REPORT ON A GEOLOGICAL DATA COLLECTION STUDY

AUZEX EXPLORATION - NORTH QUEENSLAND PROJECT

DRAFT REPORT

Prepared by RSC Global Pty Ltd on behalf of:

AUZEX EXPLORATION LTD

Ronald G. Worl, PhD, CPG-AIPG, PG-Wyo – Senior Consultant Geologist

Erik Werner, MSc – Project Geologist

Peer Review: René Sterk, MSc MAIG MAusIMM – Principal Consultant Geologist

24th December 20112

EXECUTIVE SUMMARY

RSC Global Pty Ltd ("RSC") has been engaged by Auzex Exploration Ltd ("Auzex") to undertake a multi-faceted geological data collection exercise, with the ultimate aim of the dataset being specifically usable in a 3D prospectivity modelling exercise.

Auzex has recently applied for additional ground around the existing tenements and intends to prioritise its future work programmes on these properties by means of weights of evidence based prospectivity models. Auzex has carried out these models in the past with demonstrated success in two dimensions but now intends to run prospectivity models in three dimensions. It is envisaged that this will create clear exploration targets.

The data compilation included assessments of historic company reports, literature and academic papers, data on published maps, and data collected by Auzex within the area of interest.

RSC commissioned a geophysical study that aimed to extract data relevant for the 3D modelling from existing geophysical coverage. In particular, an "auto-lithology map" forms a cornerstone of this project as it is the most cost-effective way to create high resolution "geological" map to use in the modelling. Part of this geophysical study included an investigation of specific rock properties that may be useful in future geophysical exploration programmes.

Field investigations by RSC focused on collecting data to support a 3D geological modelling exercise, providing ground truth to the interpretative maps acquired from geophysical consultants, and checking aspects of the geologic setting of the intrusive bodies and the known mineral deposits.

All digital data resulting from this compilation study has been compiled for 3D modelling.

There are some aspects of the data collection for this project that merit special reference in terms of support for 3D modelling (and for future exploration activities). The flat lying altered structures are much more extensive than originally thought. Unfortunately no striations or other movement indicators were found on these surfaces to

indicate movement direction. Their significance is not clear nor is it understood at this time why there is a hard, almost polished, surface at the top with unaltered granite above and altered granite below.

The first generation (original) Autolithology map over the Stannary Hills area, Khartoum project area, has two designations that may be reflective of mineralized zones. The "Intrusions Non-Magnetic, High Th designation seem to indicate zones of mineralized granite. A "Mixed Intrusions and Sediments" designation may indicate areas in the Hodgkinson Formation where granite occurs at shallow depth or zones of alteration and mineralisation.

The second generation Khartoum project area Autolithology has two unit designations that apparently define very specific geologic environments. The "Granite Non-magnetic" designation apparently indicates evolved granite, mostly biotite granite. The "Granite Magnetic" designation apparently indicates altered or metasomatized areas within the Hodgkinson Formation. This unit shows almost exclusively over the metasedimentary units and intrusive and volcanic rocks of the Claret Creek Ring Complex. The known Sn and W deposits hosted by the Hodgkinson Formation are almost entirely within or next to areas with the Autolithology map "Granite Magnetic" designation.

The second generation Galala and Running Brook project areas Autolithology map has three unit designations that apparently define specific geologic environments. The "Granite High TC" designation apparently indicates evolved biotite granite, mostly of the O'Briens Creek Supersuite. Felsic phases of the Blackman gap Complex are apparently well defined by the "Granite Non-magnetic Low TC" designation while the more mafic phases are defined by the "Granodiorite" designation. The more mafic (hornblende-bearing) phases of the Ootann Supersuite granitoids are defined by a mixuture of "Granite Magnetic" and "Granodiorite" designations.

i. Executive Summary

Table of Contents

Table of Figures

1 Introduction and Terms of Reference

1.1 Scope

RSC Global Pty Ltd ("RSC") was engaged by Auzex Exploration Ltd to undertake a multi-faceted geological data collection exercise, with the ultimate aim of the dataset being specifically usable in a 3D prospectivity modelling exercise. In particular, RSC has been commissioned to:

- Develop comprehensive GIS databases of the surface geology, geochemistry and geophysics for each project area including historic and current exploration data. This data will then be used to develop preliminary 3D geological models of each project area that can be used to place the mineralisation found to date into a geological context.
- Acquire all available geological data from the surface and subsurface from historic drilling with emphasis on strike and dip of structures, strike and dip of rock contacts, age relationships of the various geological units and relative timing of any cross cutting relationships especially faulting.
- For each project area conduct a rock property review of the lithologies and to make recommendations for additional geophysical data collection that may improve the 3D geological model or provide a direct detection of mineralisation.
- Undertake mapping of any alteration (greisen) either in the field or by use of Aster or Radiometric data and collect information that will allow the alteration to be mapped in 3D.
- Oversee a historic data acquisition to be carried out by Kenex Pty Ltd
- Oversee the final GIS compilation of surface data to be carried out by Kenex Knowledge Systems Ltd.

1.2 Qualifications, Experience and Reliance on Other Experts

RSC Global Pty Ltd is an Australian based consulting firm and the authors are professional geologists with significant experience with the mineralisation style described in this report.

Dr R. G. Worl is a senior geological consultant with RSC. He is a Certified Professional Geologist (CPG) with the American Institute of Professional Geologists (AIPG) and has over 30 years of geological experience primarily focussing on mineral resource research, mineral resource assessment, and research project generation and management within North America, the Middle East, and southern Africa.

Mr Werner has an MSc in structural geology and is a project geologist with RSC. He has experience with orogenic gold systems in West Africa and massive and disseminated magmatic nickel sulphide mineralisation in WA, Australia.

The report has been peer reviewed by Mr Sterk. He holds an MSc in structural geology/tectonics, is a professional member with the Australian Institute of Geoscientists (AIG) and the Australian Institute of Mining and Metallurgy (AusIMM) and is the Director of RSC.

RSC has, at the request of Auzex delegated parts of the work to other independent contractors and consultants:

- The geophysical rock property review was carried out by Mr Don Emerson of Melbourne based Systems Exploration Pty Ltd;
- The geophysical review and processing of existing data was carried out by Fathom Geophysics Ltd;
- The historic data collection and the final GIS compilation was carried out Kenex Pty Ltd

RSC has furthermore based parts of this technical report on information from relevant published and unpublished technical information

1.3 Independence declaration

RSC's relationship with Auzex is based on a purely professional association. This report has been prepared in return for fees based upon agreed commercial rates and the payment of these fees is in no way contingent to the results of this report.

1.4 Disclaimer

This document contains certain statements that involve a number of risks and uncertainties. There can be no assurance that such statements will prove to be accurate; actual results and future events could differ materially from those anticipated in such statements.

The authors of this report are not qualified to provide extensive comment on legal issues associated with the operations on tenements within the areas described in this report.

Similarly, the authors are not qualified to provide extensive comment on operational, sovereign, terrorism and other risk issues associated with the properties referred to in this report.

No warranty or guarantee, be it express or implied, is made by RSC with respect to the completeness or accuracy of the legal, mining, metallurgical, processing, hydro-geological, geotechnical and environmental aspects of this document. RSC does not undertake or accept any responsibility or liability in any way whatsoever

to any person or entity in respect of these parts of this Report, or any errors in or omissions from it, whether arising from negligence or any other basis in law whatsoever.

RSC reserves the right, but will not be obligated to revise this Report and conclusions if additional information becomes known to RSC subsequent to the date of this Report

2 Project General Summary

2.1 Project Background, Setup and Execution

Auzex has been exploring in North Queensland for some 7 years and most of the ground investigated in this study has been previously actively explored by it. Over the years, Auzex has carried out substantial literature studies, mapping, rock and soil sampling, trenching, geophysical programmes and drilling. Most of this work has been carried out campaign style and has resulted in large data sets.

Auzex has recently applied for additional ground around the existing tenements and intends to prioritise its future work programmes on these properties by means of weights of evidence based prospectivity models. Auzex has carried out these models in the past with demonstrated success in two dimensions but now intends to run prospectivity models in three dimensions. It is envisaged that this will create clear exploration targets.

In order for Auzex to carry out such 3D modelling, it requires all available and relevant exploration and geological data for the projects in digital and readily accessible formats. This essentially forms the brief for the work undertaken by RSC and this report describes the results of the several areas of data collection.

As a first step, RSC requested Kenex to undertake a historic data compilation. The results of this process are described in paragraph 3.2.

Secondly, RSC collated all existing digital data for work carried out by Auzex itself over the years. Some comments on this process are made in paragraph 3.3.

Thirdly, RSC commissioned a geophysical study that aimed to extract data relevant for the 3D modelling from existing geophysical coverage. In particular, an “auto-lithology map” forms a cornerstone of this project as it is the most cost-effective way to create high resolution “geological” map to use in the modelling. Part of this geophysical study included an investigation of specific rock properties that may be useful in future geophysical exploration programmes. Outcomes of this work are discussed in detail in paragraph 3.4.

As a last step, RSC undertook a short field study that involved mapping and geochemical data acquisition in specific areas. The goal of this work was twofold. It aimed to locate specific data relevant for 3D modelling such as age relationships between intrusives and large-scale structural features as well as aiming to verify the auto-lithology map and provide training data to improve it by post processing. The results of this field work are discussed in paragraph 0.

All resulting data sets were then forwarded to Kenex for final collating and direct delivery to Auzex.

2.2 Project Area Description

The project is loosely described by a simple square-shaped boundary (Figure 1). For the purpose of this report and all communications this has been dubbed the Data Extraction Area. This area has been used to roughly determine a data capture area and was mainly utilised to search for historic reports.

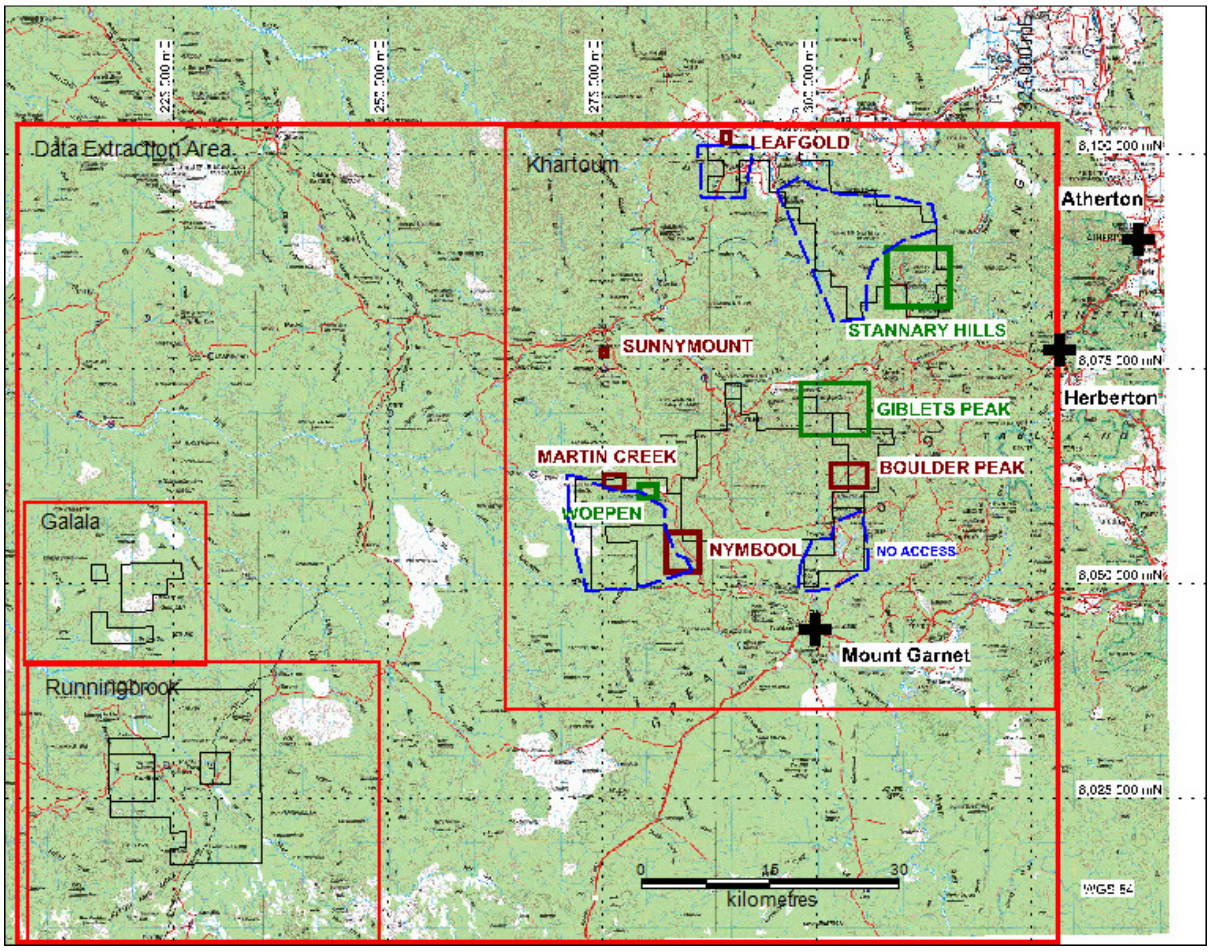

Figure 1 Location map for geological data collection study

Within the Data Extraction Area three smaller rectangular areas are described as the Galala, Running brook and Khartoum Project Areas. These project areas include both the current tenements and tenement applications by Auzex (as indicated by the black outlines in Figure 1. For the purpose of prioritising of data collection, the areas of current and applied-for tenements rank highest and a rectangular shape comfortably larger than the actual tenement outlines has only been chosen to allow a proper representation in 3D for the final model.

Commercial centres near the project areas include Mount Garnet and Herberton with limited facilities and services and Atherton with a full range of facilities and services. Access within the Khartoum and Running Brook project areas is by a few fair-to-poor dirt tracks. Much of the Khartoum and the entire Galala project areas are accessible only by very poor to impassable tracks, often overgrown with vegetation.

2.3 Geologic Background

2.3.1 Geologic Setting

Rocks exposed in the project areas represent a long period of geologic evolution and mineralisation ranging from Paleoproterozoic (2500 – 1600Ma) to early Permian (270 Ma). The oldest exposed rocks belonging to the Lyndbrook complex of Paleoproterozoic age crop out in the Galala and Running Brook project areas (Figure 2). This unit is characterised by foliated biotite and muscovite granitoids locally gneissic with zones of pegmatite, migmatite, sillimanite schist and garnet schist. Highly sheared and altered rocks are common in the Lyndbrook complex. A couple of small exposures of the Fig Tree Hill granite complex, dated as 1500 Ma (Mesoproterozoic) occur in the north-western portion of the Galala project area. The unit is described as extensively altered granite in which secondary sericite, quartz, and hematite are common. The Blackman Gap complex (Silurian 443 – 416Ma) is the major unit underlying the south-eastern portion of the Galala and the north-eastern portion of the Running Brook project areas. This unit is a pale grey to cream biotite-muscovite granodiorite to granite variably foliated and locally extensively altered. Pegmatites, aplite dikes, and metasedimentary inclusions are common. The Blackman Gap complex is one of the I-type granite batholiths in the region which probably formed as a result of crustal underplating rather than subduction with associated retrogressive metamorphism and gold mineralisation.

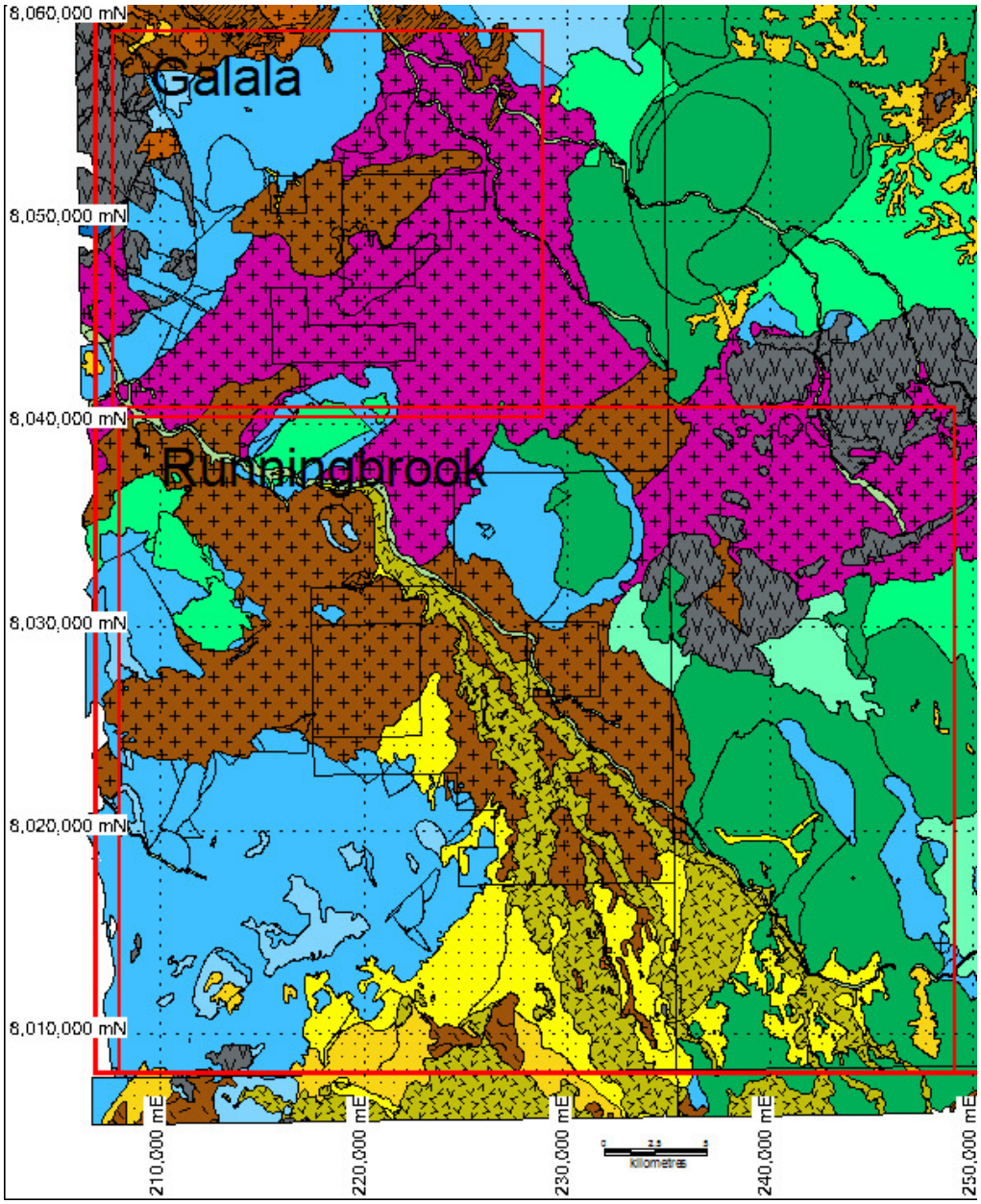

Figure 2 Geologic map of the Galala and Running Brook project areas. Yellow – Quaternary; brown – Lyndbrook Complex; red – Blackman Gap Complex; grey – volcanics undivided; green Ootann Supersuite; blue – O'Briens Creek Supersuite.

Two sedimentary units, the Chillagoe Formation and the Hodgkinson Formation, crop out in the Khartoum project area (Figure 3); both important hosts for mineral deposits in this area and the region. The Chillagoe represents shallow marine shelf sediments, labile sandstone, mudstone, siltstone, conglomerate, and limestone and is considered Silurian to early Devonian in age. The Hodgkinson represents turbiditic deep water sediments and is comprised mainly of quartz-feldspathic arenite and mudstone with local intercalated conglomerate, shale, chert,

and shallow-water limestone. The Hodgkinson conformably overlies the Chillagoe and is Devonian (416-359Ma). The two units are not in known contact within the Khartoum study area.

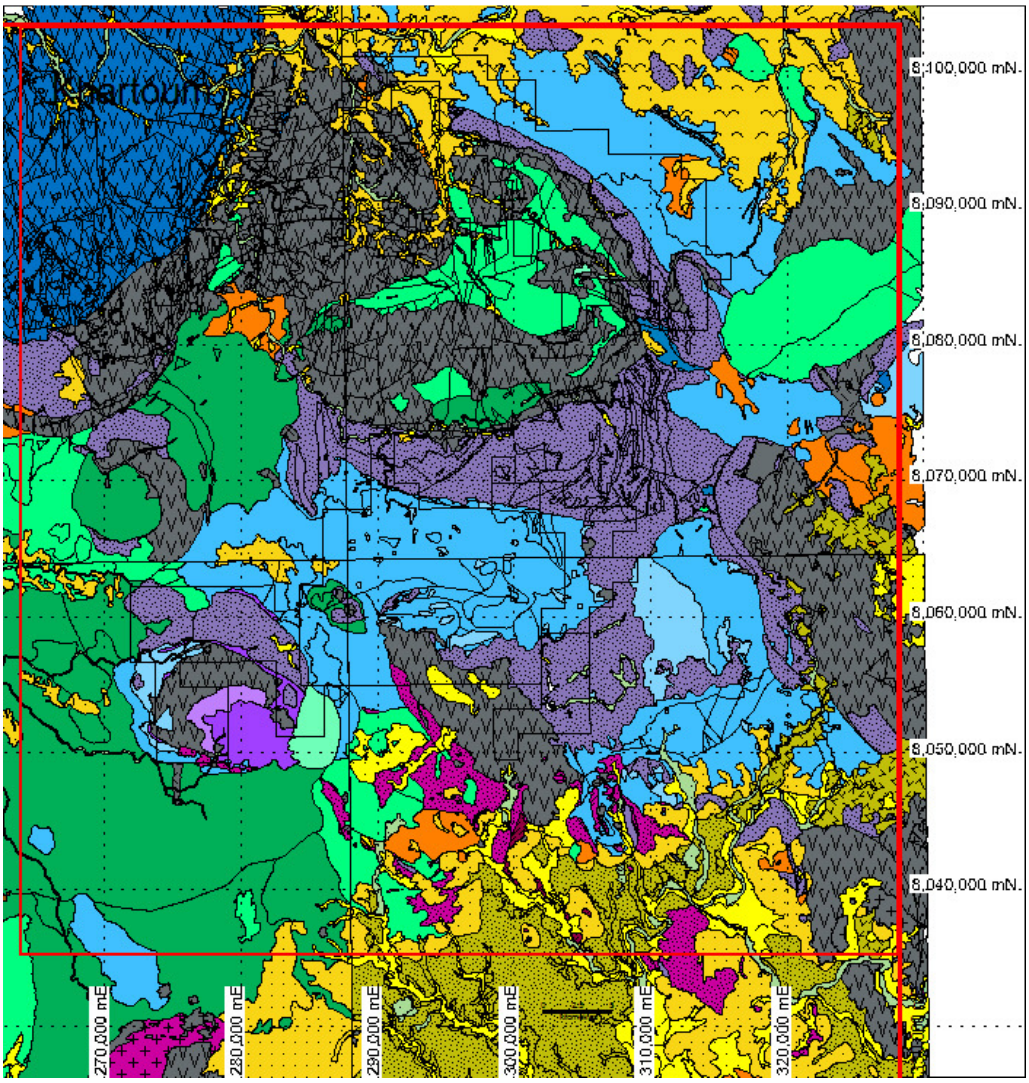

Figure 3 Geologic map of the Khartoum project area. yellow – Quaternary; dark blue and grey – volcanic undivided; purple – Hodgkinson Formation; red – Chillagoe Formation; orange – Almaden Supersuite; light purple – Claret Creek Ring Complex; green – Ootann Supersuite; blue – O'Briens Creek Supersuite.

A series of Carboniferous to early Permian (360-270 Ma) I-type and A-type plutonic rocks occur throughout the three project areas and the region. They mostly belong to two distinctive Supersuites, the O'Briens Creek at 315-300Ma (mid to late Carbonaceous) and Ootann at 305-295Ma (late Carbonaceous). Rocks of the late Carbonaceous Almaden Supersuite (303-280Ma) and the Claret Creek Ring Complex (301Ma) form small plutons in the Khartoum project area. Ootann rocks both cut and "interdigitate" with units of the O'Briens Creek, and are cut in the north-west corner of the Khartoum project area by rocks of the 280Ma Lags Supersuite. Rocks of the 300Ma Claret Creek Ring Complex cut rocks of the O'Briens Creek Supersuites but their relationship to rocks of the Ootann Supersuite is not clear.

Granitites of the O'Briens Creek Supersuite crop out extensively in the Khartoum project area as large plutons and numerous smaller younger bodies mainly in the larger plutons but also in enclosing lithologies. The larger plutons are mostly composed of pale pink to white equigranular to porphyritic biotite granite locally enriched in alkali feldspar and miarolitic zones. The smaller bodies are mostly fine grained relatively felsic granite, commonly miarolitic and containing topaz and/or fluorite. Alteration in the form of silicification, seritisation, and greisenisation, is common and most units of the O'Briens Creek Supersuite host some Sn, W, Mo, or F mineralisation.

Granitoids of the Ootann Supersuite range in composition from hornblende-biotite granodiorite to biotite leucogranite with hornblende biotitie granodiorite being most common in the three project areas. Most are medium grained although there are fine to very coarse grained units. The smaller bodies tend to be less felsic, finer grained and porphyritic.

Intrusive rocks of the Claret Creek ring complex in the Khartoum project area are dacite and hornblende biotite granodiorite. Those of the Alamaden Supersuite are all hornblende biotite granodiorite.

The O'Briens Creek Supersuite is characterized by fractionated to very fractionated compositions in very narrow ranges for all the major-elements; SiO2 content for example ranges only from 74% to 78%. The Ootann Supersuite is characterized by very felsic, high-K_2O, K/Na major element compositions similar to the world average low-Ca granite. Granites of the O'Briens Creek Supersuite as compared to granites of the Ootann Supersuite are higher in Si, K2O, Rb, Pb, Ar, Az, Ga, Ta, Cs, Hf, Sn and HREE, much higher in Th, U, Nb, Y, Mo, and F, and lower in CaO Ba, Sr, Th/U, and K/Rb.

Granites in both Supersuites are relatively undeformed but fractured to some degree and are cut only by local small scale faults. Neither has tectonic penetrative surfaces and primary flow banding is rare.

Seven separate sequences of mid-Carbonaceous to early Permian volcanic rocks outcrop in the project areas. The Scardon Volcanic group comprising mainly rhyolite to dacite ignimbrites and tuff crop out in the very north-western portion of the Galala project area. Gingerella Volcanics of the Sundown Volcanic group crop out in the north-eastern portion of the Running Brook project area as mainly rhyolite to rhyodacite ignimbrites, lavas, and high level intrusives. The Lags Supersuite, listed as 280-279 +/- 4Ma, crops out in the very north-western corner of the Khartoum project area as microgranite to microdiorite. Featherbed Volcanic group crops out in much of the north-central part of the Khartoum project area mainly as a rhyolitic ingimbritic cauldron sequence. The Claret Creek volcanics, part of the Claret Creek ring complex (301-300Ma), crops out in the south-western portion of the Khartoum project area as lithic rich rhyolite to rhyodacite welded tuffs and breccias. Nanyeta Volcanics including

rhyolitic ignimbrites and laves, volcanic breccias, andesite, tuff, and a basal conglomerate crop out in the south-central portion of the Khartoum project area. The Koolmoon Volcanic group is represented by three formations along the eastern edge of the Khartoum project area, north to south, Walsh Bluff volcanics, Slaughter Yard Creek volcanics, and Glen Gordon volcanics. All are rhyolite to rhyodacite and include ignimbrites, lavas, tuff, bedded tuff, and locally tuffaceous sediments, microgranites and intrusive rhyolites.

