

Form 3160-3  
(August 1999)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work: ☒ DRILL ☐ REENTER

b. Type of Well: ☐ Oil Well ☒ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone

2. Name of Operator

ENERGEN RESOURCES CORPORATION

3a. Address

c/o Walsh Engineering, 7415 E. Main, Farmington, NM 87402

3b. Phone No. (include area code)

(505) 327-4892

4. Location of Well (Report location clearly and in accordance with any State requirements. \*)

At surface 850' FNL and 1830' FWL

At proposed prod. Zone

14. Distance in miles and direction from nearest town or post office\*

9 miles south of Farmington, NM

15. Distance from proposed\*

location to nearest  
property or lease line, ft.  
(Also to nearest drig. unit line, if any)

750'

16. No. of Acres in lease

320+

17. Spacing Unit dedicated to this well

320.22

320 acres (West half)

18. Distance from proposed location\*  
to nearest well, drilling, completed,  
applied for, on this lease, ft.

800'

19. Proposed Depth

1730 +/-

20. BLM/BIA Bond No. on file

21. Elevations (Show whether DF, KDB, RT, GL, etc.)

5875' GL

22. Approximate date work will start\*

December 15, 2003

23. Estimated duration

1 week

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.
2. A Drilling Plan.
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.

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 authorized office.

SEE ATTACHED FOR  
CONDITIONS OF APPROVAL

25. Signature

Paul C. Thompson

Name (Printed/Typed)

Paul C. Thompson, P.E.

Date

9/23/03

Title

Agent

Approved by (Signature)

D. Mankiewicz  
AFM

Name (Printed/Typed)

Office

FFO

Date

5-23-05

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 reverse)

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

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

NMOC  
FARMINGTON

NM 2707  
NW

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

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

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

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

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

☐ AMENDED REPORT

## WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-045-31910	*Pool Code 71629	*Pool Name BASIN FRUITLAND COAL
*Property Code 21418	*Property Name THOMPSON C	*Well Number 7S
*OGRID No. 162928	*Operator Name ENERGEN RESOURCES CORPORATION	*Elevation 5875'

<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
C	3	27N	12W		850	NORTH	1830	WEST	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					<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.		
320.22 Acres - (W/2)					Y				

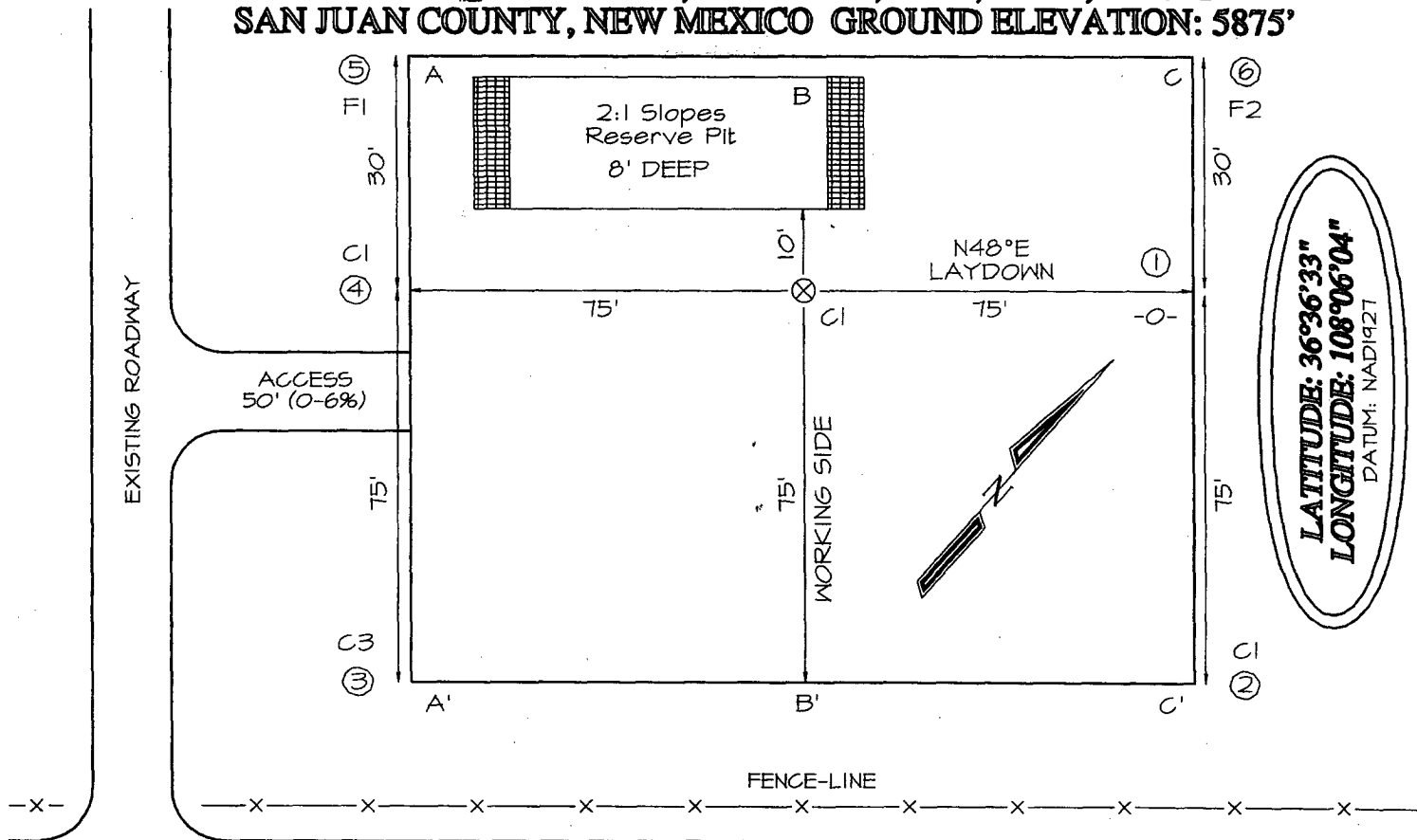
NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED  
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

