

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

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

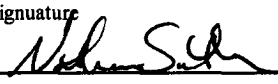
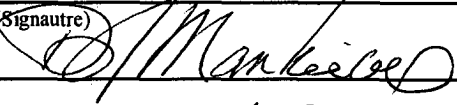
APPLICATION FOR PERMIT TO DRILL OR REENTER

|  |  |  |
|--|--|--|
| 1a. Type of Work<br><input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER   |  | 5. Lease Serial No. <b>79511A</b><br>SF-080597                               |
| 1b. Type of Well<br><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   |
| 2. Name of Operator<br><b>Energex Resources Corporation</b>  |  | 7. Unit or CA Agreement Name and No.   |
| 3a. Address<br><b>2198 Bloomfield Highway Farmington, New Mexico 87401</b>   | 3b. Phone No. (include area code)<br><b>(505) 325-6800</b> | 8. Lease Name and Well No.<br><b>Florance Gas Com F #1S</b>                  |
| 4. Location of Well (Report location clearly and in accordance with any State requirements)*<br>At surface <b>1180' fsl, 1435' fel</b><br>At proposed prod. zone   |  | 9. API Well No.<br><b>30-045-33514</b>                                       |
| 14. Distance in miles and direction from nearest town or post office*<br><b>Approximately 8.0 miles northeast of Blanco</b>  |  | 10. Field and Pool, or Exploratory<br><b>Basin Fruitland Coal</b>            |
| 15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drg. unit line, if any)<br><b>1180'</b>   | 16. No. of Acres in lease<br><b>2549.29</b>                | 11. Sec., T., R., M., or Blk. and Survey or Area<br><b>O S29, T30N, R08W</b> |
| 18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.<br><b>Approx. 200'</b>  | 19. Proposed Depth<br><b>3081'</b>                         | 12. County or Parish<br><b>San Juan</b>                                      |
| 21. Elevations (Show whether DF, KDB, RT, GL, etc.)<br><b>GL 6174'</b>   |  | 13. State<br><b>NM</b>   |
| 22. Approximate date work will start*<br><b>04/15/06</b>   |  | 17. Spacing Unit dedicated to this well<br><b>287.2 E 1/2</b>                |
| 23. Estimated duration<br><b>14 days</b>   |  | 20. BLM/BIA Bond No. on file   |

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<br>           | Name (Printed/Typed)<br><b>Nathan Smith</b> | Date<br><b>1/10/06</b> |
| Title<br><b>Drilling Engineer</b>  |   |                        |
| Approved by (Signature)<br> | Name (Printed/Typed)<br><b>AFN</b>          | Date<br><b>4/18/06</b> |
| Title<br><b>AFN</b>  |   |                        |
| Office<br><b>PFO</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 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)

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

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



NMOC D

**District I**  
1625 N. French Dr., Hobbs, NM 88240

**District II**  
1301 W. Grand Avenue, 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 & 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**

|   |  |   |  |   |                                 |
|---|--|---|--|---|---------------------------------|
| <sup>1</sup> API Number<br>30-045-33514 |  | <sup>2</sup> Pool Code<br>71629                             |  | <sup>3</sup> Pool Name<br>UP FRUITLAND COAL |                                 |
| <sup>4</sup> Property Code<br>300411    |  | <sup>5</sup> Property Name<br>FLORANCE GAS COM F            |  |   | <sup>6</sup> Well Number<br>IS  |
| <sup>7</sup> OGRID No.<br>162928        |  | <sup>8</sup> Operator Name<br>ENERGEN RESOURCES CORPORATION |  |   | <sup>9</sup> Elevation<br>6174' |

