

# Resource Finance & Investments Limited

## **Tenement Holder**

Pioneer Nickel Limited

ABN 31 103 423 981

## **Tenement Manager**

Resource Finance & Investments Limited

ABN 31 109 933 995

**EXPLORATION LICENCE 36/2003**

**WHYTE RIVER**

**TASMANIA**

**Progress Report for the Period**

**20<sup>th</sup> July 2004 to 19<sup>th</sup> July 2005**

**VOLUME 1 OF 1**

Prepared by: \_\_\_\_\_

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## DISTRIBUTION

RFI - Perth	(1/3)
Pioneer Nickel - Kalgoorlie	(2/3)
Mineral Resources Tas	(3/3)

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**1. SUMMARY:**

Work completed on Exploration Licence EL 36/2003 Whyte River in the period July 2004 to July 2005 has included a review of historical exploration by Matt Mining.

Pioneer Nickel entered into a joint venture with Resource Finance & Investments Limited (RFI) who became the managers of the joint venture. RFI have formed a strategic alliance with Geoinformatics(GEX) to utilise GEX's proprietary 3-dimensional software processing technique. GEX will be combining all historical exploration data and modelling the data for target generation.. Preliminary geophysical and geochemical processing by GEX is included as an Appendix 2.

## **2. INTRODUCTION:**

This report summarises exploration completed on EL 36/2004 for the period 29/07/2004 to 28/07/2005. The tenement is located 30km south west of the township of Waratah (Figure1) with access provided by the sealed Waratah to Savage River Road thence via the unsealed road to Corinna. Access within the tenement is limited to a few dry weather tracks. The tenement is currently a joint venture between Pioneer Nickel and Resource Finance and Investments which commenced in April 2005.

