

SUBMIT IN TRIPLICATE*
(Other instructions on
reverse side)

FORM APPROVED
OMB 1004-0136
Expires: May 31, 2000

**UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT**

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/>		5. LEASE DESIGNATION AND SERIAL NO. SF 078464	
1b. TYPE OF WELL OIL <input type="checkbox"/> WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/> SINGLE ZONE <input type="checkbox"/> MULTIPLE ZONE <input checked="" type="checkbox"/>		6. IF INDIAN, ALLOTTEE OR TRIBE NAME	
2. NAME OF OPERATOR Cordillera Energy, Inc.		7. UNIT AGREEMENT NAME 24082	
3. ADDRESS OF OPERATOR c/o Walsh Engineering, 7415 E. Main St. Farmington, NM 87402 (505) 327-4892		8. FARM OR LEASE NAME, WELL NO. Williams #1C	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. *) At Surface 2020' FNL and 820' FWL SWNW At proposed Prod. Zone Same		9. API WELL NO. 30-045-31070	
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* 6 miles northwest of Aztec, NM		10. FIELD AND POOL OR WILDCAT Blanco Mesa Verde/ Basin Dakota	
15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 820'		11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Sec. 24, T31N, R13W	
16. NO. OF ACRES IN LEASE 320+		12. COUNTY OR PARISH San Juan	
17. NO. OF ACRES ASSIGNED TO THIS WELL N/2 320 acres		13. STATE NM	
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR ON THIS LEASE, FT. 1320'		19. PROPOSED DEPTH 6890'	
20. ROTARY OR CABLE TOOLS Rotary		21. ELEVATIONS (Show whether DF, RT, GR, etc.) 5800' GR	
22. APPROX. DATE WORK WILL START* May 2002			

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	9-5/8"	36# J-55	250' +/-	165 cu.ft. CI "B" w/ 2% CaCl ₂
8-3/4"	7"	20# J-55	3965' +/-	1055 cu.ft. lead & 139 cu.ft. tail
6-1/4"	4-1/2"	11.6#, N-80	6890' +/-	337 cu.ft. lead & 196 cu.ft. tail

Cordillera Energy, Inc. proposes to drill a vertical well to develop the Blanco Mesa Verde and Basin Dakota formations at the above described location in accordance with the attached drilling and surface use plans.

This location has been archaeologically surveyed by La Plata Archeological Service. Copies of their report have been submitted directly to your office.

The wellpad, access road, and pipeline will be located on BLM surface land. An on-site inspection was held with the BLM on 3/5/02.

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

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone.
If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout prevention program, if any.

24. SIGNED <u>Paul C. Thompson</u> TITLE <u>Paul Thompson, Agent</u> DATE <u>4/13/02</u>	
(This space for Federal or State office use)	
PERMIT NO. _____	APPROVAL DATE <u>5/23/02</u>
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:	
APPROVED BY <u>Is/ David J. Mankiewicz</u>	DATE <u>4/13/02</u>

***See Instructions On Reverse Side**

Title 18 U.S.C. Section 1001, makes 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.

PHOTO

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-045-31070		*Pool Code 72319 \ 71599	*Pool Name BLANCO MESAVERDE \ BASIN DAKOTA
*Property Code 24082	*Property Name WILLIAMS		*Well Number 1C
*GRID No. 173252	*Operator Name CORDILLERA ENERGY, INC.		*Elevation 5800'

