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HALLGARTEN & COMPANY

Initiating Coverage

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Peak Resources (ASX: PEK)
Strategy: LONG

Key Metrics	
Price (AUD)	$0.072
12-Month Target Price (AUD)	$0.21
Upside to Target	192%
12mth hi-low	$0.056-0.099
Market Cap (AUD mn)	$29.82
Shares Outstanding (millions)	414.1
Fully Diluted (millions)	451.8

Peak Resources

Updated PFS puts African REEs in Picture

- + Updated Pre-Feasibility study has substantially reduced operating costs (down 18%)
- + It has also lowered Capex by 10% to $330mn
- + Sizeable Mineral Reserve giving prospect of multi-decade LOM
- + Plan to process in Europe holds prospect of getting a government behind part of the Capex
- + Weighty core shareholders in IFC and the Appian funds group
- ✘ The capex is targeted at around $330mn (which is in midfield of the surviving projects) and this will require the company to find an offtake partner
- ✘ The Rare Earth space is not out of the woods yet and is only as fragile, or as strong, as the reactivation in the broader mining markets

Into Africa

Africa captured the imagination of investors early in the REE boom with focus first being drawn to Great Western's attempted revival of the Steenkampskraal mine in South Africa and then later by a group of potential REE deposits in Namibia. On the Eastern side of the continent the potential of Tanzania and Malawi also became evident, in the latter case because of the long-time work by Japanese quasi-governmental entities in the country. The rest of Africa was largely deemed unprospective and has remained that way.

Peak's interest dates back to 2010 when it discovered the Ngualla deposit that had previously been examined in the 1980s for its phosphate potential. Peak was looking for REEs and found them as well as identifying the potential for Barite in the deposit. In the research note we shall look at the deposit and the recently updated PFS which came in with significantly improved operating costs and lower capex.

Ngualla

Peak's main asset is the Ngualla Rare Earth project that is located in southern Tanzania, some 147 kilometres from the city of Mbeya on the edge of the East African Rift Valley. The name 'Ngualla' comes from the Swahili word for 'bald head', which reflects the appearance of the hill, - mostly bare land in which there is no habitation, agriculture and very little wild life.

The project is centred upon the Ngualla Carbonatite and was prospected for phosphates in the 1980s by a joint Tanzanian-Canadian university team. The REE component is a relatively recent discovery with Peak having identified this in 2010. In the company's opinion it is one of the highest grade of the large undeveloped rare earth deposits.

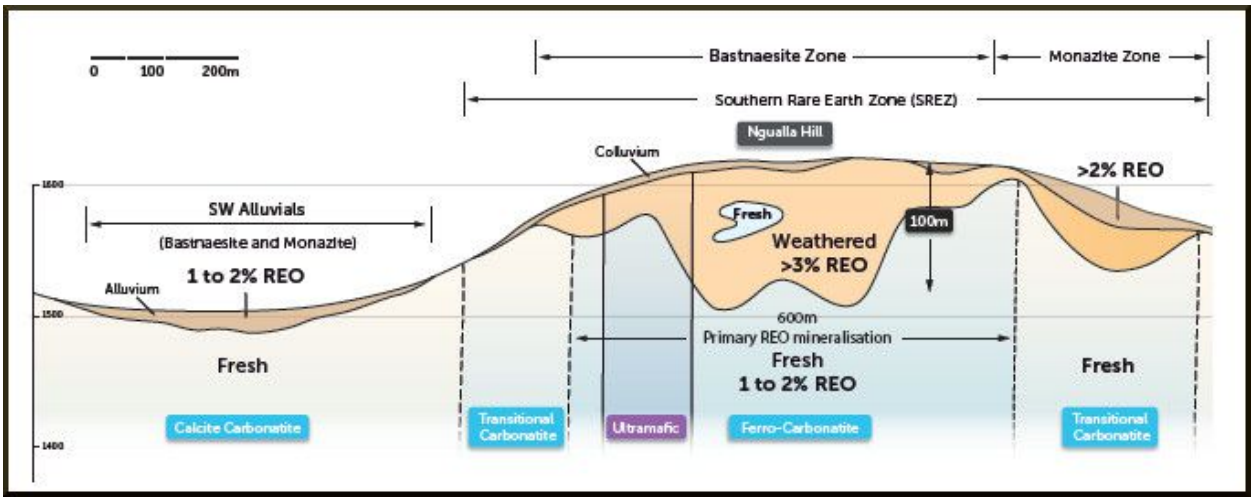
Ngualla is also host to widespread, high grade niobium-tantalum and phosphate mineralisation in the Northern Zone. This extensive mineralised zone is at an early stage of evaluation and offers potential upside opportunities for additional commodities from the project.

Geology

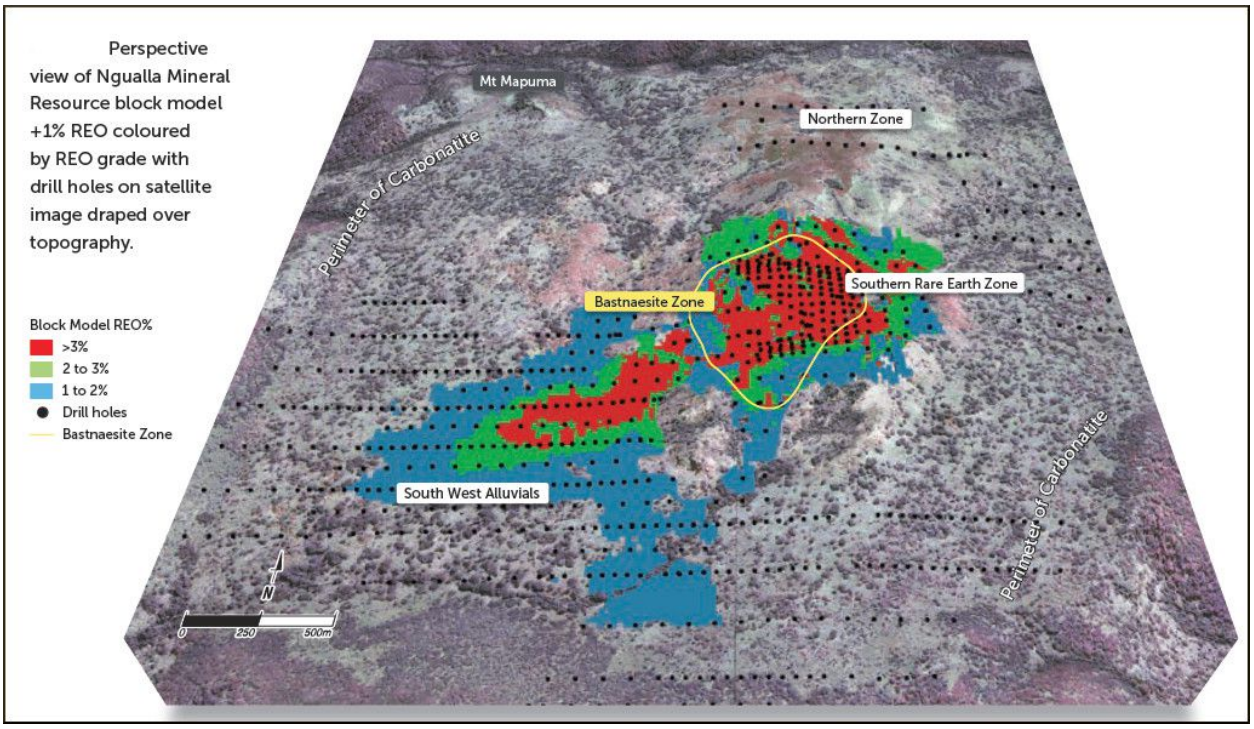
The billion year old Ngualla Carbonatite is a 4km x 3.5km pipe like intrusive complex of oval outline emplaced into Precambrian felsic volcanic, quartzites and gneissic rocks. A more resistant fenite alteration zone forms a ring of hills around the concentrically zoned carbonatite complex.

