

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB NO. 1004-0137
Expires March 31, 2007
RCVD JAN 25 '07
OIL CONS. DIV.
DIST. 3

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. SF-078937
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 type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name C 20
2. Name of Operator Energen Resources Corporation		7. Unit or CA Agreement Name and No.
3a. Address 2198 Bloomfield Hwy Farmington, NM 87401	3b. Phone No. (include area code) 505.325.6800	8. Lease Name and Well No. PL Davis #4F
4. Location of Well (Report location clearly and in accordance with any State requirements)* At surface 1580' fnl, 2140' fel At proposed prod. zone		9. API Well No. 30-045-34112
14. Distance in miles and direction from nearest town or post office* Approximately 18.1 miles south of Bloomfield		10. Field and Pool, or Exploratory Basin Dakota
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drg. unit line, if any) 1580'		11. Sec., T., R., M., or Blk. and Survey or Area (G) S35, T26N, R11W
16. No. of Acres in lease 2560		12. County or Parish San Juan
17. Spacing Unit dedicated to this well 320 N/2		13. State NM
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 1600'		20. BLM/BIA Bond No. on file
19. Proposed Depth 6274'		21. Elevations (Show whether DF, KDB, RT, GL, etc.) 6332' GL
22. Approximate date work will start* 2/15/06		23. Estimated duration 25 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) Nathan Smith	Date 12/13/06
-------------------	--------------------------------------	------------------

Approved by (Signature) 	Name (Printed/Typed) AFM	Date 1/24/07
Title AFM	Office PFO	

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. Min. ROPE testing requirement: 750^{ft}

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)

NOTIFY AZTEC OGD
IN TIME TO WITNESS24hrs
CSG Element

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 October 12, 2005
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-045-34112	² Pool Code 71599	³ Pool Name Basin Dakota
⁴ Property Code 81901	⁵ Property Name PL DAVIS	⁶ Well Number # 4F
⁷ OGRID No. 162928	⁸ Operator Name ENERGEN RESOURCES CORPORATION	⁹ Elevation 6332'

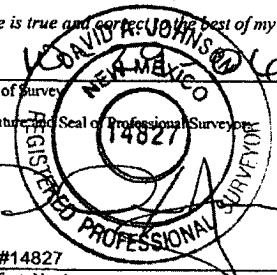
¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
G	35	26N	11W		1580	NORTH	2140	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
¹² Dedicated Acres N/2	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ 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 FD. 2 1/2" BRASS CAP GLO 1930 2643.30' (R) NORTH 2641.32' (R) N00°09'00"E	FD. 2 1/2" BRASS CAP GLO 1930 2630.84' (M) N89°56'21"E 2632.74' (R)	1580' N36.4475° W 107.97194°	FD. 2 1/2" BRASS CAP GLO 1930 2633.40' (R) N89°54'00"W 2631.25' (M)	¹⁷ 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: <i>Nathan Smith</i> Date: 12/12/06 Printed Name: Nathan Smith	
			2140'	2637.69' (M) 2641.32' (R) S00°03'29"E N00°04'00"W	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. Date of Survey: _____ Signature and Seal of Professional Surveyor:  NM #14827 Certificate Number

N89°38'00"W 2632.74' (R) S89°56'00"W 2643.96' (R)

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>30-045-34112</u>	
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: <u>PL Davis</u>	
8. Well Number <u>#4F</u>	
9. OGRID Number <u>162928</u>	
10. Pool name or Wildcat <u>Basin Dakota</u>	

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 <u>Energen Resources Corporation</u>	
3. Address of Operator <u>2198 Bloomfield Hwy Farmington, NM 87401</u>	
4. Well Location Unit Letter <u>G</u> : <u>1580</u> feet from the <u>North</u> line and <u>2140</u> feet from the <u>East</u> line Section <u>35</u> Township <u>26N</u> Range <u>11W</u> NMPM County <u>San Juan</u>	
11. Elevation (Show whether DR, RKB, RT, GR, etc.) <u>6332' GL</u>	
Pit or Below-grade Tank Application <input checked="" type="checkbox"/> or Closure <input type="checkbox"/>	
Pit type <u>Drill</u> Depth to Groundwater <u>>200'</u> Distance from nearest fresh water well <u>1000'</u> Distance from nearest surface water <u>>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 a 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 in accordance with 'OCD Pit and Below Grade Tank Guidelines' issued on November 1, 2004 and also plans to submit a C-144 for the closure of such 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 12/13/06
Type or print name Nathan Smith E-mail address: nsmith@energen.com
Telephone No. 505.326.6800

