Peak Resources Ngualla Project

Indaba 2016



NGUALLA RARE EARTH PROJECT

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financing of additional capital requirements; cost of exploration and development programs; mining risks; community protests; risks associated with foreign operations; governmental and environmental regulation; the volatility of the Company's stock price; and risks associated with the Company's byproduct metal derivative strategies. For a more detailed discussion of such risks and other factors that may affect the Company's ability to achieve the expectations set forth in the forward looking statements contained in this document, see the Company's Annual Report for the year ended 30 June 2014, as well as the Company's other filings with the Australian Securities Exchange and the U.S. Securities and Exchange Commission. The Company does not intend, and does not assume any obligation, to update these forward-looking statements and information.

Competent Person Statements

The information in this report that relates to infrastructure, project execution and cost estimating is based on and fairly represents information compiled and / or reviewed by Lucas Stanfield who is a Member of the Australian Institute of Mining and Metallurgy. Lucas Stanfield is the Chief Development Officer for Peak Resources Limited and is a Mining Engineer with sufficient experience relevant to the activity which he is undertaking to be recognized as competent to compile and report such information. Lucas Stanfield 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 the announcement that related to Ore Reserves and estimated mine operating costs was based on and fairly represents information compiled by Mr Ryan Locke, a Competent Person who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Locke is a Principal Planner and is employed by Orelogy Pty Ltd, an independent consultant to Peak Resources. Mr Locke has sufficient experience that is relevant to the style of mineralization 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'. Ryan Locke consents to the inclusion in the report of the maters based on his information in the form and context in which it appears.

The information in this report that relates to Metallurgical Test Work Results based on and fairly represents information compiled and / or reviewed by Gavin Beer who is a Member of The Australasian Institute of Mining and Metallurgy and a Chartered Professional. Gavin Beer is a Consulting Metallurgist with 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 Mineral Resources is based on and fairly represents information compiled by Robert Spiers, who is a member of The Australasian Institute of Geoscientists. Robert Spiers is an employee of geological consultants H&S Consultants Pty Ltd. Robert Spiers 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 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Robert Spiers 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 Exploration Results is based on and fairly represents 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 2012 Edition of the 'Australasian Institute of Reserves'. 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 2012 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.

The next generation rare earth producer

- Differentiated from current rare earth producers and developers by distinctly different development approach
- Products strongly aligned with the high value, high growth Magnet Metal rare earth market
- Production profile suitably sized for entry to the market at only 5% of global supply
- Quality deposit and demonstrated process supports Capex that is substantially less than the Western producers
- Small modular plant construction with expansion ability
- Simpler and lower cost processing
- No radioactivity issues
- Very large, high grade deposit will support a long life project
- Well balanced to become the key strategic, long term, low cost producer of Magnet Metal rare earths



The material assumptions underpinning the production target and the economic assessment were first disclosed in the announcement dated 19 March 2014 "Peak Resources Delivers Robust PFS for Ngualla" continue to apply and have not materially changed.

PEAK

OURCES



Peak Supported by strong drivers for Magnet Metal Rare Earths

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Rare Earth Market Value by Sector





Source: IMCOA (2014, Value is calculated using China FOB and Chinese Domestic Pricing.

Magnet Demand Drivers



- Critical, non-substitutable input for lightweight high strength permanent magnets
- Exposure to green technologies (growth segment)
 - Weight reduction becoming increasingly important for the automotive industry
 - Size/efficiency of magnets key for portable electronics (smart phones)

					OVO	-	
	Standard Automotive	Wind Turbines	Electronic	Electric and hybrid vehicles	Electric Bikes	Other	Total
Magnet Use	Motors, actuators, sensors	Gear free turbines	Voice coils, hard drives	Main motor	Motors	Air conditioning, MRI, Motors	-
Share of market	c.35%	c.20%	c.18%	c.10%	c.6%	c.11%	\$2.3bn
Intensity of use	1kg / Car	550kg / MW	10g / Hard drive	2-10kg / Car	300g / Bike	-	-
Substitution risk	Low (Weight reduction key)	Medium (Electromagnets early stage R&D)	Low (Weight reduction key)	Medium (Induction motors under high price)	Low (Weight reduction key)	-	Low risk of substitution in key markets
Recycling	Low (long life cycle)	Medium (High cost but long life cycle)	Low (Early stage pilot plants)	Medium (High cost but long life cycle)	Medium (High cost but long life cycle)	-	Medium
Growth (CAGR 14-20)	4% (increasing intensity of use)	15%	2%	15%	7%	c.5%	<u>7%</u>

