

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
APPLICATION FOR PERMIT TO DRILL OR REENTER

2006 SEP 21 AM 9 52

FORM APPROVED
OMB NO. 1004-0137
Expires: March 31, 2007

5. Lease Serial No.	NM SF -078463 A
6. If Indian, Allottee or Tribe Name	N/A
7. If Unit or CA Agreement, Name and No.	N/A
8. Lease Name and Well No. *	Quietman Federal 28 #02
9. API Well No.	30-045-33939
10. Field and Pool, or Exploratory	Fruitland Coal
11. Sec., T., R., M., or Blk. And Survey or Area	B Section 28, T31N - R13W
12. County or Parish	San Juan
13. State	New Mexico

1a. Type of Work	<input checked="" type="checkbox"/> DRILL	<input type="checkbox"/> REENTER	RECEIVED
1b. Type of Well	<input type="checkbox"/> Oil Well	<input checked="" type="checkbox"/> Gas Well	<input type="checkbox"/> Other
	<input type="checkbox"/> Single Zone	<input type="checkbox"/> Multiple Zone	070 FARMINGTON NM

2. Name of Operator	Patina Oil and Gas Corp.
---------------------	--------------------------

3a. Address	1625 17th St. Suite 2000, Denver, CO 80202
3b. Phone No. (include area code)	303.228.4223

4. Location of well (Report location clearly and in accordance with any State requirements. *)	At surface "B", NWNE, 660' FNL, 1875' FEL
	At proposed prod. zone

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*	5 miles north of Farmington, NM
---	---------------------------------

15. Distance from proposed* location to nearest property or lease line, ft. 660' (Also to nearest drlg unit line, if any)	16. No. of Acres in lease 1600	17. Spacing Unit dedicated to this well N/2 320 acres
---	--------------------------------	---

18. Distance from proposed location* to nearest well, drilling completed, applied for, on this lease, ft. +/- 2500'	19. Proposed Depth 6602'	20. BLM/ BIA Bond No. on file LMP 8720503
---	--------------------------	---

21. Elevations (Show whether DF, RT, GR, etc.) 5757' GR	22. Approximate date work will start* 11/1/2006	23. Estimated Duration 16 days to drill
---	---	---

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.	4. Bond to cover the operations unless covered by existing bond on file (see item 20 above).
2. A Drilling Plan.	5. Operator certification.
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).	6. Such other site specific information and/ or plans as may be required by the a authorized officer.

Attached: Drilling Program, Surface Use Plan, BOPE Diagram and Exhibits 1 - 4.

I hereby certify that Patina Oil & Gas Corp. is responsible under the terms and conditions of the lease to conduct lease operations.
Bond coverage pursuant to 43 CFR 3104 for lease activities is being provided by BLM Bond # LMP 8720503

RCVD JUL 5 07
OIL CONS. DIV.
DIST. 3

25. Signature	Name (Printed/ Typed) Joe Mazotti	Date 9/19/2006
---------------	-----------------------------------	----------------

Title Regulatory Analyst

Approved By (Signature)	Name (Printed/ Typed)	Date 7/3/07
-------------------------	-----------------------	-------------

Title	Office
-------	--------

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.

NOTIFY AZTEC OCD 24 HRS.
PRIOR TO CASING & CEMENT

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) Submit application for permit on NMCD C-103 prior to constructing Location.
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".

(see amended cmtg program)

NMOCD 7-16-07 BH

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

RECEIVED
070 FARMINGTON, NM
WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-045-3393	*Pool Code 72319-71599-71629	*Pool Name BLANCO MESAVERDE-BASIN DAKOTA-BASIN FRUITLAND COAL
*Property Code 36599	*Property Name QUIETMAN FEDERAL 28	*Well Number 02
*OGRID No 173252	*Operator Name PATINA SAN JUAN, INC.	*Elevation 5757'

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
B	28	31N	13W		660	NORTH	1875	EAST	SAN JUAN

