

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK

DRILL ☒

DEEPEN ☐

b. TYPE OF WELL

OIL WELL ☐ GAS WELL ☒ OTHER ☐

2. NAME OF OPERATOR

Williams Production Company, LLC

3. ADDRESS AND TELEPHONE NO.

P.O. Box 316—Ignacio, Colorado 81137-0316

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements *)

At surface

1,920' FSL, 805' FWL

NW/4 SW/4 (L)

At proposed prod. zone

1,920' FSL, 805' FWL

NW/4 SW/4 (L)

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*

7.57 miles NW of Cedar Hill, NM

15. DISTANCE FROM PROPOSED*

LOCATION TO NEAREST
PROPERTY OR LEASE LINE, FT.
(Also to nearest drig. unit line, if any)

+/- 805'

16. NO. OF ACRES IN LEASE

600

17. NO. OF ACRES ASSIGNED
TO THIS WELL

320 acres

18. DISTANCE FROM PROPOSED
LOCATION TO NEAREST WELL,
DRILLING, COMPLETED, OR
APPLIED FOR, ON THIS LEASE, FT.

+/- 1,300

19. PROPOSED DEPTH

+/- 8,068'

20. ROTARY OR CABLE TOOLS

Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)

6,639' GR

22. APPROX. DATE WORK WILL START*

January 15, 2005

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
14-3/4"	10-3/4" H-40	32.75#	+/- 300'	255 sacks Type III cement + 2% CaCl ₂ + 1/4 #/sk. Cello-Flakes
9-7/8"	7-5/8" K-55	26.4#	+/- 2,773'	450 sacks Lead and 100 sacks Tail (see Drilling Plan)
6-3/4"	5-1/2" N-80	17#	+/- 7,748'	50 sacks Lead and 235 sacks Tail (see Drilling Plan)
4-3/4"	3-1/2"	9.3#	+/- 8,068'	50 sacks Premium Light HS with additives (see Drilling Plan)

Other Information:

Drilling Plan and Surface Use Plan are attached.

Pit and Tank Application and Pipeline survey to follow under separate cover

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

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

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, give data 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 preventer program, if any.

24.

SIGNED Don Hamilton Don Hamilton TITLE Agent for Williams

DATE December 30, 2004

(This space for Federal or State office use)

PERMIT NO. APPROVAL DATE

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

TITLE

DATE

*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 or the

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

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

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

2005 JAN 3 10 1 51

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-045-32804		*Pool Code 72319 / 71599	*Pool Name 070 FARMING BLANCO MESAVERDE / BASIN DAKOTA
*Property Code 17040	*Property Name NEW MEXICO 32-11 COM		*Well Number 1C
*OGRID No. 120782	*Operator Name WILLIAMS PRODUCTION COMPANY		*Elevation 6639'