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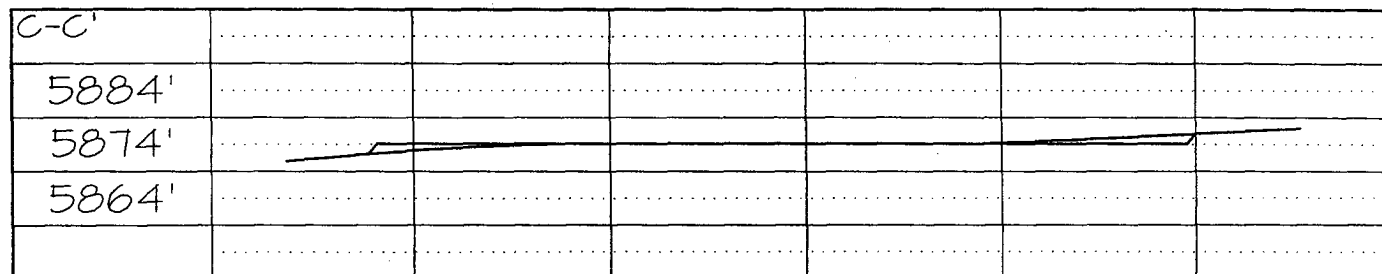
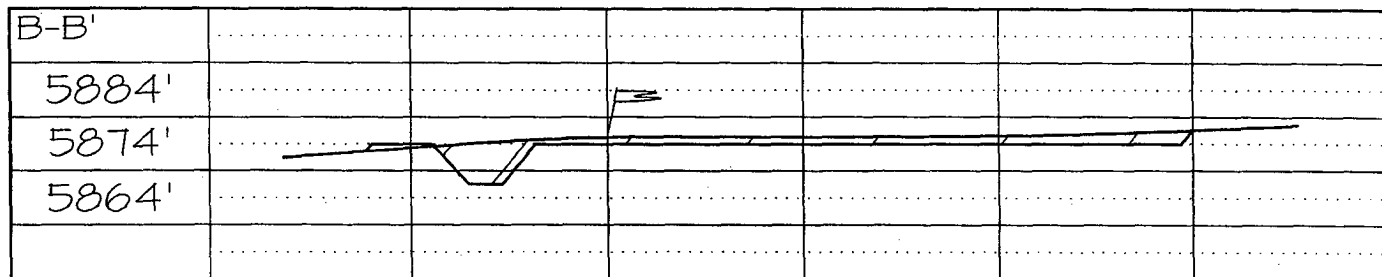
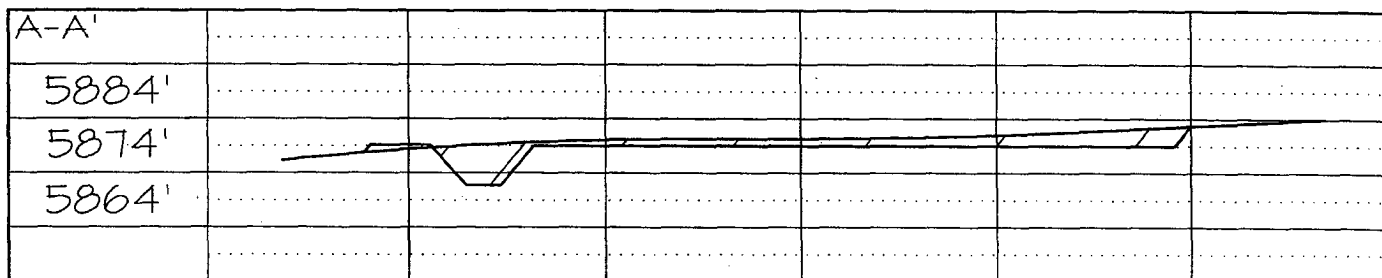
<p>LOT 4 40.12 1830'</p> <p>LOT 3 40.10</p> <p>LOT 2</p> <p>LOT 1</p> <p>5280.00'</p> <p>1323.96'</p> <p>850'</p> <p>FC</p> <p>3</p> <p>PC</p> <p>DK</p> <p>070 FARMINGTON, NM</p> <p>2003 SEP 24 AM 11:04</p> <p>RECEIVED DK</p> <p>2640.00'</p> <p>5278.68'</p>	<p><b>17 OPERATOR CERTIFICATION</b></p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief</p> <p><u>Paul C. Thompson</u> Signature</p> <p><u>PAUL C. THOMPSON</u> Printed Name</p> <p><u>AGENT</u> Title</p> <p><u>9/23/03</u> Date</p>
	<p><b>18 SURVEYOR CERTIFICATION</b></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: <u>APRIL 25, 2003</u></p> <p>Signature and Seal of Professional Surveyor</p> <p></p> <p><u>JASON C. EDWARDS</u> Certificate Number 15269</p>