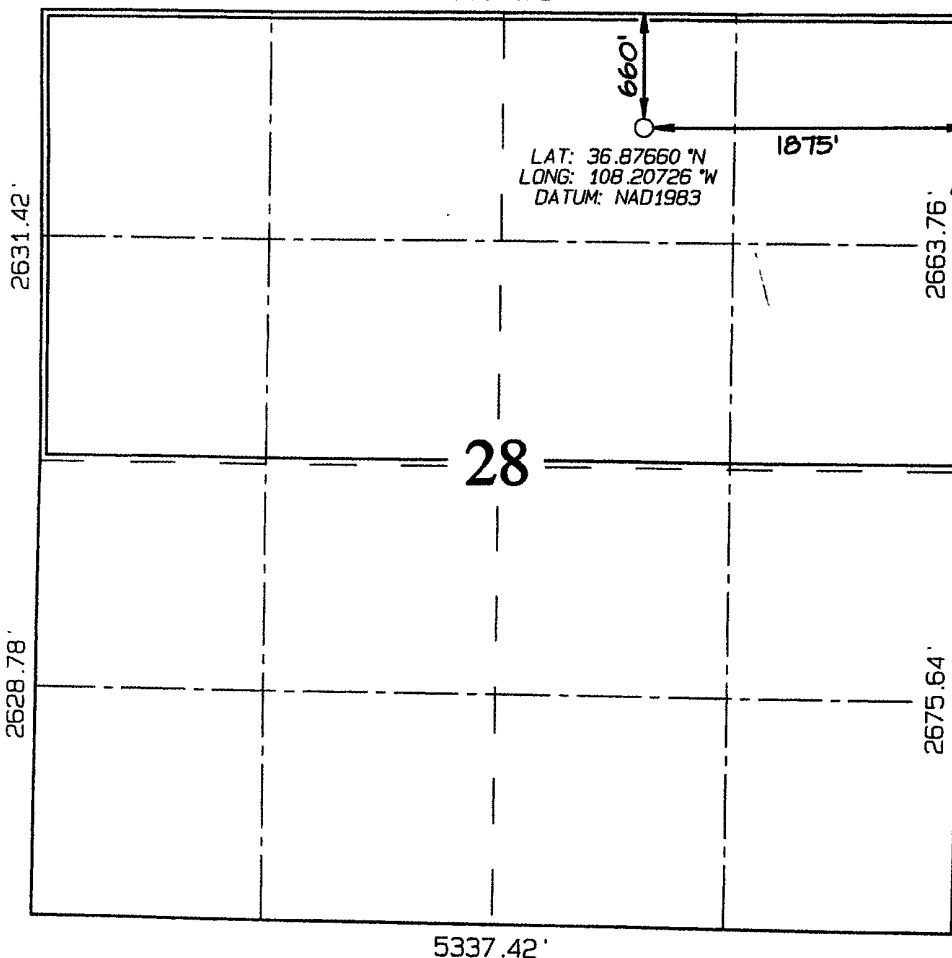
¹¹ Bottom Hole Location If Different From Surface

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 320.0 Acres - (N/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

5367.78'



¹⁷ OPERATOR CERTIFICATION

I hereby certify that the information
shown on this plat is true and complete
to the best of my knowledge and belief

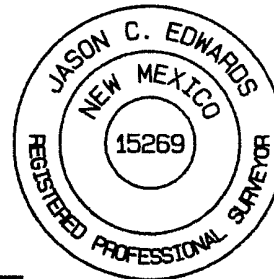
Signature
Joe Mazotti
Printed Name
Regulatory Analyst
Title
9/19/06
Date

