6 December 2017

Longonjo Magnet Metal Project Scoping Study Update

Rift Valley Resources Limited ("**Company**" or "**Rift Valley**") is pleased to announce that it has received preliminary results as part of its ongoing scoping study ("**Study**") on the Company's 70% owned Longonjo Magnet Metal Project in Angola ("**Project**").

The Study is being undertaken by leading global mining and processing consultant Amec Foster Wheeler. The preliminary results are encouraging based on the weathered zone portion of the mineral resource estimate at the Project and support further drilling an evaluation work at assess the potential of the Project to become a long term supplier of the magnet metals neodymium and praseodymium.

Highlights

- The initial results of the Study are encouraging and justify further development work and studies.
- The Company will fast-track infill drilling to upgrade the existing inferred mineral resource estimate, with only a portion of the prospective carbonatite and high tenor rare earth soil anomaly tested to date, to facilitate the completion of the Study.
- Initial results indicate that weathered zone mineral resources may be mined by conventional shallow open pit with "free dig" material and a very low waste to resource strip ratio.
- The Project is proximate to established major infrastructure, being located less than five kilometres from a sealed National highway and rail line to the port at Benguela and 38km from a hydroelectricity power transmission line.
- Rare earths occur as the most commonly processed minerals, mainly monazite and bastnasite.
- Early metallurgical test work is encouraging with further work to be undertaken.
- A conceptual process flowsheet has been developed to produce final high purity, separated rare earth products.
- Potential products are aligned to the magnet metal market.
- Demand for the magnet metals is widely predicted to surge driven by their application in the electrification of vehicles and wind turbine energy generation.

Rift Valley's Executive Chairman Mr Stephen Dobson said "*We are highly encouraged by the preliminary positive results of this Study. We used Tier One consultants and the Company will press forward with confidence to advance the Project, with the aim of positioning Longonjo as a leading supplier of the magnet metals in time for the predicted surge in demand from the impending change to electric vehicle technology.*"

Executive Summary

On 6 June 2017, the Company announced the appointment of Amec Foster Wheeler to complete a scoping study on the Project to encompass all aspects from mining to tails disposal and product shipment.

The Company has received initial results from the ongoing Study which are encouraging and indicate the potential the Project to produce high purity rare earth products with a strong emphasis on the magnet metals neodymium and praseodymium.

The preliminary results of the Study contemplate a shallow, open pit mining operation at the Project based on the weathered zone portion of the inferred mineral resource and an onsite processing plant and associated infrastructure.

The preliminary results of the Study justify the further evaluation of the Project, which will include the completion of additional resource drilling, metallurgical testwork and more detailed cost and engineering studies.

The existing mineral resource is open in all directions and there is excellent potential to expand the current resource base. The Company is looking forward to providing further updates on the Study as work progresses.

In accordance with *ASX Interim Guidance: Reporting Scoping Studies*, the ASX Listing Rules and ASIC Information Sheet 214, the Company understands that mineral resource classification is a determining factor in project viability and that the Company will need to upgrade its mineral resource estimate before reporting a production target or forecast financial information based on a production target. Given the uncertainties involved, investors should not make any investment decisions based solely on this Study update.

The Study is being undertaken by Amec Foster Wheeler as Lead Engineer, a global expert in mining and minerals processing. Specialist expertise is also provided by a range of independent consultants, including the following who are contributing to the key components of the Study:

Table 1: Study Consultants

Consultant	**Scope of Work**
Amec Foster Wheeler	Lead Engineer
Amec Foster Wheeler	Mineral Resource estimate
Nagrom Laboratory, Perth	Geochemical assay
ALS Metallurgy	Mineralogical studies
IMO	Metallurgical testwork
Met-Chem Consulting Pty Ltd	Metallurgical process development
Amec Foster Wheeler	Process engineering and infrastructure
Amec Foster Wheeler	Mine Planning

Background

Angola is underexplored by modern methods as a result of the civil war from 1975 to 2002 but is now a peaceful and stable country rapidly developing its infrastructure and actively encouraging a diversification from economic reliance on oil and diamonds. The country has a sound mining and investment code and became a party to the New York foreign arbitration Convention in March 2017.

The Company has established a first mover advantage in Angola by securing a 70% interest the Project comprising exploration licence N^{o}013/03/09/T.P/ANG-MGM/2015, which extends over an area of 3,670km^{2}.

The remaining interest is held by the Company's partners Ferrangol EP (10%), an Angolan state-owned enterprise, and Angolan nationals (20%). The licence was granted for 7 years in February 2015.

The Project contains copper, gold and niobium mineralisation in addition to rare earths and the Company is evaluating the potential of all these commodities in this highly prospective licence area. Rare earth mineralisation, the subject of the Study, is hosted in the weathered zone of the Longonjo Carbonatite.

The Project has an enviable position compared to many resource development projects, being located close to established infrastructure. The Project lies just 3km from the tar highway and rail line that run from the port at Benguela 200km to the west, to the provincial capital of Huambo 60km to the east (Figure 1). A power transmission line from the Gove Dam hydroelectric power plant currently extends to Caala, 38km to the east of the Project. The extension of the power line to Benguela through to Longonjo is underway and on completion the line will be five kilometres from the Project.