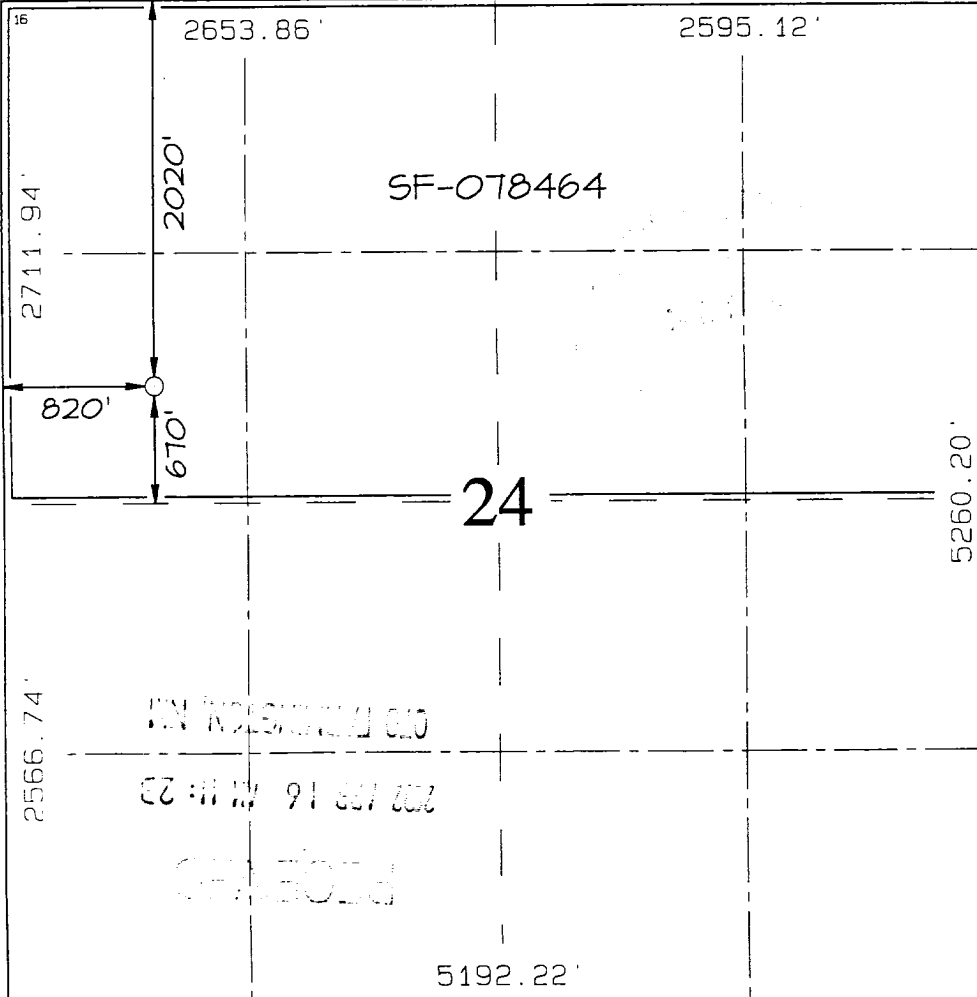

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	24	31N	13W		2020	NORTH	820	WEST	SAN JUAN