The volcanic rocks are all younger than and where present overlie all the pre-Carbonaceous rock units. Age relationships within the volcanic groups and their relationship with the granites of the major Supersuites are not entirely clear. The Lags Supersuite is apparently the youngest of the volcanic groups as it intrudes rocks of the Ootann Supersuite and is not intruded by other Supersuites. The O'Briens Creek Supersuite reportedly intrudes lower units of the Koolmoon volcanic group (Glen Gordon volcanics) and in turn is intruded by intrusive rhyolites and microgranites of the Koolmoon volcanic group (Slaughter Yard Creek volcanics). The Nanyeta volcanics are considered comagmatic with the O'Briens Creek Supersuite. Intrusive units of the Claret Creek ring complex intrude the O'Briens Creek Supersuite. Featherbed Volcanic group is chemically similar to the Ootann and Almaden Supersuite granites and is intruded in the lower units by granites of the Ootann Supersuite. The Gibbs granite of the Ootann Supersuite is thought to be coeval with parts of the Featherbed volcanic group. Ootann Supersuite granites also intrude portions of the Gingerelle volcanics

2.3.2 Mineral Deposits

2.3.2.1 Introduction

Mineralisation types and styles are similar in the three project areas – Khartoum, Galala, and Running Brook. Known mineral deposits include fluvial and lode tin and tungsten, vein fluorspar, and vein gold (Figure 4 & Figure 5). The majority of the deposits are fluvial and lode tin that were exploited from the 1880s through 1983. Most lode deposits are Intrusion related although there are examples of volcanic hosted Au and Orogenic Au.

The project areas are prospective for Intrusion related gold deposits (IRGD). This deposit type has been the target of recent mineral exploration in the area, but no definitive deposits have been recorded.

2.3.2.2 Intrusion related

The I and A type granites and the units they intrude are hosts for a complex group of intrusive related deposits of Sn, Cu, W, Ag, Pb, Au, F, Mo, Zn, and Sb, of which the Sn and W deposits are the most important. The source of the mineralisation and related alteration was relatively local solutions derived from cooling fractionated I-type granites.

The hard rock Sn deposits are composed of cassiterite in siliceous greisen that occurs as veins and pods. Greisen is sometimes associated with quartz veins and quartz-cassiterite veinlets occasionally are associated with albite-rich granites. Associated minerals include chlorite, sericite, tourmaline, and fluorite. The hard rock

tungsten deposits are composed of wolframite in quartz veins and greisen veins and in some instances associated with late fine-grained granite and pegmatite. Some of the tin and tungsten deposits have been exploited along low angle planar structures. These deposits are distinctly granite related although many occur within the Hodgkinson Formation, a metasedimentary clastic unit.

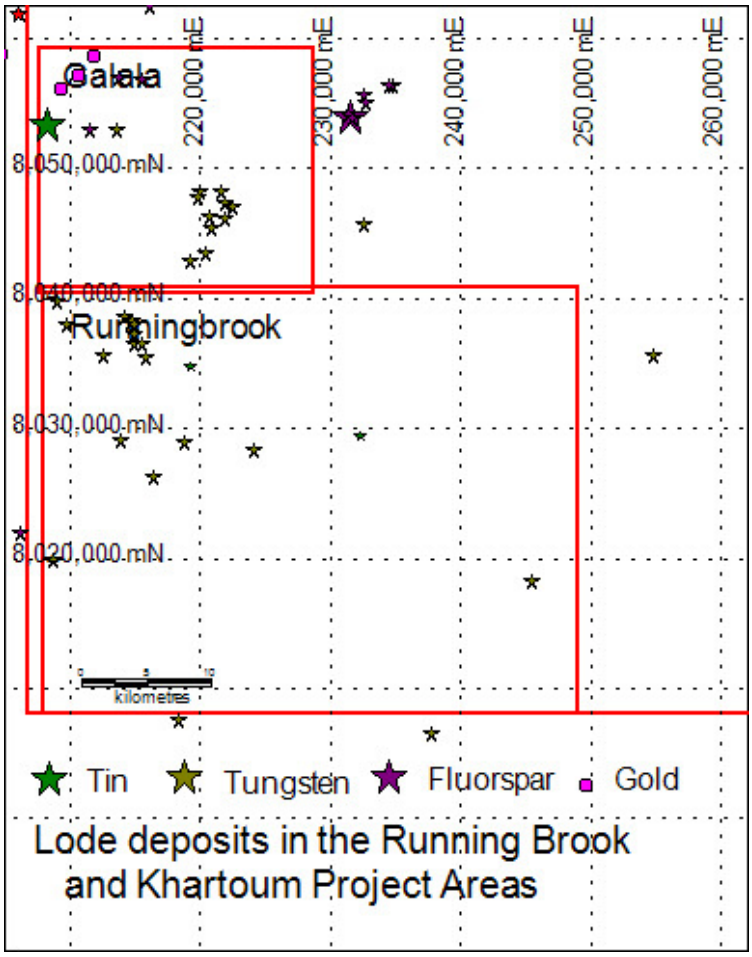

Figure 4 Lode deposits of the Galala and Running Brook project areas

The fluorspar deposits are along breccia veins in granite and metamorphic rocks. Fluorite occurs as large crystals and pods inter-grown with chalcedonic quartz. They are probably granite related also, but of the very latest and lowest temperature event. The fluorspar deposits are mentioned here only because banded crustiform chalcedonic fluorspar deposits are commonly associated with volcanic activity along regional extensional deep seated fracture systems.

Most of the known Intrusion related deposits are fracture, fault, or shear related vein or lenticular deposits. There are also examples of pipe, skarn, endogreisen, disseminated, and porphyry deposits. It should be noted that the larger intrusion related deposits in this region produced from gold-copper skarn, endogreisens, and pipe deposits. Metal zoning is centred around each intrusive-mineralizing centre and grossly consists of W within or close to the granite intrusive outwards to Sn at or near the contact of the granite and then to the base metals

largely within the intruded sedimentary rocks. Hydrothermal alteration patterns generally consist of quartz and mica (white mica) close to the centre and grading outward through mica and tourmaline to quartz and chlorite. Greisenisation is a common feature associated with the Sn-bearing deposits and ranges from incipient greisen, generally along fracture systems, through greisenised granite to massive greisen. The massive greisens form within the granite (endogreisens) at the top of copulas just below the contact with the overlying rocks. In some areas greisens extend along fractures a short distance into the overlying units. These deposits formed along steep thermal gradients so the metal and alteration zoning may extend over relatively short distances, and the effects of mineralisation from multiple centres result in overlapping zones. The I type granite intrusive related deposits and the surficial deposits derived from them are the dominant metal deposit types within the three project areas and are the most prospective.

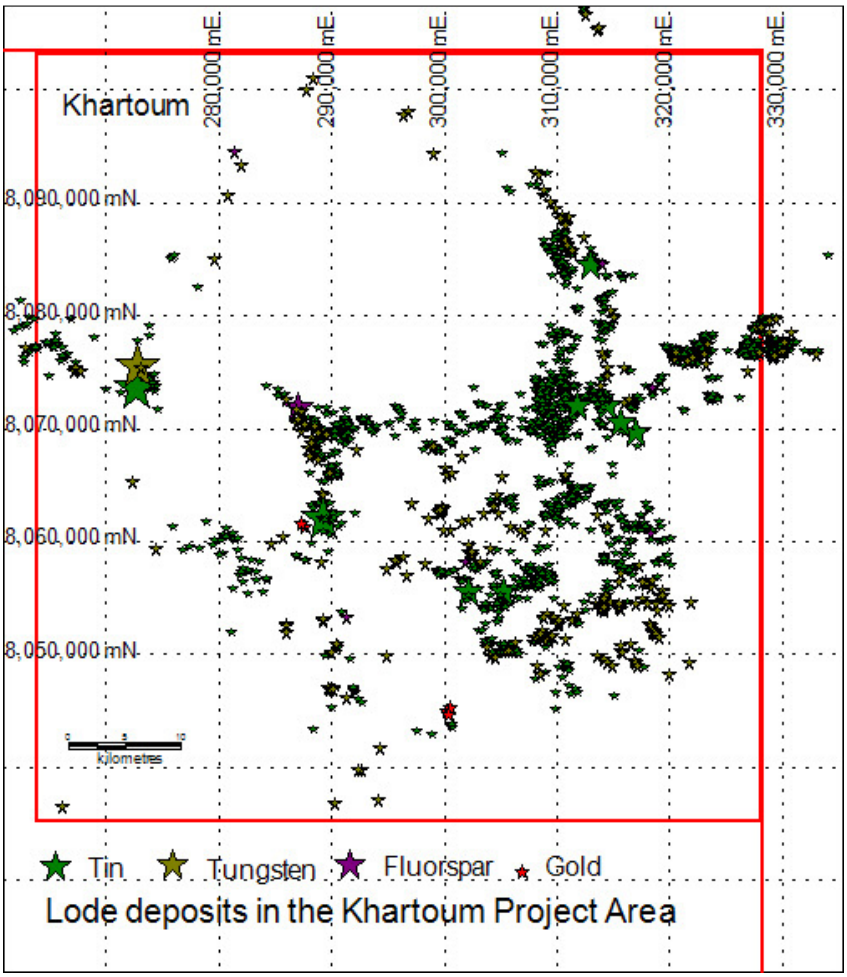

Figure 5 Lode deposits of the Khartoum project area

2.3.2.3 Volcanic hosted gold deposits

The gold deposits in the Khartoum project area are quartz veins in volcanic rocks with traces of base-metals. There are no recorded occurrences of vein gold deposits in the granitoid rocks in the Khartoum area. The nature of the gold occurrences in the Galala project area is not known.

2.3.2.4 Orogenic gold deposits

Orogenic Au deposits are not reported in the three project areas but are a common deposit type within the Hodgkinson Formation rocks elsewhere in northern Queensland and are also the major Au deposit type within Precambrian rocks in Australia and the world. These include deposits previously described as Mesothermal, Slate Belt, Au quartz, Low-Sulfide Au, and Greenstone Au deposits. They formed from metamorphic fluids generated at devolitization of the sedimentary pile and are commonly associated with major regional tectonic structures in greenstone belts. Deposits of this type are commonly narrow fissure veins that pinch and swell and show very irregular gold distribution with patchy high grade zones. They can also form large-tonnage low-grade disseminated deposits in shear zones and receptive lithologies. The known deposits in the Hodgkinson Formation are described as mostly small Au only quartz veins and cross-cutting Au-Sb quartz veins with some disseminations in sheared zones and receptive lithologies. There is some question as to whether these are true orogenic deposits, or are distal deposits of intrusion related fluid generation. If they are truly orogenic type deposits they probably belong to the epizonal subclass.

2.3.2.5 Production and Exploration

Major past metal production from the three project areas has been Sn, W, with a significant portion from surficial deposits. There has also been production of Ag, Pb, Au, F, Mo, Zn, and Sb. The Khartoum project area includes much of the historic Emuford, Irvine Bank, and Herberton tin fields where production peaked from about 1880 to 1918. Since that time production has been intermittent and from numerous very small, small, and medium scale lode mines with a production peak during the period 1960 – 1983. Figures 4 & 5 show the distribution of Sn and W mines in the three project areas. In the Khartoum project area there are about equal amounts of W and Sn mines and they are hosted almost entirely in the Hodgkinson Formation and granites of the O'Briens Creek Supersuite with a few in granites of the Ootannn Supersuite. In the Galala and Running Brook project areas the mines are mostly W and hosted in either the Lyndbrook complex or the Blackwood Gap complex. There was significant production of alluvial cassiterite from 1976 – 1981 in the vicinity of the Sn and W lode mines in the Khartoum project area.

Exploration for Sn has been sporadic following the market with a recent resurgence of exploration for large tonnage low grade deposits in greisenized granites. There has also been exploration for volcanic related gold deposits for the last couple of decades and more recently for intrusion related gold deposits (IRGD). The known IRGD prospects in the project areas are related to quartz porphyries and other small late felsic intrusive bodies where the gold, sometimes with Cu, is in quartz stock works and veins near the top of the intrusive body.

3 Data Compilation

3.1 Introduction

An important component of this program was to compile and assess exploration data collected by previous explorers and operators within the Data Extraction Area (Figure 1). The data compilation included assessments of historic company reports, literature and academic papers (paragraph 3.2), data on published maps (paragraph 3.3), and data collected by Auzex within the area of interest. All data referred to in this chapter is appended.

3.2 Historic Company Reports

Exploration in within the Data Extraction Area has been carried out by many operators for many years. The data that resulted from this work was recorded in company reports which are available for downloading from the QDEX website. These reports in turn refer to other reports and sources of information and a significant amount of information is available. Most of this information has previously been digitised by Auzex and other, more regional datasets are purchasable from the government. However, a search of the QDEX system revealed a large proportion of reports with relevant information that would be useful for the 3D model that had not been digitised before. Additionally, several academic studies have been carried out in the study area and the data from these reports also has not previously been captured digitally.

At the request of Auzex, RSC outsourced a data compilation study to Kenex, who specialise in this type of work. Initially, a Queensland Digital Exploration (QDEX) search was carried out within the Data Extraction Area and all reports listed in an excel sheet. The reports were then checked one by one to see if they contained data that met the following criteria;

1) Location: does the report refer to a location within the Project Areas?
2) Relevancy: is the data relevant for the modelling?
3) Quality: is the data significant compared to the data already available? This, mainly with respect to the resolution and scale of geological maps compared to the existing most up to date 100K scale geological map and the possibility of accurate geo-referencing.
4) Database: if certain data met the criteria above, it was queried in the Kenex database to see if it was digitised during a previous campaign.

Kenex reported a total of 132 reports that fell within the Data Extraction Area. RSC implemented a ranking system within the excel sheet, which functioned as a working sheet in order to prioritise the work flow. All reports were downloaded and transferred via Dropbox sharing software. Of all reports received from Kenex, a total of 11 reports did not concern the predefined data capture area. From the remaining 121 reports 61 contained data that was at least partially collected within the pre-defined Khartoum, Runningbrook and Galala areas of interest. The

other 60 reports contained data that was collected within the main data capture area, but outside the three areas of interest (see Figure 1).

During the assessment priority was given to reports that contained geological information, drill hole descriptions or assay results that were deemed useful for the planned 3D modelling, with the emphasis on drill related information. A total of 27 QDEX reports contained data that concerned 174 different percussion and diamond drill holes. From these 174 holes, 143 holes were either already in the database, fell outside the areas of interest or could not be geo-referenced. From the remaining 31 drill holes 27 were digitised, some of which partially because occasionally part of the drill hole data was already in the database.

The reports that did not contain drill related information mainly concerned soil, stream and rock chip sampling programs in the form of annual reports. Combined, these reports contain approximately 5000 rock chip, soil and stream sediments samples that are not incorporated. Although these samples could be helpful for the modelling exercise, digitising these was not conducted within the timeframe of this project..

None of the geological maps in the reports added value to the existing 100K scale geological map. This is mainly because either the scale was too small, or the mapped area was too small. Some reports contained some useful structural data and a total of 66 structural measurements were digitised.

All digital data resulting from this compilation study has been integrated and appended.

3.3 Published Maps

The area in question is covered by a total of five 1:100,000 scale geological maps published by the Government of Queensland. It was noticed that the structural measurements on these maps were not part of the existing database and these measurement were therefore digitised. These geological maps also contained geological information in the form of line data such as faults, dykes and linear alteration zones that was included, but lineations, indicating greisen alteration, were not labelled separately and could therefore not be selected and separated from other line data. Since the greisen alteration zones were deemed important for the modelling exercise these were digitised.

All digital data resulting from this compilation study has been integrated and appended.

3.4 Auzex Digital Data Compilation

The final step of the data compilation consisted of checking the completeness of the database against raw data collected by Auzex previously and all available archived files.

After assembling the data from each of these sources each file was checked to see if the data it had been integrated. Several thousand data points were added after this exercise.

All digital data resulting from this compilation study has been integrated and appended.

4 Field Investigations & Data Collection

4.1 Field Work

4.1.1 Introduction

Field investigations focused on collecting data to support a 3D geological modelling exercise, providing ground truth to the interpretative maps acquired from Fathom Geophysical, and checking aspects of the geologic setting of the intrusive bodies and the known mineral deposits. This was not a mapping exercise; the size of the area covered precluded complete mapping. The data collected is primarily point data . Data was collected wherever access was gained; although an attempt was made to cover specific target areas in more detail. The target areas were based upon geophysical and Aster anomalies, specific geologic features such as contact zones, regional structures, circular features, mineralized areas, or areas of positive historic exploration results.

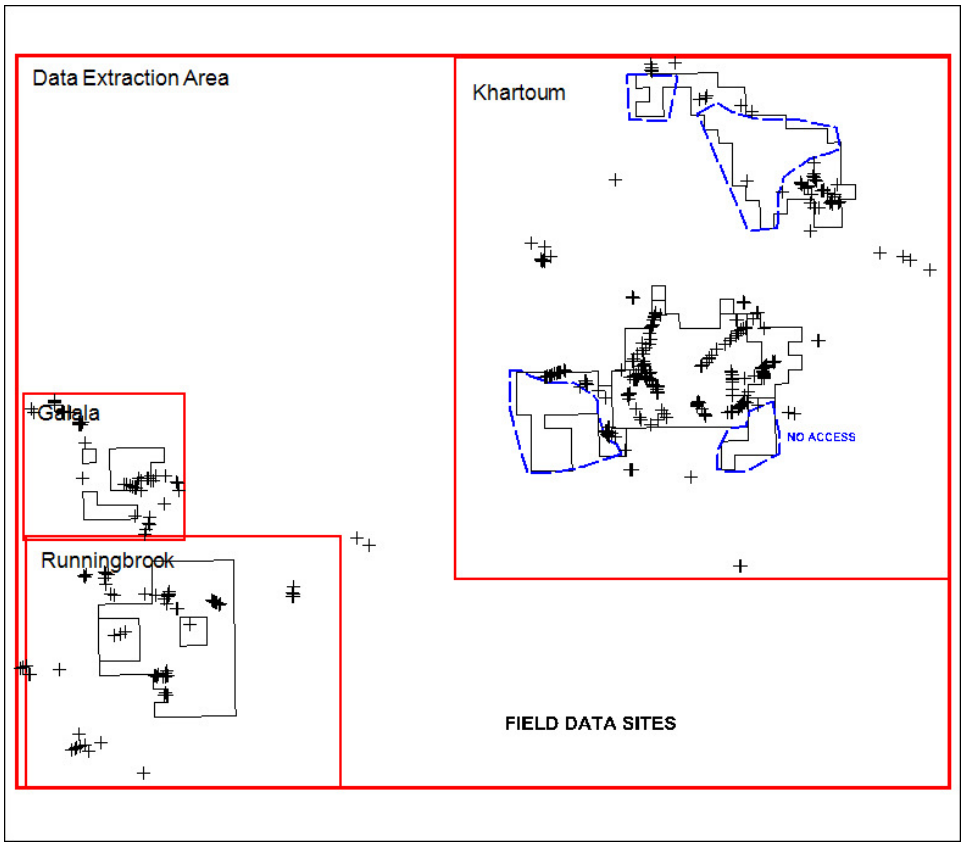

Figure 6 Field data collection sites

Geographically the focus was on the proposed tenements and the areas within the existing tenements not already fully examined in previous investigations by Auzex Exploration. The original goal was to collect data from predetermined targets based upon geologic setting, the Fathom deliverables, or lack of historic data. In reality, access determined where the data was collected. A combination of impassable, or non-existent, roads, locked gates, and lack of permission from land owners prevented large portions of the target areas being investigated. The areas visited during the field investigations are shown on Figure 6 as indicated by the field data points. Even gaining access to these areas often required some road rebuilding or even using the vehicle winch just to get close enough to hike. It was determined early in the program that traverses away from the vehicles needed to be kept to no more than 2 km outbound; otherwise only a small portion of the Project area would have been covered. Some of the traverses were along existing, but impassable roads.

Three areas where drilling or trench sampling returned greater than 1 per cent Sn were examined in more detail (Figure 1). These are the Stannary Hills, Giblets Peak area, and Woepen-Gilmore Mine area. It should be noted that only that part of the Woepen-Gilmore Mine area near the road was visited, Most of the drill sites with high Sn or W values in the Woepen-Gilmore Mine area were not accessible because of the lack of permission from the land owner. Mineralisation in these three areas is hosted by rocks of the Hodgkinson formation. Added

information in the Stannary Hills and Giblets Peak areas provided a base for further evaluation of the Fathom deliverables over mineralised metasediments.

Five areas with accessible Aster Quartz-Sericite-Pyrite (QSP) anomalies and important geologic conditions were examined in greater detail (Figure 1). These are the Boulder Peak, Leafgold, Martin Creek, Nynmbol, and Sunny Mount areas. There is adequate information on areas of mineralisation in granite terrane from previous studies by Auzex, within the three existing tenements to use to evaluate the Fathom deliverables.

4.1.2 Fieldwork Approach

Because of the size of the area to be covered and a general level of uncertainty of what types of features might be present, the following list of possible features was developed prior to the field program. This does not imply that all these features are present in the area; this is only a list of features that was referred to during the field investigation or evaluation exercises.

1. Indications of small circular to oblong silica rich intrusive bodies
   - With associated alteration zoning
   - Aligned along linear or circular structures
   - With associated mineral deposits, espc. Au
   - With associated zoning of mineral deposits

2. Evidence of alteration such as high silica, high K, Th/K ratios, high muscovite index, high chlorite index,
   - Within intrusive bodies
   - Along recognizable fracture systems
   - Apparent linear alignment
   - Along contact zones
   - With associated mineral deposits
   - Along or associated with undefined circular features

3. Recognizable linear structures
   - With associated alteration
   - With associated mineralisation
   - With associated dikes or veins
   - Of more than local extent
   - That is truncated by lithologies
   - That follows lithology contacts

4. Structural Intersections
   - Linear structural intersections
   - Linear with lithology intersections
   - Suspected conjugate systems
   - Mineralisation trends with linear structure
   - With associated alteration or mineralisation

5. Circular features
   - Indicated by lithology

- Indicated by structure
- Indicated by dike-vein systems
- Indicated by alteration

6. Flat Lying Structures
   - Shown on maps
   - Suggested from distribution of prospects on contour
   - Suggested from alteration
   - Suggested from contact relationships

7. Lithologic contacts
   - Between important intrusive units
   - Between intrusive unit and metamorphic rocks
   - Suspected dike swarms
   - With associated alteration or mineral deposits

8. Specific lithologic characteristics
   - Suggestions of metamorphic zenoliths in intrusive rocks
   - Suggestions of intrusive zones in volcanic rocks
   - Suggestions of zoning in intrusive rocks
   - Suggestions of changes in metamorphic grade

9. Specifics from ASTER and GPH images
   - Suggestions of different lithologies from previous maps
   - Significantly different contacts of important units
   - Suggestions of structures not on previous maps
   - Linear features of unknown origin
   - Other unexplained features

10. Features not recognizable on the Images but important to note when crossed
    - Attitude, size, and character of quartz veins, pods, and breccias
    - Any vein stockworks with multiple orientations
    - Any vein swarms with single orientation
    - Attitude, size, and character of all dikes, especially silica rich lithologies
    - Any evidence of alteration; especially watch for fluorite and topaz in the felsic intrusives
    - Any cross-cutting relationships
    - Any directional movement indicators in or along faults, shears, dikes, veins; espc in the flat structures.
    - Any directional indicators in intrusive rocks such as flow structures and lineations
    - Attitude and character of penetrative surfaces of all types including foliation and relict bedding in metamorphic rocks.
    - Any linear features such as mineral lineations and fold axes in metamorphic rocks

4.1.3 Khartoum Detail Areas

4.1.3.1 Stannary Hills

Stannary Hills is within the Herberton tin field and beginning in 1884 has produced W, Sn, Cu, Pb, Ag, and fluorspar. The active mining period was about 1900 to 1910 during which narrow gauge rail lines were constructed. Mining activity since that time has been sporadic.

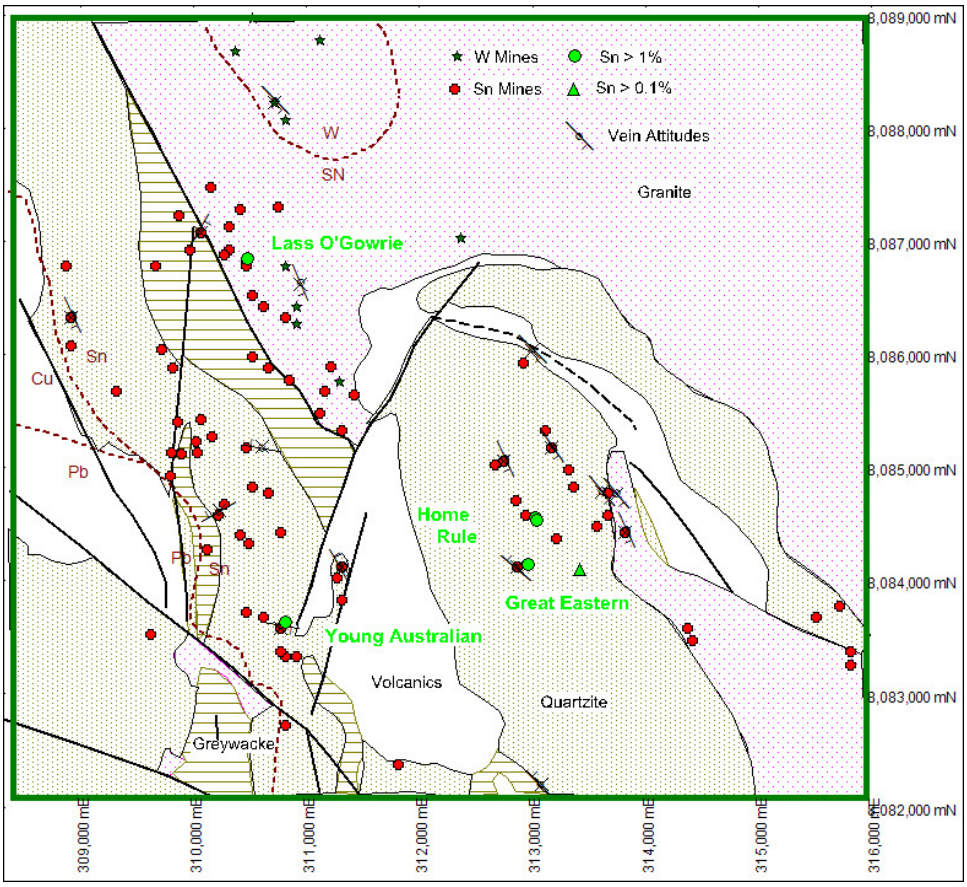

Figure 7 Geology and mineral deposits of the Stannary Hills area

The Stannary Hills area (Figure 7) is of interest to this project because of high Sn values obtained in several drill holes in the recent past and it is an area of mineralisation within the Hodgkinson Formation and in the contact granite. Niton based analyses from this study also found 0.1% Sn in one sample. There is also good historical data on the nature and attitudes of the mineralized zones. Greisen and quartz lode deposits occur in the Lass O' Gowrie granite and quartz, quartz-chlorite, and complex sulphide lodes occur in the Hodgkinson Formation (Blake, 1972). Blake (1972) defined a district wide metal zoning of Sn, W, Cu, and Pb. The high Sn values in drill holes are within his Sn zone. Most of the workings in the area are shallow, less than 30m and some cassiterite lodes are reported to grade into complex sulphide lodes below the oxidized zone depth. Blake suggests that some if not most of the cassiterite is secondary and confined to the oxidized zone.

The deposits are in sheared rock and mostly strike northwest and dip steeply. One group of mines in Hodgkinson Formation in the central southwest part of the map area have shallow recorded dips. At one mine in this group, thought to be the Eclipse (36786), mineralisation occurs along nearly flat fractures that are not bedding parallel. The flat fractures as exposed in the wall of the open pit curve upward towards the east (Figure 8). Granite is reported at relatively shallow depth beneath the Hodgkinson Formation In this area. Granite was taken from the bottom of the pit at the Eclipse Mine and granite is exposed in shallow pits approximately 2 km north of the Eclipse.

