

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

Form C-101  
May 27, 2004

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

Submit to appropriate District Office

☐ AMENDED REPORT

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

Operator Name and Address Patina San Juan, Inc. 5802 U. S. Highway 64 Farmington, NM 87401 (505) 632-8056		OGRID Number 173252
Property Code 34331	Property Name O'SHEA 03	API Number 30-04532601
Proposed Pool 1 BASIN DAKOTA		Proposed Pool 2 BLANCO MESAVERDE

Surface Location

UL or lot no. F	Sec. 3	Township 31N	Range 13W	Lot Idn F	Feet from the 2250	North/South line NORTH	Feet from the 1950	East/West line WEST	County SAN JUAN
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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
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Additional Well Information

Work Type Code N	Well Type Code G	Cable/Rotary R	Lease Type Code P	Ground Level Elevation 5832
Multiple N	Proposed Depth 7100	Formation DK/MV	Contractor N/A	Spud Date NOVEMBER 2004
Depth to Groundwater > 100'		Distance from nearest fresh water well > 1000'		Distance from nearest surface water > 1000'
Pit: Liner: Synthetic X 12_mils thick Clay <input type="checkbox"/> Pit Volume: _____ bbls Drilling Method: Closed-Loop System <input type="checkbox"/> Fresh Water X Brine <input type="checkbox"/> Diesel/Oil-based <input type="checkbox"/> Gas/Air <input type="checkbox"/>				

Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
12 1/4"	9 5/8"	36#	250'	140 sx	SURFACE
8 3/4"	7"	23#	4800'+/-	175 sx + 365 sx	SURFACE
6 1/4"	4 1/2"	11.6#	6900'	180 sx	4500' +/- 300' into 7"

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 WELL PLAN

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 ☐.

Printed name: RUNELL A. SEALE

Title: AGENT

E-mail Address: rascale@patinasanjuan.com

Date: 09/30/04

Phone: 505-632-8056

OIL CONSERVATION DIVISION

Approved by:

Title:

Approval Date:

Conditions of Approval Attached ☐

DEPUTY OIL & GAS REGULATOR, STATE OF NM

OCT - 1 2004

Expiration Date:

OCT - 1 2005

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 <b>30-065-32601</b>		*Pool Code <b>72319 \ 71599</b>	*Pool Name <b>BLANCO. MESAVERDE \ BASIN DAKOTA</b>
*Property Code <b>34331</b>	*Property Name <b>O'SHEA 03</b>		*Well Number <b>22</b>
*OGRID No. <b>173252</b>	*Operator Name <b>PATINA SAN JUAN, INC.</b>		*Elevation <b>5832'</b>

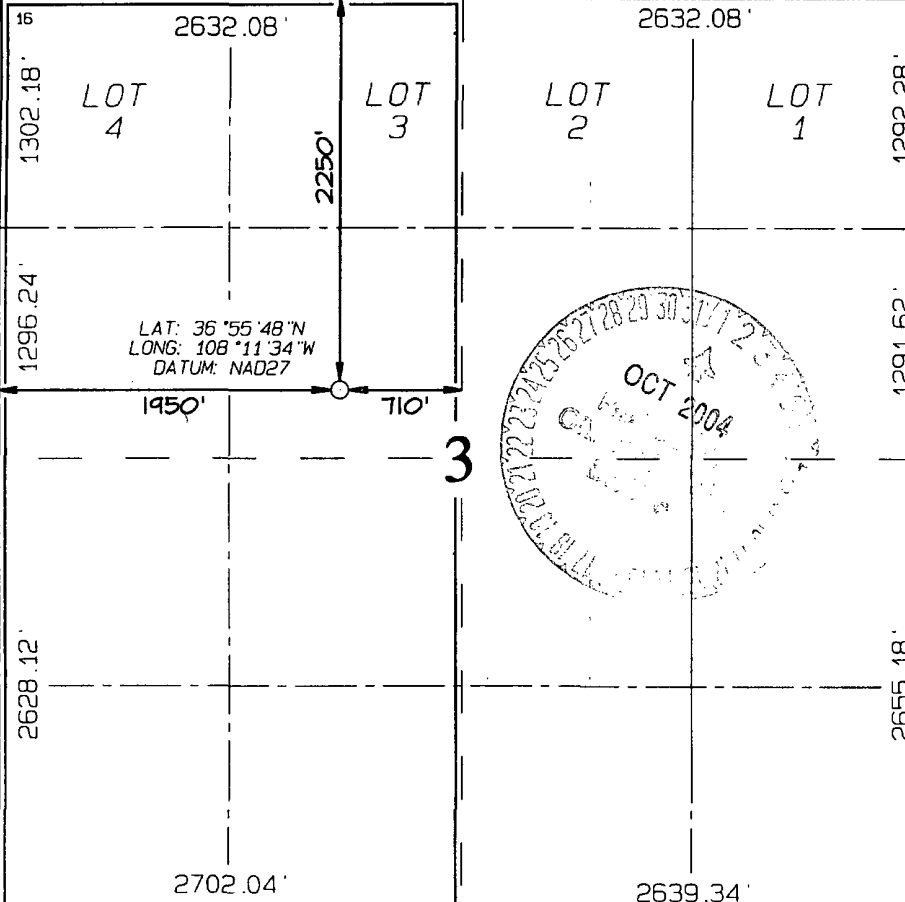
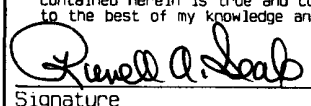
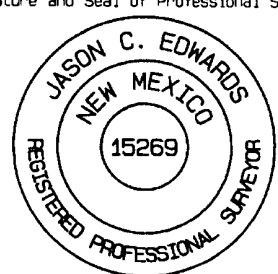
<sup>10</sup> Surface Location