**10 Surface Location**

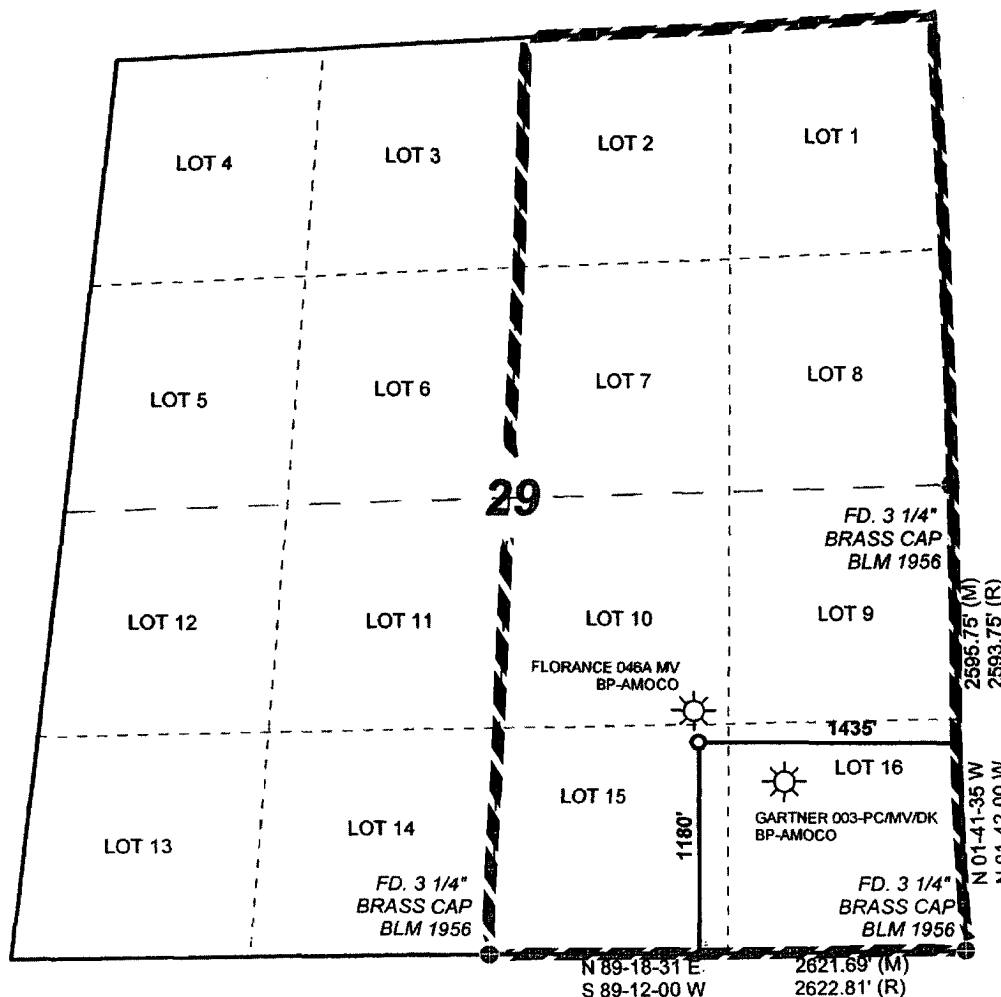
| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County   |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|----------|
| O             | 29      | 30N      | 8W    |         | 1180          | SOUTH            | 1435          | EAST           | SAN JUAN |

**11 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<br>287.2 | <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



**17 OPERATOR CERTIFICATION**  
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

*Nathan Smith*  
Signature

Nathan Smith  
Printed Name

Drilling Engineer  
Title and E-mail Address

12-6-05  
Date

**18 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.

12-6-05  
Date of Survey

*DAVID W. JOHNSON*  
Signature and Seal of Professional Surveyor

14827  
NM #14827  
Certificate Number

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>30-045-33514</u>   |
| 5. Indicate Type of Lease<br>STATE <input type="checkbox"/> FEE <input type="checkbox"/> |
| 6. State Oil & Gas Lease No.   |

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:<br>Oil Well <input type="checkbox"/> Gas Well <input checked="" type="checkbox"/> Other  | 7. Lease Name or Unit Agreement Name:<br>Florance Gas Com F |
| 2. Name of Operator<br>Energen Resources Corporation  | 8. Well Number<br># 1S                                      |
| 3. Address of Operator<br>2198 Bloomfield Highway, Farmington, NM 87401   | 9. OGRID Number<br>162928                                   |
| 4. Well Location<br>Unit Letter <u>O</u> : <u>1180</u> feet from the <u>South</u> line and <u>1435</u> feet from the <u>East</u> line<br>Section <u>29</u> Township <u>30N</u> Range <u>08W</u> NMPM County <u>San Juan</u> | 10. Pool name or Wildcat<br>Basin Fruitland Coal            |
| 11. Elevation (Show whether DR, RKB, RT, GR, etc.)<br>6174' GL  |   |
| Pit or Below-grade Tank Application <input checked="" type="checkbox"/> or Closure <input type="checkbox"/>   |   |
| Pit type <u>Drill</u> Depth to Groundwater <u>&gt;100'</u> Distance from nearest fresh water well <u>&gt;1000'</u> Distance from nearest surface water <u>&gt;250'</u>  |   |
| Pit Liner Thickness: <u>12</u> mil Below-Grade Tank: Volume _____ 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: Build drilling 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.

