

DRILLING PROGNOSIS
Medallion Production Company
Vacuum Prospect
Vacuum 31-1
660' FSL & 1980' FEL
Section 31 T16S R34E
Lea County, New Mexico

1. Geological Information: Elevation ' GL, Estimated tops:
- | | |
|------------|---------|
| Rustler | 1700' |
| San Andres | 4650' |
| Abo | 8200' |
| Wolfcamp | 9800' |
| Strawn | 11,800' |
| Atoka | 12,000' |
| Morrow | 12,500' |
| PTD | 12,700' |

2. Hole size and casing:
- 13-3/8" casing @ 400' in 17½" hole
 - 9-5/8" casing @ 4600' in 12¼" hole
 - 5½" casing @ 12,700 in 7-7/8" hole

3. Mud properties:
- | <u>Depth</u> | <u>MW (PPG)</u> | <u>Viscosity (Sec)</u> | <u>Fluid Loss (ML)</u> |
|---------------|-----------------|------------------------|------------------------|
| 0'-400' | 8.4-9.0 | 34-36 | NC |
| 400'-4600' | 8.4-10.4 | 32-34 | NC |
| 4600'-9500' | 8.4-8.6 | 28 | NC |
| 9500'-12,700' | 8.6-10.0 | 20-40 | 20-8 |

Adequate stocks of LCM and weighting materials will be kept on location to meet the usual range of circulating and pressure control problems.

4. Pressure control:

The well will be drilled with conventional rotary tools of adequate size and power for the depths involved. At present the choice of contractor is pending. Subsurface pressures will be controlled; (1) by mud of sufficient weight to control expected subsurface pressures and; (2) by a 5000 psig BOP double ram stack with a 5000 psig annular preventer installed on the 9-5/8" casing. BOPE chokes, manifolding, and accessory equipment as is customary to the area will be installed. The stack will be tested to rated pressure upon installation and the annular to 2500 psig. All pipe rams and the annular be cycled daily. The 9-5/8" will be tested to 1500 psig prior to drill out.

A Schematic of a representative BOP stack is attached as Exhibit "A".

5. Formation Evaluation:
- A. 10' drilling samples will be bagged from 4600'-TD.
 - B. A one man mud logging unit will be installed and logging from 10,000'-TD.
 - C. A drill stem test is possible over the Atoka/Morrow zone expected at about 12,500'.
 - D. A Gamma Ray log will be run from TD to surface with a DLL from TD to intermediate casing. A CNL/LD log will be run from TD to intermediate casing.