

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

2005 JUN 17 6PM

RECEIVED

APPLICATION FOR PERMIT TO DRILL OR REENTERING

FORM APPROVED
OMB NO. 1004-0136
Expires: January 31, 2007

5. Lease Serial No.

NM

USASF 079527-A

6. If Indian, Allottee or Tribe Name

7. If Unit or CA Agreement, Name and No.

8. Lease Name and Well No.

CHAMPLIN #5B

9. API Well No.

30-039-29567

10. Field and Pool, or Exploratory

Blanco Mesa Verde - Basin Dakota

11. Sec., T., R., M., or Blk. And Survey or Area

SEC 25 T27N R4W
E

12. County or Parish

RIO ARRIBA

13. State

NM

1a. Type of Work ☒ DRILL☐ REENTER1b. Type of Well ☐ Oil Well ☒ Gas Well ☐ Other ☐ Single Zone ☐ Multiple Zone

2. Name of Operator

PATINA OIL AND GAS CORPORATION

3a. Address

5802 US HIGHWAY 64 FARMINGTON, NM 87402

3b. Phone No. (include area code)

505-632-8056

4. Location of well (Report location clearly and in accordance with any State requirements. *)

At surface 2090' FNL, & 720' FWL - UL "E"

At proposed prod. zone

SAME

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

21 MILES SOUTH OF DULCE, NM

15. Distance from proposed*

location to nearest
property or lease line, ft.

(Also to nearest drlg unit line, if any)

720'

16. No. of Acres in lease

320+

17. Spacing Unit dedicated to this well

W/2 320 ACRES MVA

N/2 320 DIK

18. Distance from proposed location*

to nearest well, drilling, completed,
applied for, on this lease, ft.

1000'

19. Proposed Depth

8650'

20. BLM/ BIA Bond No. on file

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

7275' GL

22. Approximate date work will start*

SEPTEMBER, 2005

23. Estimated Duration

18 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:

1. Well plat certified by a registered surveyor.

2. A Drilling Plan.

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).4. Bond to cover the operations unless covered by existing bond on file (see
item 20 above).

5. Operator certification.

6. Such other site specific information and/ or plans as may be required by the a
authorized officer.

25. Signature

Name (Printed/ Typed)

Date

JEAN M. MUSE

6/13/2005

Title

REGULATORY/ENGINEERING TECHNICIAN

Approved By (Signature)

Name (Printed/ Typed)

Date

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.

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)

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

NMOC

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-039-29567		*Pool Code 72319 \ 71599	*Pool Name BLANCO MESAVERDE \ BASIN DAKOTA
*Property Code 24032	24023	*Property Name CHAMPLIN	*Well Number 5B ✓
*OGRID No. 173252		*Operator Name CORDILLERA ENERGY, INC. Patina	*Elevation 7275 ✓

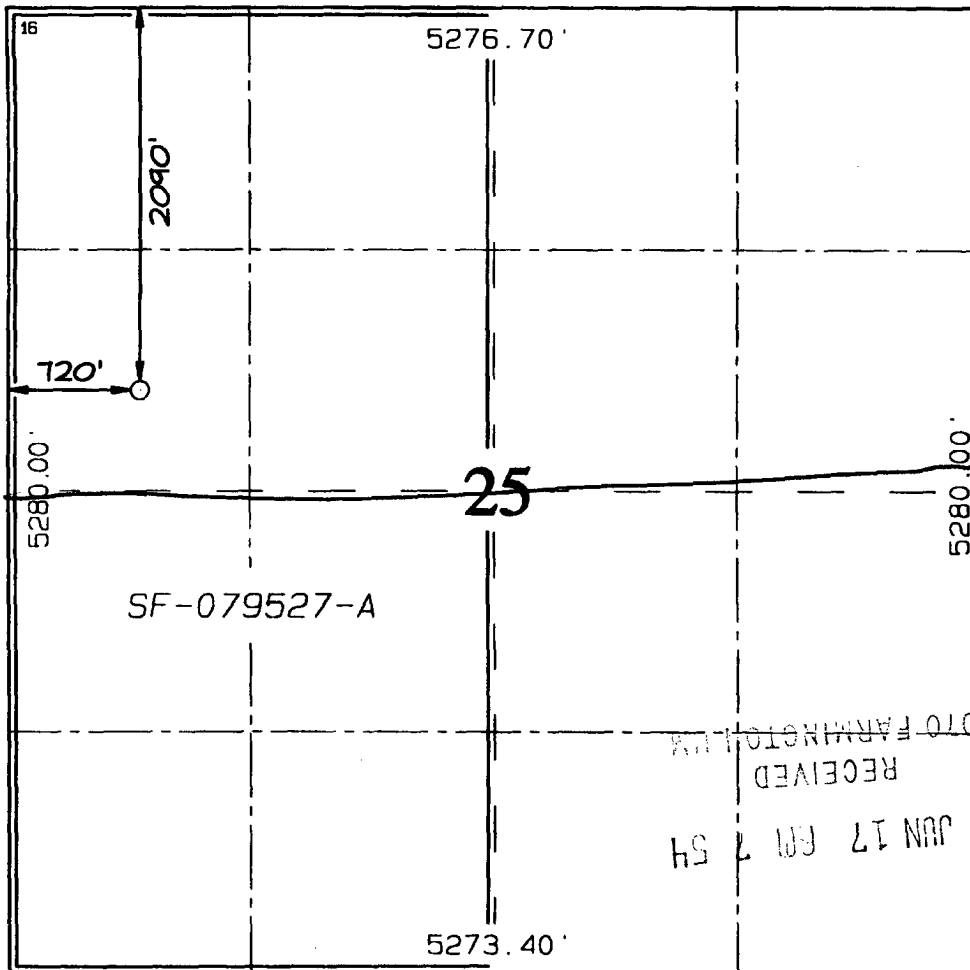
10 Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	25	27N	4W		2090	NORTH	720	WEST	RIO ARriba