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 19, 2006

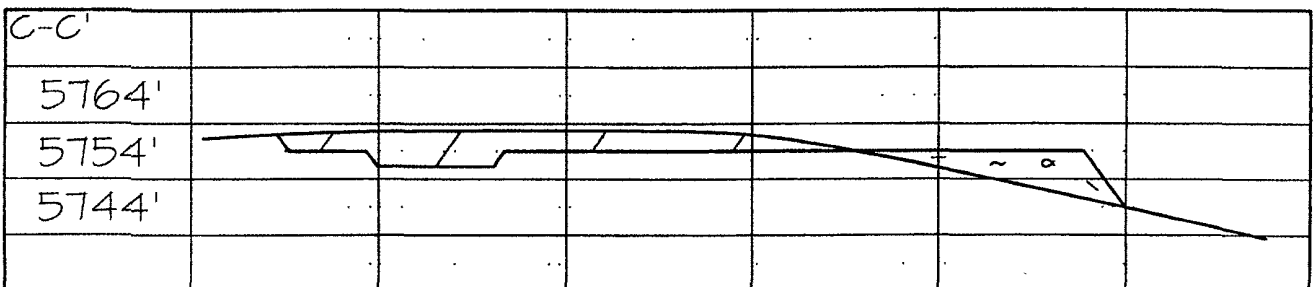
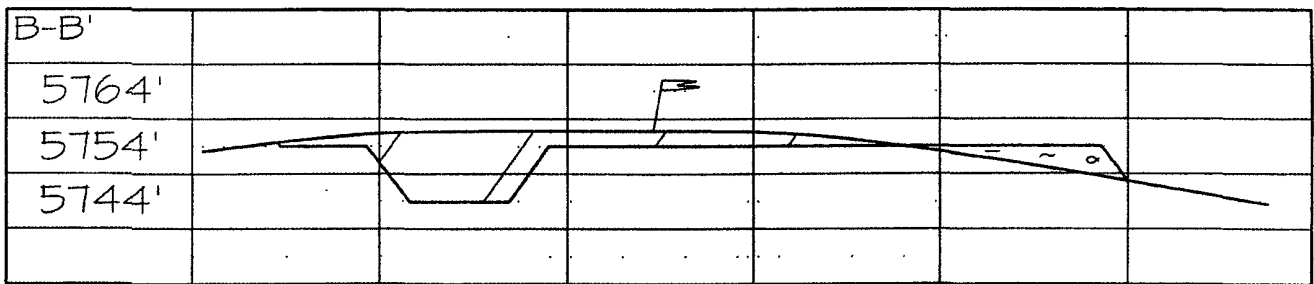
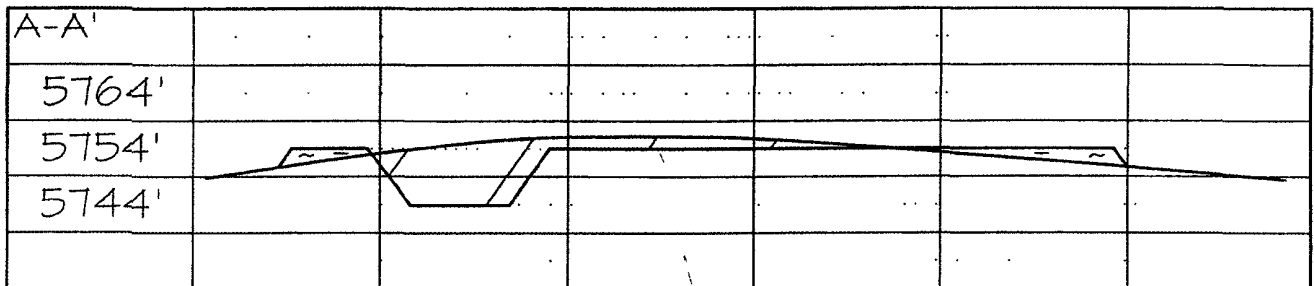
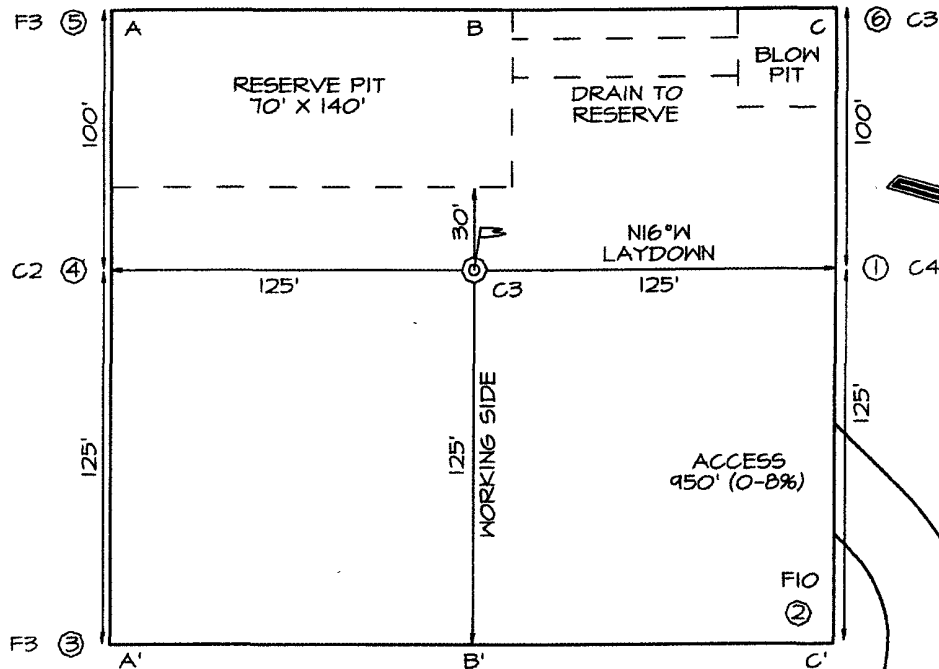
Signature and Seal of Professional Surveyor