Figure 8 Open pit at the Eclipse Mine

The drill holes with greater than 1 per cent Sn are located at the Young Australian (#36844), Great Eastern (#36795), and the Home Rule (#36799) mines in the Hodgkinson Formation and at the Lass O' Gowrie mine in the granite. The attitude of mineralisation at the Young Australian is recorded as 100° 55° W; at the Great Eastern as 310 65E; deposits near Home Rule as 155° 90; and at the Lass O'Gowrie as 160° 90. Recorded associated metals include Pb and Fe in a chlorite-quartz gangue at the Young Australian; Fe, Zn, Cu, As, and Bi in a complex sulphide gangue at the Great Eastern; Fe and Zn in a chlorite gangue at the Home Rule; and As and Fe in a quartz and greisen gangue at the Lass O" Gowrie.

4.1.3.2 Giblets Peak

The Giblets Peak area (Figure 9) covers the northeast corner and an area just to the north and northeast of the current Khartoum tenement (1497) and a segment of tenement (15570) and is part of the Adventure Creek area defined by Blake (1972). The area has produced Sn, Pb, and Ag, and includes the Rainbow Mine, attributed with the largest Sn production in the Herberton tin field from 1950 to 1970. The other major Sn producers, also active to about 1970, are the Right Bower (36701) and Adventure. The Silver Queen (36745) and Victoria Mines in the northern part of the area were significant Pb an Ag producers.

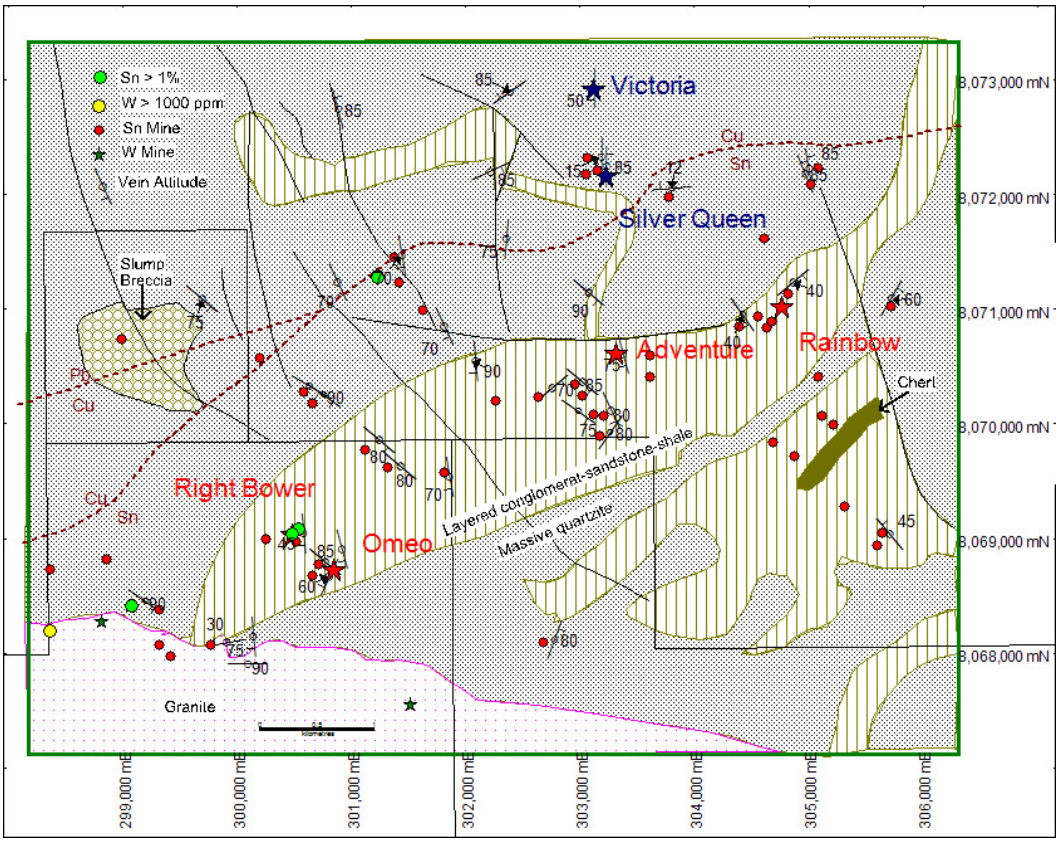

Figure 9 Geology and mineral deposits of the Giblets Peak Area

During the 2009 field season Auzex Exploration collected 66 soil samples in tenement 15570 in the Giblet Peak area. These were grid-based -2mm soil sampling (200m centres) collected in conjunction with a wider program of sampling undertaken in the north-eastern portion of the adjoining EPM 14797I. During 2010 in joint venture with Hillgrove Resources that part of tenement 14797 underlain by Hodgkinson Formation in the Giblets Peak area was evaluated for gold and base metal mineralisation in the Hodgkinson Formation. The source of the metals assumed to be from fluids generated by local late-stage granite intrusions.

Rocks of the Hodgkinson Formation underlie most the area with granite outcropping along the southern margin. The majority of the known mines and prospects are for Sn with a few for W within the granite, and the Silver Queen and Victoria Mines noted for Pb and Ag production. Blake (1972) defines the majority of the deposits as quartz-chlorite and quartz lodes along steeply dipping NW to N trending shear zones. It must be noted that the recorded attitudes in and around the Rainbow Mine and around the Right Bower Mine show shallow dips to the southeast and southwest. Most of the workings are shallow although the Rainbow was worked to 76m and the Omeo to 58m. Lead minerals are apparently common in most of the Sn lodes and at the Silver Queen the Sn lode graded to Pb-Ag at shallow depth. There seems to be two sets of mines based upon the nature of the Hodgkinson Formation host. A majority of the properties are hosted by the layered conglomerate-quartzite-sandstone-shale unit including the Rainbow, Right Bower, and Adventure Mines where the attitude of the lodes

ranges from steep to shallow and orientation ranges from NW to N to NE. Alteration and mineralisation are described as widespread in the coarser grained units and occasionally in the sandstone. Properties hosted by the massive quartzite-sandstone units of the Hodgkinson are strictly within steeply dipping NW to N trending lodes.

There are three sites in the Giblets Peak area where drill holes or trench samples returned values of more than 1 per cent Sn (Figure 9). The high value trench samples came from the Right Bower Mine area and from an un-named prospect near the contact of granite and Hodgkinson Formation. The high value drill hole was near the Lady Agnes Mine (36444). Right Bower shows Sn in a quartz chlorite gangue with recorded lode attitude of 175° 45° W. The Lady Agnes shows Sn in a chlorite gangue with recorded lode attitude of 170° 70° W. The unnamed prospect shows Sn in a greisen gangue with recorded lode attitude of 125° 90.

4.1.3.3 Woepen-Gilmore Mine area

This is an area of several mines listed as very small, but at least one, the Gilmore Mine (37885) with production in the 1950s onward, and of extensive exploration for Sn since 1980. The Thomas Mine (37970) in the Woepen area may have produced in the later part of the 20th century also. Houston Oil and Minerals Australia (HOMA) conducted a very detailed exploration program from about 1978 to about 1981 in the Woepen and adjoining Gilmore Mine area (Figure 10). Their program included detailed geologic mapping, completion of several diamond drill holes, numerous trenches to bedrock, soil sampling, petrographic studies, ground magnetic surveys, and rock chip sampling. Results of the HOMA study can be found in reports Cr08740 and Cr0949. The area is of interest because a number of the drill core and trench samples returned Sn values greater than 1 per cent and some of the drill cores in the Gilmore Mine area returned W values greater than 0.5 per cent. In the Woepen area alone there were 30 rock chip and dump samples out of 250 collected that contained more than 1 per cent Sn; the highest being 3.65 per cent.

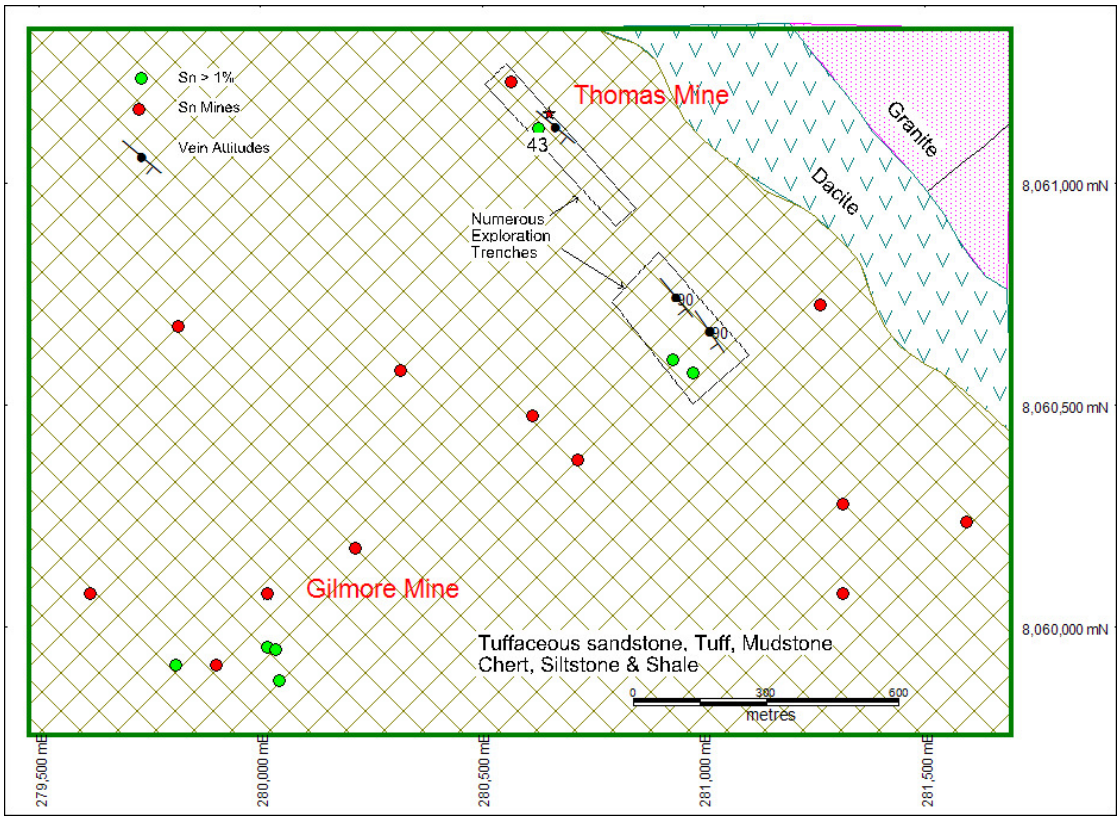

Figure 10 Geology and mineral deposits of the Woepen-Gilmore Mine area

The Gilmore Mine area was not visited and only a short visit was given to the Woepen area because of the lack of land owner permission. Rocks of the Hodgkinson Formation host the known deposits; there are no known deposits in the granite rocks in the near vicinity. In the Woepen area the Ballast Creek dacite occurs between rocks of the Hodgkinson Formation and the Emuford granite. Houston Oil and Minerals reported granite from a drill hole in the Gilmore Mine area. Rocks comprising the Hodgkinson Formation in this area are significantly different from rocks comprising the Hodgkinson Formation in the other areas investigated. In this area tuffaceous sandstone, tuff, mudstone, chert, siltstone, and shale are the dominant rock types. Large areas of intra-formational breccia were outlined by HOMA. The breccias are of mixed lithology and were determined by petrographic studies to be wet sediment or partially lithified intra-formational slump. The breccia contains consistent but low metal contents and signs of hydrothermal alteration. Wall rocks around the breccia contain metal bearing quartz veins and broad zones of propylitic alteration. They were considered by HOMA in 1980 as worthy targets for low tonnage low grade deposits of Sn; but no information of further exploration was found.

The ore bodies exploited in the past were pipe like lenses along northwest-trending shear zones. Viable mineralisation was not continuous along the shear, only in the “blows”, the pipe like bodies. The HOMA drilling program targeted the larger mineralised shear zones near the Gilmore and Thomas Mines, with the goal of defining 10 million tons at 0.3 per cent Sn. In the Gilmore Mine area drill hole GDDH-6 recorded a 1m zone next

to the shear zone (48 to 49m) containing 0.1% Cu, 0.21% Pb, 0.28% Zn, and 1.21% Sn. The country rocks were white chert with minor mudstone. GDDH 9 recorded an 8m zone containing 0.33% Pb, 0.37% Zn, and 0.84% Sn; with a 1m zone of 5.19% Sn. Information on the other drill holes was not in the available reports.

This is a complex area where the style and extent of mineralisation is not fully understood, even with the amount of studies conducted by Houston Oil and Minerals Australia. Their work raised several interesting questions concerning the resource potential of the area.

4.1.3.4 Sunnymount anomaly

One of the Fathom quartz-sericite-pyrite (QSP) anomalies is aligned along a contact between Petford granite and Sunnymount granodiorite (Figure 11). The actual contact is approximately 200m southwest of the published contact. The anomaly is located approximately 4 km northeast of the Sunnymount tin mine (DE00327), a major past producer of Sn and W. The Sunnymount mine and smaller surrounding mines are hosted by the rocks of the Hodgkinson Formation. Because of access conditions at the time only the anomaly was visited during the field work.

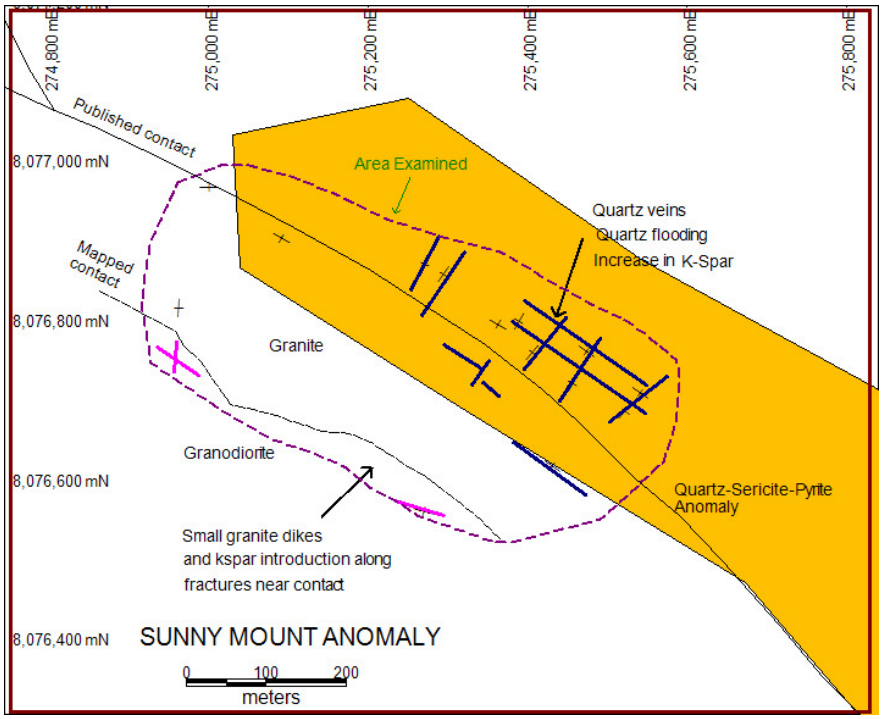

Figure 11 Geology of the Sunnymount quartz-sericite-pyrite (QSP) anomaly

In the area visited there is a distinct increase in the amount of quartz veining and areas of silicification and pink K-feldspar introduction in the anomaly area as contrasted to the granite outside the anomaly. There does not seem to be an increase in these attributes as the contact with the granodiorite is approached, but this is an area of poor exposure. Within the granodiorite near the contact several small pink K-feldspar veinlets were noted.

4.1.3.5 Martin Creek anomaly

This is a quartz-sericite-pyrite (QSP) anomaly in granite near the contact with Hodgkinson Formation rocks. The anomaly extends across the contact between the Reddcliffe/2 and Emuford/3 granites (Figure 12). One small Sn prospect (37997) occurs in the area within altered granite near the contact with the Hodgkinson Formation. The Martin Mine, a large abandoned Sn fluvial mine is approximately 1 km west in an outcrop area of Hodgkinson Formation rocks. To the southeast are many small Sn prospects in rocks of the Hodgkinson Formation.

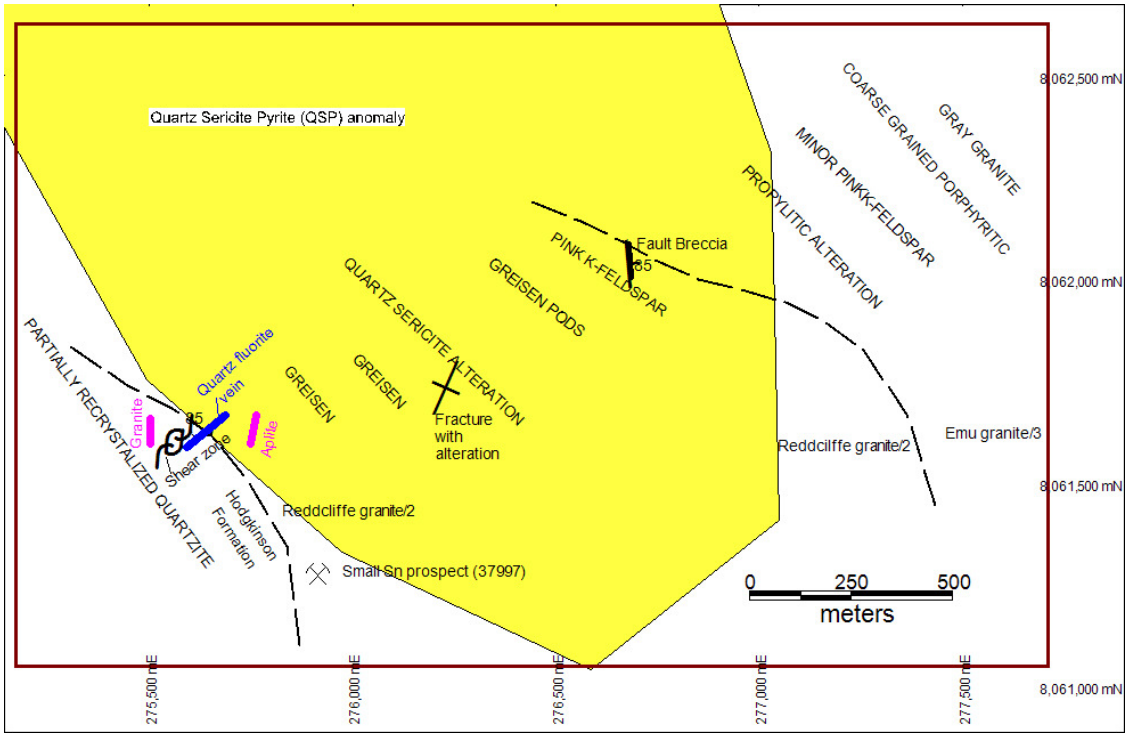

Figure 12 Geology of the Martin Creek Quartz-Sericite-Pyrite (QSP) anomaly

The lithologies of the Reddcliffe/2 and the Emuford/3 granites as mapped are defined as uncertain. The mapping data states that they were both a geophysical subdivision. A review of the geophysical and Aster data, as presented in section 9.2.6, suggests that they are different granites, but that the Reddcliffe/2 is not the same as the Reddcliffe granites to the north that are defined. The contact of the Reddcliffe/2 granite and rocks of the Hodgekinson Formation is diffuse over several 10s of meters; there are fluorite bearing quartz veins, shears zones, and granite dikes in the contact area. The quartzite has been recrystallized and metasomatized. There appears to have been alteration in the form of propylitization of the Emuford/3 granite along the contact with the Reddcliffe/2 granite.

4.1.3.6 Leafgold Anomaly

The Leafgold anomaly area is on the north western border of the northern proposed tenement. The quartz sericite pyrite (QSP) anomaly lies in a NW-SE orientation along the contacts of the James Creek granite (Ootannn Supersuite) and the Atlanta granite (O'Briens Creek Supersuite) to the north and east and the Hodgkinson Formation to the west. In this area the James Creek is a narrow northwest trending body of biotite

adamallite. Because of lack of access permission, the James Creek and Hodgkinson Formation could not be examined, only the Atlanta granite within and outside the anomaly (Figure 13). There are two small W prospects to the southwest of the area. The first (37605) 600m SW is in a greisen zone in granite at the contact with siltstone of the Hodgkinson Formation. The second, Bennetts Gift (36053), described as a wolfram vein is approximately 1.8 km SW and apparently in rhyolite.

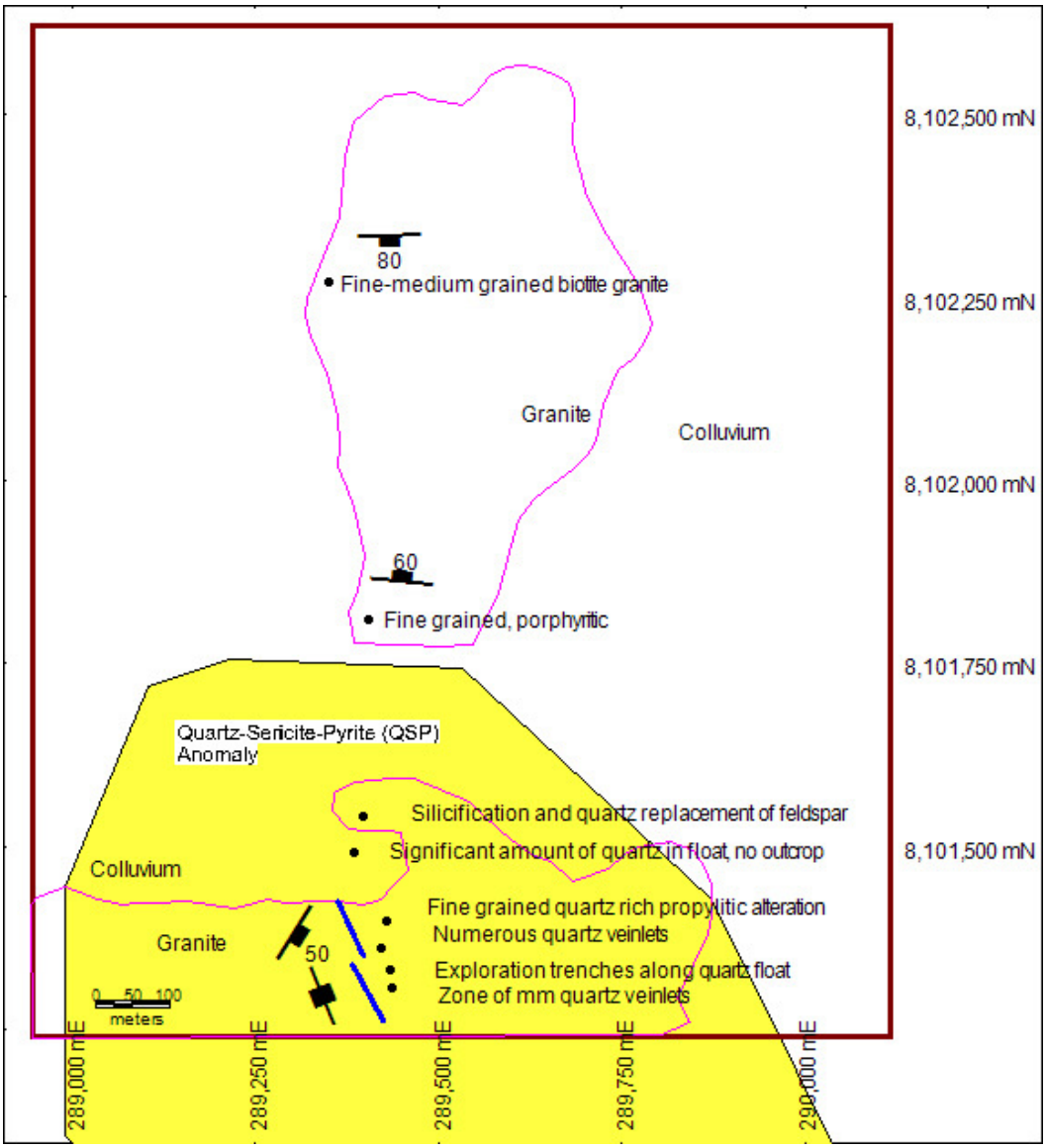

Figure 13 Geology of the Leafgold Quartz-Sericite-Pyrite Anomaly

The Atlanta granite within the anomaly shows a marked increase in quartz veining and silicification. There are several exploration trenches, now mostly filled, across and along some of the quartz veins.

4.1.3.7 Nymbool Road Area.

The Nymbool road area (Figure 14) is within the proposed east Khartoum tenement along the Nymbool road. Only that portion of the area along the road was available for access. The Nymbool road area is of interest because it is accessible, is within a proposed tenement, and is underlain by a variety of rock types representing

three distinct geologic environments. The Claret Creek ring complex is represented by the Claret Creek volcanics, Ballast Creek dacite, and Munderra granodiorite and are dated as Ma300 +/- 5. A complex of granite intrusive rocks, including the Emuford, Opah, and Koogangoona granites, outcrop in the eastern portion and represent an evolved granite environment of the O'Briens and Ootann Supersuites. The Emuford granite is dated Ma317 +/- 2.and the Opah is considered as slightly younger. The Koogangoona granite is part of the slightly younger Ootann Supersuite. The third geologic environment present is represented by the Hodgkinson Formation. The current 1:100,000 scale geologic map shows a wedge of metamorphic rocks of the Hodgkinson Formation in the north central portion of the area. It also shows a circular area of Hodgkinson Formation surrounded by rocks of the Ballast Creek dacite in the northwest portion of the area. The Hodgekinson Formation rocks are hornfelsed and metasomatized arenite and mudstone

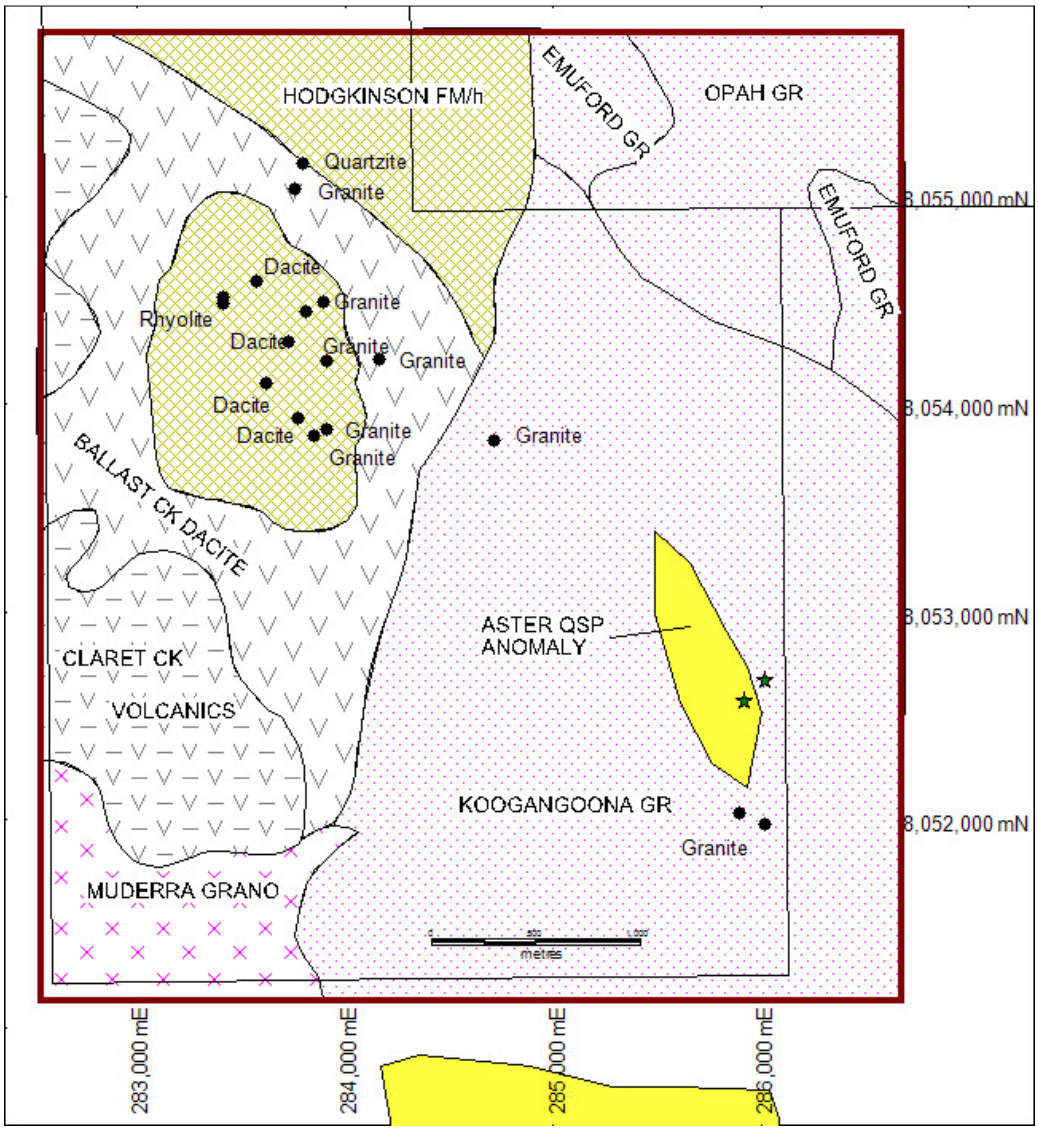

Figure 14 Geology of the Nymbool Road area

There are only two small W vein prospects (38026 & 38028) in the south-eastern portion of the area. A generally northwest-trending small Aster Quartz-sericite-pyrite (QSP) anomaly occurs in the Koongangoona granite in the vicinity of the W veins.