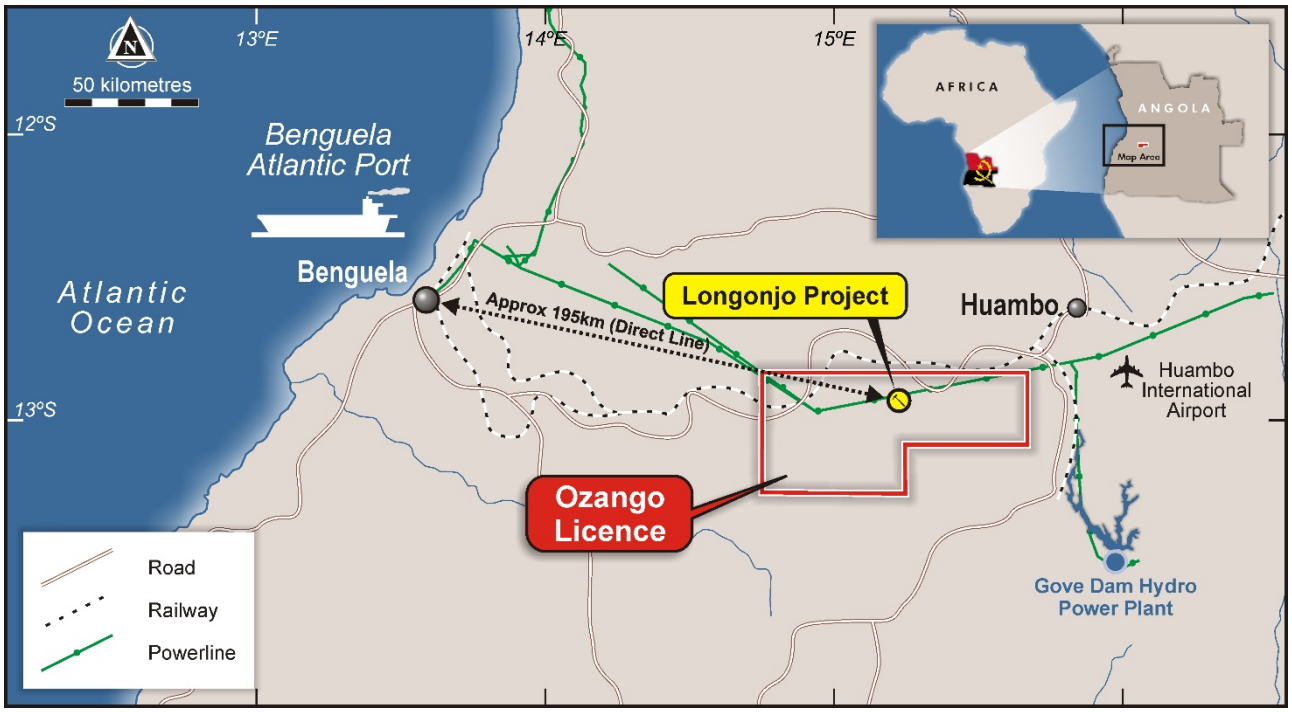

Figure 1: Location map of Longonjo Magnet Metal Project in Angola and established major infrastructure.

In September 2017, the Company reported a maiden inferred mineral resource estimate for the Project that included the weathered rare earth mineralisation that is the focus of this Study. This mineralisation is soft oxide material that occurs from surface over a wide area, enabling simple low cost open pit mining with a low waste to feed ratio. The mineralogy of the rare earth mineralisation is the most commonly processed world-wide and the relatively high grades are also a distinguishing feature of the Project.

Geology, Mineralogy and Exploration Potential

The Project is hosted within the Longonjo Carbonatite, a sub vertical, pipe-like sub volcanic body approximately two kilometres in diameter. A more resistive alteration zone forming a horse shoe shaped ring of hills surrounds the carbonatite breccia of the central core.

Rare earth mineralisation is hosted by the core of carbonate rocks and is further enriched through residual weathering processes in the near surface, iron rich saprolite to form a blanket of higher grade mineralisation at surface with an average thickness of approximately 20 metres.

Drilling to date has tested only a small portion of the prospective carbonatite and the associated high tenor rare earth in soil anomaly (Figure 2).

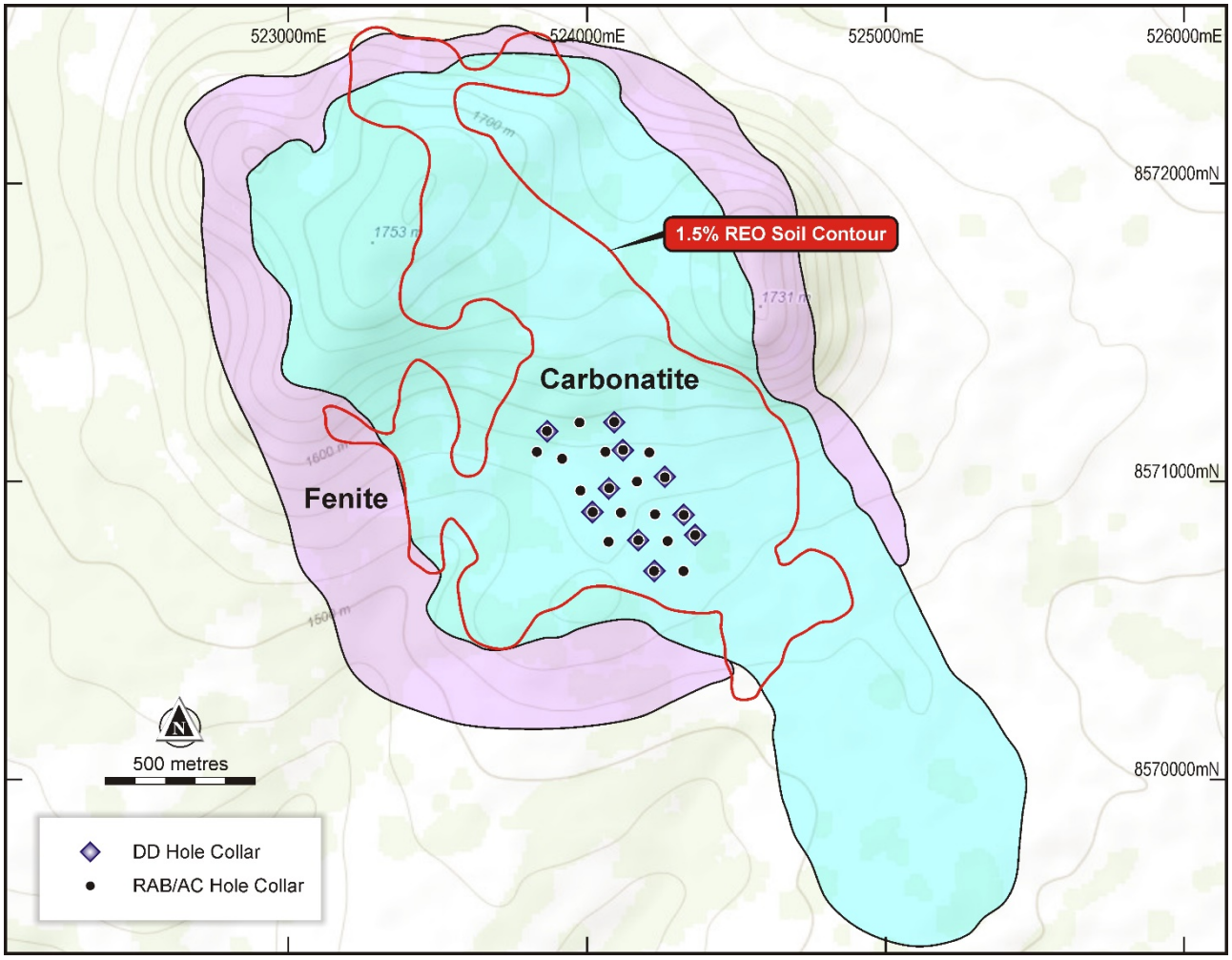

Figure 2: Simplified geological map of the Longonjo Carbonatite over topographic contours showing extent of drilling to date and 1.5% REO in soils anomaly

Qemscan quantitative mineralogical studies on the bulk metallurgical sample composited from the upper 20m of each of ten diamond holes show that rare earths in the weathered zone are hosted by the rare earth minerals monazite (80%) and bastnaesite (20%) (Figure 3).