For State Use Only

APPROVED BY [Signature] TITLE DEPUTY OIL & GAS INSPECTOR, DIST. #4 DATE JAN 31 2007
Conditions of Approval, if any:

ENERGEN RESOURCES CORPORATION

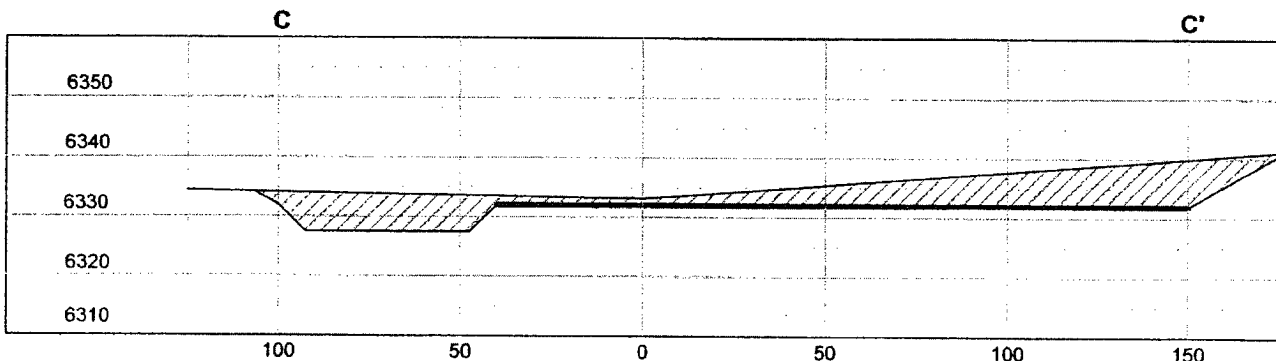
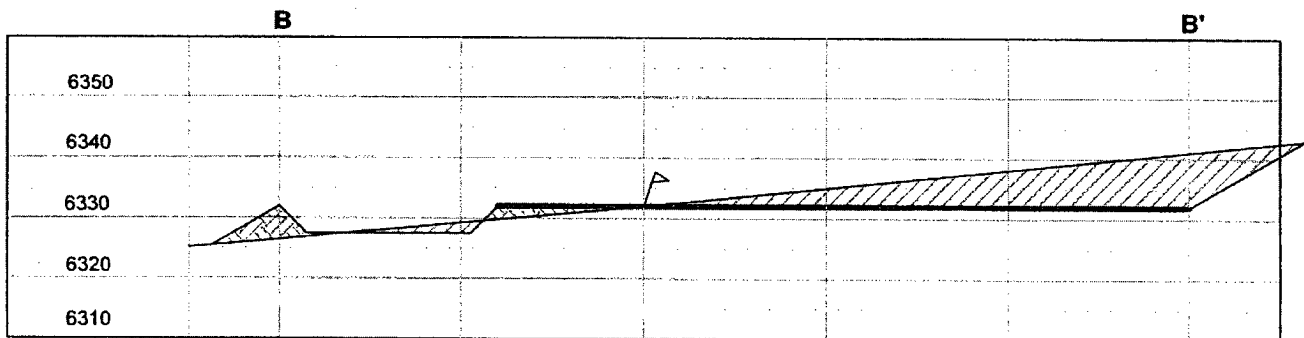
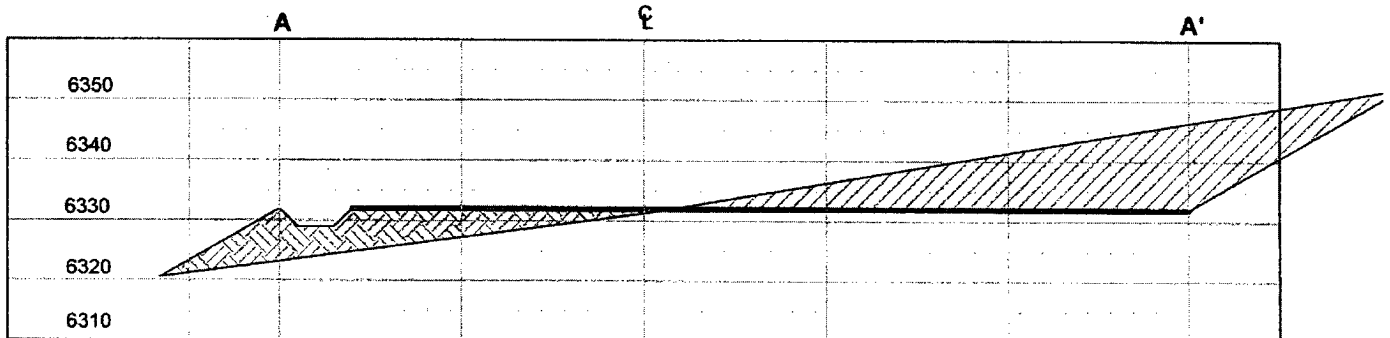
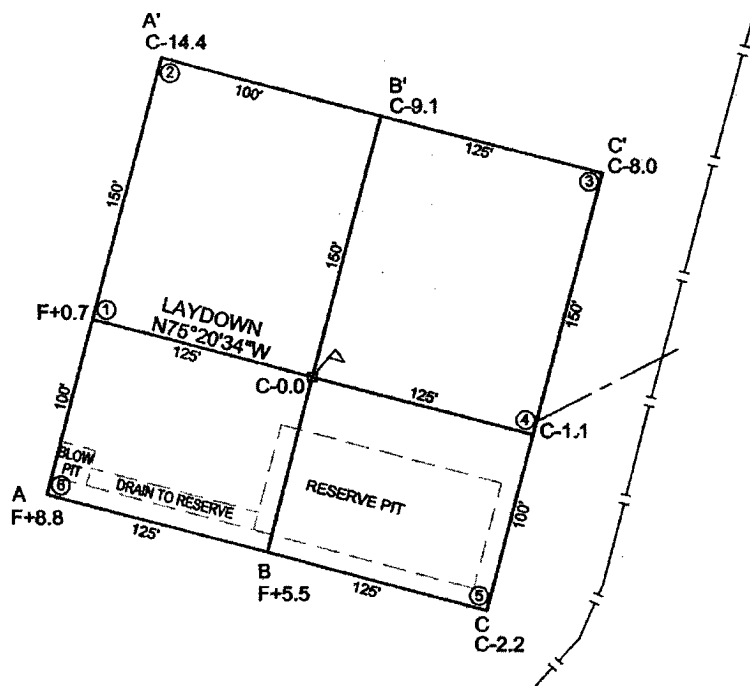
PL DAVIS #4F
1580' FNL & 2140' FEL
LOCATED IN THE SW/4 NE/4 OF SECTION 35,
T26N, R11W, N.M.P.M.,
SAN JUAN COUNTY, NEW MEXICO
ELEVATION: 6332', NAVD 88



