Form 3160-3 (April 2004)

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

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

APPLICATION FOR PERMIT T		5. Lease Serial No. NMSF-077875				
a. Type of Work X DRILL	REENTER			Indian, Allotee or	Tribe Name	
T. 0 11	2 004	INOV 9 PM 3 47		[/A		
. Type of Well Oil Well 🔀 Gas Well 🔲 O	ther	Single Zone Multiple Zone	e 7.U	nit or CA Agreem	ent Name and No.	
Name of Operator		RECEIVED	<u></u> N	[/A		
•		TO FARMINGTON NH.	0.2	ease Name and We		
CTO Energy Inc. Address		3b. Phone No. (include area co		O Pipkin #21	<u> </u>	
2700 Farmington Ave., Bldg. K. Ste 1 Fan	mi natan	NM 505-324-1090	9. A	PI Well No.	32676	
Location of Well (Report location clearly and in accordance				eld and Pool, or E		
At surface 660' FSL x 1965' FWL in Sec 8,	TO 7N 10	w.			/Basin Mancos	
000 IDD 1 IDD 1 IDD 07	12/11/ 20	•	11.Ş	ec., T., R., M., or	Blk. and Survey or	
At proposed prod. zone			l Ns	Sec 8, T27N,	R10W	
Distance in miles and direction from nearest town or post office	*		12.C	ounty or Parish	13.State	
Approx 14 air miles SouthEast		mfield. NM Post Office	San	Juan V	NIM	
Distance from proposed*	<u>. OI DIGG</u>	16. No. of Acres in lease		Unit dedicated to		
location to nearest				46	SWU	
property or lease line, ft. 660'		640		797. 320 DK / 1	- / '	
(Also to nearest drg. unit line, if any)			<u> </u>			
. Distance from proposed location*		19. Proposed Depth	20.BLM/B	IA Bond No. on i	file	
to nearest well, drilling, completed, applied for, on this lease, ft.			Ì			
400'		6525'				
. Elevations (Show whether DF, KDB, RT, GL, etc.		22. Approximate date work will sta	rt*	23. Estimated dura	ution	
5927' Ground Level		winter 2005	Ϊ [
3927 GIOGIA IEVEL	· · · ·	WINCET 2003			weeks	
A Surface Use Plan (if the location is on National Forest Syste SUPO shall be filed with the appropriate Forest Service Office		5. Operator certification. 6. Such other site specific in authorized officer.	formation ar	nd/or plans as may	be required by the	
5. Signuature	N	lame (Printed/Typed)		Date		
Kula Quahan	F	Kyla Vauqhan			11/09/04	
tle						
Regulatory Compliance Tech						
pproved by (Signautre)	N	lame (Printed/Typed)		Date		
		Who Towns			2/0/2	
Magne sunson		Trayre Jours	200		70/0/	
tle /// //	ا	Office				
Acting Attil	<u> </u>	FFO				
pplication approval does not warrant or certify that the applica induct operations thereon.	int holds lega	d or equitable title to those rights in	the subject l	ease which would	entitle the applica	
onditions of approval, if any, are attached.						
tle 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, n ates any false, fictitious or fraudulent statements or representation			ally to make	to any department	or agency of the U	
Instructions on page 2)				6	<u>क्षेत्र</u> (
				. (2) E	DEC 2004	
				OIL	COM BOY	
NMOCD //					DIST 9	
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				M V	(E.O. 57.9] \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	

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

This ation is subject to technical and procedural review pursuant to 43 CFR 3185.3 and appeal pursuant to 43 CFR 3186.4

DISTRICT I 1925 N. Franch Dr., Hobba, N.M. 89240

5 89-51-31 E 2627.1' (M)

State of New Mexico Energy, Minerals & Network Resources D

Form C=102 Revised June 10, 2003

DISTRICT B 1301 W Grand Ave., Artesia, I DISTRICT B 1000 Fix Brassa Rd., Arten, I	44.5		OIL CC	Stote	Appropriate District Office State Lease — 4 Copies Fee Lease — 3 Copies			
DISTRICT BY 1220 South St. Francia Dr., 5	٧	8 775 1	OCATIO	N AND A	CREAGE DE	NOTA NI		MENDED REPORT
30045-3	7671	1 -	² Pool Code	1. 1. A 1. E	0	L'Peol N	ome	-
Property code	CO /4	9 1	1599	*Property	<u> 150.S)</u>	v n o x	2040Å	That thenber
11618				2 5				
167067		dental Arr		*Operator XTO ENER	34 VAN 18 TO 18			* Ecolor 5927
				10 Surface	Location			
UL or init now Section N B	Tomship 27-N	Ronge 10-W	Lot Jen	Feet from the 660	Month/South fine SOUTH	Feet from the 1965	Earl/West line WEST	County SAN JUAN
		2 No. 10 No.	m Hole	Location	A CAPACITATION OF THE COMMENTS OF THE	rom Surfec	***************************************	
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						17	OPERATOR by certify that the interior cond complete to the se	CERTIFICATION
			4					
CTR. CORNER FD 2 1/2 MC U.S.G.LO 1913			8	6	DEC 2004	3	eeyhln Yyyksn Uung Ass 8104	
FD 2.1/2 BC			8	15.00 ST	DEC 2004 CO. STV.	Dota 18 (barrier, see pick) making up a	SURVEYOR I	ERTIFICATION TO SENSE OF THE PLAT THE SENSE OF THE THE

