

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

2007 APR 18 PM

FORM APPROVED
OMB No 1004-0137
Expires March 31, 2007

APPLICATION FOR PERMIT TO DRILL OR REENTER

RECEIVED

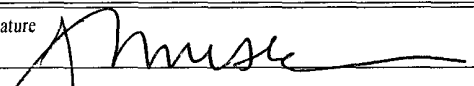
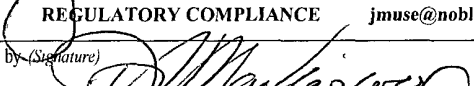
210 FARMINGTON, NM

1a. Type of work. <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5 Lease Serial No. NMSF-078244	
1b. Type of Well. <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6 If Indian, Allottee or Tribe Name NM	
2 Name of Operator PATINA OIL AND GAS		7 If Unit or CA Agreement, Name and No.	
3a Address 5802 US HIGHWAY 64 FARMINGTON, NEW MEXICO 87401		8 Lease Name and Well No. SHOOTIST FEDERAL 19 #16	
3b Phone No. (include area code) 505-632-8056		9 API Well No. 30-045-34280	
4 Location of Well (Report location clearly and in accordance with any State requirements.) At surface 660' FSL and 660' FEL At proposed prod zone SAME Lot 9		10 Field and Pool, or Exploratory BASIN FRUITLAND COAL	
14 Distance in miles and direction from nearest town or post office* 4 miles north/west of Farmington, NM		11 Sec., T R M. or Blk and Survey or Area P SEC 19-T31N-R12W	
15 Distance from proposed* location to nearest property or lease line, ft (Also to nearest drg unit line, if any) 660'		12 County or Parish SAN JUAN	
16 No of acres in lease 304.48 ACRES		13 State NM	
17 Spacing Unit dedicated to this well S/2 304.48 ACRES		RCVD JUN25'07 OIL CONS. DIV. DIST. 3	
18 Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 1220'		20 BLM/BIA Bond No. on file LMP8720503	
21 Elevations (Show whether DF, KDB, RT, GL, etc.) 5995' GR		22 Approximate date work will start* 07/01/2007	
23 Estimated duration 8 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:

- Well plat certified by a registered surveyor
- A Drilling Plan.
- A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office)
- Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
- Operator certification
- Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature 	Name (Printed/Typed) JEAN M. MUSE	Date 04/16/2007
Title REGULATORY COMPLIANCE jmuse@nobleenergyinc.com		
Approved by (Signature) 	Name (Printed/Typed) AFM	Date 6/21/07
Title AFM	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) Submit application for permit on NM OCD Form C-103 Prior to constructing location.

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

NOTIFY AZTEC OCD 24 HRS.
PRIOR TO CASING & CEMENT

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

NMOC

6-28-07
BH

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

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

2007 APR 18 PM 1:41

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-045-34280		Pool Code 71629	Pool Name BASIN FRUITLAND COAL
Property Code 36565	Property Name SHOOTIST FEDERAL 19		Well Number 16
OGRID No. 173252	Operator Name PATINA SAN JUAN, INC.		Elevation 5995'