Two field traverses to investigate the contact zone of the Hodgkinson Formation and the Ballast Creek Diorite did not find that contact. Sample points showing lithologies at the sample point are shown on Figure 14. Much of the area mapped as dacite is granite. The contact with the wedge of Hodgkinson Formation in the north central portion of the area is with medium-grained porphyritic granite. The circular outcrop of Hodgkinson Formation could not be found, only granite and dacite outcrops were located in what is mapped as Hodgkinson Formation. The contact between the biotite granite and dacite is gradational over 10s of meters across an area of poor outcrop. There is an apparent fining of grain size in the granite as the contact is approached along with an increase in aplite dikes and healed breccia of granite and aplite. The dacite, defined as intrusive dacite, rhyodacite, and breccia, in the area traversed consists of a fine grey siliceous ground mass with visible white feldspar and grey quartz with feldspar rims. The area was not remapped because of time constraints and the lack of access permission, but it is likely that the two contacts examined are between granites of the Claret Creek ring complex and dacite and Hodgkinson Formation..

4.1.3.8 Boulder Peak Area

The Boulder Peak Area (Figure 15) contains an Aster QSP anomaly, W and Sn mines, several O'Briens Creek Supersuite granitic units, and an exposed contact between granite and Hodgkinson Formation. The Hodgkinson Formation in this area is mapped as rudite, a general term implying clastic sedimentary rock composed of material coarser than sand. Most of the Hodgekinson Formation viewed in this area during field work for this project was quartzite, both massive and bedded. The granitic units include the Emuford, Black Prince, Disaster, Glenlinedale, and Rock of Ages granites and two small un-named bodies labelled Cgt/g-7962 and Cg/p-7062.

The Emuford and Black Prince are large bodies with varying lithologies including granite, synogranite, monzogranite and porphyritic versions of the same and locally extensive zones of alteration including greisen. They are listed as late Carboniferous in age. The Ctg/g-7962, Disaster, Glenlinedale, and Rock of Ages are smaller bodies of granophyric biotite granite. They are listed as middle to late Carboniferous in age. Perthitic textures and intimately intergrown K-feldspar and quartz with typical triangular quartz can be seen in these rocks. Similar lithologies were found throughout the Emuford granite where traversed as dikes and small irregular bodies where they cross-cut the porphyritic Emuford. The Disaster and Glenlinedale granites are hosts for W and Sn deposits and the Glenlinedale and Rock of Ages granites are in contact with the Hodgkinson Formation.

The contact zone between the Glenlinedale granite and the Hodgkinson Formation was located and although poorly exposed it seems to be gradational over several 10s of meters with extensive silicification in the granite and recrystallization and metasomatism in the quartzites. At the actual contact between altered granite and

metasomatized quartzite were pods and stringers of grey to white quartz with FeO stringers and local zones of biotite.

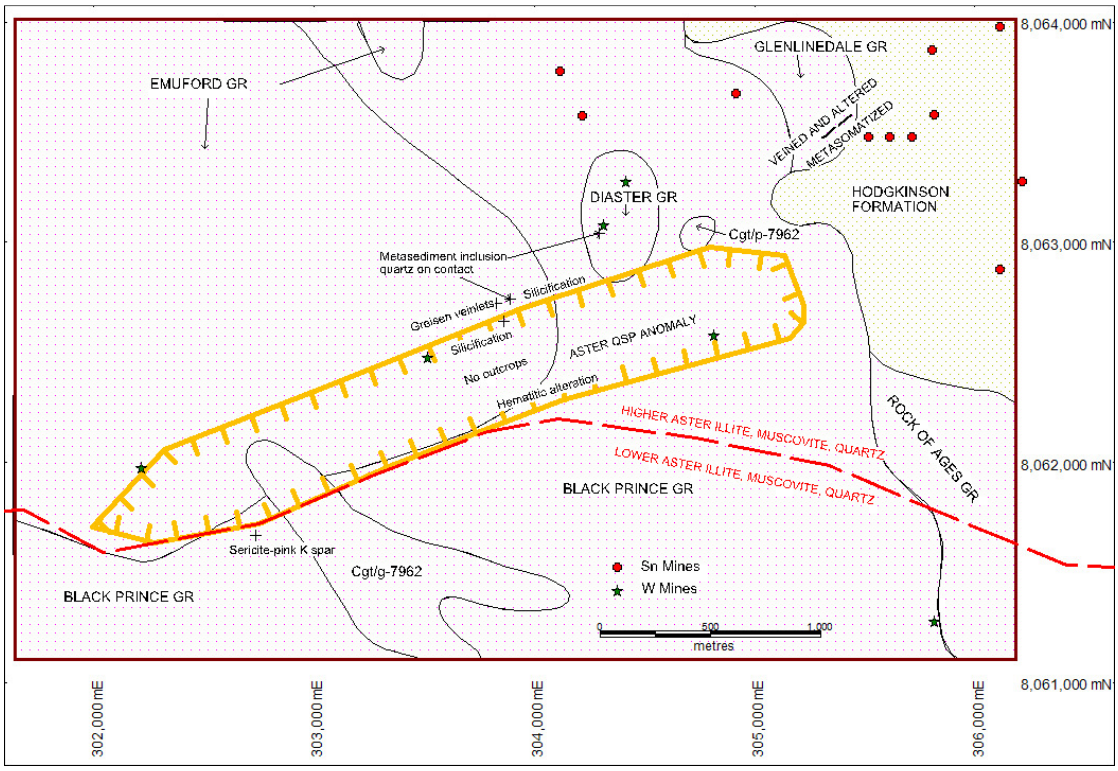

Figure 15 Geology of the Boulder Peak area

Rocks within the Aster QSP anomaly show an increase in quartz veining, including a brown nearly cryptocrystalline variety, pink K-feldspar, and white mica, and local veinlets of greisen. Much of the anomaly overlies a broad valley of Glen Creek where there has been extensive surface mining for placer Sn or W.

4.1.4 Geochemical Field Data Acquisition (NITON)

A NITON Gold+ portable XRF machine ("NITON") was used to collect field geochemical analyses during field work. The use of a NITON was trialled not because it provides direct accurate information on concentrations of high-value commodities and elements but because it provides good quality data on elements that are important to determine fractionation of granites such as Rb, Sr, K and Ba. The distribution of the sample sites is shown on Figure 16 and the results are appended. .A broad spectrum of rock types were analysed mainly along traverse lines across known geologic features.

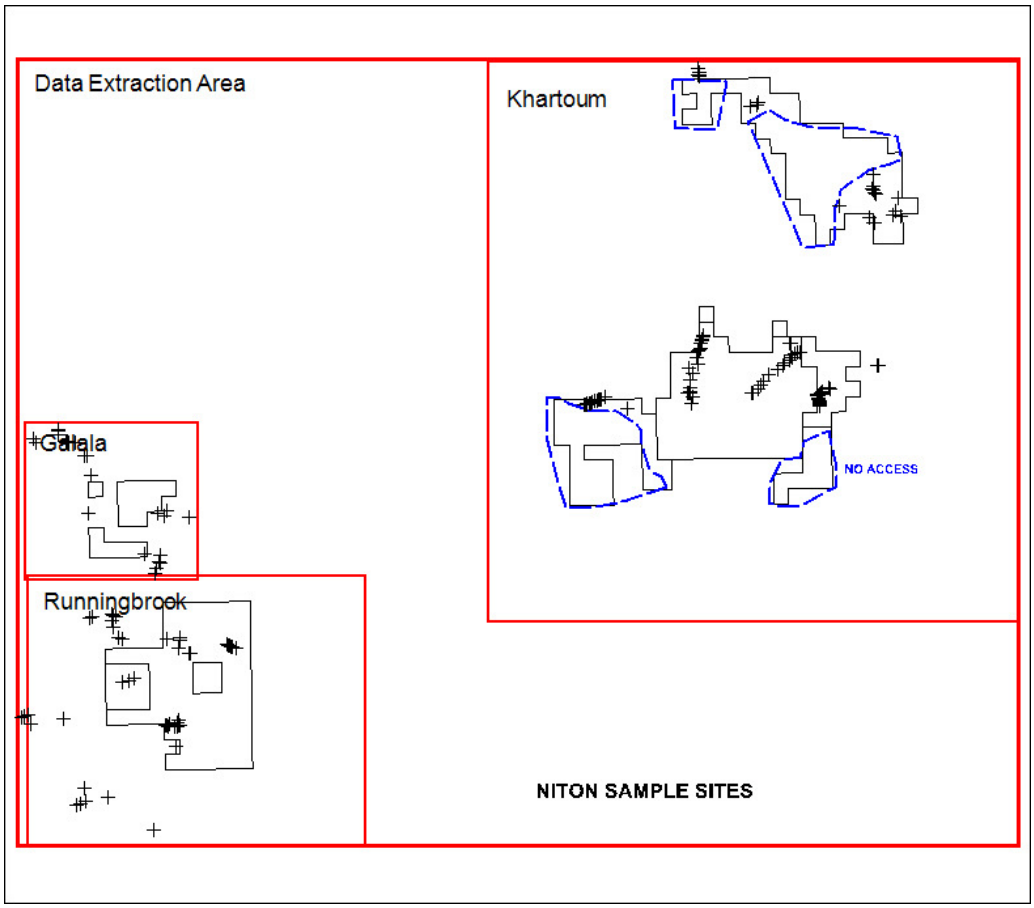

Figure 16 Field geochemistry (Niton) collection sites

4.2 Field Work Review and Analysis

4.2.1 Field data to support 3D modelling.

Following is a listing of the data collected during the field investigations with descriptions of attributes that may be useful in 3D modelling. A gallery of photographs keyed to the data types collected is in Appendix A.

Aplite dikes: Fine-grained, tan to reddish, sometimes with sugary texture, composed of quartz and feldspar, often grading into and out of quartz veins and fine-grained granite dikes, generally sharp contacts.

Bedding: Lithologic layering within metasedimentary rocks of the Hodgkinson Formation.

Contacts: With the exception of dikes and veins, contacts between major lithologic units are not exposed. Within the larger granite bodies there are numerous contacts from fine to coarse grained varieties. These contacts are very irregular and in most cases nearly impossible to measure an attitude. Contacts between the granite and the metasedimentary rocks of the Hodgkinson Formationare gradational over varying distances. Outcrops showing a contact between a dirty granitoid and a partially recrystallized metasediment were found. In most of these outcrops there was coarse-grained quartz, generally blue grey in colour, as pods along the contact.

Faults: Fractures along which there has been some development of gouge, breccia, and/or granulation

Fractures: Significant fracture systems, although not penetrative they were abundant in the area the attitude was measured. Fractures with evidence of movement were termed faults or shears no matter the size.

Fracture alteration halos: Distinct alteration halos, including silicification, quartz-sericite, K-feldsar, propylitic, and iron oxide, along the fracture. The halos can be along fractures that contain quartz veins and veinlets and along fractures free of dikes, veins, or gouge. Note: some of the quartz-sericite alteration apparently contained fluorite or topaz making them greisens.

Fracture mineral surface: This includes a group of low angle fractures defined by a hard polished surface below which the rock was dark coloured and quartz rich, often a greisen, and above which was relatively unaltered granite. The width of the dark quartz-rich rock ranged from a cm to 50 cm. These include the nearly flat mineralized greisens historically mined in the Glen area of the existing Khartoum tenement.

Granite dikes: Generally fine-grained, reddish to tan, composed of grey vitreous quartz and feldspar, both white and pink, in graphic texture with varying amounts of biotite. The contacts ranged from very sharp to diffuse over 10 cm.

Layering in granite: Field measurable attitude data related to the intrusive history of a granite body is essentially non-existent. The few instances of layering seen in the granites are of questionable origin. Some was defined by alternating biotite and quartz layers and was probably directly related to partially assimilated inclusions of metamorphic rocks. These gneissic layers could not be traced for more than a few meters to 10s of meters. Some of the layering was alternating fine-grained and coarser grained granite. This type of layering was very irregular and local in extent. Areas of coarser grained granite with irregular zones of finer-grained granite seems to be the norm in the larger intrusive bodies such as the Emuford granite. An attempt to define the nature of the layering is included in the description of the point data.

Mineral lineations: Most were the alignment of feldspar crystals.

Quartz breccia veins: Generally larger, greater than 30 cm, veins composed of angular fragments of wall rock and quartz healed by the later generations of quartz.

Quartz pods: Irregularly shaped masses of quartz. Sometimes along quartz veins, often as stand-alone masses with no obvious connection to fracture systems.

Quartz veins: Veins 1 cm wide or larger, dominantly quartz, some with fluorite, white mica, biotite, or white feldspar. A few contained very fine metallic minerals. All are fracture fillings, commonly showing more than one stage of filling, and most contain vugs with terminated quartz crystals. In some cases they grade into and out of aplite dikes. Quartz is either light to medium grey vitreous or milky white. A few veins of tan very fine grained, nearly cryptocrystalline quartz were noted.

Veinlets: Fracture fillings less than 1 cm wide, composed of some combination of light grey crystalline quartz, milky white quartz, tan chalcedonic quartz, white feldspar, and aplite. These are fracture fillings and commonly occur in inter-locking swarms.

Shears: Fractures which define a shear zone, i.e. they interconnect is such a way as to form diamond shaped wall rock fragments.

Striations: On fractures and faults along which there had been movement.

4.2.2 Geochemical field data Interpretation

4.2.2.1 Anomalous Sn values

As stated earlier, the purpose of using a NITON was not to obtain detailed information on anomalous high-value elements such as Au, Sn, W, Mo, Cu etc. Rather it was used to attempt to get some indication of the fractionation degree of granites as a useful "layer" for the 3D modelling. However, during the course of the work, some interesting anomalous values were noted and reported here so that they can be followed up by Auzex. Anomalous values for Sn (> 0.05%) were noted (Figure 17). Eight samples contained more than 500 ppm (0.05%) Sn, with a high of 4604 and a low of 528 ppm Sn. Four contained more than 1000 ppm Sn. The error values were relatively low, ranging from 13.2 for the low return to 842 for the high value. One of the anomalous Sn samples was from altered and iron stained granite in the Lyndbrook complex in the Running Brook project area. Three were from silicified and altered O'Briens Creek Supersuite granites in the central part of the Khartoum project area. Four of the anomalous samples were from Hodgkinson Formation rocks with quartz and FeO stringers; two each from the Giblets Peak and Stannary Hills areas.

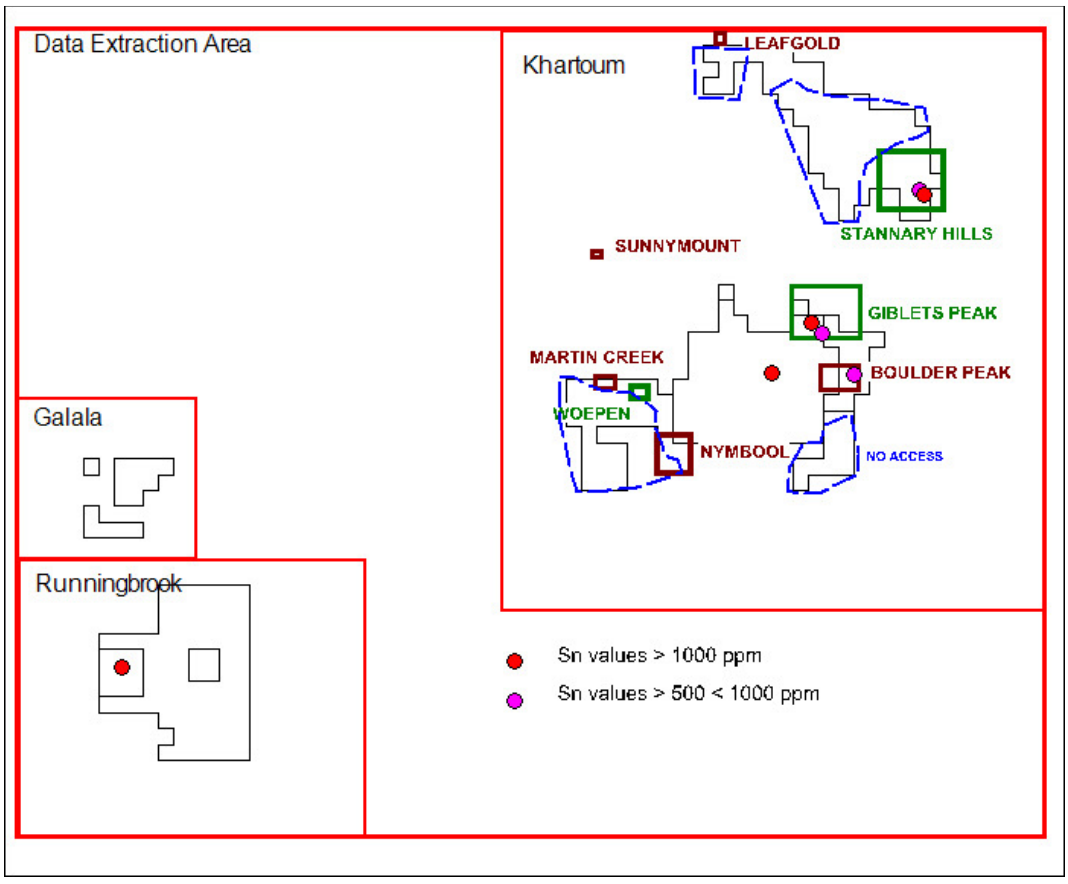

Figure 17 Anomalous Sn values from Niton field measurements

5 Geophysical Data

5.1 Geophysical Data Processing

5.1.1 Introduction

Fathom Geophysics was contracted to provide enhanced filtering and instrumental interpretations of the available magnetic, gravity, and radiometric data. They also obtained, processed, and interpreted Aster images.
The intent of this section is to first describe the data acquisition process and then discuss the results.

All digital data resulting from the Fathom study has been forwarded to Auzex for final inclusion in the overall database for 3D modelling. The Fathom report is appended.

5.1.2 ASTER Images

Five ASTER scenes were purchased from Japan Space Systems. The data purchased are Stage 2 processed surface reflectance data for the VNIR and SWIR bands and surface emissivity for the TIR bands.
The purchased data were re-projected and rotated to the correct position using an HDF to GeoTIFF conversion from the United States Geological Survey. The GeoTIFF files were converted to ERS grid format. The ERS grids were processed to produce images to be used for alteration interpretation. Interpreted alteration zones and detail on the ASTER processing and interpretation is provided in, Appendix 1A.

5.1.3 Magnetic, Gravity, and Radiometric data.

The goal of this exercise was to enhance existing magnetic, gravity, and radiometric data and to provide interpretations that would help support a 3D modelling exercise. The process performed by Fathom consisted of:

1. Enhancement filtering of MAGNETIC data
2. Rationing and imaging RADIOMETRIC data
3. Enhancement filtering of GRAVITY data
4. Structure detection applied to MAGNETIC data
5. Structure detection applied to GRAVITY data
6. Automated intrusion detection applied to MAGNETIC and RADIOMETRIC data
7. Magnetic Inversion
8. Auto-lithology mapping using MAGNETIC and RADIOMETRIC data

5.1.4 Geophysical Rock Properties Investigation

As part of the geophysical data acquisition eleven samples were submitted to Don Emerson of Systems Exploration Pty Ltd for geophysical rock properties investigation. They were collected from oriented core from 3

Auzex diamond drill holes (RBDD07-01, RBDD07-02, BARD07-05). The dataset resulting with separate comment as delivered by Systems Exploration can be found in Appendix 1B.

5.2 Geophysical Data Review, Interpretations and Analysis

5.2.1 Introduction

The data provided by Fathom is evaluated in terms of usefulness in a 3D modelling program and effectiveness in indicating critical attributes of the geologic and mineral deposit setting. The review is split in two areas: the Khartoum Project Area and the combined Galala/Runningbrook Project Area. Within the Khartoum Project Area the review is carried out at two levels, first at the level of the entire Project Area and then by specific detailed study areas within the Project Area.

In the Project Area review focus is on the interpretations provided by Fathom rather than a review of each data layer. However, in the specific detailed study areas the focus is on both individual data layers and the interpretations.

Because of their importance the Autolithology maps and magnetic inversions are reviewed separately. The other deliverables and some of the individual layers are reviewed at project and detail study areas. The discussions around the Autolithology map for the detailed Khartoum areas, Stannary Hills and Leafgold anomaly, refer to the first generation Autolithology map since the second generation does not cover those areas.

5.2.2 Magnetic Inversion

5.2.2.1 Introduction

Fathom Geophysics LLC (Fathom) conducted a 3D unconstrained magnetic inversion of selected anomalies within the Larger Project Area using the Auzex North Queensland aeromagnetic data. Inversion routines are commonly used to test geological models and provide a range of valid solutions where the dip, depth, geometry and character of units are unknown. Ten areas were selected for inversion (Figure 18) based upon strict guidelines provided by Fathom. Six were in Khartoum project area and two each in Galala and Running Brook. Four GoCAD format (.ts) isosurfaces were generated for each inversion model

Following is a brief review of the results based only on the diagrams included in the Fathom 3D unconstrained Inversion report (RSC, 2012). No attempt was made to evaluate the inversions in 3D models.

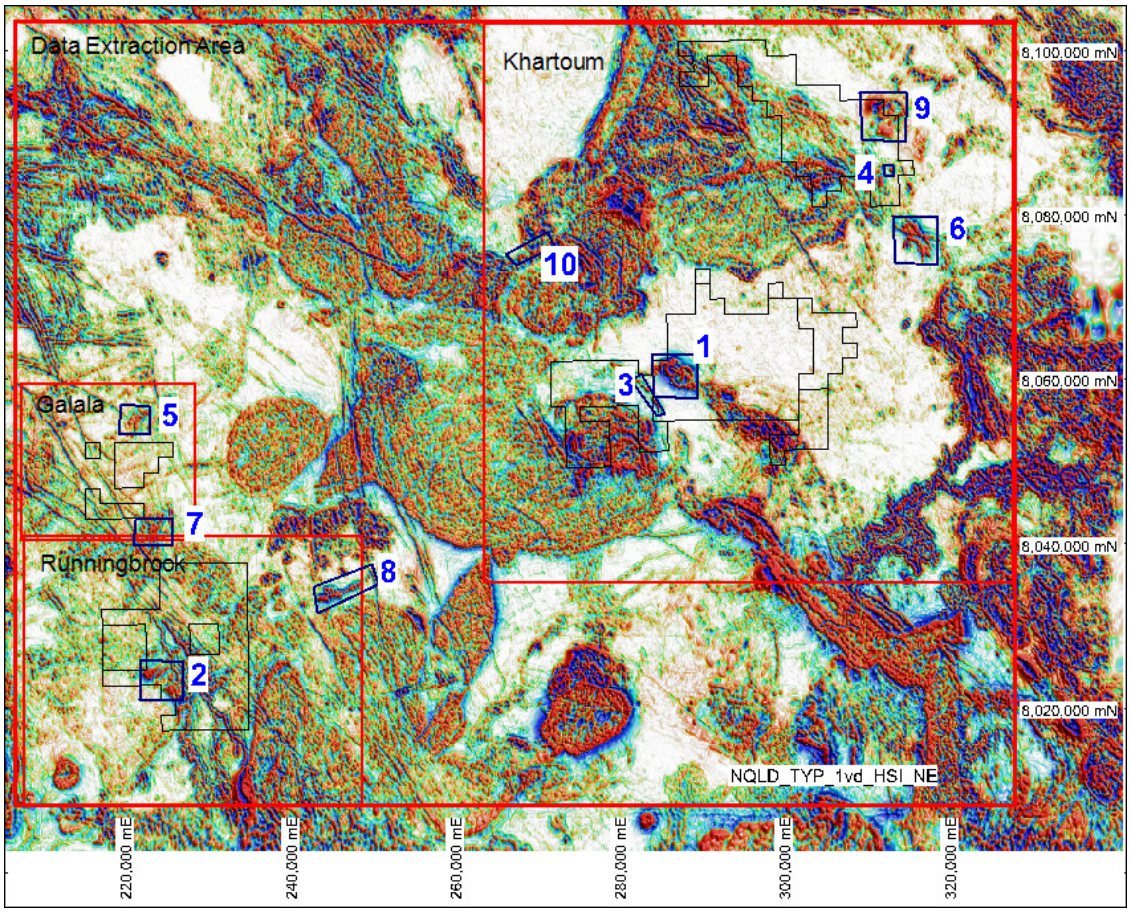

Figure 18 Magnetic inversion sites

5.2.2.2 Area 1

This area centres on an Ootann mafic to intermediate composition granotoid, the Gurrumba Ring Complex. Fathom was not happy with the results suggesting that remanence (remnant magnetism) may be causing problems. They considered the predicted data a good fit but thought the solution to be spurious. The figures suggest a surface ring complex with the highest areas shown in red approximately corresponding to the mapped gabbros perhaps related to a larger ring structure at depth.

5.2.2.3 Area 2

This is an area over the Lyndbrook Complex at the contact with granites of the O'Briens Creek Supersuite. The Lyndbrook complex in this area shows a significant amount of Autolithology designations more diagnostic of hornblende bearing rocks of the Ootann Supersuite, namely "Granite Magnetic" and "Granodiorite" (see section 4.4.2). The figures suggest two small steeply dipping magnetic bodes, along a general northwest trend, intruding the Lyndbrook complex. A possibility is that these are Ootann hornblende bearing granitoids The Quaternary Undara basalt is mapped in the very north eastern part of Area 2; the two bodies may represent feeders for the Undara.

5.2.2.4 Area 3

Area 3 lies along the contact between O'Briens Creek Supersuite granite (Emuford) and rocks of the Hodgkinson Formation. In the near vicinity this contact is filled by dike like bodies of the Ballast Creek Dacite of the Claret Creek Ring Complex. Fathom describes this as an anomaly of interest on a magnetic gradient. The residual after the deeper response was removed shows what are probably small somewhat isolated bodies of dacite along the contact.

5.2.2.5 Area 4

Area 4 is over a series of Sn deposits hosted by Hodgkinson Formation in the Stannary Hills area (see section 5.4.1). A diamond drill hole in this area returned more than 1 % Sn. One of the designations for the first generation Autolithology map, "Mixed Intrusion-Sediments" covers part of Area 4. The close spatial relationship of the known Sn deposits to this Autolithology designation suggests the presence of granite intrusion at relatively shallow depth in those areas. The Fathom figures for Area 4 suggest a somewhat linear steeply dipping body with most expression near the surface. This could represent an intrusive body, but more likely it may represent a relatively iron-rich alteration zone in the Hodgkinson. The O'Obriens Creek Supersuite granites in this area do not show any magnetic response. The mineral deposits described in the Stannary Hills area indicate complex sulphide mineralisation below the cassiterite deposits.

