



## Press Release

### **NAMIBIA RARE EARTHS FILES 43-101 PRELIMINARY ECONOMIC ASSESSMENT REPORT FOR HEAVY RARE EARTH MINE AT LOFDAL**

- **Capital costs of US\$163M for 2,500 tpd open pit mine**
- **Annual production of 1,500 t REO over 7 year LOM**
- **After tax cumulative cash flow of US\$259M**
- **After tax NPV<sub>10%</sub> of US\$148M**
- **After tax IRR of 42% with payback in 1.7 years**
- **Recommended to move to prefeasibility stage and extend LOM**

**Halifax, Nova Scotia November 14, 2014** - Namibia Rare Earths Inc. ("Namibia Rare Earths" or the "Company") (TSX:NRE) (OTCQX:NMREF) is pleased to announce that it has filed a National Instrument 43-101 ("NI 43-101") technical report titled "Preliminary Economic Assessment on the Lofdal Rare Earths Project Namibia" (the "PEA"). The effective date of the PEA is October 1, 2014. The MDM Group is the principal author of the PEA under the supervision of David S. Dodd, B. Sc (Hon) FSAIMM. Other contributing authors were Peter Roy Siegfried, MAusIMM (CP Geology) and Michael R. Hall, B.Sc (Hons), MBA, MAusIMM, Pr.Sci.Nat, MGSSA both of the MSA Group and Patrick Hannon, M.A.SC., P. Eng. and William Douglas Roy, M.A.Sc., P.Eng. both of MineTech International Limited. The PEA has been filed on SEDAR ([www.sedar.com](http://www.sedar.com)).

The PEA concludes that the Project currently has the potential to produce an average of 1,500 tonnes per annum of separated rare earth oxides ("REO") which would generate after tax cumulative cash flow of US\$259M with a net present value<sub>10%</sub> ("NPV") of US\$148M and an internal rate of return ("IRR") of 42%. The PEA indicates that there is considerable potential to expand the current mineral resource and recommends that additional drilling be carried out to provide for an extended mine life in conjunction with a six month Prefeasibility Study ("PFS") program. Financial sensitivities of the Project are summarized in Table 1, financial highlights in Table 2, mineral resource estimates in Table 3, capital costs in Table 4, operating costs in Table 5 and REO pricing in Table 6.

**TABLE 1 - Financial Sensitivities Summary**

<b>Discount Rate (%)</b>	<b>Pre-Tax NPV (US\$)</b>	<b>After Tax NPV (US\$)</b>
8	266,192,000	166,143,000
10	240,034,000	148,338,000
12	216,429,000	132,197,000

	<b>Pre-Tax</b>	<b>After Tax</b>
<b>IRR (%)</b>	53	42
<b>Cumulative Cash Flow (US\$)</b>	404,714,000	259,321,000

**TABLE 2 - Financial Highlights**

<b>Initial Capital Costs (US\$)</b>	93,177,000
<b>Total Capital Costs (US\$)</b>	162,935,000
<b>Total Operating Costs per Tonne Mined(US\$)</b>	91.99
<b>Total Operating Costs per kg TREO Produce (US\$)</b>	50.45
<b>Basket Price per kg TREO Produced (US\$/kg)</b>	105.77
<b>Life of Mine (years)</b>	7.25

The PEA should not be considered to be a pre-feasibility or feasibility study, as the economics and technical viability of the Project has not been demonstrated at this time. The PEA is preliminary in nature and includes Inferred Mineral Resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as Mineral Reserves. Furthermore, there is no certainty that the PEA will be realized.

## **PROJECT OVERVIEW**

### ***Mineral Resource Estimate***

The PEA utilized the initial NI 43-101 mineral resources for the Area 4 deposit at a cut-off grade of 0.1% total rare earth oxides ("TREO") which provides 2.88 Mt of Indicated mineral resources yielding 9,230 t of REO, of which 7,050 t are estimated to be Heavy Rare Earth oxides ("HREO") and 3.28 Mt of Inferred mineral resources yielding 8,970 t of REO, of which 6,700 t are estimated to be HREO (Table 3). These REO and HREO tonnages are rounded to the nearest 10 t but are shown as originally calculated in Table 3. The remainder of the REO is made up of Light Rare Earth oxides ("LREO").

