

## OPERATIONS PLAN

DATE: MAR 14, 1989

Well Name: 406 SAN JUAN 28-6 UNIT  
 Sec. 19 T28N R06W  
 BASIN FRUITLAND COAL

680'S 1140'W  
 RIO ARriba NEW MEXICO  
 Elevation 6595'GL

Formation tops: Surface- SAN JOSE  
 Ojo Alamo- 2396  
 Kirtland- 2653  
 Fruitland- 3098  
 Fruitland Coal Top- 3209  
 Fruitland Coal Base- 3340  
 Intermediate TD- 3189  
 Total Depth- 3341  
 Pictured Cliffs- 3344

**RECEIVED**  
 JUN 20 1991  
 OIL CON. DIV  
 DIST. 3

Logging Program: Mud logs from intermediate to total depth.

Mud Program: Low solid non-dispersed mud from surface to total depth.

Casing Program:	Hole Size	Depth Interval	Csg. Size	Weight	Grade
	12 1/4"	0 - 200	9 5/8"	32.3#	H-40
	8 3/4"	0 - 3189	7"	20.0#	K-55
	6 1/4"	3139 - 3341	5 1/2"	15.5#	K-55
Tubing Program:		0 - 3341	2 7/8"	6.5#	J-55

Float Equipment: 9 5/8" surface casing - saw tooth guide shoe.

7" intermediate casing - guide shoe and self-fill insert float valve. Three centralizers run every other joint above shoe. Run insert float one joint above the guide shoe.

5 1/2" production liner - float shoe on bottom and a pre-drilled liner run to the 7" casing with a minimum 50' overlap. Liner hanger is a double slip grip type.

Wellhead Equipment: 9 5/8" x 7" x 2 7/8" x 11" 3000 psi xmas tree assembly.

#### Cementing:

9 5/8" surface casing - cement with 106 sacks of class "B" cement with 1/4# flocele/sack and 3% calcium chloride (125 cu ft. of slurry, 100% excess to circulate to surface). WOC 12 hours. Test casing to 600 psi for 30 minutes.

7" intermediate casing - lead with 62 sacks of 65/35 class "B" poz with 6% gel, 2% calcium chloride and 1/2 cu.ft. Perlite/sack (10.3 gallons of water/sack) tail with 100 sacks of class "B" with 2% calcium chloride. 238 cu ft. of slurry, 100% excess to cover the Ojo Alamo. Run temperature survey at 8 hours. WOC 12 hours. Test casing to 1500 psi for 30 minutes.

5 1/2" liner - do not cement.

The Fruitland coal formation will be completed.

A 3000 psi WP and 6000 psi test double gate preventer equipped with blind and pipe rams will be used for blow out prevention on this well. This gas is dedicated.

The W/2 of Section 19 is dedicated to this well.