The Ngualla Carbonatite Complex comprises three distinct carbonatite phases and at least one contemporaneous phase of ultramafic magma. The predominant components of the complex are an annular calcite carbonatite and a later central body of ferroan dolomitic carbonatite. A third carbonatite phase in the form of cross-cutting dykes of dolomitic carbonatite occurs in the transition zone between these two carbonatite phases.

The outer calcite carbonatite is relatively phosphate-rich whereas the central ferroan dolomitic carbonatite is relatively barite–enriched (see cross-section below) and is the host to primary rare earth mineralisation. This gives another mineral to potentially exploit longer-term.



Rare earth mineralisation occurs over a 1km x 1km area within the Southern Rare Earth Zone (SREZ) and is enriched to 3% to 8% REO (total rare earth oxide) from surface to depths of up to 140m within the weathered zone. The primary ferroan dolomitic carbonatite is also mineralised at typical grades of 1% to 2.5% REO.



Interestingly the company's territory also includes Rare Earth mineralisation that occurs from surface in the SW Alluvials area within unconsolidated ferruginous gravels up to 30m thick that have been eroded from the SREZ.

The Resource, Reserve & Mining Inventory

A maiden Mineral Resource for Ngualla was announced in February 2012. This ranked it as the fifth largest rare earth deposit in the western world.

The maiden Ore Reserve estimate for the Ngualla Project was announced in March 2014 and was 20.7 million tonnes at 4.54% REO (total rare earth oxide plus yttrium). Ore Reserve classifications are shown below:

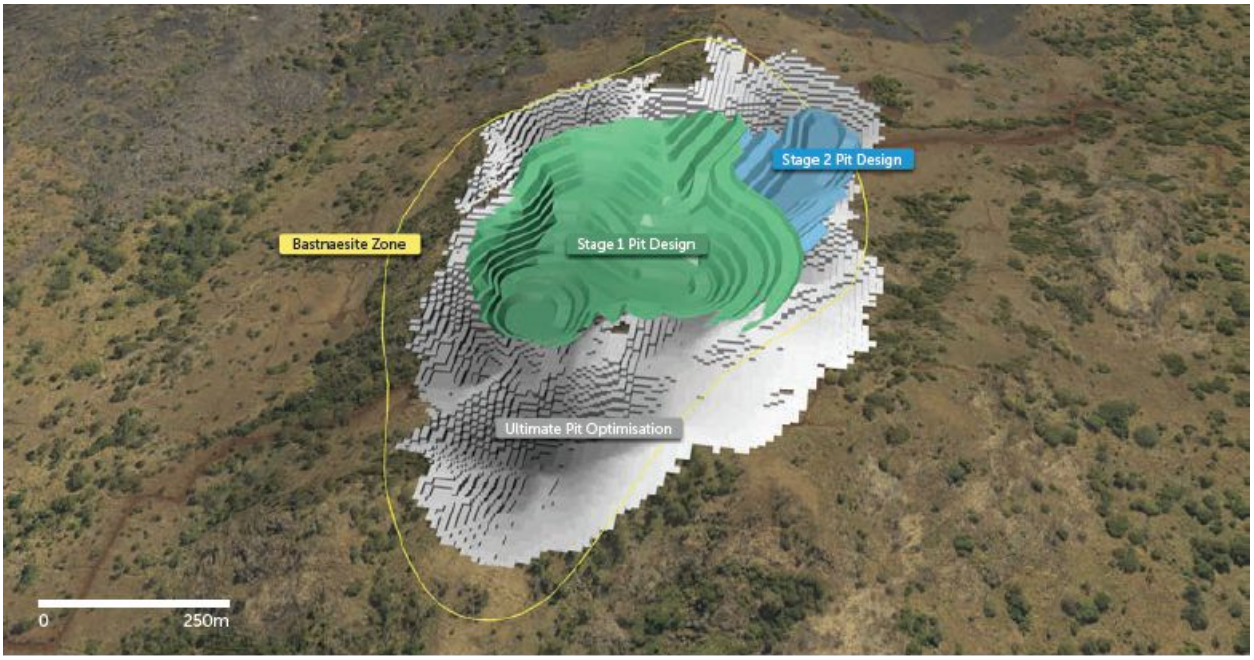
Ngualla Ore Reserve

Classification	Ore Tonnes (Mn t)	REO%	Contained REO Tonnes
Proved	18	4.53	817,000
Probable	2.7	4.62	124,000
Total	20.7	4.54	941,000

The JORC-compliant Ore Reserve was completed by independent mining consultants, Orelogy, based in Perth.

The latest total Mineral Resource estimate for the Ngualla Project using a 1% REO cut-off consists of 214.4 million tonnes at 2.15% REO, for 4,620,000 tonnes of contained REO. Included in the total Mineral Resource is the weathered Bastnaesite Zone which forms the core of the development study. At a 1% REO lower grade cut-off the Mineral Resource estimate for the weathered Bastnaesite Zone is 21.3 million tonnes at 4.75% REO, for 1,010,000 tonnes of contained REO.

The improved mine plan included a Mining Inventory which was essentially the material within the pit-shell outline.



This is shown below:

Ngualla Project Shell Inventory

Classification	Ore Tonnes (mns)	REO %	Contained REO (tonnes)
Measured	16.9	4.86%	822,000
Indicated	1.5	5.16%	77,000
Total	18.4	4.89%	899,000

As can be noted the grades are exceptionally high within the pit-shell to maximize upfront revenues. It's worth noting that, as well as being high-grade, Ngualla's rare earth mineralisation has a high proportion

of the important permanent magnet metals, Neodymium and Praseodymium, a significant advantage over other rare earth deposits.

In summary certain fundamental geological aspects offer distinct advantages for development over other rare earth projects. These include:

- large size of the deposit
- outcropping high grade mineralisation amenable to open cut mining with low strip ratios
- favourable mineralogy amenable to a relatively simple, low cost processing route
- extremely low uranium and thorium levels

Not unsurprisingly for a Bastnaesite deposit the Lanthanum and Cerium presence is notable. The Neodymium and Praseodymium components will be the main focus.

Ngualla - Distribition of REOs in the M&I

Oxide		% of total REO	Individual REO Grade %
Lanthanum	La2O3	27.25%	0.587%
Cerium	CeO2	48.23%	1.037%
Praseodymium	Pr6O11	4.81%	0.104%
Neodymium	Nd2O3	16.16%	0.348%
Samarium	Sm2O3	1.66%	0.036%
Europium	Eu2O3	0.34%	0.007%
Gadolinium	Gd2O3	0.75%	0.016%
Yttrium	Y2O3	0.47%	0.010%
Total		**100%**	**2.15%**

Premises of the Revised PFS

In this day and age of "rightsizing" of projects for the new exigencies the "updated PFS" is becoming a more regular feature. While that is one of Peak's motivations another is that it has rethought several of its key premises and changed it technological focus and as well as its processing location. A key element of the revised PFS involved a focus on the production of Neodymium and Praseodymium to meet demand for high powered permanent magnets.

With a focus on Neodymium and Praseodymium, the Study was based on extensive metallurgical flow sheet development work and pilot plant programs completed since delivery of the PFS The study also included engineering simulation and mass balance modelling conducted in conjunction with lead engineers, Amec Foster Wheeler.

