



15 May 2012

Company Announcements Office
Australian Stock Exchange Limited
4th Floor
20 Bridge Street
SYDNEY NSW 2000

Dear Sir/Madam

INITIAL INDICATED RESOURCE OF 387 MILLION TONNES
CONTAINING XENOTIME/MONAZITE REE MINERALIZATION AT CHARLEY CREEK PROJECT

The Directors of Crossland are pleased to advise that a JORC-compliant estimate of Indicated and Inferred Resources has been completed for two areas within the extensive alluvial REE deposits at its Charley Creek Project in the Northern Territory, a project in the Crossland/Pancontinental Joint Venture.

Total Indicated Resource of 387 million tonnes containing;

- 27,275 tonnes Xenotime*,
- 160,900 tonnes Monazite* and
- 195,580 tonnes Zircon

Total Inferred Resource of 418 million tonnes containing

- 30,690 tonnes Xenotime,
- 167,235 tonnes Monazite and
- 219,980 tonnes Zircon

High value heavy REO content ~ 17% HREO, in Xenotime

- This is a high proportion compared to most other REE projects.

Metallurgical test work has demonstrated a recoverable concentrate

- Using simple, low cost, heavy mineral separation;
- The resource can be upgraded to a high grade heavy mineral TREO concentrate.
- This concentrate is suitable for downstream processing to value-added REO products.
- A saleable zircon mineral sand by-product can be produced.

Conservative Value of US\$47/kg;

- Based on Toyota's conservative 2016 REO price forecast the average value of TREO in the Indicated and Inferred Resources is approximately US\$47/kg.
- Or US\$100/kg using Metal pages FOB REO prices of 25 April 2012

CROSSLAND URANIUM MINES LIMITED
ABN 64 087 595 980

PHONE: (08) 89815911 **FACSIMILE:** (08) 89411364 **EMAIL:** geupene@crosslanduranium.com.au
ADDRESS: Unit 8, Raffles Plaza, 1 Buffalo Court, Darwin 0800, NT; GPO Box 2437, Darwin, 0801, NT.

The Western Dam and Cattle Creek areas within which these Resources have been estimated represent less than 5% of the total area of potentially mineralised alluvial outwash within Crossland's tenements. An REE mining project based on the alluvium at Charley Creek could have great longevity with the ***potential for decades of REO production***. See Figure 1 below.

The completion of this initial Resource Estimate is a ***major milestone for Crossland***. The Charley Creek Project is owned by the Crossland (55%)-Pancontinental (45%) Joint Venture. A work program towards a Scoping Study Assessment by September 2012 has been agreed by the joint venture and is in progress.

RESOURCE	Mass	Average Grade TREO	Contained TREO	Contained XENOTIME*	Contained MONAZITE*	Contained ZIRCON
	Tonnes	PPM	Kg	Tonnes	Tonnes	Tonnes
Cattle Creek Indicated Resource	249,900,000	280	69,900,000	17,600	97,200	124,650
Western Dam Indicated Resource	136,960,000	322	44,150,000	9,675	63,700	70,930
TOTAL INDICATED RESOURCES	386,860,000	295	114,050,000	27,275	160,900	195,580
Cattle Creek Inferred Resource	353,210,000	291	102,750,000	26,450	141,075	183,750
Western Dam Inferred Resource	65,232,000	281	18,350,000	4,240	26,160	36,230
TOTAL INFERRED RESOURCES	418,442,000	289	121,100,000	30,690	167,235	219,980

Table 1 - Summary of Indicated and Inferred Resource estimates at Cattle Creek and Western Dam areas. Note that recovery factors should be applied to these estimates and these are currently being quantified. A basket price of US\$47.46/kg has been calculated for average REO contents at the prospects.

* Xenotime and Monazite contents are derived from chemical assays of samples, weighted according to the average content in Xenotime and Monazite determined from mineral liberation analysis (MLA) and assays of regional heavy mineral concentrates from across the Charley Creek Project.

