AAPG International Conference Barcelona, Spain September 21-24, 2003

Jack Dunn¹, John Baillie², Nelson Pacavira³ (1) ChevronTexaco, San Ramon, CA (2) Chevrontexaco Overseas Petroleum, Luanda, Angola (3) ChevronTexaco, Luanda, Angola

Tombua-Landana on the Road from Discovery towards Development in Angola Block 14: A Success Story

ChevronTexaco and its partners (Sonangol P&P, TotalFinaElf, AGIP and Petrogal) have made nine major discoveries in the highly prospective Block 14. The Tombua-Landana Fields are two major turbidite systems, with over a dozen core channels, make up the area that will be developed with oil in place of over 1.2 billion barrels. Because of the complex structural, stratigraphic and fluid contact relationships appraisal drilling was carefully planned and executed to maximize the number of prospects tested while minimizing cost. Development wells are also being planned to tap multiple overlapping channels from single locations. Reservoir properties are excellent, and channel-axis sands are highly prolific (DST's in excess of 10,000 STBOPD).

The data from all the discovery and appraisal wells has been incorporated with high resolution 3D seismic to construct detailed maps and geologic models for each channel system. The goal is to quantify the 3D spatial distribution of reservoir properties across the asset. Simulation modeling has been conducted to understand the details of displacement and subsurface development options.

The results of these maps and simulation models are used to gain partner consensus on the oil in place and potential recovery for each channel and zone. The Tombua-Landana region is currently in a phase of Development Analysis which has been reached quickly by a focused appraisal program and the integrated use of sophisticated geological modeling and consensus-based decision making processes.