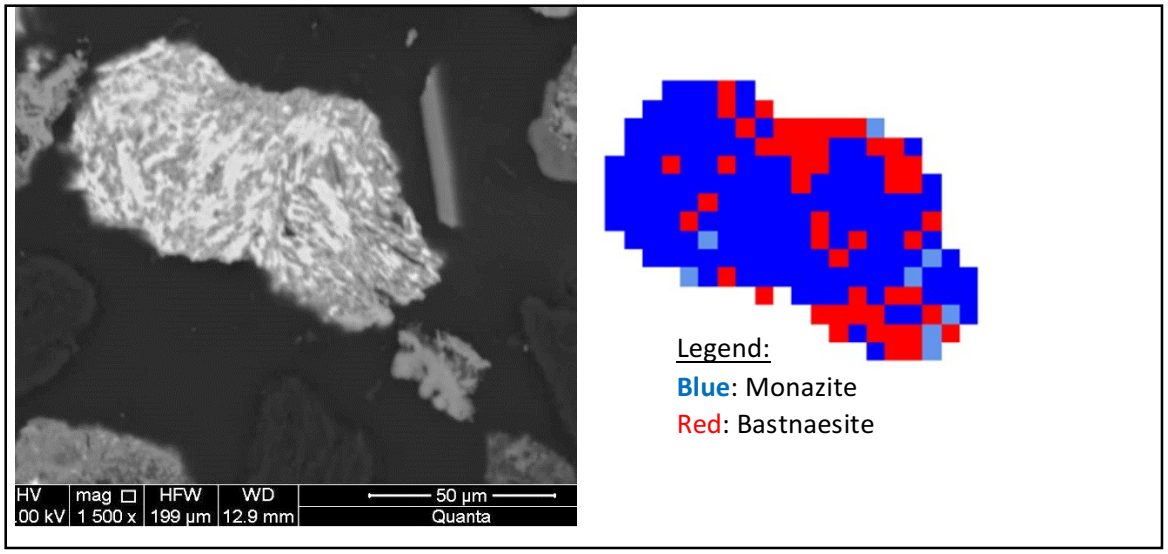

Figure 3: Electron microscope photograph (left) and Qemscan mineral composition image (right) of 100 micron grain of monazite and bastnaesite from the Longonjo weathered zone.

The weathered mineralisation on which the Study is based comprises iron and manganese oxides, clay, barite, biotite and feldspar in addition to the rare earth minerals noted. Although rare earth deposits each have a different mineralogical composition, requiring specific research and development to identify an effective processing flowsheet, the combination of rare earth and host rock minerals is encouraging in the similarities with other deposits where an effective processing route has been successfully developed.

The distribution of individual rare earth oxides ("**REO**") as a portion of the total REO within the weathered mineralisation used for the Study as determined by analysis of the bulk composite of the top 20m of each of the ten diamond drill holes is:

Table 2: Distribution and relative proportions of individual rare earths in the bulk composite and four planned products

Rare Earth Oxides		**REO Grade (%)**	**% of Total REO**	**% of Total REO in Product Split**
Lanthanum	La_2O_3	1.061	26.8	26.8
Cerium	CeO_2	1.937	48.9	48.9
Praseodymium	Pr_6O_{11}	0.192	4.85	19.6
Neodymium	Nd_2O_3	0.584	14.7	
Samarium	Sm_2O_3	0.067	1.69	4.8
Europium	Eu_2O_3	0.015	0.38	
Gadolinium	Gd_2O_3	0.031	0.79	
Terbium	Tb_4O_7	0.003	0.08	
Dysprosium	Dy_2O_3	0.013	0.32	
Holmium	Ho_2O_3	0.002	0.05	
Erbium	Er_2O_3	0.004	0.10	
Thulium	Tm_2O_3	0.000	0.01	
Ytterbium	Yb_2O_3	0.002	0.005	
Lutetium	Lu_2O_3	0.000	0.01	
Yttrium	Y_2O_3	0.051	1.29	
Total REO*	**REO**	**3.964**	**3.96**	**100**

Mineralisation defined by drilling currently remains open in all directions. With only a 650m x 350m area drill tested to date of the total 2.3km x 1.3km prospective carbonatite core and coincident soil anomaly, there remains excellent potential to increase the size of the know deposit by further drilling (Figure 4).

