

Quarterly Exploration Activities Report

For the Period Ending 31 December 2012

TUC Resources Ltd (ASX:TUC) provides its Exploration Activities Report for the quarter ending 31 December 2012.

Highlights

Substantial Strategic Alliance to Exploit Heavy Rare Earth Tenements

- TUC has partnered with Shandong Provincial Bureau of Geology and Mineral Resources ("SDGM") from China by signing a Memorandum of Understanding (MOU). Shandong Province is home to one of four Special Rare Earth Development Zones in China.
- TUC and SDGM to form an alliance (Rare Earth Joint Venture) for the exploration and exploitation of eight heavy rare earth tenements.
- Placement of 22.5 million shares to SDGM at an issue price of \$0.10 per share to raise \$A2.25 million.
- SDGM to spend a further \$19 million on exploration to earn up to 50% (in three stages) interest in the exploration areas.
- A possibility exists within the MOU for SDGM or rare earth industry partner to fully fund a project through to operation. TUC could retain 25% of the Project.

Diamond Drilling Results - Stromberg Heavy Rare Earth (HREE) Prospect

- Diamond drilling at Stromberg Heavy Rare Earth Prospect has delivered excellent near surface intersections, indicated extremely high (+90%) heavy rare earth oxide (HREO) distributions and further extended mineralisation.
- Recent significant intersections returned at Stromberg include:
 - ⇒ STDH3, 4.2m @ 0.93% TREO (92% HREO/TREO);
inc. 3m @ 1.19% TREO (92% HREO/TREO);
 - ⇒ STDH2, 3m @ 0.59% TREO (92% HREO/TREO);
inc. 1m @ 1.10% TREO (94% HREO/TREO);
 - ⇒ STDH5, 2.5m @ 0.32% TREO (85% HREO).

Land Access Breakthrough

- Verbal consent has been given by Traditional Aboriginal Land Owners for exploration to begin on the highly HREE prospective ELA27151 Skyfall tenement adjacent to the Stromberg and Scaramanga HREE prospects.
- This breakthrough will allow access to a further ~1,000km² of highly HREE prospective land and a number of very large and high priority geophysical and HREE geochemical targets. In the near term, TUC proposes to utilise options open to it under the Aboriginal Lands Right Act to undertake early stage reconnaissance exploration under the guidance of the Traditional Owners.



TUC
RESOURCES

ASX Code: TUC

Quarterly Report
31 January 2013

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MEMORANDUM OF UNDERSTANDING (MOU) SIGNED WITH THE SHANDONG PROVINCIAL BUREAU OF GEOLOGY AND MINERAL RESOURCES (SDGM):

Memorandum of Understanding on Eight Heavy Rare Earth Tenements

TUC has entered into a Memorandum of Understanding (MOU) with the Shandong Provincial Bureau of Geology and Mineral Resources (SDGM) to form a Rare Earth Joint Venture for the exploration and exploitation of eight heavy rare earth tenements (shown in Figure 1). The MOU includes the placement of 22.5 million shares to SDGM at an issue price of \$0.10 per share, together with 9.0 million free attaching options to raise a total of \$A2.25 million (before costs of the issue).

SDGM will earn a 15% interest in the Rare Earth Joint Venture by sole funding \$4 million of exploration expenditure on target identification and evaluation. SDGM will earn a further 15% interest in the Rare Earth Joint Venture by sole funding an additional expenditure of \$7.5 million. SDGM will earn an additional 20% interest in the Rare Earth Joint Venture by sole funding an additional \$7.5 million expenditures. Aggregate expenditure of \$19 million will thus earn SDGM a cumulative interest of 50% in the Rare Earth Joint Venture. SDGM and TUC will jointly manage the Joint Venture and TUC will manage the exploration activities.

Should any project within the Stromberg JV Tenements move to feasibility study, Shandong will use its best endeavours to introduce a suitable Chinese rare earths processing and producing company into that project, with the intention that the new partner would fully fund the feasibility, design and importantly construction in return for a 50% share of that project and certain off-take rights. In such a case TUC and SDGM would reduce their equity interests in that project proportionately but retain their 50:50 interest in all the other Rare Earth Joint Venture tenements.