50' 0 50' 100'

Scale: 1"=100'

LATITUDE: 36°26'51"N
LONGITUDE: 107°58'19"W
DATUM: NAD 83



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

Red Skies Surveying & Mapping, Inc.

A Native American Owned Company
101 Fauver Lane, Bloomfield, New Mexico 87413
Phone/Fax: (505) 632-8906 Cell No: (505) 793-5325

Operations Plan

November 9, 2006

PL Davis #4F

2006 DEC 14 AM 5 30

General Information

Location

1580' fnl, 2140' fel
 swne S35, T26N, R11W
 San Juan County, New Mexico

Elevations

6332' GL

Total Depth

6274' (MD)

Formation Objective

Basin Dakota

Formation Tops

Nacimiento	Surface	Menefee Fm	3089'
Ojo Alamo Ss	519'	Point Lookout Ss	3964'
Kirtland Sh	604'	Mancos Shale	4254'
Fruitland Fm	1219'	Graneros Shale	5954'
Top Coal	1274'	Dakota "Twowells" Ss	6019'
Bottom Coal	1489'	Dakota "Paguete" Ss	6064'
Pictured Cliffs Ss	1504'	Dakota "Cubero" Ss	6109'
Lewis Shale	1679'	Dakota "Oak Canyon" Ss	6209'
Cliffhouse Ss	3069'	Dakota "Encinal Cyn" Ss	6224'
		Total Depth	6274'

Drilling

The 12 ¼" wellbore will be drilled with a fresh water mud system.