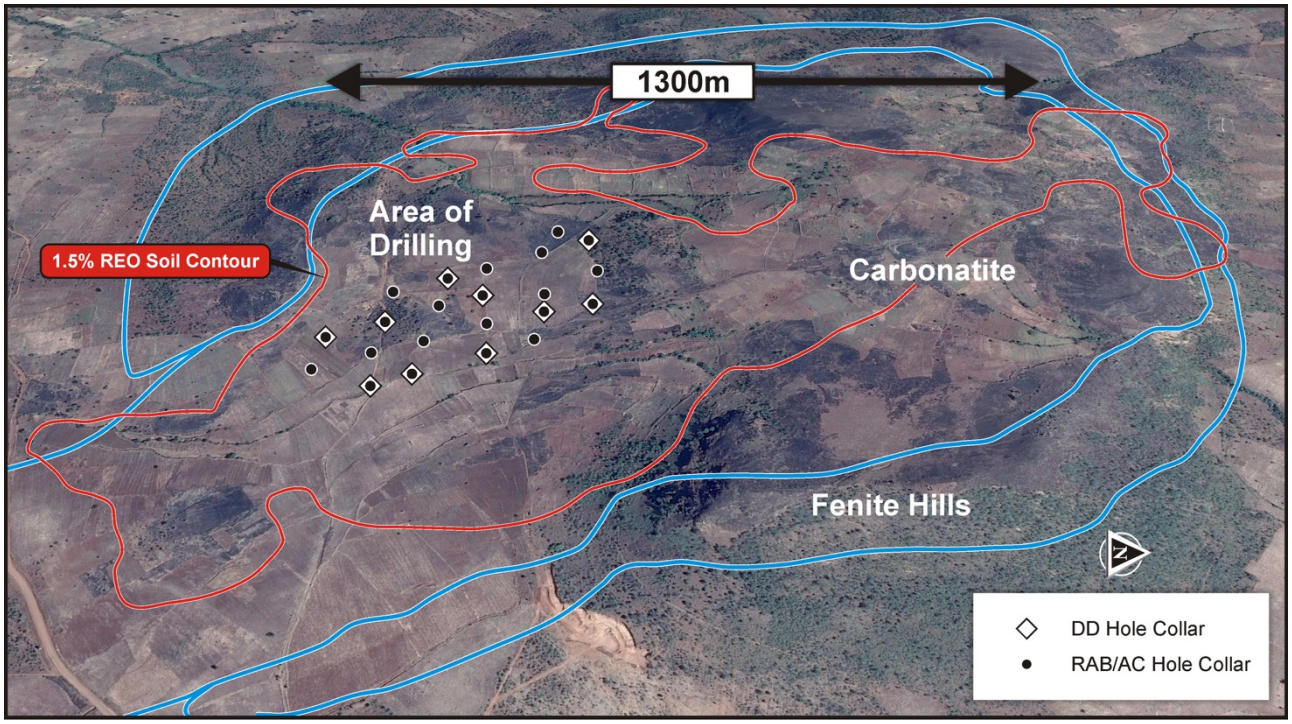

Figure 4: 3D aerial view looking west of the Longonjo Carbonatite showing the extent of prospective carbonatite and area of drilling. Note the ring of hills of resistive fenite alteration that surround the carbonatite core, and the relatively small area of the high tenor soil anomaly and prospective carbonatite drill tested to date.

Mineral Resource Estimate

The maiden mineral resource estimate ("**MRE**") for the Project (100% inferred) was completed by consultants Amec Foster Wheeler and is detailed in the Company's ASX Announcement "Maiden JORC Mineral Resource estimate – Longonjo Magnet Metals Project" of 26 September 2017. The Mineral Resource estimate is classified as Inferred, was prepared by Heather King of AMEC Foster Wheeler, a competent person as defined by the JORC Code 2012 and is reported in accordance with the JORC Code and Guidelines 2012.

Only the near surface weathered (oxide) portion of the total MRE has been evaluated so far for the purposes of the Study.

The MRE (weathered zone only) at a 1% REO lower cut-off grade is:

11.6Mt 4.30% rare earth oxide (REO*) for 499 tonnes of contained REO

REO, or total rare earth oxide, is the sum of La_2O_3, CeO_2, Pr_6O_{11}, Nd_2O_3, Sm_2O_3, Eu_2O_3, Gd_2O_3, Tb_4O_7, Dy_2O_3, Ho_2O_3, Er_2O_3, Tm_2O_3, Yb_2O_3, Lu_2O_3 and Yb_2O_3.

Table 3 details the light, heavy and total rare earth oxide distribution at a range of cut-off grades for the weathered zone MRE.

Table 3: Mineral Resource Tabulation for the Longonjo Project at a range of grade cut - offs

Inferred Mineral Resource: Weathered Zone								
TREO % Cut-off	Million Tonnes	Density t/m^3	TREO %	LREO %	HREO %	TREO Tonnes	LREO Tonnes	HREO Tonnes
			Grade			Content		
0.0	11.6	2.43	4.30	4.18	0.13	499	485	15
0.5	11.6	2.43	4.30	4.18	0.13	499	485	15
1.0	**11.6**	**2.43**	**4.30**	**4.18**	**0.13**	**499**	**485**	**15**
1.5	11.6	2.43	4.30	4.18	0.13	499	485	15
2.0	11.4	2.43	4.35	4.22	0.13	496	481	15
2.5	10.9	2.43	4.44	4.31	0.13	484	470	14
3.0	10.2	2.43	4.56	4.43	0.13	465	452	13.3
3.5	9.3	2.43	4.68	4.55	0.13	435	423	12.1
4.0	7.6	2.43	4.89	4.76	0.13	372	362	9.9

See ASX Announcement dated 26 September 2017 for further details

The weathered zone MRE block model extends over an area of approximately 650m x 350m with the high REO grades occurring from surface (Figure 4).

