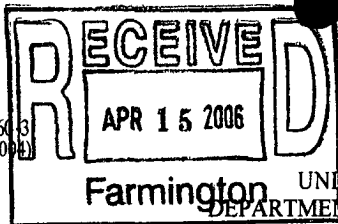


Form 3160-3  
(April 2004)



Farmington UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

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

Lease Serial No.  
SF 079527A

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		6. If Indian, Allottee or Tribe Name	
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		7. If Unit or CA Agreement, Name and No.	
2. Name of Operator PATINA OIL AND GAS		8. Lease Name and Well No. CHAMPLIN #5C	
3a. Address 5802 US HIGHWAY 64 FARMINGTON, NEW MEXICO 87401		9. API Well No. 30-039-296116	
3b. Phone No. (include area code) 505-632-8056		10. Field and Pool, or Exploratory BASIN DAKOTA/BLANCO MV	
4. Location of Well (Report location clearly and in accordance with any State requirements.)* At surface 660' FSL and 830' FWL At proposed prod. zone SAME		11. Sec., T. R. M. or Blk. and Survey or Area SEC 25-T27N-R4W	
14. Distance in miles and direction from nearest town or post office* 21 MILES SOUTH OF DULCE, NEW MEXICO		12. County or Parish RIO ARRIBA	13. State NM
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 660'	16. No. of acres in lease 320 ACRES	17. Spacing Unit dedicated to this well W/2 320 ACRES MV §2320 OR	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth 8650'	20. BLM/BIA Bond No. on file	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 7292' GR	22. Approximate date work will start* 09/01/2005	23. Estimated duration 18 DAYS	

24. Attachments

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

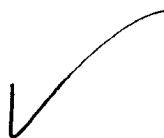
- |   |  |
|---|--|
| 1. Well plat certified by a registered surveyor.  | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).    |
| 2. A Drilling Plan.   | 5. Operator certification  |
| 3. A Surface Use Plan (if the location is on National Forest System Lands,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

25. Signature 	Name (Printed/Typed) JEAN M. MUSE	Date 07/17/2005
Title REGULATORY/ENGINEERING TECH		
Approved by (Signature) 	Name (Printed/Typed) AFM	Date 9/12/06
Title FEO		

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.

\*(Instructions on page 2)



NMOCD

District I  
PO Box 1380, Hobbs, NM 88241-1980

State of New Mexico  
Energy, Minerals & Natural Resources

Form C-102

Revised February 21, 1994

District II  
PO Drawer DD, Artesia, NM 88211-0719

OIL CONSERVATION DIVISION  
PO Box 2088  
Santa Fe, NM 87504-2088

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

District III  
1000 Rio Brazos Rd., Aztec, NM 87410

District IV  
PO Box 2088, Santa Fe, NM 87504-2088

2005 AUG 4 PM 2 48

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number <b>30 029-29616</b>		Pool Code <b>72319 \ 71599</b>	Pool Name <b>BLANCO MESAVERDE \ BASIN DAKOTA</b>
Property Code <b>24023</b>	Property Name <b>CHAMPLIN</b>		Well Number <b>5C</b>
GRID No. <b>173252</b>	Operator Name <b>PATINA OIL &amp; GAS CORPORATION</b>		Elevation <b>7292'</b>