The base-case scenario envisaged production of approximately 2,300 tonnes per annum of Neodymium and Praseodymium rare earth oxide, 250 tonnes per annum of mixed Samarium, Europium and Gadolinium Rare Earth carbonate and 5,900 tonnes per annum of Cerium/Lanthanum carbonate. Production forecasts are based on the weathered Bastnaesite Zone Mineral Resource estimate at a 1% Rare Earth Oxide lower grade cut-off (Measured and Indicated portions only).

The Process

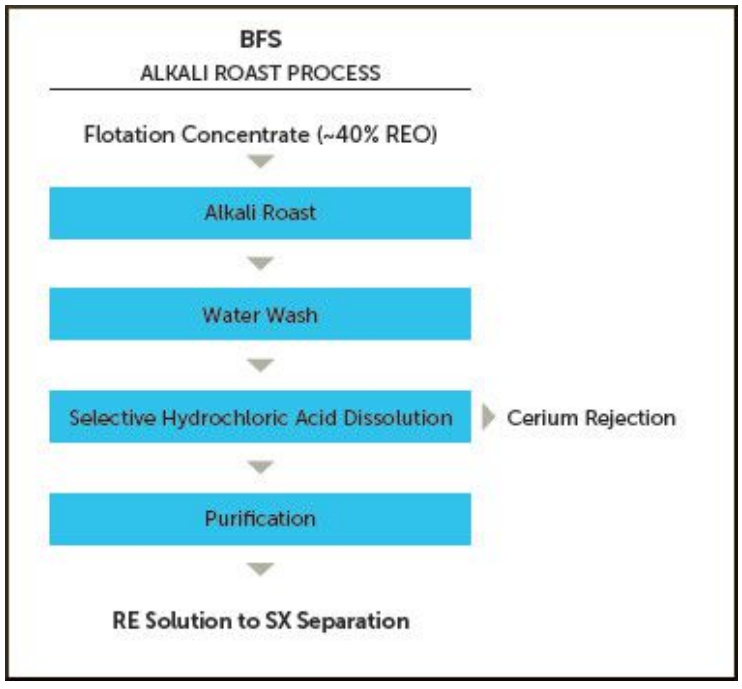
It would be useful to expand on the new process which the company sees as a key factor in reducing opex. The previous PFS leach recovery flowsheet was based on treating a medium grade (~17% REO) concentrate with a high content of acid soluble iron. A "Double Sulphate" route was employed to reject the dissolved iron whilst increasing the Rare Earth concentration in the feed to the solvent extraction (SX) separation feed solution. The new scenario employs Alkali Roasting which is a four-part process designed to eliminate the low value Cerium component early on. The Alkali Roast Process has been developed and optimised for Ngualla's concentrate at both Nagrom and ANSTO test facilities and has been demonstrated at bench scale as a viable flowsheet.

The key advantages are:

- Reduced plant capital cost through a smaller plant of modular design
- Lower operating costs due to reduced reagent consumption
- Focus on the extraction and recovery of the high value magnetic metals praseodymium and neodymium
- Significant reduction in the extraction of low value cerium, further reducing reagent costs in the leach recovery circuit and also the size of the downstream separation plant
- Minimises the extraction of deleterious elements thereby simplifying the purification process

The four phases are:

Alkali Roasting - The bastnaesite concentrate is mixed with a common alkali and roasted in a standard tube furnace at approximately 700°C for one hour. This is a dry, free flowing process in contrast to the "sticky" acid baking process employed for monazite or xenotime hosted rare earth concentrates.



Water Wash - The fluorine present in the bastnaesite, which would be problematic to downstream purification and separation processes, has been converted to a soluble form during the alkali roast process and is removed using a simple water wash. The filtered

solid is then suitable for selective leaching.

Selective Leaching - A low strength (<1%) hydrochloric acid leach selectively targets the desired high value rare earths (neodymium and praseodymium) whilst rejecting large amounts of the low value rare earth cerium along with gangue elements such as iron. The low leach temperature of 80°C and mild acidity means that low cost polymer tanks can be used both in the pilot plant and on a commercial scale.

Purification - Residual leach impurities are removed by precipitation using lime slurry. The waste precipitate is removed from the solution using simple filtration. The filtrate is depleted in cerium but high in neodymium and praseodymium and is suitable for direct feeding to the SX Separation circuit.

ANSTO has been selected for the piloting of approximately two tonnes of high grade (>40% REO) concentrate produced from the beneficiation pilot plant. The pilot plant setup at ANSTO is nearing completion.

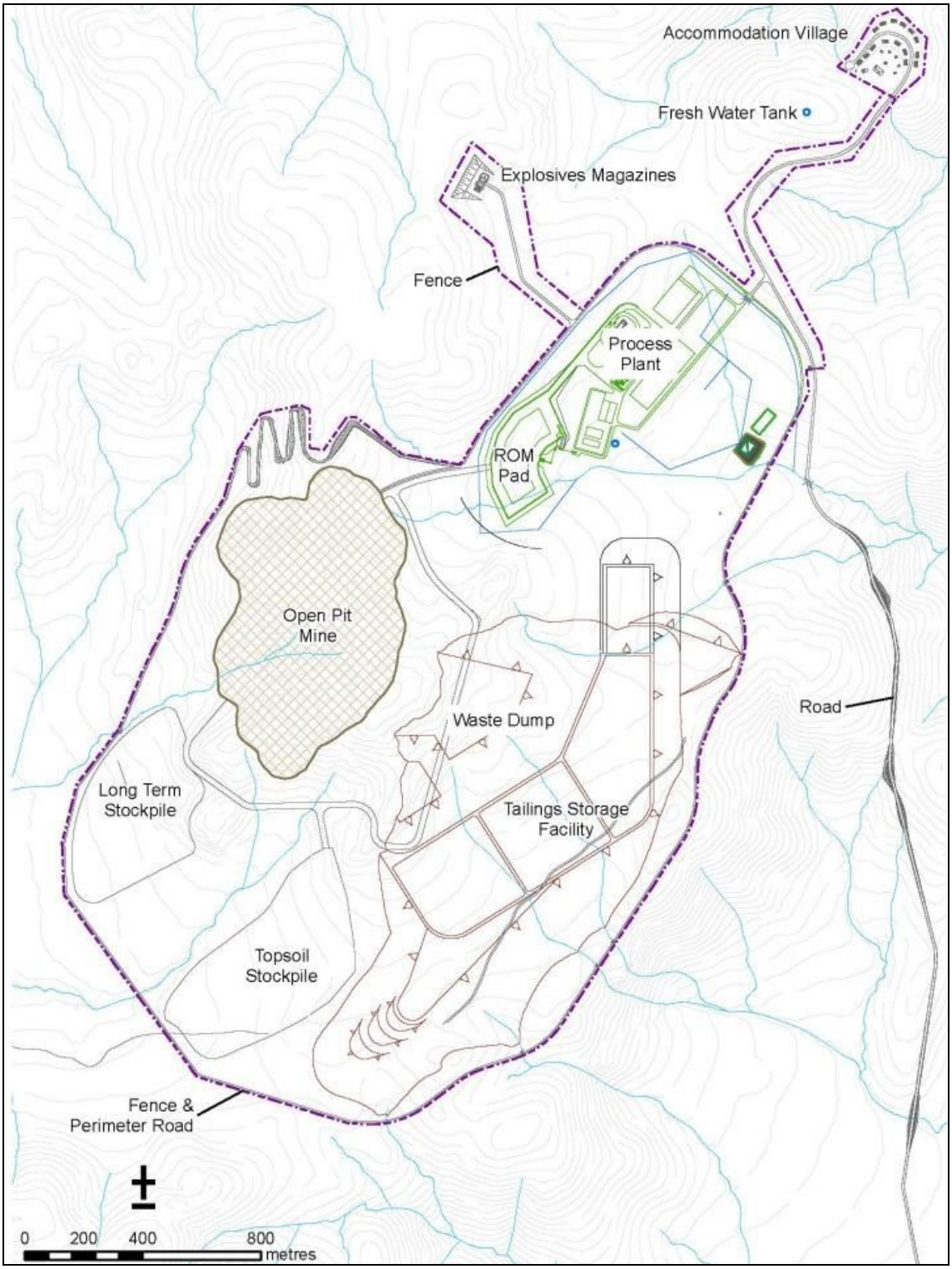
The Updated PFS

The Study has updated operating costs to US$97 million per annum, an 18% reduction (US$21 million per annum) compared with the PFS. The operating cost reductions have been achieved through optimisation of the flowchart using the aforementioned Alkali Roast process.

