

DATA ACQUISITION AND ANALYSIS METHODS

A. PORE PRESSURE EVALUATION

I. Pre-Drilling

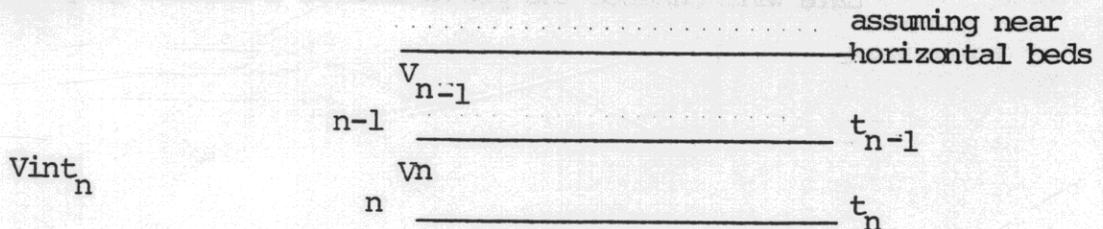
1. Offset Well Data

Whenever available, offset well data are examined to predict and evaluate pore pressure prospects in the new well. Information that can be useful is available from seismic profiles; wireline logs, especially acoustic and resistivity logs, with bottom hole temperature data; FIT, DST, and Well Kick (if any) and mud logs; daily drilling reports, including bit record, mud properties used, and remarks concerning borehole stability; and the geopressure evaluation and completion reports.

2. Seismic Information

Pore pressure prediction using seismic data primarily focuses on the interpretation of detailed velocity analyses made possible by Common-Depth-Point (CDP) recording methods. The velocity analyses are performed with velocity scan increments (50ft/sec) and output intervals in the time domain (10 milliseconds). Based on such analyses, RMS (Root Mean Square) velocity values at a series of record times (i.e. two-way travel times) may be identified. The sequence of interpreted RMS velocity-time data pairs obtained from a velocity analysis may then be recomputed to interval transit time (ITT) using Dix's (1955) formula (see figure 1).

Figure 1



$$V_{int_n}^2 = (V_n^2 t_n - V_{n-1}^2 t_{n-1}) / (t_n t_{n-1}) \dots \dots \dots \text{eq. 1}$$