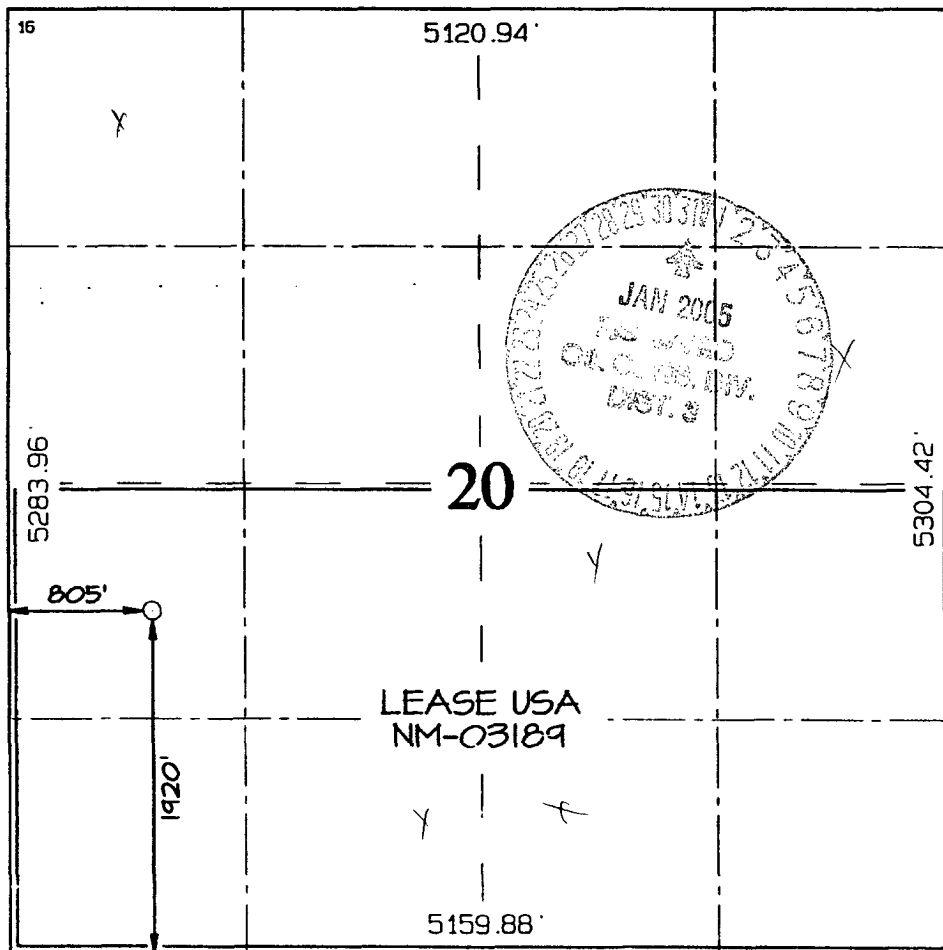
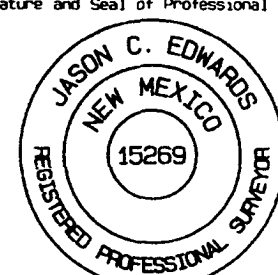
¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	20	32N	11W		1920	SOUTH	805	WEST	SAN JUAN