JASON C. EDWARDS
Certificate Number 15269

PATINA SAN JUAN, INC. QUIETMAN FEDERAL 28 #02
660' FNL & 1875' FEL, SECTION 28, T31N, R13W, NMPM
SAN JUAN COUNTY, NEW MEXICO ELEVATION: 5757'

LATITUDE: 36.87660° N
 LONGITUDE: 108.20726° W
 DATUM: NAD1983



Patina Oil & Gas Corp.

Drilling Plan

Quietman Federal 28 #02
"B", NWNE, Section 28, T31N – R13W
San Juan County, New Mexico

1. LOCATION:

Est. elevation: 5757'
NWNE Section 28-T31N-R13W
660' FSL 1875' FEL
San Juan, New Mexico

Field: Fruitland / Basin Dakota
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	867
Kirtland	976
Fruitland	1471
Pictured Cliffs**	1794
Lewis	1983
Cliff House**	3504
Menefee	3546
Point Lookout**	4212
Mancos Shale	4545
Gallup**	5768
Greenhorn	6291
Graneros	6352
Dakota***	6409
TD	6602

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	8 3/4	7.0	0	4700
Production	6 1/4	4.5	4400	6602

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
7.0	6.366	23.0	L80	LTC	3,830	6,340	435,000
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: 2,500 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 Point Lookout formation. One centralizer below stage tool and one centralizer above stage tool.

CEMENTING PROGRAMS:

9-5/8" Surface casing:

250 sx Type III cement with 3% CaCl₂, 1/4#/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
Slurry yield: 1.28 ft³/sack

Volume basis:	40' of 9-5/8" shoe joint	17 cu ft
	300' of 12-14" x 9-5/8" annulus	147 cu ft
	100% excess (annulus)	147 cu ft
	Total	310 cu ft

Note:

1. Design top of cement is the surface.
2. Have available 100 sx Type III cement with 2% CaCl₂ for top out purposes.

7" Production casing:

1st Stage:

90 sx Type III cement plus additives

Slurry weight: 13.0 ppg

Slurry yield: 2.00 ft³/sx

2nd Stage:

Lead: 110 sx of Type III cement plus additives

Slurry weight: 12.0 ppg

Slurry yield: 2.55 ft³/sx

Tail: 235 sx Type III cement plus additives

Slurry weight: 13.0 ppg

Slurry yield: 2.00 ft³/sx

Volume basis:	1 st Stage:	
	40' of 7" shoe joint	10 cu ft
	900' of 7" x 8 3/4" hole	140 cu ft
	2 nd Stage:	
	3800' of 7" x 8 3/4" hole	575 cu ft
	30% excess (annulus)	175 cu ft
	Total	900 cu ft

Note:

1. Design 1st stage top of cement is ±3,800' (150' above the top of the Menefee formation). *circulate 2nd stage to surface*
2. DV tool is 150' below the top of the Menefee Shale formation.
3. Actual cement volumes to be based on caliper log plus 30%.

4.5" Production casing: *circulate to 100' (minimum) above 7" shoe*

160 sx of 50/50 Type III/Poz cement plus additives

Slurry weight: 12.5 ppg

Slurry yield: 1.78 ft³/sx

Volume basis:	40' of 4 1/2" shoe joint	5 cu ft
	2,484' of 6 1/4" x 4 1/2" annulus	195 cu ft
	<u>40% excess (annulus)</u>	<u>80 cu ft</u>
	Total	280 cu ft

5. MUD PROGRAM:

The surface hole will be drilled with spud mud. Gel and polymer sweeps will be used from surface to 300 feet as necessary to keep hole clean.