Adapted from Industrial Minerals Company of Australia 2015

NGUALLA RARE EARTH PROJECT



Ngualla: Quality, Scale, Deliverability

NGUALLA RARE EARTH PROJECT

Ngualla – the next major rare earth mine

Highlights:

- Location: Tanzania
- Geology: Weathered bastnaesite
- High quality Ore Reserve: 20.7Mt @ 4.54% REO
- Mining: Low strip ratio open-pit
- Processing: Proven hydro-met route
- Pre Feasibility Study (PFS) Low capex: US\$367m (30% contingency)
- PFS Low cost: US\$11.74/kg REO
- Partners bring African development expertise and de-risk the project
- AUS\$29.7m* BFS program

* Using a US\$ to AU\$ of 0.7222 (RBA rate 22 December 2015). Announcement 30 December 2015

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High quality Ore Reserve



- Well defined (40 x 50m spacing, depth of 120m)
- Mineral Resource is based on over 40,000m of drilling (781 holes)
- Wide consistent zone; highest grade at surface
- Open pit mining with low strip
- Ore Reserve only 22% of Mineral Resource

Ore Reserve classification⁽¹⁾

	Ore Tonnes (Mt)	REO % (3.0% cut-off)	Contained REO (kt)
Proved	18.0	4.53	817
Probable	2.7	4.62	124
Total	20.7	4.54	941

Continuous, wide high-grade zone



1. A 3% cut off is applied. Reported according to the JORC Code and Guidelines in ASX Announcement 'Ngualla Rare Earth Project - Maiden Ore Reserve' of 19 March 2014. See Slide 2 for competent person's statement



Absolute Grade and Nd-Pr grade is key REO value driver



Key considerations:

- Grade and rare earth mix (value)
- Sizing (ability to absorb supply)

Ngualla:

- Highest proportion of Nd-Pr relative to peers
- Low radiation levels in deposit
- Absolute grade: Leading developer
- ✓ High cut-off grade: 3.0% REO
- ✓ Sizing: Less of issue Nd-Pr undersupply



Source: Company Reports and Technology Metals Research

Bubble size : Mineral Resources Tonnes (M+I) except for 'E' which includes 5.3Mt of inferred resources as no M&I resource defined

Mineralogy key to cost and risk

PEAK RESOURCES

- Key considerations:
 - Geology and process implications
 - Acid consumption (opex)
 - Radioactivity
- Ngualla:
 - Weathered bastnaesite favourable mineralogy
 - Leached of key acid consuming minerals
 - Leached of carbonates lowering reagent consumption and processing cost
 - Enabling 3 stage, proven metallurgical process
 - Low radio nuclei levels in deposit



Diamond Core NDD006:

Weathered iron oxide –barite carbonatite containing high grade mineralisation, **3 to 8% REO**

Amenable to simple acid leach as majority of carbonate minerals removed through weathering

Sharp karstic surface contact between weathered and fresh carbonatite.

Enabling 3 stage, proven metallurgical process

Fresh carbonatite rock containing primary mineralisation **1 to 2.5% REO**

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Simpler Mineralogy drives Simpler Process

Process Overview





Image: Commissioning of the Barite Prefloat Circuit (2015)

Beneficiation (Pilot Plant Complete)





BENEFITS OF A HIGHER GRADE CONCENTRATE REDUCTIONS IN:

- Concentrate transport costs
- Leach recovery plant size
- / Leach plant capital costs
- Acid consumption
- Leach plant operating costs

- Standard crushing, milling and flotation equipment
- Concentrate grades ~ 40% REO
- Greater than 90% mass rejection

Leach Recovery (Pilot Plant Commencing Quarter 1 2016)



- Reduces leach plant size and reagent consumption
- Acid consuming iron content halved
- Selective leaching has potential to:
 - Require less acid
 - Reduce gangue dissolution
 - Reject cerium
- Potential for Capex and Opex reductions

- Low tonnage Approx 5 tonnes per hour of feed to circuit – drives lower capex and opex
- Optimisation in progress