UL or lot no. <b>F</b>	Section <b>3</b>	Township <b>31N</b>	Range <b>13W</b>	Lot Idn	Feet from the <b>2250</b>	North/South line <b>NORTH</b>	Feet from the <b>1950</b>	East/West line <b>WEST</b>	County <b>SAN JUAN</b>
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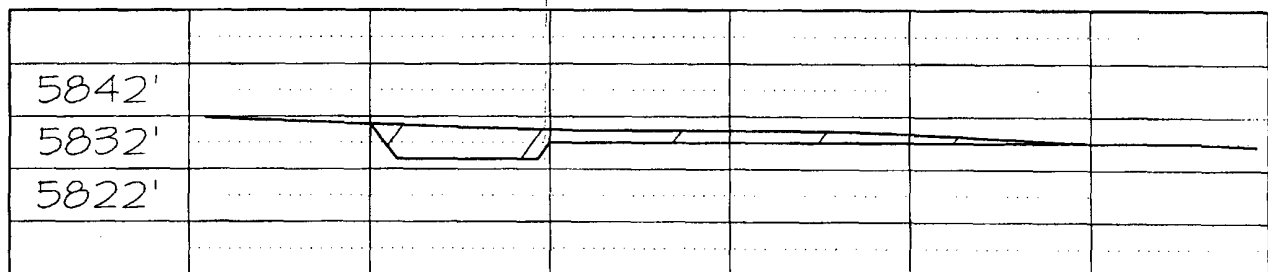
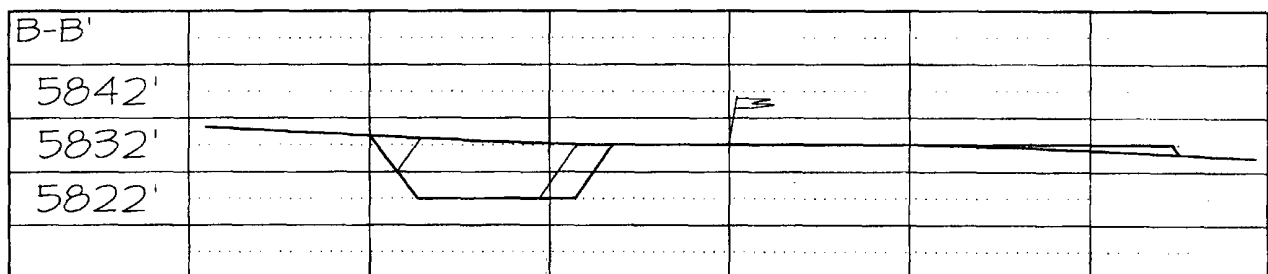