5.2.2.6 Area 5

Area 5 is centred on the Bullock Creek Granite, mapped as part of the Blackman Gap Complex, and described as a muscovite granite and pegmatite. It is shown on the 1:100,000 scale map as a separate body from the Blackman Gap rocks. To the south it is in contact with rocks of the Lyndbrook Complex and a large body of O'Obriens Creek Supersuite, the Desert Creek Granite, is just to the northwest. The Fathom figures suggest a small irregular, elliptical body oriented northeast-southwest, and plunging steeply to the southwest. The nature of the body is unknown, but possibly one of the small Ootann Supersuite more mafic bodies. .

5.2.2.7 Area 6

Area 6 is centred on the Bakerville Granodiorite of the Almaden Supersuite. It is apparently intrusive into the Jumna Granite of the O'Briens Creek Supersuite and rocks of the Hodgkinson Formation and in contact in the northwest with the Watsonville Granite of the Ootann Supersuite. Fathom was not able to complete this inversion.

5.2.2.8 Area 7

Area 7 is on the boundary of the Galala and Running Brook project areas and is underlain by the Blackman Gap Complex. There is a contact with the Square Rock Granite of the O'Briens Creek Supersuite on the west side and there are intrusive bodies of the Ice Microgranodiorite of the Ootann Supersuite just off the southeast corner. The Fathom figures suggest two small bodies plunging steeply east northeast and maybe feeding off of a larger body at depth. The likely lithology for these bodies would be the Ice Microdiorite that outcrops just to the southeast.

5.2.2.9 Area 8

A long narrow northeast oriented outcrop pattern of Gingerella Volcanics underlies Area 8. A narrow north-south oriented hornblende bearing granitoid of the Ootann Supersutie is in the very southwest corner of the area. The Frog Hollow Granite of the Ootann Supersuite is just to the south southeast of the area. The Fathom figures suggest a poorly defined steeply dipping southwest plunging source from the southwest end of the anomaly and spreading at shallow depth the northeast.

5.2.2.10 Area 9

Area 9 in the northeast portion of the Khartoum project area is centred over the Almaden Supersuite Catherine Creek Granodiorite. The Catherine Creek is apparently intrusive into the O'Briens Creek Supersuite Atlanta Granite. Fathom was unable to get a valid solution for this area

5.2.2.11 Area 10

Area 10 is located along a circular feature defined by the Cottell Rhyolite. The Rhyolite is in contact with the Hodgkinson Formation in the northwest and in the south, to the Dalnotter Dacite of the Featherbed Volcanic Group in the north, to the Sunnybrook Granodiorite of the Ootann Supersuite in the southeast and to the Reddicliffe Granite of the Ootann Supersuite in the southeast. A major W mine (38624) occurs in the northwest portion of the area hosted by Hodgkinson Formation and another (38536) just to the southeast hosted bv Sunnymount Granodiorite. A major Sn mine (DE00327) is just south hosted in Hodgkinson Formation..

The Fathom figures suggest a series of small bodies along a general east northeast trend, the trend of the rhyolite some of which may not have reached the surface fed by several small bodies that plunge steeply to moderately to the south.

5.2.3 Autolithology Maps

5.2.3.1 Introduction

Fathom provided two generations of Autolithology maps and these are discussed in Appendix 1A. The second generation followed site specific lithology input provided by field work for this project. The second generation includes two maps, one for the central part of the Khartoum project area and one for the combined Galala and Running Brook project areas, which will provide a basis foundation for future modelling activities.

The evaluation and discussion for each of the two second generation Autolithology maps will be first by major lithologic unit as shown on Figure 3 & Figure 2 and then by Autolithology designation. The first generation Autolithology maps will be discussed only for the Stannary Hills and Leafgold areas discussed in Section 9 of this report.

5.2.3.2 Central Khartoum project area

5.2.3.2.1 Introduction

The second generation of the Autolithology map does not cover the entire project area (Figure 19), only that portion covering the existing tenement. Only the area covered will be discussed here. The evaluation is discussed in terms of the major lithologic units as shown on Figure 3 and then for the Autolithology units.

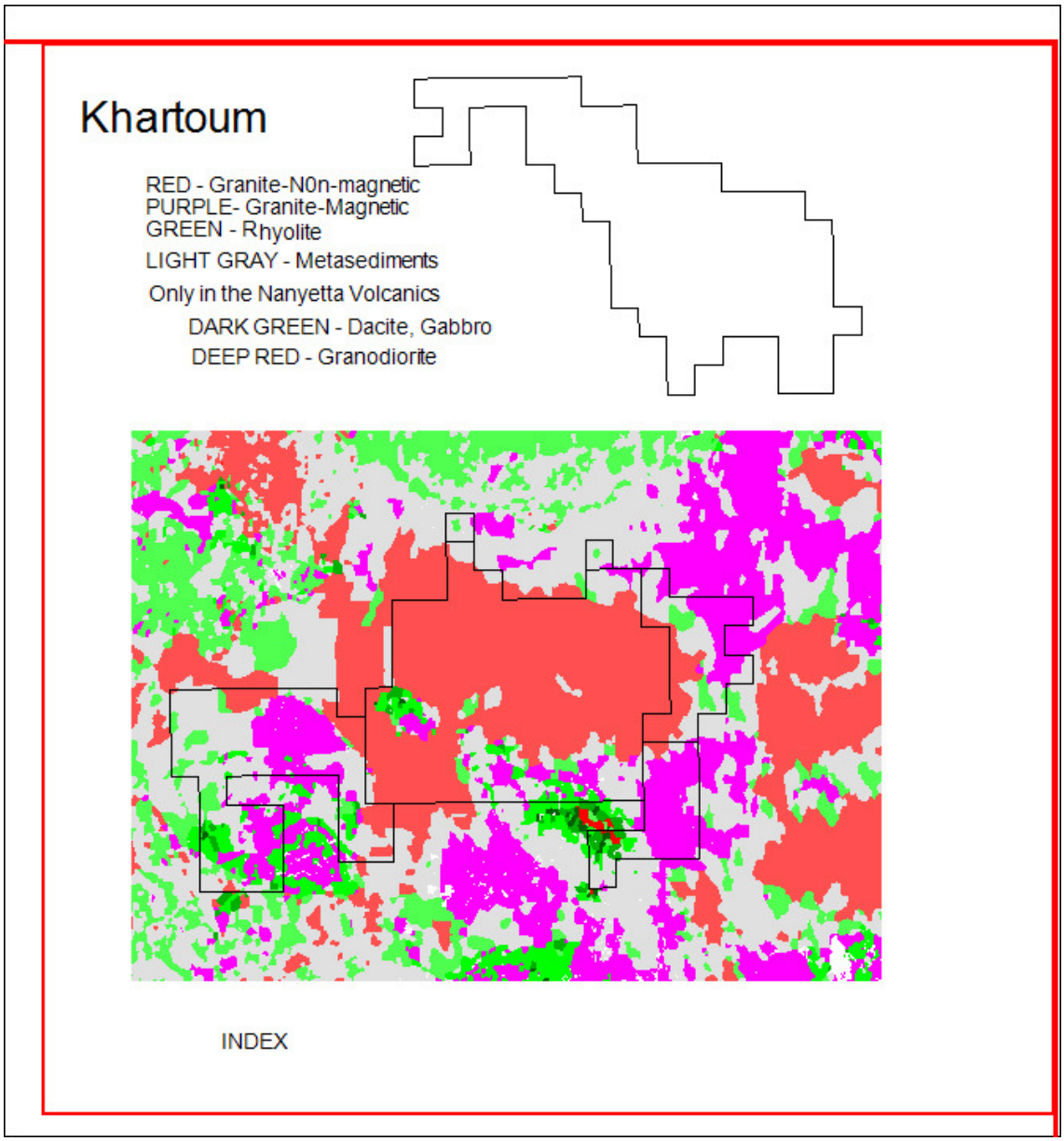

Figure 19 Autolithology map for the central Khartoum area

5.2.3.2.2 O'Briens Creek Supersuite granite:

There is a good correspondence between the mapped O'Briens Creek granite units and the Autolithology unit termed "Granite Non-magnetic" (Figure 20). The correspondence is especially good for the main body of the Emuford granite. There are three areas where there is poor correspondence. In the south eastern portion of the area the Mount Gibson microgranite, Nettle 2 and 3 granites, and the Pinnacles granite show the Autolithology unit "Metasediment" suggesting that they are metasomatized Hodgkinson Formation, or part of the Ootann or Almaden Supersuites. In the south-eastern portion the western exposure of the Opah granite and The Gorge Rhyolite show a mixture of the Autolithology units "Metasediment" and "Rhyolite" which is more typical of Ootann Supersuite granites. The very western exposure of the Emuford granite and most of the Emuford 3 granite also

show a mixture of the "Metasediment" and "Rhyolite" autholithology units. The Emuford 3 is defined as a "geophysical based map unit".

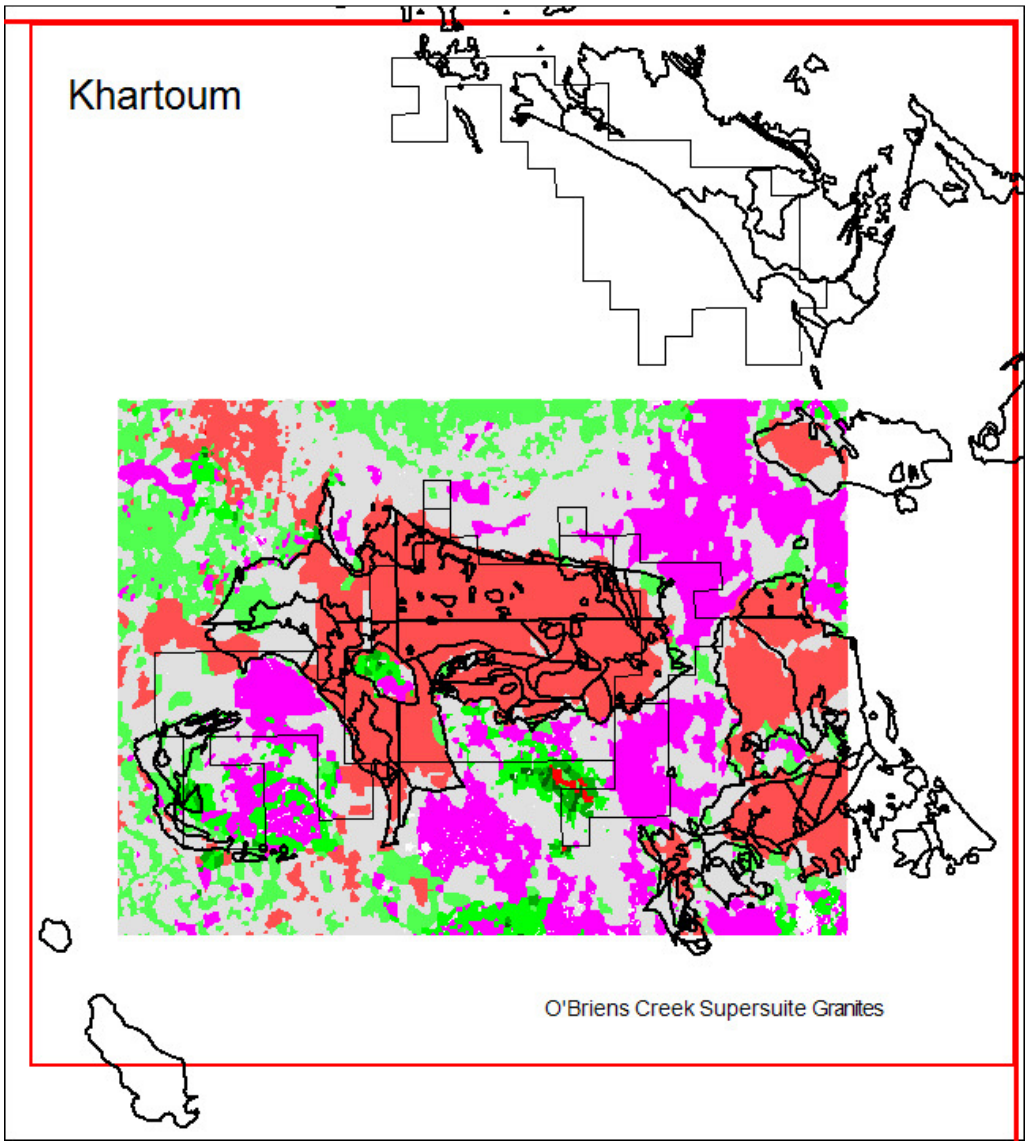

Figure 20 O'Briens Creek Supersuite over the Autolithology map of the Khartoum area

The Autolithology unit "Granite Non-magnetic" is probably diagnostic of evolved Emuford type granites. The distribution pattern of this designation suggests that the O'Briens Creek granites are relatively homogeneous.

5.2.3.2.3 Ootann Supersuite granitoids

The Ootann granitoids all show a mixture of Autolithology units (Figure 21). Some including the Gibbs, Halipin, and Indicator granites, and south western exposure of the Sunnymount granodiorite show a variable mixture mainly of "Rhyolite" and "Metasediment" but also including "Granite Magnetic" and "Granite Non-magnetic" and in one case, the Nymbool granite a mixture of only "Metasediment" and "Granite Non-magnetic". The Redddicliffe granites in the west central portion of the area correspond quite closely to "Granite Non-magnetic" patterns. The

Koogangoona granite, Mount Cardwell granite, Petford granite, and the northeaster exposures of the Sunnymount granodiorite show significant areas of "Granite Non-magnetic" along with "Rhyolite" and "Metasediment".

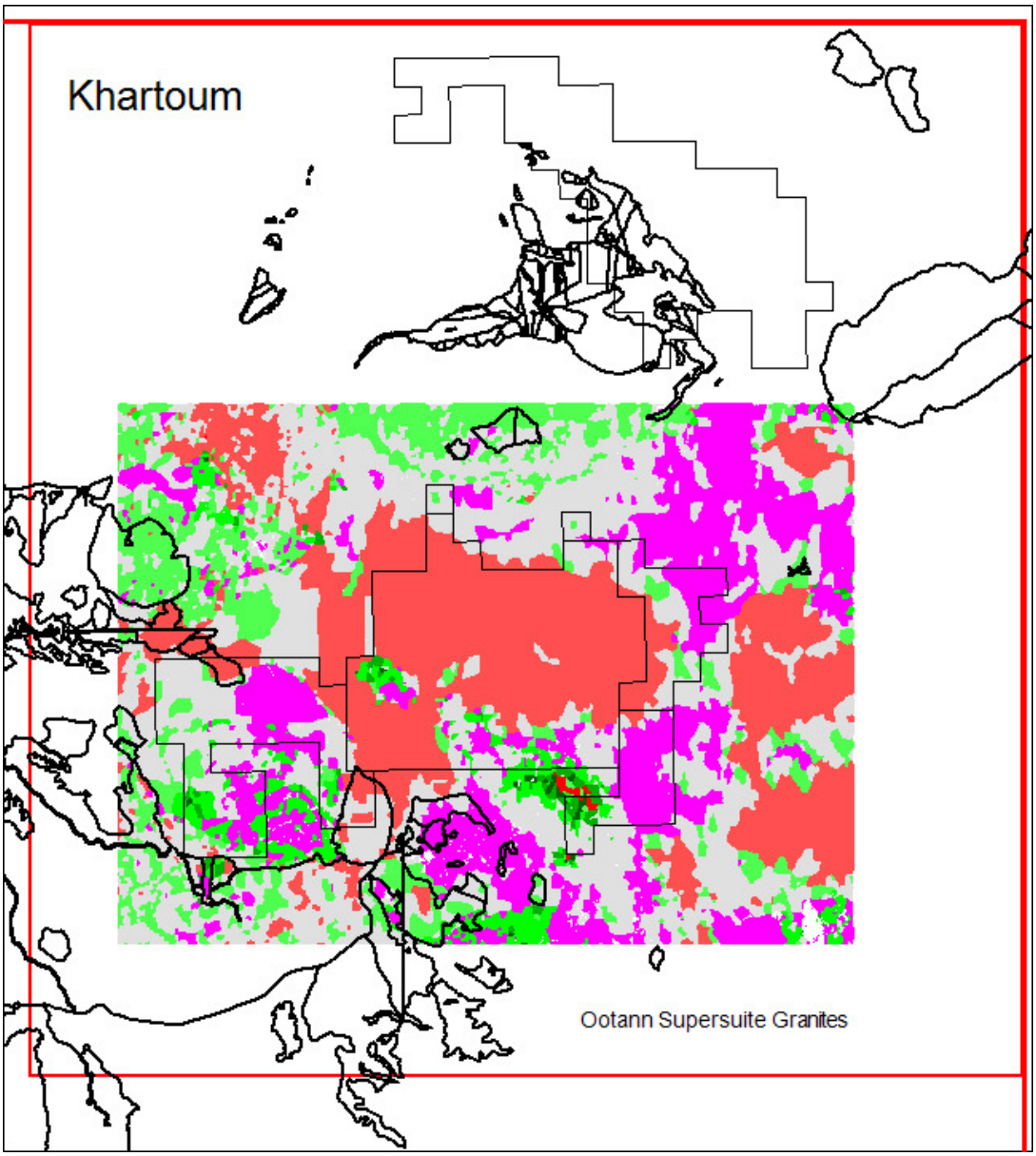

Figure 21 Ootann Supersuite over Autolithology map of the Khartoum area

The mixed autolithlogy patterns of the Ootann granitoids suggest that they are a diverse mixture of lithologies, which fits their mapping descriptions.

5.2.3.2.4 Claret Creek Ring Complex

Intrusive rocks of the Claret Creek Ring Complex in the southwestern portion of the Autolithology area shows a significant amount of "Granite-Magnetic" designation (Figure 22). The only other intrusive bodies showing any

significant amount of this designation are the Mount Cardwell and Nymbool granites, both relatively close to the complex. The Claret Creek Ring Complex volcanic rocks show a mixture of “Metasediment”, “Rhyolite”, and “Granite-Magnetic” with some small bodies of “Dacite” and “Gabbro”.

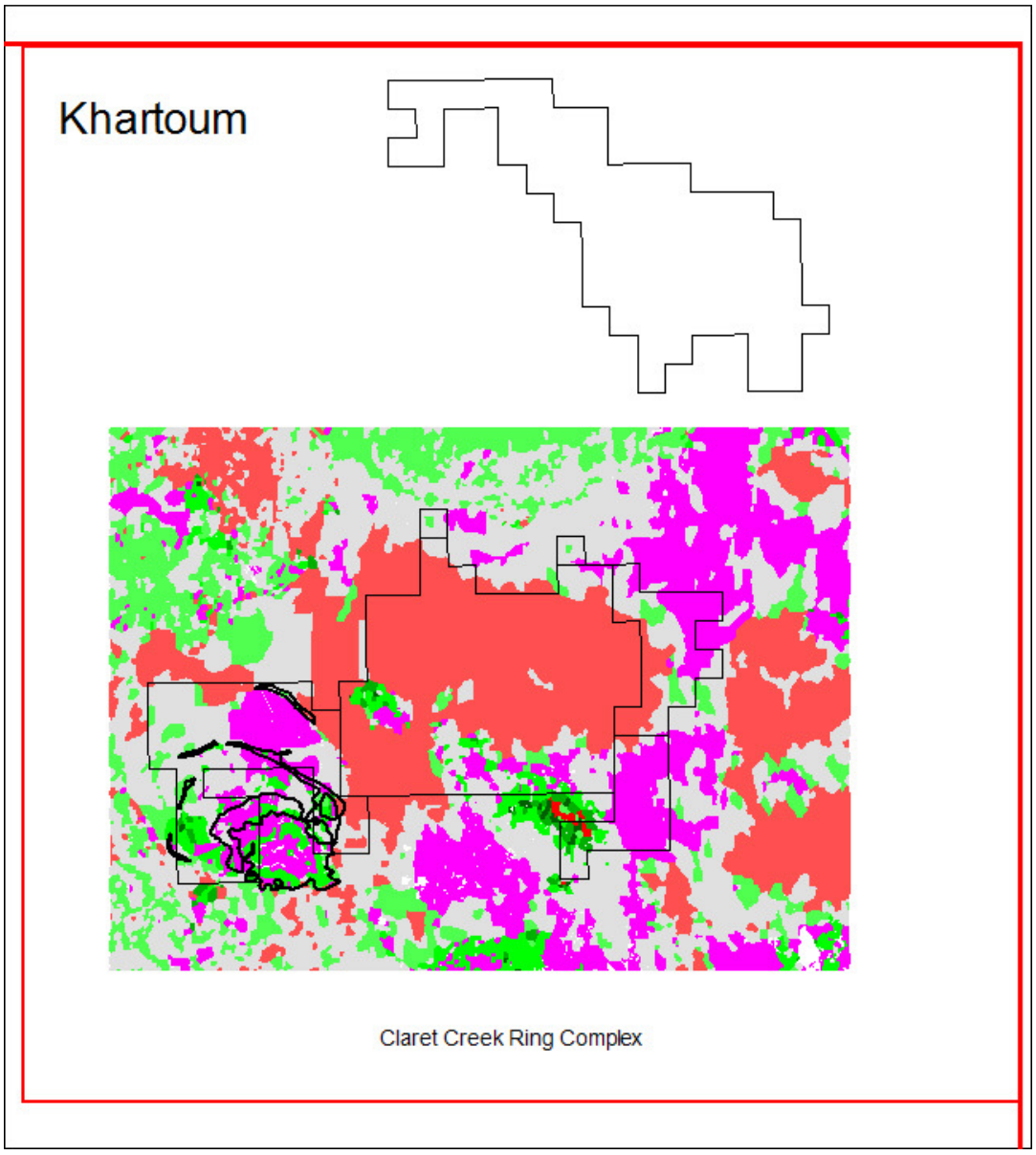

Figure 22 Claret Creek Ring Complex over Autolithology map of the Khartoum area

5.2.3.2.5 Volcanics

The volcanic sequences in the autholithology area show a mixture of mostly “Rhyolite” and “Metasediment” with an occasional spot of “Volcanic-Undifferentiated” and “Dacite” (Figure 23). Within the Nanyeta Volcanics exposure in the south-central part of the Autolithology area is a northwest trending zone of “Volcanic-Undifferentiated”, “Dacite”, “Gabbro”, and “Granodiorite”. The “Gabbro” shows a northeast trend while the “Granodiorite” shows a northwest trend.

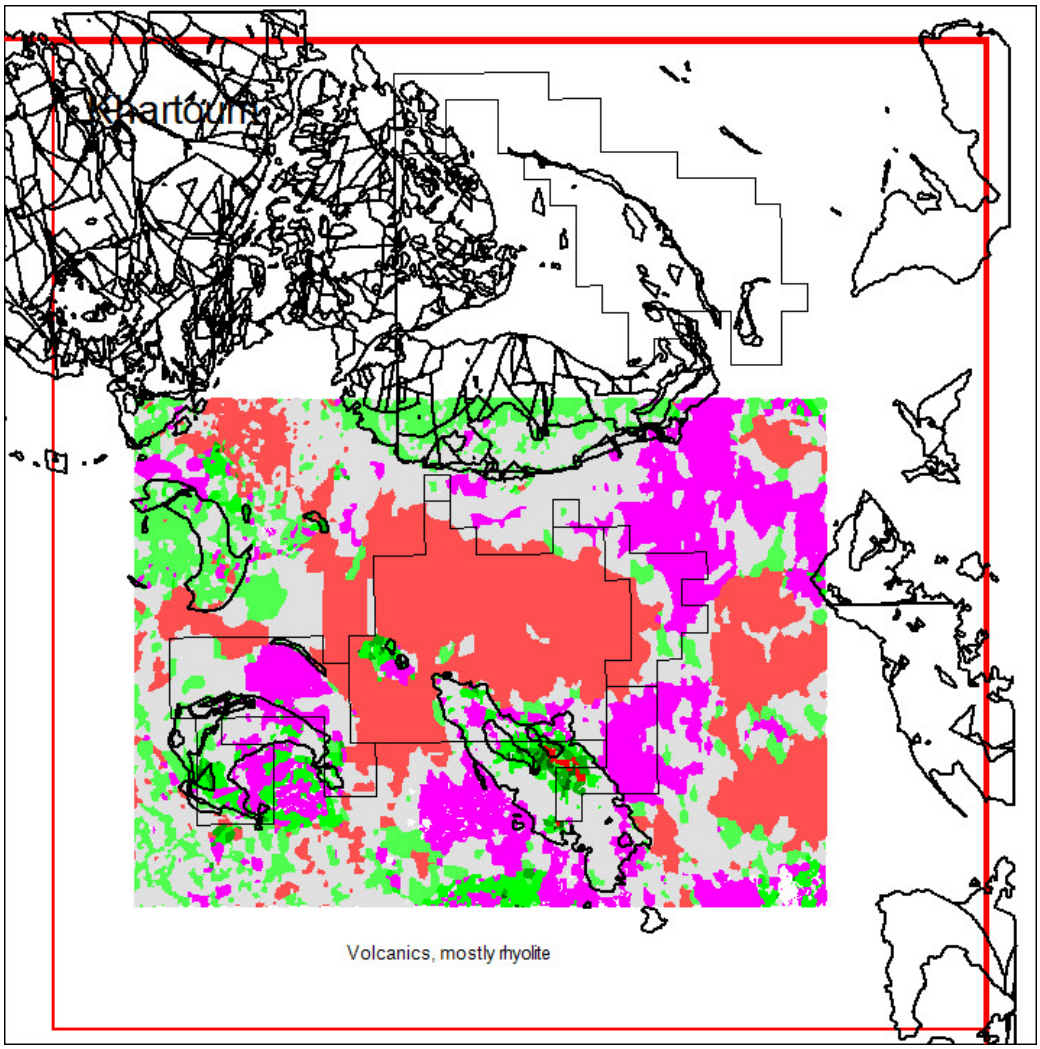

Figure 23 Volcanic rocks over Autolithology map of the Khartoum area

5.2.3.2.6 Metasediments

The Hodgkinson and Chillagoe Formations are characterized by Autolithology units “metasediment” and “Granite-magnetic”. Most of the “Granite-Magnetic” designation is over the two metasedimentary units. The only other relatively large areas of “Granite Non-magnetic” designation over the metasedimentary units are the Claret Ring Complex and large zones mapped as Quaternary residual material in the vicinity of the Chillagoe Formation outcrops.

The “Granite-Magnetic” designation over the Hodgkinson Formation probably reflects alteration-metasomatism within the unit. This is supported by the distribution of the known very small to medium sized Sn mines in the area. The great bulk of the Sn mines hosted by the Hodgkinson Formtion fall within or next to the areas designated by “Granite-Magnetic” (Figure 24). The designation over the Chillagoe Formation probably reflects the dominant lithologies in the unit and not zones of alteration and metasomatism.

