

## ASX ANNOUNCEMENT

15 April 2013

# SIGNIFICANT NEW HEAVY RARE EARTH POTENTIAL: SKYFALL AND LARGO

TUC Resources Ltd (ASX:TUC) is pleased to announce extremely positive assay and mineralogical/metallurgical results from first pass sampling at Skyfall and Largo; TUC's Heavy Rare Earth (HREE) District in the Northern Territory.

[Highlights... learn more](#)

### Significant Results Prove HREE District Potential

Significant rock chip results from the first pass survey at Skyfall and Largo have shown the mineralised district to be over 30km wide with at least four zones of potentially economic mineralisation now being delineated (Stromberg, Scaramanga, Skyfall and Largo) (Figure 1).

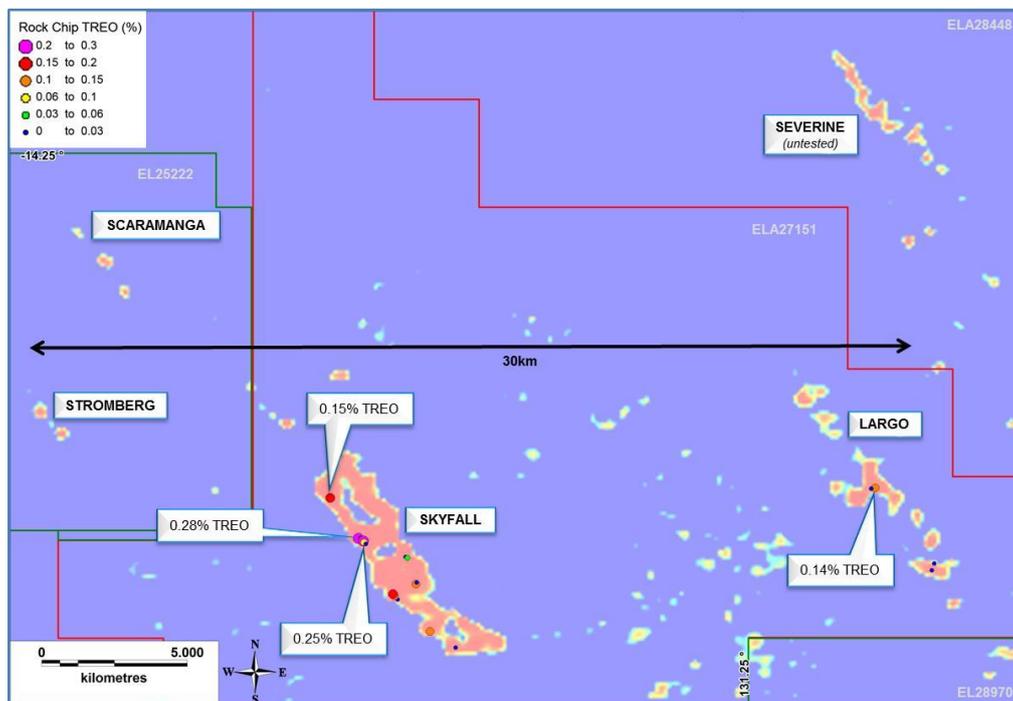


Figure 1: Skyfall and Largo Prospect showing the locations of the initial HREE rock chips on ELA27151 (airborne radiometric background).

### Evidence of Low Cost 'Absorption' Mineralogy/Metallurgy

Importantly, initial mineralogy on rock chips at Largo has given evidence of 'absorption' mineralogy, similar to that of the extremely low cost production Southern China Rare Earth Ionic Clay Deposits.

No typical rare earth minerals were noted under the microscope. This lack of rare earth minerals does not account for the high rare earth contents of the samples thus suggesting 'absorption' of the rare earths onto clay and iron mineral surfaces. Further metallurgical testing is planned.

TUC are delighted that mineralogy at Largo showed examples of rare Yttrium Oxide (Yttriate) shown in Figure 2; this further indicates that the mineralogy of the prospect is very special and could be similar in nature to the Southern China Rare Earth Ionic Clay deposits. Yttrium Oxide is the usual final product of rare earth mining and processing and its presence in natural form could be a significant advantage for TUC.

