

RCVD FEB 15 '08  
OIL CONS. DIV.

DIST. 3

Form 3160-3  
(February 2005)

RECEIVED

JAN 15 2008

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

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
Bureau of Land Management  
Farmington Field Office

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. <b>NMSF 078518</b>
1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input checked="" type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name N/A
2. Name of Operator <b>XTO Energy, Inc.</b>		7. If Unit or CA Agreement, Name and No N/A
3a. Address <b>382 CR 3100 AZTEC, NM 87410</b>	3b. Phone No. (include area code) <b>505-333-3100</b>	8. Lease Name and Well No. <b>HUERFANO #306 (#306)</b>
4. Location of Well (Report location clearly and in accordance with any State requirements.) At surface <b>1980' FSL x 1955' FEL</b> At proposed prod. zone <b>same</b>		9. API Well No. <b>30-045-34565</b>
14. Distance in miles and direction from nearest town or post office* <b>Approximately 22 miles Southeast of Bloomfield, NM post office</b>		10. Field and Pool, or Exploratory <b>BASIN DK/WC BASIN MC</b>
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drg. unit line, if any) <b>1955'</b>	16. No. of acres in lease <b>641.56</b>	11. Sec., T R. M. or Blk. and Survey or Area <b>(J) SEC 4, T25N, R9W</b>
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. <b>923'</b>	19. Proposed Depth <b>6900'</b>	12. County or Parish <b>San Juan</b>
21. Elevations (Show whether DF, KDB, RT, GL, etc.) <b>6635' GROUND ELEVATION</b>	22. Approximate date work will start* <b>02/15/2008</b>	13. State <b>NM</b>
17. Spacing Unit dedicated to this well <b>320.63 E/2 DK 320- SE/4 MC 160</b>		
20. BLM/BIA Bond No. on file <b>UTB-000138</b>		
23. Estimated duration <b>2 weeks</b>		

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No 1, must be attached to this form

1. Well plat certified by a registered surveyor
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office)
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification
6. Such other site specific information and/or plans as may be required by the BLM.

25. Signature <b>Kyla Vaughan</b>	Name (Printed/Typed) <b>Kyla Vaughan</b>	Date <b>01/14/2008</b>
Title <b>Regulatory Compliance</b>		

Approved by (Signature) <b>[Signature]</b>	Name (Printed/Typed) <b>AFM</b>	Date <b>2/14/08</b>
Title <b>FFO</b>		

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 USC Section 1001 and Title 43 USC 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.

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

SEE ATTACHED FOR  
CONDITIONS OF APPROVAL

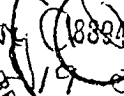
This action is subject to technical and procedural review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4

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

FEB 18 2008 NMOCD

APD/ROW

NOTIFY AZTEC OCD 24 HRS.  
PRIOR TO CASING & CEMENT

JULY 27, 2007  
Date of Survey  
Signature and Seal of Licensed Professional Land Surveyor:  
  
Certificate Number

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

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

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

DISTRICT IV  
1220 South St. Francis Dr., Santa 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 October 12, 2005  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number 30-045-34565		<sup>2</sup> Pool Code 97232	<sup>3</sup> Pool Name Basin Mancos
<sup>4</sup> Property Code	<sup>5</sup> Property Name HUERFANO		<sup>6</sup> Well Number 306
<sup>7</sup> OGRID No. 5380	<sup>8</sup> Operator Name XTO ENERGY INC.		<sup>9</sup> Elevation 6635'

