#### UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

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

APPLICATION FOR PERMIT TO DR	B .	5. Lease Serial No. <b>NM-048576</b>						
1a. Type of Work REF	ENTER 100 ODD 10	6. If Indian.	Allotee or Tribe Name	L				
14. The CW 1	2006 APR 13							
1b. Type of Well Oil Well Gas Well Other	Single Zone Multiple Zone	<b>→</b> 1	A Agreement Name and No.	Free,				
2. Name of Operator	070 FARMIN	8, Lease Nan	ne and Well No.	15.00				
XTO Energy Inc.		Pan Am	Federal C #1F	Ch				
3a. Address	3b. Phone No. (include area coo	" I 9 API Well 1	No -					
2700 Farmington Ave., Bldg. K. Ste 1 Farmington Location of Well (Report location clearly and in accordance with an		30-045	-33705					
At surface 840' FSL x 2120' FWL	• •	Basin 1						
At proposed prod. zone	4.+20		R., M., or Blk. and Survey or	Агеа				
OFFICE			c 19, T30N, R12W					
14. Distance in miles and direction from nearest town or post office*	(	12. County or	Parish 13. State					
Approximately 2 miles West of Fa	prington, NM post office	San Juan	MM					
15. Distance from proposed*	16. No. of Acres in lease	17. Spacing Unit dec	licated to this well					
location to nearest								
property or lease line, ft.  (Also to nearest drg. unit line, if any)	637.91	S	/2 319.27					
18. Distance from proposed location*	19. Proposed Depth	20. BLM/BIA Bone	d No. on file					
to nearest well, drilling, completed, applied for, on this lease, ft.								
890 ·	6866'	τ	UTB-000138					
21. Elevations (Show whether DF, KDB, RT, GL, etc.	22. Approximate date work will star	t* 23.Estin	23. Estimated duration					
5780'	June 2006		2 weeks					
The following, completed in accordance with the requirements of Onshor	24. Attachments	I to this form						
The following, completed in accordance with the requirements or ordinar	I	to the form.						
1. Well plat certified by a registered surveyor.	4. Bond to cover the operati	ons unless covered b	y an existing bond on file (se	e:e				
2. A Drilling Plan	Item 20 above).							
3. A Surface Use Plan (if the location is on National Forest System Lan								
SUPO shall be filed with the appropriate Forest Service Office).	<ol> <li>Such other site specific in authorized officer.</li> </ol>	formation and/or plai	ns as may be required by the					
25. Signuature	Name (Printed/Typed)		Date					
Kyla Vaughan	Kyla Vaughan		04/12/06					
Title ()		<del>*************************************</del>						
Regulatory Compliance Tech								
Approved by (Signautre)	Name (Printed/Typed)		Date	$\odot$				
- Of/Malleewry)			10/0/00	5_				
Title M. h	Office FFO							
Application approval does not warrant or contifu that the applicant half	de legal or equitable title to those rights in	the cubject lesses whi	ch would entitle the annion	nt to				
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 knowlingly and willfu	illy to make to any de	epartment or agency of the U	Inited				
States any false, fictitious or fraudulent statements or representations as t	o any matter within its pirisdiction. BLM'S AF	PROVAL OR A	CCEPTANCE OF TER	re				
BLM'S APPROVAL OR ACCEPTANCE OF THIS								

\*(Instructions on page 2)

NOTIFY AZTEC OCD 24 H PRIOR TO C

ACTION DOES NOT RELIEVE THE LESSEE AND OPERATOR FROM OBTAINING ANY OTHER AUTHORIZATION REQUIRED FOR OPERATIONS ON FEDERAL AND INDIAN LANDS

OCT 0 8 2008

**NMOCD** 

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

DISTRICT 1 1625 N. French Dr., Hobbs, N.M. 88240

DISTRICT II 1301 W. Grand Ave. Artesia, N.M. 68210

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

DISTRICT IV 1220 South St. Francis Dr., Sonta 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

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	operty Coo	de	<u></u>	Property Name PAN AM FEDERAL C 1F										
J	OGRID No	ر ا			* Elevation									
5	538	0				XIO ENE	RGY				5780			
<sup>10</sup> Surface Location														
UL or I	ot no V	Section 19	Township 30 - N	Range 12-W	Lot Idn 39	Feet from the 840	North/South SOUTH		from the 2120	Eost/West line WEST	County SAN JUAN			
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#### XTO ENERGY INC.

