

# ACTIVITIES REPORT FOR THE QUARTERLY PERIOD ENDED ON 30 June 2012

# **KEY HIGHLIGHTS FOR THE QUARTER**

- Geochemical Results provide 14 Drill Targets for elements including Copper & Gold.
- Yellow Rock secures new tenement immediately west of Gabanintha.
- Potential 500 to 800 million tonne magnetite target zone.
- Newly discovered Palaeo Channels have been identified.

# GABANINTHA SOIL GEOCHEMISTRY RESULTS (ANNOUNCED 30 APRIL 2012)

A comprehensive geochemical sampling programme has been completed.

This involved approximately 508 line kilometres of sampling at 100 metre line spacing to collect 5821 samples and 47 rock chip samples for multi-element analysis.

The field campaign included the tenements adjacent to the historical Gabanintha Gold Mine and nearby gold and copper occurrences.

The soil sampling results are summarised below:

- The systematic sampling approach produced strong indicators for copper and gold mineralisation.
- Copper and gold potential drill targets were identified.
- There were significantly anomalous gold with coincident copper soil results in the extension to the historic Gabanintha copper-gold deposit.
- A high soil sample value of up to 2 g/t gold.
- A high soil sample value of 0.56% copper.
- 14 prospective targets were identified for drilling of multi-element anomalies (copper + gold + lead, with arsenic, and copper+ lead + arsenic + zinc with silver).
- 4 further prospective drill targets were identified for single commodity anomalies (gold; lead; silver).

YRR intends to concentrate exploration in the north eastern mafic-ultramafic contact and the other opportunities highlighted in the central and southern portions of the Company's tenements that were identified by the geochemical program. It will begin with a Mobile Metal Ion (MMI)<sup>1</sup> survey in areas of deeper transported cover in the southern half of the tenements. MMI is suited to exploration of environments under cover similar to those in the southern part of the Gabanintha tenements.

The interpretation of the HELITEM survey continued with the results as announced to assist with the planning and implementation of further field work and a comprehensive drilling program.

Other gold occurrences, with their associated multi-element signals, are focused within basaltic and gabbroic rocks located in the northeast pressure shadow of the western granite bounding the project area. This is a geological setting reminiscent of many Midwest gold deposits.

<sup>1</sup> Mobile Metal Ion Geochemistry is a robust, highly sensitive geochemical exploration method whereby Mobile Metal Ions, released by weathering ore bodies, are adsorbed onto the surface of screened soil particles, are dissolved using patented chemical leaches and analysed at parts per billion (ppb) levels.



Figure 1 – Defined multi-element and point soil targets, Gabanintha Project

#### YRR secured new tenement immediately West of Gabanintha

YRR secured a new tenement immediately West of Gabanintha.

Modelling of the Gabanintha HELITEM survey data by Fugro Airborne Services Pty Ltd geophysicists produced results that support the securing of the adjoining tenement E51/1529.

The model data shows a strong continuation of the iron-titanium-vanadium deposit down dip to the west as well as parallel multiple iron-bearing formations in the hanging wall that extend into new tenement E51/1529.

E51/1529 also contains another strong magnetic anomaly indicative of iron-bearing formations further west which holds promise for exploration.

Tenement E51/1529 covers part of the hangingwall sequence of the Gabanintha deposit. Geological Survey of WA regional Total Magnetic Intensity (TMI) maps show that E51/1529 also contains another strong magnetic anomaly indicative of iron-bearing formations further to the west. It is expected that this highly magnetic unit is a Banded Iron Formation (BIF) or similar iron-rich unit. The geology map at 1:100,000 scale shows few outcrops and extensive alluviual or coluvial cover. This magnetic unit will be the subject of further exploration programmes when the tenement is granted. See Figures 2 and 3.

### Further modelling of Gabanintha HELITEM results by Fugro

As a result of the helicopter-borne Time domain Electromagnetic and Magnetic Survey (HELITEM) on the Gabanintha and Nowthanna Hill Tenements YRR has engaged Fugro Airborne Services Pty Ltd (Fugro) geophysicists to further model the electro-magnetic responses.