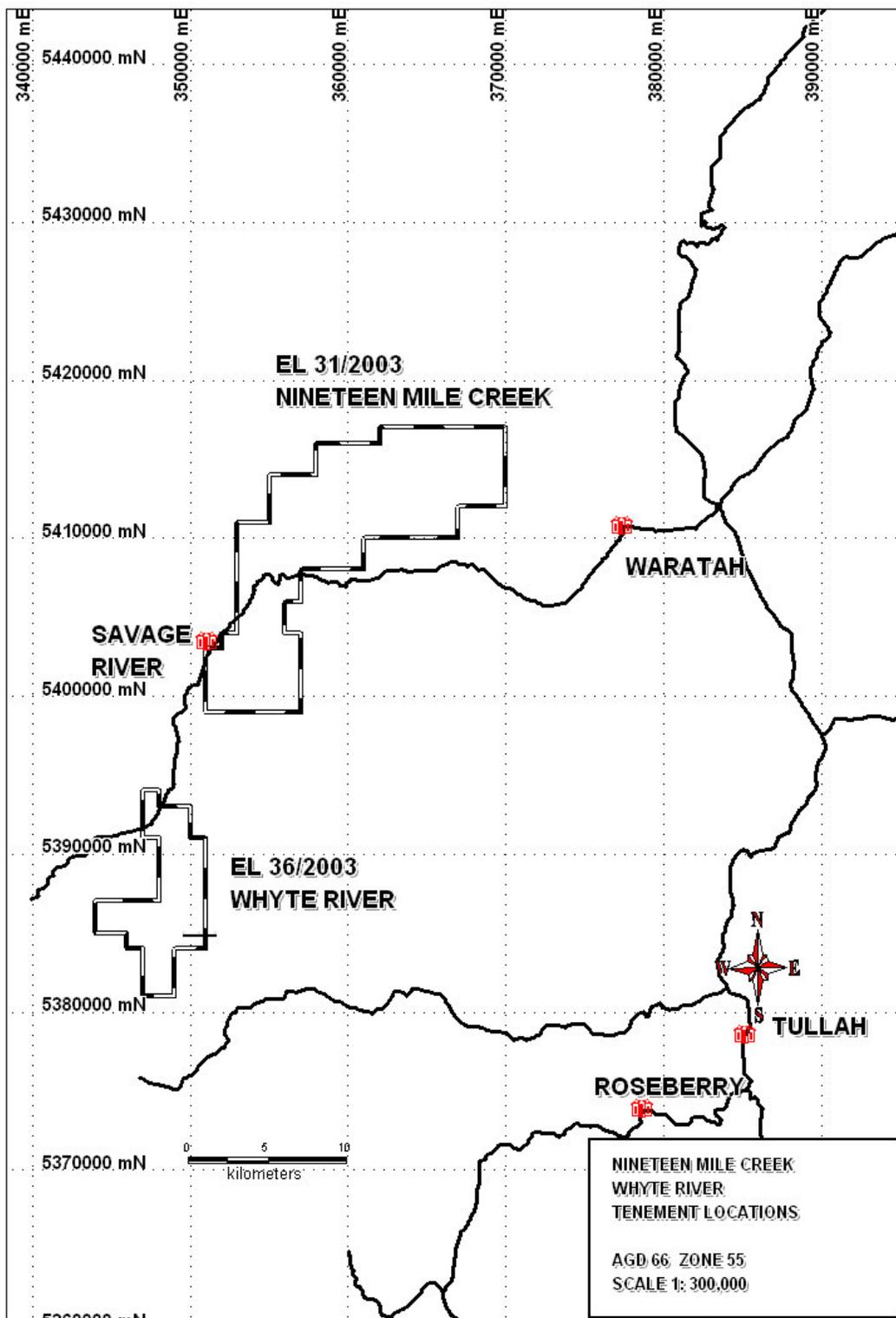


Figure1 – Tenement Location

### **3. HISTORICAL EXPLORATION & MINING:**

Alluvial gold was discovered at Middleton's Creek to the west of the EL36/2003 in 1879. There are no accurate records of production from the Corinna Goldfield but by 1881 coarse gold was being reported from workings at Nancy Creek, Lucy Creek and Paradise River all covered by the current tenement. In 1882 a 7.5kg nugget was recovered from the gravels of the Rocky River quickly followed up by with nuggets of 140 ounces and 39 ounces. Coarse gold up to 3 ounces was recovered until 1900 and small scale alluvial mining has continued to the present day.

Hard rock historic mining was small scale and scattered. There are no production records and subsequent sampling and the scale of the diggings suggest they were generally small and low grade.

#### Exploration

The area has undergone modern style exploration for a range of commodities including gold, base metals and iron ore since the early 1960's.

Industrial Mining Investigations (IMI) (1961 to 1988) continued to follow up of aeromagnetic anomalies after the discovery of the Savage River Magnetite-Pyrite Deposit focussing on similar deposits in the Bowry Member. At the time IMI did estimate 2 resources of 30 Mt at 28 % Fe and 4 Mt at 10-15 % Fe for the Long Plains South and Rock River prospects. Long Plains South is located 2.3 km north of the licence area. Rocky River is located within the RFI licence area. IMI continued to explore for gold base metals and diamonds in the region, including the tenement area for nearly 30 years.

Through the 1990's sporadic surface sampling and mapping generated anomalous gold and copper values but it was not until 1994 that a systematic search for the source of the widespread alluvial gold commenced under a Joint Venture between Titan Resources and Goldstream Mining which covered much of the present licence area.

Work completed included:

- Stream Sediment sampling Pan Con and -80#
- Helimag survey
- Gold Grain morphology studies including probing and fineness studies.
- Reconnaissance Diamond Drilling
- Close Spaced Stream Sediments to determine prospect boundaries. 50M spacing.
- C horizon soils
- Rock chip sampling of the Southern Adits and hydraulic workings at Lucy Spur

Stream sediment sampling indicated that the Bowry Formation south of the Owen Meredith River was not prospective. The fineness and travel distance studies of individual gold grains concluded a proximal source for the majority of grains studied; it also identified supergene processes may have acted on about half the grains. A first pass diamond drilling programme was undertaken at the Rocky River (RRDDH1 350 m and RRDDH2 349.5 m) and Lucy Spur (LSDH 1 200 m and LSDH2 300 m). A best value of 500 ppb Au was obtained from Rocky River along with a widest anomalous interval of 16m averaging 40ppb Au with anomalous copper. At Lucy Spur the best value was 160ppb Au and intervals including 9m @ 36ppb Au, 12m @ 73 ppb and 30m @ 33 ppb.