¹⁰ Surface Location

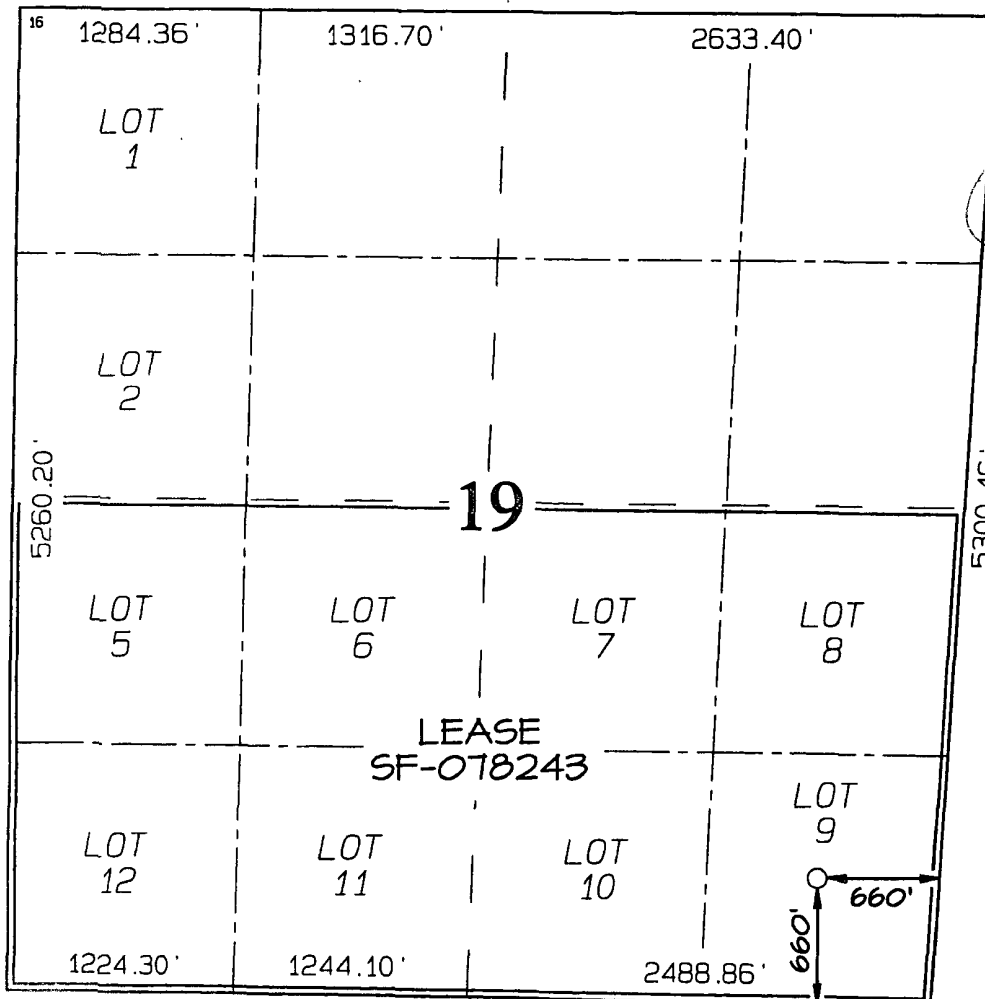
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	19	31N	12W	(9)	660	SOUTH	660	EAST	SAN JUAN

