District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-101
May 27, 2004

Submit to appropriate District Office

☐ AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

[1] Operator Name and Address	[2] OGRID Number
Williams Production Company, LLC c/o New Horizons Consultants, Inc. **P.O. Box 1391** **Cortez, CO 81321**	**120782** [3] API Number 30 - 045 - 32734

[5] Property Code	[5] Property Name	[6] Well No.
17033	**Rosa Unit**	**185B**

[9] Proposed Pool 1	[10] Proposed Pool 2
Blanco Mesa Verde	**Basin Dakota**

[7] Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
F	16	31N	6W	SE NW	1725	North	2155	West	San Juan

[8] Proposed 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
K	16	31N	6W	NE SW	1980	South	1975	West	San Juan

Additional Well Information

[11] Work Type Code	[12] Well Type Code	[13] Cable/Rotary	[14] Lease Type Code	[15] Ground Level Elevation
N	M	R	S	6428
[16] Multiple	**[17] Proposed Depth**	**[18] Formation**	**[19] Contractor**	**[20] Spud Date**
Yes	8628	Dakota	Aztec Well Services	When Approved

Depth to Groundwater ~~1000'~~ >50'<100' | Distance from nearest fresh water well >1000' | Distance from nearest surface water >1000'

Pit: Liner: Synthetic X 12 mils thick Clay ☐ Pit Volume: 10,000 bbls Drilling Method:

Closed-Loop System ☐ Fresh Water X Brine ☐ Diesel/Oil-based ☐ Gas/Air ☐

[21] Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
14-3/4"	10-3/4"	40.5	+/- 500'	460	Surface
9-5/8"	7-7/8"	26.4	+/- 4,148'	670/ 375	Surface
6-3/4"	5-1/2"	17.0	+/-8,628'	245	3,098'

[22] Describe the proposed program. If this application is to DEEPEN or PLUG BACK, give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary.

See Attached Operations Plan

RECEIVED DEC 2004 OIL CONS. DIV. DIST. 3

HOLD C104 FOR Directional Survey

[23] I hereby certify that the information given above is true and complete to the best of my knowledge and belief. **I further certify that the drilling pit will be constructed according to NMOCD guidelines ☐, a general permit ☐, or an (attached) alternative OCD-approved plan X.**

Printed name: **Don Hamilton** Don Hamilton

Title: **Agent**

E-mail Address: **starpoint@etv.net**

Date: **12-9-04** Phone: **435-637-4075**

OIL CONSERVATION DIVISION

Approved by:

Title: DEPUTY OIL & GAS INSPECTOR, DIST. #3

Approval Date: DEC 13 2004 Expiration Date: DEC 13 2005

Conditions of Approval ~~Attached~~ ☒ complete pit registration information to be submitted prior to well site construction

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number	2 Pool Code	3 Pool Name
30-045-32734	72319 \ 71599	BLANCO MESAVERDE \ BASIN DAKOTA