Shandong Province is home to one of four Special Rare Earth Development Zones in China. The Province is endowed with some large discoveries of light rare earths, the largest of which was discovered by the Bureau (SDGM). SDGM has access to the most advanced heavy rare earth processing technologies known throughout China. Discoveries of heavy rare earths in the Stromberg Region may therefore form an important downstream manufacturing opportunity for Chinese associates of SDGM.

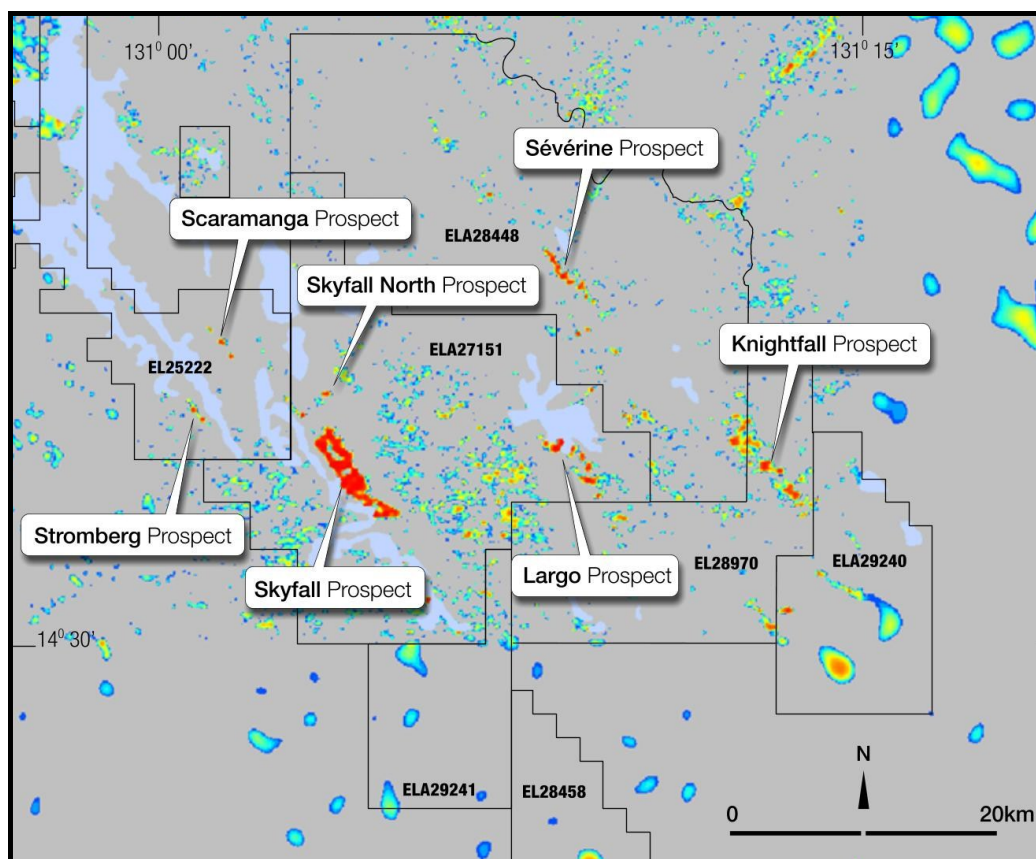


Figure 2 - Significant prospects, radiometric anomalies, geological trends, TUC tenements, including new TUC tenement applications and TUC exploration targets.

Exploration Activities Report

The following exploration activities have been undertaken during the Quarter:

- Diamond Drilling at the Stromberg HREE Prospect;
- Land access meetings with Traditional Owners were undertaken for ELA29240, ELA29241 and ELA27151 in the Stromberg HREE District (Figure 2);
- ANSTO review of metallurgical processing work undertaken to date on Stromberg HREE Prospect mineralised material;
- 'Rare Earth Element Information Session' at Curtin University for TUC and Northern Land Council (NLC) staff members involved in Skyfall (ELA27151) negotiations;
- Historical data review and compilation for the Skyfall Prospect.

Figure 1 shows the location of major field activities during the Quarter (highlighted in red).