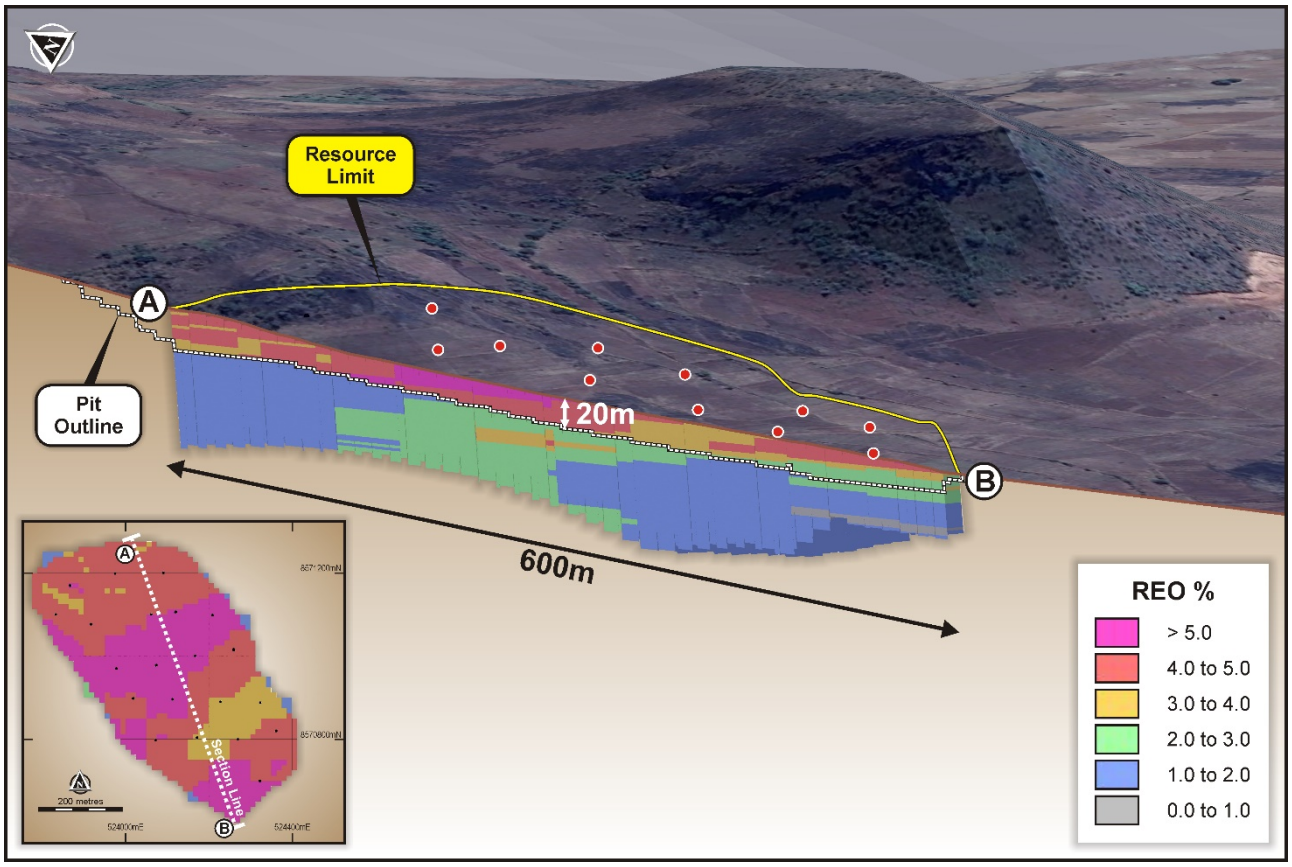

Figure 5: Plan and oblique section through the MRE block model showing the thick blanket of high grade rare earth mineralisation at surface

The MRE for the weathered zone is a subset of and contained within the MRE, which at a 1% REO lower cut of grade is:

44.7Mt 2.50% rare earth oxide (REO*) for 1,120 tonnes of contained REO.

(See ASX Announcement of 26 September for further details.)

The total MRE is comprised of the weathered and the fresh mineralisation. The fresh mineralisation has not currently been evaluated for the purposes of the Study due to its lower grade and as insufficient metallurgical test work has been completed to date.

The MRE is based on geological and grade model constructed from 32 drill holes at an average 100m x 100m spacing, which demonstrate the continuity of the mineralisation. The model incorporates assay data from 10 diamond drill holes completed in 2017 (ASX announcement "Positive Diamond Drilling Assay Results at Longonjo" of 24 August 2017) and the geological information from a further 22 RAB holes (ASX announcement High grade rare earth results at Longonjo Prospect" of 31 March 2014).

As only a portion of the prospective area of the Longonjo Carbonatite and rare earths in soil anomaly has been tested to date, there is significant potential to expand the current MRE through additional drilling, and also potentially to identify additional high grade zones.

MINING OPERATION

Pit optimisations based on the weathered MRE were completed by Amec Foster Wheeler. The mining operation is envisaged to consist of grade control, load and haul to a run of mine ("**ROM**") pad.

The friable, flat lying mineralisation occurring from surface makes the weathered zone at the Project amenable to free-dig, open pit mining using conventional load and haul methods. No drill and blast is contemplated at this stage and waste to mill feed resource ratios are very low.

Operations would utlilise a mining fleet consisting of 65 t rigid body dump trucks (Caterpillar 775G or similar) being loaded by a 140 t excavator (Caterpillar 6015 or similar). A 50 t front end loader (FEL) (Caterpillar 988K or similar) which is capable of loading the 65 t dump trucks will be available as back-up for the primary loading unit and also to make up shortfalls in periods where additional material movement is required.

Both resource and waste will be excavated in 2.5 m flitches (5m benches) following mark-out by grade control. Mill feed mineralisation will be hauled to either:

- The ROM pad and tipped onto a designated finger, or
- A designated low-grade stockpile.

Grade control activities could be completed using an Atlas Copco D65 with an RC unit and splitter installed. A grade control pattern of a 10 m x 10 m to a depth of 10 m, with samples taken at 2.5 m intervals is proposed.

WASTE MANAGEMENT

An area for a temporary waste storage area is located to the south-east of the current pit shell (Figure 6) but may be relocated should additional drilling prove the southward continuation of the current MRE.

The mine waste will be hauled directly from the pit and placed onto the waste dump temporarily, until it can be used for expanding the tailings storage facility. The waste dump location will be reviewed once the tailings storage facility and processing plant are firmly located in future project phases.

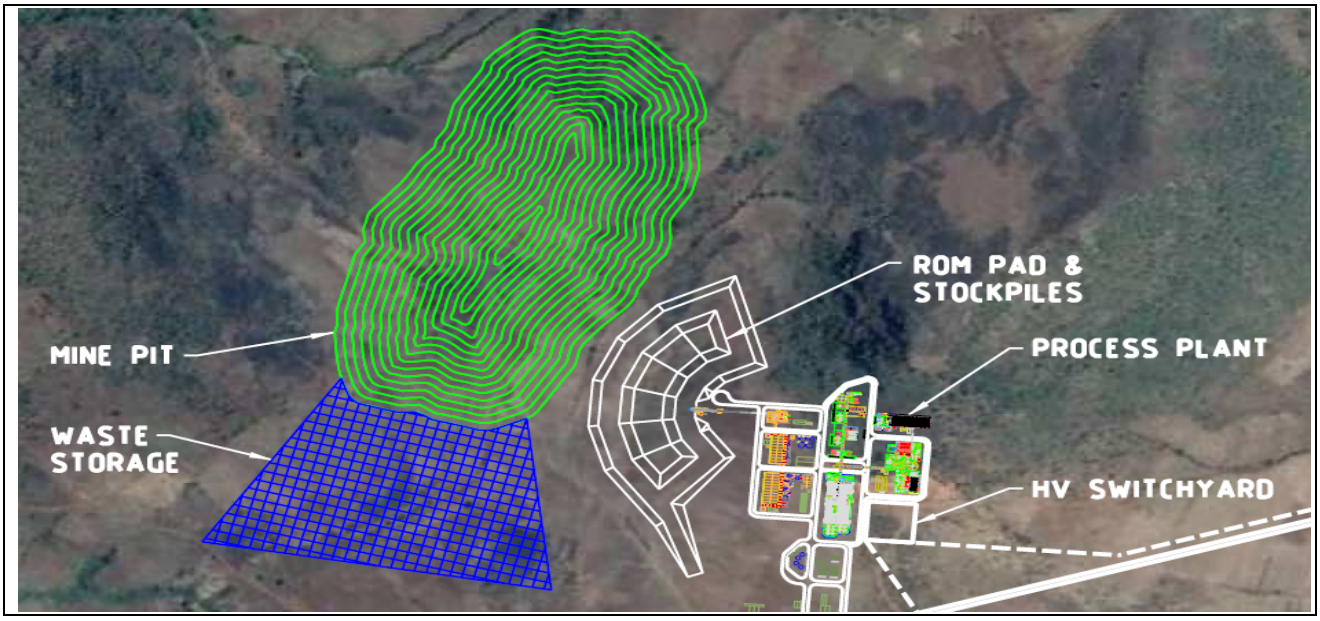

Figure 6: Conceptual Location of temporary waste storage facility relative to pit shell

METALLURGICAL PROCESS DEVELOPMENT

PREVIOUS TESTWORK

Metallurgical testwork on Longonjo rare earth mineralisation was first undertaken in March 2016 on a trench sample composite collected from 6 to 8 metres below the surface. The testwork included:

- Sample characterisation and mineralogy;
- Flotation testwork; and
- Acid baking and leach testwork.

