Unit or CA Agrees N/A	nent, Name and No.		
lb. Type of Well: ☐Oil Well ☐Gas Well ☐Other	Single Zone Multip	ole Zone	8. Lease Name and W BOLACK 3 F	ell No.
2. Name of Operator XTO ENERGY INC.			9. API Well No. 30-045- 347	112
3a. Address 382 ROAD 3100 AZTEC, NM 87410	3b. Phone No. (include area code) (505) 333-3159		10. Field and Pool, or Ex WC BASIN MA	ploratory NC. & BAS. DK.
4. Location of Well (Report location clearly and in accordance with an	ry State requirements.*)		11. Sec., T. R. M. or Blk	and Survey or Area
At surface 1940' FSL & 1805' FEL At proposed prod. zone SAME		•	V 21-27N-11W NA	ЛРМ
14. Distance in miles and direction from nearest town or post office* 10 AIR MILES SOUTH OF BLOOMFIELD	,	,	[12 County or Parish SAN JUAN	13 State NM
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 835'	16. No. of acres in lease 2,401.76		g Unit dedicated to this we	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 865' (Alice Bolack 2)	19. Proposed Depth 20. BLM/BIA Bond No. on file 6,700' BLM NATIONWIDE UTB-000138			000138
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 6,338' GL	22. Approximate date work will star 08/01/2008	t*	23. Estimated duration 4 WEEKS	
	24. Attachments			
The following, completed in accordance with the requirements of Onsho.	re Oil and Gas Order No.1, shall be at	tached to the	is form:	
 Well plat certified by a registered surveyor A Drilling Plan. 	Item 20 above).	•	ns unless covered by an ex	cisting bond on file (see
3. A Surface Use Plan (if the location is on National Forest System SUPO shall be filed with the appropriate Forest Service Office)		specific info	ormation and/or plans as m	nay be required by the
25. Signature	Name (Printed/Typed) BRIAN WOOD		D	ote 05/12/2008
Title	PHONE: (505) 466-8120	FAX	K: (505) 466-9682	, ,
Approved by (Signature) Man Feelel	Name (Printed/Typed)		Ĺ	Date 4/20/09
Title AFU	· Office	ت ک		
Application approval does not warrant or certify that the applicant hold conduct operations thereon. Conditions of approval, if any, are attached.	s legal or equitable title to those right	s in the sub	ject lease which would ent	itle the applicant to

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

APR 2 4 2009

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.

NMOCD NOTIFY AZTEC OCD 24 HRS. 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



RECEIVED

1625 N French Dr., Hobbs, NM 88240

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

DISTRICT III

State of New Mexico

Form C-102 Energy, Minerals & Notural Resources Departmen MAY 1 5 2008 Revised October 12, 2005

OIL CONSERVATION DIVISION Submit to Appropriate District Office

1220 South St Froncis Dr Farmington Field Office Fee Lease - 3 Copies

RICT III) Rio Brozos Rd., Aztec,	N.M. 87410		anta Fe, NM		omigron rield Offic	E Fee Lee	ase - 3 Copies
RICT IV) South St Francis Dr.		OC A TION		DENCE DEDI	CATION PLA		NDED REPORT
30-045-		² Pool Code 97232	ANU ACI	BASIN	³ Pool Name	<u> </u>	
Property Code 303/0		-	SProperty No BOLACK			e M	SF
167067	5380	;	*Operator N XTO ENERGY			1	Elevation 6338
		_,	'Surface				,
or lot no Section J 21	Township Ronge 27-N 1.1-W	Lot Idn Fe	et from the	North/South line SOUTH	Feet from the E	East/West line EAST	SAN JUAN
or lot no. Section			Location 1	Different Fro		Eost/West line	County
Dedicated Acres	¹³ Joint or	to fill 14	Consolidation Co	de	. 15 Order No		
32	\mathcal{O}			•			
O ALLOWABLE	WILL BE ASSIGNE				INTERESTS HA		ONSOLIDATE
			-	BY DBL PI	I hereby certify is true and com- belief, and that interest or unled including the pri- right to drill the controct with or interest, or to co	TOR CERTIF that the information uplete to the best of this organization eith assed mineral interest uposed bottom hole is seel to this location to owner of such a ma to voluntary pooling ag ung order heretafore in	contained herein my knowledge and ier owns a working in the land acation or has a pursuant to a nerol or working reement or a
	LONG: 108.0063	316" N (NAD	83) 27)		Signature Signature		5-12-08 Date AN WOOL
		21	j.		Printed Nar	(50)5) 466-812
			φ	1805'	t hereby certify was plotted from me or under my	that the well tocation i field notes of actual supervision, and that	surveys mode by
					Date of Surv	NUNE 28, 201 A. RU	27 1964
			1940,		Signoflire	(X8894)	Por Solver

