

Quality Assurance & Quality Control

Drill Hole Collars and Down-Hole Surveying

Drill hole collars were spotted prior to drilling by chaining in the collar locations from the closest line picket. Drilling azimuths were established by lining up the drill by sight on the cut grid line. Drill inclinations were established using a compass on the drill head.

Once the hole was finished the drill geologist placed a fluorescent orange picket next to the collar labeled with the collar information on an aluminum tag. The X, Y and Z co-ordinates for these collar markers were surveyed using hand held Garmin GPS (nominal accuracy of ± 5 metres). Generally, casing has been left in the ground where holes were successful in reaching bedrock.

Down hole surveys were systematically performed by the driller every 50 metres using a Flexit instrument. Azimuth, inclination and magnetic field data were recorded by the driller in a survey book kept at the drill. A copy of the page is taken from the book, placed in a plastic zip lock bag and placed in the core box and the test was recorded by the geologist.

Chain of Custody, Core Handling and Logging Protocols

Core was removed from the core tube by the driller's helper at the drill and placed into core boxes labeled with hole and box number. Once the box was filled (Approximately 4 to 4.5 metres per box) it was secured at both ends, labeled and set aside. Core was picked up at the drill site by two employees (geologist, prospector or geotechnician) of Altius Resources Inc. ("Altius") each day. Core was transported from the drill site to a truck road at a distance of approximately 8-12 kilometres using all terrain vehicles and a trailer. Core was transferred to an Altius truck and transported directly to Altius' secure core facility in Labrador City. A geologist was always on site to receive the core at the core facility.

Boxes were then checked for proper labeling and correct positioning of tags. The end of box interval was measured and marked on the end of each box with an orange china marker. Box numbers, intervals and hole ID were recorded on a spreadsheet and recorded on aluminum tags which were subsequently stapled to box ends for proper cataloging. All core was photographed both wet and dry in groups of four boxes by a geotechnician or geologist.

Rock quality designation (RQD), specific gravity and magnetic susceptibility measurements were obtained for each hole and recorded on spreadsheets. A measurement of specific gravity was obtained from each unit in each hole. Magnetic susceptibility was measured using a magnetic susceptibility meter by taking one measurement every meter as an approximation of magnetic content. A KT-9 Kappameter distributed by Exploranium was used.

A geologist logs the core and records the data on logging sheets. All geological and geotechnical information is recorded digitally at the end of each day.

Sampling Method and Approach

Sample intervals were determined on a geological basis as selected by the drill geologist during logging. Sample intervals were marked by the drill geologist with a china marker during descriptive logging.

Core is first aligned in a consistent foliation direction. Iron formation is sampled systematically at 5 metre sample intervals where possible, except where lithological contacts are less than 5 metres.

All rock estimated to contain abundant iron oxide was sampled. In addition, two 3-metre samples on either side of all iron formation were taken where possible to bracket all iron formation sequences. Standard, blank and duplicate samples were inserted alternately every 10th sample. The certified standard reference materials used were CANMET's TDB-1 (<http://www.nrcan.gc.ca/mms/canmet-mtb/mmsl-lmsm/ccrmp/certificates/tdb-1.htm>) and SCH-1 (<http://www.nrcan.gc.ca/mms/canmet-mtb/mmsl-lmsm/ccrmp/certificates/sch-1.htm>). The blank material was a relatively pure quartzite and was obtained from a quarry outside of Labrador City. Duplicate samples were collected by quarter splitting a predetermined sample interval and using ¼ for the duplicate sample, ¼ for the regular sample with the remaining half core remaining in the core box for reference.

The geologist marked the sample intervals with a red china marker and places lines perpendicular to the core axis at the beginning and end of sample intervals. The geologist also marks a line through the top of the core, parallel to the core axis, to indicate to the geotechnician where it should be split.

Three-part sample tickets, with unique sequential numbers, were used to number and label samples for assay. One tag contains information about the sample (such as date, hole ID, interval and description) and is kept in a sample log book. A second tag is stapled into the core box at the beginning of the sample interval. The third tag is stapled into the in the 12"x18" plastic poly bags containing that sample. Sample numbers and intervals were entered into a digital spreadsheet.

Core is cut in half by a table top Husqvarna TS 355 rock saw at the Altius core facility by an Altius geotechnician. One half of the core comprises the sample and is placed into the labeled sample bags and stapled closed immediately after the core is cut. The remaining half of the split core is returned to the core trays in its original order and orientation and retained for future reference. Where duplicate samples were required, quarter samples were taken as noted above. Each sample is then secured within plastic pails labeled with the sample number. Lids were secured on the pails and the pails were then taped closed for extra security. The buckets were placed onto pallets at the facility where they were subsequently shrink-wrapped and also secured with plastic straps for loading onto transport trucks and shipment to **Lakefield Research Limited**, Lakefield, Ontario (<http://www.met.sgs.com/>).

Drill core samples were analyzed for whole rock analysis (major element oxides including total Fe₂O₃) by lithium metaborate fusion x-ray fluorescence (XRF), FeO by specific leach titration, and Fe₃O₄ (magnetic iron) by Satmagan.

Core Storage

After core logging and sampling were completed, core trays containing the reference half or quarter-split core and the sections of whole core were stacked on timber and rebar core racks at the Altius Labrador City core facility.