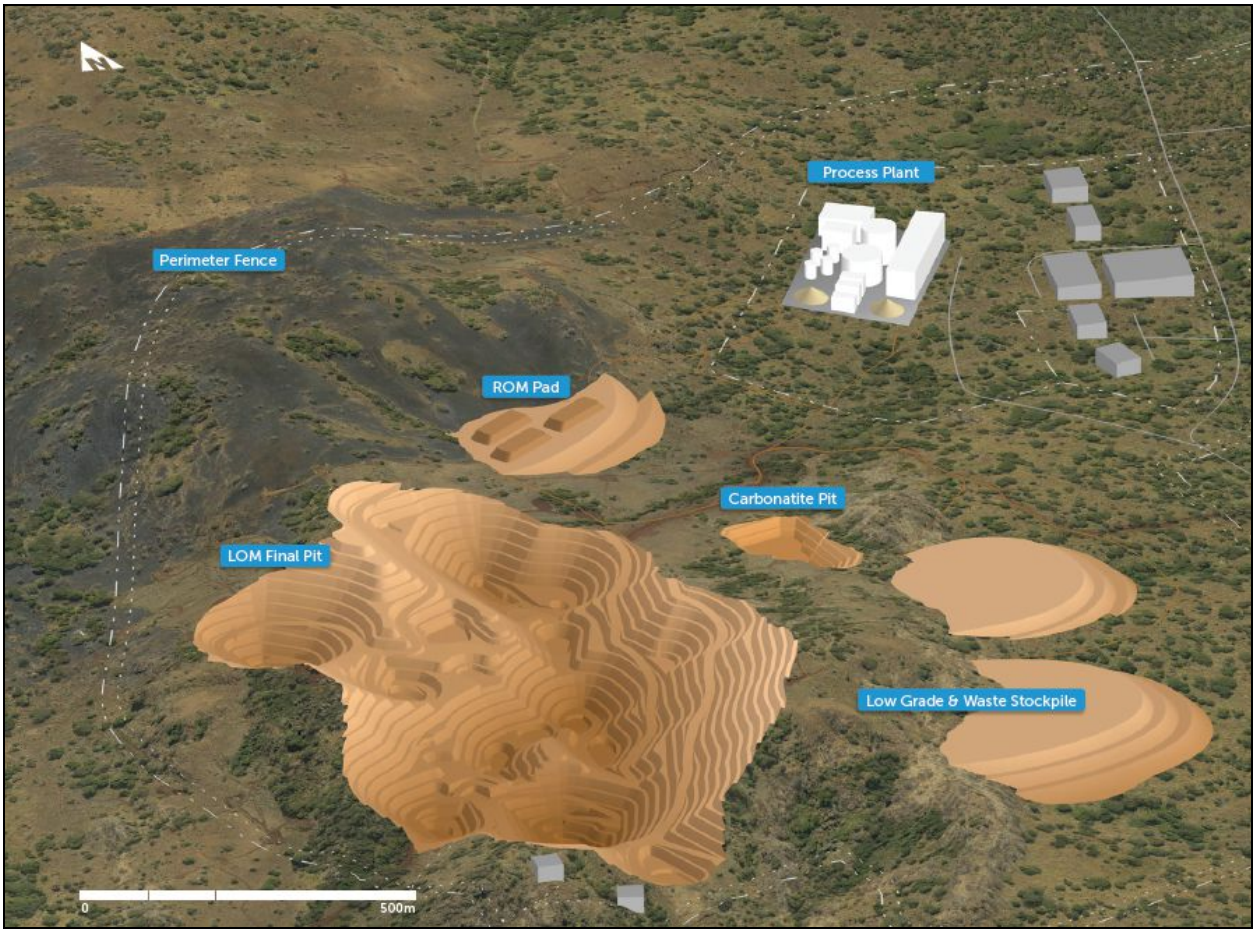
Capex was also reduced by just over 10% from $367mn to around $330mn. This still contains a mighty contingency factor which in these days of mining cost deflation would hopefully come down of be eliminated. Our back of the envelope estimate of how this might be apportioned looks like:

Rough Capex Breakdown	
Site Costs	$155mn
(of which Infrastructure)	$60mn
Processing Plant in Europe	$90mn
Contingencies & Owner Costs	$70mn

This is not the end to potential Capex reductions as a number of capital cost items currently included in the revised Capex estimate (Power Plant Gensets US$8mn, Accommodation Camp US$12mn and Mining Fleet US$10mn) will be reviewed as part of the Bankable Feasibility Study. The company claims that It is likely some or all of these capital costs could be moved into operating costs through Build, Own, Operate, Transfer (BOOT) style contracts. The site layout is shown below:


Accommodation Village
Fresh Water Tank
Explosives Magazines
Fence
Process Plant
ROM Pad
Open Pit Mine
Waste Dump
Road
Long Term Stockpile
Tailings Storage Facility
Topsoil Stockpile
Fence & Perimeter Road
0
200
400
800
metres

We gather the idea is that there will be some competition in European circles to achieve the plant siting in particular countries which should expedite the financing of that portion, leaving the company with the task of funding the minesite via offtakes. We would note the past history of the Japanese (JOGMEC) having funded REE exploration in East Africa. If one combines output from Ngualla with that of Lynas, then the Japanese would be pretty much free of Chinese dependence in the key magnet REOs.



Mining in Tanzania

After being a mining destination during colonial times, Tanzania then lapsed into obscurity during the long decades of quasi-socialist rule though the 1960s to 1980s. There had however always been an element of artisanal mining going on in the local populations.

The first of the large mining projects in Tanzania began producing gold approximately ten years ago and it is now the third largest gold producer in Africa. One of the key drivers behind the expansion of the Tanzanian gold mining sector is the prospective Greenstone Belts and in particular, the Lake Victoria Goldfields in the north of the country. This has led to a number of Australian and international corporations being attracted to the region including African Barrick, AngloGold Ashanti Limited and Resolute Mining Limited, all of whom have a significant presence in the country.

These days the country is regarded as one of the most politically stable in Africa with a population of over 40 million, with 80% living in rural areas.

The economy has progressed steadily since 1995 with agriculture, tourism and mining all performing well. Mining is the fastest growing sector in Tanzania in terms of contribution to GDP and exports. This growth was assisted by the World Bank and the introduction of investor-friendly mining laws. The Mining Act of 1998, subsequently amended in 2010, guarantees investor's security of tenure, provides transparency in issuance and administration of mineral rights.

Tanzania is a signatory of several multilateral and bilateral agreements on protection and promotion of foreign investment. Among other international agreements and membership, Tanzania is a member of Multilateral Investment Guarantee Agency (MIGA) and International Centre for Settlement of Investment Disputes (ICSID).

The "Other" Tanzanian REE Chaser

Our previous exposure to the REE scene was a meeting in New York back in the first flush of the REE boom with Montero Mining & Exploration, listed on the TSX-V.