¹¹ Bottom Hole Location If Different From Surface

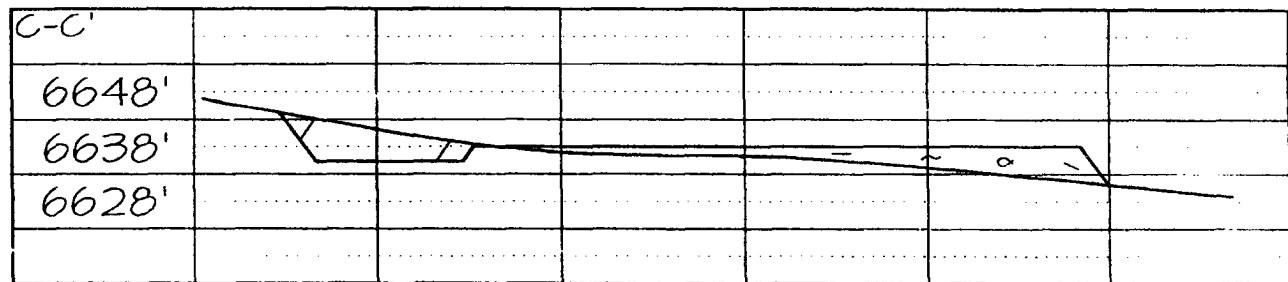
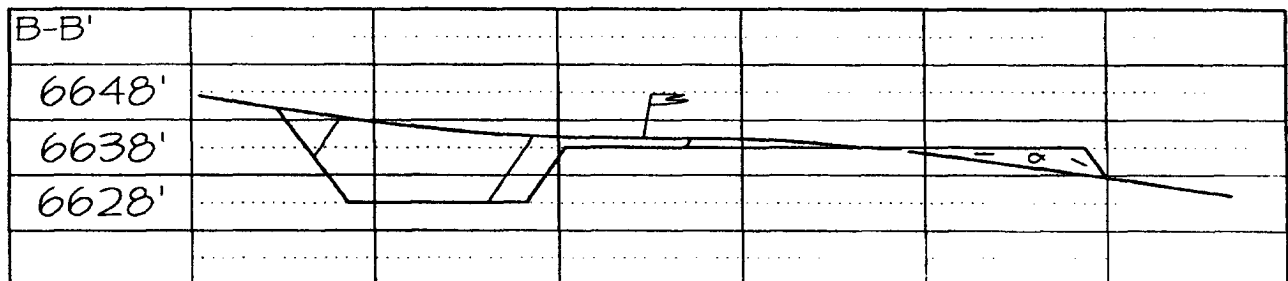
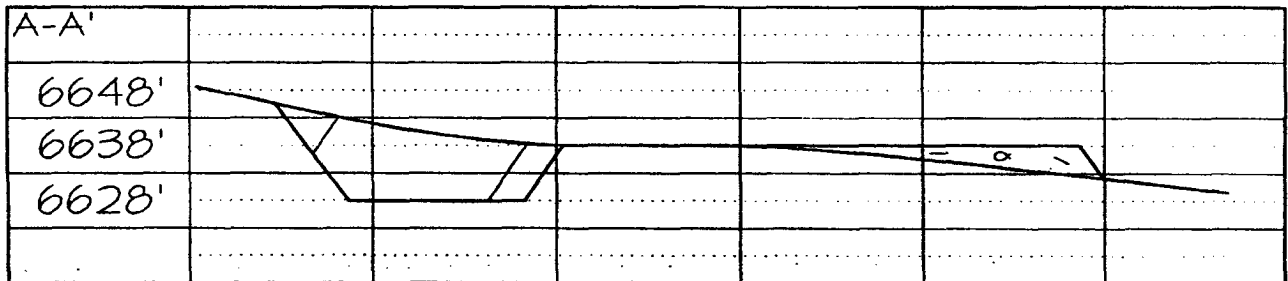
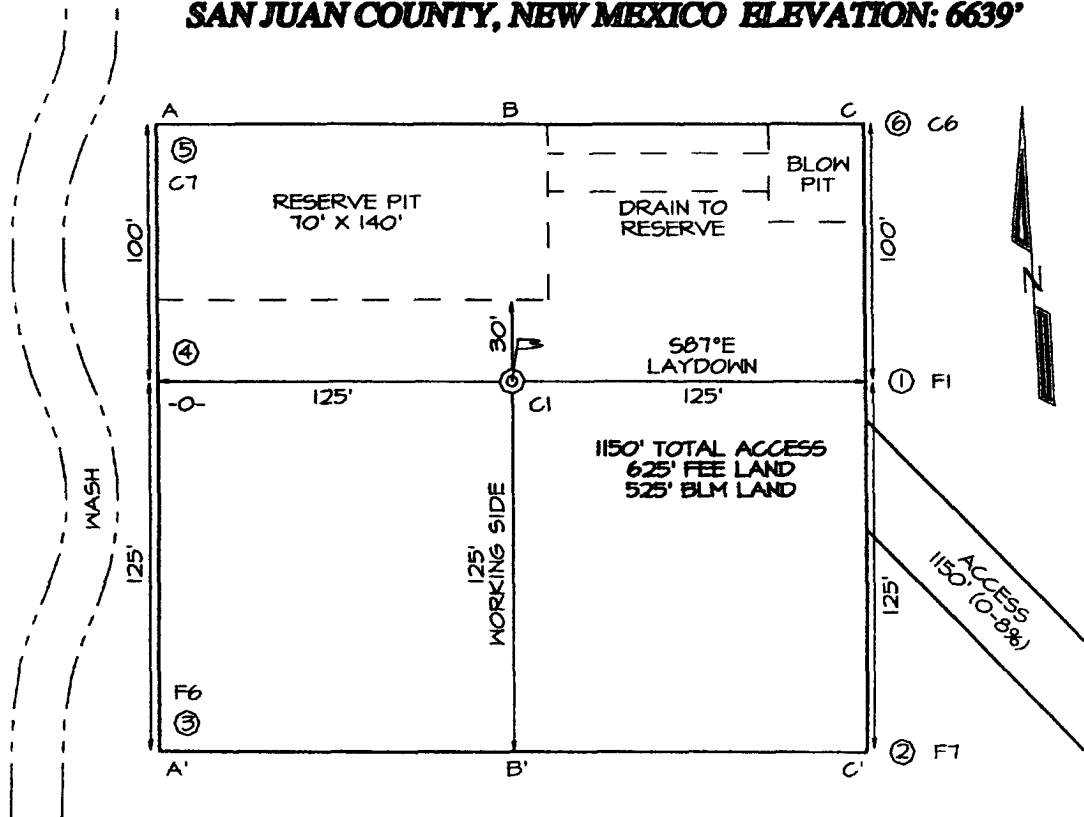
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
¹² Dedicated Acres 320.0 Acres - (S/2)					¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.		