Hard rock results to date do not explain the level of alluvial gold reported. Gold grain morphology studies conclude a local source for the gold grains studied. The Goldstream-Titan

JV has systematically explored the tenement area up to 1999. However the JV does not appear to have followed up the low level soil anomalies generated in 1999 sampling programmes on the Lucy Spur, Lefroy Ridge East and Rocky River prospects.

#### **4. GEOLOGY:**

The Whyte River tenement comprises a sequence of Proterozoic metasediments which outcrop extensively in north-west Tasmania and which are described below with reference to the Corinna Goldfields which was an area of significant alluvial gold production.

1. The Corinna Goldfield Proterozoic sequence which is divided into 2 subgroups.
  - a. Sigma Group (Henham 1989), actually occurs to the west of the licence area and comprises the Savage River Dolomite and is overlain by the Bernafai Volcanics. The sequence is repeated by regional scale folding. The dolomites consist of silicified impure dolomites with rare stromatolites, conformably overlain by the basic volcanics. These range from doleritic semi intrusive bodies to basaltic to andesitic lavas. The volcanics are flanked by locally derived siltstones and shales.
  - b. Arthur Lineament Complex (Turner 1997) occurs west of the Sigma group in a faulted contact defined by the Lefroy Ridge strike slip fault. The Arthur Lineament Complex is a greenstone belt with a strike length of 100km and a width of 10km. Within ELA36/2003 the Timbs and Oonah formation are represented, the boundary is structurally complex but likely to be transitional.

The Timbs Group consists predominantly of muscovite chlorite schist with minor quartzose intervals. The chloritic schist and phyllite units have small interbands of massive amphibolite after tholeiitic basalt and dolerite. There are three units of chlorite schists and phyllite, the western unit (Nancy Formation) middle unit (Lucy Formation) and the eastern unit (Bowry Formation). The Bowry Formation contains widespread lenses of interlayered chlorite schist, amphibolite and massive to banded ironstone consisting of magnetite + pyrite + silicate.

The Oonah Formation comprises muscovite schist and phyllite interbanded with quartz schist.

2. A substantial granite intrusion the Meredith Granite outcrops east of the application; tin mineralisation and base metal mineralisation are associated with this granite.
3. Tertiary gravel frequently overlain by this basalt flows are common within the application and a potential source for some of the alluvial gold.