<sup>10</sup> Surface Location

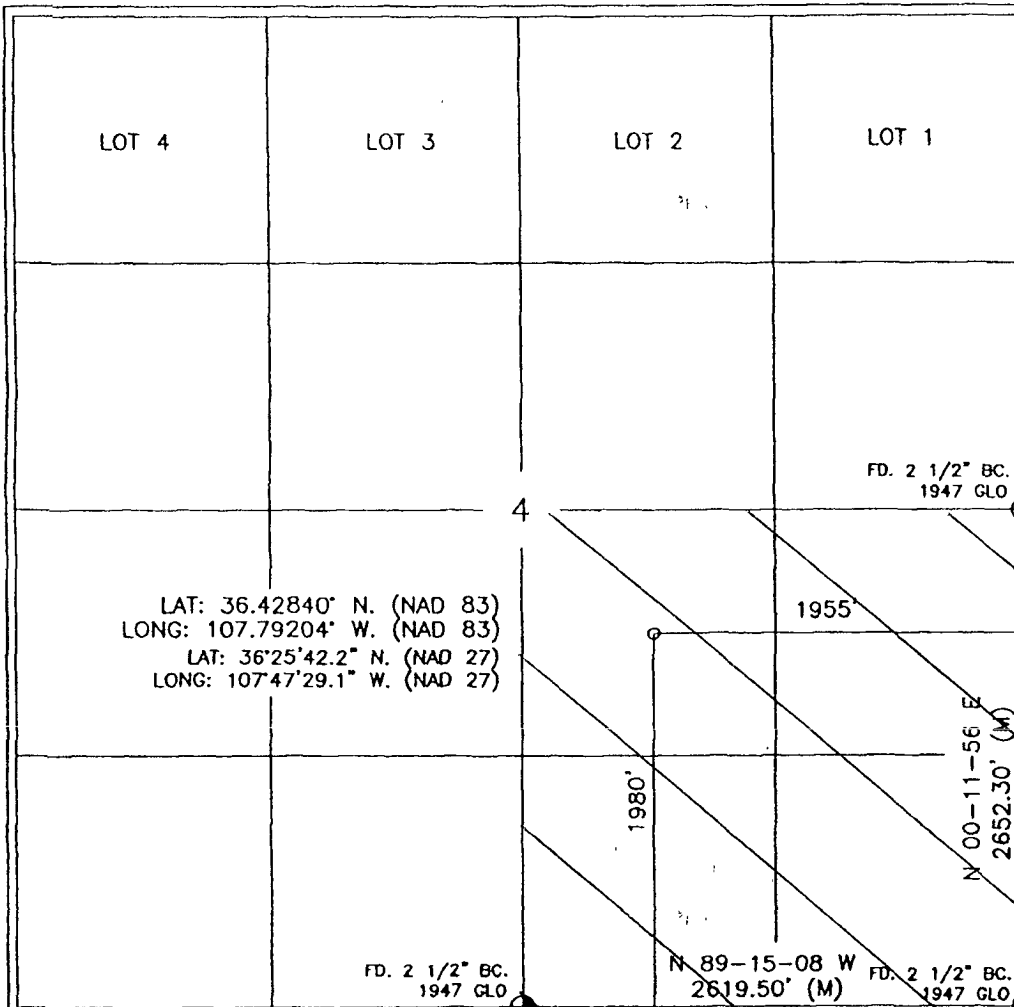
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	4	25-N	9-W		1980	SOUTH	1955	EAST	SAN JUAN

<sup>11</sup> 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
<sup>12</sup> Dedicated Acres SE/4 160		<sup>13</sup> Joint or Infill		<sup>14</sup> Consolidation Code		<sup>15</sup> 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

16



<sup>17</sup> OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole 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 interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature: S. Johnson Date: 9/28/07  
Printed Name: Johnson

<sup>18</sup> SURVEYOR CERTIFICATION

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.

Date of Survey: JULY 27, 2007  
Signature and Seal of Registered Professional Land Surveyor: R. A. RUSH  
Certificate Number: 8894

Submit 3 Copies To Appropriate District Office  
District I  
1625 N. French Dr., Hobbs, NM 87240  
District II  
1301 W. Grand Ave., Artesia, NM 88210  
District III  
1000 Rio Brazos Rd., Aztec, NM 87410  
District IV  
1220 S. St Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals and Natural Resources

Form C-103  
May 27, 2004

OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

WELL API NO <u>30.045.34565</u>	
5. Indicate Type of Lease STATE <input type="checkbox"/> FEE <input type="checkbox"/>	
6. State Oil & Gas Lease No. <b>FEDERAL LEASE</b>	
7. Lease Name or Unit Agreement Name: <b>HUERFANO</b>	
8. Well Number <b>#306</b>	
9. OGRID Number <b>5380</b>	
10. Pool name or Wildcat <b>BASIN DAKOTA/WC BASIN MC</b>	

