

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB NO. 1004-0137
Expires March 31, 2007

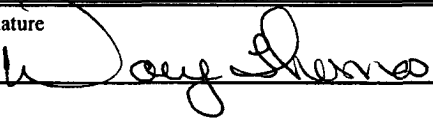
APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. USA SF 078132
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
2. Name of Operator Energen Resources Corporation		7. Unit or CA Agreement Name and No.
3a. Address 2198 Bloomfield Highway Farmington, New Mexico 87401		8. Lease Name and Well No. Federal 29-9-14 #2S
3b. Phone No. (include area code) (505) 325-6800		9. API Well No. 30045 32803
4. Location of Well (Report location clearly and in accordance with any State requirements)* At surface 1920' FSL 660' FEL At proposed prod. zone		10. Field and Pool, or Exploratory Basin Fruitland Coal
14. Distance in miles and direction from nearest town or post office* Approximately 5 miles east of Blanco, NM		11. Sec., T., R., M., or Blk. and Survey or Area I-Sec. 14, T29N, R09W NMEM
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drg. unit line, if any) 660'	16. No. of Acres in lease 2372.88	17. Spacing Unit dedicated to this well 305.51 s 1/2
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 1000'	19. Proposed Depth 3191'	20. BLM/BIA Bond No. on file
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 6414'	22. Approximate date work will start* 04/05	23. Estimated duration 15 days

24. Attachments

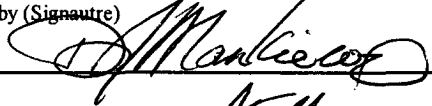
The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form:

- | | |
|---|--|
| 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) Doug Thomas	Date 12/29/04
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Title

Drilling Superintendent

Approved by (Signature) 	Name (Printed/Typed) AFM	Date 5-6-05
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Title

Office

FFO

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)



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

District II
PO Drawer 00, Artesia, NM 88211-0719

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

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

State of New Mexico
Energy, Minerals & Natural Resources Department

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

Form C-102
Revised February 21, 1994

Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

2004 DEC 30 PM 1 36

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-045-32803	*Pool Code 71629	*Pool Name BASIN FRUITLAND COAL
*Property Code 300444	*Property Name FEDERAL 29-9-14	*Well Number 2S
*GRID No. 162928	*Operator Name ENERGEN RESOURCES CORPORATION	*Elevation 6414'

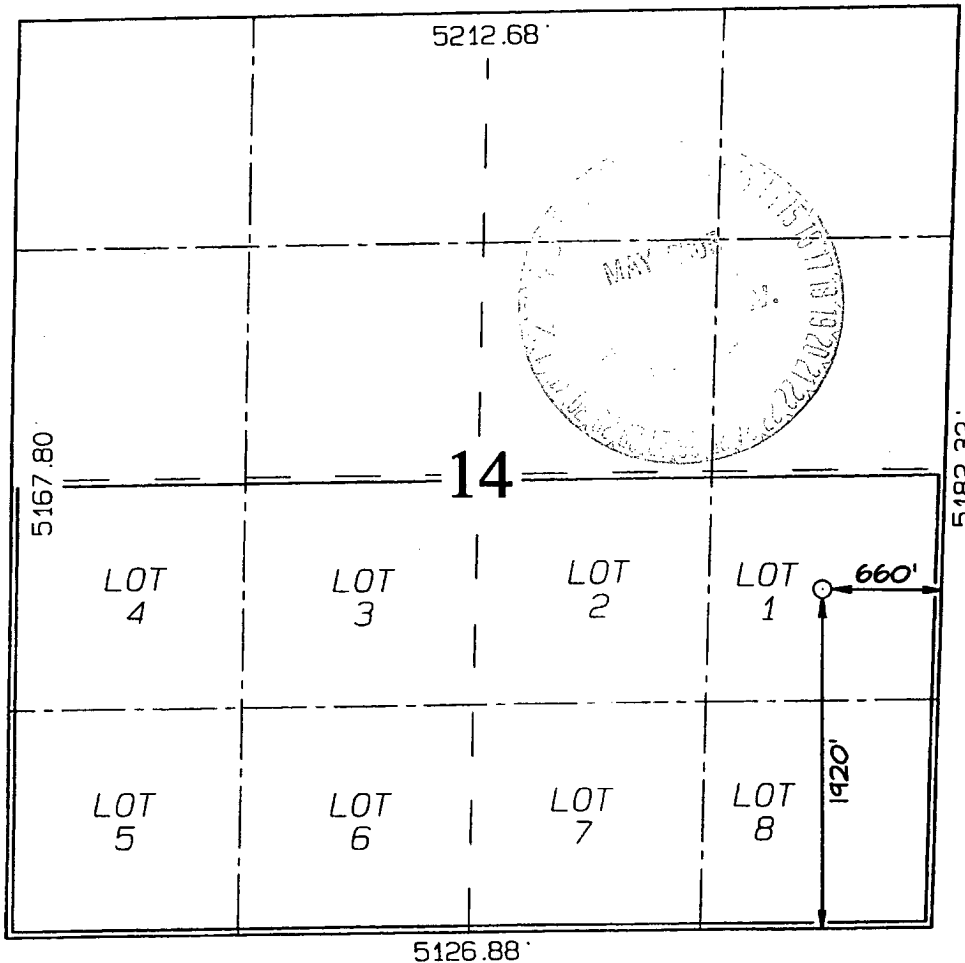
¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
I	14	29N	9W		1920	SOUTH	660	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 305.51 Acres - (S/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