#### Pan Am Federal C #1F APD Data April 11, 2006

Location: 840' FSL x 2095' FWL Sec 19, T30N, R12W County: San Juan State: New Mexico

GREATEST PROJECTED TD: 6866'

OBJECTIVE: Basin Dakota

APPROX GR ELEV: <u>5780'</u> Est KB ELEV: <u>5792' (12' AGL)</u>

#### 1. MUD PROGRAM:

INTERVAL	0' to 360'	360' to 2500'	2500' to 6866
HOLE SIZE	12.25"	7.875"	7.875"
MUD TYPE	FW/Spud Mud	FW/Polymer	LSND / Gel Chemical
WEIGHT	8.6-9.0	8.4-8.8	8.6- 9.20
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.

#### 2. CASING PROGRAM:

Surface Casing: 8.625" casing to be set at  $\pm$  360' in a 12-1/4" hole filled with 9.20 ppg mud

					Coll Rating	Burst 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	ST&C	1370	2950	244	8.097	7.972	7.950	17.13	28.24

Production Casing: 5.5" casing to be set at TD (±6866') in 7-7/8" hole filled with 9.20 ppg mud.

١						Coll	Burst						
1						Rating	Rating	Jt Str	ID	Drift	SF	SF	SF
ı	Interval	Length	Wt	Gr	Cplg	(psi)	(psi)	(M-lbs)	_ (in)	(in)	Coll	Burst	Ten
ı													
l	0'-6866	6866'	15.5#	J-55	ST&C	4040	4810	202	4.950	4.825	1.23	1.46	1.90

#### 3. 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 (or slip-on, weld-on), 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: 8.625", 24.0#, J-55, ST&C casing to be set at  $\pm$  360' in 12-1/4" hole.

214 sx of Type III cement (or equivalent) typically containing accelerator and LCM, mixed at 14.5 ppg, 1.39 ft<sup>3</sup>/sk, & 6.70 gal wtr/sk.

Total slurry volume is 297 ft<sup>3</sup>, 100% excess of calculated annular volume to 360'.

B. <u>Production:</u> 5.5", 15.5#, J-55 (or K-55), ST&C casing to be set at  $\pm 6866$ ' in 7.875" hole. DV Tool set @  $\pm 4200$ '

1<sup>st</sup> Stage

#### LEAD:

±207 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 ft<sup>3</sup>/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.

2<sup>nd</sup> Stage

#### LEAD:

 $\pm 350$  sx of Type III with 8% gel, 1/4 pps cello & 2% LCM mixed at 11.9 ppg, 2.54 ft<sup>3</sup>/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 1675 ft<sup>3</sup>.

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 2,900' 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/SFL/GR/SP fr/TD (6866') to the bottom of the surface csg. Run Neutron/Lithodensity/Pe/GR/Cal from TD (6866') to 3,000'.



#### **FORMATION TOPS:**

Est. KB Elevation: 5792'

FORMATION	Sub-Sea Elev.	WELL DEPTH	FORMATION	Sub-Sea Elev.	WELL DEPTH
Ojo Alamo SS			Gallup Ss	227	5,559
Kirtland Shale	5302	484	Greenhorn Ls	-515	6,301
Farmington SS			Graneros Sh	-587	6,373
Fruitland Formation	4114	1,672	1 <sup>ST</sup> Dakota Ss*	-629	6,415
Lower Fruitland Coal	4014	1,772	2 <sup>ND</sup> Dakota Ss		
Pictured Cliffs SS	3914	1,872	3 <sup>RD</sup> Dakota Ss*	-693	6,479
Lewis Shale	3714	2,072	4 <sup>TH</sup> Dakota Ss		
Chacra SS**	2854	2,932	5 <sup>TH</sup> Dakota Ss**	-744	6,530
Cliffhouse SS	2254	3,532	6 <sup>TH</sup> Dakota Ss**	-781	6,567
Menefee*	2212	3,574	Burro Canyon Ss**	-831	6,617
Point Lookout SS*	1526	4,260	Morrison Fm**	-870	6,656
Mancos Shale	1326	4,460	Total Depth	-1080	6,866

#### 7. <u>COMPANY PERSONNEL:</u>

Name	Title	Office Phone	Home Phone
John Egelston	Drilling Engineer	505-564-6734	505-330-6902
Jerry Lacy	Drilling Superintendent	505-566-7917	505-320-6543
Red Meek	Project Geologist	817-885-2800	817-427-2475

JWE 4/11/06

<sup>\*</sup> Primary Objective \*\* Secondary Objective

<sup>\*\*\*\*</sup> Maximum anticipated BHP should be <2,000 psig ( <0.30 psi/ft) \*\*\*\*\*

# 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