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

<div>16</div> 	<div>17 OPERATOR CERTIFICATION</div> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief</p> <p><u>Don Hamilton</u> Signature</p> <p><u>Don Hamilton</u> Printed Name</p> <p><u>Agent</u> Title</p> <p><u>12-30-04</u> Date</p>
	<div>18 SURVEYOR CERTIFICATION</div> <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>Survey Date: NOVEMBER 9, 2004</p> <p>Signature and Seal of Professional Surveyor</p> <div><p><u>JASON C. EDWARDS</u> Certificate Number 15269</p></div>

WILLIAMS PRODUCTION COMPANY NEW MEXICO 32-11 COM #1C
1920' FSL & 805' FWL, SECTION 20, T32N, R11W, NMPM
SAN JUAN COUNTY, NEW MEXICO ELEVATION: 6639'

LATITUDE: 36°58'07"
 LONGITUDE: 108°01'00"
 DATUM: NAD1927





WILLIAMS PRODUCTION COMPANY

Operations Plan

(Note: This procedure will be adjusted on site based upon actual conditions)

<u>DATE:</u>	12/29/2004	<u>FIELD:</u>	BasinDK/BlancoMV
<u>WELL NAME:</u>	New Mexico 32-11 COM #1C	<u>SURFACE:</u>	FED
<u>BH LOCATION:</u>	NWSW Sec 20-32N-11W San Juan, NM	<u>MINERALS:</u>	FED
<u>ELEVATION:</u>	6,639' GR	<u>LEASE #</u>	NM-03189
<u>MEASURED DEPTH:</u>	8,068'		

I. GEOLOGY: Surface formation - San Jose

A. FORMATION TOPS: (KB)

Name	MD	Name	MD
Ojo Alamo	1,453	Cliff House	5,058
Kirtland	1,513	Menefee	5,208
Fruitland	2,868	Point Lookout	5,598
Picture Cliffs	3,288	Mancos	5,928
Lewis	3,468	Gallup	6,963
Huerfanito	3,973	Greenhorn	7,668
		Graneros	7,728
		Dakota	7,793
		Morrison	8,058
		TD	8,068

- B. MUD LOGGING PROGRAM:** Mud logger onsite during drilling of Dakota from Protection casing depth to TD.
- C. LOGGING PROGRAM:** High Resolution Induction/ GR and Density/ Neutron log over zones of interest from intermediate casing depth to protection casing depth. Cased hole logs over Dakota/ Morrison Onsite geologist will pick Density/ Neutron log intervals logging runs.
- D. NATURAL GAUGES:** Gauge any noticeable increases in gas flow. Record all gauges in Tour book and on morning reports.

II. DRILLING

- A. **MUD PROGRAM:** Clear water with benex to 7" casing point. Convert to a LSND mud to log and run pipe. Treat for lost circulation as necessary. Obtain 100% returns prior to cementing. Notify Engineering of any mud losses. Use air w/Air Hammer from 7 in. csg.to TD.
- B. **BOP TESTING:** While drill pipe is in use, the pipe rams and the blind rams will be function tested once each trip. The anticipated reservoir is expected to be less than 1300 psi, so the rams will be tested to 1500 psi. The surface and intermediate casing strings will be pressure tested to 1500 psi in conjunction with the BOP test before drilling out cement. The drum brakes will be inspected and tested each tour. All tests, inspections and SPR's will be recorded in the tour book as to time and results.

III. MATERIALS

A. **CASING PROGRAM:**

<u>CASING TYPE</u>	<u>HOLE SIZE</u>	<u>DEPTH (MD)</u>	<u>CASING SIZE</u>	<u>WT. & GRADE</u>
Surface	14-3/4"	+/- 300'	10-3/4"	32.75# H-40
Intermediate	9-7/8"	+/-2,773'	7-5/8"	26.4# K-55
Prod. Casing	6-3/4"	+/- 7,748'	5-1/2"	17.0# N-80
Production Liner	4-3/4"	+/-8,068'	3-1/2"	9.3#

