

# REPORT OF THE GEOCHEMICAL LABORATORY FOR 1985

H.A. Wagenbauer  
Geochemistry and Geophysics Section

Laboratory output for the past year is summarized in Table 1. The number of determinations decreased by 12 per cent over the previous year, but all work on samples from the 1984 field season was completed prior to June 1, 1985. The decrease in output was due to a slightly lower demand for analytical work.

This respite allowed an inventory to be made of sample material remaining for the regional lake sediments and stream sediment samples collected over the past 12 years, and the commencement of some methods development.

During the past year the Mineral Laboratory acquired an ARL 3520 sequential quantometer from Applied Research Laboratories. The Mineral Laboratory is now in the process of setting up the instrument for the analysis of rare earths and other highly refractory elements which the laboratory was previously unable to provide to project geoscientists. A modern Graphite Furnace was added to our Atomic Absorption Equipment for the analysis of gold in the part per billion range. Considerable work has to be done before samples can be analyzed in a routine manner. It is hoped that the quantometer will be in operation by January 1986.

Table 1. Summary of the output from the geochemical laboratory of the Mineral Development Division from September 1, 1983 to August 31, 1984.

	<u>Number of Determinations</u>
Geochemical analyses of soil, till lake and stream sediments	48517
Silicate analyses	
Trace elements	24899
Major elements	12731
Miscellaneous analyses	
Assays, F, Ba, Sr, H <sub>2</sub> O, CO <sub>2</sub> and S on a variety of sample types.	10254
<b>TOTAL</b>	<b>96401</b>
	<u>Number of Samples</u>
Sample preparation	
Rock samples, hammer broken	107
Rock samples, crushed	3323
Rock samples, pulverized	3330
Lake, stream and soil samples sieved	2807
Miscellaneous	
Sample splitting, uranium weighing, samples shipped out for analysis	4320
Inventory of weights of lake and stream sediment samples on hand	40878