



# TASMAN METALS LIMITED



Rare earth elements are naturally occurring non-toxic materials, whose unique properties make them essential to emerging technologies that assist in environmental, energy efficiency and health solutions.

- ✓ Close to roads and ports
- ✓ Low Radioactivity
- ✓ HREE Enriched

Secure supply of strategic metals such as rare earth elements has been identified by governments as critical to ensure the development and growth of capital intensive technology and green industries.



THE ONLY NI 43-101 RESOURCES OF REE'S IN MAINLAND EUROPE

NORRA KÄRR PEA SHOWS NPV IN EXCESS OF US\$ 1 BILLION

**Tasman Metals Ltd (TSX.V : TSM; Frankfurt : T61; NYSE-MKT : TAS) is a Scandinavian focused mineral exploration company with extensive claim holdings in Sweden and Finland that are prospective for rare earth elements (REE's). Tasman is well placed, as the European Union actively supports policy promoting domestic supply of REE's to secure high-tech industry.**

Sweden is the birthplace of REE's, as many were first discovered there during the 18th and 19th centuries including cerium, erbium, holmium, lanthanum, scandium, terbium, thulium, ytterbium, yttrium. The REE mineral bastnäsite originates from the Swedish village of Bastnäs, where cerium ore was mined in the late 1800's .

## REE Supply Issues Are Influencing Global Politics.....

*The Australian: 24.09.2012*

### Rare earths a victim of Japan-China islands spat

With China and Japan now threatening to go mano-a-mano over these islands there's already some stern noises being made about rare earths. The Hong Kong Economic Journal is reporting that Beijing is planning to halt sales to Japan of rare earths, a serious threat seeing that Japan is the second-largest use of these elements (after China).

*New York Times : 27.06.2012*

### US, Europe and Japan Escalate Rare Earth Dispute with China

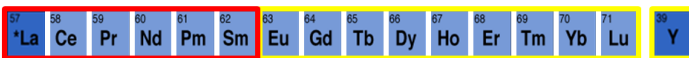
The EU, United States and Japan ramped up their dispute with China over its restrictions on exports of rare earths on Wednesday after failing to resolve the case through negotiations at the WTO. European trade commissioner, Karel De Gucht, said that the EU and its partners have asked for a dispute settlement panel to be formed in the wake of inconclusive consultations with China.

## Dysprosium Metal is a Key Contributor to High Temperature Magnets...

Tasman Metal's Norra Kärr heavy rare earth project is highly enriched with dysprosium and yttrium, two metals used in clean technology applications. Dysprosium is expected to experience significant growth over the next decade from both the traditional automotive and appliance industry as well as emerging electric car and wind turbine applications . Dysprosium oxide supply has become extremely tight over the past year with prices increasing over 200% since January 2011.

## RARE EARTH ELEMENTS

RARE EARTH ELEMENTS



Light Rare Earth Elements (LREE) Heavy Rare Earth Elements (HREE)

REE consumption is accelerating, due to the critical role they play in high-tech applications and energy efficient technologies. REE's are essential in hybrid/electric car, solar panels, wind turbine, compact florescent lighting, high-energy magnet, mobile phone and computer production. Due to their unique properties, REE's cannot be substituted.

Global demand in 2015 forecast at 200,000 tpa REO, a majority of which will come from China. **European supply has not been secured**, such that high-tech industries in EU remain fully exposed to Chinese output. EU countries risk running out of these highly sought metals, amid growing evidence that China is set to choke off exports to promote domestic value-adding. Failure to secure alternative long-term sources of REE's would affect the manufacturing and development of low-carbon technology, which rely on the unique properties of the REE's to mass-produce eco-friendly innovations.

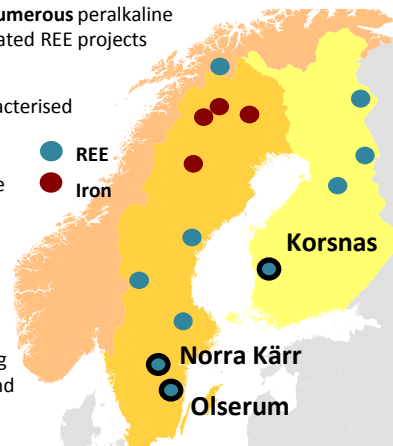
## PROJECTS OVERVIEW

Tasman Metals owns 100% of numerous peralkaline intrusive and carbonatite associated REE projects in Sweden and Finland.