This initial testwork program identified that the main rare earth host mineral was monazite which upgraded well (concentrate grades of up to 20% REO were achieved) via flotation techniques.

Concentrate samples were subsequently tested through an acid baking and leaching process which is typically used on monazitic rare earth concentrates. REO extractions of 84% were achieved without optimisation of the process.

RECENT TESTWORK

From the 2017 diamond drilling program, three composite samples were generated:

- a master composite of all material;
- 0m to 20m depth composite containing mainly the high grade weathered material; and
- 20m to ~100m depth composite containing mainly fresh material.

Preliminary laboratory flotation tests indicated that the 0 to 20m composite sample (i.e. the high grade weathered material) responded best to flotation with regards to concentrate grades and recoveries. Given that this was also the higher grade of the two types of mineralisation combined with the fact that it is at surface and easily mined (i.e. unlikely to require drill and blast techniques), this material is the focus of the Study.

Initial sighter flotation tests have shown that the barite content in the composite sample is diluting the concentrate. Testwork is now proceeding on a barite flotation stage prior to the rare earth flotation, with a regrind stage in between. Alternate reagents are under evaluation for this scheme.

PROCESS DESIGN

The process flowsheet for the Study was developed from ongoing flotation testwork, previous acid baking testwork and practices in similar operations.

The process flowsheet is summarised below and is shown graphically in Figure 7.

- The plant feed will be delivered by front end loader to a bin feeding a toothed rolls crusher.
- The rolls crushed discharge feeds a SAG mill operating in open circuit.
- The SAG mill discharge feeds a bank of hydrocyclones operating in closed circuit in conjunction with a ball mill.
- The hydrocyclone overflow feeds the Barite Pre-Flotation circuit that selectively float and remove the barite gangue minerals which are sent to the tailings management facility ("**TMF**").
- The barite depleted stream is reground prior to feeding the rare earth flotation circuit. The waste from this circuit is sent to the TMF.
- The rare earth (mineral) concentrate is filtered and stored to provide a buffer between the beneficiation and acid baking circuits.
- The mineral concentrate is recovered from storage at the required rate and combined with concentrated sulphuric acid in a pug mixer to form a paste.
- The concentrate/acid paste is fed to the sulphation kiln which operates at approximately 250°C which "cracks" the rare earth host minerals converting the rare earths to a soluble form.
- Water leach where the rare earths are dissolved, and the waste undissolved solids are filtered off and disposed of.
- Purification, whereby the dissolved impurities are removed by precipitation and ion exchange ("**IX**").
- Separation and recovery of final products using solvent extraction ("**SX**").

Four distinct high purity products are assumed, selected to align to specific market end uses, as final outputs from the separation plant:

- A high purity NdPr oxide suitable for the permanent magnet market
- A cerium carbonate suitable for glass polishing and steel alloy markets
- A lanthanum carbonate tailored to the fluid cracking catalyst market
- A mixed mid and heavy (Sm to Lu and Y) rare earth carbonate that will be toll treated at a specialty separation plant