Montero's property is the Wigu Hill licence, covering 142km^2, which is located 170 km south-west of Dar es Salaam, and 68 km south of Morogoro, the nearest major regional centre. The project area can be accessed by the all-weather Dar es Salaam-Marogoro road and it is 7 km from the TAZARA railway line with the nearest siding at Kisaki just 12 km away. The project is a light rare earth element deposit and a large carbonite complex with bastnaesite mineralization. Initial grab samples yielded results as high as 27.25% TREO. Montero released an initial NI 43-101 Inferred resource estimate of 3.3mn tonnes at 2.6% LREO, including 510,000 tonnes @ 4.4% LREO on 2 of 10 possible drill targets.

However the latest developments here are that the property has been effectively put in the freezer while the company runs after phosphates in South Africa. This leaves Tanzania exclusively as Peak's playground.

Rare Earths - that sometime object of desire

In 2009 the Rare Earth fervour swept in upon investors who were still grappling with the enthusiasm that had been generated around lithium. Indeed such was the confusion and blending of different nascent "supply crises" in investors' minds that we met with asset managers who were referring to lithium as a REE because no-one had differentiated the two totally different stories for them.

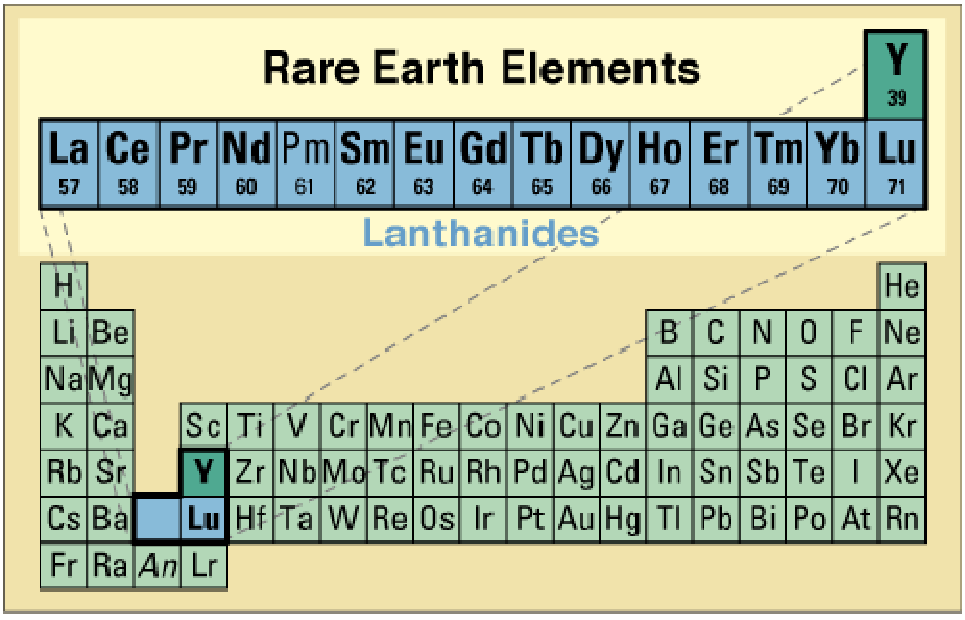
Enthusiasm amongst investors was admirable, but rather indiscriminate. The word "technology" has a special resonance for US investors and they charged at the REE space without really knowing what the technological issues were. Europium was being touted as something new when in fact it has been used in cathode ray tubes since colour television first debuted for the mass market. Pundits initially fanned the excitement with talk of hybrid auto engine usage but investors then failed to grasp that it was Neodymium and Praseodymium, two of the Light Rare Earths (LREE) that are used in the engines of hybrid autos rather than the HREE.

These high strength magnets are used in high efficiency electric motors, demand for which is growing strongly due to growing demand for electric vehicles and renewable energy infrastructure such as wind turbines. According to IMCOA the permanent magnet market represents 79% of the global rare earth market by value with Neodymium and Praseodymium representing approximately 85% of this market by value.

Some Orientation on REE

The Wikipedia article on REE became a heavily trafficked site in mid-2009 when the investment community first got wind of China's shutdown of REE exports. REE was definitely not a well-known subject even in geological circles. Most mineral testing didn't bother to measure these grades, except in the case of some uranium operators who saw it as a potential by-product.

The Rare Earth elements (or rare earth metals) are a collection of sixteen chemical elements in the periodic table, namely Yttrium, and the fifteen lanthanoids. Yttrium is considered a Rare Earths as it tends to occur in the same ore deposits as the lanthanoids and exhibit similar chemical properties.



In general the properties of the group are:

- Silvery-white metals that tarnish when exposed to air, thereby forming their oxides
- Burns easily in air; at elevated temperatures many rare earths ignite and burn vigorously
- Relatively soft metals; hardness increases with higher atomic numbers
- Many REE compounds fluoresce strongly under ultraviolet light
- Reacts with water to liberate hydrogen gas, slowly in cold/quickly upon heating
- Reacts with dilute acid to release hydrogen gas rapidly at room temperature
- Most REE compounds are strongly paramagnetic
- High melting and boiling points

The table below shows the metals and their prime applications at the current time.

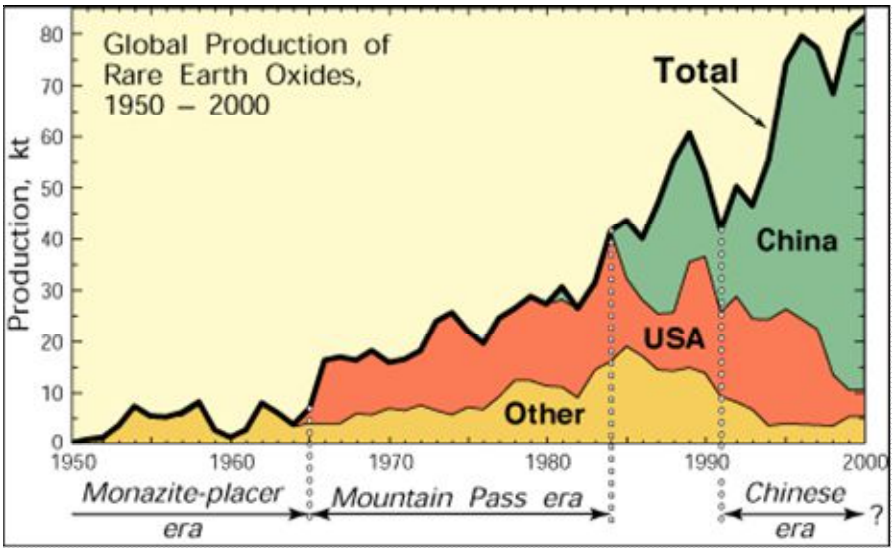
	Symbol	Name	Usage
57	La	Lanthanum	High refractive index glass, flint, hydrogen storage, battery-electrode, camera lens
58	Ce	Cerium	chemical oxidising agent, polishing powder, yellow colors in glass and ceramics, catalyst for Self-cleaning oven etc.
59	Pr	Praseodymium	Rare-earth magnets, laser, green colors in glass and ceramics, flint
60	Nd	Neodymium	Rare-earth magnets, laser, violet colors in glass and ceramics, ceramic capacitor
61	Pm	Promethium	Nuclear battery
62	Sm	Samarium	Rare-earth magnets, Laser, neutron capture, maser
63	Eu	Europium	Red and blue phosphors, laser, mercury-vapor lamp
64	Gd	Gadolinium	Rare-earth magnets, high refractive index glass or garnets, laser, x-ray tube, computer memory, neutron capture
65	Tb	Terbium	Green phosphors, laser, fluorescent lamp
66	Dy	Dysprosium	Rare-earth magnets, laser,
67	Ho	Holmium	Laser
68	Er	Erbium	Laser, vanadium steel
69	Tm	Thulium	
70	Yb	Ytterbium	Infrared Laser, chemical reducing agent
71	Lu	Lutetium	

The Light Rare Earths have been largely referred to as those from Lanthanum to Samarium, with the Heavy Rare Earths being the rest.