Tasman's REE projects are characterised by existing infrastructure that is "second to none", with roads, power and skilled labour in close proximity.

**Norra Kärr is Tasman's flagship project, where 120 holes have been drilled.**

Sweden is a positive country for mining investment, with a strong Mining Act, skilled personnel, and a world-renowned mining equipment supply industry





# NORRA KÄRR

Norra Kärr is a nepheline syenite intrusion which covers 350m x 1100m, first discovered in 1906, and subsequently test mined for nepheline, Zr and Hf. REE's are predominantly found in the zirconosilicate mineral **euclialyte**, known for its rapid solubility in sulphuric acid at low temperature. Tasman undertook drilling programs in 2009, 2010, 2011 and 2012 with exceptional grade and thickness results.

Recent drilling discoveries include - **NKA11033: 221.4m @ 0.63% TREO, with 47.9% HREO and 1.60% ZrO2**

In March 2012, Tasman released an independent Preliminary Economic Assessment for Norra Kärr.

### PEA highlights include:

- \$1,464 million before-tax value (NPV at 10% discount rate);
- 49.6% before-tax Internal Rate of Return (IRR);
- Before-tax payback period of 2.6 years;
- \$5.3 Billion in revenue over the first 20 years;
- Initial capital expenditures of \$290 million;
- Conservative basket price of US\$51 per kg versus current China FOB basket price of US\$184.85;
- Average annual mixed TREO concentrate production of 6,800 tonnes including 290 tonnes of dysprosium oxide (Dy<sub>2</sub>O<sub>3</sub>);
- 86% of TREO revenue to be derived from the production four critical rare earth elements (CREE), dysprosium, terbium, neodymium and yttrium;

### Features key to Norra Kärr's potential include:

- Project is unique in Europe;
- Excellent infrastructure – rail, road, port;
- Mineralized from surface;
- Thick intersections, >200m, open at depth;
- REE's in easy acid soluble minerals;
- High % of HREO - > 50%
- High % of Dy + Y – metals in great demand with strong growth fundamentals;
- Zr and Hf as potential valuable by products;
- Low radioactivity – no permitting issues;
- Very high recovery in leach testing
- Support from European Union

A Mining Lease application has been submitted to the Swedish authorities, and granting is anticipated in Q2 2013.

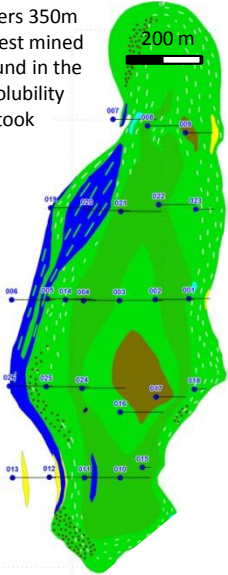


**Euclialyte rich pegmatite**



**Former Zr test mine area**

The PEA clearly demonstrates the strong economics of this highly strategic project, with the majority of the projected cash flow sourced from the production of the critical heavy rare earth elements, dysprosium, terbium and yttrium” said Mark Saxon, Tasman’s President and CEO. “Norra Kärr is one of the largest and most economically robust projects amongst its peers, due to the high contribution of the high value critical rare earth elements, the substantial capital and operating cost benefits provided by existing infrastructure, and the simple mineralogy that allows ambient temperature and pressure processing.”



# OLSERUM



Olserum is Tasman’s second 100% owned heavy REE resource project in Sweden, located 100 km east of Norra Kärr. Tasman recently published a NI43-101 compliant resource estimate for Olserum based on 31 drill holes.

At a cut-off of 0.4% TREO, Olserum hosts an **Indicated Mineral Resource of 4.5 million tonnes grading 0.60% TREO** and an **Inferred Mineral Resource of 3.3 million tonnes grading 0.63% TREO**, both with 34% of the TREO being the higher value HREO (heavy rare earth oxide). The 5 critical REEs (Dy, Tb, Eu, Nd and Y) comprise 40% of the REE content.

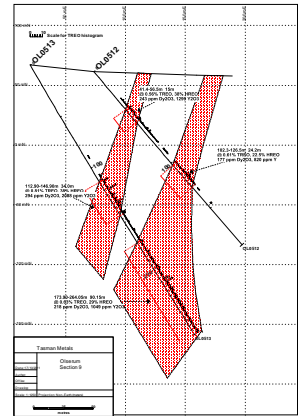
REEs at Olserum are hosted by the phosphate minerals **xenotime** and **monazite**, which have long and well established flow sheets.