¹⁷ OPERATOR CERTIFICATION

I hereby certify that the information
contained herein is true and complete
to the best of my knowledge and belief

Signature

Doug Thomas

Printed Name

Drilling Superintendant

Title

12-29-04

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.

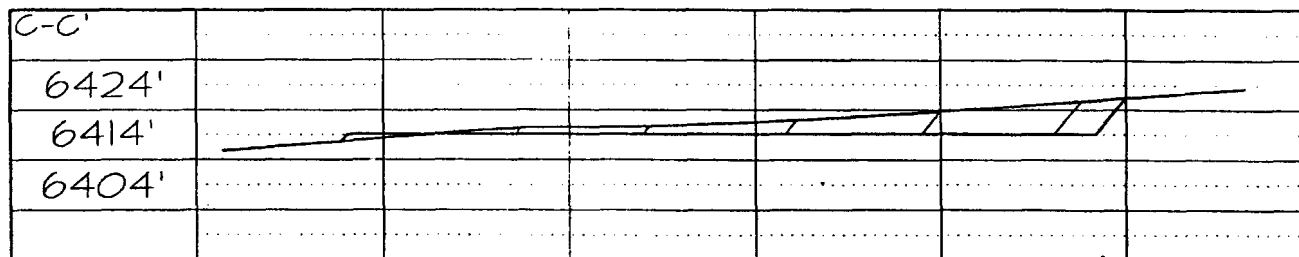
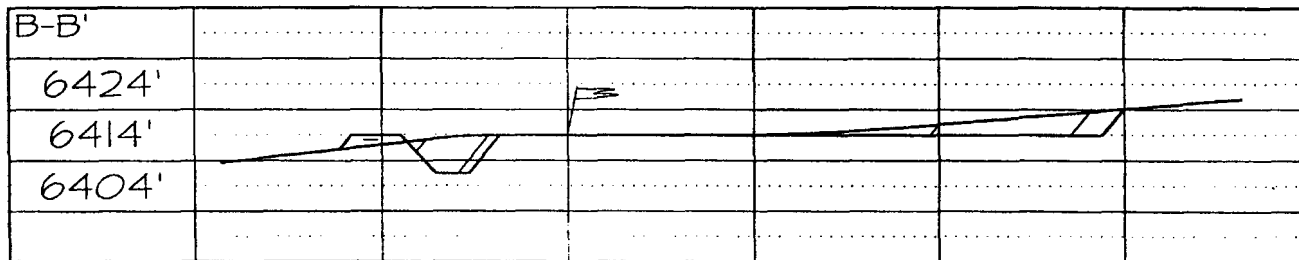
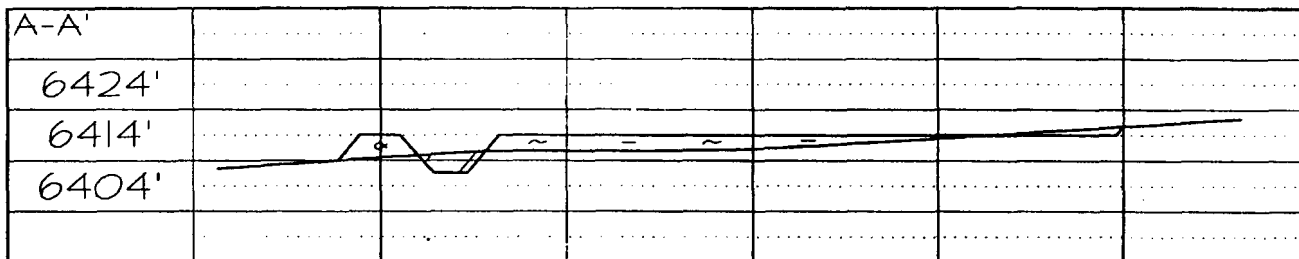
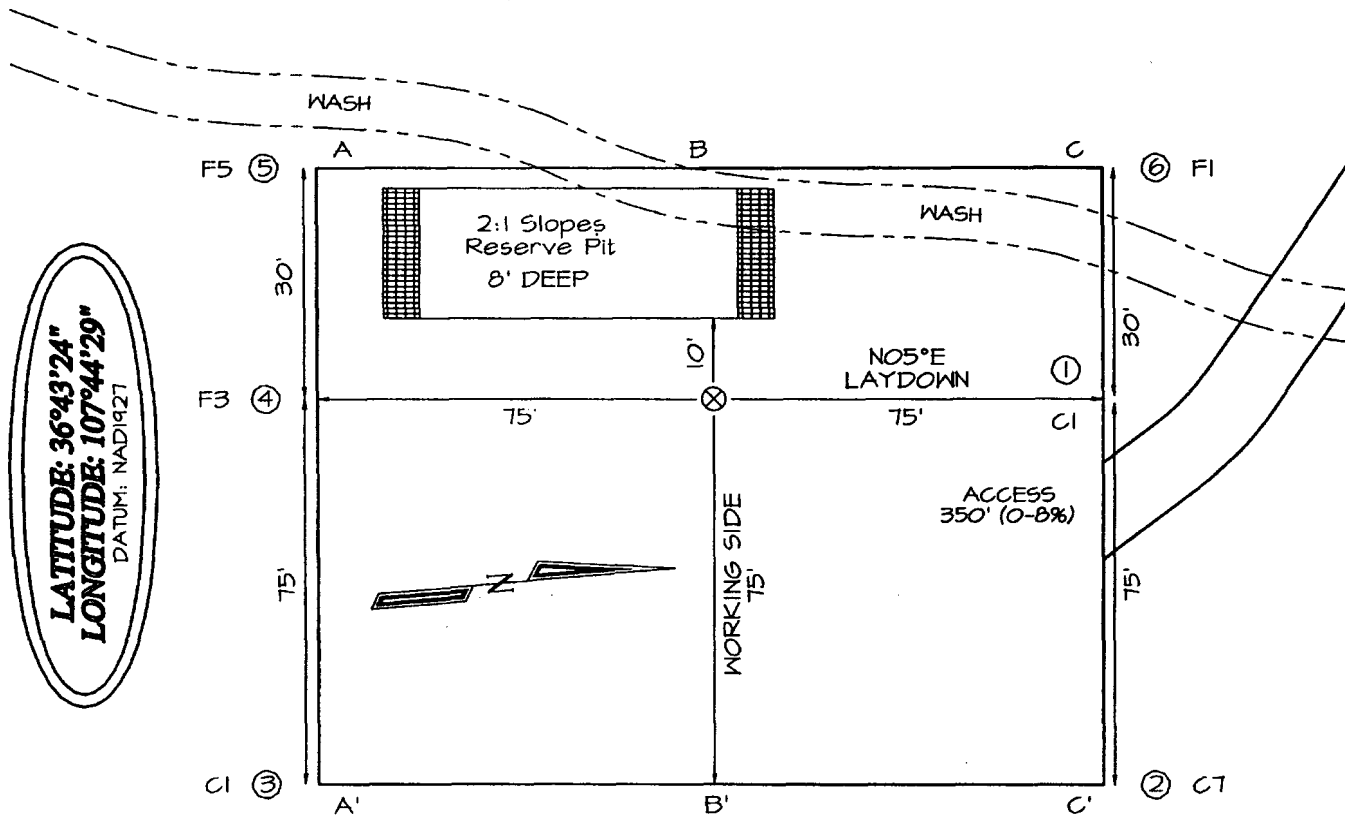
Survey Date: OCTOBER 28, 2004