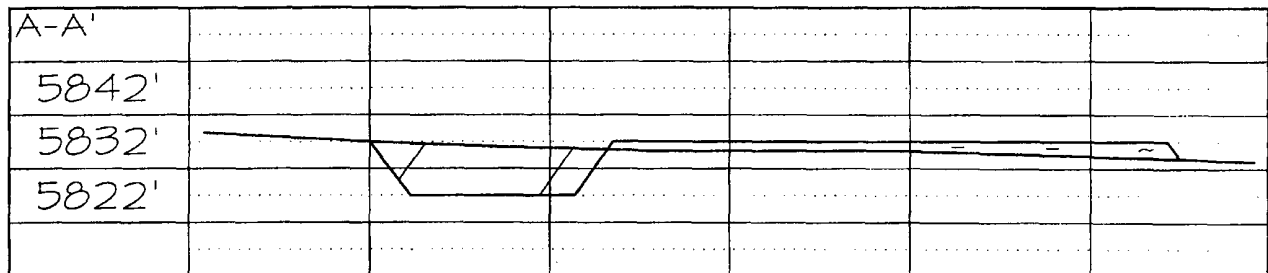
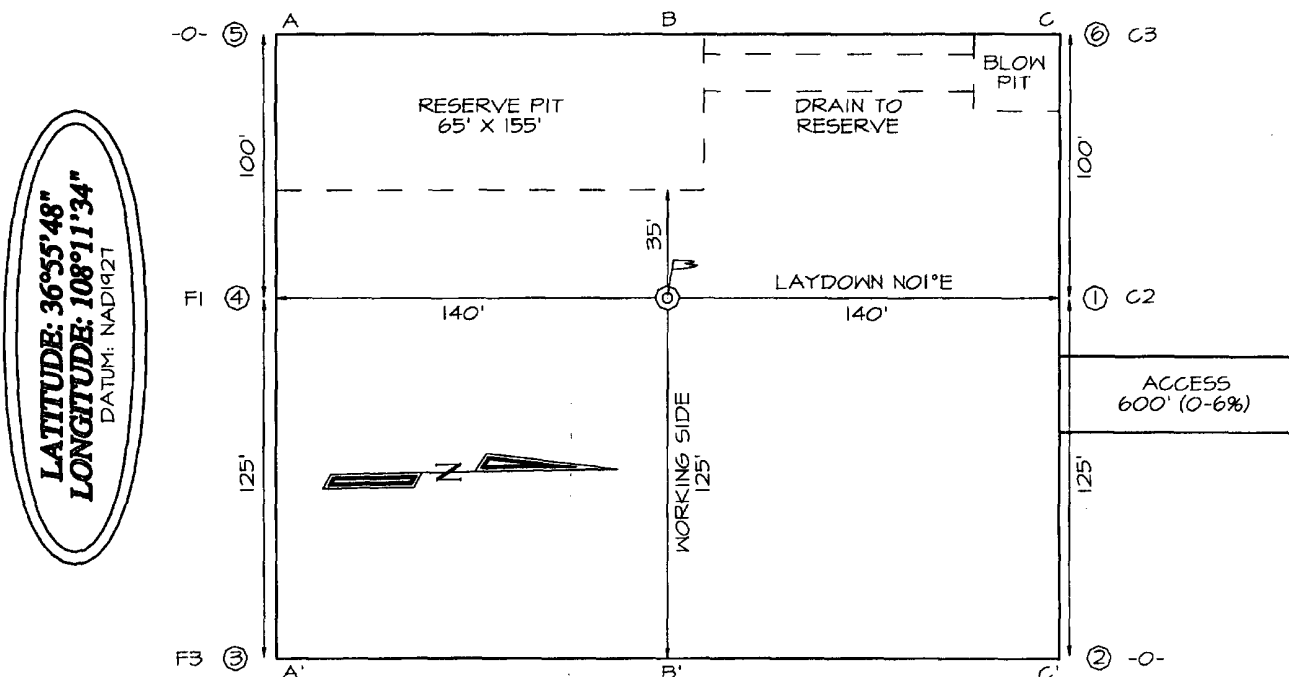
<sup>11</sup> Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
					<sup>12</sup> Dedicated Acres <b>320.30 Acres - (W/2)</b>	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> 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

