

The static formation temperature estimates derived from the available data have been ranked into GOOD/FAIR/POOR categories, generally on the basis of the number of data points available for calculation, as follows:

1-2 POOR

2-3 FAIR

> 3 or other additional information GOOD

The results are tabulated in Table 5.2.

(iii) Discussion of Results

The data is of poor quality overall and the extrapolated temperatures can only be as reliable as the input data. A plot of all estimated static formation temperatures is given in Figure 5.3. This graph suggests a mean annual surface temperature of 40°F (4.44°C) and this value has been used in estimating the gradient. Nicholas and others (1981) do not specify which surface temperature they assumed, and this could have a bearing on their calculated gradient.

The new results indicate an average increase of 5°C/km in the estimated gradients over those calculated by Nicholas and others (1981) (see Table 5.2). The composite plot tends to suggest that there is a distinct break in gradient with depth, at least in some parts of the basin. However, in view of the quality of the initial data, it is also likely that these results represent underestimations of the actual gradient (see Table 5.2 and Figure 5.3).

The data group form a single normal distribution which