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Simplified Separation (SX Pilot Plant Complete)







Engineering Underway

Ngualla Indicative Site Layout















Image: RC drilling on trial grade control grid, Ngualla, August 2015



Image: Water intersected ion drill hole MWB008 with flow estimated at over 10L/s, Ngualla, September 2015



Strong Strategic Partners

Appian: A leading and differentiated mining investment firm





A differentiated business model

- Patient long-term investor, focused on project development and value growth
- Deep understanding of mine development and investment: Over 200 years of industry experience
- Tier-1 standards: Established by Anglo American, Rio Tinto, JPMorgan and Bain Capital individuals
- Experienced and complementary team: built and managed 60+ operating mines (30 in Africa) and acted on ~US\$200 billion of mining corporate development transactions

A collaborative cornerstone investor

- Focused on achieving technical milestones and long term value creation
- Ability to follow-on: \$375M fund with access to additional co-investment capital

Peak value add

- Access to world-class technical and corporate finance team to support management
- Industry relationships: team build-out, financing, offtake

IFC's Value-Add in Mining



Long-Term Competitive Financing	Regional Knowledge	Global Mining Expertise	Country Risk Mitigation	Environmental & Social Risk Management	Advisory Services
 Equity Fixed & Floating Rates, Local Currencies Up to 15 Year Loan Maturity Catalyst for Other Investors and Lenders Capital Mobilization 	 Extensive Local Office Network Local Transaction Experience World Bank Synergies 	 50+ Years of Sector Experience Greenfield Expansion/ Modernization Corporate Strategy Access to International Investors Technical Advice 	 Government Relations World Bank Synergies Withholding Tax Benefit 	 Advice on Environmental & Social Best Practices Equator Principles Modeled after IFC Standards Local Consultation & Disclosure 	 Local Supplier Development Local Economic Development Community Development Funding Financial Valuation Tool Resource Efficiency

To date IFC have invested over US \$400M in Tanzania

Rapidly de-risking Ngualla



Key medium term catalysts:

2014	2015	2016	2017	2018-19
 Positive PFS completed Proof of processing Large, high grade Ore Reserve Beneficiation breakthrough Optimisation underway BFS financing secured with long- term partners: Appian and the IFC 	 Team expansion Appointment of BFS lead Engineering firm Beneficiation pilot plant Advancement of ESIA Drilling Program Optimisation studies: Location of downstream plant Stockpiling of Cerium Beneficiation improvement Capital cost 	 Results from pilot plant test work Update project economics Financing discussions Advance offtake discussions Advance engineering Permitting Complete BFS 	 Construction decision Construction Financing Detailed Engineering Procurement Commence Construction 	 Complete Construction Plant commissioning and first production

Why Peak Resources?



The most attractive project...



...at a low valuation



* Using a US\$ to AU\$ of 0.7222 (RBA rate 22 December 2015). Announcement 30 December 2015



Appendices

Board of Directors- Depth of expertise and skills



Peter Harold Non-Executive Chairman	 Chemist with almost 30 years operational and corporate experience in the minerals industry specialising in financing, marketing and business development. Currently Managing Director of Panoramic Resources. Previous senior roles with Spectrum Rare Earths, Shell Australia, Australian Consolidated Minerals Limited and Normandy Mining Limited
Darren Townsend Managing Director	 Mining Engineer with 20 years mining and corporate experience Extensive experience in managing ASX and TSX listed companies East African experience incl. development of tantalum mine in Mozambique and resource drill out and permitting a niobium project in Kenya
Dave Hammond Technical Director	 Geologist with 25+ years technical and management experience in Africa and Australia Former Exploration Manager with De Grey Mining Limited and Sons of Gwalia. Previously with Billiton/Gencor in Africa MSc in Mineral Exploration, DIC, BSc (Hons) Geology
Jonathan Murray Non-Executive Director	 Partner at independent corporate law firm Steinepreis Paganin Specialising in equity capital raisings, acquisitions and divestments, governance and corporate compliance Bachelor of Law and Commerce (majoring in accounting)
John Jetter Non-Executive Director	 Extensive international finance and M&A experience Former Managing Director, CEO and head of investment banking of JP Morgan in Germany and Austria, and a member of the European Advisory Council of JP Morgan in London Experience in negotiating and executing rare earth off-take agreements
Robin Mills Non-Executive Director	 Global mining career of 40+ years as an engineer, operating manager, former Global Technical Director of De Beers and Director of Mining for Anglo Platinum. Developed and managed 30+ successful mines globally over a range of commodities Senior partner in the London based APPIAN Capital Advisory LLP