Signature and Seal of Professional Surveyor



JASON C. EDWARDS
Certificate Number 15269

**ENERGEN RESOURCES CORPORATION FEDERAL 29-9-14 #2S
1920' FSL & 660' FEL, SECTION 14, T29N, R9W, NMPM
SAN JUAN COUNTY, NEW MEXICO GROUND ELEVATION: 6414'**



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

Operations Plan
December 27, 2004

Federal 29-9-14 #2S

General Information

Location	1920' fsl, 0660' fel nese S14, T29N, R9W San Juan County, New Mexico
Elevations	6414' GL
Total Depth	3191' (MD)
Formation Objective	Basin Fruitland Coal

Formation Tops

San Jose	Surface
Nacimiento	511'
Ojo Alamo Ss	1861'
Kirtland Sh	2031'
Fruitland Fm	2681'
Top Coal	2841'
Bottom Coal	2991'
Pictured Cliffs Ss	2996'
Total Depth	3191'



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

Natural Gauges: None

Tubulars

Casing, Tubing, & Casing Equipment:

String	Interval	Wellbore	Casing	Csg Wt	Grade
Surface	0'-300'	12 1/4"	8 5/8"	24.0 ppf	J-55 ST&C
Production	300'-3191'	7 7/8"	5 1/2"	15.5 ppf	J-55 LT&C
Tubing	0'-3150'		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 bas of the Ojo Alamo are recommended.

Wellhead

8 5/8" 2000 x 5 1/2" Larkin casing head. 5 1/2" 2000 x 2" tubing head.

Cementing

Surface Casing: 225 sks Std (class B) with 2.0 % CaCl₂ and 1/4 #/sk Flocele (15.6 ppg, 1.18 ft³/sk 247 ft³ of slurry, 100% excess to circulate to surface). WOC 12 hours. Pressure test surface casing to 1000 psi for 30 min.

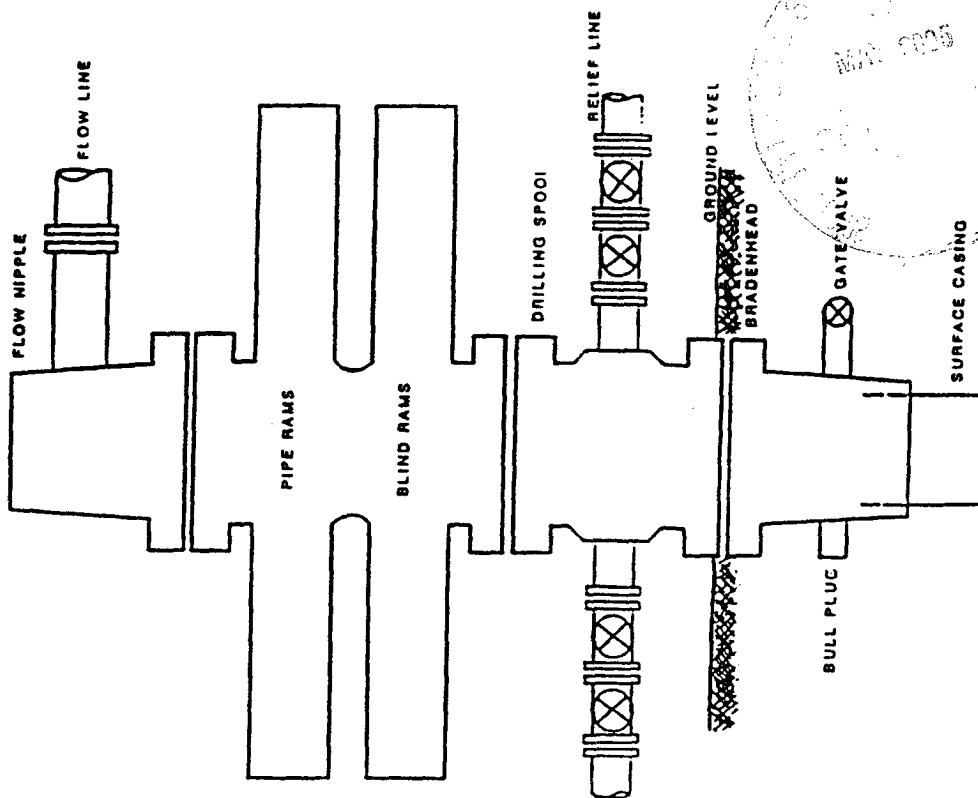
Production Casing: Before cementing, circulate hole at least 1 1/2 hole volumes of mud and reduce funnel viscosity to minimum to aide in hole cleanout. Depending on wellbore conditions, cement may consist of 475 sks 65/35 with 6.0 % Bentonite, 2.0 % CaCl₂, 10 #/sk Gilsonite, and 1/2 #/sk Flocele (12.3 ppg, 1.96 ft³/sk) and a tail of 145 sks of Standard (Class B) cement with 5.0 #/sk Gilsonite, and 1/4 #/sk Flocele (15.2ppg, 1.24 ft³/sk). (1106 ft³ 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.