OTR. CORNER FD 2 1/2" BC U.S.G.L.O. 1913

DISTRICT | ISSS N. French Dr., Hobbs, H.M. (80240)

CYSTRICT 1 1501 W. Grand Ave., Artesia, N.M. 88210

DISTRICT II 1000 Rio Prezos Rd., Azles, R.M. 87410

"Decoded Acres

160 Su

S 89-51-31 E 2627.1 (M)

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 Coples Fee Lease — 3 Copies

AMENDED REPORT

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

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OF OLL					'Dewotor' I XTO ENERG	C # 3 B & F. C			* Beretian 5927'
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LL or lot no.	Section 8	Township 27-N	Risinge 10-W	tollen	Feel from the 660	North/South fere SOUTH	Feet from the 1965	East/West Time WEST	County SAN JUAN
	<u> </u>		" Bott	om Hole	Location I	l Different Fi	rom Surface		
UL or let no.	Section	Township	Ronge	Lot Idn	Feet from the	North/South line	Feet from the	Edit/West law	Countly

Consolidation Code

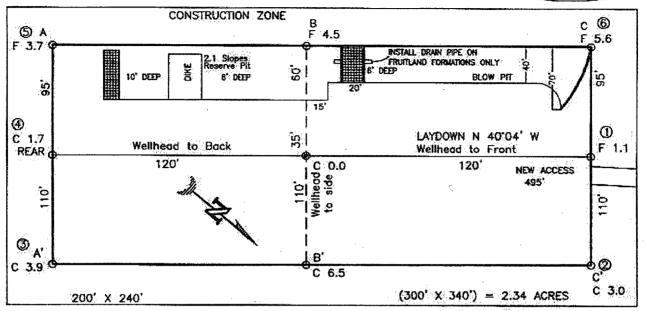
MOrder No.

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 OPERATOR CERTIFICATION OR COMMO DIV. OTR. CORNER FD 2 1/2 BC U.S.G.L.O 1913 SURVEYOR CERTIFICATION LAT: 36'35'03.5" N. (NAD 27) LONG: 107'55'14" W. (NAD 27) ZEC. CORNER FD 2 1/2 BC U.S.G.LO. 7913

OTR. COMNER FD 2 1/2" BC U.S.G.L.O. 1913

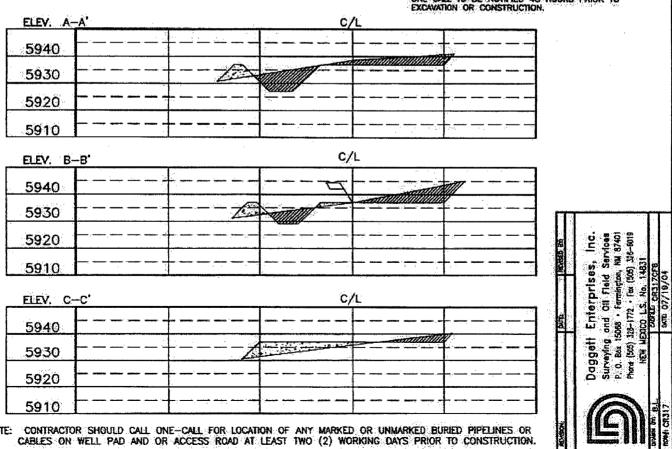
XTO ENERGY INC.
P. O. PIPKIN No. 2F, 660 FSL 1965 FWL
SECTION 8, T27N, R10W, N.M.P.M., SAN JUAN, N. M.
GROUND ELEVATION: 5927', DATE: JUNE 8, 2004

LAT. = 36°35'03.5" N. LONG. = 107°55'14" 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 LUBBLE FOR UNDERGROUND UTILITIES OF PIPELINES. NEW MEXICO ONE CALL TO BE NOTIFIED 48 HOURS PRIOR TO EXCAVATION OR CONSTRUCTION.



XTO ENERGY INC.