**TABLE 3 - Mineral Resources<sup>1</sup> for the Area 4 Deposit  
within the >0.1% TREO Envelope with effective date 31 July 2012**

<b>Indicated Mineral Resource</b>						
<b>Cut-Off %TREO</b>	<b>Tonnes million</b>	<b>LREO %</b>	<b>HREO %</b>	<b>TREO %</b>	<b>REO Tonnes</b>	<b>HREO Proportion</b>
0.1	2.88	0.08	0.24	0.32	9,234	76.3%
0.2	1.62	0.09	0.37	0.45	7,358	80.9%
0.3	0.90	0.09	0.53	0.62	5,594	85.6%
0.4	0.58	0.09	0.69	0.78	4,477	88.3%
0.5	0.39	0.09	0.84	0.93	3,673	90.3%
0.6	0.28	0.09	1.00	1.09	3,039	91.8%
0.7	0.20	0.08	1.18	1.26	2,524	93.5%

<b>Inferred Mineral Resource</b>						
<b>Cut-Off %TREO</b>	<b>Tonnes million</b>	<b>LREO %</b>	<b>HREO %</b>	<b>TREO %</b>	<b>REO Tonnes</b>	<b>HREO Proportion</b>
0.1	3.28	0.07	0.20	0.27	8,973	74.7%
0.2	1.80	0.08	0.30	0.37	6,748	79.3%
0.3	0.75	0.08	0.47	0.56	4,180	85.1%
0.4	0.42	0.08	0.64	0.72	3,071	88.8%
0.5	0.27	0.08	0.81	0.89	2,377	90.9%
0.6	0.21	0.08	0.91	0.99	2,049	92.1%
0.7	0.16	0.07	1.03	1.10	1,717	93.5%

<sup>1</sup> Mineral resources which are not mineral reserves do not have demonstrated economic viability

### ***Mining and Processing***

Mining will be by conventional open pit methods utilizing an owner operated mine fleet at a mining rate of 2,500 tpd (840,000 tpa) with the ultimate pit reaching a vertical depth of 200 meters. A total of 6.04 MT of mineralized material at a diluted grade of 0.28% TREO will be provided to the primary crusher over the 7¼ year life of mine ("LOM").

Following secondary and tertiary crushing the feed is delivered to x-ray technology ("XRT") and x-ray fluorescent ("XRF") sorters to eliminate internal waste thereby reducing volume to the ball mill for fine grinding. Ball mill product slurry is fed to the rougher magnetic separator with tails going through three scavenger magnetic stages. The magnetic concentrate product is subjected to a cleaner flotation circuit and then passes through a concentrate thickener prior to the acid leach circuit.

The leach circuit utilizes a four stage hydrochloric acid ("HCl") leach to dissolve the carbonate minerals. A gangue leach centrifuge circuit provides for a primary acid water wash to remove the entrained dissolved calcium chloride solution and a secondary potable water wash with a second centrifuge for solid-liquid separation. The resultant solids are

filtered in a filter press for final concentrate bagging and shipping to a hydrometallurgical facility which is proposed to be located at the deep water port of Walvis Bay.

Concentrate batches of 29 tonnes each will be shipped in containers over a distance of 375 kilometers to the hydrometallurgical facility for caustic cracking and washing. The caustic cracking plant is designed for the purpose of breaking or "cracking" the phosphate component of the rare earth mineral xenotime in order to access the contained thorium for removal by subsequent HCl leaching. Following the caustic cracking stage the washed residue is transferred to the HCl digestion tank to leach the thorium. Subsequent precipitation steps will produce a thorium hydroxide product for storage and a rare earth hydroxide product to be combined with the HCl digestion residue as a final product for drying and drumming.

