2017 Exploration Relinquishment Report

(Mosku Regional Project - AA Sakatti Mining Oy)

Renttelmä & Karhukumpu E1

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Report No:
Date: 02.02.2018
Pages: 16
Appendixes: 20
Mine reg No’s: ML2012:0130-01
Project Name: Mosku Regional
Tenure Holder: AA Sakatti Mining OY
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1 INTRODUCTION

The Karhukumpu E1 (KaivNro 7895/9) and Renttelmä (KaivNro 7895/7) Ni-Cu-PGE-Au exploration areas are located approximately 13 and 16 km north, respectively, of Sodankylä municipality center in Finnish Lapland and in total they cover an area of 181.96 ha (Fig. 1-1). The river Sattanen runs through the Karhukumpu E1 area in north-south direction. Renttelmä area is located just south of the river Sattanen so that the northeastern edge of the claim area is on the western margin of the river. The target areas are not located in any reserved areas. All of the land within the permit areas are privately owned (Fig. 1-2).

Anglo American Exploration B.V. Suomen Sivuliike (AAE BV) first applied for a number of claims in this region with the intent to explore for copper, nickel, PGE and gold in 2005. The first applied claim (KaivNro 7895/1-11) consisted of areas Kersilo 15-20 (7895/1-6), Renttelmä (7895/7), Karhukumpu W1 (7895/8), Karhukumpu E1 (7895/9) and Veikkola 1-2 (7895/10-11). These claims have been valid from 19th of February 2005 until 31st of December 2012. The extending permit (ML2012:0130-01) for the aforementioned areas was applied on 2012 and it was granted on 3rd of May 2014. The extending permit (ML2012:0130-01) expired on 3rd of May 2017. The Karhukumpu W1 and Veikkola 1-2 areas were relinquished earlier on 29th of January 2016. The new application permit (ML2012:0130-03) have been applied on 15th of February 2017 and it contains only the Kersilo 15-20 areas. Renttelmä and Karhukumpu E1 were excluded from the extending permit and they have been relinquished.

Geologically the region of interest belongs to the Central Lapland Greenstone Belt, which hosts amongst others the Suurikkuusikko and Pahtavaara gold deposits as well as the Kevitsa and Sakatti Ni-Cu-PGE deposits. The main geology of both Renttelmä and Karhukumpu E1 consists mostly of Sodankylä group mafic volcanics and quartzites. The younger Savukoski group graphitic paraschists of Matarakoski formation are overlaying the Sodankylä group rocks in places (Fig. 1-3). In general the Sodankylä group consists predominantly of psammitic metasediments with minor volcanic rocks. Whereas the Savukoski group is formed of two main formations: the Matarakoski formation of predominantly graphitic sediments with interbedded mafic volcanic rocks and the overlying Sattavasvaara formation of komatitic volcanic rocks. Our primary interests are the ultramafic rocks, which may host economic Ni-Cu-PGE-Au mineralisation.

2 EXPLORATION WORK

Initial exploration in the region started in 2003, targeting was based on regional datasets (airborne geophysics, geochemistry and geology) provided by the GTK. An early analogy to the Pechenga–Imandra-Varzuga Greenstone Belt in the Kola-Karelia region was recognised. This led to a focus on the Sodankylä – Savukoski groups. Heavy exploration (BOT-sampling, DDH drilling) is carried out mostly during the winter season to minimise the environmental impact. The main exploration work methods and equipment used in the field are: airborne geophysics, ground geophysics (Moving Loop Electro-Magnetics), base of till (BOT) sampling and diamond drilling (DDH). The on-going reconnaissance work for individual targets includes frequent field checks and geological mapping during the summer field season. The Anglo American’s historic work carried out in the Renttelmä and Karhukumpu E1 permit areas are detailed below.
2.1 GEOLOGICAL MAPPING AND BOULDER HUNTING

No bedrock or boulder observations were completed in this area.

2.2 GEOPHYSICAL AND PETROPHYSICAL SURVEYS

2.2.1 Airborne geophysical surveys

Three regional scale airborne geophysical surveys which include the Karhukumpu E1 and Renttelmä permit areas, have been completed (figure 2-2, 2-3 & 2-4). The first was an electro-magnetic survey that took place in July 2009 by Geotech Airborne LTD, using a helicopter slung, optically pumped cesium vapour system. The second, in June 2014 was a higher resolution magnetic survey, also by Geotech Airborne LTD, using a fixed wing, gradiometer system. The third was Falcon gravity gradiometer survey, which was done by FALCON™ on August 2011. Please see the attached survey reports for the full details; note that some of the report images have been removed as they contain confidential information, unrelated to this area. It is worth noting that this data has been provided in the original coordinate system (GCS_KKJ_3) as to avoid reproduction errors.

2.2.2 Ground geophysical surveys

A moving loop electro-magnetic (MLEM) survey was conducted over the Renttelmä permit area during 2010, with a total of 2.5 line Km (figure 2-5). This was completed by AGEOS Oy using the Anglo American in-house low temperature SQUID system. It is worth noting that this data has been provided in the original coordinate system (GCS_KKJ_3) as to avoid reproduction errors.