¹¹ Bottom Hole Location If Different From Surface

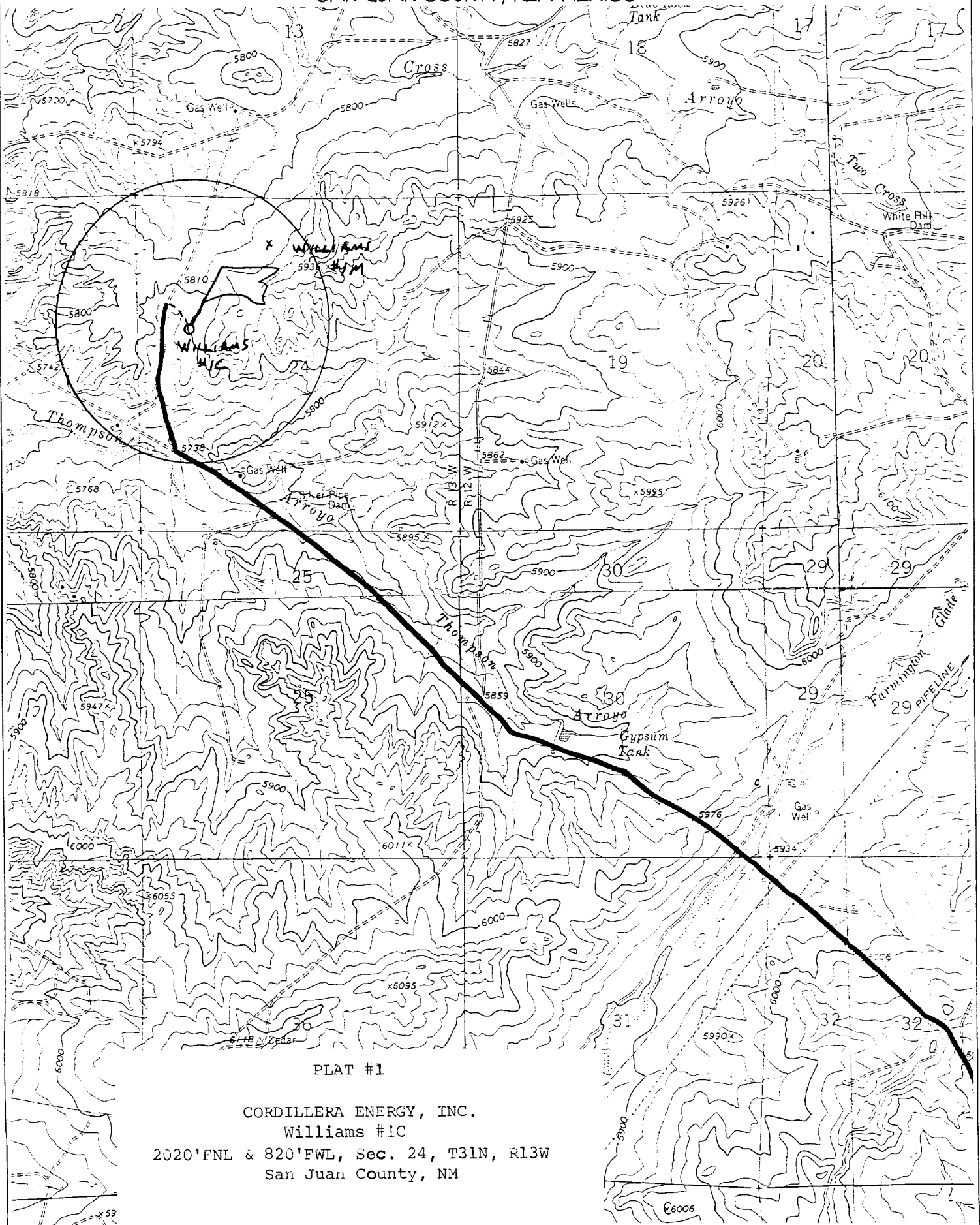
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
¹² Dedicated Acres 320.0 Acres - (N/2)					¹³ Joint or Infill Y	¹⁴ Consolidation Code	¹⁵ Order No.		

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 <i>Paul C. Thompson</i> Signature Paul C. Thompson Printed Name Agent Title 4/15/02 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: JANUARY 30, 2002 Signature and Seal of Professional Surveyor  <i>JASON C. EDWARDS</i> Certificate Number 15269

CORDILLERA ENERGY, INC. WILLIAMS #1C

2020' FNL & 820' FWL, SECTION 24, T31N, R13W, N.M.P.M.
SAN JUAN COUNTY, NEW MEXICO



PLAT #1

CORDILLERA ENERGY, INC.
Williams #1C

2020' FNL & 820' FWL, Sec. 24, T31N, R13W
San Juan County, NM

C. Minimum Blowout Control Specifications:

Double ram type 2000 psi working pressure BOP with a rotating head. See the attached Exhibit #1 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.

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
12-1/4"	250'	9-5/8"	36# J-55
8-3/4"	3965'	7"	20# J-55
6-1/4"	6890'	4-1/2"	11.6# N-80

B. Float Equipment:

a) Surface Casing: Notched collar on bottom and 3 centralizers on the bottom 3 joints.

b) Intermediate Casing: 7" cement guide shoe and self fill insert float collar. Place float one joint above shoe. Ten centralizers spaced every other joint above shoe and ten turbolizers every other joint from 1500'.

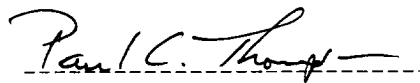
c) Production Casing: 4-1/2" whirler type cement nosed guide shoe and a float collar on top of the bottom joint.