**ENERGEN RESOURCES CORPORATION THOMPSON C #7S**  
**850' FNL & 1830' FWL, SECTION 3, T27N, R12W, NMPM**  
**SAN JUAN COUNTY, NEW MEXICO GROUND ELEVATION: 5875'**

PLAT #2



EXISTING BIA ROAD N-4043 (PAVED)



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

ENERGEN RESOURCES CORP.  
OPERATIONS PLAN  
Thompson C #7S

I. Location: 850' FNL & 1850 FWL Date: September 23, 2003  
Sec 3 T27N R12W  
San Juan County, NM

Field: Basin Fruitland Coal Elev: GL 5875'  
Surface: Navajo Tribal Trust/NAPI  
Minerals: Federal SF 078935

II. Geology: Surface formation \_ Nacimiento

A. Formation Tops	Depths
Ojo Alamo	312'
Kirtland	417'
Fruitland	1202'
Pictured Cliffs	1532'
Total Depth	1730'

Estimated depths of anticipated water, oil, gas, and other mineral bearing formations which are expected to be encountered:

Water and gas - 1202' and 1532'.

B. Logging Program: Induction/GR and density logs at TD.

C. No over pressured zones are expected in this well. No H<sub>2</sub>S zones will be penetrated in this well. Max. BHP = 600 psig.

III. Drilling

A. Contractor:

B. Mud Program:

The surface hole will be drilled with a fresh water mud.

The production hole will be drilled with a fresh water polymer mud. The weighting material will be drill solids or if conditions dictate, barite. The maximum mud weight expected is 8.5 ppg.

C. Minimum Blowout Control Specifications:

Double ram type or annular type 2000 psi working pressure BOP with a rotating head. See the attached exhibits #1 and #2 for details on the BOP equipment. All ram type preventers and related equipment will be hydraulically tested at nipple-up and after any use under pressure to 1000 psi.