Energen Resources plans to build a lined pit according to "OCD Pit and Below-grade Tank Guidelines", as issued on November 1, 2004. Energen anticipates the submittal of a C-144 for closure of this pit in accordance with BLM and "OCD Pit and Below-grade Tank Guidelines".

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 Nathan Smith TITLE Drilling Engineer DATE 12/27/05

Type or print name Nathan Smith

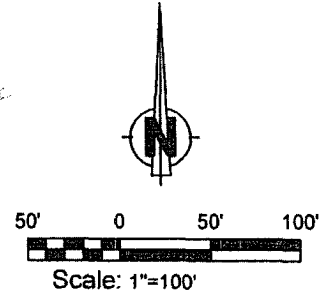
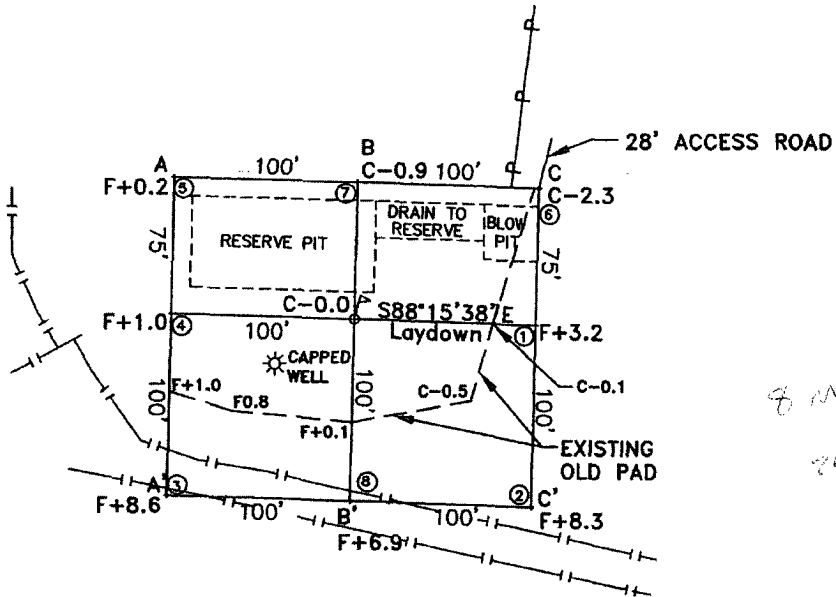
E-mail address: nsmith@energen.com  
Telephone No. 505.325.6800