V. Cementing:

Surface casing: 9-5/8" - Use 140 sx (165 cu. ft.) of Cl "B" with 2% CaCl_2 (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 1000 psi for 30 min.

Intermediate Casing: 7" - Before cementing circulate hole with at least 1-1/2 hole volumes of mud. Precede cement with 30 bbls of fresh water. **Lead** with 505 x (1055 cu.ft) of Type III 65/35 poz with 8% gel, 1% CaCl_2 , ¼#/sk. Celloflake. (Yield = 2.09 cu.ft./sk; slurry weight = 12.1 PPG). **Tail** with 100 sx (139 cu.ft.) of Type III with 1% CaCl_2 , ¼#/sk. Celloflake. (Yield = 1.39 cu. ft./sk; slurry weight = 14.5 PPG). Total cement volume is 1194 cu.ft. (100% excess to circulate cement to surface). WOC for 12 hrs. Pressure test the BOP and casing to 1500 psi.

Production Casing: 4-1/2" - Blow hole clean. Precede cement with 20 bbls of gel water and 10 bbls of water. **Lead** with 170 sx (337 cu.ft.) of Premium Lite HS with 0.65% FL-52, 0.32% CD-32, ¼ #/sk celloflake, and 4% phenoseal. (Yield = 1.98 cu.ft./sk; slurry weight = 12.5 PPG). **Tail** with 100 sx (196 cu.ft.) of Premium Lite HS with 0.65% FL-52, and 0.32% CD-32. (Yield = 1.96 cu.ft./sk; slurry weight = 12.5 PPG). Total cement volume is 533 cu.ft. (70% excess to circulate 100' above the intermediate casing shoe).



Paul C. Thompson, P.E.

Cordillera Energy, Inc.

