The 14th Annual Field Course in Ore Prospecting

organized by the University of Turku,
southeastern Finland,
April 19-24, 2015

Students from the University of Turku, University of Tromsø and Åbo Akademi evaluating the mineral potential in the Sarvlaxviken area with magnetometer in 2013.
Introduction

The 14th Annual Field Course in Ore Prospecting will be organized in April 19-24, 2015, by the University of Turku in the Lovisa region, southern Finland.

Since 2002, more than 200 students have taken part in this arrangement. The course was first organized in southern Sweden 2002-2004 but since 2005, all activities have taken place in the Porvoo-Lovisa region in southern Finland. Summaries of the activities are published in Materia by Sundblad (2013) and Vind et al. (2013).

Ore geology students from all Finnish universities are invited to take part in the April course. In addition, students from the universities in Sankt Petersburg, Tromsø, Riga and Tartu will also participate.

The purpose with this course is to let the students get practical experience of what they learnt from previous theoretical courses in Ore Geology and Ore Prospecting at each university. The course is organized in an area, where realistic targets exist and where there is a clear potential for new mineral resource discoveries. Each field course in the past has been successful in this respect, revealing previously undiscovered mineralizations, both in Sweden and Finland (Sundblad et al., 2006; Cook et al., 2011). The Sarvlaxviken discoveries are already of global scientific interest (Murakami & Ishihara, 2013; Appendix 1).

This is a unique course that not is organized by any other university in Finland or Sweden (probably not elsewhere in Europe or anywhere else)! The course is Finland’s biggest annual teaching event in geology and is run with the support of the mining companies.

Teaching and training is provided in...

... soil sampling and subsequent sample drying/sieving ...

... as well as magnetometry measurements and data plotting.
What the students will learn

The students will learn the daily routines for geophysical work (magnetometry) and soil geochemistry, from target selection and basic set up of methods to becoming acquainted with techniques in the forest, where they will meet all the difficulties of the reality (that not can be studied in any text book) such as bad weather, GPS/magnetometer problems, difficult soil conditions as well as curious/angry ground owners.

After the fieldwork is over, more tasks are “offered” to the students; all soil samples need to be taken care of, so that they can be sent to a laboratory after the course and all magnetometry data need to be inserted into xls documents so that they can be computer plotted on the same day they were generated. In that way, the results from every day can be discussed before next day’s activities, see example below from the magnetometer measurements in October 2012.

In addition, evening lectures on relevant topics are given daily to provide an adequate framework to what the students are doing.

The final component in the teaching is a Feed Back Seminar, given to the participating students on the following spring when the results of the chemical analysis of the soil samples are ready. During that seminar, the progress of the work is discussed, as well as all small and big mistakes that were made by students (and teachers), see example of successful results:

Soil anomalies in two field course areas: silver in Lenhovda, Sweden (2003) and indium in the Sarvlaxviken area, Finland (2014) respectively.

Do not hesitate in contacting me for further information.

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References


Sundblad, K.L., 2013. Ten years of ore exploration courses at the University of Turku. Materia 1, 76-77.