C. Cont.

The blind rams will be hydraulically activated and checked for operational readiness each time pipe is pulled out of the hole. All checks of the BOP stack and equipment will be noted on the daily drilling report. The BOP equipment will include a kelly cock, floor safety valve, and choke manifold all rated to 2000 psi.

#### IV. Materials

##### A. Casing Program:

Hole Size	Depth	Casing Size	Wt. & Grade
8-3/4"	120'	7"	20# K-55
6-1/4"	1730'	4-1/2"	10.5# K-55

##### B. Float Equipment:

a) Surface Casing: None

b) Production Casing: 4-1/2" cement guide shoe and self fill insert float collar. Place float one joint above shoe. Five centralizers spaced every other joint above shoe and five turbolizers every other joint from the top of the well.

#### V. Cementing:

**Surface casing:** 7" - Use 50 sx (59 cu. ft.) of Cl "B" with ¼ #/sk celloflake and 2% CaCl<sub>2</sub> (Yield = 1.18 cu. ft./sk; slurry weight = 15.6 PPG). 100% excess to circulate cement to surface. WOC 12 hours. Pressure test surface casing to 600 psi for 30 min.

**Production Casing:** 4-1/2" - Before cementing circulate hole with at least 1-1/2 hole volumes of mud. Precede cement with 30 bbls of fresh water. **Lead** with 115 sx (237 cu.ft) of Cl "B" with 2% metasilicate and ¼ #/sk celloflake. (Yield = 2.06 cu.ft./sk; slurry weight = 12.5 PPG). **Tail** with 100 sx (118 cu.ft.) of Cl "B" with ¼ #/sk celloflake (Yield = 1.18 cu. ft./sk; slurry weight = 15.6 PPG). Total cement volume is 355 cu.ft. (100% excess to circulate cement to surface).

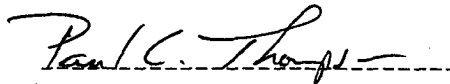
  
Paul C. Thompson, P.E.