Figure #1

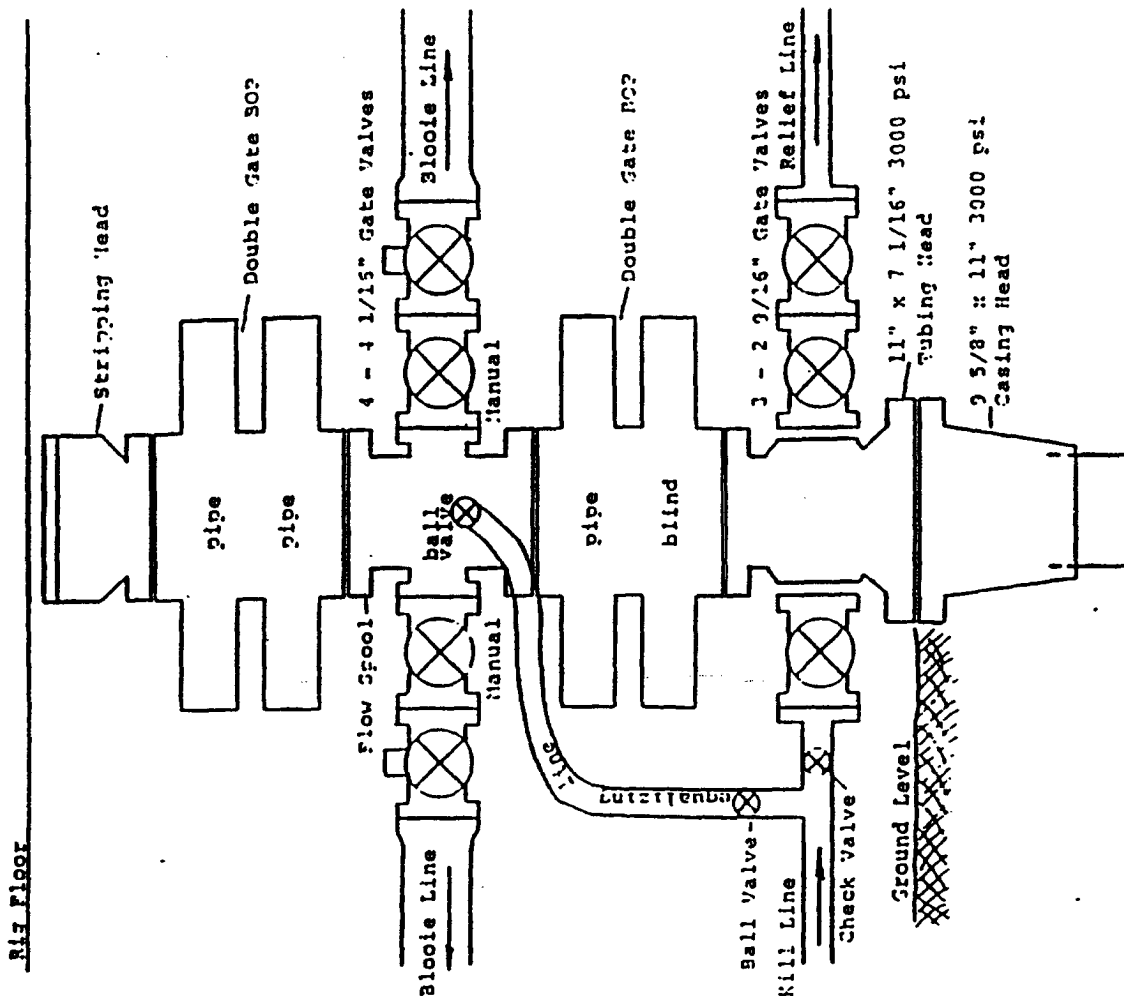
TYPICAL B.O.P.E. INSTALLATION
FOR A FRUITLAND COAL WELL
(to intermediate TD)