Well Control Equipment Schematic for 2M Service

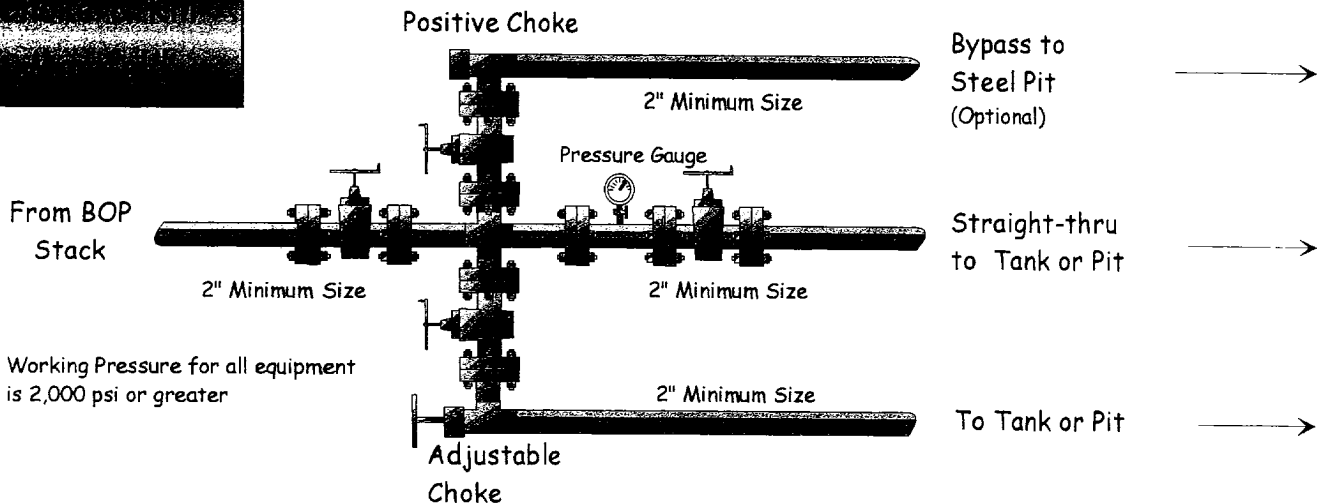
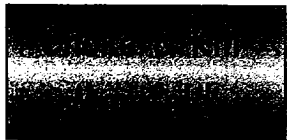
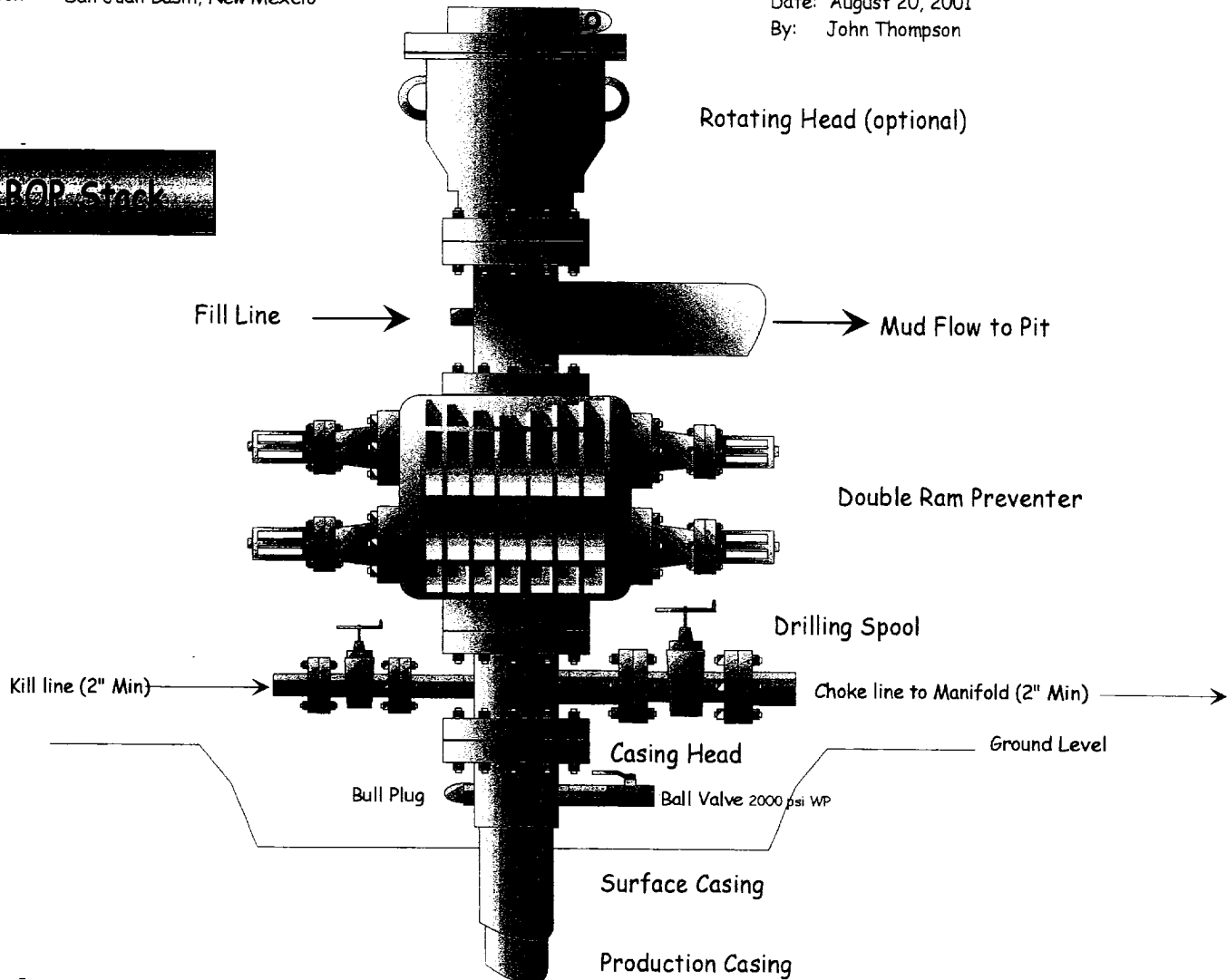
Attachment to Drilling Technical Program

Typical BOP setup

Location: San Juan Basin, New Mexico

Date: August 20, 2001

By: John Thompson



Working Pressure for all equipment is 2,000 psi or greater