Management- Depth of expertise and skills



Rocky Smith Chief Operating Officer- Development	 Chemist with over 35 years' operations and senior management experience in the mineral processing/ chemical engineering sector Previously Managing Director of Molycop's Mountain Pass Rare Earth Complex from 2009 to 2015. Achievements include the delivery of successful expansions resulting in a 230% increase in production capacity over three years as well as managing of operation budget in excess of US\$150 million.
Michael Prassas Executive General Manager- Sales, Marketing & Business Development	 15 years' in experience in sales and business development Former Global Account Manager Automotive Catalysis /Sales Manager of Rare Earth Systems for Solvay/Rhodia where he was responsible for sales of Rare Earth Mixed Oxides in Europe and Africa. Management skills include budget responsibility, project management, building stakeholder relationships and competing priorities in deadline-driven environments
Gavin Beer General Manager- Metallurgy	 Metallurgist with 25+ years' technical and operational experience in the mining industry. Former Manager of Metallurgy for Arafura Resources Has been responsible for the flow sheet development of eight rare earth projects worldwide including Peak's Ngualla Project.



Lucas Stanfield General Manager- Projects

- Mining Engineer with over 15 years ' experience in mining and project management in Australia, Africa & the United Kingdom
- Previously with Emerson Stewart , Lucas has delivered a number of Scoping and Feasibility studies as well as developed expansion strategies, long-term business plans and operating productivity studies focussed on mining industry.

Capital structure

Key statistics

- Number of shares (undiluted): 414.4m
- Share price: A\$0.072 as at 28 January 2016
- 52 week range: A\$0.099-0.056
- Market cap: A\$29.84m at 28 January 2016
- As of December 31st 2015 Cash: A\$2.8m (Peak Resources only). Peak African Minerals (PAM) ~ US\$1.9m (Peak 87.5% equity) PAM funding ~A\$3.2m agreed subject to regulatory approval
- Unlisted Performance Rights: 8m*
- Unlisted Options outstanding: 29.4m* (exercise prices A\$0.10-A\$0.55)
 * subject to performance & vesting criteria

Share price performance







Transaction with Appian & IFC



Overview

- Total transaction size: A\$29.7m
- Stage 1: received A\$20.3m
- Stage 2 & 3: to be received A\$9.4m
- Appian and IFC to invest on a 80:20 basis
- Total: 19.99% in ASX:PEK, 37.5% in PAM and has a 2% Gross Smelter Royalty *

Appian and IFC

- Collaborative long-term partners
- Provides financial certainty
- Enables 100% focus on project development and value growth
- Deep operating expertise, including 30+ mines built and managed in Africa
- Tier-one social and environmental practices
- US\$ components of the transaction converted at exchange rate of A\$1=US\$0.7222 (RBA rate 22 December 2015)

Investment structure*



Percentages have been rounded

* Post completion of the full 3 stage investment, See 27 July 2015 ASX release titled "Closing of BFS Financing with Appian and IFC"

JORC Mineral Resource estimates



Classification of Mineral Resources for the Bastnaesite Zone weathered mineralisation at a 3.0% cut-off grade

	Resource Category	Tonnage (Mt)	REO (%)*	Contained REO (kt)
	Measured	19.0	4.53	840
2.0% PEO	Indicated	2.9	4.62	140
Cut-off	Inferred	0.1	4.10	4
	Total	21.0	4.54	982

Classification of Mineral Resources for the Total Ngualla Project at a 1.0% REO cut off grade

	JORC Resource Category	Tonnage (Mt)	REO (%)*	Contained REO (kt)
	Measured	81	2.66	2,100
1.0% REO	Indicated	94	2.02	1,900
Cut-off	Inferred	20	1.83	380
	Total	195	2.26	4,400

* REO (%) includes all the lanthanide elements plus yttrium oxides. Figures above may not sum precisely due to rounding. The number of significant figures does not imply an added level of precision.

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PFS flowsheet and cost breakdown





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