SUNDRY NOTICES AND REPORTS ON WELLS  
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well: Oil Well <input type="checkbox"/> Gas Well <input checked="" type="checkbox"/> Other	
2. Name of Operator <b>XTO Energy Inc.</b>	
3. Address of Operator <b>382 CR 3100 AZTEC, NM 87410 505-333-3100</b>	
4. Well Location Unit Letter <b>J</b> : <b>1980</b> feet from the <b>SOUTH</b> line and <b>1955</b> feet from the <b>EAST</b> line Section <b>4</b> Township <b>25N</b> Range <b>9W</b> NMPM <b>NMPM</b> County <b>SAN JUAN</b>	
11. Elevation (Show whether DR, RKB, RT, GR, etc.) <b>6635' GROUND ELEVATION</b>	
Pit or Below-grade Tank Application <input checked="" type="checkbox"/> or Closure <input type="checkbox"/>	
Pit type <b>DRILL</b> Depth to Groundwater <b>&gt;100</b> Distance from nearest fresh water well <b>&gt;1000</b> Distance from nearest surface water <b>&gt;1000</b>	
Pit Liner Thickness: <b>12</b> mil Below-Grade Tank: Volume <b>8000</b> bbls; Construction Material	

12. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐  
TEMPORARILY ABANDON ☐ CHANGE PLANS ☐  
PULL OR ALTER CASING ☐ MULTIPLE COMPLETION ☐  
OTHER: **PIT** ☒

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐  
COMMENCE DRILLING OPNS. ☐ PLUG AND ABANDONMENT ☐  
CASING TEST AND CEMENT JOB ☐  
OTHER: ☐

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

**XTO Energy plans to construct a lined pit on location for drilling.**

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that any pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☒ , a general permit ☐ or an (attached) alternative OCD-approved plan ☐

SIGNATURE Kyla Vaughan TITLE Regulatory Compliance DATE 01/11/2008  
E-mail address: kyla\_vaughan@xtoenergy.com  
Type or print name Kyla Vaughan Telephone No. 505-333-3159

For State Use Only

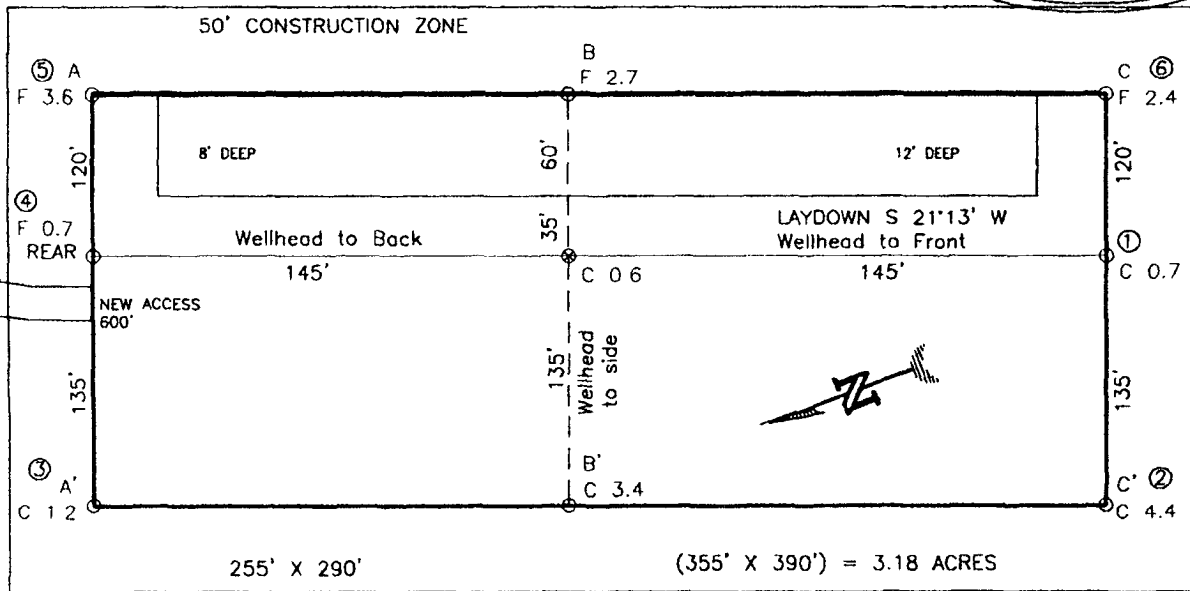
APPROVED BY [Signature] Deputy Oil & Gas Inspector, District #3 TITLE [Signature] DATE FEB 18 2008