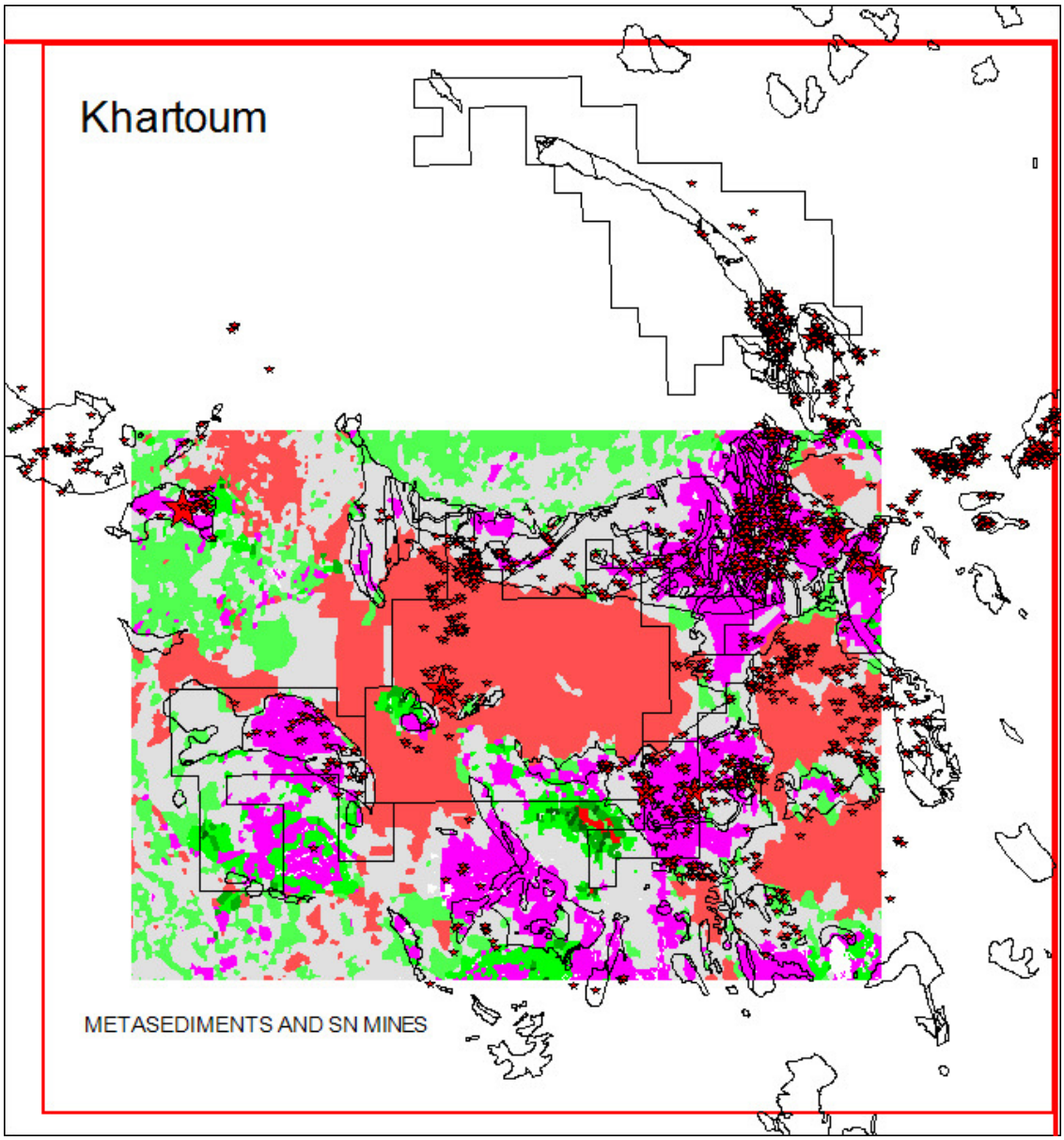

Figure 24 Metasediments and Sn mines over Autolithology map of the Khartoum area

5.2.3.2.7 "Granite Non-magnetic"

This Autolithology unit apparently reflects evolved biotite bearing rocks mainly of the O'Briens Creek Supersuite but also for smaller bodies distributed in the larger granitoid bodies of the Ootann Supersuite.

5.2.3.2.8 "Granite-Magnetic"

This Autolithology unit apparently reflects magnetite bearing alteration or metasomatic zones in the Hodgkinson Formation metasediments. The same designation over the Chillagoe Formation probably just reflects the lithology of the unit. The Claret Creek Ring Complex also shows some "Granite-Magnetic" signature in both the

intrusive rocks and in the volcanic rocks. There are some small areas within some of the Ootann Supersuite granitoids with this designation that probably reflect small intrusive bodies distinct from the Ootann rocks.

5.2.3.2.9 "Rhyolite"

This Autolithology unit reflects known rhyolitic volcanic units and a significant portion of the Ootann Supersuite granitoids. The Ootann granitoids are known for their diversity and mixed lithologies and this signature is probably reflecting on one of the more silitceous subunits. Using "Rhyolite" as a mapping tool will be difficult unless a further distinction can be reached.

5.2.3.2.10 "Metasediment"

This Autolithology unit reflects that part of the Hodgkinson Formation not shown as "Granite-Magnetic". It also reflects a significant portion of the Ootann Supersuite granitoids. The Ootann granitoids are known for their diversity and mixed lithologies and this signature is probably reflecting on one of the more mafic subunits. Using "Metasediment" as a mapping tool will be difficult unless a further distinction can be reached.

5.2.3.2.11 Granodiorite, Dacite, and Gabbro

These Autolithology units have limited distribution showing mainly as small areas in granitoid rock units known to have more mafic parts, such as the Gurrumba Ring Complex. The largest exposure of this designation is in a northwest trending zone within the Nanyetta Volcanics where it probably reflects a set of small intrusive bodies within the volcanics.

5.2.3.3 Galala and Running Brook project areas

5.2.3.3.1 Introduction

The Fathom second generation Autolithology map for the Galala and Running Brook project areas includes 5 map designations that are separate from those of the Khartoum Autolithology map (Figure 25). The evaluation of the Autolithology map for the Galala and Running Brook project areas is discussed in terms of the major lithologic units as shown on Figure 2 and then for the Autolithology units

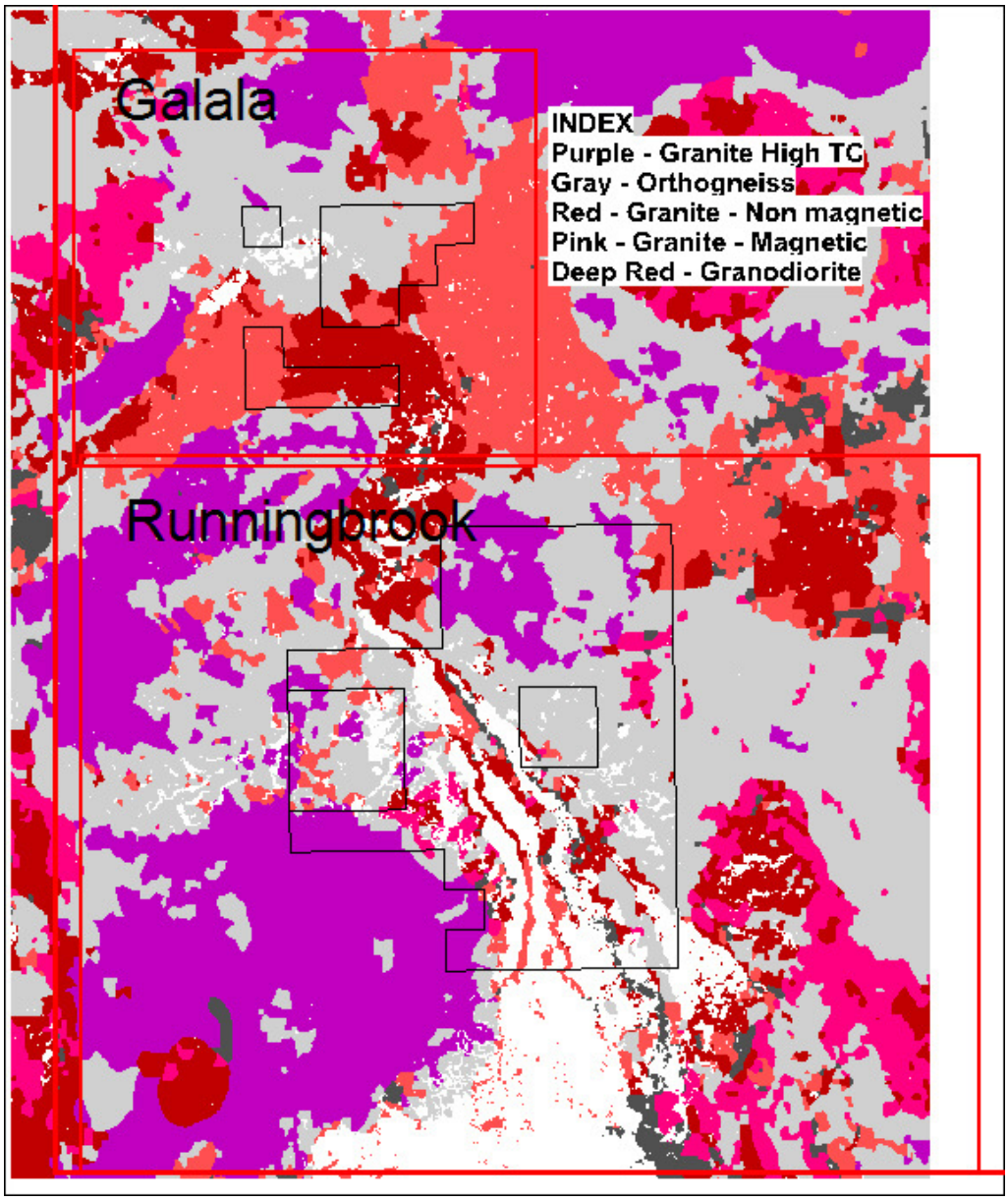

Figure 25 Autolithology map of the Galala and Running Brook project areas

5.2.3.3.2 O'Briens Creek Supersuite Granites

The mapped granites of the O'Briens Creek Supersuite mostly show the "Granite High-TC" Autolithology map designation with patches of the "Orthogneiss" designation (Figure 26). Two small granite bodes mapped as O'Briens Creek Supersuite-Cgtb in the very south east corner of the Running Brook project area and the Rose Creek granite in the north western portion of the Galala project area show only "Orthogneiss" designation, which is more typical of Ootann Supersuite granites. The Wireyard Granite in the north western portion of the Galala project area shows mostly "Granite Magnetic" a designation more typical of Ootann Supersuite hornblende bearing rocks. There are two areas where the "Granite High-TC" designation extends out of the O'Briens Creek granites. In the north eastern corner of the Galala project area the Ootann Supersuite Rices Creek granite is

dominantly "Granite High-TC" as is the Ootann Arra granite in the west central portion of the area. A significant tract mapped as Lyndbrook Complex between the Arra and Square Rock Granites shows "Granite High-TC".

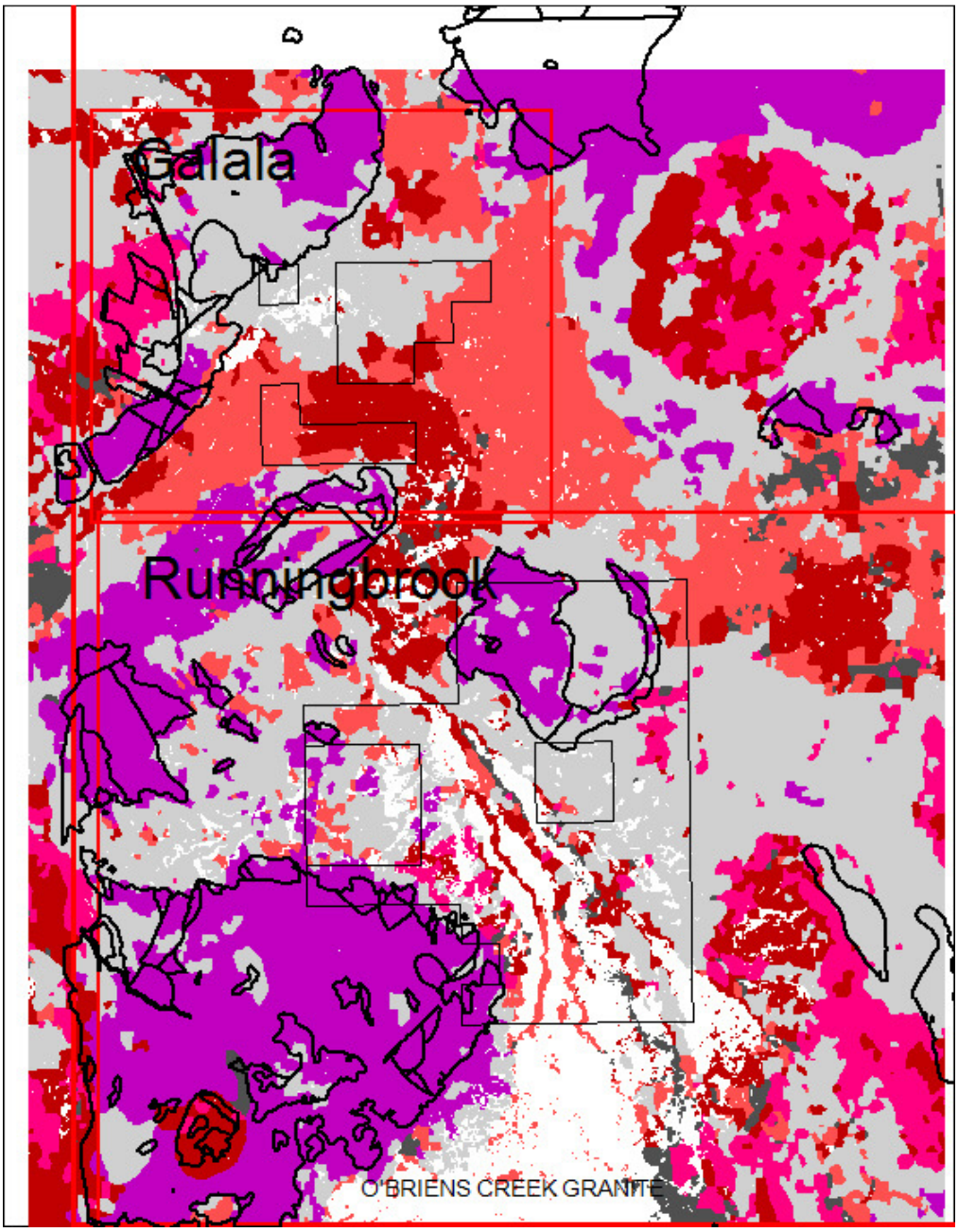

Figure 26 O'Briens Creek Supersuite over Autolithology map of the Galala Running Brook areas

5.2.3.3.3 Ootann Supersuite Granitoids

In terms of Authlithology designations, the Ootann Supersuite granitoids fall into two groups (Figure 27). One group, mainly granites, show a patchwork of "Orthogneiss" and "Granite High-TC" designations with most showing a dominance of "Orthogneiss" and some, as mentioned above, showing a dominance of "Granite High-TC". The other group, mainly hornblende-bearing granitoids shows a patchwork of "Granite Magnetic" and "Granodiorite" designations with some "Orthogneiss" but not "Granite High-TC".

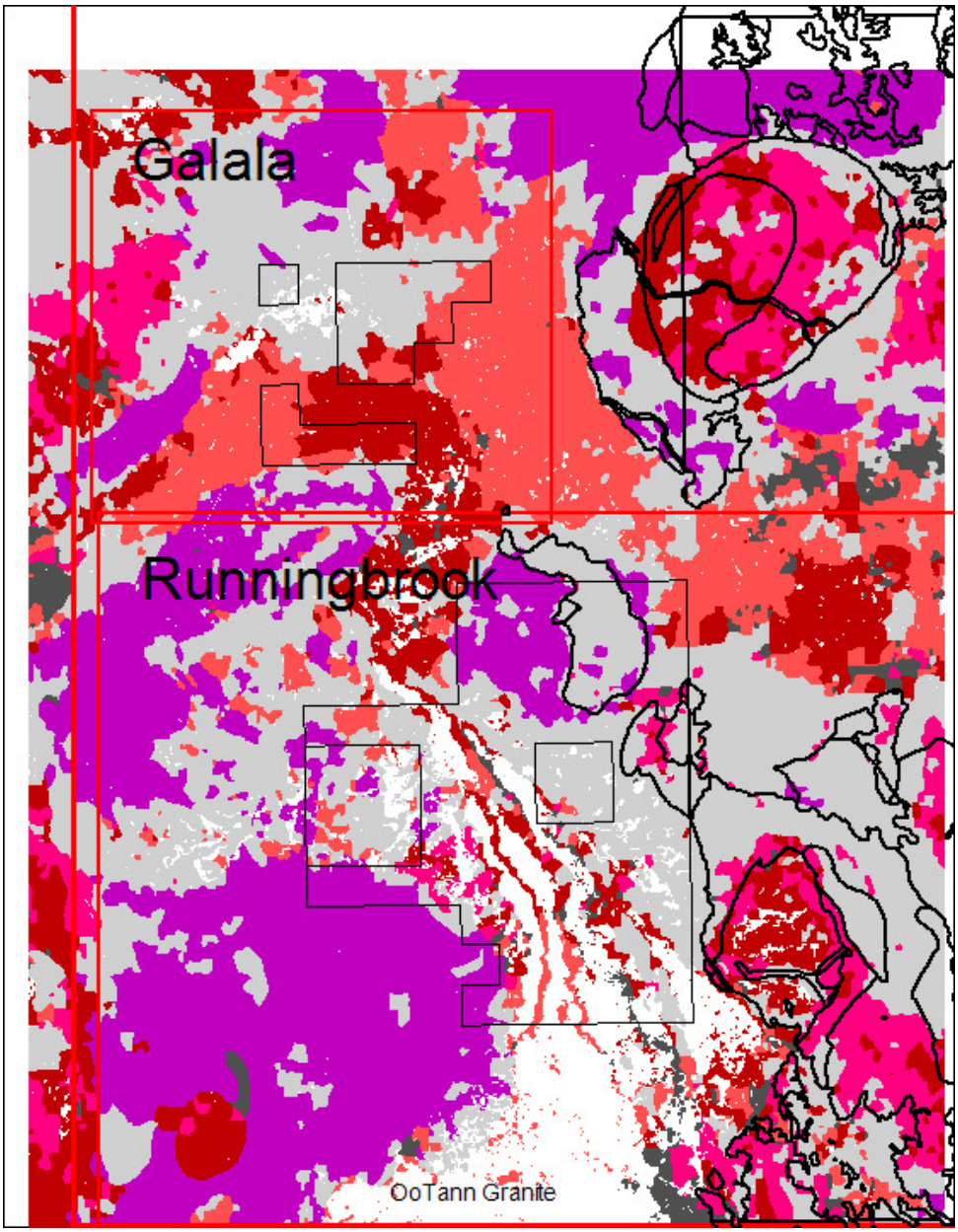

Figure 27 Ootann Supersuite over Autolithology map of the Galala and Running Brook areas

5.2.3.3.4 Blackman Gap Complex

The “Granite Non-magnetic” designation shows a close fit to the outcrop pattern of the Blackman Gap Complex (Figure 28). It occurs outside the Blackman Gap rock only as small patches in the Lyndbrook Complex and over the northern exposure of the Gingerella Volcanics in the northeast corner of the Running Brook project area.

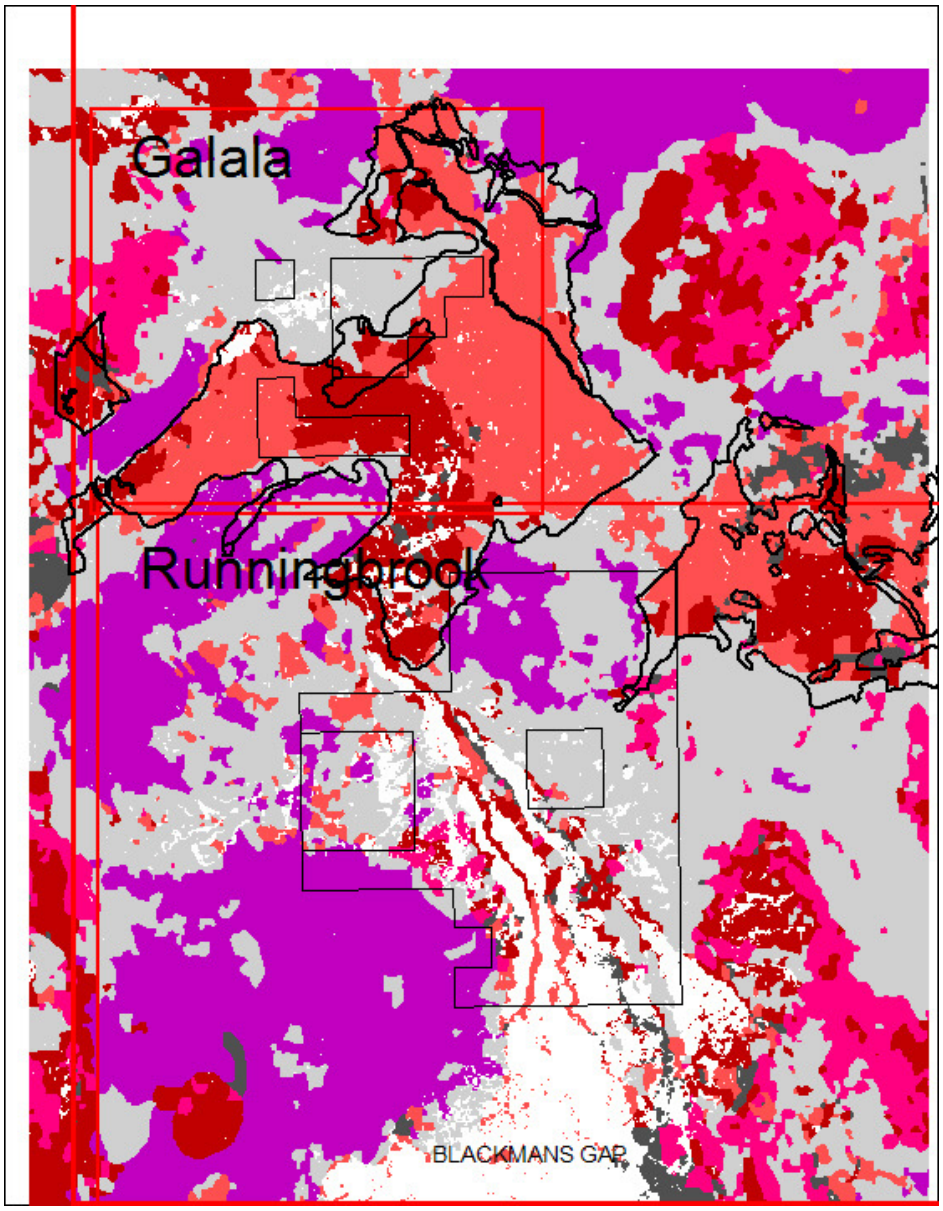

Figure 28 Blackman Gap Complex over Autolithology map of Galala and Running Brook areas

5.2.3.3.5 Lyndbrook Complex

The Lyndbrook Complex shows as dominantly "Ortholgneiss" Autolithology designation with scattered spots of "Granite Non-magnetic" and in the north western portion of the Running Brook project area scattered spots of "Granite High-TC" (Figure 29). A large exposure of Lyndbrook complex in the vicinity of the Square Rock Granite in the same area is dominantly "Granite High-TC".

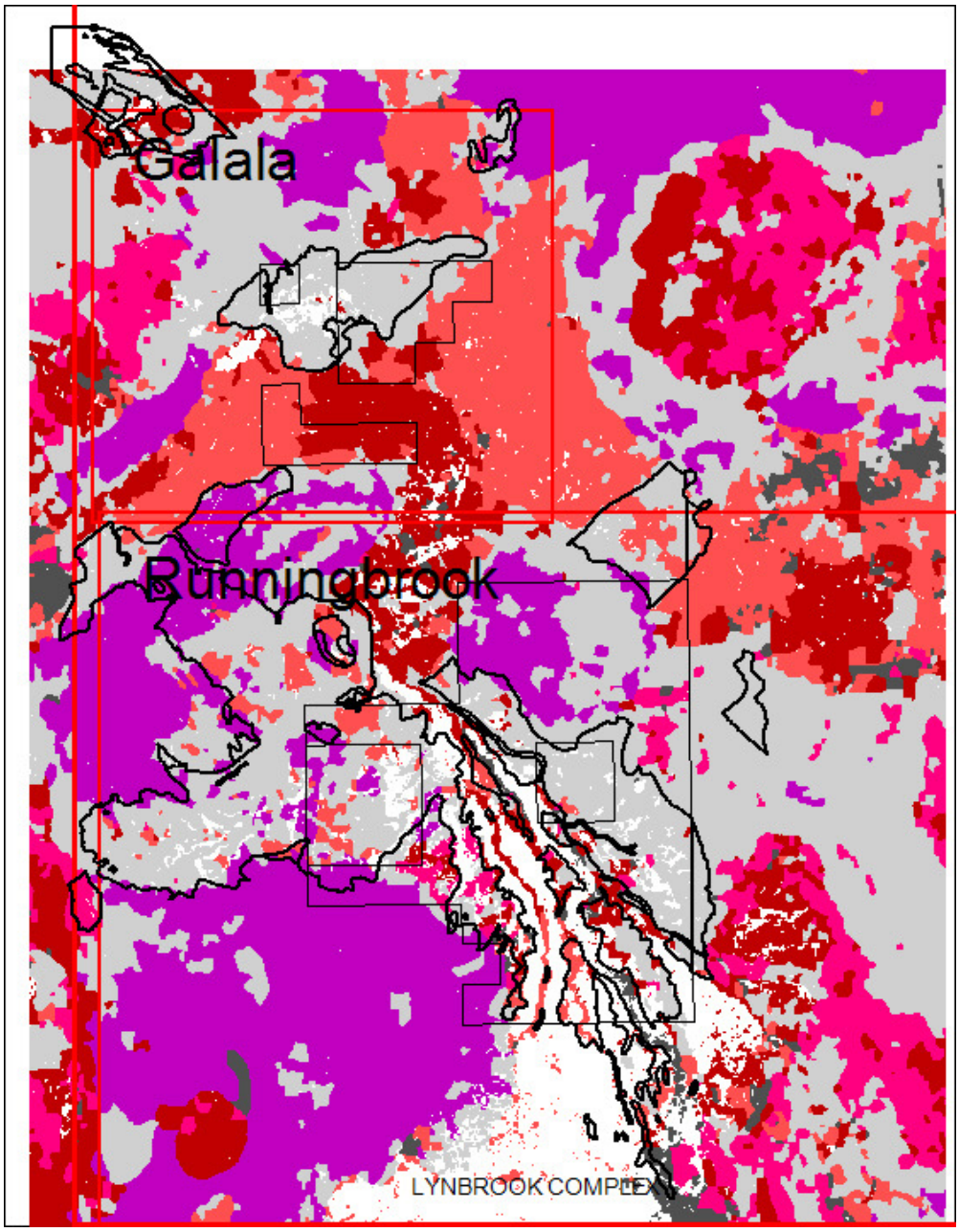

Figure 29 Lyndbrook Complex over Autolithology map of the Galala and Running Brook areas

5.2.3.3.6 Volcanics

There are two sets of volcanic rocks in the project areas, a small area of Scardons Volcanic Group in the north west corner of the Galala project area and the Gingerella Volcanics in the north east corner of the Running Brook project area. The Scardons Volcanic Group shows Autolithology designations mostly “Orthogneis” with zones of “Granite Magnetic” around the Wireyard Granite. The northern Gingerella Volcanics exposures show mostly “Granite Non-magnetic”, the same as the underlying Ootann hornblende-bearing granitoids. The southern exposures show only “Orthogneiss”

5.2.3.3.7 Granite High TC

This designation seems to target the evolved biotite granites of the O'Briens Creek Supersuite and probably reflects evolved granite wherever it occurs.

5.2.3.3.8 Orthogneiss

This designation covers much of the Lyndbrook complex and also significant amounts of the Ootann Supersuite granites and some O'Briens Creek Supersuite granites. In the Lynbrook complex this designation may represent the basic 2 mica foliated (?) granite and the small areas of the "Granite High TC" and "Granite Non-magnetic" the leuocratic and pegmatitic zones.

5.2.3.3.9 Granite Non-magnetic Low TC

This designation along with broad areas of "Granodiorite" outlines closely the Blackman Gap Complex. This designation also occurs in small scattered areas in the Lyndbrook Complex. In the Blackman Gap it is probably reflecting the granite phases of the complex while the "Granodiorite" designation is reflecting the granodiorite phases of the complex.

5.2.3.3.10 Granite Magnetic

This designation intermixed with "Granodiorite" outline the hornblende-bearing granitoids of the Ootann Supersuite. It does not cover Ootann granites except in the southeast corner of the Running Brook project area. Outside the Ootann hornblende-bearing granitoids it occurs only over the O'Briens Creek Supersuite Wireyard Granite and surrounding Scardons Volcanics in the Northwest portions of the Galala project area and in scattered areas in the Lyndbrook complex. This designation along with the "Granodiorite" designation seems to reflect the more mafic of the Ootann granitoids.

5.2.3.3.11 Granodiorite

This designation occurs only over Blackman Gap Complex and Ootann hornblende-bearing granitoids, both of which include significant amounts of granodiorite.