	<sup>17</sup> OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief  Signature <b>Runell A. Seale</b> Printed Name <b>Agent</b> Title <b>9-30-2004</b> Date
	<sup>18</sup> 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 Survey Date: <b>SEPTEMBER 17, 2004</b> Signature and Seal of Professional Surveyor  <b>JASON C. EDWARDS</b> Certificate Number <b>15269</b>

**PATINA SAN JUAN, INC. O'SHEA 03 #22**  
**2250' FNL & 1950' FWL, SECTION 3, T31N, R13W, NMPM**  
**SAN JUAN COUNTY, NEW MEXICO ELEVATION: 5832'**



**O'Shea #03-22**  
**General Drilling Plan**  
**Patina San Juan, Inc.**  
**San Juan County, New Mexico**

**CASING DESIGN:**

Casing Program:

Hole Size	Depth	Casing Size
12 1/4"	250'	9 5/8"
8 3/4"	4800' +/-	7"
6 1/4"	7100'	4 1/2"

Hole Size	Casing Type	Top (MD)	Bottom (MD)	Wt. (lb./ft)	Grade	Thread	Condition
9-5/8"	Surface	0'	250'	36.0	J55	STC	New
7"	Production	0'	4800' +/-	23.0	N80	LTC	New
4 1/2"	Production	0	7100'	11.6	N80	LTC	New

Casing Data				Collapse (psi)	Burst (psi)	Min. Tensile (Lbs.)
OD	Wt/Ft	Grade	Thread			
9-5/8"	36.0 lbs.	J55	STC	2,020	3,520	394,000
7"	23.0 lbs.	N80	LTC	3,830	6,340	442,000
4 1/2"	11.6 lbs.	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: 3,500 - 3,750 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 Cliffhouse formation. 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:**

140 sxs Type III cement with 2% CaCl<sub>2</sub>, 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 ft<sup>3</sup>/sack

Volume basis:	40' of 9-5/8" shoe joint	17 cu ft
	250' of 12-1/4" x 9-5/8" annulus	78 cu ft
	<u>100% excess (annulus)</u>	<u>78 cu ft</u>
	Total	173 cu ft

Note:

1. Design top of cement is the surface.
2. Have available 100 sx Type III cement with 2% CaCl<sub>2</sub> for top out purposes.

### **7" Intermediate Casing:**

1st Stage: 175 sacks of Type III cement

Slurry weight: 14.5 ppg  
Slurry yield: 1.4 ft<sup>3</sup>/sack

2<sup>nd</sup> Stage: (Stage tool at 3600' +/-): 365 sacks of Premium Lite FM

Slurry weight: 12.4 ppg  
Slurry yield: 1.92 ft<sup>3</sup>/sack

Volume Basis:	40' of 7" shoe joint	9 cu ft
	4550' of 7" x 8 3/4" annulus	684 cu ft
	250' of 7" x 9 5/8" hole	42 cu ft
	<u>30% excess (annulus)</u>	<u>204 cu ft</u>
	Total	939 cu ft

Note:

1. Design top of cement is surface.
2. Actual cement volumes to be based on caliper log plus 30%.

### **4 1/2" Production casing:**

Stage 1: 180 sacks of Premium Lite High Strength FM out guide shoe.

Slurry weight: 12.3 ppg  
Slurry yield: 2.13 ft<sup>3</sup>/sack

Volume basis:	40' of 4 1/2" shoe joint	5 cu ft
	4 1/2 " x 6 1/4" hole	267 cu ft
	4 1/2" x 7" casing	33 cu ft
	30% excess (annulus)	92 cu ft
	<u>Total</u>	<u>397 cu ft</u>

**Note:**

1. Design top of cement is 4500 +/- ft. or 300 ft. into 7" intermediate casing.
2. Actual cement volumes to be based on caliper log plus 30%.

**MUD PROGRAM:**

The surface hole will be drilled with spud mud. Gel and polymer sweeps will be used from surface to 250 feet as necessary to keep hole clean.

The intermediate hole will be drilled with water till mud up at about 1600 ft. From 1600' to 4800', intermediate casing depth, will be drilled with LSND mud. Anticipated mud weight ranges from 8.5 – 9.0 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.

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.