Conditions of Approval, if any:

EXHIBIT D

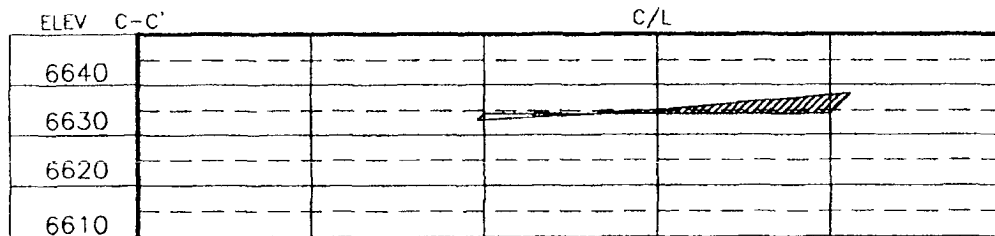
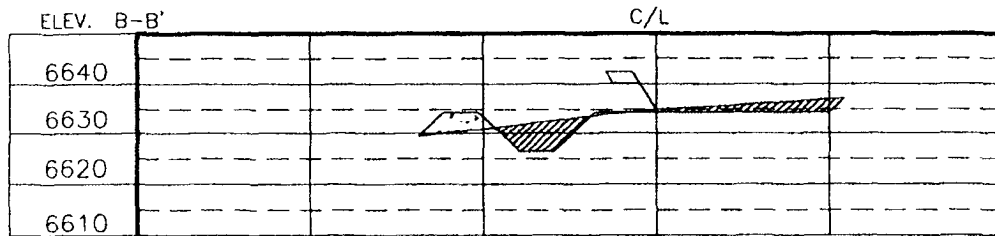
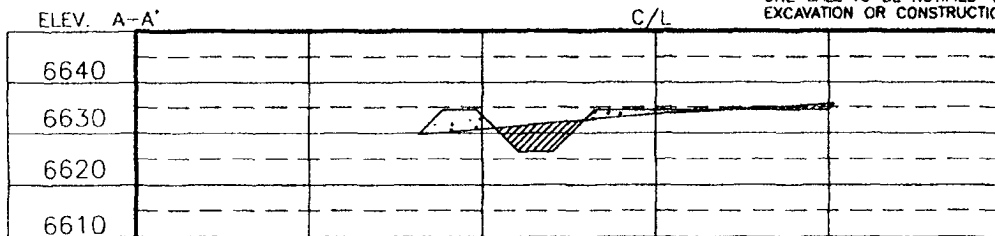
XTO ENERGY INC.  
 HUERFANO No. 306, 1980 FSL 1955 FEL  
 SECTION 4, T25N, R9W, N.M.P.M., SAN JUAN COUNTY, N. M.  
 GROUND ELEVATION: 6635' DATE: JULY 27, 2007

NAD 83  
 LAT. = 36.42840° N  
 LONG. = 107.79204° W  
 NAD 27  
 LAT. = 36°25'42.2" N  
 LONG. = 107°47'29.1" W



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 LIABLE FOR UNDERGROUND UTILITIES OR PIPELINES. NEW MEXICO ONE CALL TO BE NOTIFIED 48 HOURS PRIOR TO EXCAVATION OR CONSTRUCTION.



NOTE: CONTRACTOR SHOULD CALL ONE-CALL FOR LOCATION OF ANY MARKED OR UNMARKED BURIED PIPELINES OR CABLES ON WELL PAD AND OR ACCESS ROAD AT LEAST TWO (2) WORKING DAYS PRIOR TO CONSTRUCTION.