The 6 ¼" wellbore will be drilled with a low solids non-dispersed fresh water mud system. Weighting materials will be drill cuttings. 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: From Surface to TD – Temp / HRI / CNT, LDT / GR

Surveys: Surface and/or every 500' to TD

Tubulars

Casing, Tubing, & Casing Equipment:

String	Interval	Wellbore	Casing	Csg Wt	Grade
Surface	0'- 400 320	12 ¼"	9 5/8"	32.3 ppf	H-40 ST&C
Production	0'-6274'	6 ¼"	4 ½"	11.6 ppf	J-55 LT&C
Tubing	0'-6200'		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 on bottom with self fill insert float collar on top of shoe joint and casing centralization with standard bow spring centralizers to optimize standoff. If multistage cementing is required, DV tool(s) will be placed based on formation characteristics.

Cementing

Surface Casing: 125 sks Type V cement with 2.0 % CaCl_2 and $\frac{1}{4}$ #/sk Flocele (15.4 ppg, 1.23 ft³/sk 154 ft³ of slurry, 100% excess to circulate to surface). WOC 12 hours. Pressure test surface casing to 1000 psi for 30 min.

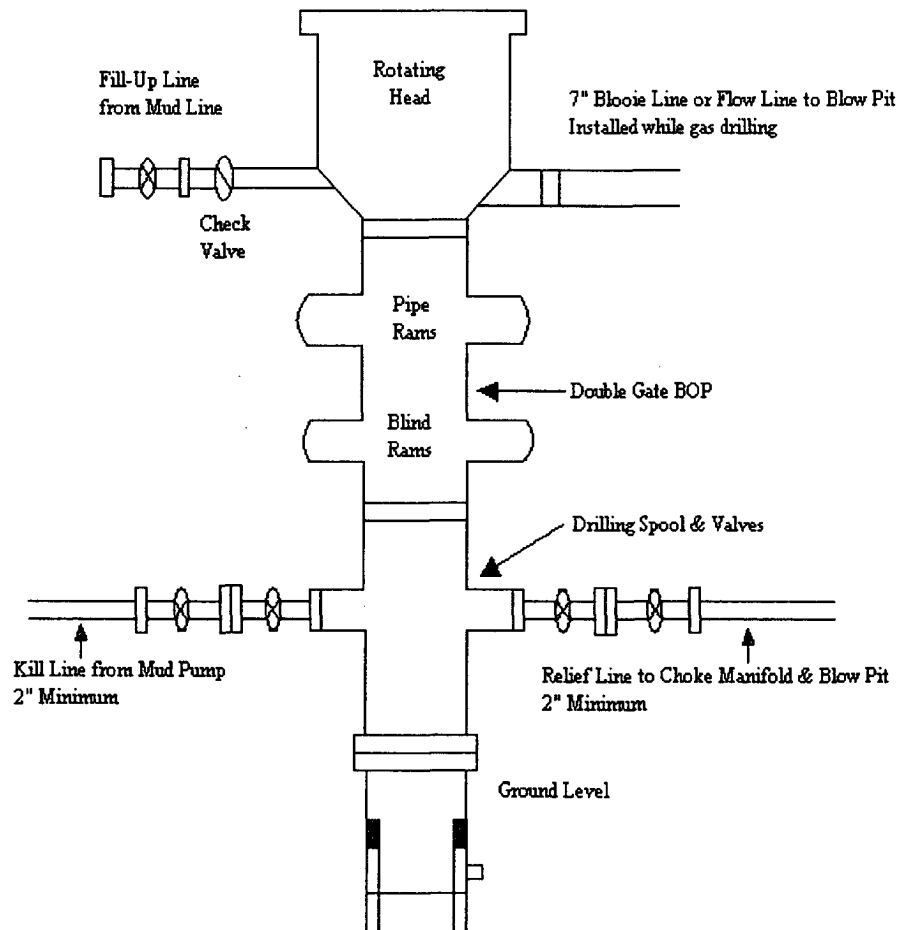
Production Casing: Before cementing, circulate hole at least 1 ½ hole volumes of mud and reduce funnel viscosity to minimum to aide in hole cleanout. Depending on wellbore conditions, cement may consist a lead of 500 sks 65/35 Type V with 6.0 % Bentonite, 2.0 % CaCl_2 , 10 #/sk Gilsonite, and $\frac{1}{4}$ #/sk Flocele (12.3 ppg, 1.93 ft³/sk) followed by a tail of 250 sks 50/50 Type V with 2.0 % Bentonite, 0.80 % Halad-9, 0.10 % CFR-3, 5.0 #/sk Gilsonite, $\frac{1}{4}$ #/sk Flocele (13.5 ppg, 1.30 ft³/sk). (1290 ft³ of slurry, 100 % excess to circulate to surface).

