



V.

MISCELLANEOUS

A. Water Depth and Water Replacement Static Corrections

Water depths ranged from 220 feet to 3350 feet. Field recorded fathograms were available for water depths up to 1800 feet. A correction of 9 feet was added to all water depths (obtained from fathograms) to correct for the depth of the transducer. Where water depths exceeded 1800 feet, the water depth values were computed from the water bottom reflection time on trace 24 of each vertically stacked record by applying the following formulae:

$$T_x = \frac{T_w}{2}$$

$$T = \sqrt{T_x^2 - T_y^2}$$

$$W_d = V_w \sqrt{T_x^2 - T_y^2}$$

$$C = T - \frac{W_d}{V_r}$$

where:

T_w = Two-way water bottom reflection time read from trace 24 of vertical stack records.

T_x = One-way time to water bottom

T_y = One-way horizontal travel time from energy source to a point mid-way between energy source and group 24.

T = One-way vertical time to water bottom.

V_w = Water velocity = 4850 feet per second.

W_d = Water depth.

V_r = Water replacement velocity = 7000 feet per second.

C = One-way static correction for replacement of water layer.