4 Property Code	5 Property Name	6 Well Number
17033	ROSA UNIT	185B

7 OGRID No.	8 Operator Name	9 Elevation
120782	WILLIAMS PRODUCTION COMPANY	6428'

10 Surface Location

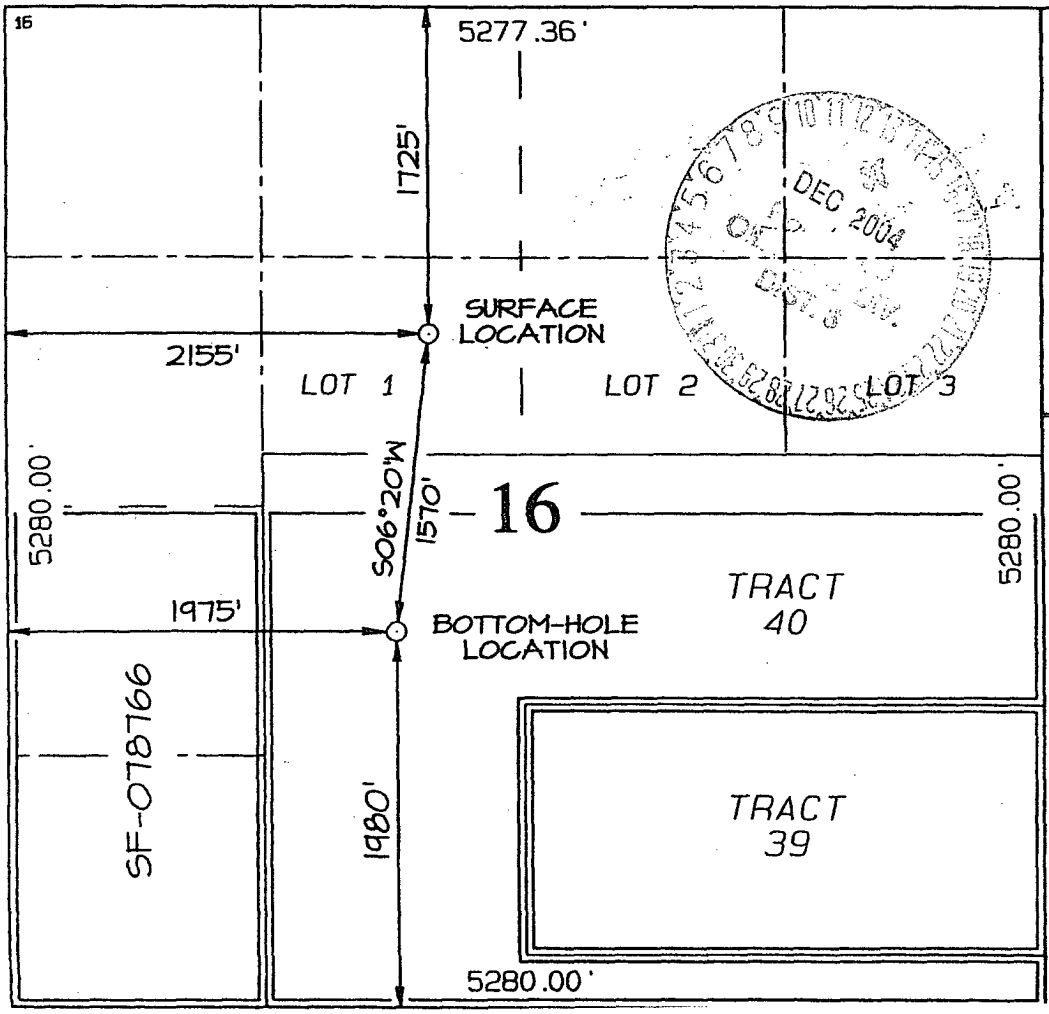
Ul. or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
F	16	31N	6W		1725	NORTH	2155	WEST	SAN JUAN

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
K	16	31N	6W		1980	SOUTH	1975	WEST	SAN JUAN

12 Dedicated Acres	13 Joint or Infill	14 Consolidation Code	15 Order No.
320.0 Acres - (S/2)			

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

Don Hamilton
Signature

Don Hamilton
Printed Name

Agent
Title

12-9-04
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.

