

OIL EXPLORATION TECHNIQUES USING THE WORLD WIDE OMEGA VERY LOW FREQUENCY NAVIGATION RADIO WAVE SIGNALS

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ABSTRACT

The Omega Navigation System evolved from the Decca Navigation System that was first operated as a secret weapon for the D-Day landings in World War II. Both currently use four commensurate radio frequencies transmitted from four widely separated transmitters (fifty miles separation for Decca and six thousand miles separation for Omega). Each transmitter uses vertical antennas. This technology is the result of fifty years of well funded research, development and field operations.

This presentation will start with photographs and field data of the first GeoDecca instrument that was used to obtain hundreds of line miles of data in the San Joaquin Valley in 1970-71. In 1981 Tenneco co-sponsored GeOmega field trials in the San Joaquin Valley. The Geo-Decca signature was confirmed at the Greeley oil and gas field west of Bakersfield, CA using an experimental GeOmega instrument. This and other GeOmega field data will be shown.

Until recently the Geo-Decca and GeOmega data have been very controversial because they indicated near-surface high-resistivity zones above many highly productive oil and gas fields in Southern California. Today there is much quotable, published data by respected research scientists confirming the validity of these measurements by well logging, geochemistry and resistivity measurements. These quotes will be posted along with plans for exploration services in the Permian Basin.