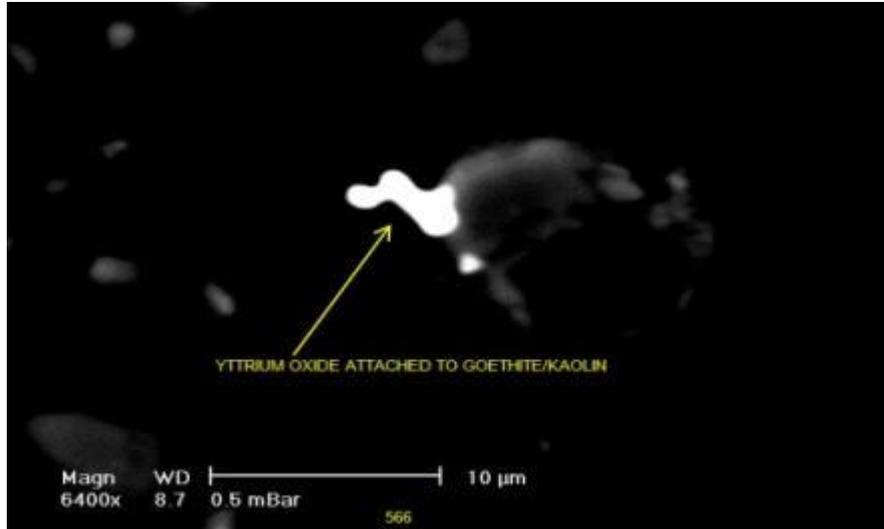


Figure 2: Yttriate (Yttrium Oxide) at Largo.

Furthermore, the Europium content of the samples at Skyfall showed a unique and unusually high Europium distribution (+1%) giving even more similarities to the Southern China Rare Earth Ionic Clay deposits (Figure 2). Europium is a highly valuable Medium Rare Earth (MREE).

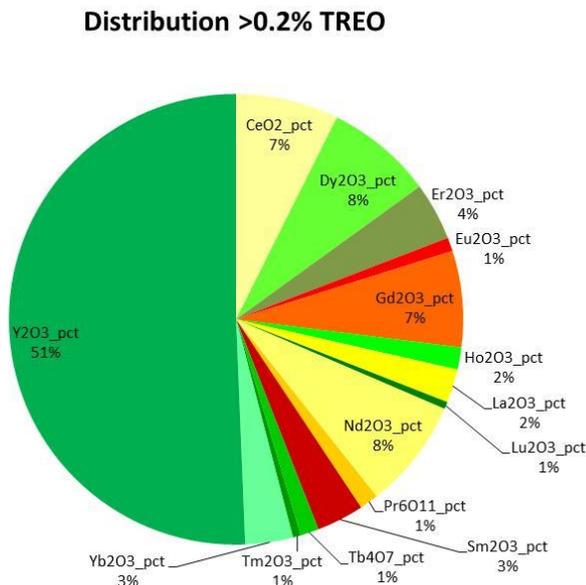


Figure 3: HREE Distribution, Skyfall and Largo.

Heavy Rare Earth contents of the samples above a 0.2% TREO cut off average 69% HREE. Other notable and high value rare earths in the TREO distribution are Dysprosium at 7.6% and Terbium at just under 1% and Yttrium at 52% (at >0.2% TREO).

## Large Size Potential Outlined

Mineralised strike length at Skyfall has been delineated with significant rock chips over at least 6km. Figure 4 shows a much larger coinciding radiometric anomaly (the exploration target) which is yet to be fully explored;

The two highest grade samples at Skyfall are located over 200m apart showing immediate strike potential for higher grade mineralisation (Figure 4);

Results have also shown the HREE mineralised system to be over 1km wide (Figure 4).