Date of Survey: MAY 9, 2002

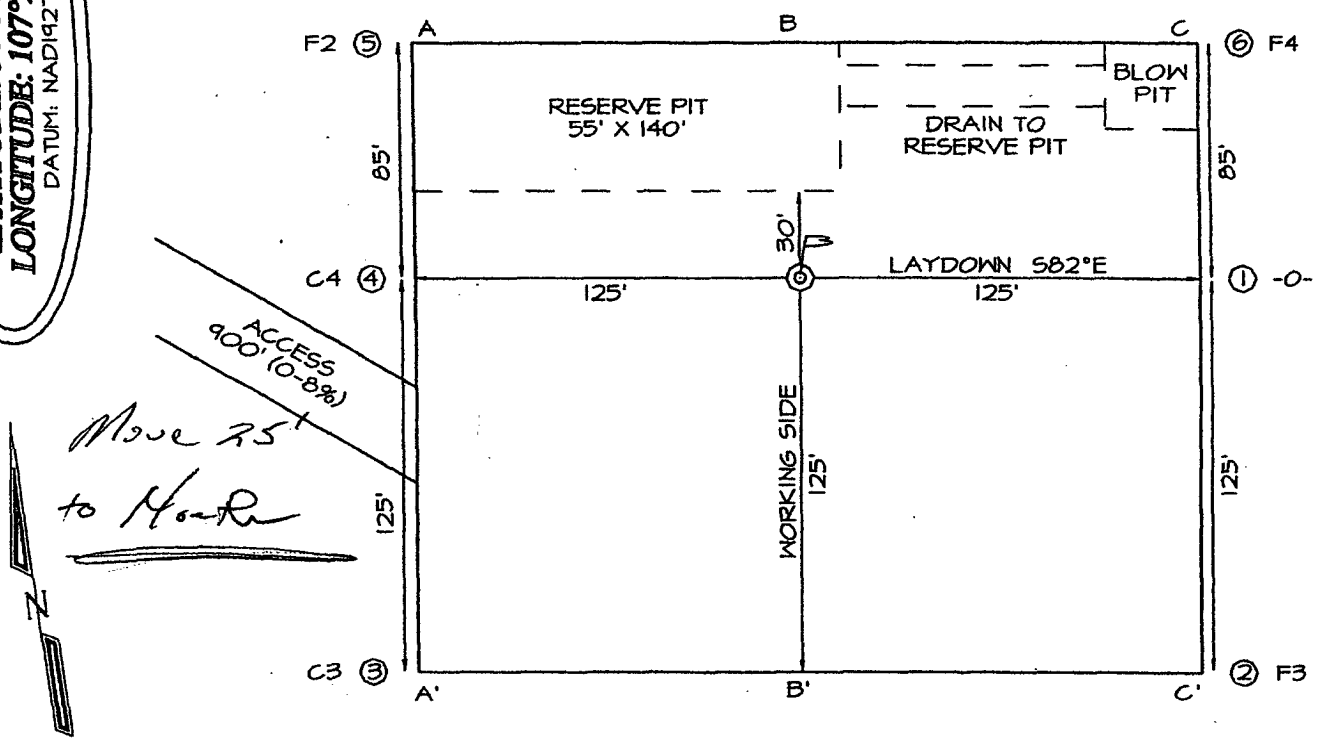
Signature and Seal of Professional Surveyor