The Project is not of sufficient scale to support capitalization for a separation plant and it is envisioned that the final product will be delivered to a third party facility and subject to an offshore treatment charge.

### **Capital Costs**

The total capital costs for the Project are estimated at US\$162,935,000\* and include direct capital costs for mining, mill site processing facilities, cracking plant processing facilities, tailings storage facility and camp allowance; sustaining capital; closure costs; indirect costs and contingency (Table 4). Indirect costs, including EPCM, owner's costs, first fills and spares have been estimated at 30% of direct costs. The contingency has been estimated at 20% of the total of direct costs plus indirect costs.

**TABLE 4 – Total Capital Costs Summary (US\$)**

<b>Direct Mining Costs</b>	25,710,000
<b>Direct Mine Site Processing Costs</b>	49,180,000
<b>Direct Cracking Plant Processing Costs</b>	15,887,000
<b>Direct Tailings Storage Facility Costs</b>	2,400,000
<b>SUB TOTAL INITIAL DIRECT CAPITAL COSTS</b>	<b>93,177,000</b>
<b>Sustaining Capital Mining</b>	5,580,000
<b>Sustaining Capital Processing</b>	9,836,000
<b>Mine Closure Costs</b>	2,163,000
<b>Indirect Costs</b>	27,953,000
<b>Contingency</b>	24,226,000
<b>TOTAL CAPITAL COSTS</b>	<b>162,935,000*</b>

\*The press release of the Company dated October 1, 2014 indicated that the total capital costs of the Project were US\$155,735,000. The difference is a result of a mathematical error in the calculation of the processing sustaining capital increasing that number from US\$4,385,000 to US\$9,836,000 with resulting non-material adjustments to indirect costs and contingency amounts. The impact on Project economics was offset by further refinement of the manner for calculating royalties payable.

### **Operating Costs**

Operating costs include the costs of the owner operated mine fleet, processing at the mill site and cracking plant facility, transportation costs for concentrates from the mine site to Walvis Bay and from port to an offshore treatment facility for separation. Technology Metals Research of the United States has indicated that a tolling charge of US\$15-20/kg of finished REOs would be a reasonable estimate for the processing (outside of China) of an intermediate concentrate with a rare earth element distribution similar to the one associated with the Lofdal project to commonly required purity levels and finished forms. A separate cost has therefore been estimated for the offshore treatment cost and is considered as part of the total operating costs which are summarized in Table 5.

**TABLE 5 – Total Operating Costs Summary**

<b>Description</b>	<b>Cost per Tonne Mined (US\$/t)</b>	<b>Cost per kg TREO Produced (US\$/kg)</b>
<b>Mining</b>	23.73	13.02
<b>Processing (Mill Site and Cracking)</b>	28.83	15.81
<b>Tailings Storage Facility</b>	0.5	0.27
<b>Offshore Treatment Charge</b>	38.93	21.35
<b>Total Operating Costs</b>	91.99	50.45

### **Rare Earth Pricing**

A price deck has been developed for 2017 by Technology Metals Research and Core Consultants, based on REO supply/demand projections and pricing models for that year, which would be a reasonable approximation of when Lofdal might be expected to enter production. The nature of the REE market is such that it does not lend itself to traditional models for commodity forecasting. In analysing potential future prices, consideration is given to the likely relative surplus or deficit of REEs available to the market, in order to gain a sense of price direction. Two key assumptions made in the price projections are that China maintains its production targets of 100,000 – 105,000 tonnes in the near to medium term, and that there are no sudden or unexpected policy changes in China that would shock the export market as occurred in 2010/2011. The resulting 2017 FOB China export price projections for REOs are shown in Table 6.

The projected REO distribution for Lofdal concentrates is also presented in Table 6. The projected basket price of US\$105.77 is calculated from the REO distribution and the projected 2017 FOB China prices.