B. **FLOAT EQUIPMENT:**

1. **SURFACE CASING:** 9-5/8" notched regular pattern guide shoe. Run (1) standard centralizer on each of the bottom (4) joints of Surface Casing.
2. **INTERMEDIATE CASING:** 7" cement nose guide shoe with a self-fill insert float. Place float collar one joint above the shoe. Install (1) Turbulent centralizer on each of the bottom (3) joints and one standard centralizer every (3) joints to 2,500 ft. Run (1) Turbulent centralizer at 2,700 ft., 2,500 ft., 2,300ft., 2,000ft., 1,500 ft., and 1,000 ft. (NTL-FRA 90-1).
3. **PRODUCTION LINER / CASING:** 3-1/2" & 5-1/2" whirler type cement nose guide shoe with a latch collar on top of 20' bottom joint. Place marker joint above 5,400'. Place centralizers as needed across selected production intervals.

C. CEMENTING:

(Note: Volumes may be adjusted onsite due to actual conditions)

1. **SURFACE:** Slurry: 255sx (356 cu.ft.) of "Type III" + 2% CaCl₂ + ¼ # of cello-flake/sk (Yield = 1.39 cu.ft./sk, Weight = 14.5 #/gal.). The 100% excess should circulate cement to the surface. WOC 12 hours. Test csg to 1500psi.
2. **INTERMEDIATE:** Lead - 450 sx (906 cu.ft.) of "Type III" 65/35 poz with 8% gel, 1% CaCl₂ and 1/4# cello-flake/sk (Yield = 2.09 cu.ft./sk, Weight = 12.1 #/gal.). Tail - 100 sx (139cu.ft.) of "Type III" with 1/4# cello-flake/sk, and 1% CaCl₂ (Yield = 1.4 cu.ft./sk, Weight = 14.5#/gal.). Use **100% excess in Lead Slurry** to circulate to surface. No excess in Tail Slurry. Total volume = 1,045 cu.ft. Bump Plug to 1,500 psi. Notify engineering if cement is not circulated to surface.
3. **PRODUCTION CASING:** 10 bbl Gelled Water space. Scavenger: 50sx (130ft³) of Premium Light HS + 1% FL-52 + .2% CD-32, 0.1% R-3, 3 #/sk CSE, ¼ #/sk cello flake and 4% Phenoseal. (Yield = 2.59 cu.ft./sk, Weight = 11.6 #/gal.). Cement: 235 sx (508 ft³) of Premium Light HS + 1% FL-52 + .2% CD-32, 0.1% R-3, 3 #/sk CSE, ¼ #/sk cello flake and 4% Phenoseal. (Yield = 2.15 ft³/sk, Weight = 12.3 #/gal.). Displace cement at a minimum of 8 BPM. The 20% excess in lead and tail should cover 100 ft into intermediate casing. Total volume 508ft³. WOC 12 hours
4. **PRODUCTION LINER:** 10 bbl Gelled Water space. Cement: 50 sx (100 ft³) of Premium Light HS + 1% FL-52 + .2% CD-32, 0.1% R-3, 3 #/sk CSE, ¼ #/sk cello flake. (Yield = 2.15 ft³/sk, Weight = 12.3 #/gal.). Displace cement at a minimum of 8 BPM. The 20% excess should cover 100 ft above liner top. Total volume 100ft³. WOC 12 hours

IV COMPLETION

A. CBL

1. Run Cement Bond Log across all intervals to be perforated and find Top of Cement behind all casing strings if cement not circulated to surface..

B. PRESSURE TEST

1. Pressure test 7 5/8" & 5-1/2" casing to 3300# for 15 minutes.

C. STIMULATION

1. Stimulate Dakota with approximately 70,000# of 20/40 sand in x-link foam.
2. Isolate Dakota with a RBP.
3. Stimulate Point Lookout with approximately 9,300# of LiteProp™ sand in slick water.
4. Isolate Point Lookout with a RBP.
5. Perforate the Menefee/Cliff House as determined from the open hole logs.
6. Stimulate with approximately 9,300# of LiteProp™ sand in slick water.
7. Test each zone before removing bridge plugs.

D. RUNNING TUBING

1. **Dakota:** Run 2-1/16", 3.25#, J-55, IJ tubing with 1/2 mule shoe on bottom, SN with pump-out plug on top of adeem joint and 5 Seal Units. Land tubing approximately 100' below top Dakota perf.