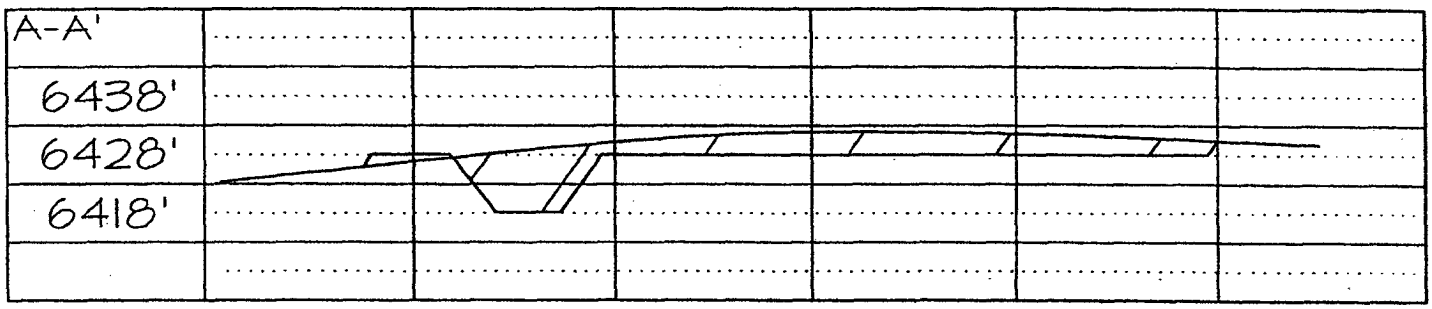
JASON C. EDWARDS
NEW MEXICO
15269
REGISTERED PROFESSIONAL SURVEYOR

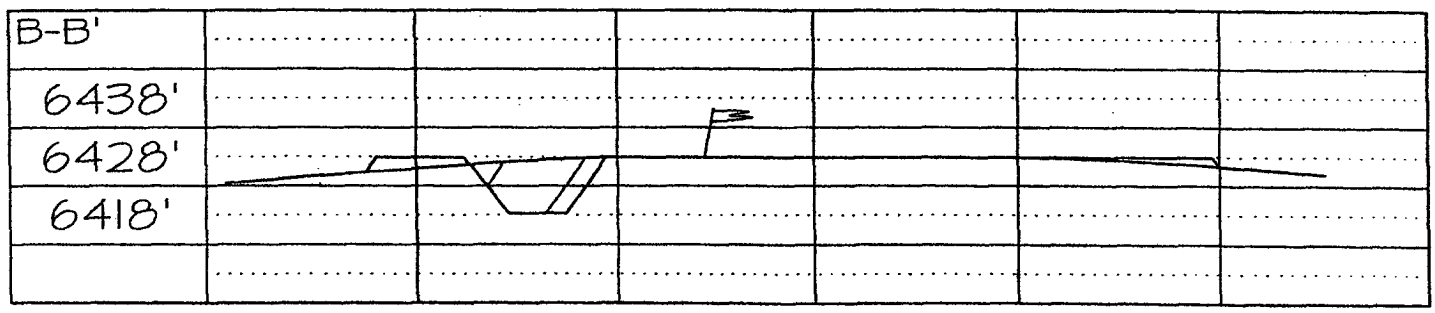
JASON C. EDWARDS
Certificate Number 15269

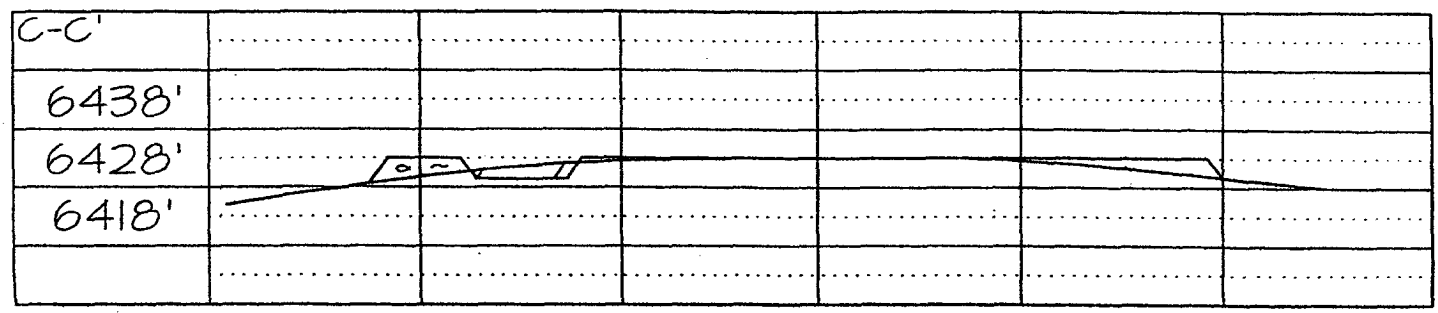
WILLIAMS PRODUCTION COMP. JY ROSA UNIT #185B
1725' FNL & 2155' FWL, SECTION 16, T31N, R6W, NMPM
SAN JUAN COUNTY, NEW MEXICO
GROUND ELEVATION: 6428'