P.O. Pipkin #2F **APD Data** November 9, 2004

Location: 660' FSL x 1,965' FWL Sec 8, T27N R10W

County: San Juan

State: New Mexico

GREATEST PROJECTED TD: 6,525'

OBJECTIVE: Basin Dakota & Basin Mancos

APPROX GR ELEV: 5,927'

Est KB ELEV: 5,939' (12' AGL)

MUD PROGRAM:

INTERVAL	0' to 360'	360' to 4,000'	4,000' to TD
HOLE SIZE	12-1/4"	7-7/8"	7-7/8"
MUD TYPE	FW/Spud Mud	FW/Polymer	LSND / Gel Chemical
WEIGHT	8.6-9.0	8.4-8.8	8.6-9.0
VISCOSITY	28-32	28-32	45-60
WATER LOSS	NC	NC	8-10

Remarks: Use fibrous materials as needed to control seepage and lost circulation. Pump high viscosity sweeps as needed for hole cleaning. Raise viscosity at TD for logging. Reduce viscosity after logging for cementing purposes.

CASING PROGRAM:

Surface Casing:

8-5/8" casing to be set at ± 360 ' in a 12-1/4" hole filled with 8.8 ppg mud

					Coll	Burst						
					Rating	Rating	Jt Str	ID	Drift	SF	SF	SF
Interval	Length	Wt	Gr	Cplg	(psi)	(psi)	(M-lbs)	(in)	(in)	Coll	Burst	Ten
0'-360'	360'	24.0#	J-55	STC	1370	2950	244	8.097	7.972	7.32	7.95	29.39

Production Casing:

5-1/2" casing to be set at TD (+6.525') in 7-7/8" hole filled with 9.0 npg mud

Troduction	m Cusing.		/	15 10 00	SOUTH ID	(-0,020)	111 / // .	11010 11110	4 111011 > 10	7 PPB		
	,				Coll	Burst						
1					Rating	Rating	Jt Str	ID	Drift	SF	SF	SF
Interval	Length	Wt	Gr	Cplg	(psi)	(psi)	(M-lbs)	(in)	(in)	Coll	Burst	Ten
0'-TD	6,525'	15.5#	J-55	STC	4040	4810	227	4.950	4.825	1.22	1.45	2.02

WELLHEAD:

- A. Casing Head: Larkin Fig 92 (or equivalent), 9" nominal, 2,000 psig WP (4,000 psig test) with 8-5/8" 8rnd thread on bottom and 11-3/4" 8rnd thread on top.
- B. Tubing Head: Larkin Fig 612 (or equivalent), 6.456" nominal, 2,000 psig WP (4,000 psig test), 5-1/2" 8rnd female thread on bottom, 8-5/8" 8rnd thread on top.

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

A. Surface:

8-5/8", 24#, J-55, STC casing to be set at \pm 360' in 12-1/4" hole.

210 sx of Type III cement (or equivalent) typically containing accelerator and LCM, mixed at 14.5 ppg, 1.39 ft³/sk, & 6.70 gal wtr/sk.

392Total slurry volume is 297 ft^3 , 100% excess of calculated annular volume to 360'.

B. <u>Production:</u> 5-1/2", 15.5#, J-55 (or K-55), STC casing to be set at $\pm 6,525$ ' in 7-7/8" hole. DV Tool set @ $\pm 4,000$ '

1st Stage

LEAD:

200 sx of Premium Lite HS (Type III/Poz/Gel) with 2% salt, 1/4 pps cello, 0.2% dispersant, 0.5% fluid loss & 2% LCM mixed at 12.5 ppg, 2.01 ft³/sk, 10.55 gal wtr/sx.

TAIL:

150 sx Type III with 5% bonding additive, 1/4 pps cello, 2% LCM, 0.3% dispersant & 0.2% fluid loss mixed at 14.2 ppg, 1.54 cuft/sx, 8.00 gal/sx.

2nd Stage

LEAD:

350 sx of Type III with 8% gel, 1/4 pps cello & 2% LCM mixed at 11.9 ppg, 2.54 ft³/sk, 15.00 gal wtr/sx.

TAIL:

100 sx Type III neat mixed at 14.5 ppg, 1.39 cuft/sx, 6.3 gal/sx.

Total estimated slurry volume for the 5-1/2" production casing is 1,661 ft³.

Note: The slurry design may change slightly based upon actual conditions. Final cement volumes will be determined from the caliper logs plus 40%. It will be attempted to circulate cement to the surface.

5. LOGGING PROGRAM:

- A. Mud Logger: The mud logger will come on at 3,000' and will remain on the hole until TD. The mud will be logged in 10' intervals.
- B. Open Hole Logs as follows: Run Array Induction/MSFL/SP/GR/Cal fr/TD to bottom of the surface casing and run the Neutron/Lithodensity/Pe/GR/Cal fr/TD to 5,300'. Run an FMI log from TD up to 5,900'.