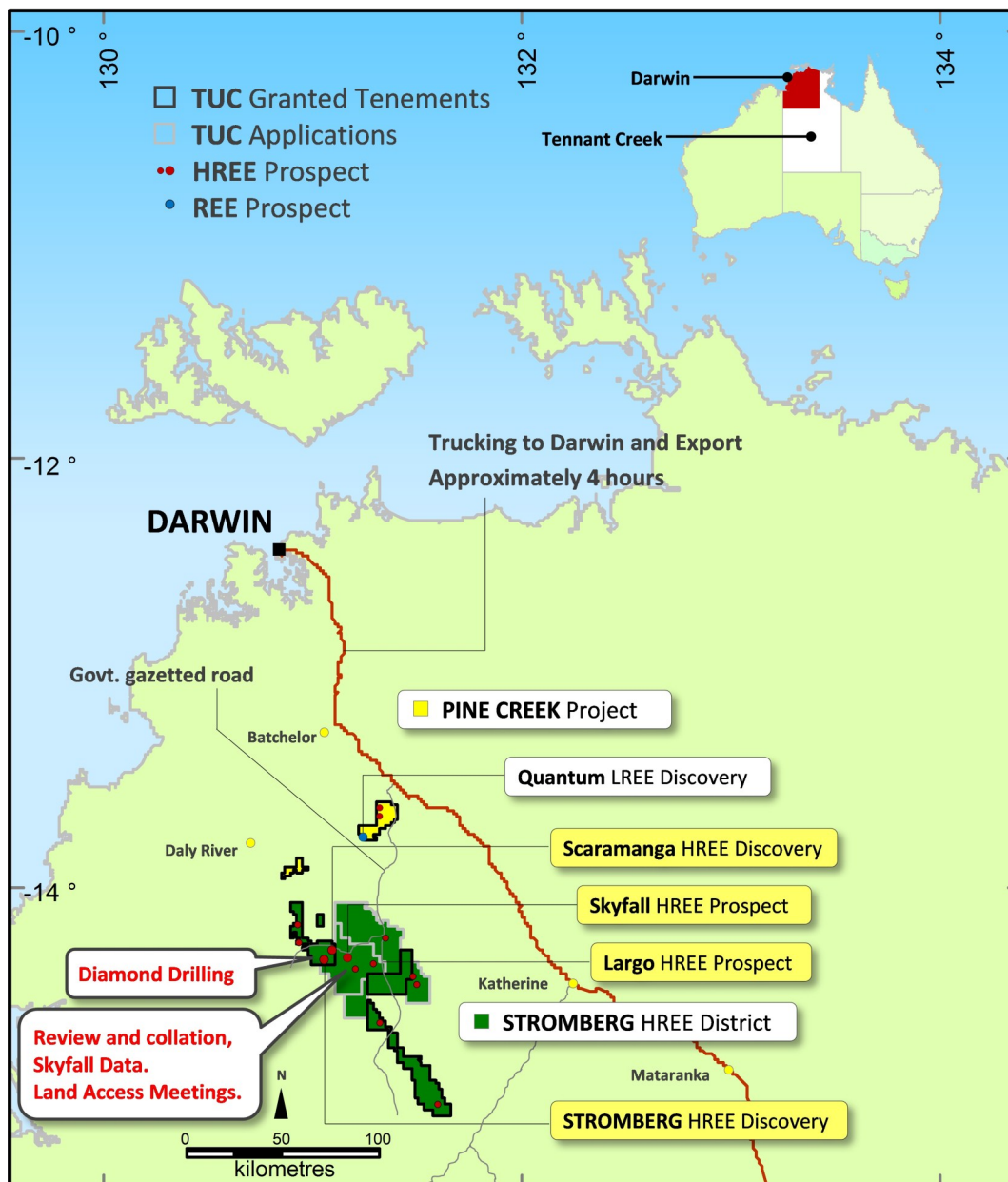


Figure 2 - Major Field Activity Locations December 2012 Quarter

Exploration Activities Report continued...

LAND ACCESS BREAKTHROUGH

Skyfall Tenement, ELA27151

On 20 September 2012, Traditional Aboriginal Land Owners removed a Moratorium on Exploration on ELA27151 (Figures 1 and 2) and gave Verbal Consent for exploration to begin as soon as possible (Figure 3).