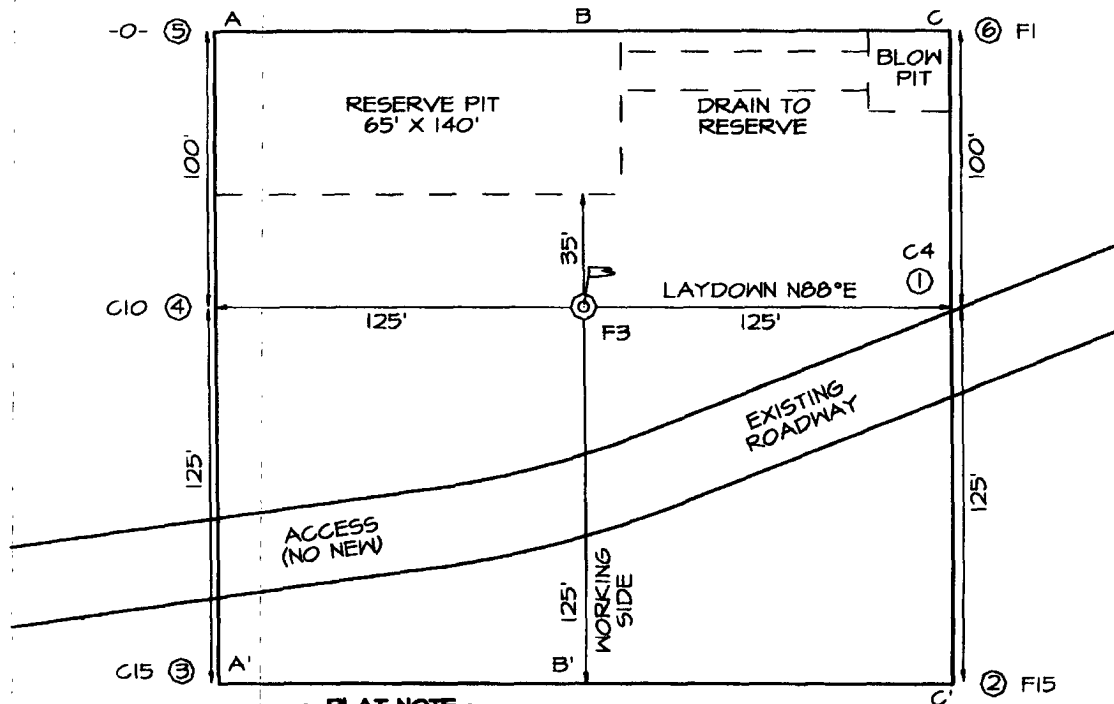
11 Bottom Hole Location If Different From Surface

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 - (W/2) MU NH OK					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