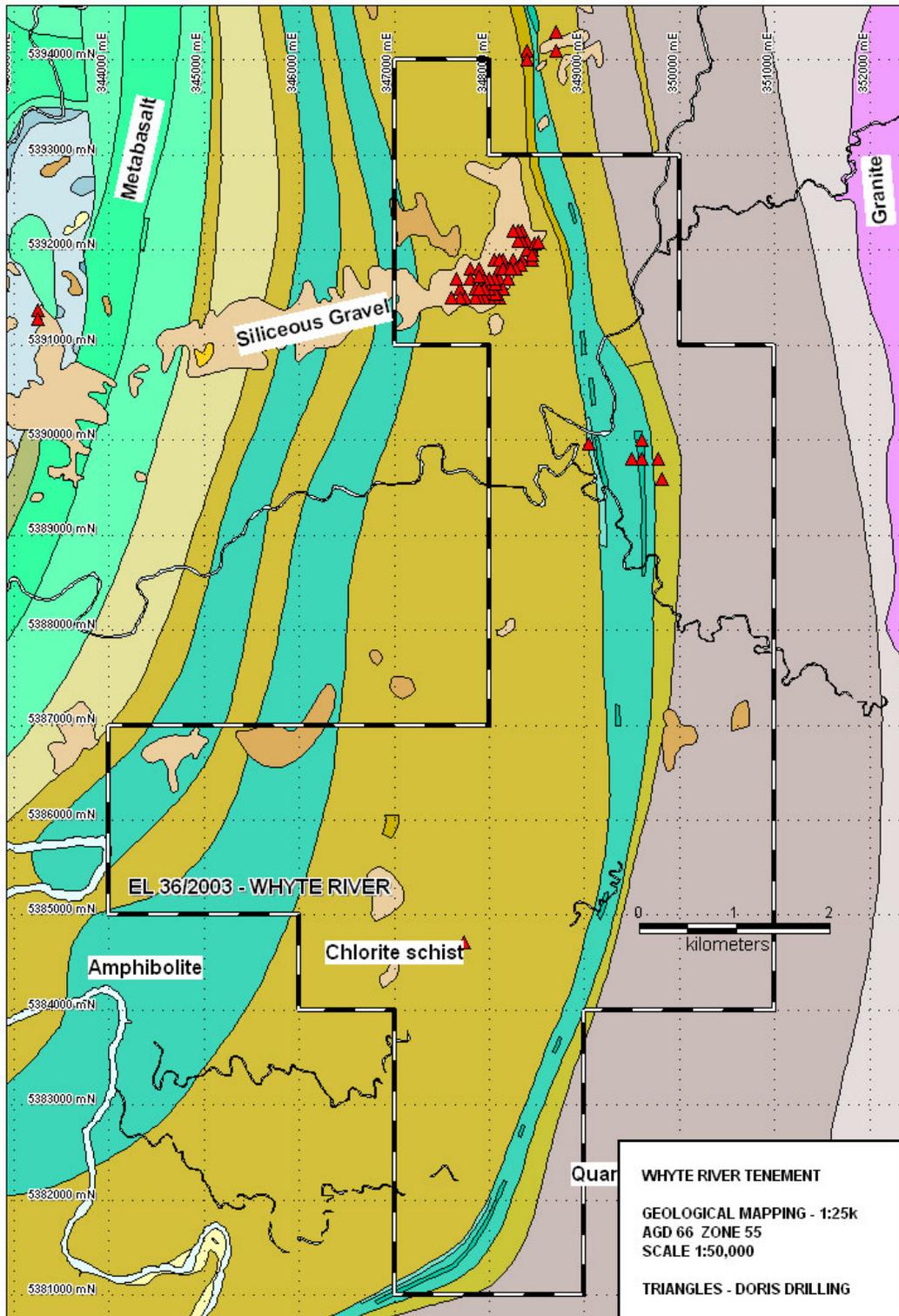


Figure 2 – Interpreted Geology of the Whyte River Area

#### **4. GEOPHYSICS:**

Geoinformatics have carried out some preliminary processing of the available geophysical data which is included in Appendix 2 as an example of the work that will be carried out for the Whyte River Project

#### **5. GEOCHEMISTRY:**

Extensive stream sediment geochemical sampling has been carried out within the tenement with the gold in stream sediments shown in Figure 3 showing the distribution of elevated stream sediment responses. In contrast rock chip sampling has been more restricted as shown in Figure 4 and several elevated gold in rock chips >100ppb correspond to elevated gold in streams. As a comparison Figure 5 shows the limited drilling carried as per the DORIS data base. Most drilling has been focussed on Quaternary siliceous gravel evaluation possibly in an area of alluvial gold. The compiling of the historical geochemical data is continuing in conjunction with Geoinformatics.

#### **6. PROPOSED EXPLORATION:**

Data compilation and processing will continue with a view to look at the 3-dimensional aspect of the data in conjunction with Geoinformatics. The area has been a significant producer of alluvial gold with a significant source yet to be located. Geological and structural mapping will be a key ingredient and to this end heli magnetics and radiometrics will be flown across the tenement to assist in the targeting. In conjunction with the mapping rock chip sampling will be carried out particularly in areas of anomalous gold in streams. The higher priority geochemical and geological targets will be initially be evaluated via RC drilling and a small amount of diamond drilling to enhance our structural understanding.

