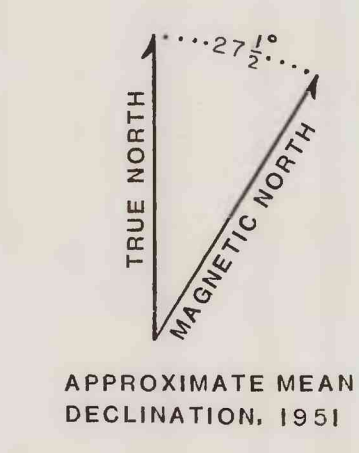


EXPLANATION OF GEOLOGIC MAP SYMBOLS



In the course of U.S. Geological Survey investigations of the Taiketauna Mountains quadrangle, 1114 stream sediment, 852 heavy mineral concentrate, and 501 rock samples were collected. All of the samples were analyzed for up to 30 elements by a six-step sequential procedure. The first step was a qualitative analysis of semi-quantitative spotgrazes for 10 elements (Miller and others, 1968). Most of the stream sediment and rock samples were also analyzed for up to 4 elements by atomic absorption spectroscopy. Plots of the analytical results for the stream sediment map shows the sample collection sites of 1117 stream sediment samples and 852 heavy mineral concentrates which were analyzed by the first step procedure. The analytical results for the stream sediment analyses showed arsenic concentrations above the lower limit of analytical determination. Complete analytical data plus lithological descriptions for 1117 stream sediment samples and analytical procedures for samples from sites shown on the present map are published in a report by Miller and others (1970). The lithological descriptions are given for 1117 stream sediment sites in different lithologies and in different areas. Because of this, as well as variability introduced from other sources such as analytical variance, analytical variance, and degree of chemical weathering, it is impossible to establish a definite arsenic level above which values might indicate the presence of arsenic deposits. For this reason, the analytical values have been grouped into ranges (see table 1) and are represented by different symbols on the map. Higher values may indicate a greater likelihood of arsenic deposits, but confidence in the low range is less certain. The results and for results which are not supported by neighboring values.

Ward, F. N., Nakagawa, H. M., Harms, T. F., and Van Sickle, G. H., 1969, Atomic-absorption methods of analysis useful in geochemical exploration: U.S. Geol. Survey Bull. 1289, 45 p.

1978

This report is preliminary and has not been edited or reviewed for conformity with Geological Survey standards and nomenclature.