

## DRILLING PLAN

STATE E COM #1E  
NE NE Section 16-29N-10W  
San Juan County, New Mexico

1. SURFACE GEOLOGICAL FORMATION: Tertiary Huerfano

2. ESTIMATED TOPS OF GEOLOGICAL MARKERS:

Ojo Alamo	1033'	Upper Mancos	4794'
Kirtland	1072'	Gallup	5609'
Fruitland	1871'	Lower Mancos	6137'
Pictured Cliffs	2108'	Greenhorn	6367'
Lewis	2273'	Graneros	6414'
Chacra	3113'	Dakota A	6474'
Cliff House	3671'	Dakota B	6527'
Menefee	3801'	Morrison	6732'
Point Lookout	4351'		

3. ESTIMATED TOPS OF POSSIBLE WATER, OIL, GAS OR MINERALS:

Ojo Alamo	1033'	Water
Fruitland	1871'	Gas
Pictured Cliffs	2108'	Gas
Cliff House	3674'	Gas
Gallup	5609'	Gas
Dakota	6474'-6527'	Oil & Gas

4. PROPOSED CASING PROGRAM:

<u>Casing</u>	<u>Hole Size</u>	<u>Interval</u>	<u>Section Length</u>	<u>Size OD</u>	<u>Weight Grade and Joint</u>	<u>New Used</u>
Conductor	---	---	---	---	---	---
Surface	12-1/4"	0-400'		8-5/8"	24#,K-55,STC	New
Intermediate	---	---	---	---	---	---
Production	7-7/8"	0-6714'		4-1/2"	10.5#,K-55,STC	New
Liner	---	---	---	---	---	---

### Cement Program

Conductor ---

Surface Circulate cement to surface with 2% CaCl<sub>2</sub> additive

Intermediate ---

Production Volume of cement will depend on caliphed hole volume. Neat cement will be placed about 1000' above lower producing formations. Estimated 175 sx 50/50 poz mix with 4% gel and friction reducer followed by 160 sx Class "G" cement. Set DV tool 100' below Ojo Alamo and cement in to surface casing.

Liner ---