

QUALITY ASSURANCE/QUALITY CONTROL

A Quality Assurance/Quality Control program was implemented to monitor the quality of the analytical results. The main objective of this QA/QC program is to insure that sampling data and analysis results are complete, precise, exact, representative and comparable.

All samples were given sequential alphanumeric coding before submitting to the analytical firms; these coding masked any information concerning site location, sample type or possible concentrations in the samples.

All soil and groundwater samples were sent for analysis to Bodycote, Montreal Canada, division of Nunasi Environmental Corporation. In order to insure the quality of analytical results, 10 % of duplicate samples were sent to a second laboratory and analyzed for comparison purposes. Maxxam Analytics Inc. was used as the control laboratory. All results are presented in Table B.1.

Overall, the soil and groundwater sample results are coherent and within the same range of results for both laboratories. All the TPH and the PCBs results are similar for every samples and duplicates.

Some anomalies were noted when duplicates were compared within the Bodycote metals results. For the soil sample MW-5, the results for copper, zinc and arsenic presented important discrepancies between the sample and its duplicate Dup-1 (non detected vs 29 ppm; 76 vs 7 ppm; 50,1 vs 7,9 ppm respectively). These discrepancies could be explained due to the heterogeneous nature of the samples.

As for MW-16, results were similar to the exception of the arsenic results which were 17 vs 5,3 ppm. Every concentration results for F4-13 and its duplicates Dup-3 are comparable.

Concerning the groundwater sample results, the same observation can be made, i.e. the concentration are similar between the Maxxam and the Bodycote duplicates. Some difference for the metals results are noted between the MW-10 sample and its duplicate analysed by Bodycote. The parameters that presented the most important difference are zinc (2,31 vs 0,37 ppm), lead (0,064 vs 0,005 ppm) chromium (0,463 vs 0,040 ppm) and nickel (0,179 vs 0,021 ppm). The TPH and the PCB results were also similar between inter-laboratory and intra-laboratory.

In general, all results show relatively low concentrations and the reliability of the analytical results are considered as good.