The principal sources of rare earth elements are the minerals bastnäsite, monazite, and loparite and the lateritic ion-adsorption clays. Despite their high relative abundance, rare earth minerals are more difficult to mine and extract than equivalent sources of transition metals (due in part to their similar chemical properties), making the rare earth elements relatively expensive. Their industrial use was very limited until efficient separation techniques were developed, such as ion exchange, fractional crystallization and liquid-liquid extraction during the late 1950s and early 1960s.

Shifting Dominance Trends

The chart below (sourced from the USGS) pretty much tells the history of REE mining in recent times. As the REE group did not have much commercial application until recent decades the mining was sporadic and scarcely profitable. From the late 19th century until the rise of the US as a producer the main source of those REE in greatest use was Brazil where monazite sands were the source from which it was extracted. To show how low-tech REE applications were for a long time the main use of the elements was employing them mainly in refractory materials of which the main one was ceramic "candles/mantles" for old-fashioned gas heating devices. Most of the other REE had little work done on them until the rising wave of new technologies started to appear in recent decades.



Source: USGS

The era of US dominance is described as the Mountain Pass Era that pretty much sums up the total dominance that this mine had over US production. While the chart shows this mine starting up in the mid-1960s, it actually came into production in 1952. It is clear that it also made up to 40% of global production during that period. It was owned for much of that time by Union Oil Co (later Unocal) and this eventually was taken over by Chevron. Molycorp was a metals subsidiary of these oil companies and was devoted to a wider range of metals than just REEs, including Niobium and Molybdenum.

The eclipse began from the mid-1980s when China effectively undercut the prices of most other producers and sent production spiraling down around the world to the current state of affairs. The Steenkampskraal mine in South Africa was shut down decades ago and the Mountain Pass operation was mothballed in 2002. Ex-CIS mines mainly in Kyrgyzstan and the Kola Peninsula in Russia shut after the breakdown of the old Soviet empire. The ongoing non-Chinese output was from sands in India, as a by-product of tin mining in Malaysia and some desultory production from the Brazilian national nuclear authority. At times in the more distant past, Sweden and Finland had been small producers.

Most reports put the Chinese market share in REE at 93-97% late last decade and this has only declined into the 85-90% range with the onset of Lynas and the now newly-mothballed Mountain Pass.

Processing

The already well-documented fact is that Rare Earths aren't rare, or at least Cerium and Lanthanum, the main components of the Lanthanide Series are not rare.
This leads us then to the processing. At the moment ore is mined and concentrated at or near the mines but the biggest value-added in the process is at the quasi-manufacturing phase. This is a phase which Neomaterials (now part of the shattered Molycorp monolith), Silmet (also part of Molycorp) and Solvay (having taken over Rhodia STER) dominated. During the mindless rush into the REE space most of the budgets we saw included capex costs of US$200mn or more for the concentrating and separating process, largely at the mine. This left us wondering whether if prices go up significantly then miners might be best to get their mines going and sell ore to on-processors who would bear (or have borne

already) the heaviest part of the capex. Peak has grappled with this issue by planning its refinery to be in Europe rather than at mine-site or in-country.

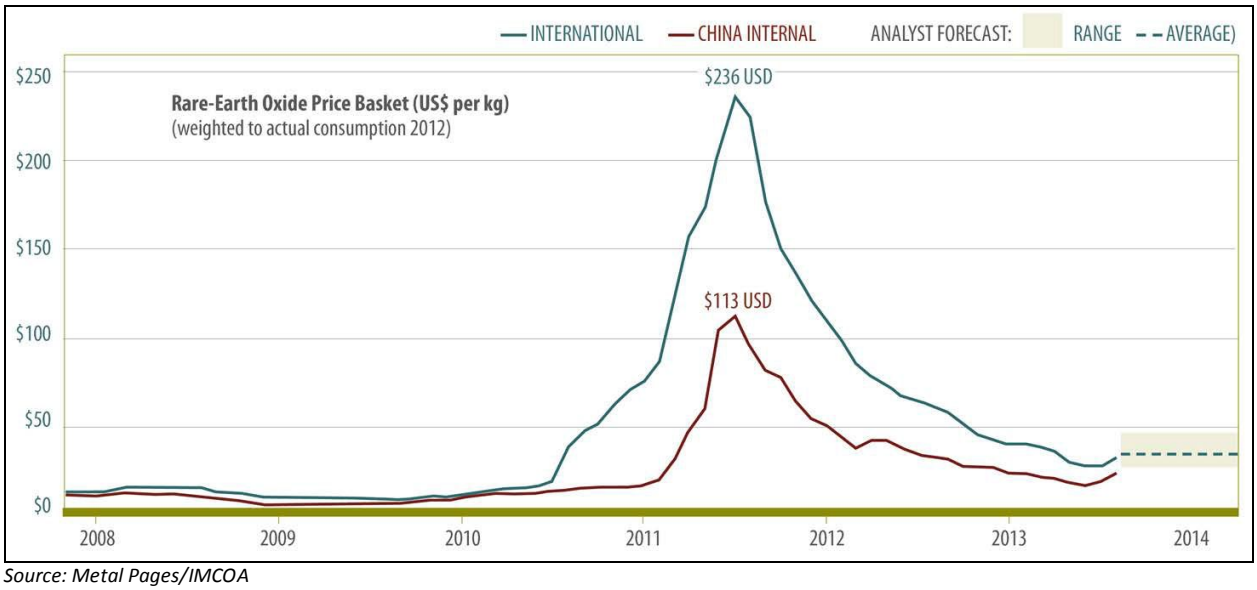
Our assertion is now proven that the race in REE was not necessarily going to those with the best grades but to those mines with the most realistic plans. We felt that a few sizeable mines reaching production around the world would make the going tougher for latecomers. We have seen almost all the front-runners fall out of contention due to their failure to make the jump to the mine-build phase.

Pricing trends

One does not need to be a conspiracy theorist to perceive that the rise and then plunge in Rare Earth prices between 2009 and 2011 was largely a manufactured event. In retrospect it could have been handled much better by the Chinese, and by their customers.

The legacy of the up-move, after decades of somnolence, was an increased awareness of the fragility and fickleness of supply, combined with a generalized feeling that strategically, no matter where prices were, the West would be better served by having a greater choice of non-Chinese sources. The strange thing about the rise was that Cerium and Lanthanum, two metals that were never in short supply joined in the price rise as much as the scarcer and more sought after REEs.

The price surge and then plunge is even better documented by the chart below:



Source: Metal Pages/IMCOA

There has been little improvement since 2014. We remain bullish though on virtually all the Rare Earths, except the ubiquitous Lanthanum and Cerium. These two really spoil the mix and the onset of production from Molycorp and Lynas, which were with sizeable components of these two elements, made the price appreciation prospects for them look grim and put the lid on many projects that are overly weighted towards these “mass-market” elements.

The table below shows the current spot prices are almost all trading at below the long-term average

price. Our outlook for 2018 is shown below.