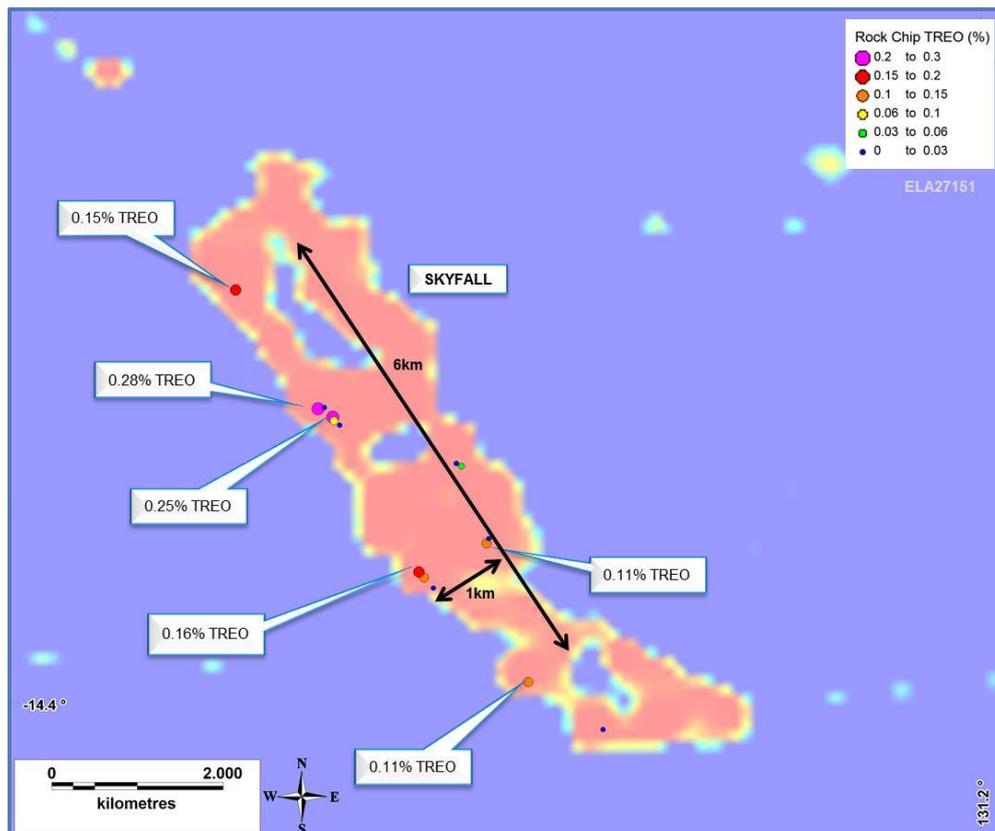


Figure 4: Skyfall Prospect showing the locations of the initial HREE rock chips, note the two pink samples (>0.2% TREO) showing a potential high grade strike length of +200m. The >0.1% TREO results at the Skyfall area cover a length of +6km and +1km wide (airborne radiometric background).



Table 1 details significant results above a likely 0.05% mineralised envelope cut-off.

Prospect	TREO %	Dy <sub>2</sub> O <sub>3</sub> %/TREO%	Eu <sub>2</sub> O <sub>3</sub> %/TREO%	Tb <sub>4</sub> O <sub>7</sub> %/TREO%	Y <sub>2</sub> O <sub>3</sub> %/TREO%	HREE%/TREO%
Skyfall	0.29	7.72	1.10	1.30	49.71	68.41
Skyfall	0.25	7.58	0.86	1.29	51.58	71.19
Skyfall	0.17	5.52	1.71	1.27	16.04	26.31
Skyfall	0.15	4.58	1.08	0.82	24.50	35.37
Largo	0.14	10.88	1.99	2.52	23.64	43.26
Skyfall	0.14	4.95	1.00	1.02	22.84	33.54
Largo	0.13	10.78	1.57	2.08	40.09	62.96
Skyfall	0.13	5.33	1.26	1.00	30.49	43.20
Skyfall	0.12	8.38	0.90	1.31	56.17	78.17
Skyfall	0.11	2.34	0.72	0.47	10.14	15.78
Skyfall	0.09	4.43	1.49	0.90	22.30	32.85

Table 1: Significant first pass rock chip assay results at Skyfall and Largo; Figures 1 and 4 show the location and magnitude of assay results in Table 1. A total of 27 samples were taken in this first program.

### About TUC's Heavy Rare Earth District

TUC's HREE district is located approximately four hours' drive south of Darwin. It is home to multiple heavy rare earth dominant prospects which are exhibiting mineralogy favourable for low cost mineral processing. Heavy Rare Earths are an important component in a number of clean and low cost energy and electronic technologies (a growing market).