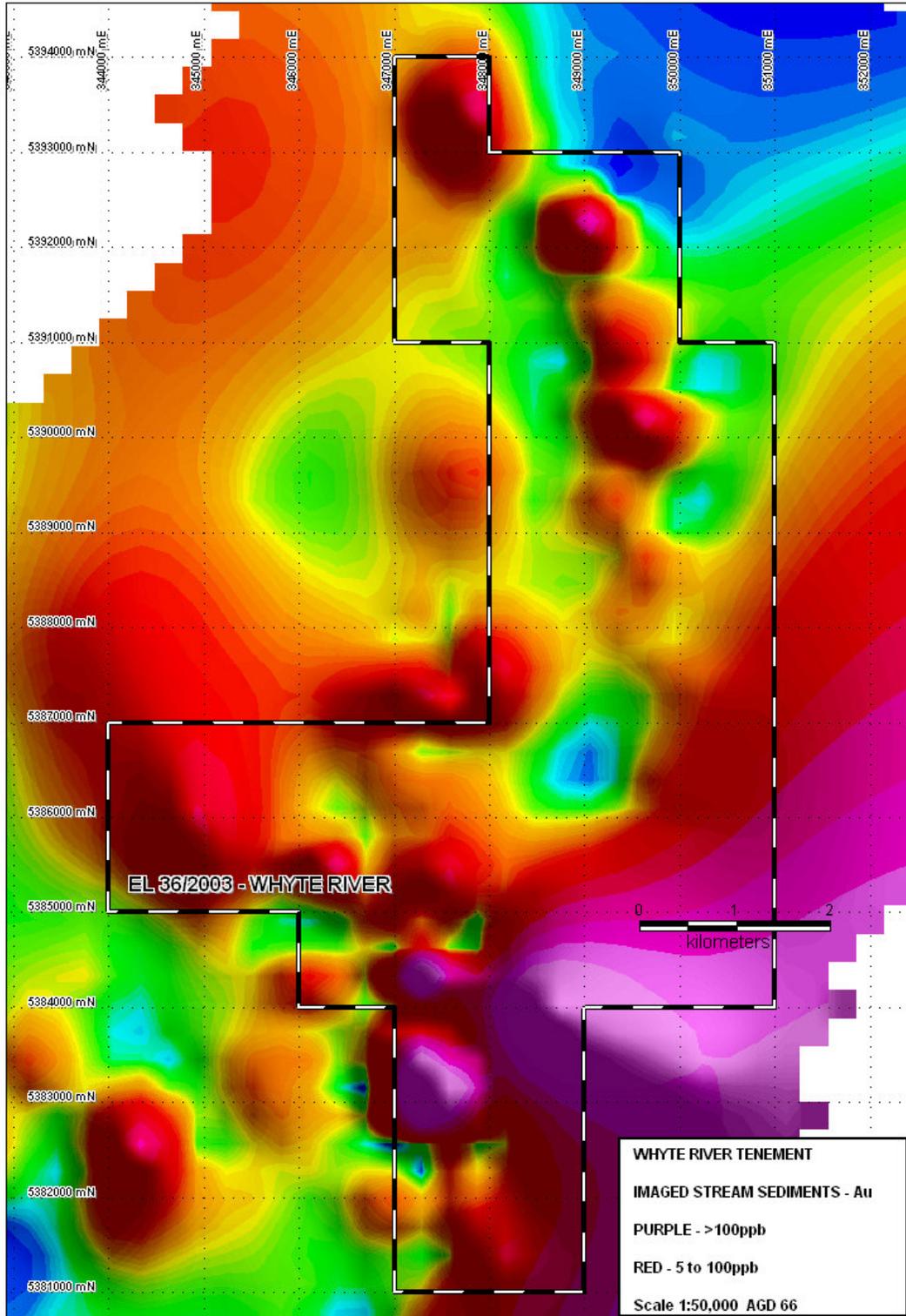


Figure 3 – Imaged Au in Stream Sediments

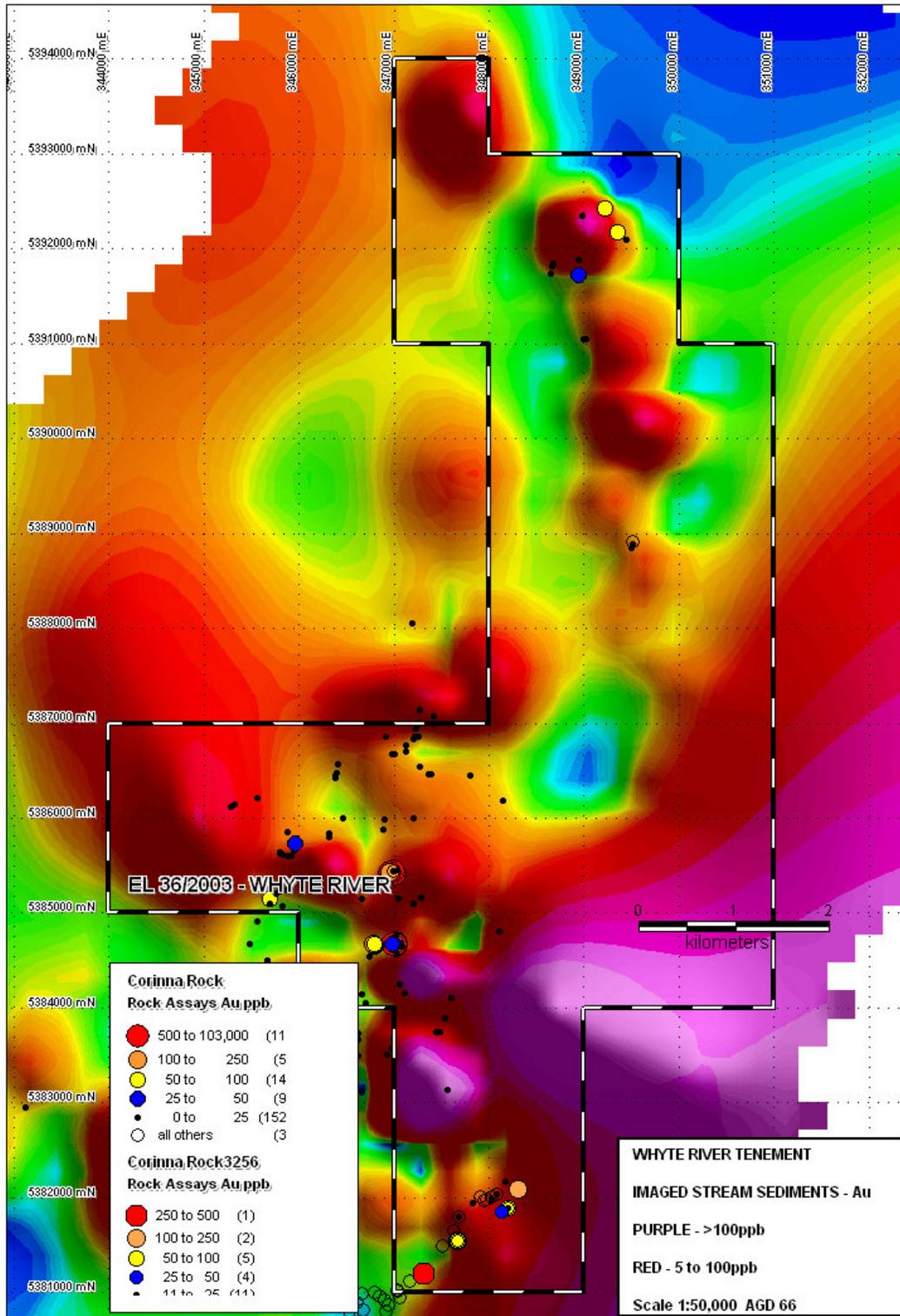


Figure 4 – Imaged Au in