Better drill intersections include:

**OLR12001: 25.3m@1.02%TREO, 42.3% HREO;**

**OLR12004: 17m @ 1.01% TREO, 47.3% HREO**

A Mining Lease application is being prepared.



**Mineralized zones remain open at depth and to the east.**

## VALUE DRIVERS – TASMAN METALS

- ❖ The EU is actively supporting the domestic supply of strategic metals to secure their high-tech industry ;
- ❖ Tasman’s project portfolio lies in mining friendly jurisdictions with strong Mining Law and driving access to markets ;
- ❖ Existing infrastructure is “second to none”, with full road/ power/ water networks and a skilled workforce;
- ❖ Norra Kärr, the Company’s flagship property has a large open pitable resource, a very high proportion of HREO’s, is enriched in Dy and Y – two metals with high prices and growing demand; insignificant level of radioactive metals; very favourable leach characteristics at low temperatures
- ❖ The Tasman team has extensive operating experience in Scandinavia;



**TSX.V : TSM ● Frankfurt : T61 ● NYSE-MKT : TAS**

### MANAGEMENT

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### ISSUED CAPITAL

59,570,982

### FULLY DILUTED

66,780,089

### RECENT PRICE

\$0.92

### 52 WK RANGE

\$0.90 - \$2.75

### CASH

CDN\$ 8.3 million (as at

Nov.30/12)

### INSIDER POSITION

16%

The qualified person, Mark Saxon, Tasman’s President and CEO and a member of the Australasian Institute of Mining and Metallurgy, has reviewed and approved the contents of this brochure. This corporate update contains certain “forward-looking” statements and information relating to the Company that are based on the beliefs of the Company’s management as well as assumptions made by and information currently available to the Company’s management.

Forward-looking statements are subject to a number of risks and uncertainties that may cause the actual results to differ materially from those discussed in the forward-looking statements, and even if such actual results are realized or substantially realized, there can be no assurance that they will have the expected consequences to, or effects on the Company. Factors that could cause actual results or events to differ materially from current expectations include, among other things, failure to successfully complete intended financings, capital and other costs varying significantly from estimates, production rates varying from estimates, changes in world metal markets, changes in laws or regulations, changes in equity markets, uncertainties relating to the availability and costs of financing needed in the future, equipment failure, unexpected geological conditions, imprecision in resource estimates, success of future development initiatives, competition, operating performance of facilities, environmental and safety risks, delays in obtaining or failure to obtain necessary permits and approvals from government authorities, and other development and operating risks. Should any one or more of these risks or uncertainties materialize, or should any underlying assumptions prove incorrect, actual results may vary materially from those described herein. Any forward-looking statement speaks only as of the date on which it is made and, except as may be required by applicable securities laws, the Company disclaims any intent or obligation to update any forward-looking statement, whether as a result of new information, future events or results or otherwise.

**Cautionary Note to U.S. Investors Concerning Mineral Resources:** In this document, the definitions of “mineral resources” are those used by the Canadian securities administrators and conform to the definitions utilized by CIM in the “CIM Standards on Mineral Resources and Reserves – Definitions and Guidelines” adopted on August 20, 2000 and amended December 11, 2005.

The standards employed in estimating the mineral resources referenced in this document differ significantly from the requirements of the United States Securities and Exchange Commission (the “SEC”) and the resource information reported may not be comparable to similar information reported by United States companies. The term “resources” does not equate to “reserves” and normally may not be included in documents filed with the SEC. “Resources” are sometimes referred to as “mineralization” or “mineral deposits.” While the terms “mineral resource”, “measured mineral resource”, “indicated mineral resource” and “inferred mineral resource” are recognized and required by Canadian regulations, they are not defined terms under standards in the United States and normally are not permitted to be used in reports and registration statements filed with the SEC. As such, information contained in this document concerning descriptions of mineralization and resources under Canadian standards may not be comparable to similar information made public by United States companies in SEC filings.

The estimation of measured, indicated and inferred mineral resources involves greater uncertainty as to their existence and economic feasibility than the estimation of proven and probable reserves under the SEC’s Industry Guide 7. U.S. investors are cautioned (i) not to assume that measured or indicated resources will be converted into reserves and (ii) not to assume that estimates of inferred mineral resources exist, are economically mineable, or will be upgraded into measured or indicated mineral resources. It cannot be assumed that the Company will identify any viable mineral resources on its properties or that any mineral reserves, if any, can be recovered profitably, if at all.

February 2013 Update