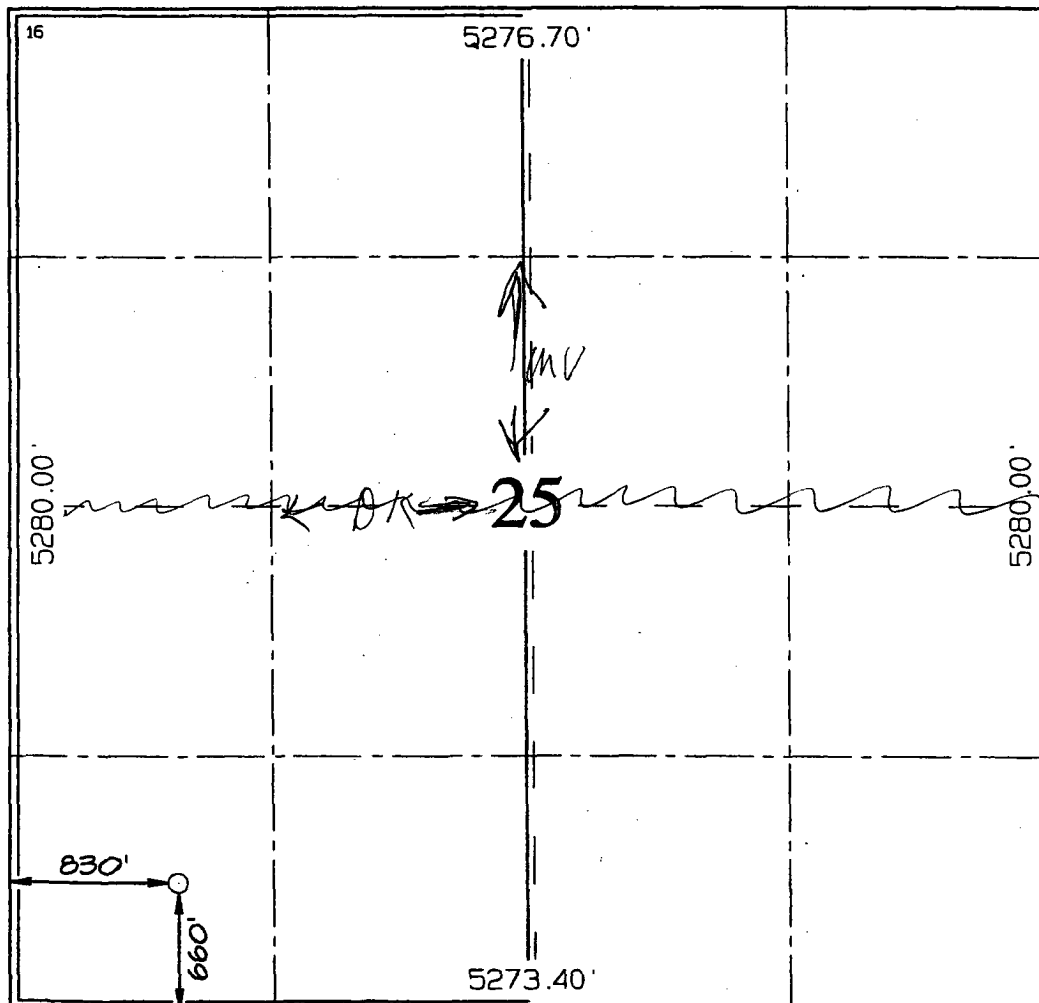

<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	25	27N	4W		660	SOUTH	830	WEST	RIO ARriba

<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 <b>320.0 Acres</b>					<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

<div><p><sup>16</sup></p></div>	<div><p><sup>17</sup> OPERATOR CERTIFICATION</p><p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</p><p><i>Jason M. Muse</i></p><p>Signature</p><p><b>Jason M. Muse</b></p><p>Printed Name</p><p><b>Regulatory/Engg Tech</b></p><p>Title</p><p><b>7/17/05</b></p><p>Date</p></div> <div><p><sup>18</sup> SURVEYOR CERTIFICATION</p><p>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.</p><p>Date of Survey: <b>APRIL 11, 2003</b></p><p>Signature and Seal of Professional Surveyor</p><div><p><b>JASON C. EDWARDS</b></p><p>Certificate Number 15269</p></div></div>
---	---

Submit 3 Copies To Appropriate District Office  
District I  
1625 N. French Dr., Hobbs, NM 88240  
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. <b>30-039-29616</b>
5. Indicate Type of Lease STATE <input type="checkbox"/> FEE <input type="checkbox"/>
6. State Oil & Gas Lease No.
7. Lease Name or Unit Agreement Name <b>CHAMPLIN</b>
8. Well Number <b>#5C</b>
9. OGRID Number <b>17352</b>
10. Pool name or Wildcat <b>BASIN DK/BLANCO MV</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 ☐ Gas Well ☒ Other ☐

2. Name of Operator  
**PATINA SAN JUAN, INC.**

3. Address of Operator  
**5802 US HIGHWAY 64, FARMINGTON, NM 87401**

4. Well Location  
Unit Letter **B** **660** feet from the **SOUTH** line and **830** feet from the **WEST** line  
Section **25** Township **27N** Range **4W** **NMPM** **RIO ARRIBA County**

11. Elevation (Show whether DR, RKB, RT, GR, etc.)  
**7292' GR**

Pit or Below-grade Tank Application ☒ or Closure ☐

Pit type **X** reserve Depth to Groundwater **>100'** Distance from nearest fresh water well **>1000'** Distance from nearest surface water **>1000'**