For State Use Only

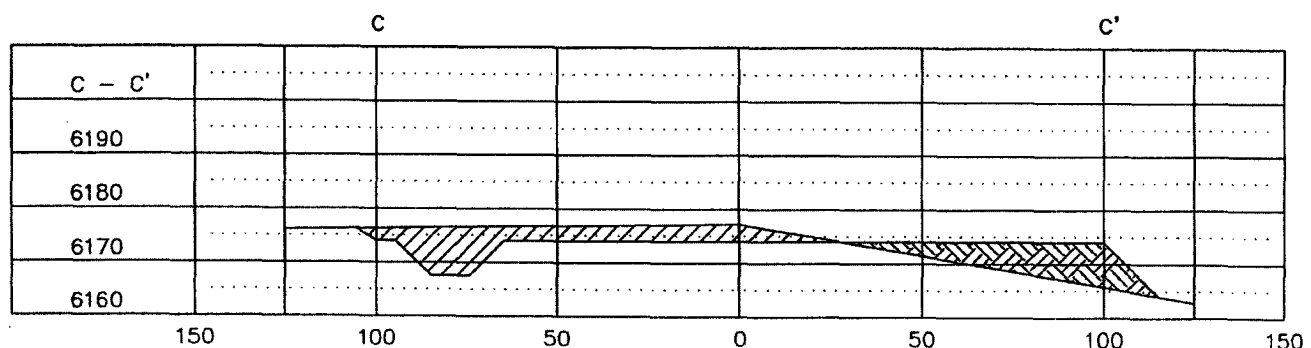
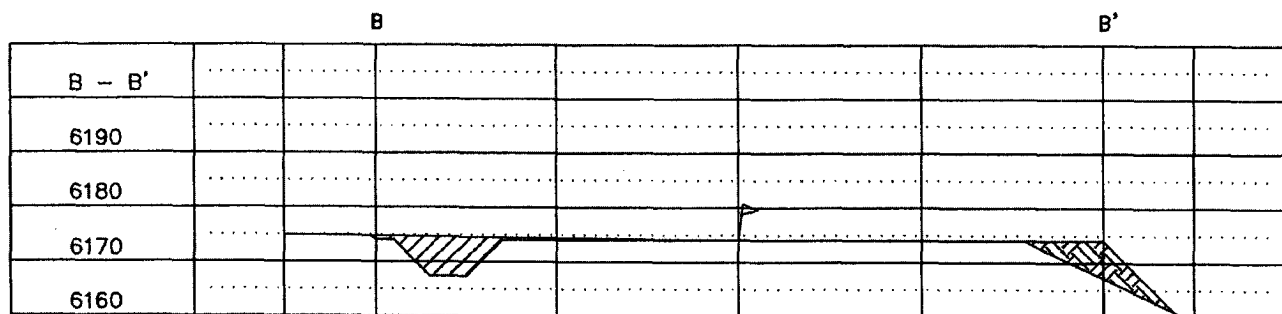
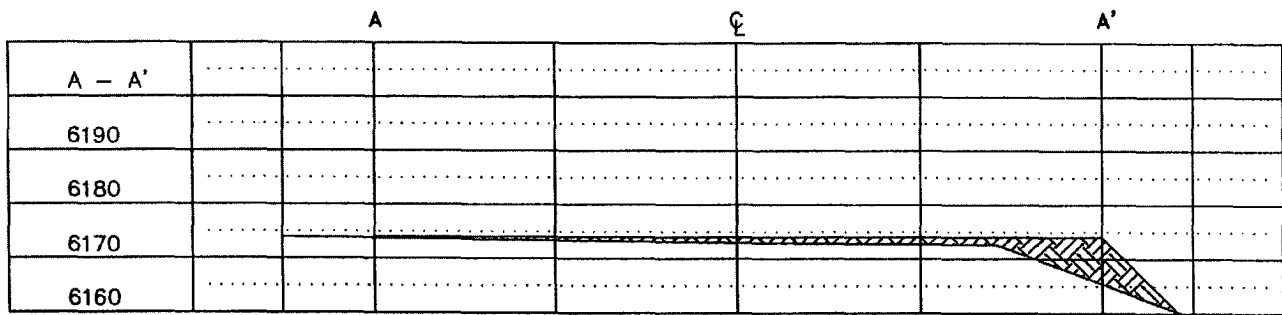
APPROVED BY [Signature] TITLE DEPUTY OIL & GAS INSPECTOR, DIST. 6 DATE APR 20 2006

Conditions of Approval, if any:

FLORANCE <sup>643 com</sup> ~~663 30~~ <sup>8</sup> ~~29~~ #1S  
1180' FSL, 1435' FEL  
LOCATED IN THE SW/4 SE/4 OF  
SECTION 29, T30N, R8W, N.M.P.M.,  
SAN JUAN COUNTY, NEW MEXICO  
ELEVATION: 6174', NAVD 88



LATITUDE: 36°46'43"N 36.77861  
LONGITUDE: 107°41'40"W 107.69444  
DATUM: NAD 83



HORIZ. SCALE: 1"=50'  
VERT. SCALE: 1"=30'

## Operations Plan

December 20, 2005

### **Florance Gas Com F #1S**

#### **General Information**

|                     |   |
|---------------------|---|
| Location            | 1180' fsl, 1435' fel<br>swse S29, T30N, R08W<br>San Juan County, New Mexico |
| Elevations          | 6174' GL  |
| Total Depth         | 3081' (MD)  |
| Formation Objective | Basin Fruitland Coal  |

#### **Formation Tops**

|                    |              |
|--------------------|--------------|
| San Jose           | Surface      |
| Nacimiento         | 656'         |
| Ojo Alamo Ss       | 1736'        |
| Kirtland Sh        | 1906'        |
| Fruitland Fm       | 2546'        |
| Top Coal           | 2671'        |
| Bottom Coal        | 2881'        |
| Pictured Cliffs Ss | 2886'        |
| <b>Total Depth</b> | <b>3081'</b> |

#### **Drilling**

The 12 1/4" wellbore will be drilled with a fresh water mud system.

The 7 7/8" wellbore will be drilled with a low solids fresh water/polymer mud system. Weighting materials will be drill cuttings and if needed barite. Mud density is expected to range from 8.3 ppg to 8.9 ppg.