Williams

Well Control Equipment Schematic for 2M Service

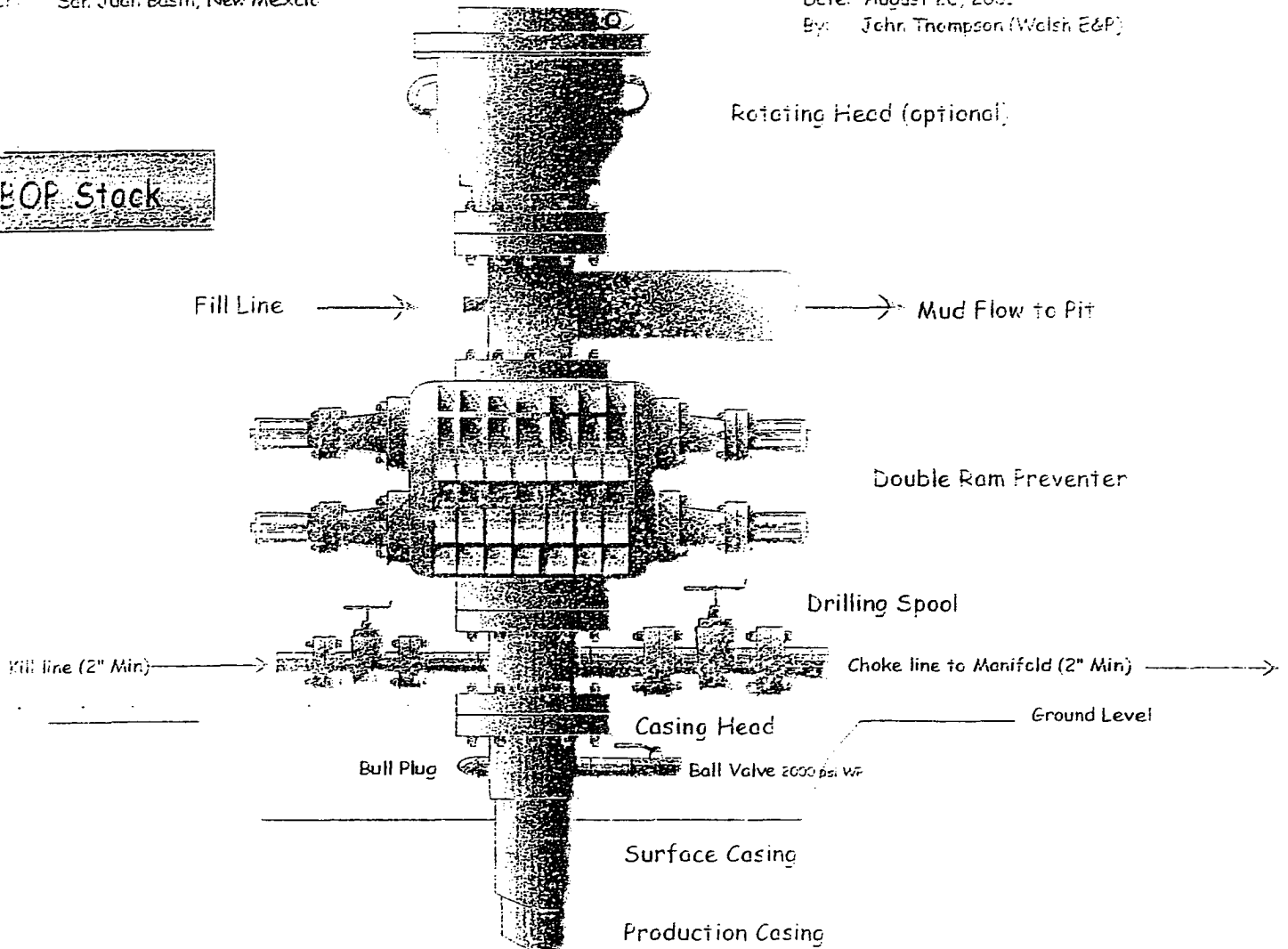
Typical BOP setup

Location: San Juan Basin, New Mexico

Date: August 20, 2001

By: John Thompson (Welsh E&P)

BOP Stack



Choke & Kill Manifold