The production hole will be drilled with water until mud up at about 3600 ft. From mud up point to intermediate casing depth, it will be drilled with a LSND mud. Anticipated mud weight ranges from 8.5 – 9.2 ppg. Mud weight will be increased as required to maintain hole stability and control gas influx. The well will be air drilled from intermediate casing point to total depth.

Sufficient mud materials to maintain stable wellbore conditions (for either well control or lost circulation scenarios) will be maintained at the well site.

No chrome-based additives will be used in the mud system.

6. EVALUATION PROGRAM:

Mud logger: From base of surface casing to TD.

Testing: No DST is planned

Coring: None Planned

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

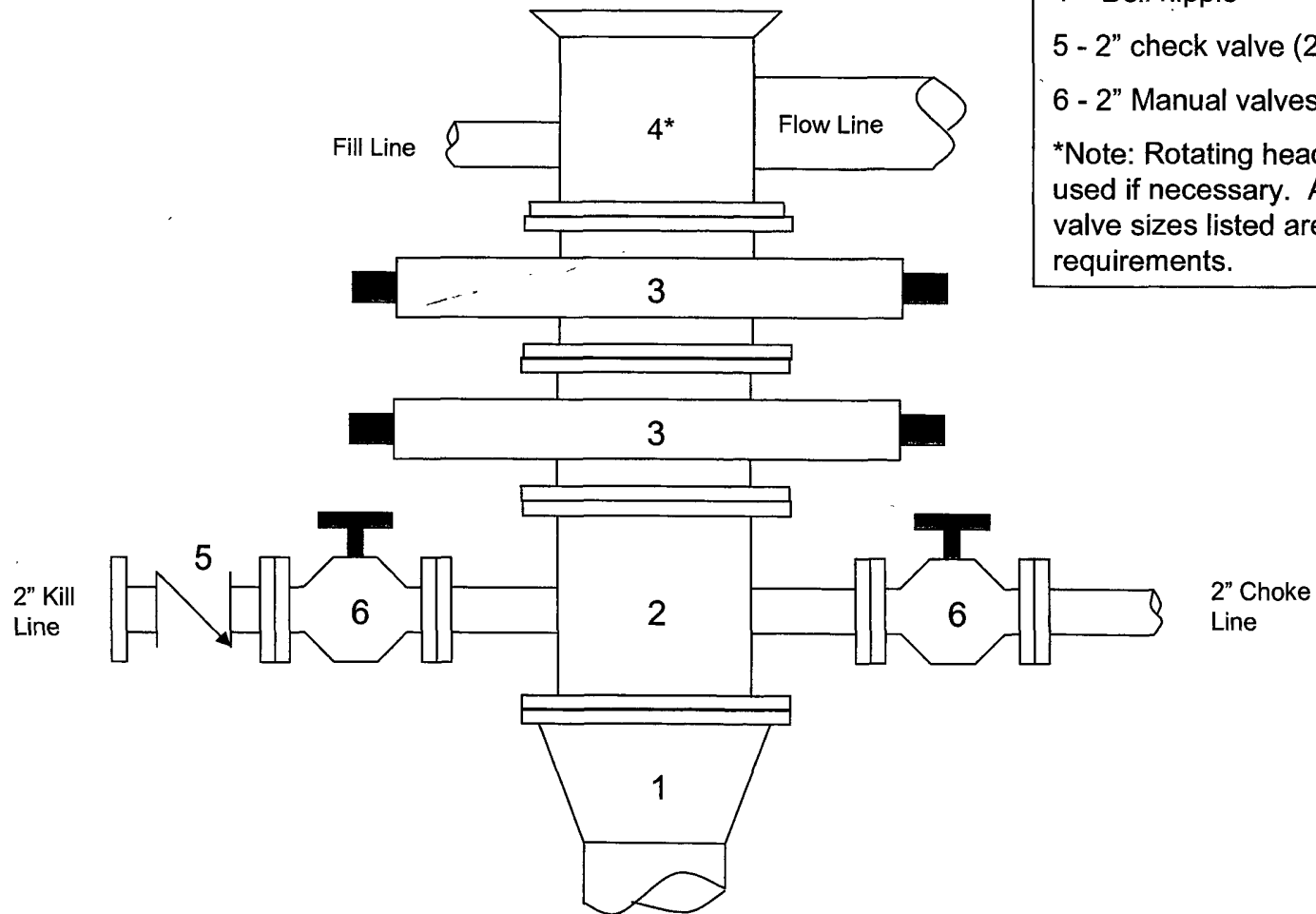
7. ABNORMAL PRESSURE AND TEMPERATURE:

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: Q2, 2006

Anticipated duration: 16 days

2000 psi BOP stack
Minimum requirements

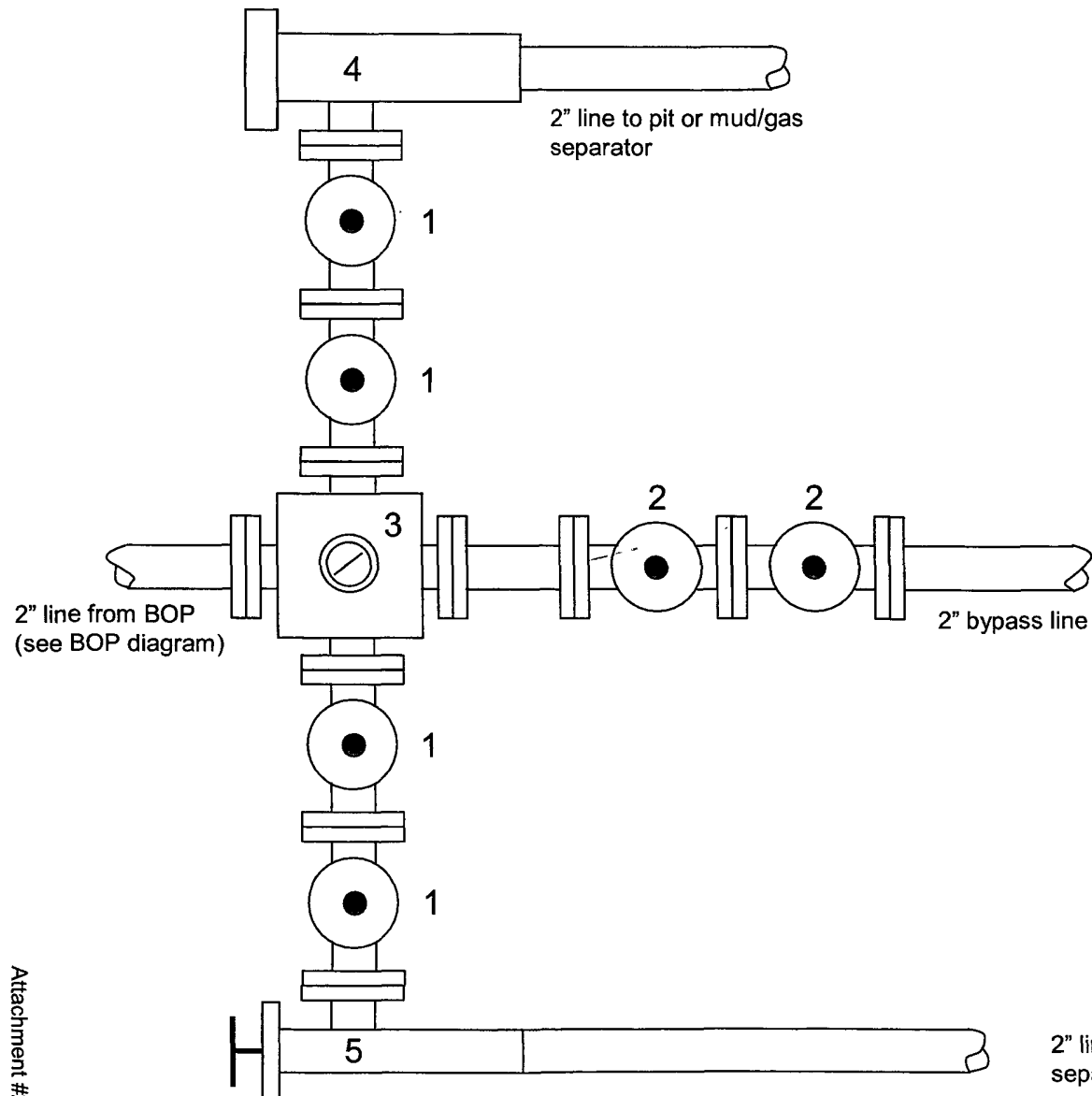


Components

- 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 valves (2M)

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

2000 psi Choke Manifold Minimum requirements



Components

1 – 2" Valve (2M)

2 – 2" 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.