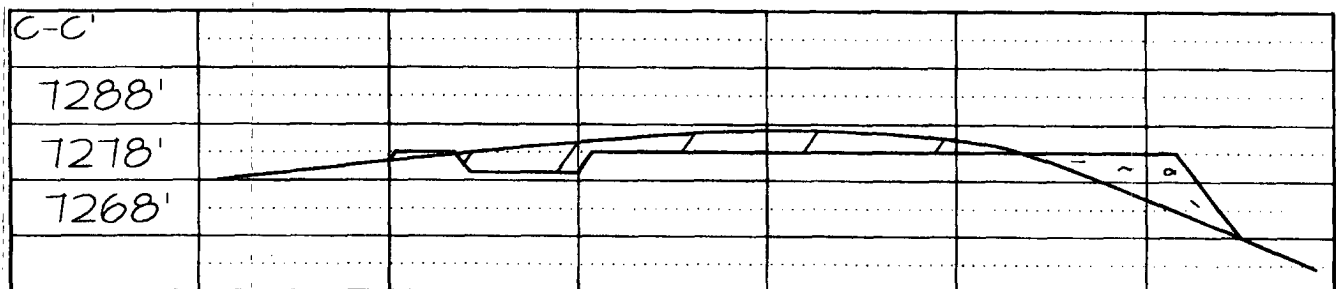
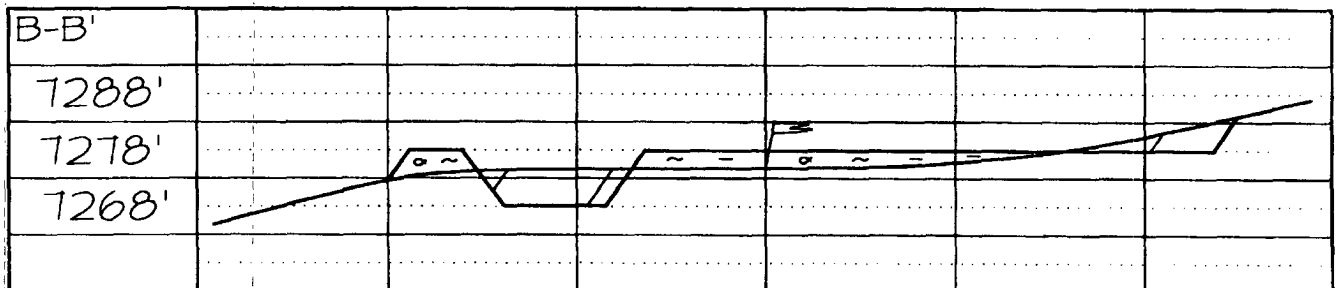
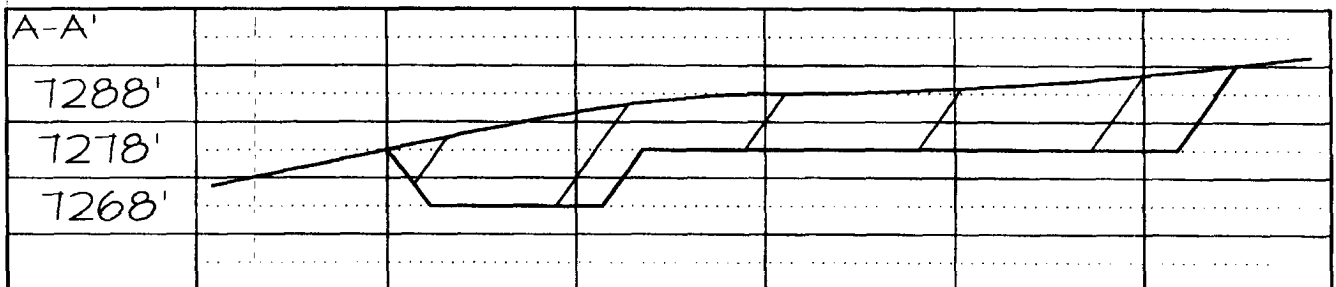
	<p>16</p>	<p>17 OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief</p> <p><i>[Signature]</i> Signature JEAN M MUSE Printed Name Regulatory/Eng Tech Title 6/13/05 Date</p>
	<p>18 SURVEYOR CERTIFICATION</p> <p>I 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>Date of Survey: JUNE 1, 2002</p> <p>Signature and Seal of Professional Surveyor</p> <p>JASON C. EDWARDS NEW MEXICO 15269 REGISTERED PROFESSIONAL SURVEYOR</p> <p>JASON C. EDWARDS Certificate Number 15269</p>	