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 304.48 Acres - (S/2)	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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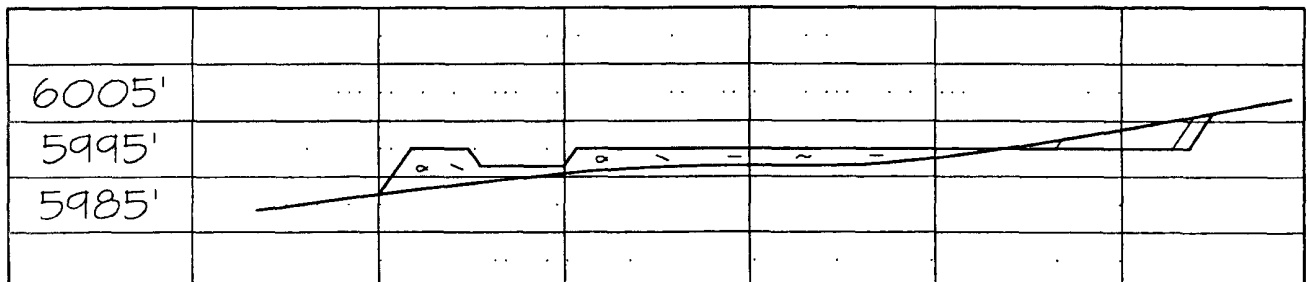
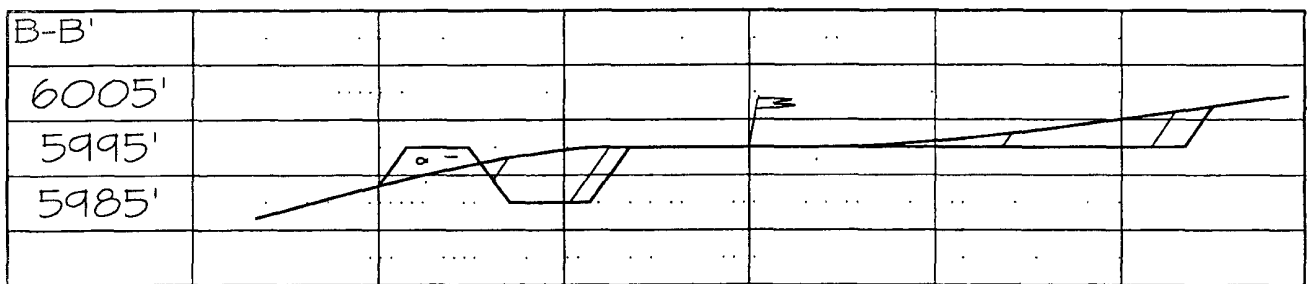
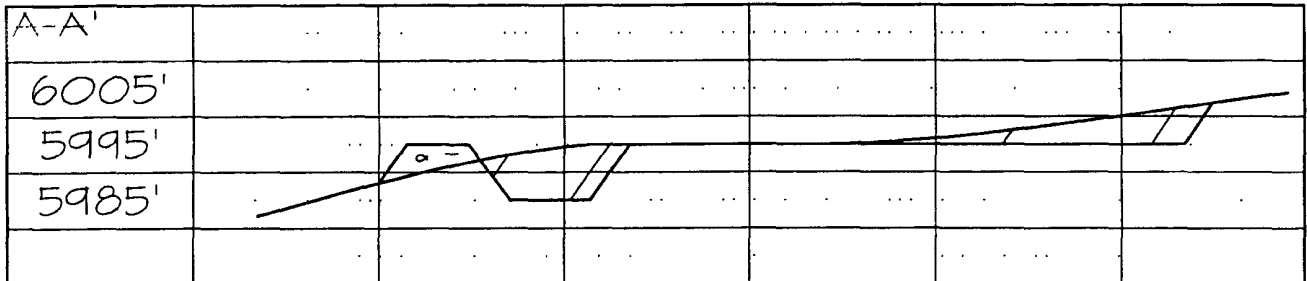
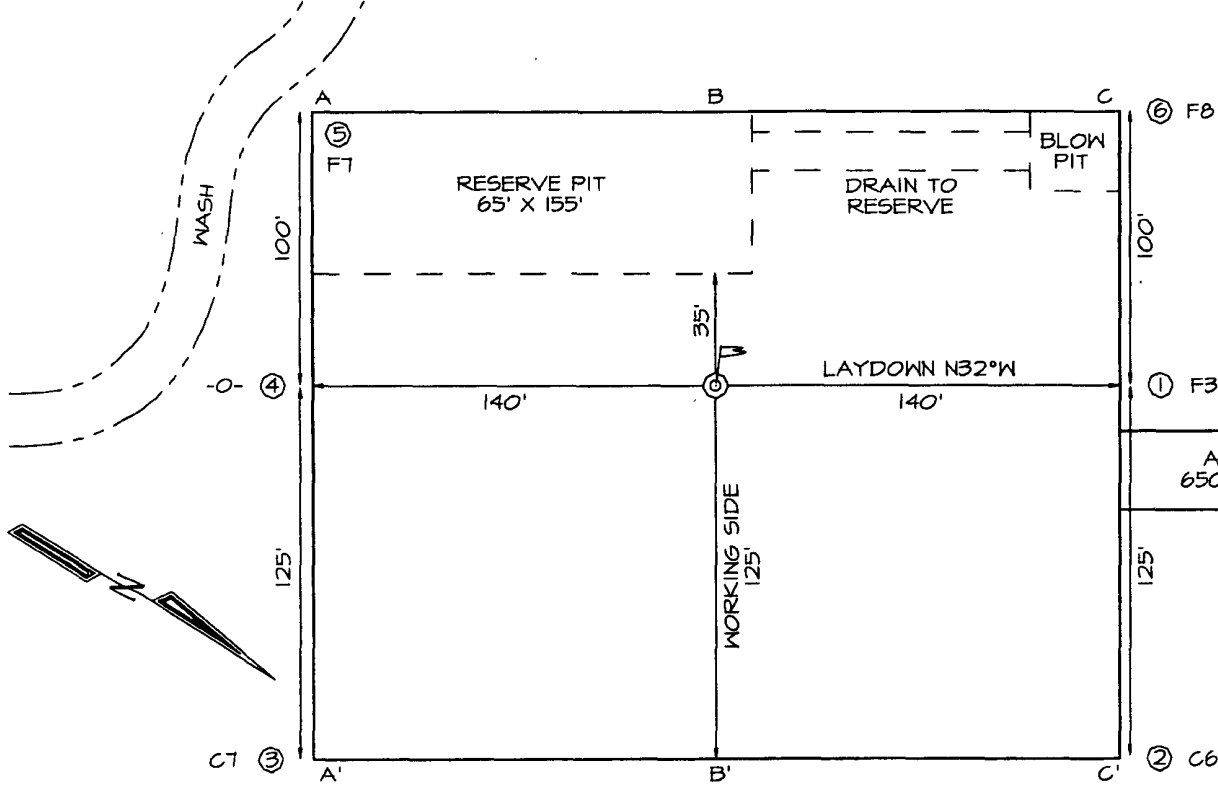
NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief. <i>Jason M. Muse</i> Signature Jason M. Muse Printed Name Regulatory Compliance Title April 06, 2007 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: OCTOBER 1, 2004 Signature and Seal of Professional Surveyor JASON C. EDWARDS Certificate Number 15269