**TABLE 6 – Projected 2017 FOB China Export Prices for REOs and Projected REO Distribution for Lofdal Concentrate (average 17.3% TREO from Mintek studies)**

	<b>REO Price (US/kg)</b>	<b>Grade (%)</b>	<b>Distribution (% TREO)</b>	<b>Value (US\$/kg)</b>
<b>La oxide</b>	5	0.081	0.47	0.02
<b>Ce oxide</b>	4	0.135	0.78	0.03
<b>Pr oxide</b>	95	0.014	0.08	0.08
<b>Nd oxide</b>	73	0.056	0.32	0.24
<b>Sm oxide</b>	8	0.089	0.51	0.04
<b>Eu oxide</b>	750	0.092	0.53	3.99
<b>Gd oxide</b>	47	0.609	3.52	1.65
<b>Tb oxide</b>	870	0.197	1.14	9.91
<b>Dy oxide</b>	530	1.573	9.09	48.20
<b>Ho oxide</b>	55	0.352	2.04	1.12
<b>Er oxide</b>	75	1.089	6.30	4.72
<b>Tm oxide</b>	1,000	0.162	0.94	9.37
<b>Yb oxide</b>	55	0.961	5.56	3.06
<b>Lu oxide</b>	1,250	0.135	0.78	9.76
<b>Y oxide</b>	20	11.752	67.94	13.59
<b>Total</b>		17.297	100.00	105.77

**Basket Price**

**105.77**

### ***Economic Analysis Assumptions***

The economic analysis assumes that the Project will be 100% equity financed and uses parameters relevant as of September 2014, under conditions likely to be applicable to project development and operation and analyzes the sensitivity of the Project to changes in the key Project parameters. All costs have been presented in United States Dollars (US\$) and wherever applicable conversion from South African Rand (ZAR) has utilized an exchange ratio (ZAR/US\$) of 10.70 based on July 2014 exchange rates.

Mining and treatment data, capital cost estimates and operating cost estimates have been put into a base case financial model to calculate the IRR and NPV based on calculated Project after tax cash flows. The scope of the financial model has been restricted to the Project level and as such, the effects of interest charges and financing have been excluded.

For the purposes of the PEA, the evaluation is based on 100% of the Project cash flows before distribution of profits to the equity owners. Both pre-tax and after tax cash flows have taken 5% royalty payments into account.

Donald M. Burton, P.Geo. and President of Namibia Rare Earths Inc., is the Company's Qualified Person and has reviewed and approved this press release. Each of David S. Dodd, Peter Roy Siegfried, Michael R. Hall, Patrick Hannon and William Douglas Roy has also reviewed and approved the technical disclosure in this press release.

**About Namibia Rare Earths Inc.**

Namibia Rare Earths Inc. is developing a portfolio of mineral exploration projects in Namibia and is currently focused on the accelerated development of the Lofdal Rare Earths Project in northwestern Namibia. The common shares of Namibia Rare Earths Inc. trade on the Toronto Stock Exchange under the symbol "NRE" and in the United States on the OTCQX International under the symbol "NMREF".

For more information please contact -

**Namibia Rare Earths Inc.**

Don Burton, President

Tel: +01 (902) 835-8760

Fax: +01 (902) 835-8761

Email: [Info@NamibiaREE.com](mailto:Info@NamibiaREE.com)

Web site: [www.NamibiaRareEarths.com](http://www.NamibiaRareEarths.com)

**Cowen Securities LLC**

(Principal American Liaison)

OTCQX International Market (U.S.)

Christopher Weekes / Stephen Nash

Tel: +1 (212)-372-5766

No regulatory authority had approved or disapproved the adequacy or accuracy of this release. The foregoing information may contain forward-looking information relating to the future performance of Namibia Rare Earths Inc. Forward-looking information, specifically, that concerning future performance, is subject to certain risks and uncertainties, and actual results may differ materially. These risks and uncertainties are detailed from time to time in the Company's filings with the appropriate securities commissions.