Stream Sediments and Au in Rock Chips

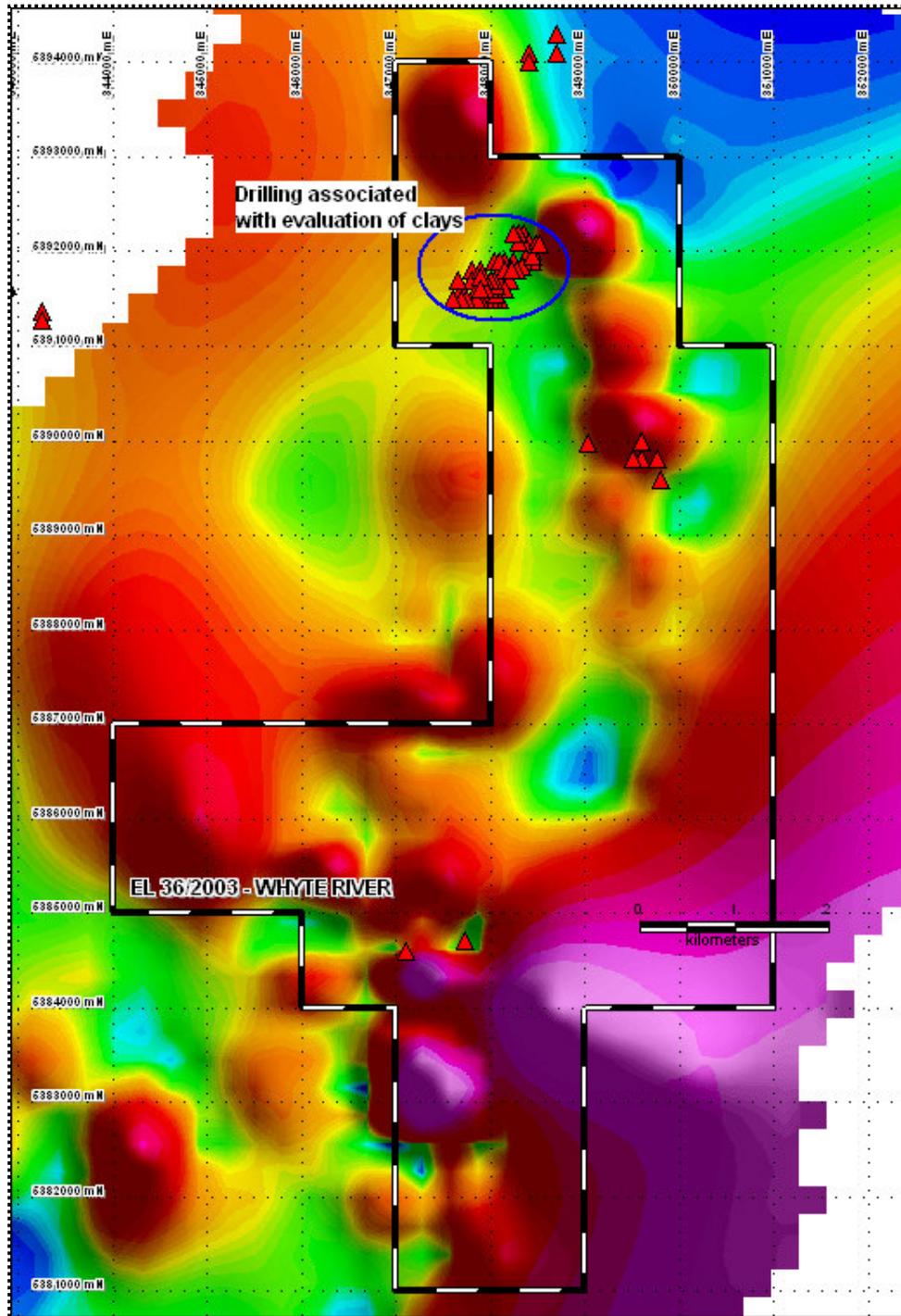


Figure 5 – Imaged Au in Stream Sediments with DORIS Drill Collars

## **APPENDIX 1**

**REPORT BY MATT MINING FOR PIONEER NICKEL LIMITED**

**APPENDIX2**

**JUNE REPORT BY GEOINFORMATICS ON GEOPHYSICAL AND  
GEOCHEMICAL PROCESSING**