**PATINA SAN JUAN, INC. SHOOTIST FEDERAL 19 #16
660' FSL & 660' FEL, SECTION 19, T31N, R12W, NMPM
SAN JUAN COUNTY, NEW MEXICO ELEVATION: 5995'**

**LATITUDE: 36°52'46"
LONGITUDE: 108°07'52"**
DATUM: NAD1927



Plot #2

Patina Oil & Gas Corp.

Drilling Plan

Shootist Federal 19 #16
Section 19, T31N – R12W
San Juan County, New Mexico

Check bottom hole pressures and cement designs.

1. LOCATION:

Est. elevation: 5995'
"P", (SESE), Section 19-T31N-R12W
660' FSL 660' FEL
San Juan County, New Mexico

Field: Fruitland
Surface: United States of America
Minerals: United States of America

2. SURFACE FORMATION, ESTIMATED TOPS AND WATER, OIL, GAS OR MINERAL BEARING FORMATIONS (TVD):

Surface formation – Nacimiento

Formation	drilling depth
Ojo Alamo	783
Kirtland	885
Fruitland	1808
Pictured Cliffs**	2351
Lewis	2434
TD	2584

Legend: * Freshwater bearing formation
 ** Possible hydrocarbon bearing formation
 *** Probable hydrocarbon bearing formation
 # Possible H2S bearing formation

All fresh water and prospectively valuable minerals encountered during drilling will be recorded by depth and adequately protected.

3. PRESSURE CONTROL EQUIPMENT:

BOP equipment will be tested to its rated working pressure or 70-percent of the internal yield of the surface casing, but not to exceed 1,000 psi. See attachments for BOP and choke manifold diagrams.