Price Deck	Price Jul-16	Av. Long-Term	Hallgarten 2018
	$	$	$
Lanthanum	5.70	8.14	6.50
Cerium	1.80	5.81	2.50
Praesodymium	53.00	71.93	90.00
Neodymium	42.00	74.64	92.00
Samarium	2.00	9.33	8.00
Europium	91.00	956.41	230.00
Gadolinium	17.10	30.64	30.00
Terbium	402.00	1213.14	630.00
Dysprosium	216.00	684.35	393.00
Yttrium	5.00	29.25	13.00

Source: Argus Metals/Hallgarten

We believe that the time is ripe for the Chinese to tighten up the REE market and reset prices higher. Any tightening up by the Chinese indicates they want to sell at higher prices and they, of all players, are the ones best positioned to achieve that goal.

Management

When looking at the management make-up of miners, one can get a pretty good idea of which companies are serious and those that are less so. Advisory boards are all well and good and the REE space had more than its share of academic ballast but it's the people on the actual team that matter and give an indication if the company is serious about getting into production. For this reason we shall dwell at somewhat more length than we usually do on the management line-up at Peak.

The company's CEO is Darren Townsend, a mining engineer. He was President & CEO of TSXV listed Pacific Wildcat Resources Corp for six years where he was responsible for building a tantalum mine in Mozambique and completing the acquisition and resource drill out of a large Rare Earth/Niobium project in Kenya.

Prior to that he worked at De Grey Mining Ltd where he held the position of Managing Director from May 2006 to December 2007. Prior to that he was General Manager of Operations at Sons of Gwalia's (now Talison) Wodgina Tantalum operations and over a period of 7 years, led and managed the development of the mine to become the world's largest hard rock Tantalum operations. He also served as a director of De Grey Mining Ltd from May 2006 until November 2014 and Pacific Wildcat Resources Corp from July 2008 until January 2015.

The non-Executive Chairman is Peter Harold, who is an industrial chemist and has almost 30 years operational and corporate experience in the minerals industry specialising in financing, marketing,

operating and business development with a focus on building cash flow businesses. He was a founding director of Panoramic Resources Limited (formerly Sally Malay Mining) and has been responsible for managing the company through the development phase of the $65 million Savannah (formerly the Sally Malay) Nickel Project in the Kimberley region of WA and the acquisition of five other resource projects. He is currently the Managing Director of Panoramic Resources and Non-executive Director of Pacifico MInerals Limited. He has held previous senior roles with Spectrum Rare Earths (which we covered when it was TUC Resources), Alloy Resources, Shell Australia, Australian Consolidated Minerals, MPI Mines Limited and Normandy Mining Limited.

The technical director is Dave Hammond who has 26 years technical and management experience in Africa, Australia and South America. He has been Technical Director with Peak and the Ngualla Project for almost five years. Like Darren Townsend he was previously with De Grey Mining, where he was the Exploration Manager working on projects in the Pilbara and new project acquisitions globally. His previous experience also includes Exploration Manager for Sons of Gwalia in NE Goldfields of Western Australia and Project Geologist with Billiton/Gencor in South Africa and Zambia in a range of commodities and geological deposit styles.

Back in January in a move that signaled seriousness in moving to production, Rocky Smith was appointed as Chief Operating Officer – Development, effective from 5 January 2016. He was previously the Managing Director of Molycorp's Mountain Pass Rare Earth complex from July 2009 to August 2015. Essentially Peak has picked up one of the few people with current experience of practical, specialist and technical rare earth operations.

His skillsets span management, operations or engineering. Most recently he was responsible for operations at Molycorp's mining and processing site at Mountain Pass where he managed 500 employees and an annual operational budget of in excess of US$150 million. He recruited, developed and led the team responsible for the implementation of the redesigned and expanded Mountain Pass operation. His work included the establishment of management systems, debottlenecking and the delivery of expansion programs which boosted production capacity by 230% over three years.

Between 1989 and 2000 he worked for FMC Corp and between 2000 and 2008 for the Talc miner, Barretts Minerals.

Before that he worked with Eti Soda in Beypazari, Turkey as a technical expert on a soda ash plant start up in 2009. From 2000 to 2008 he was employed by Minerals Technology at their Barretts Minerals property (a talc mine) in Dillon, Montana, most of that time as the Plant Manager with responsibility for everything from the mine thru the facility. From 1989 thru 2000 he worked for FMC, first in gold at Paradise Peak as Chief Metallurgist and then Plant Superintendent, then he moved to the Green River site and again worked as Technical Superintendent for the site and then as an Operations Superintendent for one of their large natural soda ash plants.

In the range of metals dealt with he has also worked in uranium, vanadium, gallium, germanium and base metal sulphide flotation recovery. The number people on the planet, who are not Chinese, that know how to put together the soup to nuts of Rare Earths production can be numbered on one hand (and of someone whose lost a few fingers..) so Peak have bagged themselves someone with a "rare" skillset.

Also in the first few weeks of the New Year, Peak announced that Michael Prassas was joining as Executive General Manager - Sales, Marketing & Business Development. He had previously been Global Account Manager for Automotive Catalysis and Sales Manager - Rare Earth Systems for leading global chemical company Solvay. That Belgian group had acquired Rhodia-STER, the large French REE trading house (and chemical company) in 2011.

He was at Solvay from September 2012 where his primary responsibility was for Rare Earth Mixed Oxide sales in Europe and Africa. He over 20 years' experience in sales and marketing (also at OEM and Tom-Tom) with his focus being the negotiation of long-term supply contracts with global accounts and developing business relationships and offtake agreements with some of the world's largest automotive companies.

Clearly Peak's management are not relying on the failed "build it and they will come" school of thought, that so many others have posited, and want to make sure customers are lined up in advance for Ngualla's output.

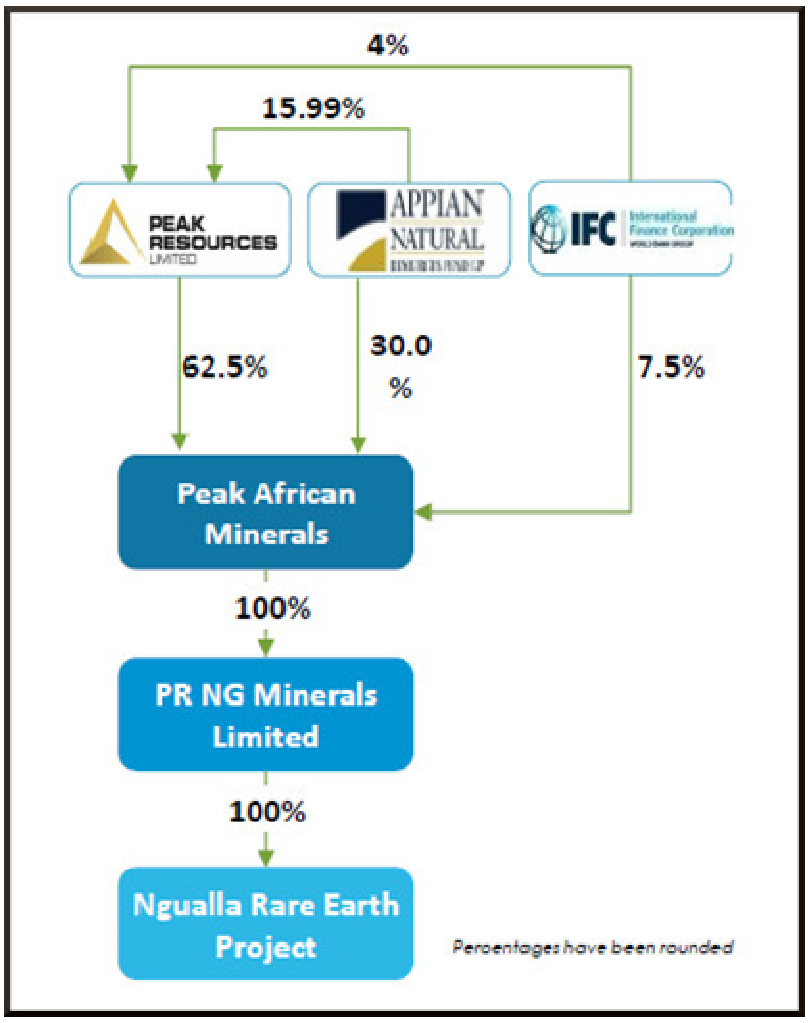
Financing and Partners

The winnowing of the Rare Earth space has meant that the few players standing are generally those that have found credible partners.