##### **Blowout Control Specifications:**

A 2000 psi minimum double ram or annulus BOP stack (figure 1) will be used following nipple up of casing head. A 2" nominal, 2000 psi minimum choke manifold will also be used. An upper Kelly Cock valve handle and drill string valve should be available to fit each drill string and be available on the rig floor during drilling operations.

##### **Logging Program:**

Open hole logs: Induction/Gamma Ray and Density Logs

Coring: None

Surveys: Surface and/or every 500 ft to TD.

## Tubulars

### Casing, Tubing, & Casing Equipment:

| String     | Interval   | Wellbore | Casing | Csg Wt   | Grade     |
|------------|------------|----------|--------|----------|-----------|
| Surface    | 0'-300'    | 12 ¼"    | 8 5/8" | 24.0 ppf | J-55 ST&C |
| Production | 300'-3081' | 7 7/8"   | 5 ½"   | 15.5 ppf | J-55 LT&C |
| Tubing     | 0'-3030'   |          | 2 3/8" | 4.7 ppf  | J-55      |

### Casing Equipment:

Surface Casing: Depending on wellbore conditions, a Texas Pattern Guide Shoe on bottom. Casing centralization with standard bow spring centralizers to achieve optimal standoff.

Production Casing: Depending on wellbore conditions, a Cement nose guide shoe with self fill insert float collar on top of bottom joint and casing centralization with standard bow spring centralizers to optimize standoff. Two turbolating centralizers at the base of the Ojo Alamo are recommended.

## Wellhead

8 5/8" 2000 x 5 ½" Larkin casing head. 5 ½" 2000 x 2" tubing head.

## Cementing

Surface Casing: 225 sks Std (class B) with 2.0 % CaCl<sub>2</sub> and ¼ #/sk Flocele (15.6 ppg, 1.18 ft<sup>3</sup>/sk 266 ft<sup>3</sup> of slurry, 100% excess to circulate to surface). WOC 12 hours. Pressure test surface casing to 1000 psi for 30 min.

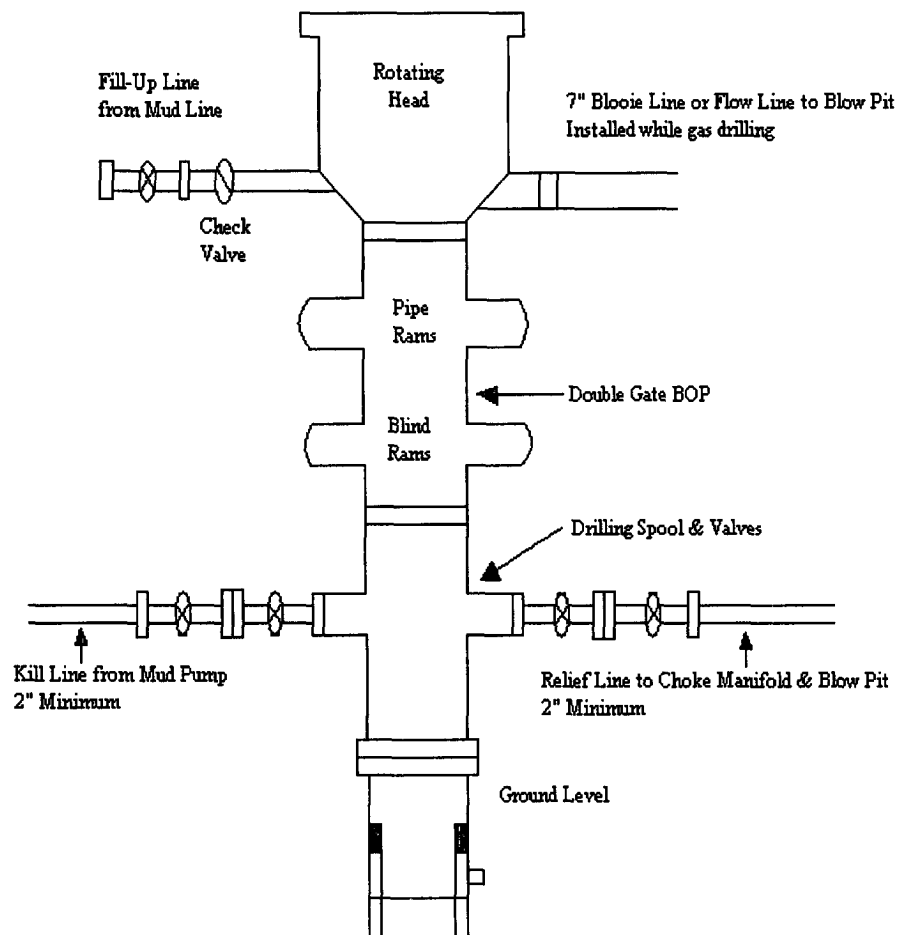
Production Casing: Before cementing, circulate hole at least 1 ½ hole volumes of mud and reduce funnel viscosity to minimum to aide in hole cleanout. Depending on wellbore conditions, cement may consist of 460 sks 65/35 with 6.0 % Bentonite, 2.0 % CaCl<sub>2</sub>, 10 #/sk Gilsonite, and ½ #/sk Flocele (12.3 ppg, 1.96 ft<sup>3</sup>/sk) and a tail of 145 sks of Standard (Class B) cement with 5.0 #/sk Gilsonite, and ¼ #/sk Flocele (15.2ppg, 1.24 ft<sup>3</sup>/sk). (1081 ft<sup>3</sup> of slurry, 100 % excess to circulate to surface).