LATITUDE: 36°54'08"
LONGITUDE: 107°28'09"
DATUM: NAD1927









WILLIAMS PRODUCTION COMPANY

OPERATIONS PLAN

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

DATE:	6/17/2002		
WELL NAME:	**Rosa Unit 185B**	**FIELD:**	Basin DK/ Blanco MV
SURFACE LOCATION:	SE/4 NW/4 Sec. 16- T31N-R6W San Juan, NM	**SURFACE:**	BLM
ELEVATION:	6428' GR	**MINERALS:**	STATE
		LEASE #	E-346
MEASURED DEPTH:	**8416'**		

I. **GEOLOGY:** Surface formation - San Jose

A. **FORMATION TOPS:** (KB)

	TVD	MD		TVD	MD
Ojo Alamo	2440'	2675'	Mancos sh	6030'	6443'
Kirtland sh	2555'	2812'	Gallup ss	7015'	7428'
Fruitland cl	3015'	3362'	Greenhorn ls	7775'	8188'
Pictured Cliffs ss	3265'	3649'	Graneros sh	7830'	8243'
Lewis sh	3565'	3969'	Dakota ss	7965'	8378'
Cliff House ss	5450'	5863'			
Menefee	5500'	5913'			
Point Lookout ss	5730'	6143'	**Total Depth**	**8215'**	**8628'**

B. **LOGGING PROGRAM:** DIL from TD to the Intermediate Casing Shoe. DEN/Neutron/GR (selected intervals by on-site Geologist). ***Subject to change as wellbore conditions dictate.***

C. **NATURAL GAUGES:** Gauge any noticeable increases in gas flow. Guage well @ 5800' and before TOH for logs @ 7954'. Record all gauges in Tour book and on morning reports.

II. **DRILLING**

A. **MUD PROGRAM:** Clear water with benex to 7" casing point. LSND to log and run pipe. Treat for lost circulation as necessary. Obtain 100% returns prior to cementing. Notify Engineering of any mud losses.

B. **BOP TESTING:** While drill pipe is in use, the pipe rams will be function tested not less than once each day. 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.

C. **BIT PROGRAM:** Use **Hammer bit** from Intermediate to just above the Greenhorn formation. Replace Hammer **bit** with **Tricone** bit to drill through the Dakota formation

III. MATERIALS

A. CASING PROGRAM:

CASING TYPE	HOLE SIZE	DEPTH(MD)	CASING SIZE	WT. & GRADE
Surface	14-3/4"	+/- 500'	10-3/4"	40.5# K-55
Intermediate	9-7/8"	+/-4148'	7-5/8"	26.4# K-55
Prod. Casing	6-3/4"	+/- 8628'	5-1/2"	17.0# N-80

B. FLOAT EQUIPMENT:

1. SURFACE CASING: 10-3/4" notched regular pattern guide shoe. Run (1) Standard centralizer on each of the bottom (3) Joints.

2. INTERMEDIATE CASING: 7-5/8" cement nose guide shoe with a self- fill insert float. Place float one (1) joint above the shoe and five (5) centralizers, spaced every other joint, starting with the float collar. Place turbulent centralizers, at 120' intervals, starting at 1500' to the surface. Total centralizers (5 regular and 13 turbulent).

3. PRODUCTION CASING: 5-1/2" whirler type cement nose guide shoe with a latch collar on top of 20' bottom joint. Place 20' marker joint on top of 10 th joint and one above 5100'.

C. CEMENTING:

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

1. SURFACE: Use 460sx (626cu.ft.) of class "Type III" with 2% CaCl2 and 1/4# of cello-flake/sk (Yield = 1.39 cu.ft./sk, Weight = 14.5 #/gal.). 125% excess to circulate the surface. WOC 12 hours. Test to 1500#.

2. INTERMEDIATE: Lead: 670sx (1401cu.ft.)of class "Premium Lite" 65/35, Type III/Poz with 8% gel and 1/4# cello-flake/sk (Yield = 2.09 cu.ft./sk, Weight = 12.1 #/gal.). Tail: 375sx (381cu.ft.) of class "Type III" with 1/4# cello-flake/sk (Yield = 1.39 cu.ft./sk, Weight = 14.5#/gal.). 100% excess in lead and tail to circulate to surface. Total volume = 1782 cu.ft. WOC 12 hours. Run a temperature survey after 8 hours if cement is not circulated.