In the case of Peak, its strategic partnership is with the resources fund manager, Appian Natural Resources Fund LLP and the International Finance Corp. The latter in particular is quite a stamp of approval as this supranational investment fund backs very few mining ventures and has backed no Rare Earth ventures until now.

The first part of the relationship was put in place in February of 2015 as part of a transaction amounting to a total of AU$31.8mn. The goal of this was to finance the BFS. It was composed of:

- Stage 1: received AU$20mn
- Stage 2 & 3: to be received AU$11.8mn

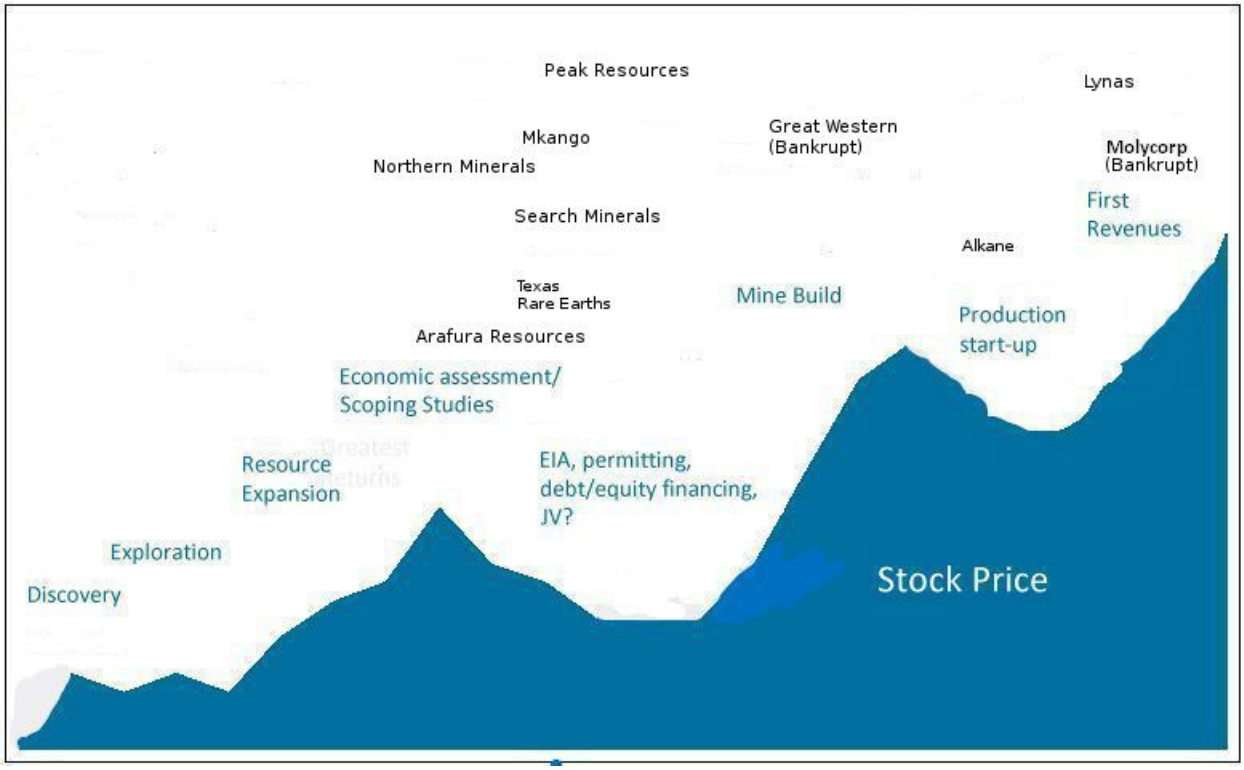


The transaction involves staged investments at different levels of the project structure with Appian and IFC are investing on an 80:20 basis.

The arrangement (as visualized in the chart to the right) is that these partners have a total stake of 19.99% in the master listed vehicle, Peak and then 37.5% in the operating subsidiary, PAM and on top of this a 2% Gross Smelter Royalty.

These investors have formed a partnership to invest in African projects with Peak being the lead target at this time. The other investment they have made together is the Burkian Faso gold play, Roxgold (ROG.v).

Peak sees the partners as collaborative and long-term. We might also add that having the IFC is somewhat of a guarantee that one might have more consideration from local administrations due to the organisation's international importance to emerging economies.



The REE Lifecycle

The left-side of this diagram has become totally denuded of junior explorers. The players that inhabited this area once rhapsodized about their eudialytes, bastnaesites and andesites but now play to empty rooms (if they play at all).

If the names shown on the chart make it to production then there will be NO NEED for any juniors to follow in their wake for a decade or two. We have been brutal in this latest version and purged the names of companies that have projects that are too large, have drifted into side activities or who have delisted or changed to some sort of listing that is essentially inaccessible to the main body of likely investors.

The survivors are interesting because time has created a dispersal of focus. What was once largely an exercise in *Where's Wally,* with hundreds (maybe) of lookalike companies with lookalike deposits pleading for attention, has become a far smaller group differentiated by strategy, location, mineralisation style and backers/supporters.

Risks

The potential pitfalls with the project might be:

- That the REE space fails to recover
- That financing for the processing plant in Europe might not be forthcoming
- That an offtaker is not brought on board
- Environmental concerns raise their head

The risks for Peak are the standard risks of the REE sub-sector, with no exotica thrown in, as the company's project is not particularly challenging metallurgically or topographically. If anything it has a head-start on similarly profiled companies because of its stronger shareholder base. As for the plant-siting in Europe, it is much more likely that funding for that location will be forthcoming than if the plant was located in-country (i.e. Tanzania).

Conclusion

In Rare Earth circles these days, it is not only the quality of a company's deposit that it is important, but also the quality of the company it keeps. Peak has bagged heavyweight shareholders in the form of Appian and the International Finance Corporation. This is a mighty endorsement in a mining sub-space where many have spoken of strategic investors but few have been able to actually get them onto their share registers. In Peak's case they are present at both the listed vehicle and the project levels.

Africa captured the imagination of investors early in the REE boom with focus first being drawn to Great Western's attempted revival of the Steenkampskraal mine in South Africa and then later by a group of potential REE deposits in Namibia. On the Eastern side of the continent the potential of Tanzania has become evident, with both Peak and Montero discovering deposits of magnitude. In Malawi, to the south, Mkango also made a substantial discovery.

Again, in Peak, we find a case of "hare & tortoise" with a below-the-radar REE hunter moving further down the road to the end goal, verily as some of the household names of the REE space fold up their tents for the last time having burned through enormous piles of money with nothing to show. Instead the company has spent the "downtime" of the last two years, proving up its resource and getting its

thoughts in order for a cogent production plan. With the team in place and the reformed capex plan in hand, the all-important funding phase begins.

We regard Peak Resources at this time as a **Long** opportunity with a twelve-month target price of AUD$0.21.

Important disclosures

I, Christopher Ecclestone, hereby certify that the views expressed in this research report accurately reflect my personal views about the subject securities and issuers. I also certify that no part of my compensation was, is, or will be, directly or indirectly, related to the specific recommendations or view expressed in this research report.

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