Production Hole BOP Requirements and Test Plan

11" – 2,000 psi single ram (blind)
11" – 2,000 psi single ram (pipe)

Test as follows:

a) Pipe rams:	1,000 psi (High)	250 psi (low)
b) Choke manifold:	1,000 psi (High)	250 psi (low)
c) Choke lines:	1,000 psi (High)	250 psi (low)

All ram type preventers and related equipment will be hydraulically tested at nipple-up. They will also be retested in either of the following events:

- A pressure seal is broken.
- 30 days have elapsed since the last successful test of the equipment.

Furthermore, BOP's will be checked daily as to mechanical operating condition. All ram type preventers will have hand wheels, which will be operative and accessible at the time the preventers are installed. See attached Exhibit for details on the BOP equipment.

AUXILIARY EQUIPMENT:

- a) Manually operated kelly cock (upper and lower)
- b) Full opening manually operated safety valves in the full open position, capable of fitting all drill stem connections.

4. CASING DESIGN:

Hole Data				
Interval	Bit Size (Inches)	Casing Size (Inches)	Top (Ft)	Bottom (Ft)
Surface	12.25	9.625	0	300
Production	7 7/8	4.5	0	2584

Casing Data							
OD (Inches)	ID (Inches)	Weight (Lbs/Ft)	Grade	Thread	Collapse (psi)	Burst (psi)	Min. Tensile (Lbs)
9.625	8.921	36.0	J55	STC	2,020	3,520	394,000
4.5	4.276	11.6	N80	LTC	6,350	7,780	223,000

MINIMUM CASING DESIGN FACTORS:

COLLAPSE: 1.125
BURST: 1.00
TENSION: 1.80

Area Fracture Gradient Range: 0.7 – 0.8 psi/foot
Maximum anticipated reservoir pressure: 1,175 psi
Maximum anticipated mud weight: 9.0 ppg
Maximum surface treating pressure: 3,750 psi

Float Equipment:

Surface Casing: Guide shoe on bottom and 3 centralizers on the bottom 3 joints.

Production Casing: Float shoe on bottom joint and a float collar one joint up from float shoe. One centralizer 10 ft above float shoe and centralizers over potential hydrocarbon bearing zones. Stage tool above the Cliffhouse formation. One centralizer below stage tool and one centralizer above stage tool.

See attached COA

CEMENTING PROGRAMS

9-5/8" Surface casing:

165 sx Type III cement with 3% CaCl₂, ¼#/sx cellofakes. 100% excess to circulate cement to surface. WOC 4 hrs. Pressure test surface casing to 1000 psi for 30 minutes.

Slurry weight: 15.2 ppg

Electric logs: Production Hole:

- 1) GR-Neutron: TD to surface.
- 2) SP-LDT-DIL-CAL-PE: TD to base of surface casing

7. ABNORMAL PRESSURE AND TEMPERATURE:

H ₂ S	None
Coal	Fruitland
Minerals	None
Water	None
Static BHT	175° F
Lost Circulation	Possible
Hole Deviation	None
Abnormal Pressures	None
Unusual Drilling Problems	None

8. ANTICIPATED STARTING DATE: October 1, 2006

Anticipated duration: 16 days

Shootist #19-16

2000 psi Choke Manifold

Minimum requirements

Components

1 – 2" Valve (2M)