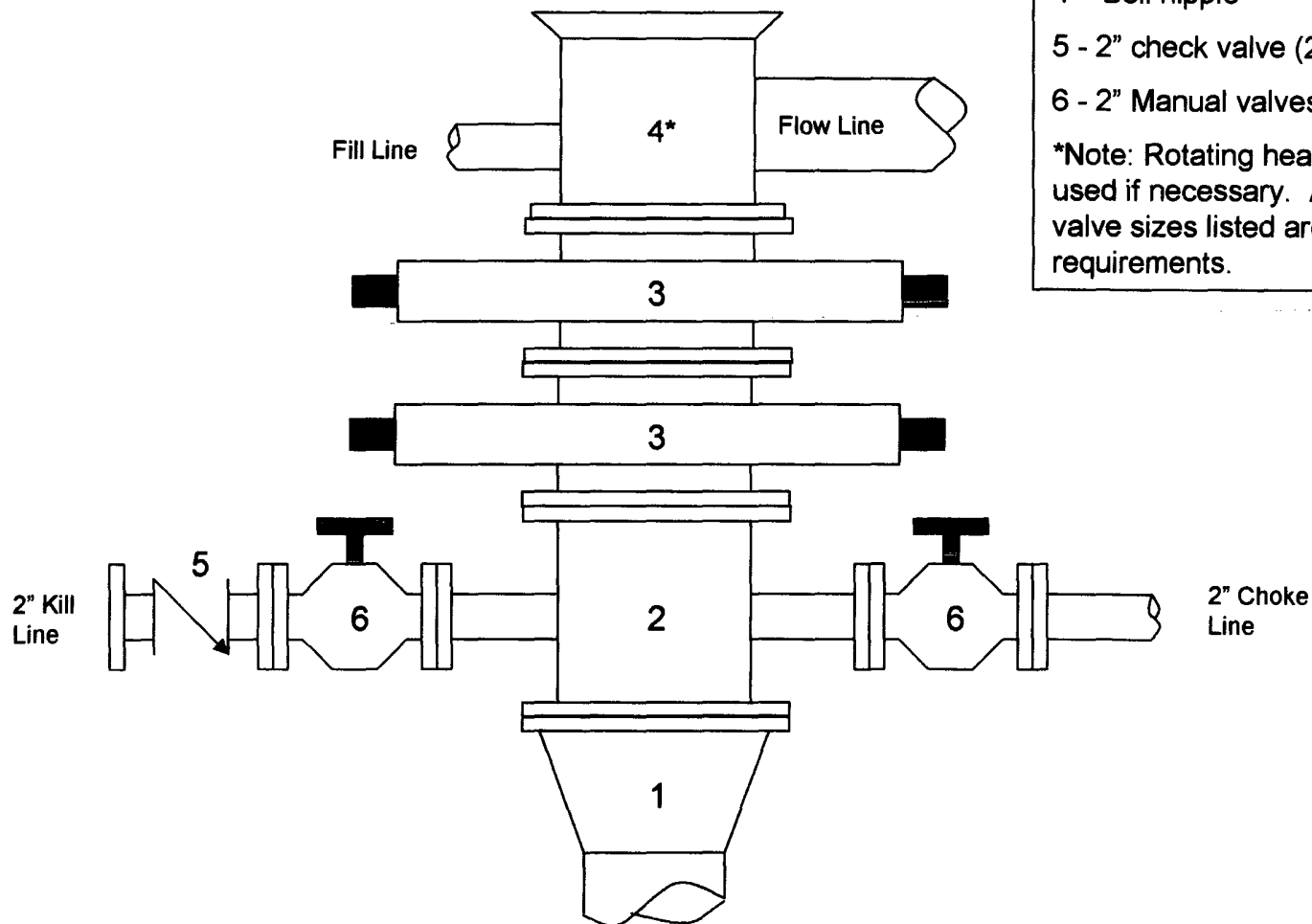
**EVALUATION PROGRAM:**

Mud logger:	From base of surface casing to TD.
Testing:	No DST is planned
Coring:	None Planned
Electric logs:	Intermediate Hole:
	1) DIL-GR-SP: TD to base of surface casing.
	2) LDT-CNL-GR-CAL-PE: TD to base of surface casing
	Production Hole:
	1) DIL-GR-SP: TD to base of intermediate casing.
	2) LDT-CNL-GR-CAL-PE: TD to base of intermediate casing