The ELA27151 tenement is known for the two very large radiometric anomalies (each ~8km long and ~1km wide) that highlight the Skyfall and Largo prospects (Figures 1 and 2). Both prospects have very similar geology to the nearby Stromberg and Scaramanga HREE prospects and are interpreted by TUC geologists to be much bigger repetitions of the same HREE mineralised system.

In addition, Verbal Consent has also been given for exploration to begin on Stromberg HREE District tenements ELA29240 and ELA29241 (Figures 1 and 2). ELA29240 hosts the Knightfall South anomaly.

All tenements will now be processed to 'Granted Tenement' status with the Northern Territory Government and Northern Land Council. In the near term, TUC proposes to utilise options open to it under the Aboriginal Lands Right Act to undertake early stage reconnaissance exploration (hand held XRF analysis). This work is scheduled to take place under the guidance of the Traditional Owners. It is planned that full access to the tenements can be finalised by mid - 2013.



Figure 3: Managing Director Ian Bamborough (left) and Project Geologist Trevor Page (right) discuss the Stromberg area with George Huddleston and his nephew Mathew Corrigan; 'On Country' September 2012.

STAKEHOLDER ENGAGEMENT

Stromberg District Project 3163km²

EL25222, EL28970, ELA27151, ELA29240, ELA29241, EL29458, EL29242, ELA28448.

To provide Northern Land Council (NLC) staff members involved in TUC Land Access Meetings an insight into rare earth geology, deposit styles, mining processes and environmental and radiological considerations, TUC provided a two day information session at Curtin University's Graduate School of Business. The course was organised by Professor Dudley Kingsnorth. The curriculum touched on the uses of rare earths and the importance of HREE to the global market and gave an excellent opportunity for dialogue (Figure 4).



Figure 4: Associate Professor Nigel Marks (right) talking to Professor Dudley Kingsnorth (left) and staff members of the NLC about HREE mineralisation.

Exploration Activities Report continued...

STROMBERG HEAVY RARE EARTH PROSPECT

Stromberg District Project, EL25222

Diamond drilling at the Stromberg Heavy Rare Earth Prospect has delivered excellent near surface intersections, indicated extremely high (+90%) heavy rare earth distributions and further extended mineralisation (Figure 5).

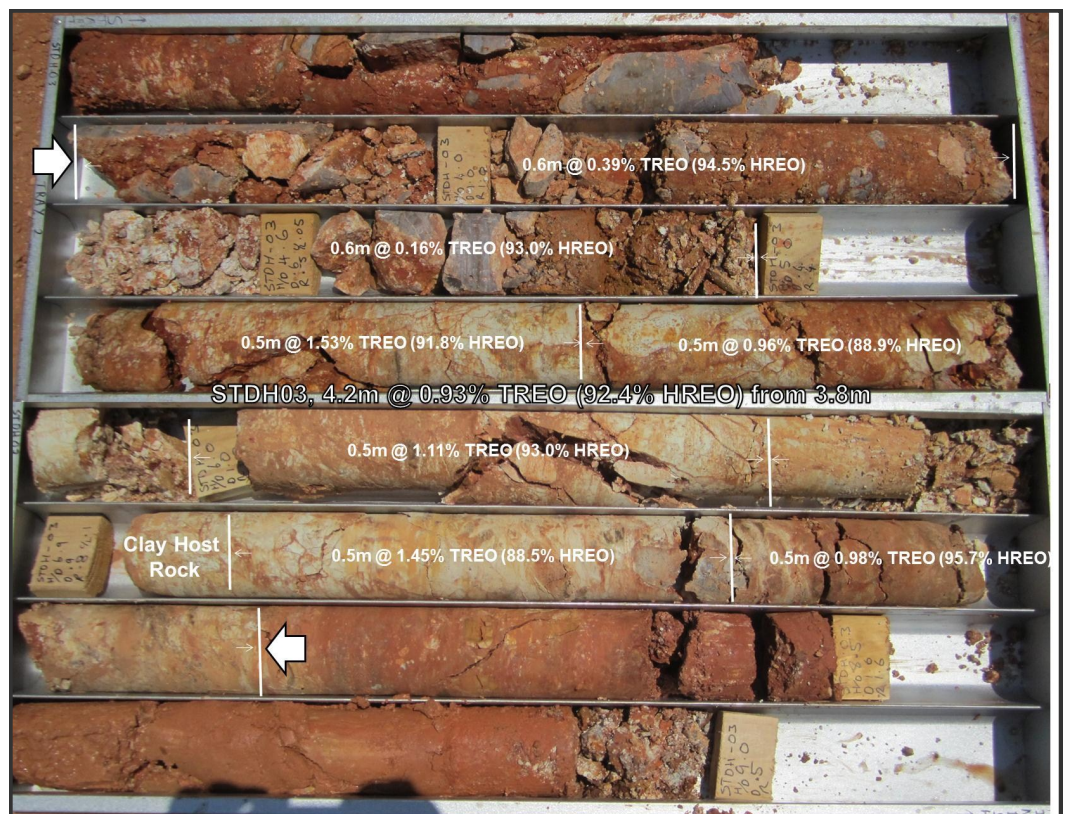
At or near surface Total Rare Earth Oxide (TREO) Intersections include:-

