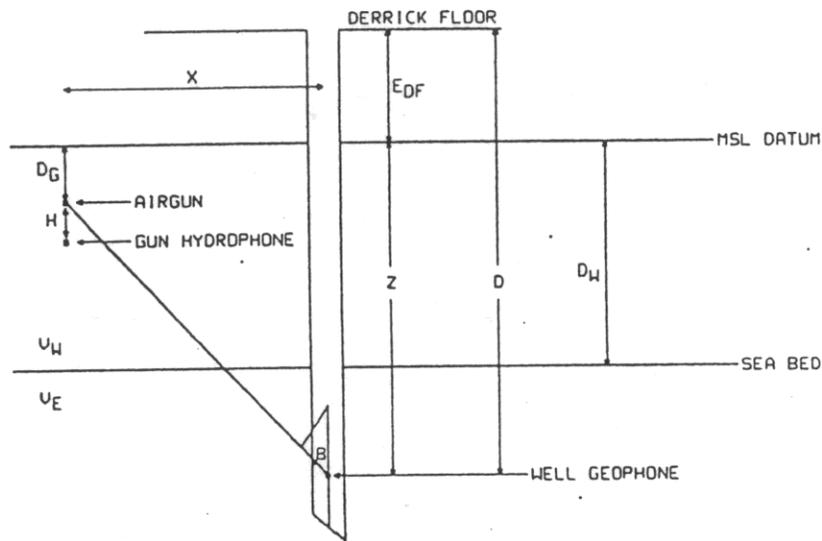


SCHEMATIC CROSS-SECTION



KEY

- DF - DERRICK FLOOR
- E_{DF} - ELEVATION OF DF ABOVE DATUM
- D^* - MEASURED DEPTH OF WELL GEOPHONE BELOW OF
- D - VERTICAL DEPTH OF WELL GEOPHONE BELOW OF
- Z - VERTICAL DEPTH OF WELL GEOPHONE BELOW DATUM
- D_G - DEPTH OF GUN BELOW M. S. L.
- H - DISTANCE BETWEEN GUN AND GUN HYDROPHONE
- X - HORIZONTAL DISTANCE BETWEEN WELL GEOPHONE AND GUN
- β - INCIDENT ANGLE AT WELL GEOPHONE LEVELS
- T - TRAVEL-TIME FROM GUN HYDROPHONE TO WELL GEOPHONE
- T_U - TIME FROM GUN TO WELL GEOPHONE CORRECTED TO VERTICAL
 (1) BY ASSUMING STRAIGHT LINE TRAVEL PATHS $\left[\left(1 + \frac{H}{D_G} \right) \cos \beta \right]$
- OR (2) BY ESTIMATING THE TRUE REFRACTED TRAVEL PATHS
- T_E - TIME CORRECTION FROM GUN TO DATUM $\left[= \frac{\text{GUN DEPTH}}{V_W} \right]$
- T_C - CORRECTED TRAVEL-TIME BETWEEN DATUM AND WELL GEOPHONE = $T_U + T_E$
- V_A - Z/T_C (AVERAGE VELOCITY)
- V_I - $\Delta Z/\Delta T_C$ (INTERVAL VELOCITY)
- D_W - DEPTH OF WATER
- V_W - WATER VELOCITY
- V_E - ELEVATION VELOCITY