3. PRODUCTION CASING: 30 sks Scavenger of Premium Light HS + 1% FL-52 + .3% CD-32 + 2% KCl + .25 #/sk Celloflake + 4% Phenoseal + .2% R3. (Weight = 11 #/gal.). **Cement Slurry**: 245 sx (478ft^3) of Premium Light HS + 1% FL-52 + .3% CD-32 + 2% KCl .25 #/sk Celloflake + 4% Phenoseal + .2% R3. (Yield = 2.02 ft^3/sk, Weight = 12.5 #/gal.). Displace cement at a minimum of 8 BPM. Use 30% excess in calculation to raise cement 100' into intermediate casing. Total volume 497ft^3. 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 5-1/2" casing to 3300# for 15 minutes.

C. STIMULATION

1. Stimulate Dakota with approximately 90,000# of 20/40 sand in x-link foam.
2. Isolate Dakota with a RBP.
3. Stimulate Point Lookout with approximately 80,000# of 20/40 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 80,000# of 20/40 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 joint and a SN with pump out plug on top of bottom joint. Will use a duel packer with 5 seal units to isolate Dakota from the Mesaverde formations. Land tubing approximately 100' below top Dakota perf.

2. *Mesa Verde:* Run 2-1/16", 2.9#, J-55, EUE tubing with a SN (1.91" ID) on top of bottom joint. Land tubing approximately 25' above the bottom Point Lookout perforations.

John C. Thompson
Engineer

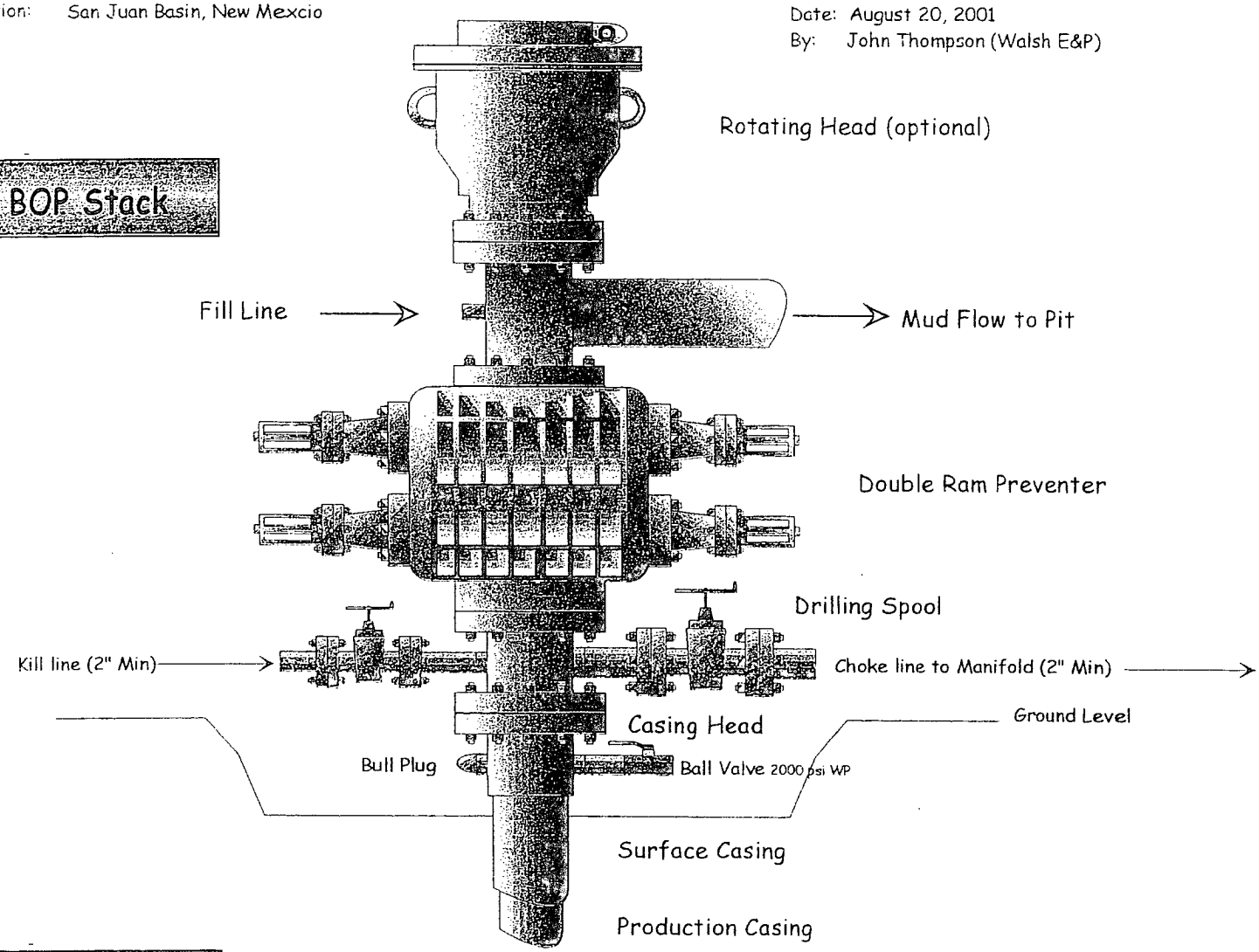
Well Control Equipment Schematic for 2M Service