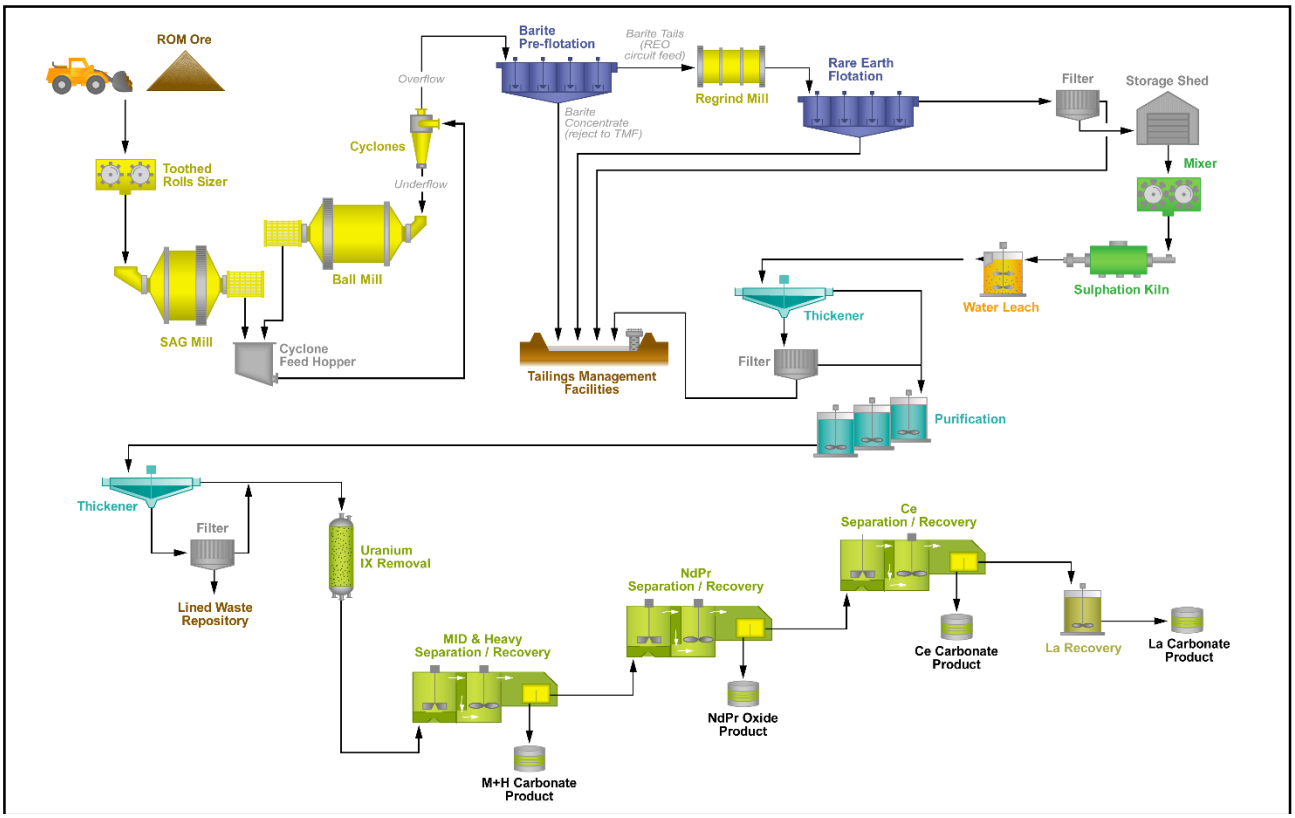

Figure 7: Simplified Process Flowsheet for the Project's high grade weathered rare earth mineralisation

INFRASTRUCTURE

The Longonjo Project site, located 200km from the coast is well serviced by proximal rail, air, hydroelectric power and road infrastructure (Figure 8).

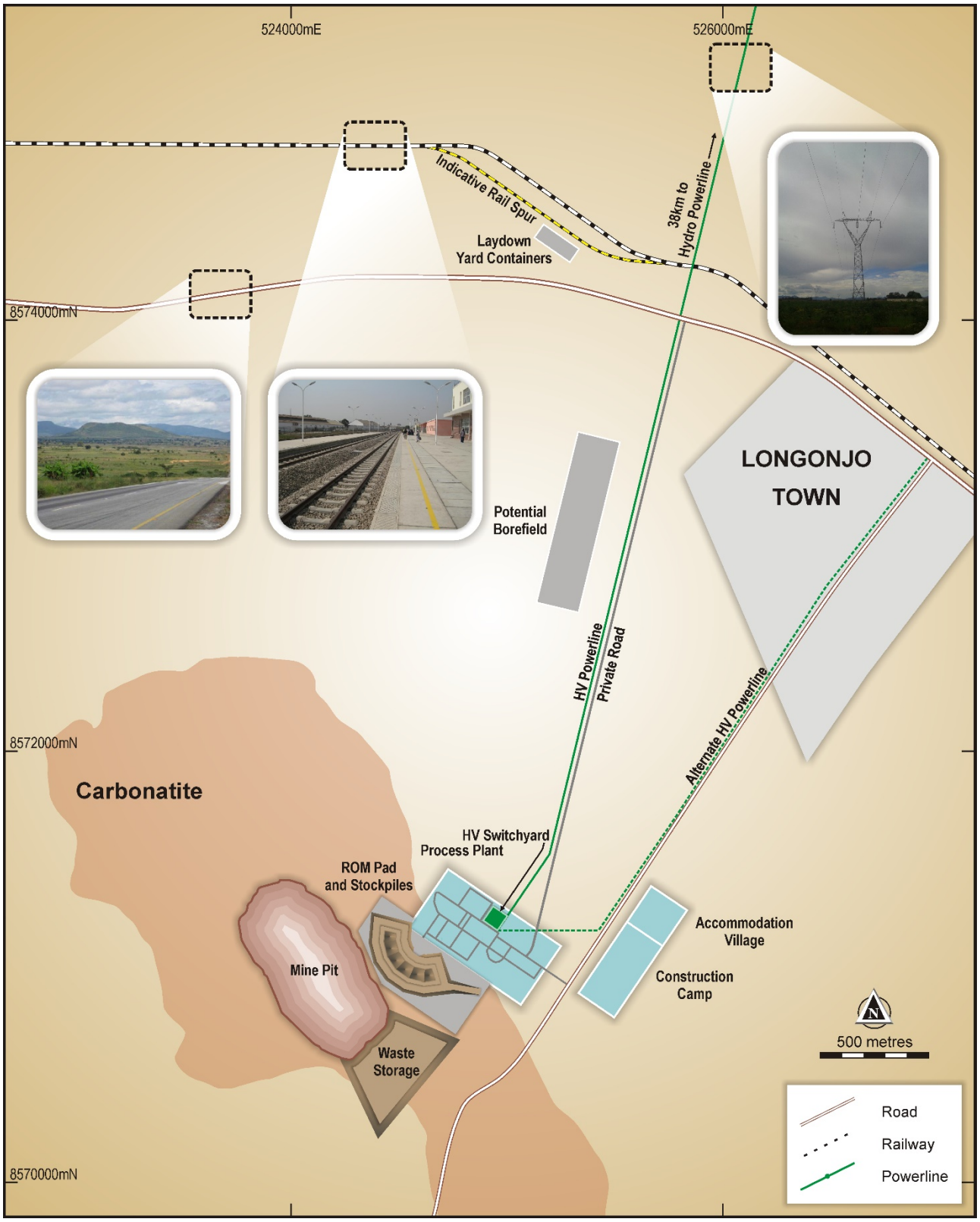

Figure 8: Preliminary site layout and linkages to existing regional utilities and transport infrastructure

It is proposed that most consumables, reagents and supplies will be transported to site from overseas via the Atlantic seaport of Lobito near Benguela (Figure 1).

The Project site is located approximately four to five hours' drive by sealed highway from the port city of Benguela or one hour's drive from the regional centre of Huambo located 60km to the east. The sealed highway lies just 3.5 kilometres to the north of the Project (Figure 9).

The Benguela railway located 3.5km north of the Project has recently been upgraded. The railway connects to the port of Lobito and passes through Huambo and Longonjo (see Figure 10).