S 89-58-50 W

5286.15' (M) ·

FD. PIPE

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

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

DISTRICT N

DISTRICT IV

1000 Rio Brozos Rd., Azlec, N.M. 87410

State of New Mexico Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION 1220 South St Francis Dr Sonto Fe, NM 87505 Form C-102 Revised October 12, 2005

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

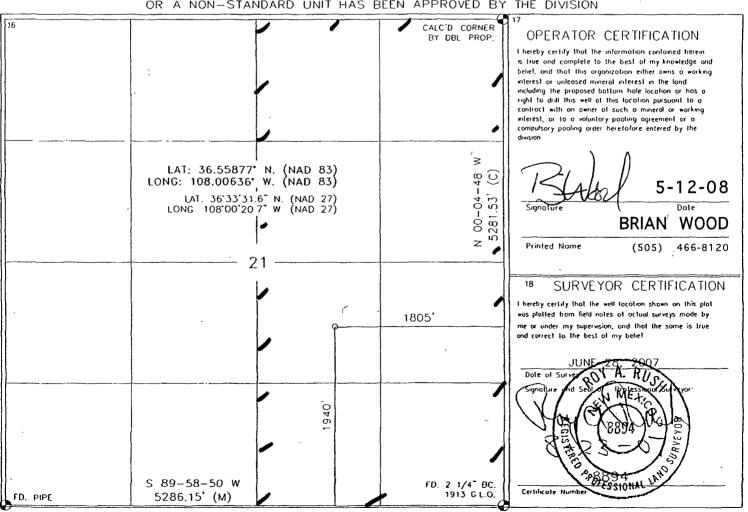
☐ AMENDED REPORT

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

3 Ò^P'	045-		7	⁷ 1°5°9′9	,	BASIN DA	KOTÃ ^{ool Nome}	:		,
*Property Code				⁵ Property Nome					⁶ Well Number	
					BOLACK	:				3F
OGRID No	0.07				*Operator N	lome	· · · · · · · · · · · · · · · · · · ·		* Elevation	
167	167067 . XTO ENERGY INC.				}	6338				
					¹⁰ Surface	Location				
UL or lot no	Section	Township	Ronge	Lot Idn	Feet from the	North/South line	Feet Irom the	Eost/West	line	County
J	.21	27-N	-N 11-W . 1940 . SOUTH . 1805 . EAS				. EAST	Γ	SAN JUAN	
			11 Bott	om Hole	Localion	lf Different Fr	om Surlace			
UL or lol no.	Section	Township	Ronge	Lot Idn	Feet from the	North/South line	Feet from the	Eost/West	line	County
² Dedicated Acre	s 2	20	13 Joint or to	n fill	14 Consolidation Co	ode	15 Order No			L

WELL LOCATION AND ACREAGE DEDICATION PLAT

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



XTO Energy Inc.
Bolack 3 F
1940' FSL & 1805' FEL
Sec. 21, T. 27 N., R. 11 W.
San Juan County, New Mexico

Drilling Program

1. ESTIMATED FORMATION TOPS

Formation Name	<u>GL Depth</u>	KB Depth	<u>Elevation</u>
Nacimiento	0'	12'	+6,338'
Ojo Alamo Sandstone	913'	925'	+5,425'
Kirtland Shale	978'	990'	+5,360'
Fruitland Formation	1,738'	1,750'	+4,600'
Pictured Cliffs Sandstone	1,923'	1,935'	+4,415'
Chacra Sandstone	2,823'	2,835'	+3,515'
Point Lookout Sandstone	4,333'	4,345'	+2,005'
Mancos Shale	4,698'	4,710'	+1,640'
Gallup Sandstone	5,513'	5,525	+825'
Greenhorn Limestone	6,378'	6,390'	-40'
Graneros Shale	6,438'	6,450'	-100'
Dakota Sandstone	6,538'	6,550'	-200'
Total Depth (TD)	6,700'	6,712'	-362'

2. NOTABLE ZONES

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

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.
Bolack 3 F
1940' FSL & 1805' FEL
Sec. 21, T. 27 N., R. 11 W.
San Juan 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 $\approx 1,000$ 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) 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 will be $\leq 2,680$ psi. BOP and mud system will control pressure.

