

DEVELOPMENT PLAN
JICARILLA CONTRACT 147 NO. 6
790' FNL & 1850' FWL, SECTION 6, T-25-N, R-5-W
RIO ARriba COUNTY, NEW MEXICO

The proposed site for drilling is located on sandyclay soil with vegetation being primarily greasewood with some snakeweed. The geologic name of the surface formation is Paleozoic San Jose. Approximately 500 feet of road will be rerouted to allow sufficient area for drilling facilities. A wash on the eastern edge of the location will be diverted to the east of the drilling location. Verbal approval of the drill site has been obtained from Mr. Harold Tecube, Jicarilla Apache Tribe; John Keller, U.S.G.S.; and Nancy Hewett, Archaeologist.

Arrangements are being made to haul water from the Tapacito Wash, approximately two miles. Drilling fluid to 7500' will be low solids, non-dispersed drilling mud. Upon completion the location will be cleaned up, leveled and reserve pit backfilled. Attached is the seeding plan to be followed for this well.

There are no airstrips or camps in the vicinity.

The estimated tops of important geological formations bearing hydrocarbons are:

| <u>Formation</u> | <u>Depth</u> | <u>Elevation</u> |
|------------------------|--------------|------------------|
| Pictured Cliffs | 2910' | +3520' |
| Mesaverde | 4520' | +1910' |
| Gallup | 6110' | + 320' |
| Greenhorn | 7005' | - 575' |
| Graneros | 7065' | - 635' |
| Dakota | 7095' | - 665' |
| Estimated KB Elevation | 6443' | |

The proposed setting depth of each casing string and type of cement to be used for each is as follows:

| <u>Est. Depth</u> | <u>Casing Size</u> | <u>Weight</u> | <u>Hole Size</u> | <u>Sx Cmt</u> | <u>Type Cement</u> |
|-------------------|--------------------|---------------|------------------|---------------|---|
| 400' | 8-5/8" | 24# | 12-1/4" | 280 | Class "B" 2% CaCl ₂ . |
| 7500' | 4-1/2" | 10.5# | 6-1/4" | 920 | Class "B" 2% Gel, 2# Med. Tuf Plug/sx. |
| | | | | 50 | Class "B" Neat |

Amoco's standard blowout prevention will be employed, see attached drawing for blowout preventer design.

Amoco plans to run the following logs from TD to 5000': Induction-Electric, Density-Gamma Ray. No cores or Drill Stem Tests will be taken.

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