Typical BOP setup

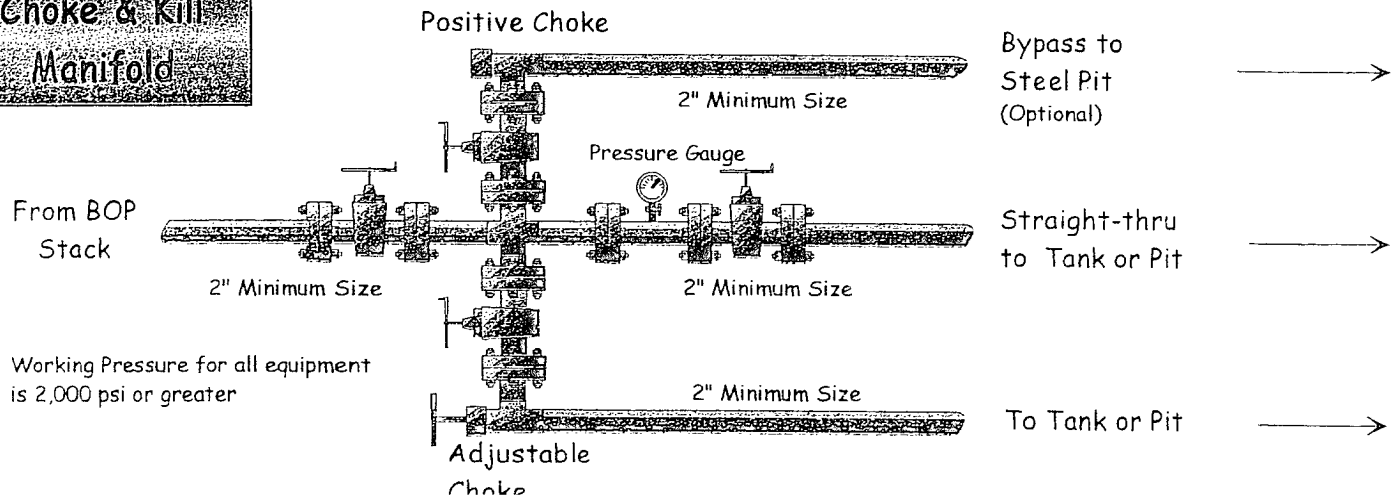
Location: San Juan Basin, New Mexcio

Date: August 20, 2001
By: John Thompson (Walsh E&P)

BOP Stack



Choke & Kill Manifold



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