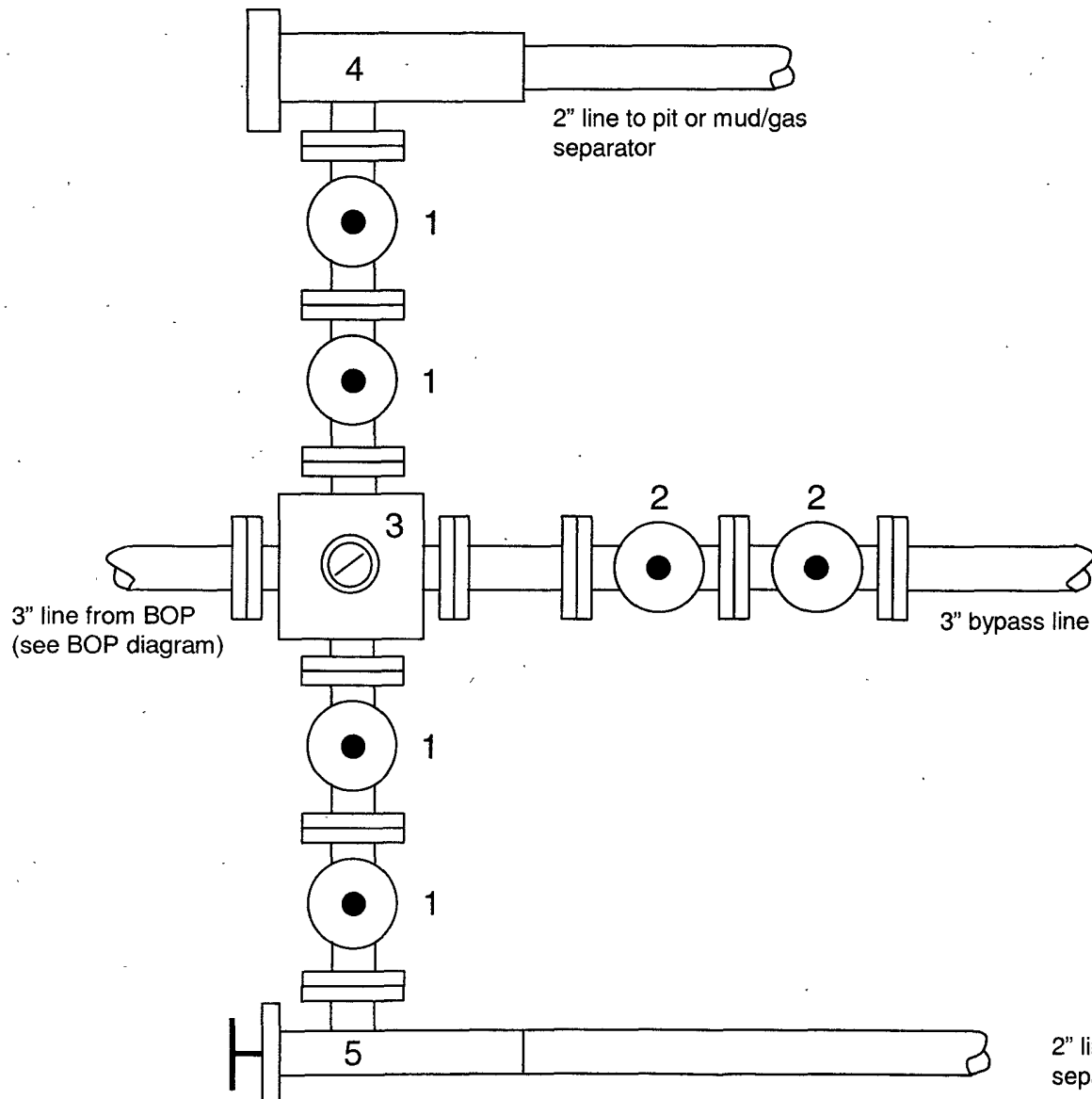
2 – 3" Valve (2M)

3 – Mud cross with gauge (2M) flanged below the gage.