The HELITEM survey covered the entire area of the YRR Gabanintha and Nowthanna tenements and was completed by Fugro over 537 line kilometres with flight paths at 150 metres apart.

This technique is reputed to be capable of providing deeper profiles of the known and potential mineralised bodies and to allow better mapping of areas prospective for copper and gold.

The data from the HELITEM survey has been modelled and interpreted by Fugro geophysicists. Figure 2 demonstrates modelled surfaces dipping west extrapolated from the magnetic susceptibility data. This indicates that there is a significant volume of magnetic material to the west and down dip from the surface trace of the Gabanintha orebody. The typical magnetic model profile shown demonstrates that multiple magnetic units are present in the hangingwall sequence. These have not yet been tested by drilling.



Figure 2 - 3D Magnetic Susceptibility Inversion Model of Gabanintha mineralisation.



Figure 3 - Regional Total Magnetic Intensity (TMI) map of Gabanintha magnetic units.

#### Potential 500 to 800 million tonne magnetite target zone at Gabanintha

A newly discovered geophysical target zone has the potential to identify between 500 and 800 million tonnes of magnetite at Gabanintha<sup>\*NOTE</sup>.

Modelling of the Gabanintha HELITEM survey data by Fugro Airborne Services Pty Ltd shows potential to prove up a much larger ore body than the current JORC Inferred and Indicated Mineral Resource of 125.8 million tonnes at average 32.26% Fe, 8.64% TiO2 and 0.70% V2O5 (# see Table 1 below).

The Fugro model shows a strong continuation of the iron-titanium-vanadium deposit down dip to the west as well as parallel multiple iron-bearing formations in the hangingwall.

The data indicates a much larger volume of magnetic ore extending to greater depths than previously thought.

Grades are expected to fall into the range of the current JORC Mineral Resource of 23.12% to 43.14% Fe, 6.08% to 12.07% TiO<sub>2</sub> and 0.43% to 1.03% V<sub>2</sub>O<sub>5</sub> (# see table below).

Further drilling is required to prove up the Fugro model.

Fugro has been engaged to carry out further 2D and 3D modelling based on the data from the HELITEM survey.

This technique is capable of providing indications of deeper profiles of the known and potential mineralised bodies by modelling the magnetic and electro-magnetic responses.

Preliminary data from the modelling of the HELITEM survey interpretation by Fugro geophysicists shows a much larger ore body of magnetite than that already identified by past drilling programs. Preliminary indications are that further drilling of the orebody could increase the JORC resource to between 500 million and 800 million tonnes of magnetite.

Modelled surfaces dipping west extrapolated from the magnetic susceptibility data are shown on Figure 2. This indicates that there is a significant volume of magnetic material to the west and down dip from the surface trace of the identified Gabanintha orebody.

The typical magnetic model profile also demonstrates that multiple magnetic units are present in the hangingwall.

\* NOTE:

The potential quantity and grade is conceptual in nature. Insufficient exploration has been carried out to define a Mineral Resource and it is uncertain if further exploration will result in the determination of a Mineral Resource of the size and grade expected.

## **TABLE 1 - CURRENT JORC-COMPLIANT RESOURCE**

JORC In Site Million Material  $V_2O_5\%$ Fe% Resource Bulk TiO<sub>2</sub>% SIO<sub>2</sub>%  $AL_2O_3\%$ LOI% tonnes Class Density Indicated 14.4 4.17 1.03 42.14 12.07 11.42 7.84 3.37 High Inferred 46.0 4.16 0.97 42.15 11.19 12.37 8.28 3.20 Grade Sub-total 60.4 4.16 0.98 42.15 11.40 12.15 8.17 3.24 Indicated 42.7 2.71 0.44 23.37 6.08 29.25 18.09 8.94 Low Inferred 22.7 0.42 22.65 6.08 30.62 2.67 16.96 6.92 Grade Sub-total 65.4 0.43 23.12 29.73 17.70 2.70 6.08 8.24 Indicated 57.0 28.10 2.97 0.59 7.59 24.76 15.51 7.54 Total Inferred 68.8 3.51 0.79 35.70 9.50 18.40 11.15 4.43 Sub-total 125.8 3.25 0.70 32.26 8.64 21.29 13.13 5.84

