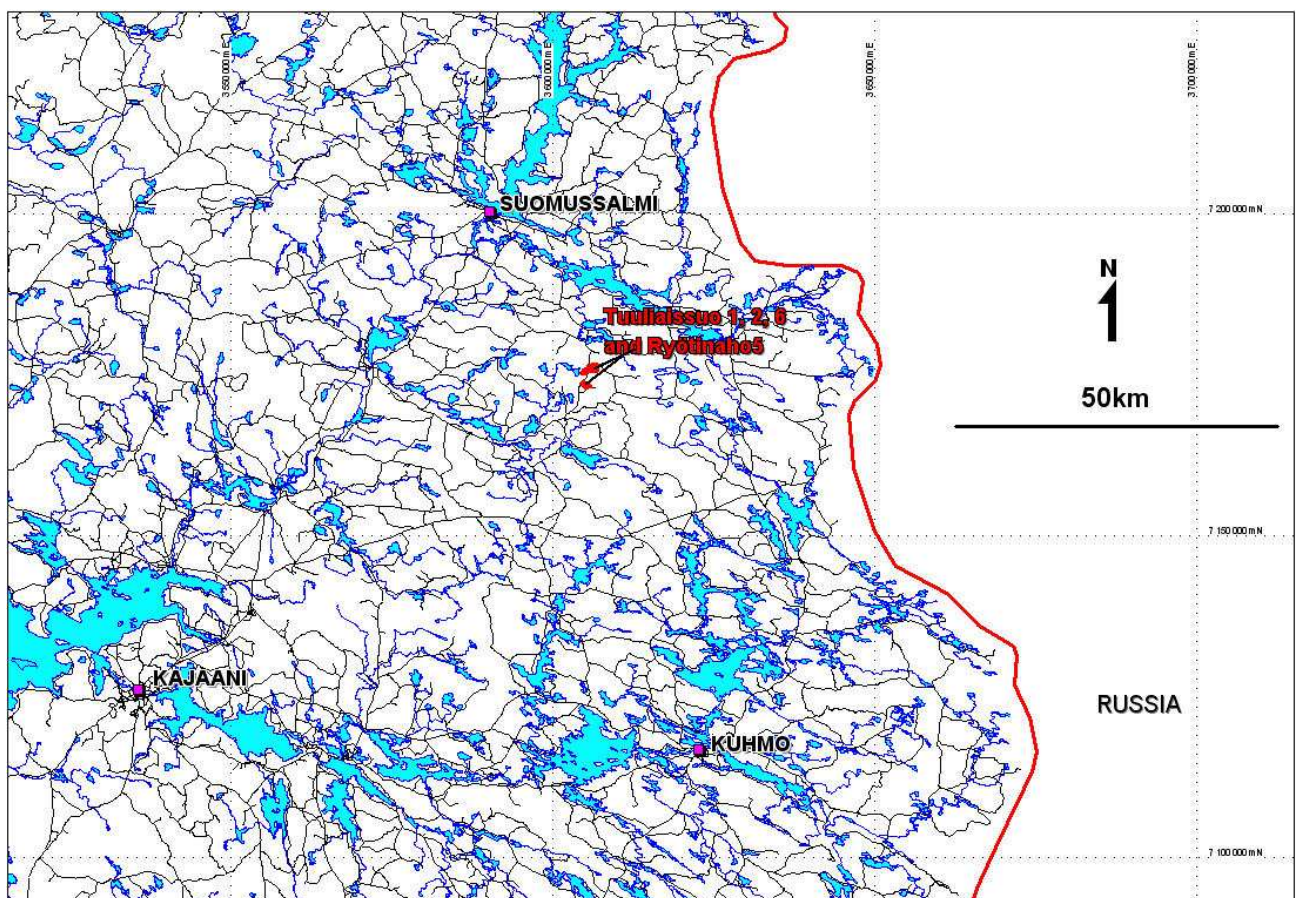


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## Mineral Exploration Report on the Work carried out on Claims Tuuliaissuo 1, -2, -6 and Ryötinaho 5

### Location of Claims “Tuuliaissuo 1, -2, -6 and Ryötinaho 5”



Key words: komatiite, nickel, PGE, copper

## Introduction

This report describes nickel exploration work carried out on claims Tuuliaissuo 1, -2, -6 and Ryötinaho 5, which were granted to Outokumpu Mining Oy on December 3rd, 2002. In 2003 all claims were transferred to Polar Mining Oy and in 2005 to Kuhmo Metals Oy, which after the initial testing of nickel potential on the claims decided not to carry out any further work on the property, and all claims were relinquished on December 3rd, 2007.