REVISION	DATE	REVIEWED BY
<p>Daggett Enterprises, Inc.          Surveying and Oil Field Services          P. O. Box 510 Farmington, NM 87499          Phone (505) 326-1772 • Fax (505) 326-6219          NEW MEXICO L.S. No. 8894          CDR: CR614PLB          DATE: 09/18/07</p>		
		
Drawn by: A.G. Check: CR614		

EXHIBIT E

# XTO ENERGY INC.

Huerfano #306

APD Data

January 11, 2008

Location: 1980' FSL x 1955' FEL Sec 4, T25N, R8W

County: San Juan

State: New Mexico

GREATEST PROJECTED TD: 6900'  
APPROX GR ELEV: 6635'

OBJECTIVE: Basin Dakota / Basin Mancos  
Est KB ELEV: 6647' (12' AGL)

## 1. MUD PROGRAM:

INTERVAL	0' to 360'	360' to 2500'	2500' to 6900'
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 12.25" hole filled with 9.20 ppg mud

Interval	Length	Wt	Gr	Cplg	Coll Rating (psi)	Burst Rating (psi)	Jt Str (M-lbs)	ID (in)	Drift (in)	SF Coll	SF Burst	SF 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 ( $\pm 6900'$ ) in 7.875" hole filled with 9.20 ppg mud.

Interval	Length	Wt	Gr	Cplg	Coll Rating (psi)	Burst Rating (psi)	Jt Str (M-lbs)	ID (in)	Drift (in)	SF Coll	SF Burst	SF Ten
0'-6900'	6900'	15.5#	J-55	ST&C	4040	4810	202	4.950	4.825	1.22	1.46	1.89

## 3. WELLHEAD:

- 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.
- 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.

EXHIBIT F

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

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. Production: 5.5", 15.5#, J-55 (or K-55), ST&C casing to be set at  $\pm 6900'$  in 7.875" hole. DV Tool set @  $\pm 4400'$

1<sup>st</sup> Stage

LEAD:

$\pm 187$  sx of Premium Lite HS (Type III/Poz/Gel) or equivalent, with dispersant, fluid loss, accelerator, & LCM mixed at 12.5 ppg, 2.01 ft<sup>3</sup>/sk, 10.55 gal wtr/sx.

TAIL:

150 sx Type III or equivalent cement with bonding additive, LCM, dispersant, & fluid loss mixed at 14.2 ppg, 1.54 cuft/sx, 8.00 gal/sx.

2<sup>nd</sup> Stage

LEAD:

$\pm 369$  sx of Type III or equivalent cement with 8% gel & 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 1683 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: None.

B. Open Hole Logs as follows: Run Array Induction/SFL/GR/SP fr/TD (6900') to the bottom of the surface csg. Run Neutron/Lithodensity/Pe/GR/Cal from TD (6900') to 3,000'.

**EXHIBIT F**

6. **FORMATION TOPS:**

Est. KB Elevation: 6647'

FORMATION	Sub-Sea	MD	FORMATION	TV Sub-Sea	MD
Ojo Alamo SS	5457	1190	Gallup	1139	5508
Kirtland Shale	5299	1348	Greenhorn	230	6417
Farmington SS			Graneros	174	6473
Fruitland Formation	5045	1602	Dakota 1*	148	6499
Lower Fruitland Coal			Dakota 2*	105	6542
Pictured Cliffs SS	4596	2051	Dakota 3*	64	6583
Lewis Shale	4403	2244	Dakota 4*	-8	6655
Chacra SS	3727	2920	Dakota 5*	-53	6700
Cliffhouse SS*	3032	3615	Dakota 6*	-91	6738
Menefee**	2974	3673	Burro Canyon	-136	6783
Point Lookout SS*	2189	4458	Morrison*	-178	6825
Mancos Shale	1851	4796	<b>TD</b>	-253	<b>6900</b>

\* Primary Objective

\*\* Secondary Objective

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

7. **COMPANY PERSONNEL:**

Name	Title	Office Phone	Home Phone
Justin Niederhofer	Drilling Engineer	505-333-3199	505-320-0158
Jerry Lacy	Drilling Superintendent	505-333-3177	505-320-6543
John Klutsch	Project Geologist	817-885-2800	--

