

Submit 3 Copies To Appropriate District Office

District I

1625 N. French Dr., Hobbs, NM 88240

District II

1301 W. Grand Ave., Artesia, NM 88210

District III

1000 Rio Brazos Rd., 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-103

May 27, 2004

WELL API NO.

30-045-32585

5. Indicate Type of Lease

STATE ☐ FEE ☒

6. State Oil & Gas Lease No.

7. Lease Name or Unit Agreement Name

RIO BRAVO 27

8. Well Number

#12

9. OGRID Number 173252

10. Pool name or Wildcat

Blanco Mesa Verde/Basin Dakota

SUNDRY NOTICES AND REPORTS ON WELLS

(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM 101) FOR PROPOSALS.)

1. Type of Well: Oil Well ☐ Gas Well ☒ Other

2. Name of Operator

PATINA SAN JUAN, INC

3. Address of Operator

5802 U.S. HIGHWAY 64 FARMINGTON, NEW MEXICO 87401

4. Well Location

Unit Letter L : 1650 feet from the SOUTH line and 775 feet from the WEST line

Section 27 Township 31N Range 13W NMPM SAN JUAN County

11. Elevation (Show whether DR, RKB, RT, GR, etc.)

5549' GL

Pit or Below-grade Tank Application ☒ or Closure ☐

Pit type Drilling Depth to Groundwater >100' Distance from nearest fresh water well >1000' Distance from nearest surface water >1000'

Pit Liner Thickness: 12 mil Below-Grade Tank: Volume          bbls; Construction Material SYNTHETIC

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐

TEMPORARILY ABANDON ☐ CHANGE PLANS ☐

PULL OR ALTER CASING ☐ MULTIPLE COMPL ☐

OTHER: EXTENSION OF PERMIT TO DRILL & NAME CHANGE ☒

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐

COMMENCE DRILLING OPNS. ☐ P AND A ☐

CASING/CEMENT JOB ☐

OTHER: ☐

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

PATINA SAN JUAN REQUESTS AN EXTENSION TO THE PREVIOUSLY APPROVED PERMIT TO DRILL ISSUED OCTOBER 1, 2004 EXPIRING OCTOBER 1, 2005.

PATINA SAN JUAN PROPOSES TO CHANGE THE WELL NAME

FROM: HONDO 27 #12

TO: RIO BRAVO 27 #12

ADD THE BLANCO MESA VERDE/BASIN DAKOTA FORMATIONS TO THE COMPLETION OBJECTIVE, PER THE ATTACHED DRILLING PLAN. THE BLANCO MESA VERDE/BASIN DAKOTA FORMATIONS WILL BE SELECTIVELY PERFORATED & COMPLETED.

THE WELL WILL BE CONNECTED TO THE SANDROCK GATHERING SYSTEM FOR SALE TO WILLIAMS FIELD SERVICES.

APD EXT. Exp 9-20-06

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

I further certify that any pit or below-grade tank has been/will be constructed or closed according to NMOC guidelines ☐, a general permit ☐ or an (attached) alternative OCD-approved plan ☐.

SIGNATURE Muse TITLE REGULATORY/ENGINEERING TECHNICIAN DATE 11/15/05

Type or print name JEAN M. MUSE E-mail address: jmuse@patinasanjuan.com Telephone No. 505-632-8056

For State Use Only

APPROVED BY: [Signature] TITLE DEPUTY OIL & GAS INSPECTOR, DIST. IV DATE NOV 15 2005

Conditions of Approval (if any):

**Rio Bravo 27 #12  
General Drilling Plan  
Patina San Juan, Inc.  
San Juan County, New Mexico**

**1. LOCATION:**

Est. elevation: 5549'  
NWSW of Section 27, T31N, R13W  
San Juan, New Mexico

Field: Blanco Mesa Verde & Basin DK  
Surface: Fee  
Minerals: Fee

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

Surface formation -- Nacimiento

<b><u>Formation</u></b>	<b><u>Estimated Formation Top (Ft)</u></b>
Ojo Alamo	590
Kirtland	1371
Fruitland	1709
Pictured Cliffs**	1959
Lewis	2080
Cliff House**	3258
Menefee**	3379
Point Lookout***	4042
Mancos	4600
Gallup	5587
Greenhorn	6109
Graneros	6172
Dakota ***	6236
TD	6365

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	4650
Production	6.25	4.5	4350	6660

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: 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:

245 sx Type III cement with 2%  $\text{CaCl}_2$ , 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
	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%  $\text{CaCl}_2$  for top out purposes.

### 7" Intermediate Casing:

1<sup>st</sup> Stage:  
170 sx of Type III cement plus additives  
Slurry weight: 13.0 ppg  
Slurry yield: 2.00 ft<sup>3</sup>/sx

2<sup>nd</sup> Stage: (Stage tool at  $\pm 3000'$ )  
Lead: 215 sx of Type III cement plus additives  
Slurry weight: 12.5 ppg  
Slurry yield: 2.24 ft<sup>3</sup>/sx

Tail: 60 sx of Type III cement plus additives  
Slurry weight: 13.0 ppg  
Slurry yield: 2.00 ft<sup>3</sup>/sx

Volume Basis:	40' of 7" shoe joint	9 cu ft
	4350' of 7" x 8 3/4" hole	654 cu ft
	300' of 7" x 9 5/8" casing	50 cu ft
	<u>30% excess (annulus)</u>	<u>211 cu ft</u>
	Total	924 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:**

180 sx of Type III cement plus additives

Slurry weight: 13.0 ppg

Slurry yield: 2.00 ft<sup>3</sup>/sx

Volume basis:	40' of 4 1/2" shoe joint	5 cu ft
	2010' of 4 1/2" x 6 1/4" hole	206 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>30% excess (annulus)</u>	<u>72 cu ft</u>
	Total	360 cu ft

**Note:**

1. Design top of cement is ±4150' (200' above the top of the 4.5" liner w/out drill pipe).
2. 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 water until mud up at about 3100 ft. From mud up point to intermediate casing depth (±4650'), 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 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.

**6. 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) No open hole logs

2) Cased hole resistivity & porosity logs

**7. ABNORMAL PRESSURE AND TEMPERATURE:**

H <sub>2</sub> 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:** December, 2005

Anticipated duration: 16 days