Figure 9: Longonjo Carbonatite pictured as viewed from the National Highway to Lobito Port

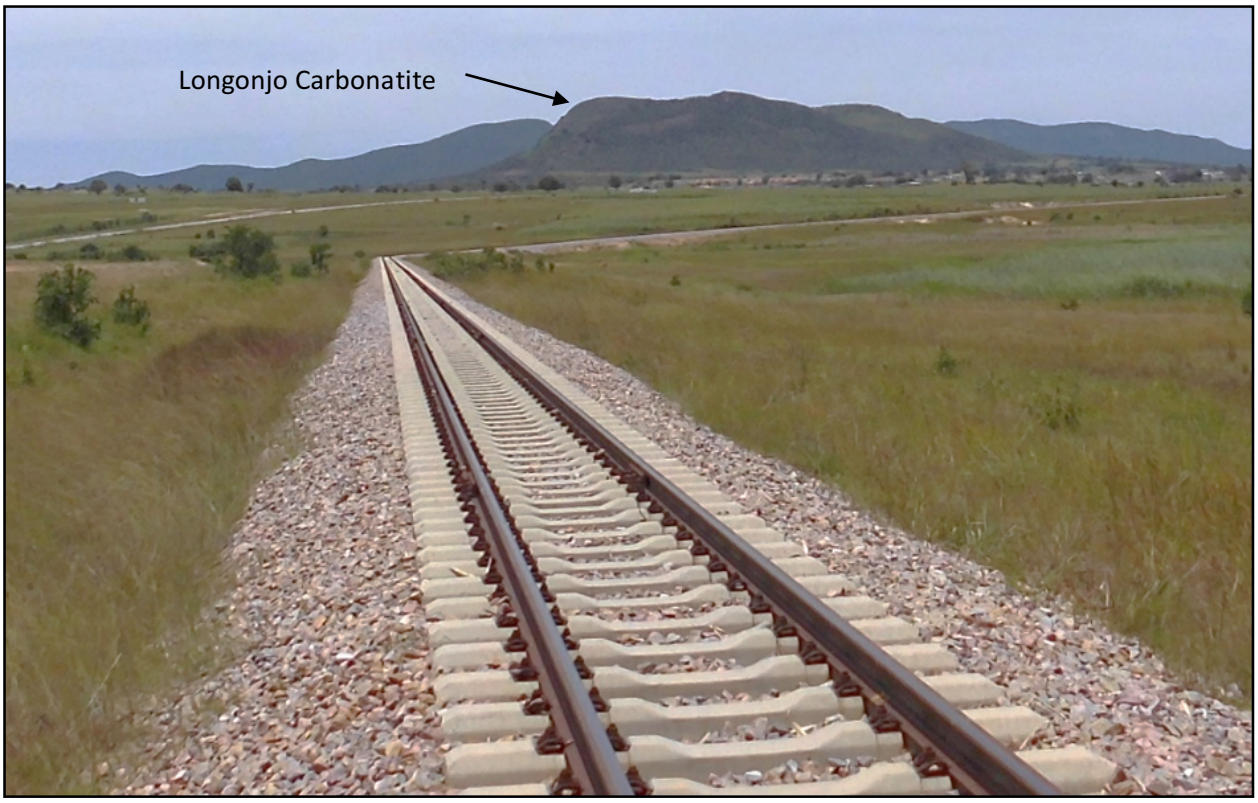

Figure 10: Rail line to Benguela Port and the hill of the Longonjo Carbonatite in background 4km to the south.

MAGNET METALS DEMAND

Demand for the Magnet Metals neodymium and praseodymium is predicted to surge as a result of their increasing and essential application in high powered permanent magnets that are important components of the motors for hybrid and electric vehicles ("**EVs**") as well as the turbines for green energy wind farms. The impending demand increase from these applications has contributed to the recent rebound in NdPr prices in addition to the China supply restrictions.

Legislative changes being implemented in China to control the rare earth industry, together with the expected surge in demand from EVs and wind turbines has led analysts to forecast a shortfall in NdPr supply and that China will become a net importer of NdPr within the next five to seven years.

Next Steps and Opportunities

The preliminary results of the ongoing Study supports the potential viability of the Project and the Company's strategy to proceed further along the pathway to development. Next stage study parameters are anticipated to include:

- Additional drilling programs targeting high grade extensions to the currently defined weathered zone rare earth mineralisation, which is open in all directions. Infill drilling will also be completed to assist, together with the metallurgical testwork, to upgrade the resource classification.

- Metallurgical testwork to confirm the identified processing route on weathered rare earth mineralisation from Longonjo. This program has already commenced and will define the design criteria and equipment selection for the processing plants.

- Tighten reagent supply and prices via engagement with reagent suppliers with the intent to accurately quantify and reduce the price of these major operating cost items.

- Commencement of environmental and social baseline surveys to progress the approvals process required for the Project.

- Engagement with logistics partners and providers to secure optimal transport solutions for reagent and product freight.

- Marketing studies and engagement with potential offtake customers for Longonjo's products.

- Commencement of discussions with potential strategic partners and finance providers to secure funding for the development of the Longonjo Project. The Company believes that it is in a strong position to engage in discussions about the future financing of the Project and the economic and technical validation to commence additional field and metallurgical test work programs. The Company will continue to keep the market informed of progress and results as they come to hand.

For further information, please contact:

Stephen Dobson
Executive Chairman
0414 166 560

Competent Persons Statements

The information in this release that relates to the MRE for the Project was first reported by the Company on 26 September 2017, and the Company confirms that it is not aware of any new information that materially affects the information included in the original announcement. The MRE is based on work conducted by Mrs Heather King who is a member of the South African Council for Natural Scientific Professions, a Recognised Professional Organisation included in the list posted by the ASX from time to time, and Mrs King is a Professional Natural Scientist (Pr. Sci. Nat.). Mrs King is a full time employee of Amec Foster Wheeler. Mrs Heather King has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mrs King consents to the inclusion in the report of the matters based on her information in the form and context in which it appears.

The information in this report that relates to metallurgical test work results is based on information compiled and / or reviewed by Mr Gavin Beer who is a Member of The Australasian Institute of Mining and Metallurgy and a Chartered Professional. Gavin Beer is the principal of Met-Chem Consulting Pty Limited, Rift Valley's lead metallurgical specialist and has sufficient experience relevant to the activity which he is undertaking to be recognized as competent to compile and report such information. Gavin Beer consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this report that relates to Geology and Exploration Results is based on information compiled and/or reviewed by David Hammond, who is a Member of The Australian Institute of Mining and Metallurgy. David Hammond is the Chief Operating Officer and a Director of the Company. He has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and the activity which he is undertaking to qualify as a Competent Person in terms of the 2012 Edition of the Australian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves. David Hammond consents to the inclusion in the report of the matters based on his information in the form and contest in which it appears.

Forward looking Statement

This release may include forward-looking statements, which may be identified by words such as "expects", anticipates, "believes", "projects" "plans" and similar expressions. These forward looking statements are based on Rift Valley's expectations and beliefs concerning future events. Forward looking statements are necessarily subject to risks, uncertainties and other factors, many of which are outside the control of Rift Valley, which could cause actual results to differ materially from such statements. There can be no assurance that forward-looking statements will prove to be correct. Rift Valley makes no undertaking to subsequently update or revise the forward-looking statements made in this release to reflect the circumstances or events after the date of the release.