CORDILLERA ENERGY, INC. CHAMPLIN #5B
2090' FNL & 720' FWL, SECTION 25, T27N, R4W, NMPM
RIO ARriba COUNTY, NEW MEXICO GROUND ELEVATION: 7275'



~ PLAT NOTE ~
 ROUND CORNER #3 TO MINIMIZE CUT AND
 TO ALLOW FOR TAPERING THE GRADE OF
 THE EXISTING ROAD INTO THE PROPOSED PAD

LATITUDE: 36°32'45"
 LONGITUDE: 107°12'31"
 DATUM: NAD1927



**Champlin #5B
General Drilling Plan
Patina San Juan, Inc.
Rio Arriba County, New Mexico**

1. LOCATION:

Elevation: 7275' GL
SWNW 2090' FNL and 720' FWL
Section 25, T27N, R4W

Field: Blanco MV & Basin DK
Surface: Carson National Forest - US Forest Service
Minerals: Carson National Forest - US Forest Service

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

Surface formation – San Jose

<u>Formation</u>	<u>Estimated Formation Top (Ft)</u>
Fruitland	3744
Pictured Cliffs**	4095
Lewis	4325
Cliff House	5695
Menefee	5936
Point Lookout***	6237
Gallup	7322
Greenhorn	8212
Graneros	8278
Dakota ***	8317
TD	8650

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	13.50	9.625	0	300
Intermediate	8.75	7.0	0	4500
Production	6.25	4.5	4200	8650

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
7.000	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: 5,000 psi

Float Equipment:

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

Intermediate Casing: Float shoe on bottom joint and a float collar one joint up from float shoe. One centralizer 10 ft above float shoe and nine centralizers spaced every joint above the float collar. Stage tool above the Fruitland Coal. One centralizer below stage tool and one centralizer above stage tool.

Production Casing: 4 1/2" whirler type cement nosed guide shoe and a float collar on top of bottom joint with centralizers over potential hydrocarbon bearing zones.

CEMENTING PROGRAMS:

9-5/8" Surface casing:

245 sx Type III cement with 2% CaCl₂, 1/4#/sx cellofakes. 100% excess to circulate cement to surface. WOC 12 hrs. Pressure test surface casing to 1000 psi for 30 minutes.

Slurry weight: 15.2 ppg
Slurry yield: 1.27 ft³/sack

Volume basis:	40' of 9-5/8" shoe joint	17 cu ft
	300' of 13-1/2" x 9-5/8" annulus	147 cu ft
	<u>100% excess (annulus)</u>	<u>147 cu ft</u>
	Total	311 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" Intermediate Casing:

1st Stage:

155 sx of Type III cement plus additives

Slurry weight: 13.0 ppg

Slurry yield: 2.00 ft³/sx 310

2nd Stage: (Stage tool at ±2500')

Lead: 105 sx of Type III cement plus additives

Slurry weight: 12.0 ppg

Slurry yield: 2.55 ft³/sx 268

Tail: 60 sx of Type III cement plus additives

Slurry weight: 13.0 ppg

Slurry yield: 2.00 ft³/sx 120

698 ft³

Volume Basis:	40' of 7" shoe joint	9 cu ft
	4200' of 7" x 8 3/4" hole	631 cu ft
	300' of 7" x 9 5/8" casing	50 cu ft
	<u>30% excess (annulus)</u>	<u>189 cu ft</u>
	Total	879 cu ft

Note:

1. Design top of cement is surface.
2. Actual cement volumes to be based on caliper log plus 30%.
3. Intermediate TD @ ±4500', cement stage tool @ ±2500'.

4 1/2" Production casing:

390 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
	4150' of 4 1/2" x 6 1/4" hole	426 cu ft
	300' of 4 1/2" x 7" casing overlap	33 cu ft
	200' above 4.5" liner (without drill pipe)	44 cu ft
	<u>40% excess (annulus)</u>	<u>184 cu ft</u>
	Total	692 cu ft

Note:

1. Design top of cement is $\pm 4000'$ (200' above the top of the 4.5" liner w/out drill pipe).
2. Intermediate casing @ $\pm 4500'$.
3. Estimated TD @ $\pm 8650'$, estimated TOL @ $\pm 4200'$ (300' overlap).
4. Actual cement volumes to be based on caliper log plus 30%.

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 intermediate hole will be drilled with a LSND mud from the base of surface casing to intermediate TD. 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 production hole will be drilled with air or air/mist to TD.

