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ASX RELEASE



EARLY ENCOURAGEMENT FROM PRELIMINARY METALLURGICAL TEST WORK – NGUALLA RARE EARTH PROJECT

Highlights:

- Non – optimised initial acid leach test work on a composite sample of weathered mineralisation leaches 88% of rare earths.
- Further leach test work has been prioritised to evaluate the possibility of a relatively simple processing route to produce a high grade rare earth concentrate for this higher grade, near surface portion of the Ngualla rare earth mineralisation.
- Simple wet table characterisation of primary fresh rock rare earth mineralisation produces positive beneficiation results in preliminary sighter tests.

Background

Ngualla in southern Tanzania is one of the largest and better grade new rare earth discoveries of recent years.

The Company is on track to complete the maiden JORC compliant rare earth resource estimate for the Southern Rare Earth and South West Alluvial Zones before the end of the March 2012 quarter.

Rare earth mineralisation within the **Southern Rare Earth Zone** at Ngualla occurs from surface in the following main hosts:

1. iron rich gravel colluvium and ferricrete. Typical grade 1 to 4 % REO*
2. highly weathered carbonatite, rare earth enriched, iron and barite rich, the original carbonate minerals are completely leached – typically 2.5 to 7% REO
3. fresh, primary carbonatite rock, iron poor, carbonate rich – 1.5 to 2.5% REO

*REO = Total Rare Earth Oxide

Mineralogical studies have shown that bastnasite and synchysite are the main rare earth minerals and occur within a barite – iron oxide hydroxide lithology in the weathered zone and a carbonate rich lithology with barite in fresh carbonatite. Alumina is negligible and there are no clay minerals. Uranium and thorium levels are very low at 17ppm and 37ppm average respectively within +1% REO mineralisation in the Southern Rare Earth Zone. The rare earth carbonates are predominantly liberated, with grain sizes between 10 and 120 microns.

Mineralisation in the **South West Alluvial Zone** (Figure 1) occurs from surface over a wide area within unconsolidated (potentially 'free-dig') material at grades of 2 to 4% REO. Rare earth mineralisation in the **Northern Niobium – Tantalum – Phosphate Zone** ranges in grade from 1 to 2.5% REO but is also accompanied by niobium mineralisation in the 0.25 to 1.5% Nb₂O₅ range and phosphate at 15 to 25% within an iron rich magnetite – apatite rock.