## Location

Claims Tuuliaissuo 1, -2, -6 and Ryötinaho 5 are located on map sheet 442302 in municipalities of Suomussalmi and Hyrynsalmi, eastern Finland (figure 1.). Co-ordinates for the claims are presented in table 1.

Claim #	Name	Claim mid-points	
		Northing (mN)	Easting (mE)
7500/6	Tuuliaissuo 1	7174604	4463163
7500/7	Tuuliaissuo 2	7173987	4463020
7500/11	Tuuliaissuo 6	7173766	4461611
7500/16	Ryötinaho 5	7171769	4461818

## Co-ordinate system and survey methods

Co-ordinate system and projection applied to all information in this report and appended digital data is Finnish KKJ Zone 4.

## Personnel

Mr. Jarmo Vesanto (MSc, Geology) has been in charge of all work carried out on the property. Mr. Jani Impola (MSc, Geology) has supervised all field activities.

## Geology

Claims are located on the north eastern parts of the Kuhmo greenstone belt. North – south trending Kuhmo greenstone belt consists of Archean felsic – intermediate-, mafic- and ultramafic volcanic rocks and interlaying sedimentary rocks. Greenstone belt is surrounded by granitoid and gneiss basement both in east and west.

The Kuhmo belt is part of Kuhmo – Suomussalmi greenstone belt which hosts several known nickel mineralisations and deposits. The nickel sulphide potential is related to ultramafic, komatiitic, volcanic rocks and their cumulates.

## **Claim rationale**

The claims were originally applied and granted for gold exploration. Gold potential in the area is related to the Tammasuo shear zone which represents the single most extensive lineament in the area and hosts multiple anomalous gold samples in regional and detailed geochemical till sampling data.

Nickel potential in the area is related to the easternmost parts of the Kuhmo belt hosting several known ultramafic cumulate bodies and unknown geophysical anomalies. Most significant indication of the nickel sulphide potential is the Sika-aho deposit 3 – 6 km southwest of the area. Deposit is hosted by strongly sheared and altered Tammasuo shear zone and related ultramafic cumulates.

Majority of the claims granted to Outokumpu in the area were relinquished in 2004 – 2006 by Polar Mining Oy, but these areas were transferred to Kuhmo Metals Oy to test the nickel potential based on the indications mentioned above.

## **Work carried out**

### Previous work

Previous work completed in the claim areas include :

- GTK`s regional geophysics and till geochemistry
- GTK`s detailed till geochemistry
- Outokumpu`s low altitude airborne geophysical survey
- Several phases of mapping and boulder tracing by GTK and Outokumpu Mining Oy

### Outokumpu Mining Oy`s work

Outokumpu Mining Oy completed prospective mapping and boulder tracing programme in the vicinity in 2003. Work was concentrated on gold potential and within the claims it included 22 outcrop observations of which five samples were assayed (Figure 2).

The claims included in this report represent a small part of the gold exploration programme of Outokumpu Mining Oy. Work carried out by Outokumpu in the vicinity is described in two previous relinquishment reports :

- Vesanto, J., Polar Mining Oy, 2004 : Mineral Exploration Report on the Work carried out on the Jumaliskylä Area Claims: Lehmilampi 4, Tuuliaissuo 3-5, Ryötinaho 1-4, 6, Lapinräme 1-4, Kammarinsuo, Tervakangas and Jolo 1-2
- Sandberg, E., Polar Mining Oy, 2007 : Tutkimustyöselostus Suomussalmen Jumaliskylän valyausalueilla "Lehmilampi 1 – 3" (kaiv. Rek. Nrot 7146/1-3) vuosina 2001 – 2003 suoritetuista kultatutkimuksista

## Kuhmo Metals Oy's work

Kuhmo Metals Oy's work in 2005 and 2006 included :

- Evaluation of geophysical data, contracted by Astrock Oy
- Geological evaluation
- Target generation based on geological and geophysical interpretation
- Till geochemical sampling programme

Two geophysical targets were selected for initial testing by till / weathered bedrock geochemical sampling. The programme was contracted by Moreeniyö Mäklin Oy in June – July 2005 and consisted of two traverses, one over each target, totalling 34 samples (figure 2).

