Recognition of fault bend fold, detachment and decapitation has been possible despite the poor quality of the seismic. That was successful because of:

- A full integration of all disciplines including reservoir engineering, petrophysics and geochemistry
- Visualization in 3-D that made all members of the team speak the same language
- Exploratory 3-D statistics that allowed to identify the anomalies and focus solely on the main problems
- An open mind and a full management support

Seismic has been of limited help for the interpretation of the Santa Barbara Field. This is due to a combination of factors including acquisition, processing and structural complexity.

All of the production data had to be used to give a reliable model.

Visualization has been essential to get the maximum integration with the petrophysicists, geochemists and especially with the reservoir engineer.

It has been necessary to make maximum use of 3-D visualization throughout the various phases of interpretation/integration and to make frequent comparison with outcrop analogues.

Geochemistry, petrophysics and reservoir engineering have been of great help in the structural interpretation.

The diagram to the right shows the variability of oil gravity with respect to depth. The API data fully supports the Fault Bend Fold model and indicates that oil got emplaced before its full development (FBF).

**CONCLUSIONS**

Recognition of fault bend fold, detachment and decapitation has been possible despite the poor quality of the seismic.

That was successful because of:

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