

014

8. REGIONAL GEOCHEMISTRY

8.1 Introduction

The southern region of the E.L. was covered by the Asarco stream sediment survey of 1973. The density of two samples/km<sup>2</sup> they attained would classify their programme as a detailed survey. Ten anomalies defined by the survey were subject to varying intensities of follow-up work, but no economic mineralisation was discovered (References 2 & 8).

Repetition of this survey, even at greater density and analysing for a greater range of elements was considered unlikely to reveal new targets for exploration. A more sensitive reinterpretation of the existing data was instead undertaken. Initial statistical treatment of the data proved unsatisfactory due to the diversity of lithologies in the surveyed areas and the tendency to highlight only those anomalous results previously recognised and followed-up.

Instead an empirical approach was adopted whereby metal values were chosen which would outline 'secondary' anomalies besides highlighting the known 'primary' anomalies. Such secondary anomalies may indicate essentially blind economic mineralisation, weak outcropping mineralisation of assorted genesis, or alternatively, such lithologies as shales with abnormal metal contents.

Metal values chosen were:

For the first order : Cu-50 ppm, Pb-50 ppm, Zn-160ppm  
For the second order: Cu-36 ppm, Pb-38 ppm, Zn-92 ppm