## Other Information

- 1) This well will be cased and the Basin Fruitland Coal fracture stimulated.
- 2) If lost circulation is encountered, sufficient LCM will be added to the mud system to maintain well control. The production string may need to be cemented in multiple stages with a slurry design deviated from that listed above.
- 3) If high reservoir pressures or water flows are encountered slurry design may need to be deviated to from those listed above to satisfy wellbore and formation conditions.
- 4) No abnormal temperatures or pressures are anticipated.
- 5) This gas is dedicated.

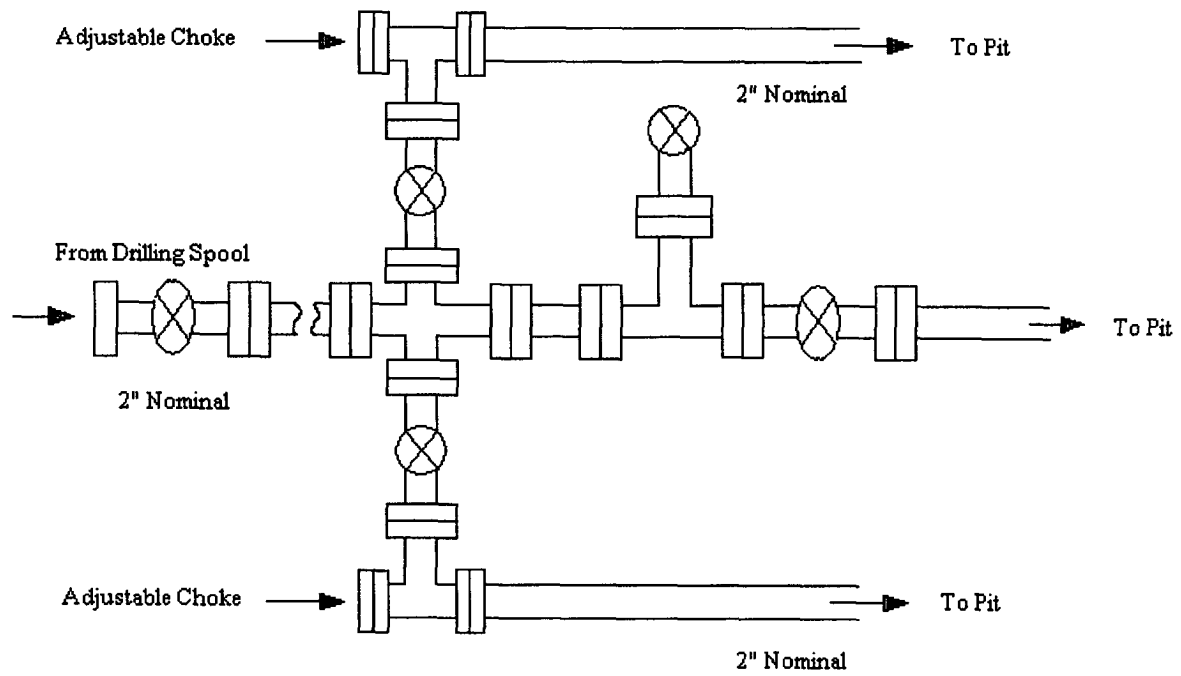
## Energen Resources Corporation

### Typical BOP Configuration for Gas Drilling



## Energen Resources Corporation

### Typical 2000 psi Choke Manifold Configuration



Choke manifold installed from surface to TD