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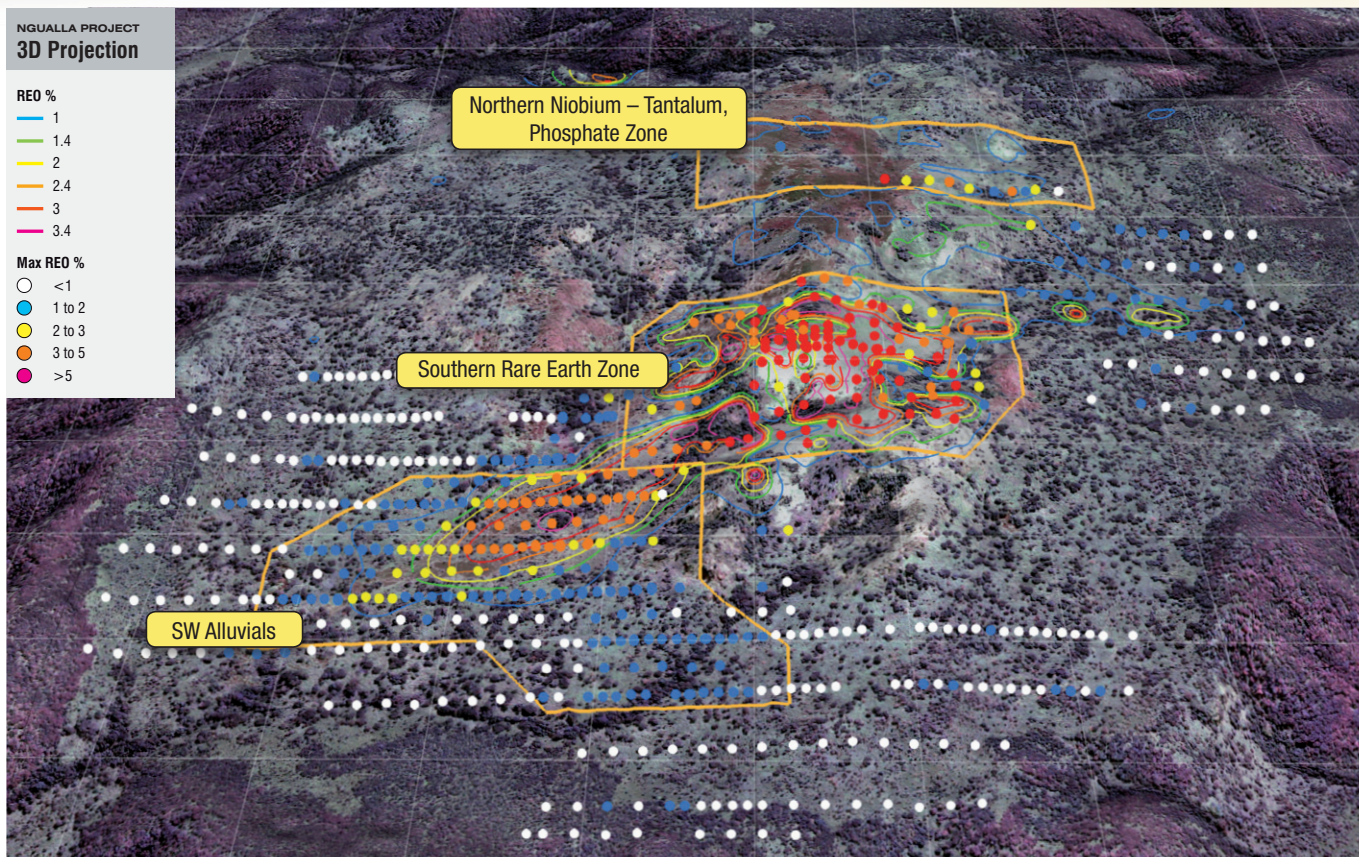


Figure 1: Location of areas of drilling, surface REO% contours and drill holes coloured by maximum down hole REO% on satellite image draped over topography, Ngualla Carbonatite.

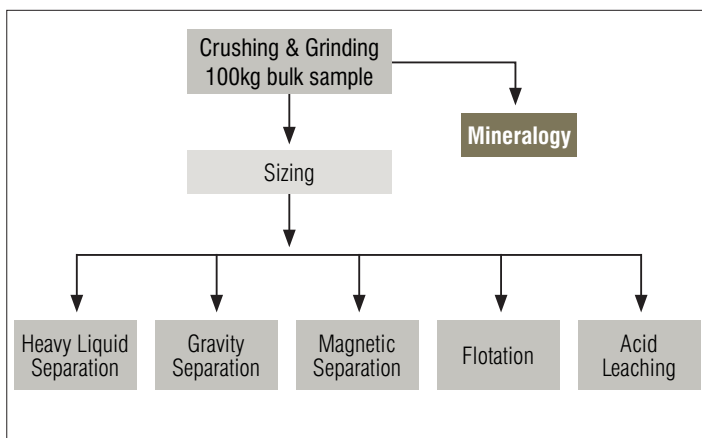


Figure 2: Simplified beneficiation test work diagram, Ngualla rare earth mineralisation

These rock types have different chemical and physical properties, leading to the potential for different opportunities regarding beneficiation and concentrate production routes for each.

Metallurgy, including beneficiation, is a key driver for development time, capital and operating costs for rare earth projects and the Company has implemented a large test work program to address these issues. Peak’s appointed metallurgical consultants Bateman Engineering are overseeing a series of studies on bulk diamond core or RC drill chip samples of each of the styles of mineralisation, which were obtained from the recently completed drilling program.

Individual tests (Figure 2) include crushing, grinding, screening, heavy liquid separation, wet table, magnetic separation, flotation and direct acid leach to determine the optimal method to produce a rare earth concentrate (and / or niobium – tantalum or phosphate for the Northern Zone sample).

Initial positive results from some early baseline studies have already been received and are presented below.