4. CASING & CEMENT

<u>Hole Size</u>	<u>O. D.</u>	Weight (lb/ft)	<u>Grade</u>	<u>Age</u>	<u>Connections</u>	<u>Setting Depth</u>
12-1/4"	8-5/8"	24	J-55	New	ST&C	360'
7-7/8"	5-1/2"	15.5	J-55	New	ST&C	6,700'



XTO Energy Inc.
Bolack 3 F
1940' FSL & 1805' FEL
Sec. 21, T. 27 N., R. 11 W.
San Juan County, New Mexico

Surface casing will be cemented to the surface with ≈ 375 cubic feet (≈ 270 sacks) Type V cement + 1/4 pound per sack cello-flake + 2% CaCl₂. Yield = 1.39 cubic feet per sack. Weight = 14.5 pounds per gallon. Excess: >100%. Centralizers will be set on the bottom two joints of the surface casing and every fourth joint to the surface.

Production casing will cemented to the surface in two stages with $\approx 100\%$ excess. DV tool will be set at $\approx 4,800$ '. Total first stage volume = 1,165 cubic feet. Second stage volume = 1,725 cubic feet. Centralizers will be set on the bottom two joints, every second joint to $\approx 5,000$ ', and every fourth joint from $\approx 2,000$ ' to the surface.

Will cement first stage with ≈ 580 sacks (= 1,165 cubic feet) premium light HS cement with 0.2% CD 32 + 0.5% FL 32 + 1/4 pound per sack cello flake + 2% KCl + 2% phenoseal mixed at 12.5 pounds per gallon and 2.01 cubic feet per sack.

Will cement second stage with ≈ 610 sacks (= 1,586 cubic feet) premium light HS cement with 8% gel + 1/4 pound per sack cello flake + 2% phenoseal mixed at 11.9 pounds per gallon and 2.60 cubic feet per sack. Will follow with ≈ 100 sacks (= 139 cubic feet) Type III neat cement mixed at 14.5 pounds per gallon and 1.39 cubic feet per sack.

5. MUD PROGRAM

<u>RANGE</u>	MUD TYPE	WEIGHT	VISCOSITY	WATER LOSS	<u>ADDITIVES</u>
0' - 360'	Fresh-Spud	8.6-9.0	28-32	NC	Gel, lime
360' - 2,500'	Fresh-Poly	8.4-8.8	28-32	NC	Gel, lime sweeps
2,500' - TD	Fresh Water	8.6-9.2	45-60	8-10 cc	Gel, soda ash, LCM



XTO Energy Inc.
Bolack 3 F
1940'-FSL & 1805' FEL
Sec. 21, T. 27 N., R. 11 W.
San Juan County, New Mexico

6. CORES, TESTS, & LOGS

No cores or drill stem tests are planned. Mud logger will arrive at $\approx 3,000$ ' and collect samples every ≈ 10 ' from there to TD. These open hole logs will be run:

Array Induction/SFL/GR/SP from TD to ≈360' Neutron/Lithodensity/Pe/GR/Cal from TD to ≈3,000'

7. DOWN HOLE CONDITIONS

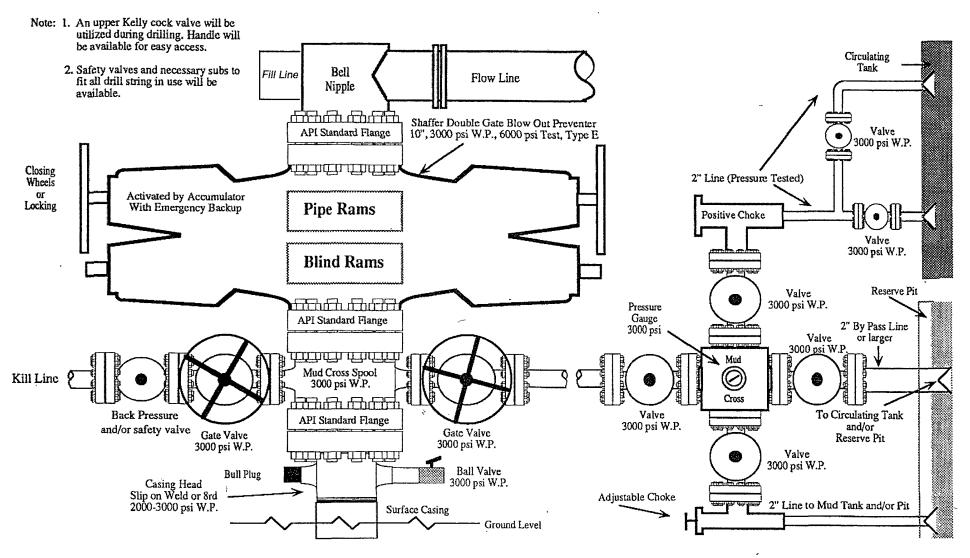
No abnormal pressures, temperatures, nor hydrogen sulfide are expected. Maximum expected bottom hole pressure will be $\leq 2,680$ psi.

8. OTHER INFORMATION

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



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.