4 – Adjustable choke (2M)

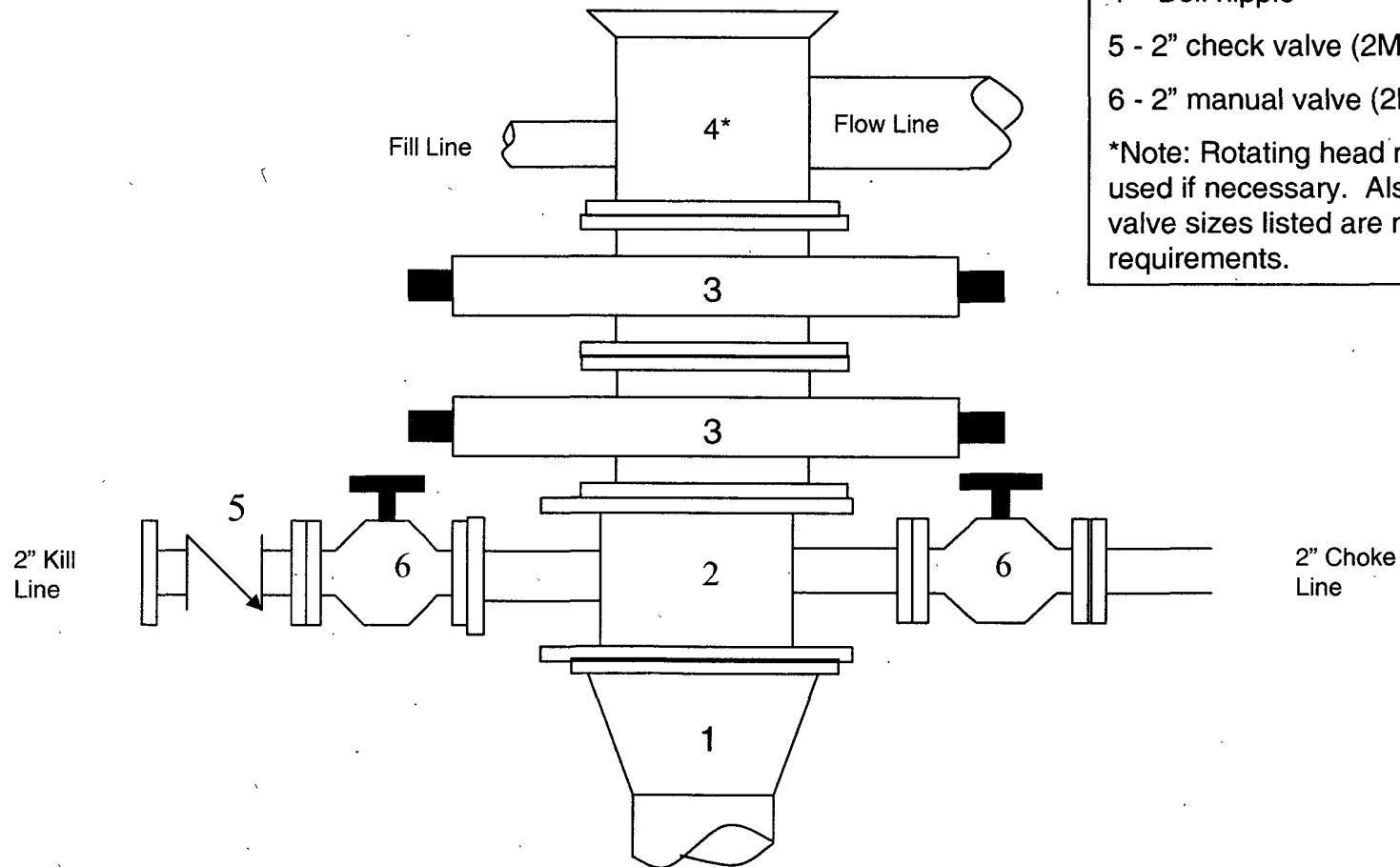
5 – Adjustable choke (2M)

Note: All line and valve sizes listed are minimum requirements.



Shootist #19-16

2000 psi BOP stack
Minimum requirements



Components

- 1 - Wellhead 9-5/8" (2M)
- 2 - Drilling spool 11" (2M)
- 3 - A double or two single rams with blinds on bottom 11" (2M)
- 4 - Bell nipple*
- 5 - 2" check valve (2M)
- 6 - 2" manual valve (2M)

*Note: Rotating head may also be used if necessary. Also, all line and valve sizes listed are minimum requirements.