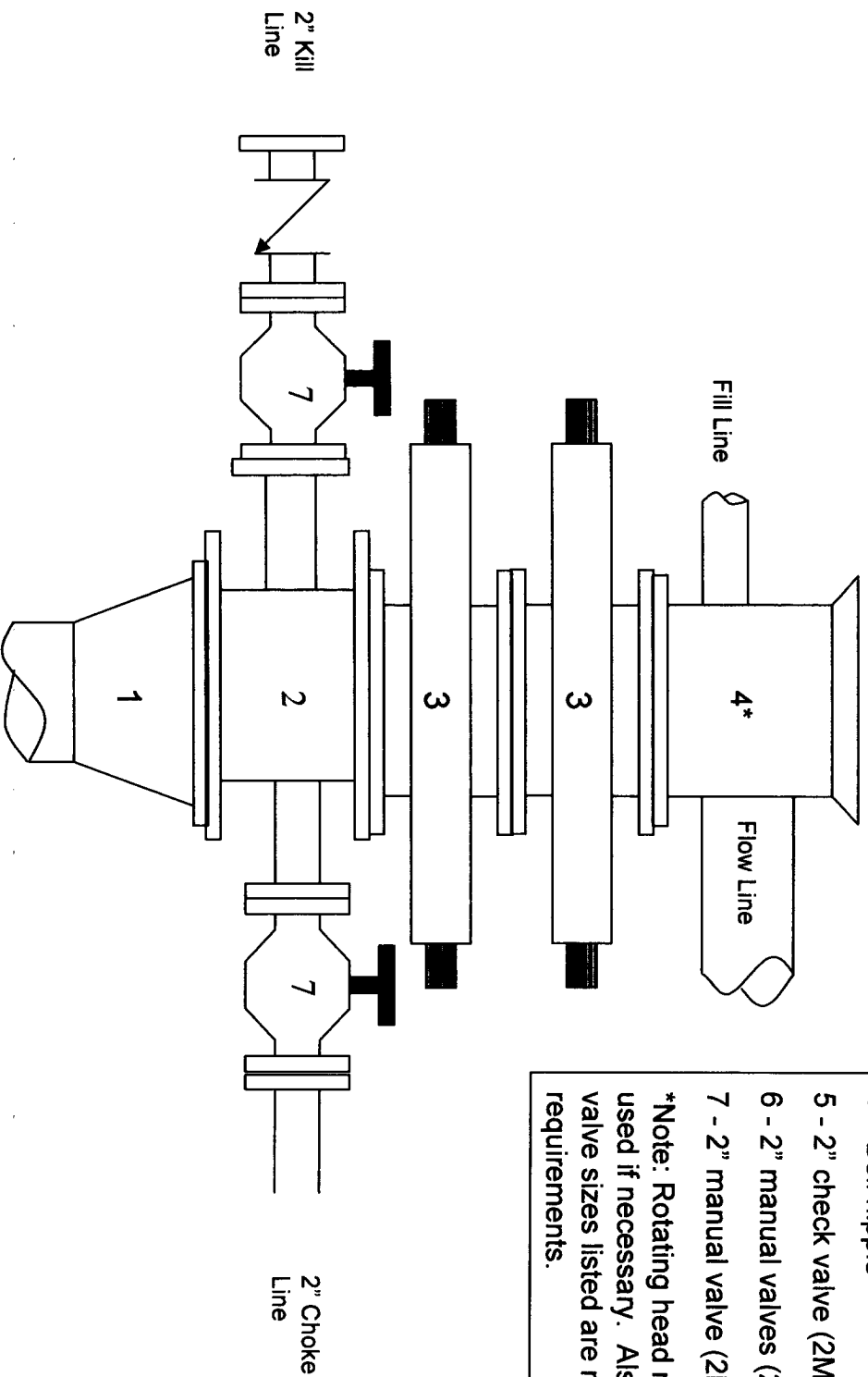
Sufficient mud materials to maintain stable wellbore conditions (for either well control or lost circulation scenarios) will be maintained at the well site.

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

Champlin #5B

2000 psi BOP stack

Minimum requirements



Components

- 1 - Wellhead 9-5/8" (2M)
- 2 - Drilling spool 1 1" (2M)
- 3 - A double or two single rams with blinds on bottom 1 1" (2M)
- 4 - Bell nipple*
- 5 - 2" check valve (2M)
- 6 - 2" manual valves (2M)
- 7 - 2" manual valve (2M)

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

Champlin #5B

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.