6. FORMATION TOPS:

Est. KB Elevation: 5,939'

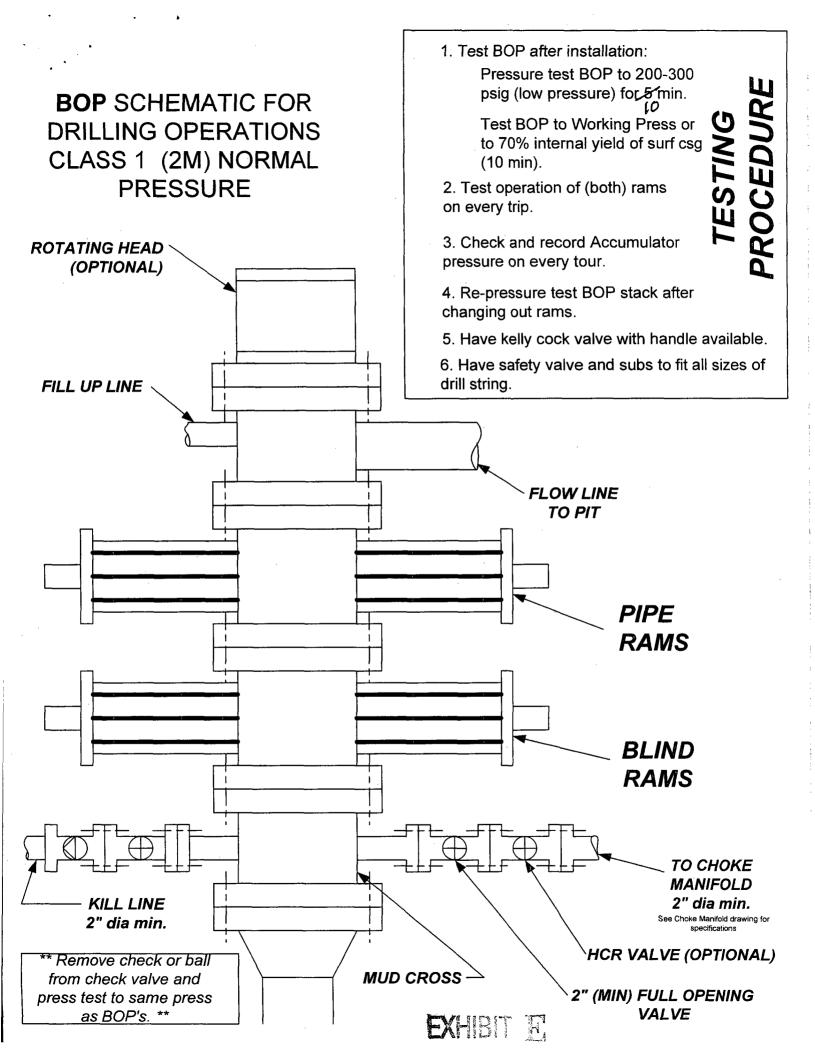
Formation	Subsea Depth	Well Depth	
Ojo Alamo SS	+5249'	693'	
Kirtland Shale	+5114'	828'	
Farmington SS	+4910'	1032'	
Fruitland Formation	+4688'	1254'	
Lower Fruitland Coal	+4225'	1717'	
Pictured Cliffs SS	+4207'	1735'	
Lewis Shale	+3682'	2260'	
Chacra	+3297'	2645'	
Cliffhouse SS	+2664'	3278'	
Menefee	+2566'	3376'	
Point Lookout SS	+1882'	4060'	
Mancos Shale	+1534'	4408'	
Gallup SS	+682'	5260'	
Greenhorn Limestone	-141'	6083'	
Graneros Shale	-186'	6128'	
1 st Dakota SS	-213'	6155'	
2 nd Dakota SS	-243'	6185'	
3 rd Dakota SS	-292'	6234'	
4 th Dakota SS	-344'	6286'	
5 th Dakota SS	-369'	6311'	
6 th Dakota SS	-403'	6345'	
Burro Canyon SS	-459'	6401'	
Morrison Shale	-508'	6450'	
Project TD	-678'	6525'	

ABHP~ 2500psi

7. COMPANY PERSONNEL:

Name	Title	Office Phone	Home Phone
Jeff Patton	Drilling Engineer	505-324-1090	505-632-7882
Dennis Elrod	Drilling foreman	505-486-6460	505-326-2024
John Klutsch	Project Geologist	1-800-299-2800	
Barry Voigt	Reservoir Engineer	817-885-2462	817-540-2092

JWP 11/9/04



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

- 1. Stake all lines from choke manifold to pit.
- 2. Pressure test choke monifold after installation.
- 3. Pressure test manifold at the same time with the BOP Stack. Test manifold to the same test pressures.

TESTING PROCEDURE