5.2.4 Khartoum Project Area

5.2.4.1 Project area

Aster image derived Quartz-Sericite-Pyrite (QSP) and propylitic anomalies are scattered throughout the Khartoum project area (Figure 30). Field traverses across some of the QSP anomalies indicated increase in

quartz veining, silicification, potassium feldspar, and sometimes pyrite within the anomaly zone as compared to surrounding lithologies. Still there seems to be no relationship of the anomalies to lithologies or mineralisation. They do not indicate the extent of known greisens although in some cases there is greisenized granite within the anomaly that extends out of the anomaly on a separate trend. The large propylitic anomalies correspond to exposures of volcanic rocks.

The Aster derived lineament analysis image AZX_NQL_Aster_Struct_CMY_lll_Chi_quartz image has an underlying northwest trending grain but also keys on several lithologic boundaries and circular features such as the Claret Creek Ring Complex. The magnetic derived structure detection and orientation such as shown on image Mag_RTP_Struct_50_ori shows a northeast grain with intensity that varies greatly with lithology. In general the O'Briens Creek Supersuite rocks and the Hodgkinson Formation are nearly neutral while the Ootann Supersuite and most volcanic units show strong intensity.

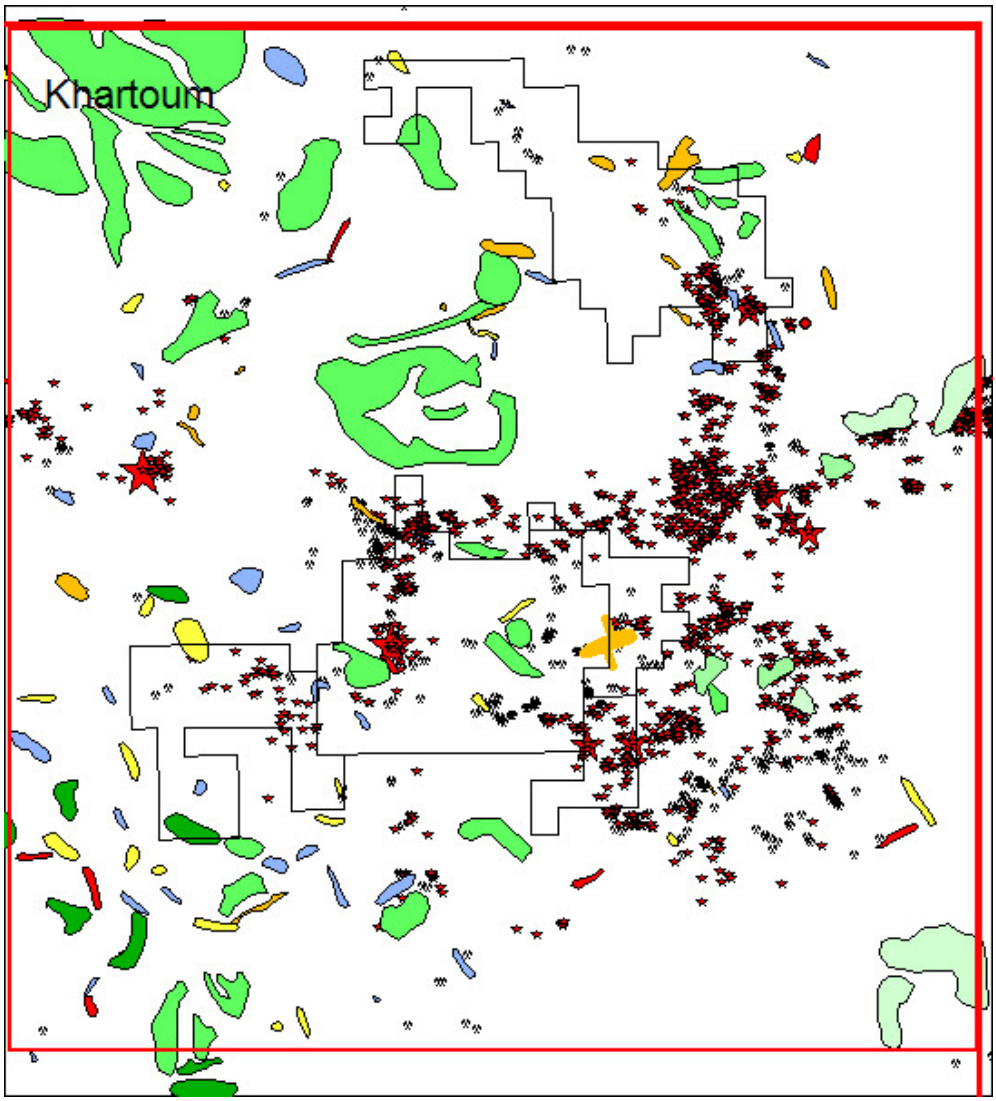

Figure 30 Aster alteration anomalies – red, gold yellow, and blue are Quartz Sericite-pyrite – Green are propylitic

5.2.4.2 Stannary Hills

The geology and mineral deposits of the Stannary Hills area has been described in Section 4.1.3.1 of this report. In summary this is an area of Sn mines in rocks of the Hodgkinkson Formation and in nearby granite and W mines in the granite. Within the granite the Sn mines seem to lie along or next to K highs as shown on the Rad_K_lin_V image while the W mines seem to be confined to the lows. The U-Th ratio as shown on Ratio_UTh_bw_heq map shows a similar pattern. Uranium is generally low over the Hodgkinson Formation with the exception of two small areas, both in the vicinity of abandoned mines. The K-Th ratio as shown on the Ratio_ThK_heq_V_map defines the Lass O'Gowrie granite as contrasted with the Atlanta granite, and suggests the need for contact readjustment within and to the north of the Stannary Hills area. The magnetic structure orientation interpretations, such as shown RTP_struct_50_ori is confusing especially over the mineralized Hodgkinson Formation. This suggests that the flat lying structures may be more prevalent than thought. The

Aster lineament analysis images, such as Aster_struct_CMY_Bi Map, show the dominant northwest structural trend in the mineralized granite, but are also not indicative over mineralized Hodgkinson Formation. There are two small isolated magnetic highs as shown on several of the RTP maps; one in the granite and one in the Hodgkinson. The volcanic rocks in the vicinity all show magnetic highs and the two isolated magnetic highs may represent unrecognized volcanic bodies.

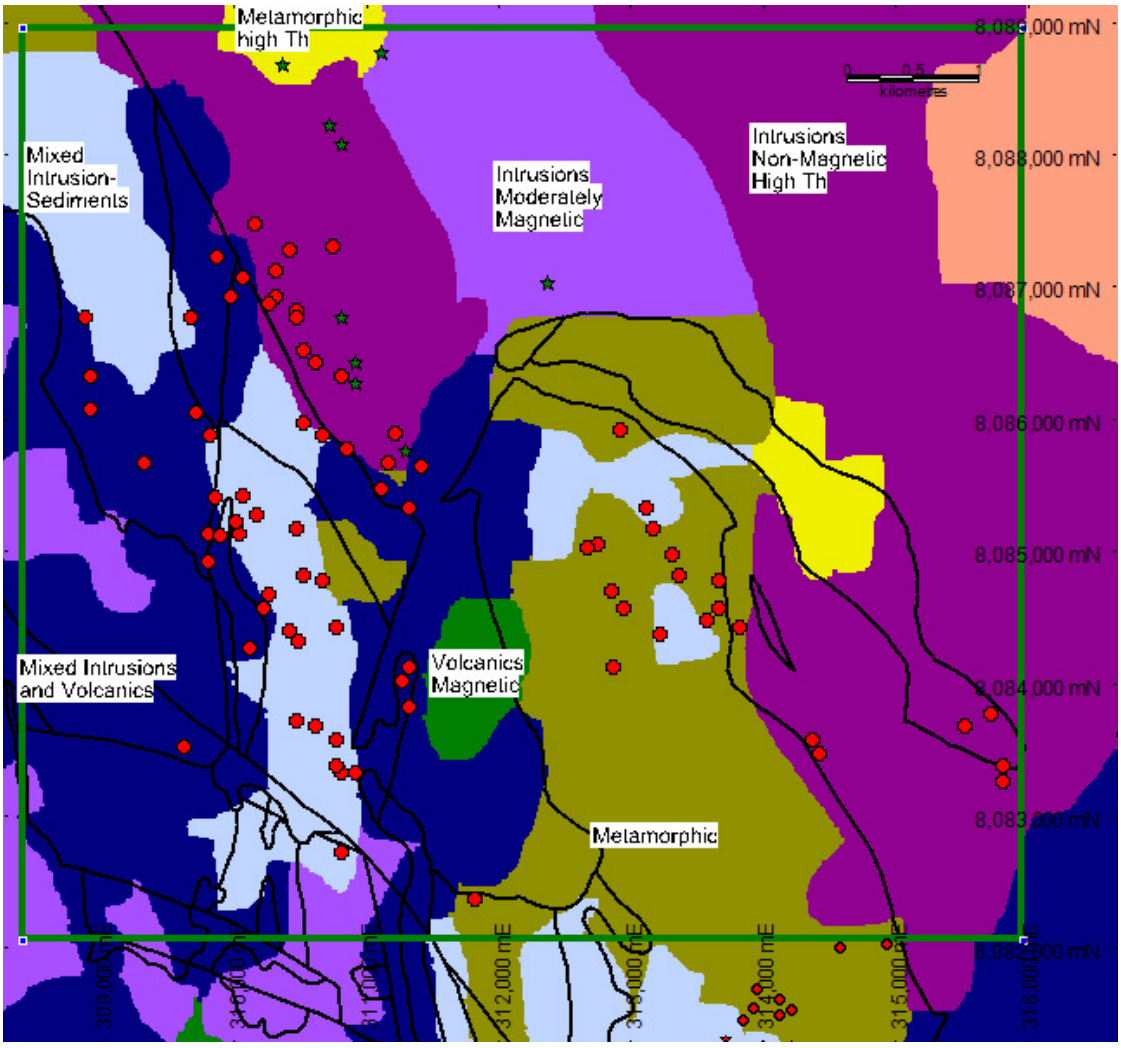

Figure 31 First generation Autolithology map of the Stannary Hills area

The Aster Kaolin Alunite and Ferrous iron show a strong northwest trending grain. The illite and muscovite Aster images generally show higher values in the granite, but not confined to the mineralized areas. They also show random highs in the Hodgkinson Formation, but not directly associated with the mineralized zones. The Muscovite and illite to some extent show a faint circular pattern around the eastern mineralized zone in the Hodgkinson Formation.

The first generation Autolithology map provided by Fathom seems to be quite useful in the Stannary Hills area (Figure 31). It notes the difference between the mineralized (intrusions non-magnetic, high Th) and non-

mineralized granite (intrusions moderately magnetic). There is an autholithology unit termed "Metamorphics-high Th" mixed in the mineralized granite zone. This unit generally coincides with an Aster propylitic anomaly where the rocks were found to contain chlorite as an alteration product and probably is a zone of partially assimilated metamorphic rocks. The most important and potentially useful unit in the Autolithology map is the "Mixed intrusions and sediments". Most of the known Sn deposits hosted by metasediments are within or next to zones of "Mixed Intrusions and Sediments". Field examination noted small granite bodies within the Hodgkinson Formation in the western area and granite has been reported from some of the old workings. The eastern block of mixed intrusions and sediments and associated deposits are within an apparent circular feature poorly defined by the Aster Muscovite image.

5.2.4.3 Giblets Peak

The geology and mineral deposits of the Giblets Peak area has been described in Section 4.1.3.2 of this report. In summary this is an area of mostly Hodgkinkson Formation with granite outcrops in the very southern part. There are Sn mines mainly in the Hodgkinson rocks and a few W mines in the granite. The magnetic response within the area is subdued; the major feature is a northwest-trending linear anomaly in the very northeast part of the area. To the north this anomaly coincides with a mapped andesite dike. The magnetic structural orientation maps show the dominant NW trend to mineralized lodes in the north central and north east parts of the area and a mixture of east, northeast, and northwest elsewhere. In the radiometric data the Th/K ratio shows distinctly higher values over the east northeast trending zone of Hodgkinson rocks defined as a layered unit. The Aster illite, quartz, and silica, and particularly K show highs over this zone. This is the unit that contains most of the Sn deposits and all of the larger deposits.

The Aster lineament analysis depicts the dominant northwest trend to the mineral lodes, and also depicts the east northeast trending body of mineralized layered Hodgkinson Formation. The Aster chlorite histogram stretch map seems to reflect the northwest trending mineralized zones in the west half of the area, but in the east may be more keyed to lithology and northeast trends, also emphasized in the vector data. The Ferric, Ferrous, and Ferric/Ferrous ratio histogram stretch maps also show similar patterns. The histogram stretch illite and muscovite maps show high values in the granite and its contact zone, and in the east northeast trending zone of mineralized layered Hodgkinson rocks. This distribution also shows some northwest trends close to the layered rocks. The quartz and silica maps show somewhat higher values in the east northeast trending zone of layered rocks as compared to the other Hodgkinson rocks in the area, with general northwest trends.

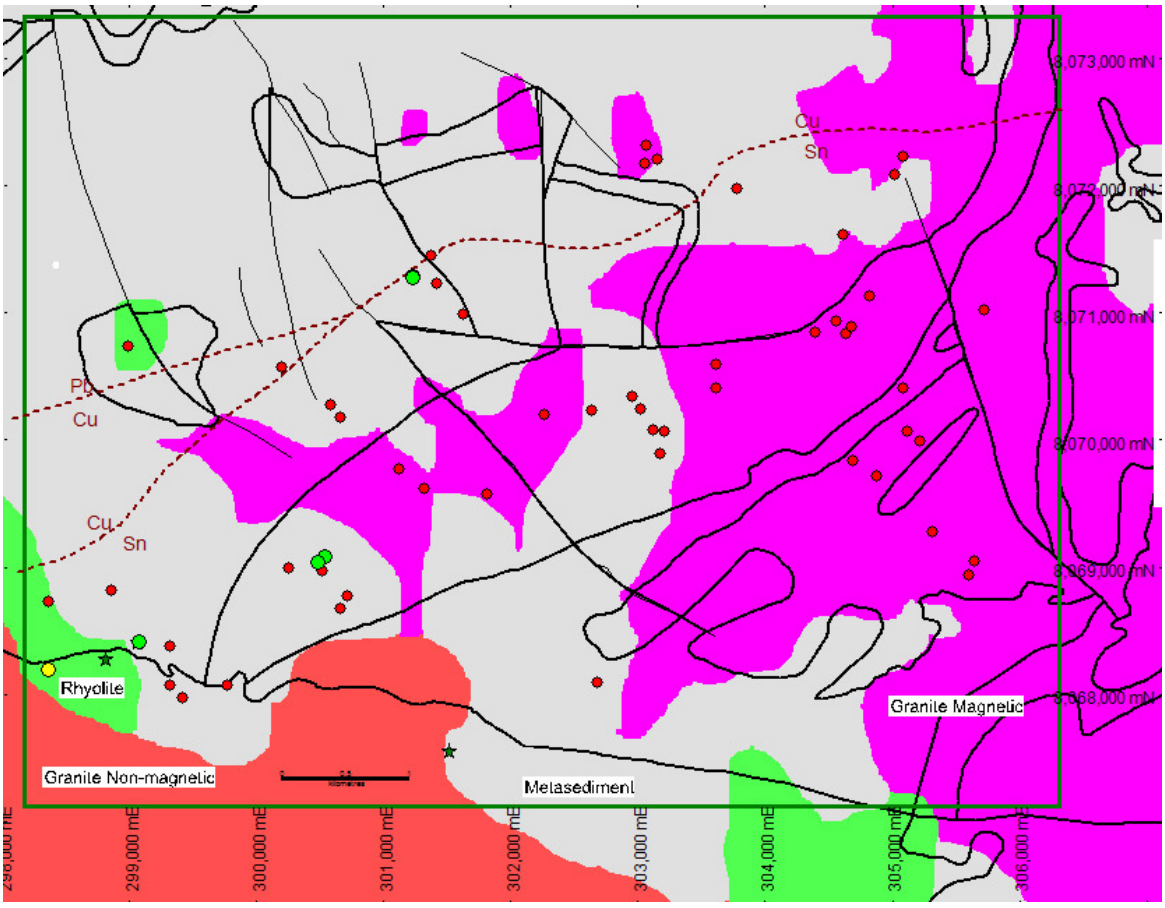

Figure 32 Second generation Autolithology map of the Giblets Peak area.

The Giblets Peak area is covered by the second generation Autolithology map where it show units "Granite Non-magnetic:, "Granite-Magnetic", "Metasediment", and "Rhyolite" (Figure 32). Regionally, the "Granite-Non-magnetic" unit shows close coincidence with granites of the O'Briens Creek Supersuite, as it does in the Giblets area.. Regionally the "Granite-magnetic" unit occurs almost exclusively over metasedimentary rocks of the Hodgkinson and Chillagoe Formations. Within the Hodgkinson Formation this unit is thought to represent zones of alteration or metasomatism of the Hodgkinson rocks. Most of the rest of the Hodgkinson Formation is covered by the Autolithology unit "Metasediments" with a few minor areas of "Rhyolite". In the region mineral deposits hosted by the Hodgkinson Formation are within or next to zones of "Granite-Magnetic".

5.2.4.4 Woepen-Gilmore Mine Area

This is a small area described in section 4.1.3.3 of this report. The area is underlain mostly by rocks of the Hodgkinson Formation with a small sliver of granite in the northeast corner separated from the Hodgkinson rocks by a band of dacite (fig. 33). Tin mines occur only in the Hodgkinson, none are found in the granite or dacite. The magnetic RTP images show one linear anomaly that coincides with the dacite outcrop. The magnetic structure orientation map is unclear and does not indicate any major trend. In the radiometric data the Total Count reflects the other values, showing values only in the granites. There is a difference between the unit mapped as Emuford

3 which crops out in the very northeast corner of the area and the other granites, in that it has distinctively less Th. The Aster images do not show any patterns that reflect the lithology or mineral deposits.

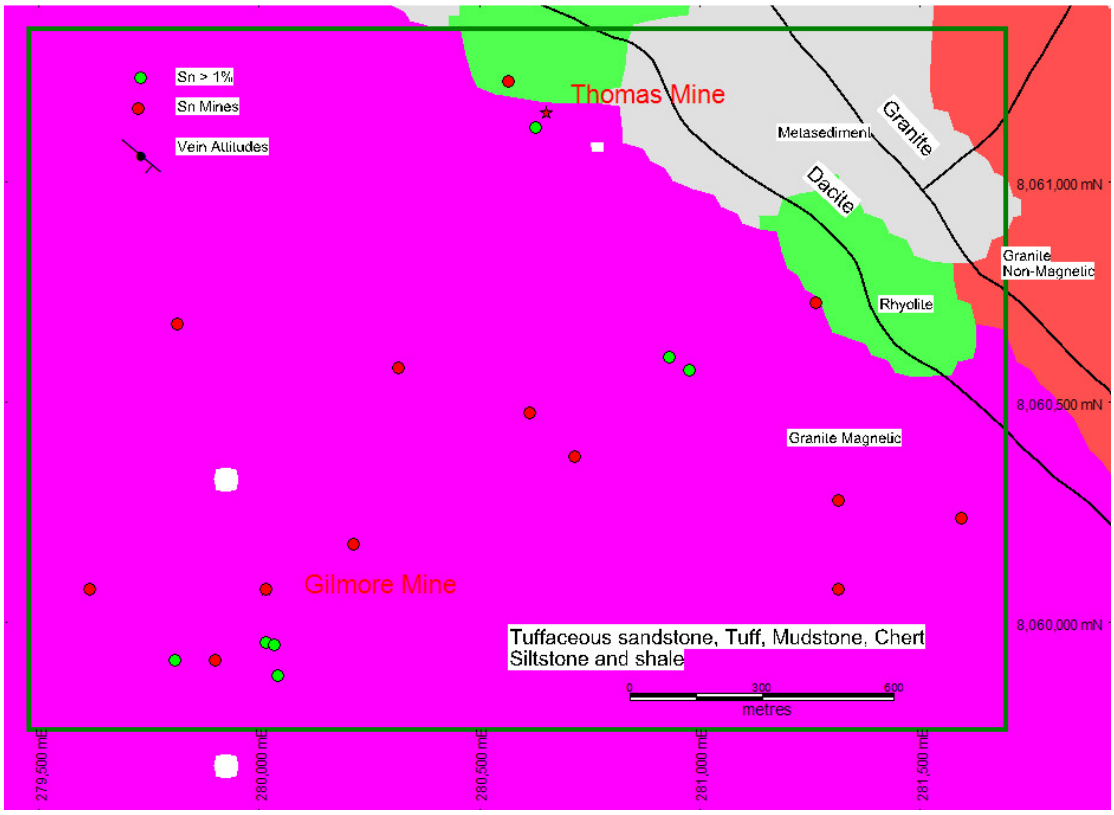

Figure 33 Second generation Autolithology map over the Woepen-Gilmore Mine area.

The second generation Autolithology map shows the Hodgkinson Formation as "Granite Magnetic" (Figure 33). This designation is mostly confined to the Hodgkinson Formation and to the Chillagoe Formation, the other metasedimentary unit. In the Hodgkinson Formation it is thought to represent areas of alteration and metasomatism and is where nearly all the known Sn mines occur. The generally unmineralized areas of the Hodgkinson are designated by the Autolithology unit "Metasediment". This designation also covers some of the Ootann Supersuite granitoid terrane. The "Metasediment" designation in the Weopen-Gilmore area covers areas mapped as dacite and as Emuford granite/3. The low Th radiometric values and the Autolithology "Metasediment" designation are more typical of Ootann Supersuite granitoids than O'Brian Creek Supersuite granites. The "Granite Non-magnetic" designation is typical of O'Briens Creek supersite granites, including the Emuford Granite. The Ballast Creek Dacite does not standout in the Autolithology map. There are two small areas designated "Rhyolite" approximately along portions of the dacite, but this designation occurs as scattered areas in the Ootann granitoid and Hodgkinson Formation terranes. .

5.2.4.5 Sunnymount Anomaly

This is a Silica-quartz-pyrite (QSP) anomaly along the contact between the Petford granite and the Sunnymount granodiorite (see section 4.1.3.4 this report). In the area examined there was a marked increase in quartz veining and potassium feldspar introduction within the anomaly..

In the vicinity of the Sunnymount anomaly the magnetic RTP maps indicated the contacts between the granitoids and rocks of the Hodgkinson Formation by intensity and between the granite and granodiorite by textural pattern. The magnetics show the same low intensive response over that portion of the Sunnybrook granodiorite described as a leuogranite with quartz-tungsten-molybdenum veins as it does over the mineralized Hodgkinson Formation rocks. The magnetic structure detection followed the granite granodiorite contact closely with a relatively strong north and northeast orientations in the granite. The granodiorite did not show orientation. The radiometric maps all indicated the granodiorite granite contact with the main granodiorite body showing lower intensity of K, Th, and U as compared to the granite, but slightly higher than that of the Hodgkinson Formation. The mineralized block of granodiorite had K, Th, and U intensities equal to that of the granite.

In the Aster data the chlorite in both the histogram stretch and the linear stretch shows a small linear high within the granite along the contact with granodiorite in the vicinity of the anomaly. A small ferrous Fe high parallels.the chlorite high. The kaolin alunite signatures are high in the mineralized portions of the Hodgkinson Formation and the mineralized granodiorite as compared to the surrounding lithologies. Muscovite and quartz show an apparent increase in intensity within the granite towards the granodiorite contact within the anomaly. The other quartz-sericite-pyrite (QSP) anomaly 0.5 to 1.5 km to the northeast is within this zone of higher muscovite and quartz. The mineralized granodiorite body also shows higher muscovite values, but limited higher quartz values. Silica is somewhat similar but the highs extend into parts of the granodiorite, whereas the muscovite and quartz did not.

The Fathom second generation Autolithology map shows mostly “Granite Non-magmatic” designation over both the granite and the granodiorite with some patches of “Metasediment” in the northwest and southwest corners. The “Granite Non-magmatic” designation regionally typifies evolved granites of the O’Briens Creek Supersuite but also covers a significant portion of the Ootann Supersuite Petford granite including this area. “Metasediment” designation is common in the Ootann Supersuite granitoids occurring in a patchwork with other designations. There is a small area designated “Granodiorite” within the Sunnybrook Granodiorite in the map area.

5.2.4.6 Martin Creek Anomaly

The Martin Creek area has been described in section 4.1.3.5 of this report. In summary this is a quartz-sericite-pyrite (QSP) anomaly in Reddicliffe/2 granite along the contact with rocks of the Hodgkinson Formation and in Emuford granite/3. The magnetic RTP maps show both granites and the Hodgkinson as lows. This is in contrast to the signatures given by Reddicliffe granite to the north. Radiometrically there is a distinction between the two granites, the Emuford showing lower Th intensity. The U and K intensities are the same.

In the Aster images, Chlorite outlines the Hodgkinson Formation and shows some minor northwest trending high zones within the anomaly. Within the anomaly the ferric/ferrous ratio is high, but it does not exactly define the anomaly as the high zone extends outward to the northwest and southeast. Other QSP anomalies in the same area show high ferric/ferrous values. Illite, muscovite, quartz, and silica all show broad highs through all the granites in the general area. All images have a general northwest grain.

The second Autolithology map shows most of the map area as "Granite Non-magnetic", a designation regionally that seems to define evolved granites. This designation extends a short distance east of the area in the Emuford/3 granite, a unit that generaly shows a mixture of "Metasediment" and "Rhyolite" which is more typical of Ootann Supersuite granitoids. A small portion of the Hodgkinson Formation shows "Rhyolite" a designation that commonly occurs in patchwork over Ootann granitoids and as occasionally as spots over Hodgkinson Formation.

5.2.4.7 Leafgold anomaly

The geologic setting of the Leafgold anomaly is covered in section 4.1.3.6 of this report. The magnetic RTP data shows that the anomaly is on the edge of a large low that covers all rock types. Just to the west, and between the anomaly and the small greisen deposit is a northwest trending narrow high within the Hodgkinson Formation. The magnetic structure orientation data is neutral. The Th/K ratio outlines the two granites with moderate signatures in contrast to the generally low values for the Hodgkinson Formation and colluvium.

The first generation Autolithology map shows the two granites as "Intrusions-Nonmagnetic, High Th" and some of the James Creek granite as "Intrusion-Moderate Magnetics". Some of the latter extends into the Hodgkinson Formation. The outlier of Atlanta granite surrounded by colluvium is shown as "Mixed Intrusions and Volcanics". The Hodgkinson Formation is shown mainly as "Metamorphic" as is the colluvium in the near vicinity.

5.2.4.8 Nymbool Road Area

The geologic setting of the Nymbool Road Area is covered in section 4.1.3.7 of this report. This area is of particular interest because it is approximately 5 km west and slightly north of a copper gold "intrusive-related system" under current exploration (Pyper, R. C. W., 2012 p. 16). In parts of the Nymbool Road area the field data collected for this report does not correspond to the geology shown on the existing 1:100,000 scale geologic map. Specifically some areas mapped as Hodgekinson Formation arenites and mudstones are actually underlain by granite and dacite. And areas mapped as dacite are underlain by granite. The remotely sensed data shows sharp contrast between rocks of the three geologic environments represented by the Claret Creek ring complex, the O'Briens Creek and Ootann Supersuites, and the Hodgkinson Formation. Magnetic data and other remotely sensed data clearly define the regional semi-circular Claret Creek ring complex. The magnetic data, as shown by the Fathom RTP_1vd_HSI_NE map generally shows low values over the Hodgkinson Formation and granite

bodies as shown on the current 1:100,000 scale map outcrop except where the circular body of Hodgkinson Formation is mapped. Rocks mapped as dacite, granodiorite, microgranites, and volcanic rocks of the Claret Creek ring complex show high values as contrasted to the low values over the evolved granites of the O'Briens Creek and Ootann Supersuites and over rocks of the Hodgkinson Formation. The contact between the granites and the Hodgkinson Formation to the north and northeast of the Nymbool Road area is characterized by a narrow magnetic high, in places corresponding to a large dacite dike.