Pit Liner Thickness: **12** mil Below-Grade Tank: Volume **bbls**; Construction Material **reinforced polyethylene plastic**

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

NOTICE OF INTENTION TO:	SUBSEQUENT REPORT OF:
PERFORM REMEDIAL WORK <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>
CHANGE PLANS <input type="checkbox"/>	P AND A <input type="checkbox"/>
MULTIPLE COMPL <input type="checkbox"/>	CASING/CEMENT JOB <input type="checkbox"/>
OTHER: <b>PIT PERMIT APPLICATION</b> <input checked="" type="checkbox"/>	OTHER: <input type="checkbox"/>

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.

DRILLING PIT APPLICATION

PROPOSED: LINED DRILLING PIT WITH UNLINED VENT/FLARE/BLOW PIT FOR THE DRILLING OF A NATURAL GAS WELL.

SEE ATTACHED CROSS SECTION AND DRILLING PAD WITH PIT DIAGRAM

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 *J. Muse* TITLE **REGULATORY COMPLIANCE** DATE **06/01/2006**

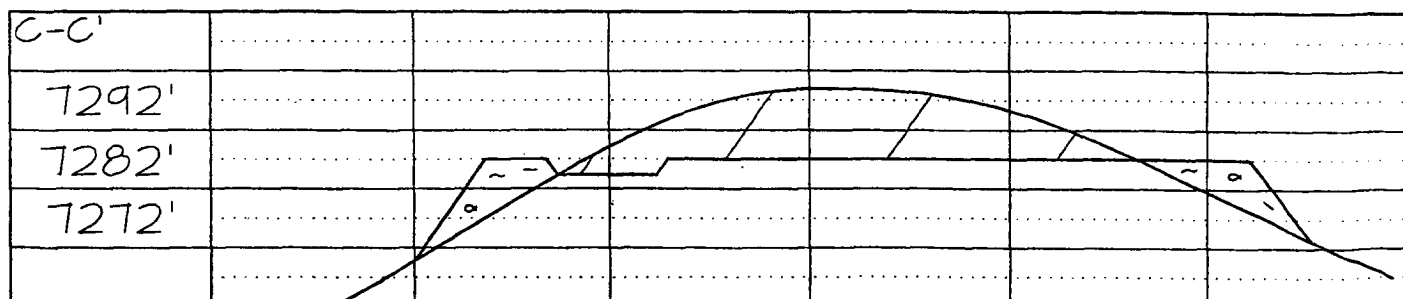
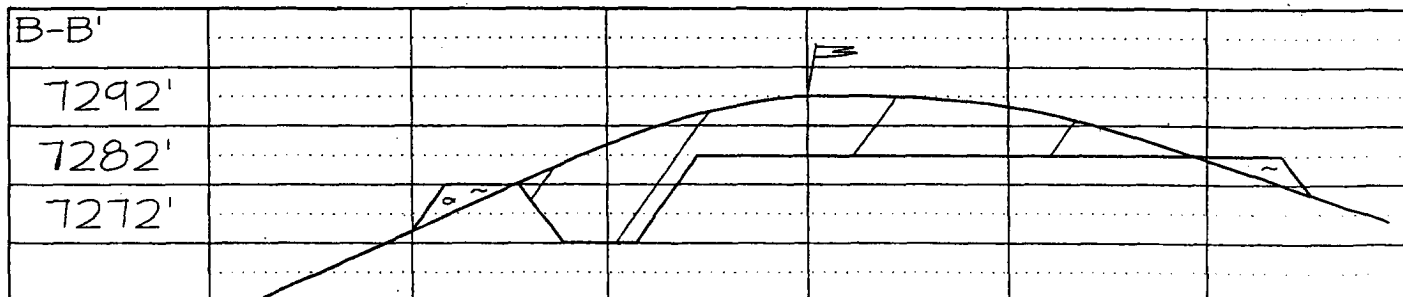
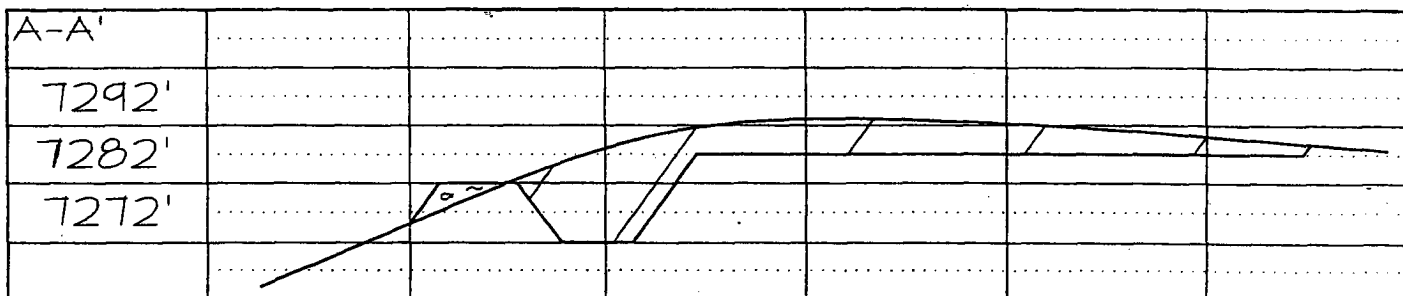
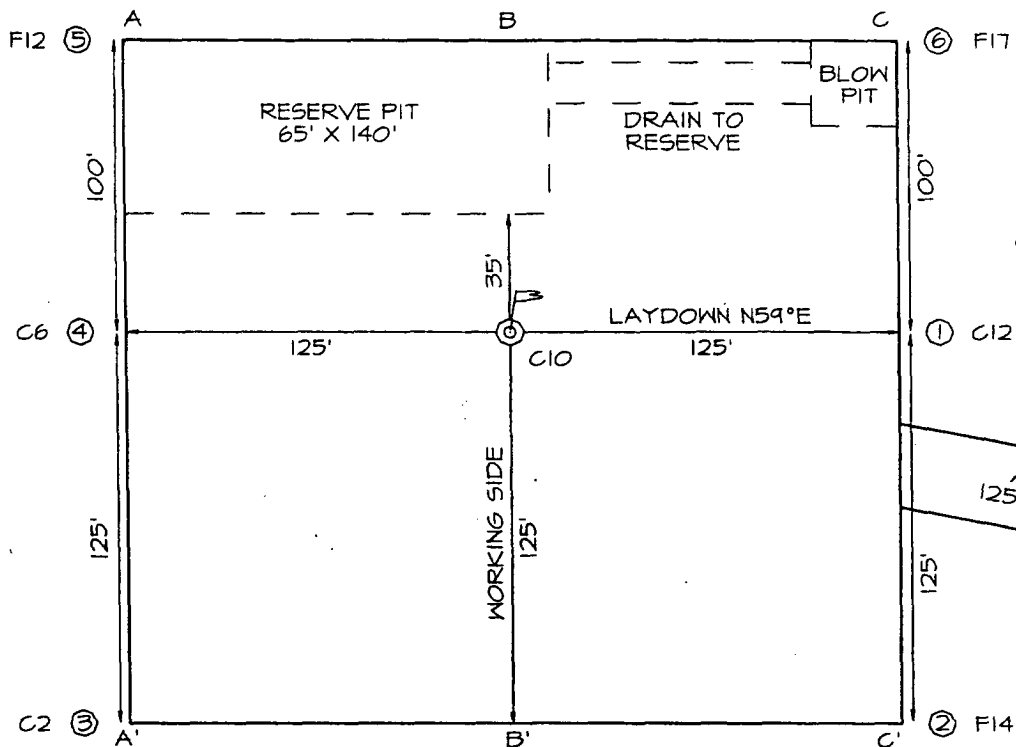
Type or print name **JEAN M. MUSE** E-mail address: **jmuse@nobleenergyinc.com** Telephone No. **505-632-8056**

For State Use Only

APPROVED BY: *Brandon Bell* TITLE **DEPUTY OIL & GAS INSPECTOR, DIST. 6** DATE **AUG 17 2006**  
Conditions of Approval (if any):

**PATINA OIL & GAS CORPORATION CHAMPLIN #5C**  
**66' 78' & 830' FWL, SECTION 25, 1 T4R4W, NMPM**  
**RIO ARriba COUNTY, NEW MEXICO GROUND ELEVATION: 7292'**