- ✓ STDH3, 4.2m @ 0.93% TREO (92% Heavy Rare Earth Oxide (HREO)/TREO);
inc. 3m @ 1.19% TREO (92% HREO/TREO);
- ✓ STDH2, 3.0m @ 0.59% TREO (92% HREO/TREO);
inc. 1m @ 1.10% TREO (94% HREO/TREO);
- ✓ STDH5, 2.5m @ 0.32% TREO (85% HREO)/TREO).

Diamond hole STDH5 extended mineralisation up dip under shallow cover providing further exploration upside.

For further details on the diamond drilling results please refer to the ASX announcement on 18 January 2013.

Figure 5: Drill core STDH3 showing significant intersections and clay host rock types similar to Southern China Clay Hosted Rare Earth Deposits.



Heavy Rare Earth Oxides remain highly sought after on the global market. Importantly, Dysprosium, Yttrium, Erbium and Terbium are critical in the development of Government driven clean energy technologies. Forecast demand seriously outstrips supply for the foreseeable future. These materials rarely exist outside China in economic quantities.

ANSTO REVIEW METALLURGICAL PROCESSING WORK

Stromberg Prospect, EL25222

The Australian Nuclear Science and Technology Organisation (ANSTO) completed a review of the metallurgical processing flow sheet for the Stromberg Prospect. A test work program has been designed for 2013. Work will be undertaken on Stromberg and any new district targets identified.

Field Work Planned For The Next Quarter

EXPLORATION ACTIVITIES

- Preliminary Exploration visits to Skyfall and Largo HREO Prospects with Traditional Owners.
- Planning geochemical sampling at a number of prospects in the Stromberg HREE District to test for additional HREE potential.

Figure 6 shows the locations of planned field activities for the next Quarter (highlighted in red).