## O'Shea #03-22

2000 psi BOP stack

Minimum requirements



### Components

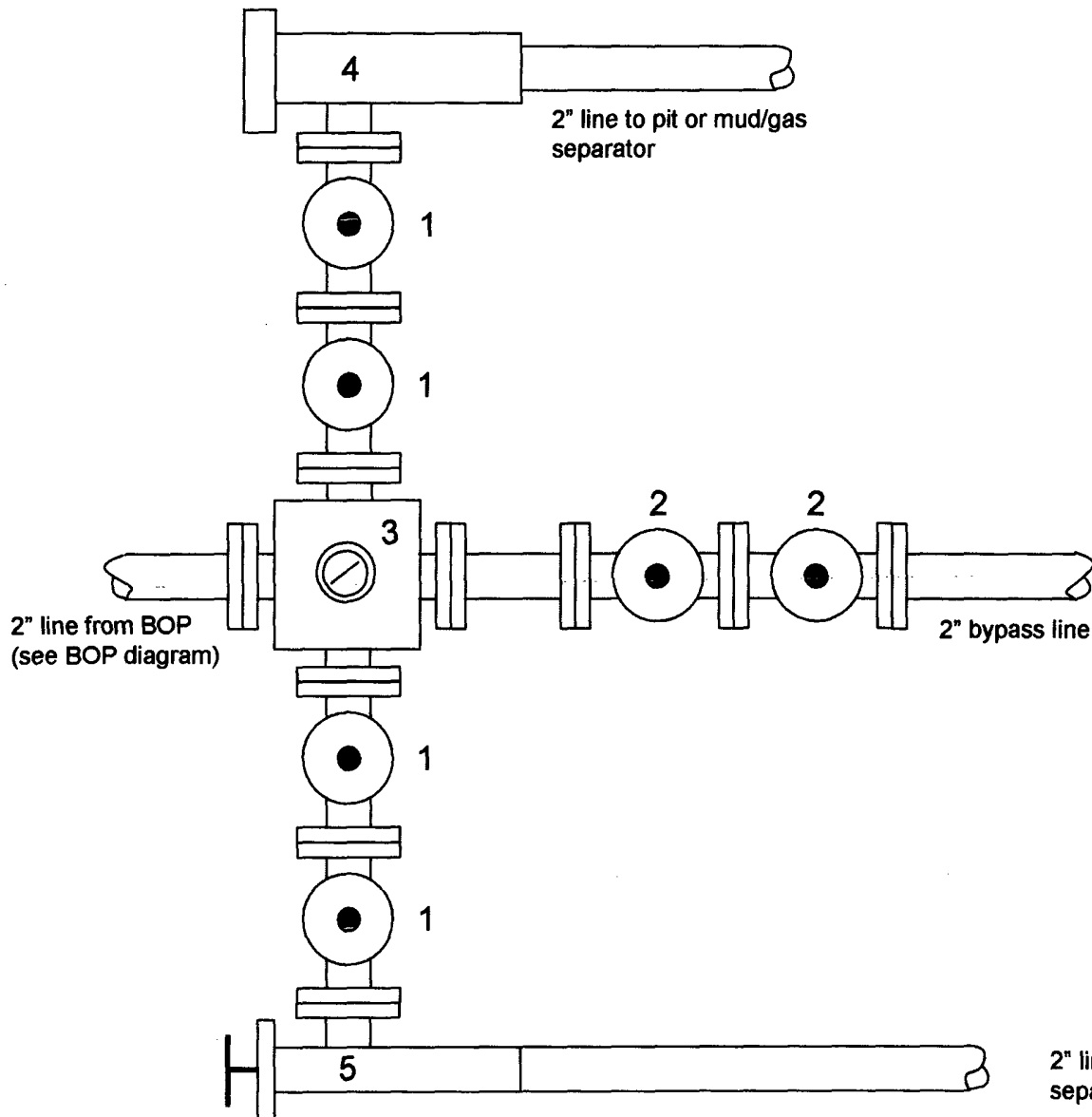
- 1 - Wellhead 9-5/8" (2M)
- 2 - Drilling spool 11" (2M)
- 3 - A double or two single rams with blinds on bottom 11" (2M)
- 4 - Bell nipple\*
- 5 - 2" check valve (2M)
- 6 - 2" Manual valves (2M)

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

## O'Shea #03-22

### 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 – Beam choke (2M)

5 – Adjustable choke (2M)

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