The radiometric data, especially as shown on Rad_K_lin_v_map sharply defines the granites of the O'Briens Creek and Ootann Supersuites as mapped in the current 1:100,000 scale map with those granites showing much higher values. The total count map is similar, but the contacts of the granite are not as well defined. The granite contacts were probably drawn in large part on the basis of the K radiometric map. The ratio maps, best illustrated by Rad_Ratio_ThK_heq_v_map, show a distinction between the Koongangoona Granite and the Emuford, and Opah Granite, with lower values over the Koongangoona. The response of the Koongangoona is similar, but somewhat higher than that of the Ballast Creek Dacite, Munderra Granodiorite, and Claret Creek Volcanics.

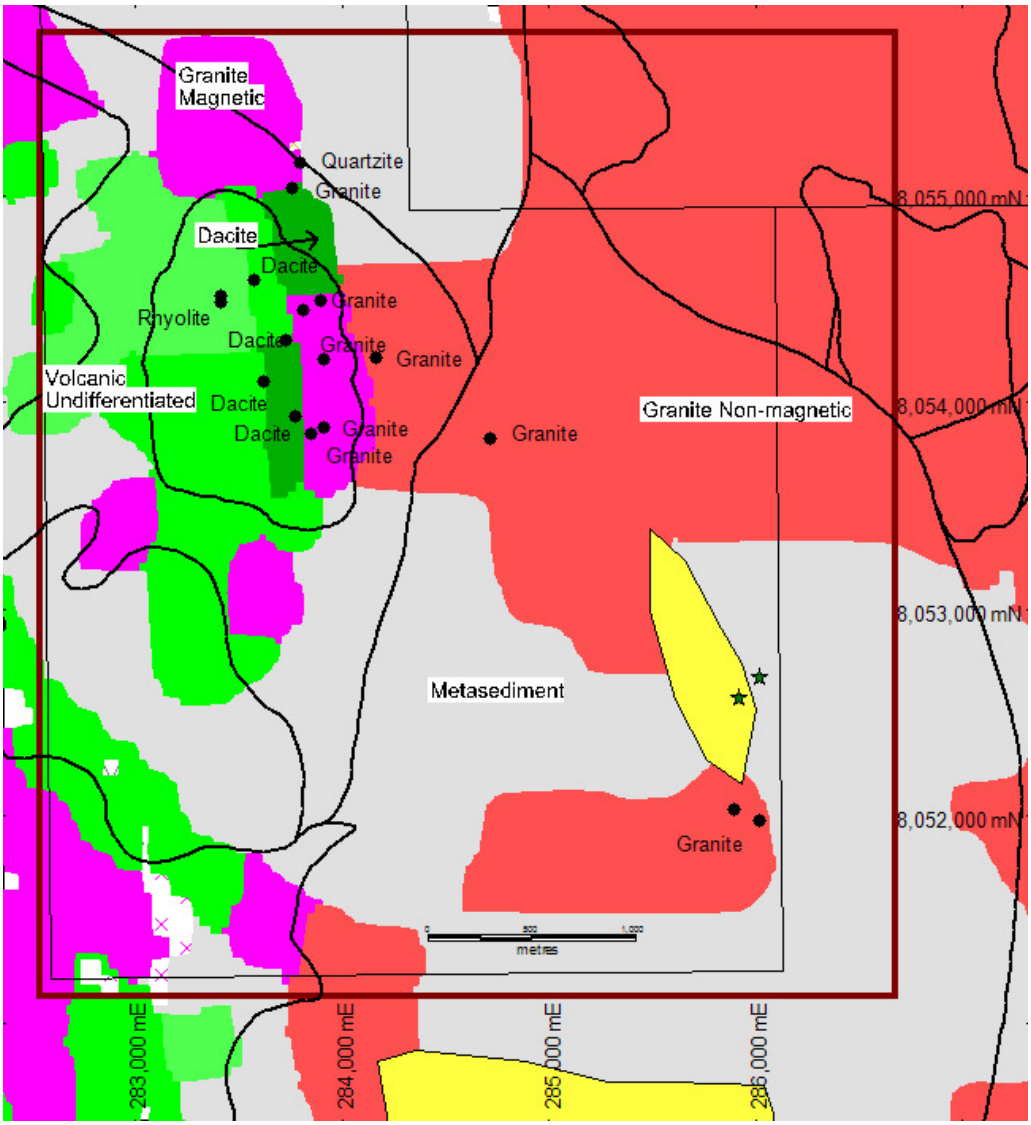

Figure 34 Second generation Autolithology map of the Nymbool Road area

The second generation Autolithology map shows several units in the Nymbool road area including "Granite Non-magnetic", "Granite Magnetic", "Metasediment", "Volcanic Undifferentiated", and "Dacite" (Figure 34). Hodgkinson Formation rocks show a combination of "Metasediment" and "Granite Magnetic" designations. The circular outcrop of Hodgkinson Formation shown on the map does not exist as determined by field investigations for this project. Elsewhere in the region the Granite Magnetic" designation over Hodgkinson Formation is thought to represent zones of alteration metasomatism. The O'Briens Creek Supersuite granites are covered by "Granite Non-magnetic" designation which is the norm in the region. This designation also shows patches in the Ootann Supersuite granitoid mixed with "Metasediment" designation which is common in the region. Rocks of the Claret Creek Ring Complex are covered by a patchwork of all Autolithology units in the Nymbool map area including "Granite Magnetic" which is normally confined to rocks of the Hodgkinson Formation. The "Volcanic undifferentiated" designation is present in few other places in the second generation Autolithology map area as is the "Dacite" designation. The contacts between dacite and granite and granite and Hodgkinson Formation

examined during field investigations for this project are of special interest. The granites at these contacts show as "Granite Magnetic" on the second generation Autolithology map, suggesting they are part of the Claret Creek Ring Complex. What is unusual is the zone of "Granite Non-magnetic" designation that extends westward across the mapped contact between Claret Creek rocks and Ootann Supersuite rocks. The radiometric data, as discussed above, shows a distinct contact as mapped.

5.2.4.9 Boulder Peak Area

The geologic setting of the Boulder Peak area is covered in section 4.1.3.8 of this report. The area is of interest because of a relatively large Aster QSP anomaly, an exposed contact zone between the Hodgkinson Formation and granite, and the presence of several bodies of granophyric granite. The magnetic data does not distinguish between the Hodgkinson Formation and the granites, or between the granites. Magnetic structural orientation as shown by RTP_struct_50_ori map suggests a dominant northeast trend in the south-eastern part of the area and no dominant orientation in the rest of the area except for a small east-west trending zone at the west end of the Aster QSP anomaly.

Radiometric data shows generally sharp distinction between the Hodgkinson Formation and granite, but does not distinguish between the different granites. Within the Hodgkinson Formation in the vicinity of the Glenlindale granite there is a small radiometric high in the centre of the circle of known Sn mines. This is best shown by a high on the Rad_ratio_ThK_heq_map. The rocks of the Hodgkinson Formation in the area of the radiometric high are partially recrystallized and metasomatized.

The Aster data for illite, muscovite, and quartz show a distinct break along an east-west line with higher values to the north and lower values to the south in all lithologies. This break is partially along the southern edge of the Aster QSP anomaly. The significance of this break is not known.

The second generation Autolithology map shows "Granite Non-magnetic", "Granite Magnetic", "Metasediment", and "Rhyolite" (Figure 35). The "Granite Non-magnetic" designation covers most, but not all of the O'Briens Creek Supersuite granites. The Rock of Ages granite and a southeast portion of the Black Prince Grante are showing as "Rhyolite" and "Metasediment" designations more characteristic of Ootann Supersuite granitoids. Hodgkinson Formation rocks are showing a mixture of all four of the Autolithology designations in the map area. Regionally most Hodgkinson Formation is covered by "Metasediment" and "Granite Magnetic" designations. Nearly all the known Sn and W deposits hosted by Hodgkinson Formation rocks are within or next to areas of "Granite Magnetic" designation, as is true in the map area. There are a few scattered areas of "Rhyolite" designation over Hodgkinson Formation, but the "Granite Non-magnetic" designation is rare outside of mapped granitoids.

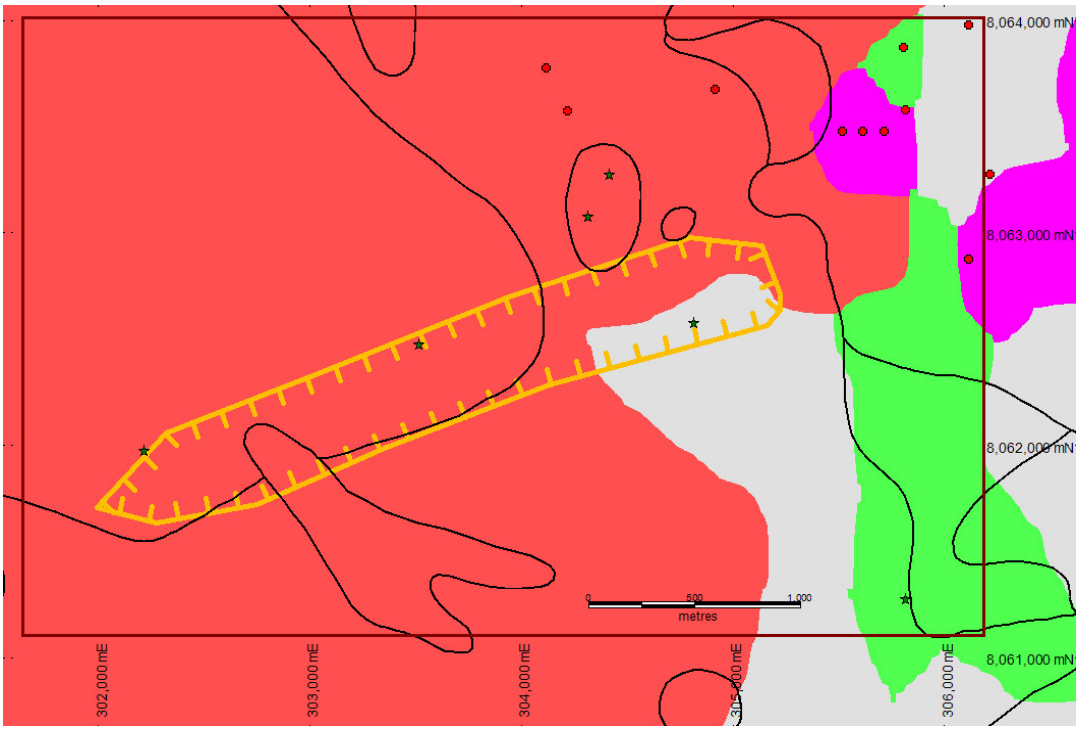

Figure 35 Second generation Autolitholgy map of the Boulder Peak area

5.2.5 Galala and Running Brook Project Areas

There are numerous Aster derived Quartz-Sericite-Pyrite (QSP) and propylitic anomalies in the Gala and Running Brook project areas (Figure 36). They show little relationship to lithologies, mapped zones of alteration or mineralisation. Only in the existing tenement in the Galala tenement does a propylitic alteration zone overlap known mineral deposits and mapped zones of alteration.

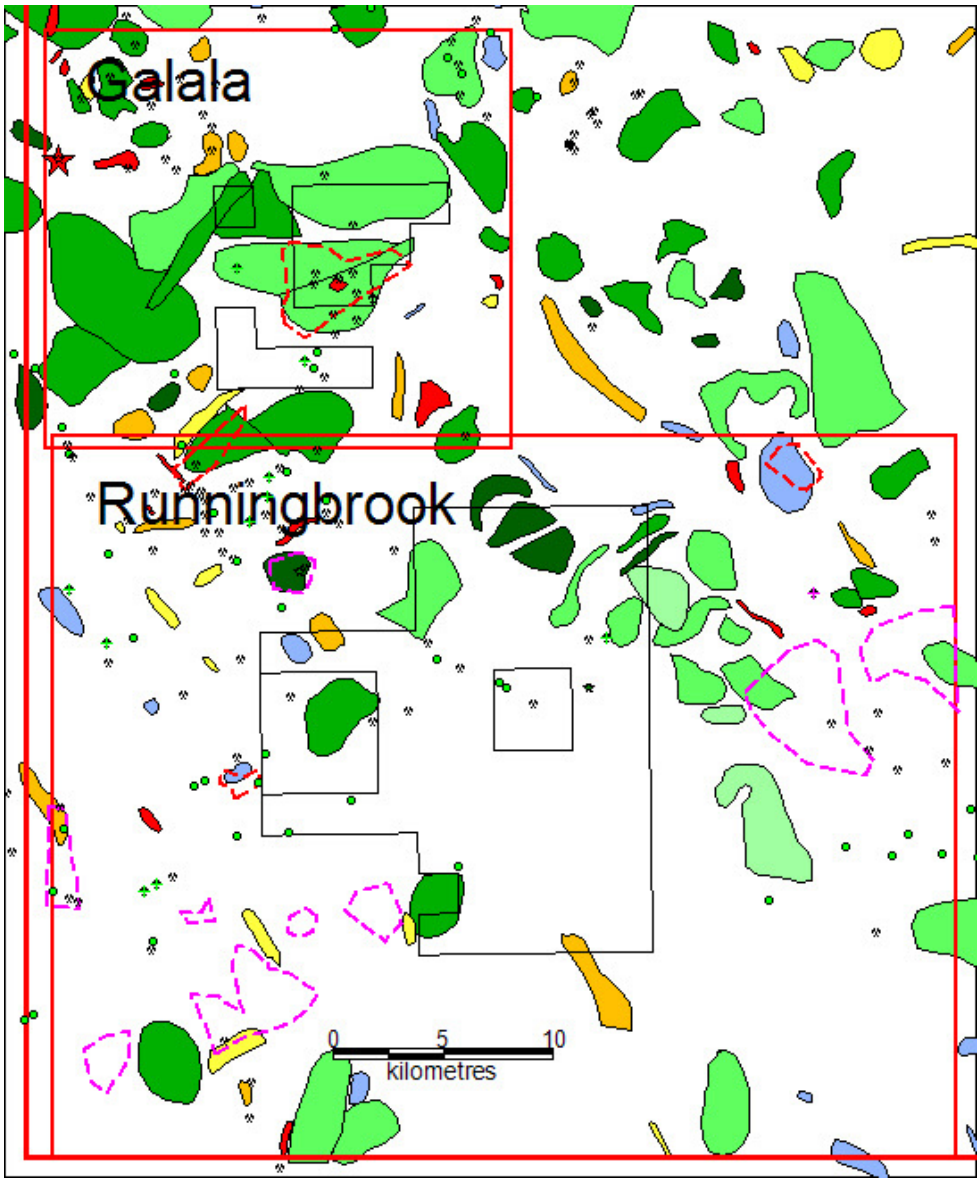

Figure 36 Aster alteration anomalies in the Galala running Brook areas – red, gold, yellow and blue are Quartz sericite pyrite anomalies, green are propylitic anomalies. Purple dotted lines are areas of mapped alteration.

The Aster lineament analysis as shown on map AZX_NQL_Aster_struct_CMY_lll_Chi_qtz shows the dominant northwest trending structural trend and a less pronounced northeast structural trend. It also shows some locations with apparent radial structures, not unlike the smaller intrusive bodies under exploration in the Nymbool and Running Brook areas. The magnetic data based structure detection and orientation such as illustrated by Mag_RTP_Struct_50_ori image shows a north northeast grain that varies in intensity with lithology

Aster ternary diagram AZX_NQL_tern-b3-b2-b1 (Figure 37) shows a very close fit to the major mapped lithologies.

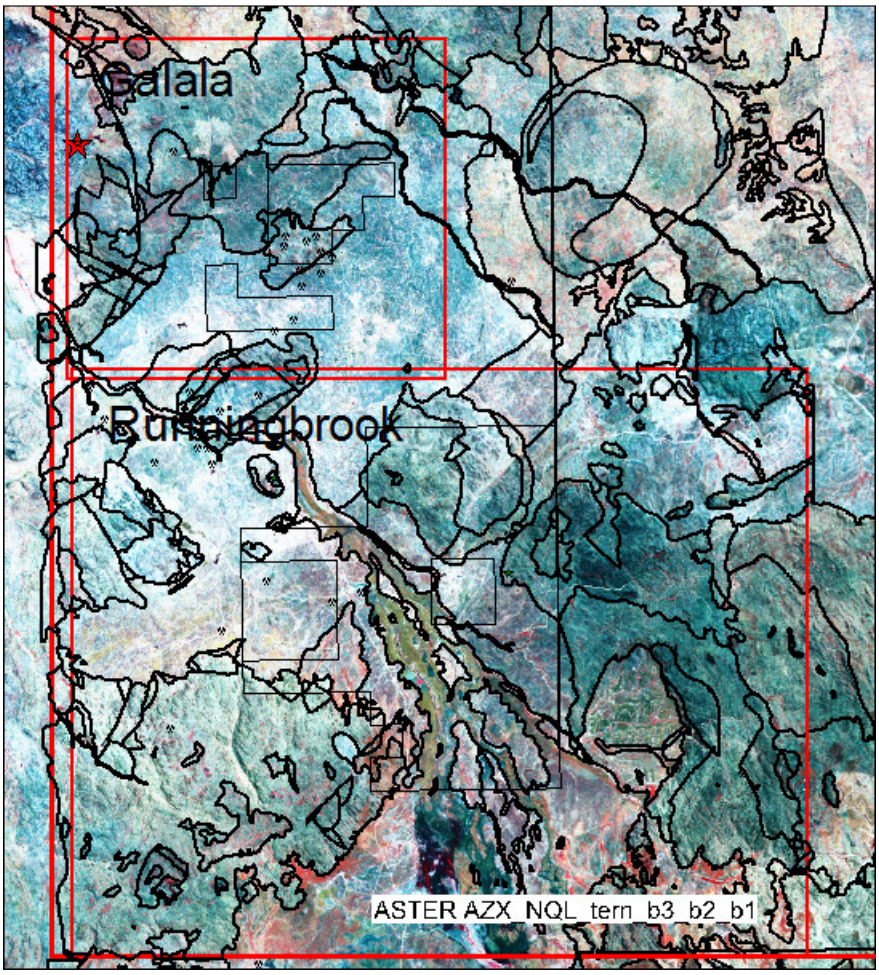

Figure 37 Lithologic contact over Aster ternary diagram.

5.2.6 Geophysical Rock Properties Investigation

In assessing the field implications of mesoscale lab core data measured at room temperature and pressure, especially electrical results, water saturation conditions (partial, complete; perched water tables, salinity etc.) and the possible effects, in situ, on the energising current from anisotropy, macrofracturing, megaveining and faulting/fault core/fault damage zones (i.e. unsampled shunting or insulating/shorting features) should be borne in mind together with any other relevant features e.g. scaling considerations, pressure and temperature at depth, etc.

The data set has indicated the physical properties character of the various lithologies. This should prove useful in interpreting field data. There do not appear to be any salient features, but the density and magnetic properties for two mafic mineral bearing gneisses could prove useful. Also, any sulphide developments should be mappable by field IP surveys.

All results of the test work has been attached as digital tables in the report folder structure.

6 Summary

RSC Global Pty Ltd ("RSC") was engaged by Auzex Exploration Ltd to undertake a multi-faceted geological data collection exercise, with the ultimate aim of the dataset being specifically usable in a 3D prospectivity modelling exercise.

Auzex has recently applied for additional ground around the existing tenements and intends to prioritise its future work programmes on these properties by means of weights of evidence based prospectivity models. Auzex has carried out these models in the past with demonstrated success in two dimensions but now intends to run prospectivity models in three dimensions. It is envisaged that this will create clear exploration targets.

The data compilation included assessments of historic company reports, literature and academic papers (paragraph 3.2), data on published maps (paragraph 3.3), and data collected by Auzex within the area of interest (paragraph 3.4).

Field investigations by RSC focused on collecting data to support a 3D geological modelling exercise, providing ground truth to the interpretative maps acquired from Fathom Geophysical, and checking aspects of the geologic setting of the intrusive bodies and the known mineral deposits.

RSC commissioned a geophysical study that aimed to extract data relevant for the 3D modelling from existing geophysical coverage. In particular, an "auto-lithology map" forms a cornerstone of this project as it is the most cost-effective way to create high resolution "geological" map to use in the modelling. Part of this geophysical study included an investigation of specific rock properties that may be useful in future geophysical exploration programmes.

All digital data resulting from this compilation study has been forwarded for final inclusion in the overall database for 3D modelling.

There are some aspects of the data collection for this project that merit special reference in terms of support for 3D modelling (and for future exploration activities). The flat lying altered structures are much more extensive than originally thought. Unfortunately no striations or other movement indicators were found on these surfaces to indicate movement direction. Their significance is not clear nor is it understood at this time why there is a hard, almost polished, surface at the top with unaltered granite above and altered granite below.

The first generation (original) Autolithology map over the Stannary Hills area, Khartoum project area, has two designations that may be reflective of mineralized zones. The "Intrusions Non-Magnetic, High Th designation seem to indicate zones of mineralized granite. A "Mixed Intrusions and Sediments" designation may indicate areas in the Hodgkinson Formation where granite occurs at shallow depth or zones of alteration and mineralisation.

The second generation Khartoum project area Autolithology has two unit designations that apparently define very specific geologic environments. The "Granite Non-magnetic" designation apparently indicates evolved granite, mostly biotite granite. The "Granite Magnetic" designation apparently indicates altered or metasomatized areas within the Hodgkinson Formation. This unit shows almost exclusively over the metasedimentary units and intrusive and volcanic rocks of the Claret Creek Ring Complex. The known Sn and W deposits hosted by the Hodgkinson Formation are almost entirely within or next to areas with the Autolithology map "Granite Magnetic" designation.

The second generation Galala and Running Brook project areas Autolithology map has three unit designations that apparently define specific geologic environments. The "Granite High TC" designation apparently indicates evolved biotite granite, mostly of the O'Briens Creek Supersuite. Felsic phases of the Blackman gap Complex are apparently well defined by the "Granite Non-magnetic Low TC" designation while the more mafic phases are defined by the "Granodiorite" designation. The more mafic (hornblende-bearing) phases of the Ootann Supersuite granitoids are defined by a mixuture of "Granite Magnetic" and "Granodiorite" designations.

7 References

Blake, D., 1972, Regional and economic geology of the Herberton/Mount Garnet area-Herberton Tinfield, North Queensland, Bull 124, 264p.

Pyper, R. C. W., 2012, Independent geological report on MGT's tenements in Queensland, in, MGT Resources Annual Report, Oct. 30, 2012,

RSC, 2012; digital data transmitted to Kenex Ltd and Auzex Explortion Ltd; RSC Global Pty Ltd, data files, North Queensland, 2012

8 Appendix A. Photographs of field data features

Locations are keyed to the WP number (RSC_fielddata_NQLD_2012)

Figure 38 WP 294 Aplite dike grading to quartz vein

Figure 39 WP 89 Bedding in Hodgkinson Formation

Figure 40 WP 362 NW trending fault system

Figure 41 WP 290 Fracture system in part masked by weathering granite

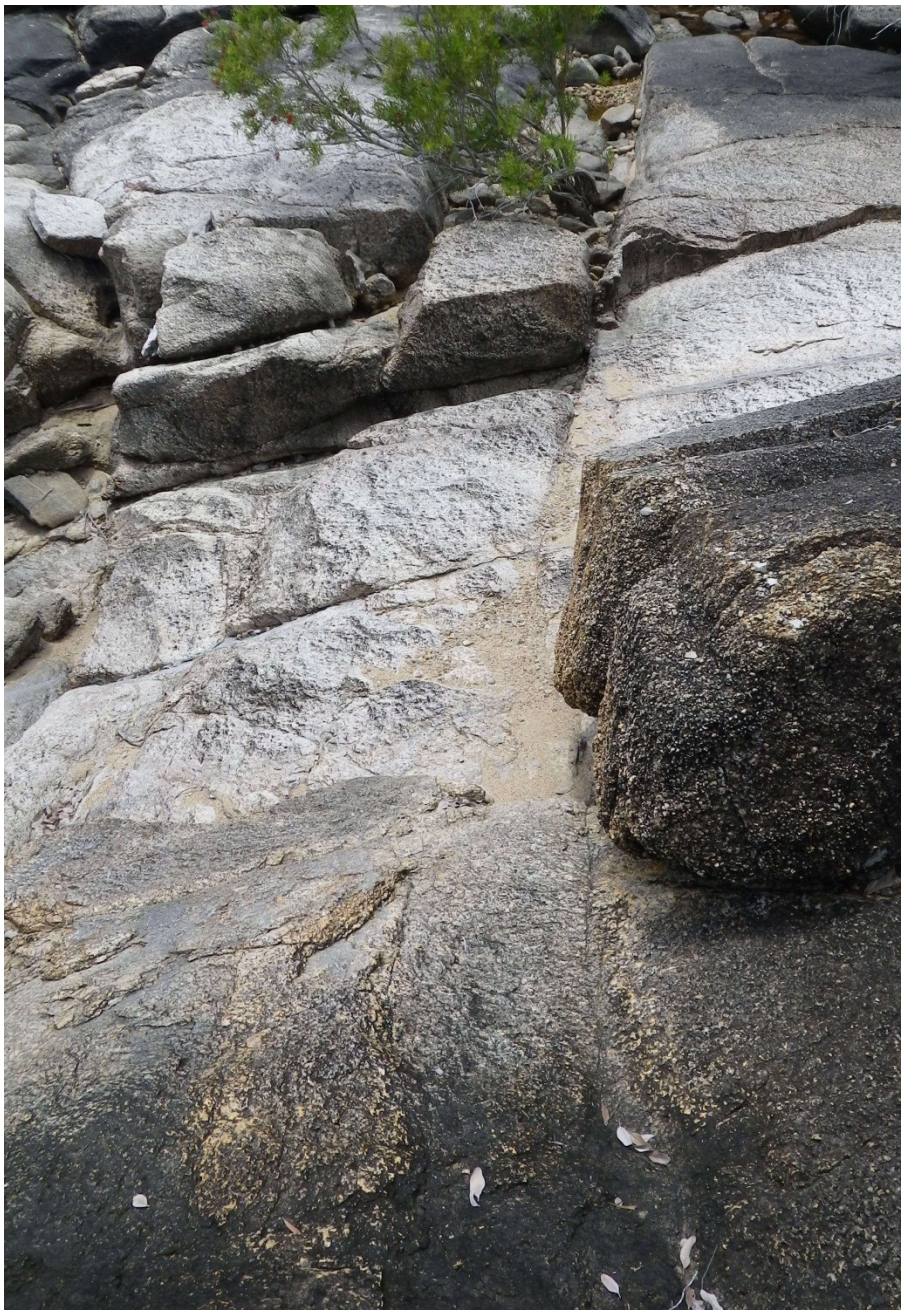

Figure 42 WP 219 Faint parallel fracture system some with alteration halos

Figure 43 WP 172 Silicification along fracture exposed in weathered granite

Figure 44 WP 339 Silicification along fractures in porphyritic granite

Figure 45 WP 216 Fracture with aplite, quartz, and an alteration halo

Figure 46 WP 144 Flat lying silicified fracture

Figure 47 WP 214 Flat fracture with silicified and greisen zone grading downward into propylitic altered granite

Figure 48 WP 267 Fine grained granite dike

Figure 49 WP 332 Faint layering in granite

Figure 50 WP 262 Layering in partially recrystalized metasediment inclusion in granite

Figure 51 WP 154 Coarse irregular mineral lineations

Figure 52 WP 366 Quartz breccia vein in Hodgkinson Formation

Figure 53 WP 175 Quartz breccia vein in granite

Figure 54 WP 113 Quartz vein swarm

Figure 55 WP 210 Milky white quartz vein in granite

Figure 56 WP 341 Tan fine grained quartz vein with greisen border

Figure 57 WP 138 Veinlet set in granite

Figure 58 WP 111 Grey quartz veinlets cut by later milky white quartz veinlets

Figure 59 WP 274 Dark grey quartz veinlet cut and offset by fractures

Figure 60 WP 382 Sheared Quartzite in old shaft

Figure 61 WP 298 Shearing in granite

Figure 62 WP 101 Striations on small slip surface