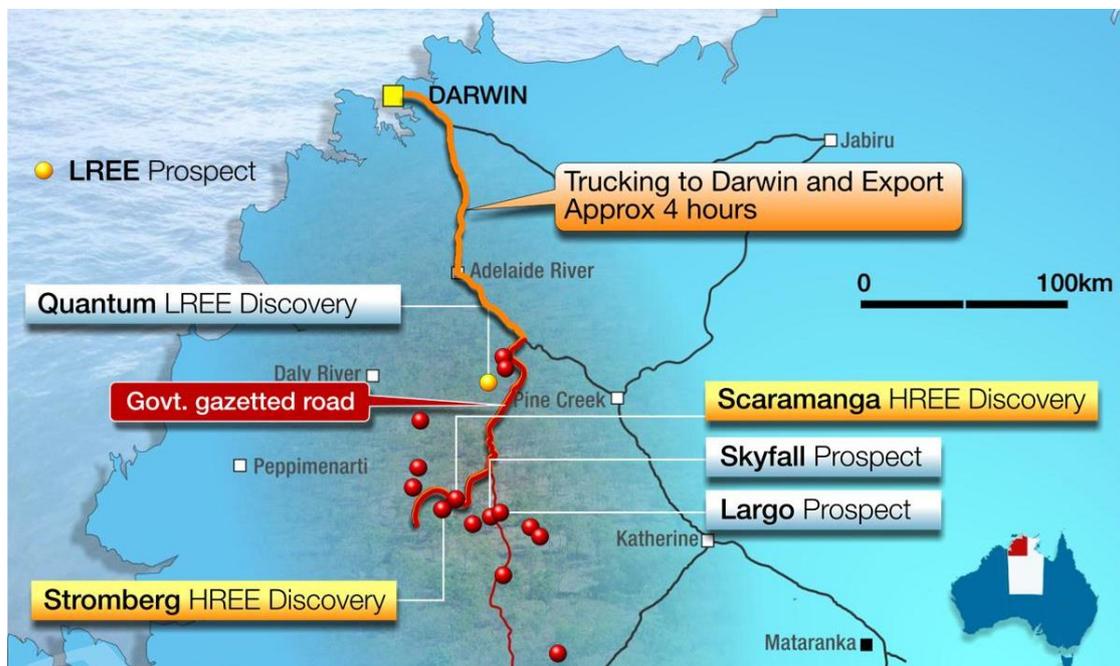


Figure 5: TUC's Northern Territory Heavy Rare Earth District; HREE prospects shown as red dots.

## Directors' outlook...

Directors are very excited that the first (helicopter) surface sampling into new (and previously restricted) areas of Skyfall & Largo has provided concrete evidence of the discovery of an extensive & significant HREE district extending over a width of at least 30km. Additionally, evidence of "absorption" mineralogy similar to the Southern China Rare Earth ionic clay deposits (which are characterised by extremely low cost of production because of the simple release of the HREEs from the clay), has been uncovered, which could potentially lead to significant economic benefits in any future development.

---

**For further information please contact:**

**MR IAN BAMBOROUGH**

**Managing Director**

**TUC Resources Ltd**

**08 9325 7946 or [ibamborough@tucresources.com.au](mailto:ibamborough@tucresources.com.au)**

---

\*Total Rare Earth Oxides (TREO's) have been calculated by addition of common oxide values for Ce, Dy, Er, Eu, Gd, Ho, La, Lu, Nd, Pr, Sm, Tb, Tm, Yb, Y. REO values have been calculated from rare earth element (REE) ppm grades after analysis by lithium-metaborate fusion and ICPMS, where possible, or by HF/multi acid digest and ICPMS. The total REO is calculated as the sum of all REE as REE<sub>2</sub>O<sub>3</sub>, with the exception of Ce, Pr and Tb; which are calculated as CeO<sub>2</sub>, Pr<sub>6</sub>O<sub>11</sub>, and Tb<sub>4</sub>O<sub>7</sub> respectively, in accordance with geochemical conventions.

\*\*Heavy Rare Earth Elements HREE's and Heavy Rare Earth Oxides (HREO) = Dy, Er, Ho, Lu, Tb, Tm, Yb, Y;  
Medium Rare Earth Elements MREE's = Gd, Eu, Sm;  
Light Rare Earths LREE's Ce, La, Pr, Nd.

---

TUC Resources Ltd holds approximately 15,000km<sup>2</sup> of prospective land package across 47 (28 under application) tenements making it one of the biggest ground holders in the Northern Territory of Australia. The business holds multiple consolidated project areas across several key geological and metallogenic terrains, affording it some opportunity to diversify exploration into many commodities. TUC's main focus is its Stromberg Heavy Rare Earth District where it retains approximately 3000km<sup>2</sup> of tenements. The Stromberg District is located approximately 4 –5 hours' drive south of Darwin.

---

The information in this report relates to exploration results compiled by Ian Bamborough, who is a Member of The Australian Institute of Geoscientists. Ian Bamborough is a fulltime employee of TUC Resources Ltd. Ian Bamborough 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 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Ian Bamborough consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

---

<u><a href="#">Registered Office</a></u>	<u><a href="#">Main Office</a></u>	<u><a href="#">Company Management</a></u>
15 Lovegrove Close Mount Claremont WA 6010 Tel: 08 9384 3284 Fax: 08 9284 3801 <a href="mailto:info@tucresources.com.au">info@tucresources.com.au</a>	Level 10, 553 Hay Street Perth WA 6000 Tel: 08 9325 7946 ABN: 94 115 770 226 <a href="http://www.tucresources.com.au">www.tucresources.com.au</a>	Peter Harold: Non-Executive Chairman Ian Bamborough: Managing Director Anthony Barton: Non-Executive Director Leon Charuckyj: Non-Executive Director Graeme Boden: Company Secretary