#The current JORC resource estimate for Gabanintha is set out in the attached table by CSA Global:

**Note** - In-situ dry bulk density has been assigned based on V2O5 grade, therefore density values quoted here are weighted average values. The Mineral Resource was estimated as a block model within constraining wireframes based upon logged geological boundaries and grade cut-offs of 0.3% V2O5 for Low Grade (LG) and 0.7% V2O5 for High Grade (HG). Tonnages have been rounded to reflect that this is an estaimate.

Drilling to date has been carried out along the crest of the magnetic orebody with holes drilled towards the north-east. See drill hole locations on Figure 2. Deeper drilling collared further to the west is expected to identify a much larger volume of material.

# Model Views

Modelling by Fugro of the magnetic susceptibility data generated from the HELITEM survey has enabled the interpretation of magnetic iron units occurring to depths exceeding one kilometre below surface.

Figures 4 and 5 illustrate the different views of the modelled magnetic susceptibility surfaces from the south, southeast and southwest vantage points. This modelling demonstrates a greater degree of continuity than expected for strike, width and depth of the Gabanintha magnetic units.



**Figure 4** - Views of Fugro model at Gabanintha showing the main unit looking north at A, northwest at B and east-northeast at C.



Figure 5 - Views of Fugro model at Gabanintha from South looking North showing drill hole locations.

#### Newly discovered Palaeo - Channels have been identified

Newly discovered Palaeo - Channels have been identified from modelling the Fugro Airborne Services Pty Ltd (Fugro) HELITEM geophysical survey over Gabanintha. Fugro geophysicists were able to model near-surface features from the large volume of data generated. Conductivity of oxidised bedrock has a different geophysical response to transported or near-surface features such as calcrete, floodplain sands and silts, alluvium, laterite and palaeo-channels.

This discovery has the potential to identify uranium mineralisation where these channels have accumulated sediment in an iron-rich and vanadium-rich environment at Gabanintha. The identified channels drain towards the newly-acquired tenement E51/1529 immediately west of Gabanintha. The same channels also have potential to host secondary iron deposits containing haematite or magnetite.YRR will test the Fugro Palaeo - Channel model by drilling.

Figure 6 below shows modelled features from the conductivity depth data interpreted to be channels lying above the bedrock and trending NE-SW. This indicates that there is a significant volume of material that probably represents an ancient channel draining towards the southwest across the strike of the Gabanintha orebody and towards newly - acquired tenement E51/1529.

The typical conductivity model profile is shown below on Figure 6 where an interpreted channel is clearly demonstrated in cross section (within red ellipse) and appears to be over 100m deep.



Figure 6 - Conductivity Depth Image (CDI) of a palaeochannel at Gabanintha in cross section.

Sydney Chesson

Chairman 31 July 2012

#### Competent persons statement

It is common practice for a company to comment on and discuss its exploration in terms of target size and type. In addition surface sampling assays and drill sample results may also be discussed in the context of information describing the presence of anomalous mineral content. The above information relating to Exploration Targets should not be misunderstood or misconstrued as an estimate of Mineral Resources or Mineral Reserves. Hence the terms Resource (s) or Reserve(s) have not been used in this context. The potential quantity and grade is conceptual in nature, since there has been insufficient exploration to define a Mineral Resource. It is uncertain if further exploration will result in the determination of a Mineral Resource

The information in this statement that relates to Exploration Targets, Exploration Estimates, Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by independent consulting geologist Brian Davis B.Sc (hons), Dip.Ed.

Mr Davis is a Member of The Australian Institute of Mining and Metallurgy and the Australian Institute of Geoscientists. Brian Davis is employed by Geologica Pty Ltd.

Mr Davis has sufficient experience which is relevant to the style of mineralization and type of deposit under consideration and to the activity which is undertaken to qualify as a Competent Person as defined in the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr. Davis consents to the inclusion in the report of the matters based on the information made available to him, in the form and context in which it appears".