Series 900 double gate BOP
Rated at 3000 psi working pressure

Figure #2

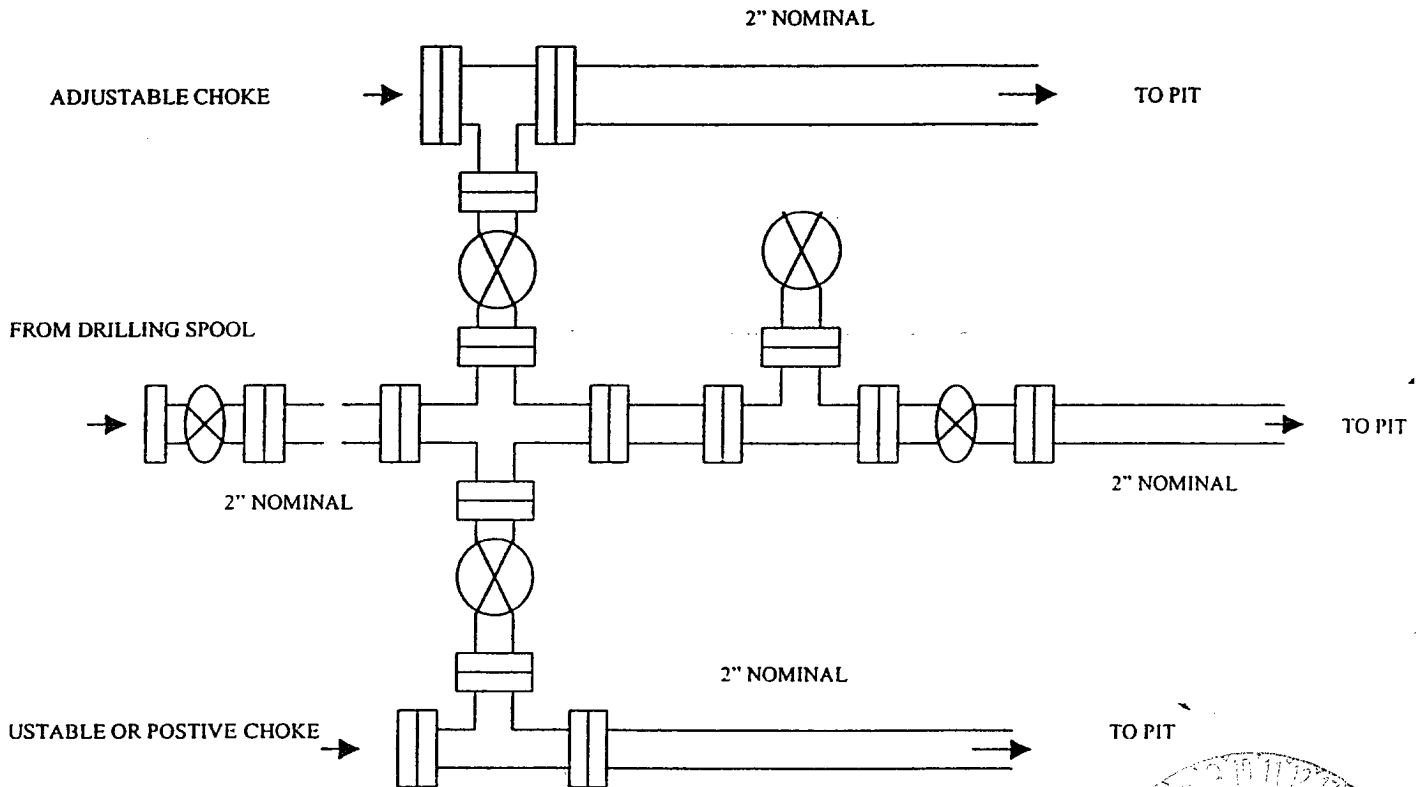
FRUITLAND COAL WELL
TYPICAL BOP CONFIGURATION
7 1/16" 3000 psi (minimum) BOP STACK
(from intermediate to total depth)



ENERGEN RESOURCES CORPORATION

Choke Manifold Configuration

2M psi System



Minimum choke manifold installation from surface to Total Depth.
2" minimum, 2000 psi working pressure equipment with two chokes.