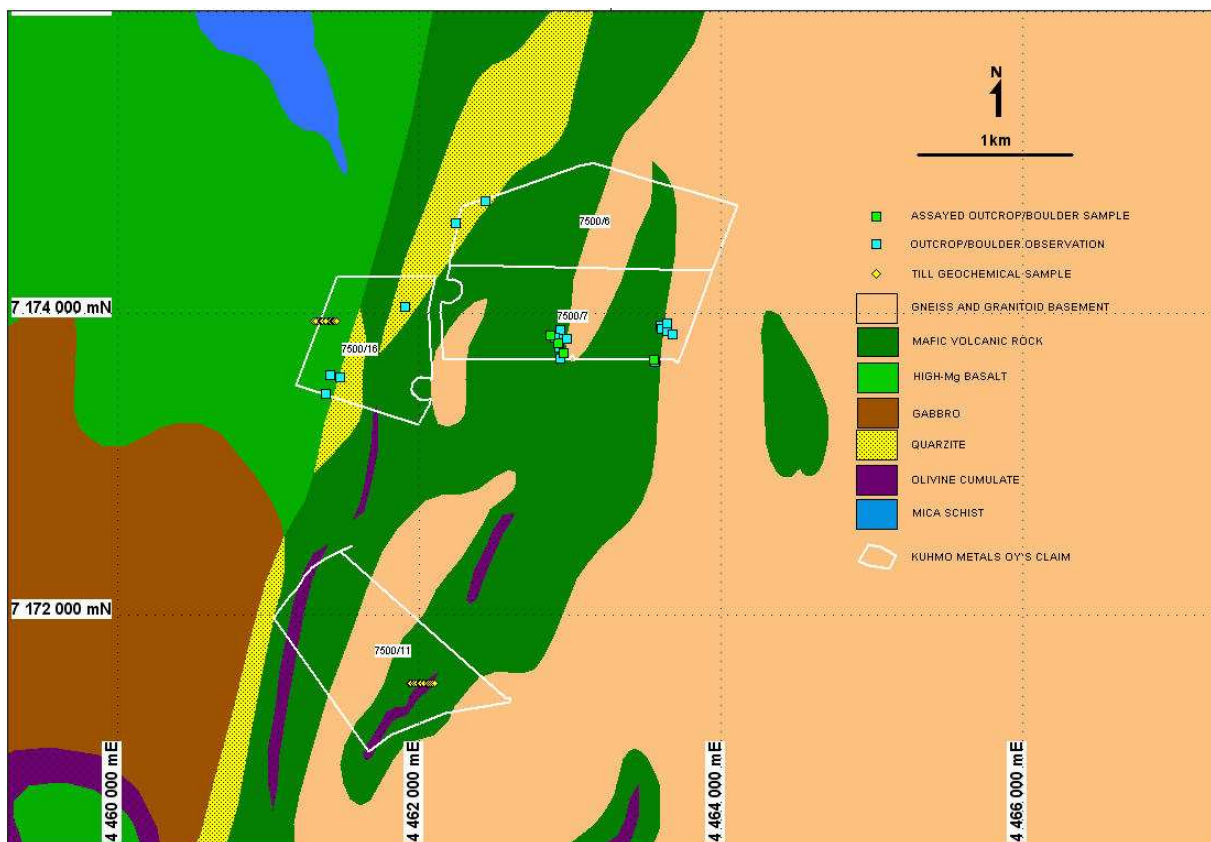


Figure 2. Work completed by Outokumpu Mining Oy and Kuhmo Metals Oy on top of regional geological map by the GTK.

## Results

Five samples assayed for gold by Outokumpu Mining Oy returned only background values.

Kuhmo Metals Oy's till geochemical sampling did not generated any nickel anomalous targets for follow up work. The electromagnetic anomalies targeted with this programme can be at least partly explained by iron sulphide source.

## **Digital database**

Digital database appended to this report includes the report text and the results of all work carried out on the property during the validity period of the claims.

## **Conclusions**

The work carried out showed that the targeted areas do not represent the prospective part of Kuhmo greenstone belt for nickel mineralisation and therefore Kuhmo Metals Oy decided to relinquish the claims "Tuuliaissuo 1, -2, -6 and Ryötinaho 5".

KUHMO METALS OY

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