Other Information

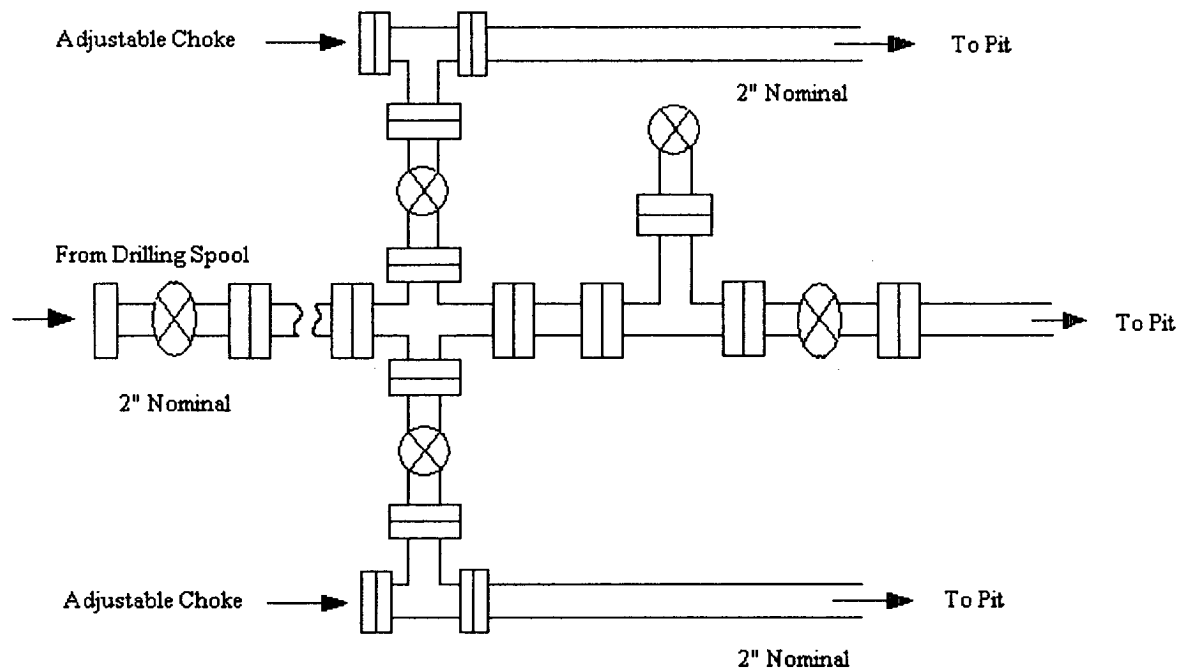
- 1) This well will be cased and the Basin Dakota fracture stimulated.
- 2) If lost circulation is encountered, sufficient LCM will be added to the mud system to maintain well control. The production string may need to be cemented in multiple stages with a slurry design deviated from that listed above.
- 3) No abnormal temperatures or pressures are anticipated.
- 4) 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