**LATITUDE: 36°32'20"**  
**LONGITUDE: 107°12'30"**  
 DATUM: NAD1927



**Champlin #5C  
General Drilling Plan  
Patina San Juan, Inc.  
Rio Arriba County, New Mexico**

**1. LOCATION:**

Est. elevation: 7292'  
NWNE of Section 25, T27N, R4W

Field: Blanco MV & Basin DK  
Surface: US Forest  
Minerals:

**2. SURFACE FORMATION, ESTIMATED TOPS AND WATER, OIL, GAS OR MINERAL BEARING FORMATIONS (TVD):**

Surface formation – San Jose

<b><u>Formation</u></b>	<b><u>Estimated Formation Top (Ft)</u></b>
Fruitland	3727
Pictured Cliffs**	4078
Lewis	4308
Cliff House	5678
Menefee	5919
Point Lookout***	6220
Gallup	7305
Greenhorn	8195
Graneros	8261
Dakota***	8300
TD	8650

Legend:      \* Freshwater bearing formation  
             \*\* Possible hydrocarbon bearing formation  
             \*\*\* Probable hydrocarbon bearing formation  
             # Possible H2S bearing formation

All fresh water and prospectively valuable minerals encountered during drilling will be recorded by depth and adequately protected.

### **3. PRESSURE CONTROL EQUIPMENT:**

BOP equipment will be tested to its rated working pressure or 70-percent of the internal yield of the surface casing, but not to exceed 1,000 psi. See attachments for BOP and choke manifold diagrams.

#### **Production Hole BOP Requirements and Test Plan**

11" – 2,000 psi single ram (blind)

11" – 2,000 psi single ram (pipe)

Test as follows:

a) Pipe rams:	1,000 psi (High)	250 psi (low)
b) Choke manifold:	1,000 psi (High)	250 psi (low)
c) Choke lines:	1,000 psi (High)	250 psi (low)

All ram type preventers and related equipment will be hydraulically tested at nipple-up. They will also be retested in either of the following events:

- A pressure seal is broken.
- 30 days have elapsed since the last successful test of the equipment.

Furthermore, BOP's will be checked daily as to mechanical operating condition. All ram type preventers will have hand wheels, which will be operative and accessible at the time the preventers are installed. See attached Exhibit for details on the BOP equipment.

#### **AUXILIARY EQUIPMENT:**

- a) Manually operated kelly cock (upper and lower)
- b) Full opening manually operated safety valves in the full open position, capable of fitting all drill stem connections.

#### 4. CASING DESIGN:

Hole Data				
Interval	Bit Size (Inches)	Casing Size (Inches)	Top (Ft)	Bottom (Ft)
Surface	13.50	9.625	0	300
Intermediate	8.75	7.0	0	4500
Production	6.25	4.5	4200	8650

Casing Data							
OD (Inches)	ID (Inches)	Weight (Lbs/Ft)	Grade	Thread	Collapse (psi)	Burst (psi)	Min. Tensile (Lbs)
9.625	8.921	36.0	J55	STC	2,020	3,520	394,000
7.000	6.366	23.0	L80	LTC	3,830	6,340	435,000
4.5	4.276	11.6	N80	LTC	6,350	7,780	223,000

#### MINIMUM CASING DESIGN FACTORS:

COLLAPSE: 1.125

BURST: 1.00

TENSION: 1.80

Area Fracture Gradient Range: 0.7 – 0.8 psi/foot

Maximum anticipated reservoir pressure: 2,500 psi

Maximum anticipated mud weight: 9.0 ppg

Maximum surface treating pressure: 5,000 psi

Float Equipment:

**Surface Casing:** Guide shoe on bottom and 3 centralizers on the bottom 3 joints.

**Intermediate Casing:** Float shoe on bottom joint and a float collar one joint up from float shoe. One centralizer 10 ft above float shoe and nine centralizers spaced every joint above the float collar. Stage tool above the Fruitland Coal. One centralizer below stage tool and one centralizer above stage tool.

**Production Casing:** 4 1/2" whirler type cement nosed guide shoe and a float collar on top of bottom joint with centralizers over potential hydrocarbon bearing zones.

## CEMENTING PROGRAMS:

### 9-5/8" Surface casing:

245 sx Type III cement with 2% CaCl<sub>2</sub>, 1/4#/sx cellofakes. 100% excess to circulate cement to surface. WOC 12 hrs. Pressure test surface casing to 1000 psi for 30 minutes.