JN

1/11/08

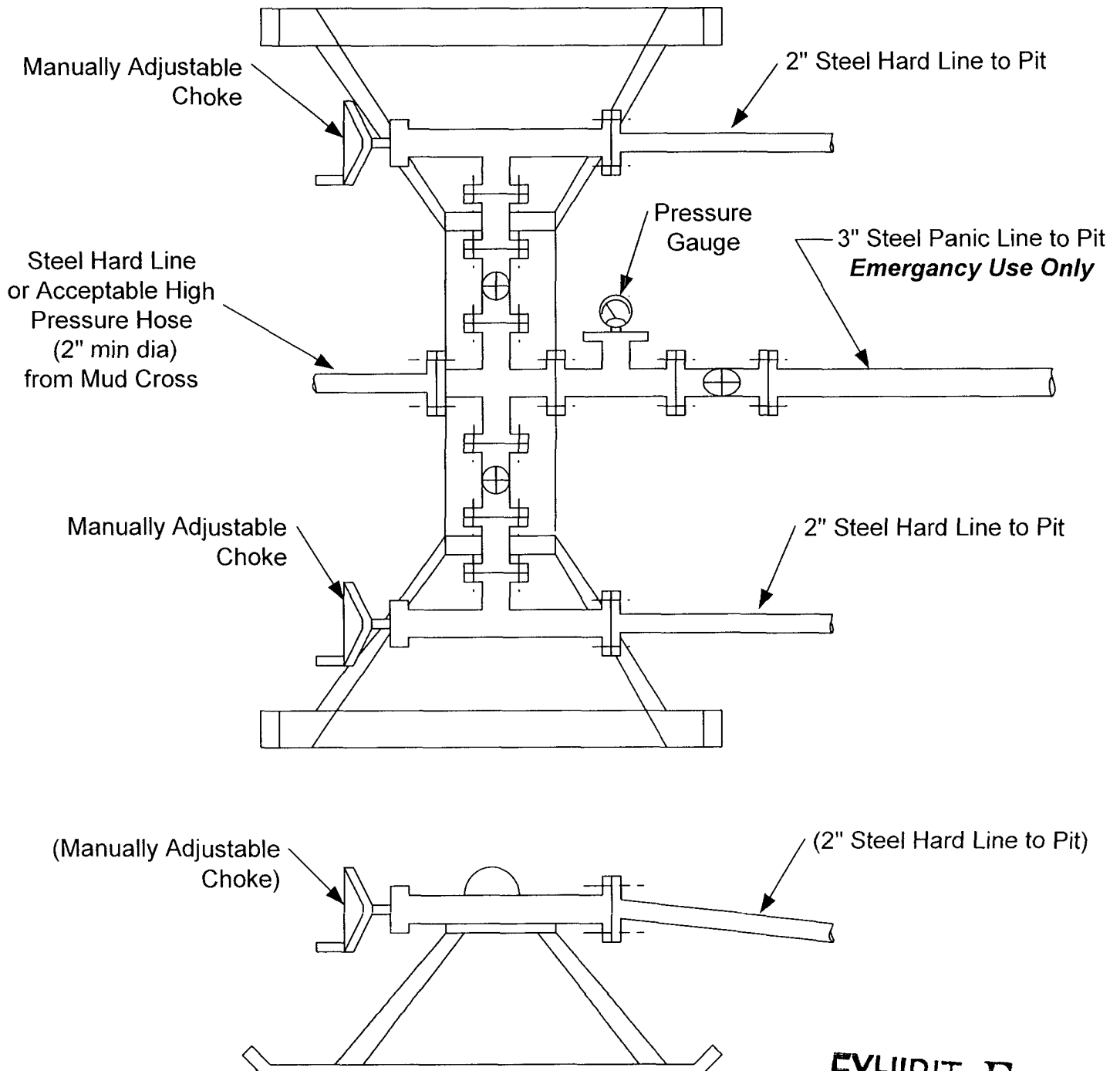
**EXHIBIT F**



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

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

## **TESTING PROCEDURE**



**EXHIBIT F**

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

## TESTING PROCEDURE

### 1. Test BOP after installation:

Pressure test BOP to 200-300  
psig (low pressure) for 10 min.

Test BOP to Working Press or  
to 70% internal yield of surf csg  
(10 min) or which ever is less.

### 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 on the rig floor and ready to go.