EXHIBIT #1  
**Energen Resources, Inc.**

**Well Control Equipment Schematic for 2M Service**

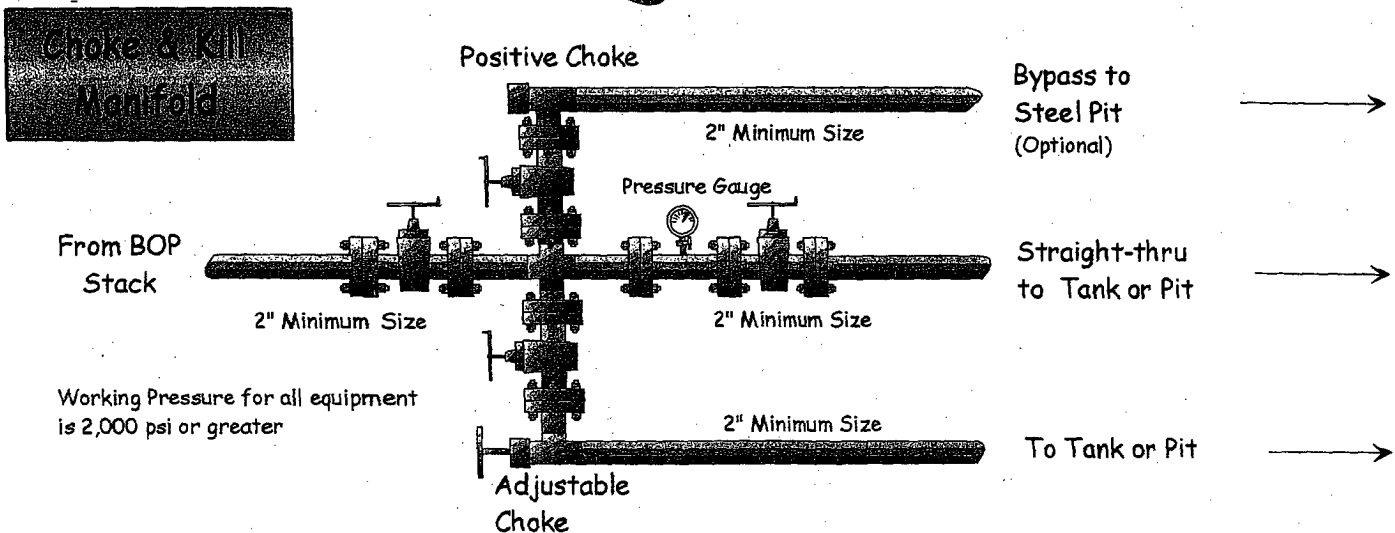
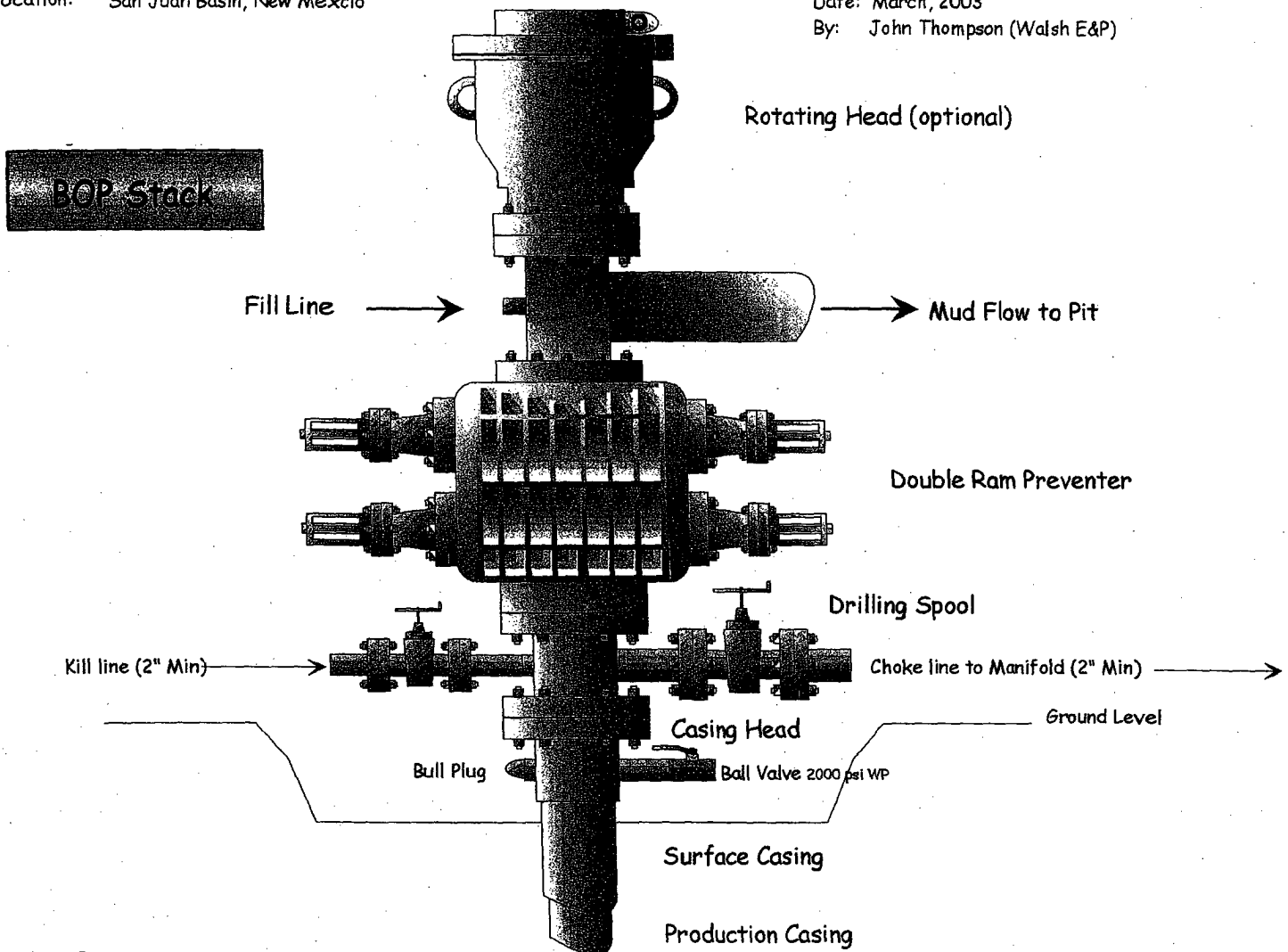
Attachment to Drilling Technical Program

**Typical BOP setup**

Location: San Juan Basin, New Mexico

Date: March, 2003

By: John Thompson (Walsh E&P)



## ANNULAR PREVENTER