2.2.3 Borehole geophysical surveys

Two drillholes (11MOS35001 & 11MOS35002) have been surveyed using down hole EM (BHEM) (Fig. 2-6). The surveys were conducted by Crone Geophysics using their Crone Geophysics tool. The data and reports are attached. Please note that the susceptibility have not been measured from these drill holes.

2.3 SOIL GEOCHEMISTRY

In total, 106 base of till samples have been collected from Renttelmä and Karhukumpu E1 areas (Fig. 2-5). The surveys were operated by Moreenityö Mäcklin Oy. Most of the sampling have been done in April 2005 and 2006, although 9 samples have been taken in March 2014. The sampling has been done using a percussion drill rig in a grid pattern, dominantly at 100m line spacing and 25m sample spacing over specific electro-magnetic targets. Analysis of the samples was completed at OMAC laboratories, Ireland. All the corresponding data can be found in the accompanying data files. Please note that all of the assay data, which is not within the Renttelmä or Karhukumpu E1 permit areas have been removed from the analysis data files.

2.4 DRILLING, CHANNEL SAMPLING AND TRENCHING

No channel sampling or trenching has occurred in these permits.

2.4.1 Drilling

In total, 7 drill holes (DDH) have been completed in the Renttelmä permit area, with a total of 616.4m drilled (Fig. 2-6). Two of the holes have been drilled during 2011 (11MOS35001 and 11MOS35002) and five holes were drilled during 2017 (17MOS35003-007). The holes drilled in 2011 are deeper, with length over 200 m, whereas 2017 drill holes are all less than 60 m deep. The borehole 11MOS35001 intersected a sequence of ultramafic volcanics between the mafic volcanic and graphite parachokey. The borehole 11MOS35002 mainly intersected alternating layers of gabbro and mafic volcanic rocks. In total, 16 samples from the holes 11MOS3500 and 11MOS35002 were sent for an analysis to OMAC Laboratories Ltd, Ireland. All corresponding data can be found in the accompanying data files. Please note that all of the assay data, which is not within the Renttelmä permit area have been removed from the analysis data files.
2.5 PETROLOGICAL, GEOCHEMICAL AND OTHER GEOLOGICAL SURVEYS

2.5.1 Spatio-temporal geochemical hydrocarbon interpretation

Spatio-temporal geochemical hydrocarbon (SGH) sampling was done in the Renttelmä permit area during the early spring of 2017. Sampling was done in approximately 100x100 m sampling grid and in total 40 SGH samples have been collected from the Renttelmä area (Fig 2-7). All corresponding data can be found in the accompanying data files.
Figure 1-1: Location of the Renttelmä and Karhukumpu E1 permit areas. Insert: Location of the AngloAmerican’s MOSKU project region within Finland.
Figure 1-2: Map showing the landowner boundaries and reserved areas of the Renttelmä and Karhukumpu E1 permit areas.
Figure 1-3: Geological map of the Renttelmä and Karhukumpu E1 permit areas. Geological map and amended legend from GTK, DigiKP200.
Figure 2-1: Map showing the VTEM survey flight lines of the Renttelmä and Karhukumpu E1 permit areas.
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4 SUMMARY AND CONCLUSIONS

After an extensive exploration program, all viable targets within the Renttelmä and Karhukumpu E1 permit areas have been tested. Although some ultramafic signals from the base of till campaign, diamond drilling and the electromagnetic signature from the geophysical surveys were observed, no economic values of Ni-Cu-PGEs were detected. The Renttelmä and Karhukumpu E1 areas are being relinquished as the overall results did not give evidence to support continuing the exploration program in the areas.

5 APPENDIXES

Accompanying data files:

- ML2012_0130-01_Template4_2017_12_22.xlsx
- 2010_VTEM_survey_A806_Report.pdf
- Magnetic_survey_Anglo_American_Exploration_Finland_2014_Report.pdf
- ML2012_0130-01_Template7_2017_12_22.xlsx
- ML2012_0130-01_analysisdata_2017_12_22_1.xlsx
- ML2012_0130-01_Template3_2017_12_22.xlsx
- SGH_Report_Renttelmä_ss_Mosku04148.doc
- A17-04148 0.01 Final – Deliverable.xlsx
- ML2012_0130-01_Template5_2017_12_22.xlsx
- ML2012_0130-01_mapappendix1_2017_12_22.jpg
- ML2012_0130-01_mapappendix2_2017_12_22.jpg
- ML2012_0130-01_mapappendix3_2017_12_22.jpg
- ML2012_0130-01_mapappendix4_2017_12_22.jpg
- ML2012_0130-01_mapappendix5_2017_12_22.jpg
- ML2012_0130-01_mapappendix6_2017_12_22.jpg
- ML2012_0130-01_mapappendix7_2017_12_22.jpg
- ML2012_0130-01_mapappendix8_2017_12_22.jpg
- ML2012_0130-01_mapappendix9_2017_12_22.jpg
- ML2012_0130-01_mapappendix10_2017_12_22.jpg