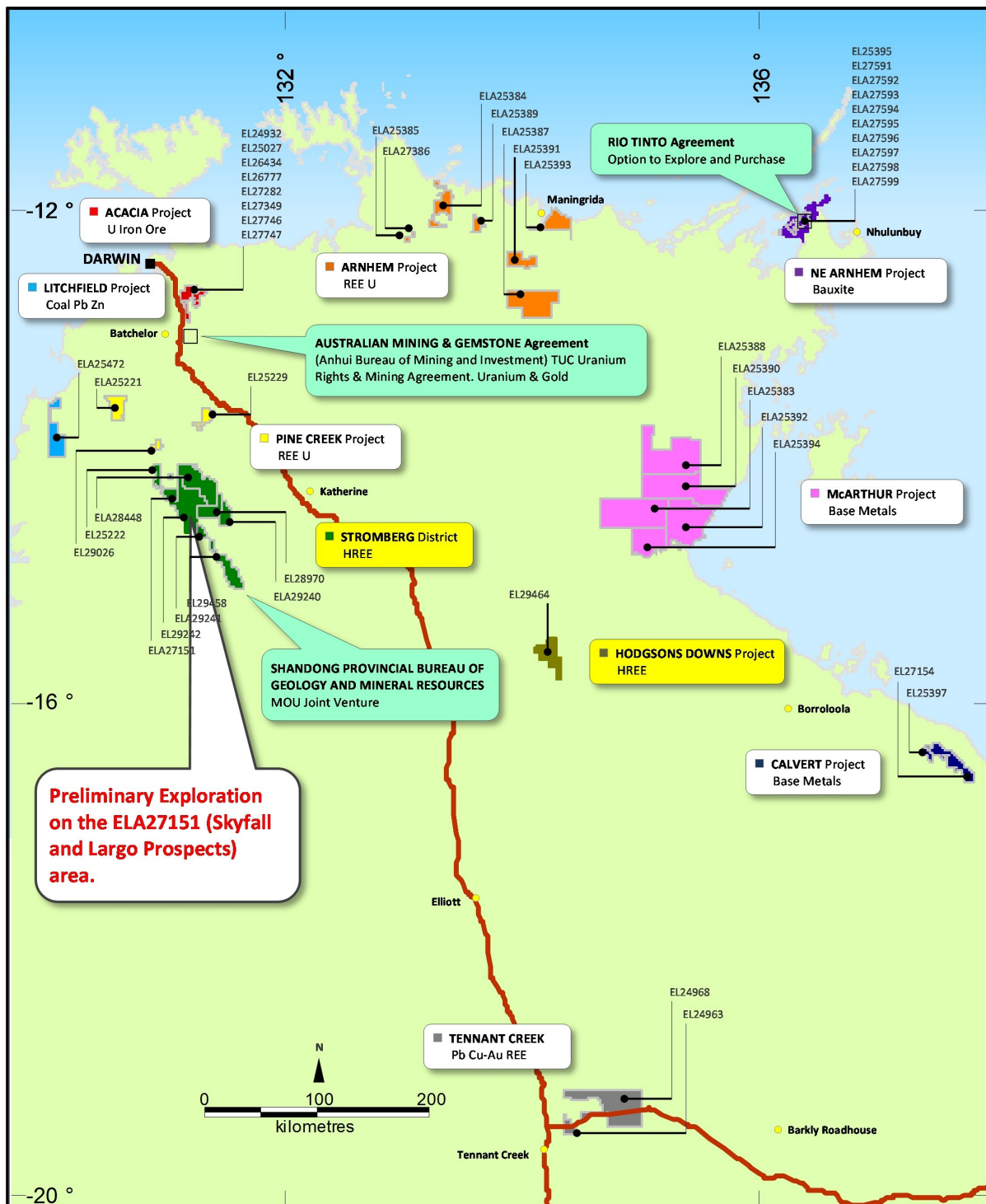


Figure 6 - TUC's Planned Field Activity Locations and Tenement Holdings in the Northern Territory

Tenement Changes

During the quarter the company continued in its normal process of partial relinquishment in line with Northern Territory mining legislation. In addition, the Company chose to relinquish three whole tenements in areas of low prospectivity where the tenements were situated outside TUC's current rare earth focus. These tenements consisting of over 686km² were EL25223, EL25224 and EL25228.

Two new tenements were granted. EL29458 at the Stromberg HREE District and EL29464 at TUC's Hodgsons Downs HREE project.

Figure 6 Shows TUC's current tenement status.

In certain areas of interest outside of TUC's HREE focus, tenements were moved into two Private Companies which are solely owned and operated by TUC Resources. The two Companies are Carpentaria Minerals Ltd (Calvert and McArthur River tenements) and Threeways Ltd (Tennant Creek tenements). This process prepares these land packages for possible future corporate activity.

Finance

The 31 December 2012 cash position of the Company was \$1.17M vs. a September 2012 cash position of \$1.99M. Under the recently announced MOU with SDGM these funds should be bolstered by a placement of \$2.25M and subsequent joint venture funding. TUC has also applied for a Research and Development Tax Rebate and any awarded funds would make a substantial contribution to TUC's cash balance in the coming months.

Capital Structure:

Share Price (TUC): **\$0.125** Issued Shares: **125.4M**; Market Cap: **\$15.6M** (as at 30 January 2013).

For further information on anything in this report, please contact:

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*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 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 REE₂O₃, with the exception of Ce, Pr and Tb; which are calculated as CeO₂, Pr₆O₁₁, and Tb₄O₇ respectively, in accordance with geochemical conventions.

**Heavy Rare Earth Elements HREE's = 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.

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Graeme Boden (Company Secretary)

TUC Resources Ltd holds approximately 15,000km² 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.

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.