Leach test work – weathered mineralisation

Preliminary acid leach test work on eight reverse circulation (RC) drill samples of weathered rare earth mineralisation from the Southern Rare Earth Zone has produced some early encouragement with between 8 and 92% of rare earths leached.

Eight samples were tested, seven being individual two metre composite samples from single RC drill holes. The remaining sample was a bulk composite of 25 x 2m composite samples from six RC holes. The tests used 11% sulphuric acid at atmospheric pressure and a temperature of 90° centigrade for a total period of 22 hours.

Of the eight samples tested, one sample showed very low (8%) rare earth leach extraction. Two samples leached 30% and 46% of the rare earths. The remaining five samples showed encouragingly high rare earth leach extractions of 65%, 87%, 88%, 88% and 92% (Table 1). Importantly, the more representative bulk composite sample showed an 88% rare earth leach extraction.

Acid consumption rates varied from 83 to 366kg/tonne (see Table 1).

These are first pass, basic sighter test results on a small number of samples. Test work has not yet been optimised to reduce acid consumption and increase rare earth recovery, and further work will be completed with the aim of improving on these initial results. Additional work is planned to determine the cause of the wide variation in rare earth leach extraction and acid consumption, so that these may be improved and / or preferential parts of the deposit identified for potential processing by acid leach.

Test work is also proceeding to determine what grade of rare earth concentrate may be achievable by the sequential precipitation of the rare earth solution.

The Company considers these initial leach results to be encouraging and has prioritised further test work to evaluate the possibility of a relatively simple processing route that will produce a high grade rare earth concentrate for this higher grade, near surface portion of the Ngualla rare earth mineralisation.

Table 1: Metallurgical bulk sample details and summary leach sighter test work results

Sample	Hole ID	Interval	Grade REO %	Geology	Acid Consumption kg/tonne*	% rare earths leached*
T19101	NRC066	6 - 8m	4.84	Pisolitic gravel	366	65%
T19102	NRC039	38 - 40m	7.96	Iron rich weathered carbonatite	232	30%
T19103	NRC027	46 - 48m	4.96	Iron rich weathered carbonatite	161	87%
T19104	NRC047	8 - 10m	3.39	Pisolitic ferricrete	343	8%
T19105	NRC053	44 - 46m	4.97	Iron rich weathered carbonatite	348	88%
T19106	NRC046	18 - 20m	4.71	Iron rich weathered carbonatite	303	46%
T19107	NRC052	16 - 18m	4.17	Iron rich weathered carbonatite	83	92%
T19133	Composite of 25 samples from six RC holes		3.75	Bulk Composite of 25 samples from six RC holes	270	88%

*after 22 hours total leach time

Beneficiation of primary mineralisation

Initial beneficiation studies on a bulk diamond core sample of fresh rock rare earth mineralisation from the Southern Rare Earth Zone returned encouraging upgrades of mineralisation from wet table test work. This initial basic baseline test work succeeded in concentrating 84% of the head feed mineralisation, with a grade of 1.69% REO, 290% (almost 3 x's) to 4.87% REO. The concentrate is contained within just 34% of the mass of the original feed material (an alternative presentation of these initial results is that 66% of the original mass is able to be discarded for the loss of just 16% of the mineralisation).

Although this single stage preliminary beneficiation characterisation work has not immediately produced a commercial grade concentrate, it has demonstrated the potential for simple gravity separation to form an important component of a multi – part processing stream for this important second style of rare earth mineralisation at Ngualla.

Similar to the leach test work, these are first pass, basic sighter test results on a single sample of primary, fresh rock mineralisation. Test work has not yet been optimised for grain size or other factors and further work will be completed with the aim of improving on these initial results. Further test work on these and other beneficiation techniques and combinations thereof are required and are currently in progress to identify an optimal processing route that will produce a commercial grade rare earth concentrate product from this fresh rock mineralisation.

The Company considers these initial beneficiation results to be encouraging and will continue to provide updates on results of the various beneficiation and metallurgical test work programs as they come to hand.



Richard Beazley Managing Director

The information in this report that relates to Exploration Results is based on information compiled and/or reviewed by Dave Hammond who is a Member of The Australasian Institute of Mining and Metallurgy. Dave Hammond is the Technical Director of the Company. He has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking 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'. Dave Hammond consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.