Slurry weight: 15.2 ppg  
Slurry yield: 1.27 ft<sup>3</sup>/sack

Volume basis:	40' of 9-5/8" shoe joint	17 cu ft
	300' of 13-1/2" x 9-5/8" annulus	147 cu ft
	<u>100% excess (annulus)</u>	<u>147 cu ft</u>
	Total	311 cu ft

#### Note:

1. Design top of cement is the surface.
2. Have available 100 sx Type III cement with 2% CaCl<sub>2</sub> for top out purposes.

### 7" Intermediate Casing:

#### 1<sup>st</sup> Stage:

155 sx of Type III cement plus additives

Slurry weight: 13.0 ppg  
Slurry yield: 2.00 ft<sup>3</sup>/sx

#### 2<sup>nd</sup> Stage: (Stage tool at ±2500')

Lead: 105 sx of Type III cement plus additives

Slurry weight: 12.0 ppg  
Slurry yield: 2.55 ft<sup>3</sup>/sx

Tail: 60 sx of Type III cement plus additives

Slurry weight: 13.0 ppg  
Slurry yield: 2.00 ft<sup>3</sup>/sx

Volume Basis:	40' of 7" shoe joint	9 cu ft
	4200' of 7" x 8 3/4" hole	631 cu ft
	300' of 7" x 9 5/8" casing	50 cu ft
	<u>30% excess (annulus)</u>	<u>189 cu ft</u>
	Total	879 cu ft

#### Note:

1. Design top of cement is surface.
2. Actual cement volumes to be based on caliper log plus 30%.
3. Intermediate TD @ ±4500', cement stage tool @ ±2500'.



**4 1/2" Production casing:**

390 sx of 50/50 Type III/POZ cement plus additives

Slurry weight: 12.5 ppg

Slurry yield: 1.78 ft<sup>3</sup>/sx

Volume basis:	40' of 4 1/2" shoe joint	5 cu ft
	4150' of 4 1/2" x 6 1/4" hole	426 cu ft
	300' of 4 1/2" x 7" casing overlap	33 cu ft
	200' above 4.5" liner (without drill pipe)	44 cu ft
	<u>40% excess (annulus)</u>	<u>184 cu ft</u>
	Total	692 cu ft

**Note:**

1. Design top of cement is  $\pm 4000'$  (200' above the top of the 4.5" liner w/out drill pipe).
2. Intermediate casing @  $\pm 4500'$ .
3. Estimated TD @  $\pm 8650'$ , estimated TOL @  $\pm 4200'$  (300' overlap).
4. Actual cement volumes to be based on caliper log plus 30%.

**5. MUD PROGRAM:**

The surface hole will be drilled with spud mud. Gel and polymer sweeps will be used from surface to 300 feet as necessary to keep hole clean.

The intermediate hole will be drilled with a LSND mud from the base of surface casing to intermediate TD. Anticipated mud weight ranges from 8.5 – 9.2 ppg. Mud weight will be increased as required to maintain hole stability and control gas influx.

The production hole will be drilled with air or air/mist to TD.

Sufficient mud materials to maintain stable wellbore conditions (for either well control or lost circulation scenarios) will be maintained at the well site.

No chrome-based additives will be used in the mud system.

**6. EVALUATION PROGRAM:**

Mud logger: From base of surface casing to TD.

Testing: No DST is planned

Coring: None Planned

Electric logs: Intermediate Hole:

1) DIL-GR-SP: TD to base of surface casing.

2) LDT-CNL-GR-CAL-PE: TD to base of surface casing

Production Hole:

1) No open hole logs

2) Cased hole resistivity & porosity logs

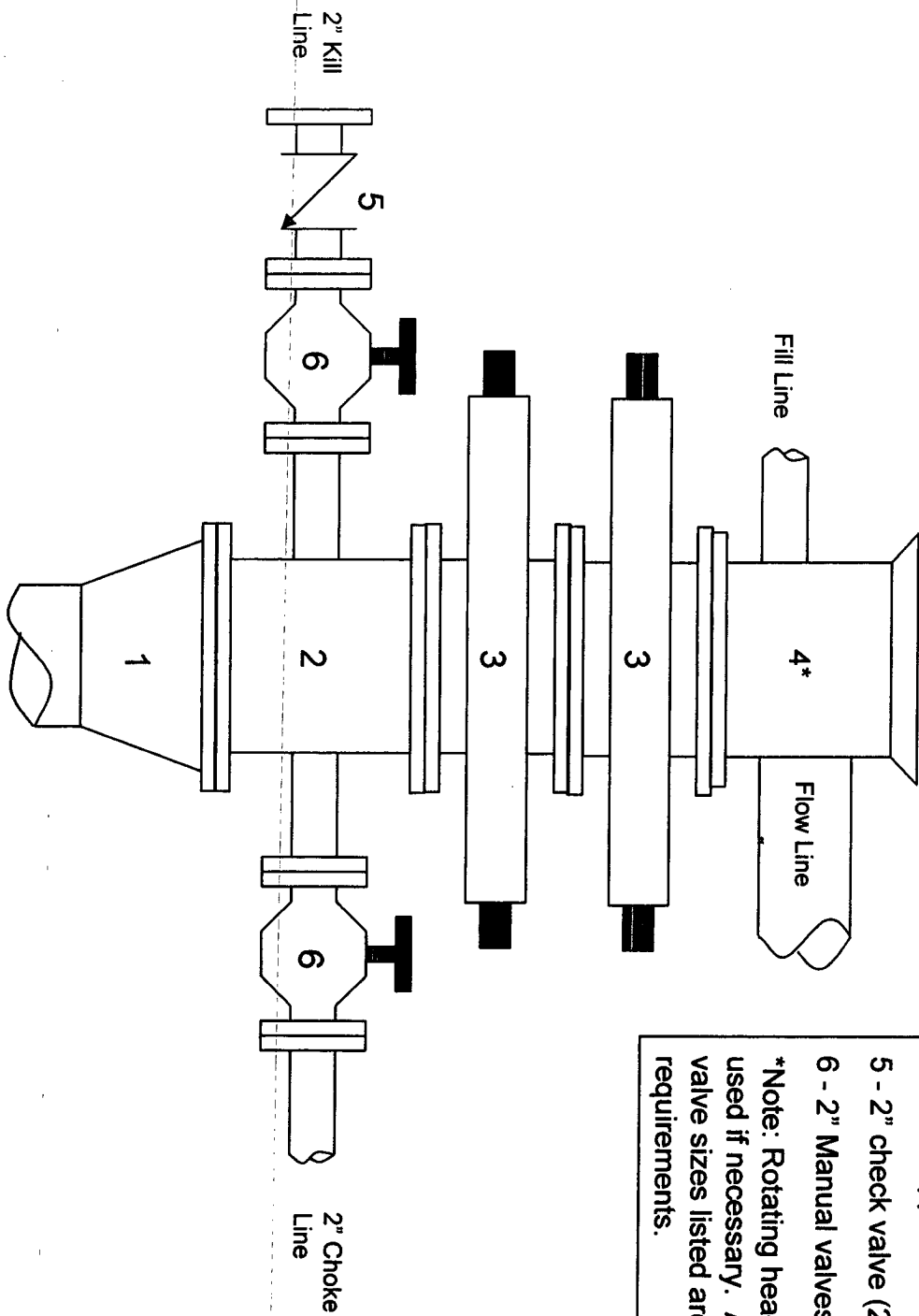
**7. ABNORMAL PRESSURE AND TEMPERATURE:**

H <sub>2</sub> S	None
Coal	Fruitland
Minerals	None
Water	None
Static BHT	175° F
Lost Circulation	Possible
Hole Deviation	None
Abnormal Pressures	None
Unusual Drilling Problems	None

**8. ANTICIPATED STARTING DATE: September, 2005**

Anticipated duration: 18 days

**2000 psi BOP stack**  
Minimum requirements



Components

- 1 - Wellhead 9-5/8" (2M)
- 2 - Drilling spool 11" (2M)
- 3 - A double or two single rams with blinds on bottom 11" (2M)
- 4 - Bell nipple\*
- 5 - 2" check valve (2M)
- 6 - 2" Manual valves (2M)

\*Note: Rotating head may also be used if necessary. Also, all line and valve sizes listed are minimum requirements.

# 2000 psi Choke Manifold Minimum requirements

- Components

  - 1 – 2" Valve (2M)
  - 2 – 2" Valve (2M)
  - 3 – Mud cross with gauge (2M) flanged below the gage.
  - 4 – Adjustable choke (2M)
  - 5 – Adjustable choke (2M)

Note: All line and valve sizes listed are minimum requirements.