Owing to the relatively high Xenotime content, the proportion of heavy rare earths in the alluvium is high. Approximately seventeen percent (17%) of the total rare earth oxides (TREO) are heavy rare earth oxides (HREO). This ranks high in comparison to most other advanced REE projects. The HREO are more valuable because they are in critically short supply.

The resource is hosted in loosely consolidated alluvial material and testwork indicates that it can be relatively easily upgraded to a high grade heavy mineral TREO concentrate and a saleable zircon mineral sand by-product by using familiar and low-cost heavy mineral sand (HMS) processing techniques.

Metallurgical and mineralogical testwork indicates that the concentrates have relatively favourable characteristics for the downstream processing required to extract marketable value- added REO products.

The basket value of the contained TREO in the Indicated and Inferred Resources is US\$47.46/kg based on Toyota's predicted 2016 REO prices. Crossland believes that this is an appropriate and conservative estimate of prices. For comparison, this same basket of REO is valued at US\$100.12/kg using the Metal Pages FOB REO prices of 25 April 2012.

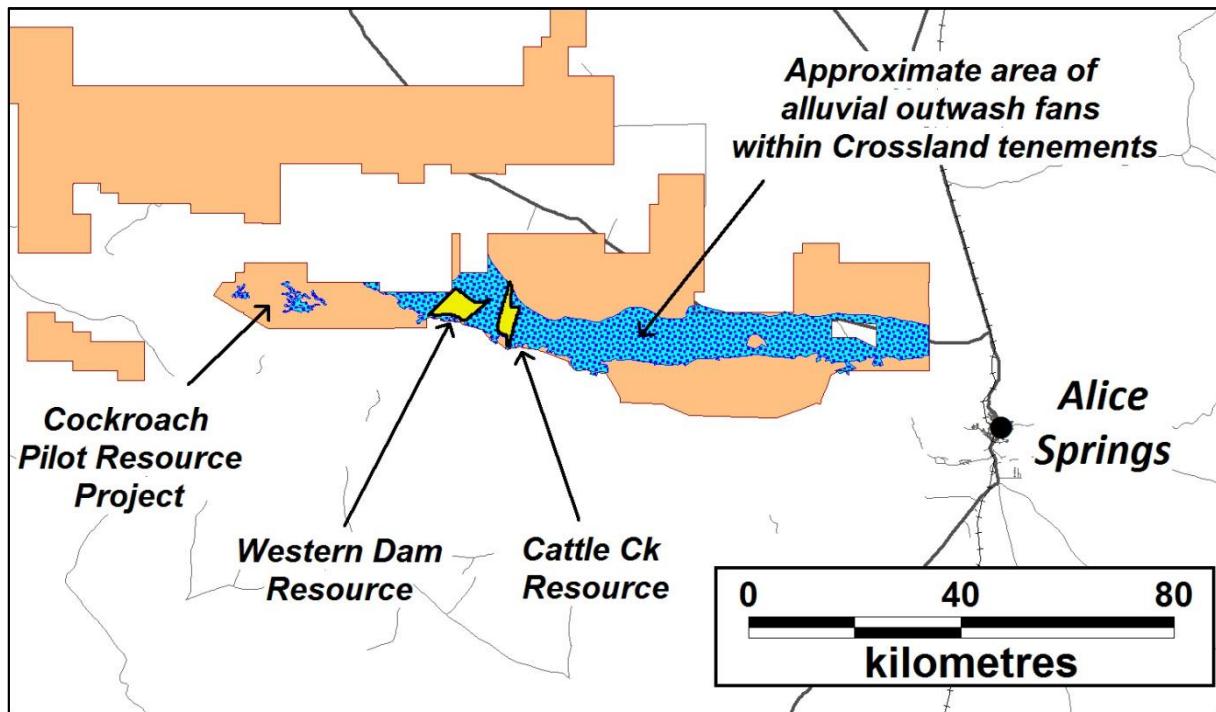


Figure 1 - Shows the locations of the Western Dam and Cattle Creek resource areas (yellow). The larger blue area is the known extent of alluvial outwash within Crossland's tenements that is likely to carry REE mineralisation. Clearly, with additional drill definition, the resources could be extended to many multiples of those reported here.

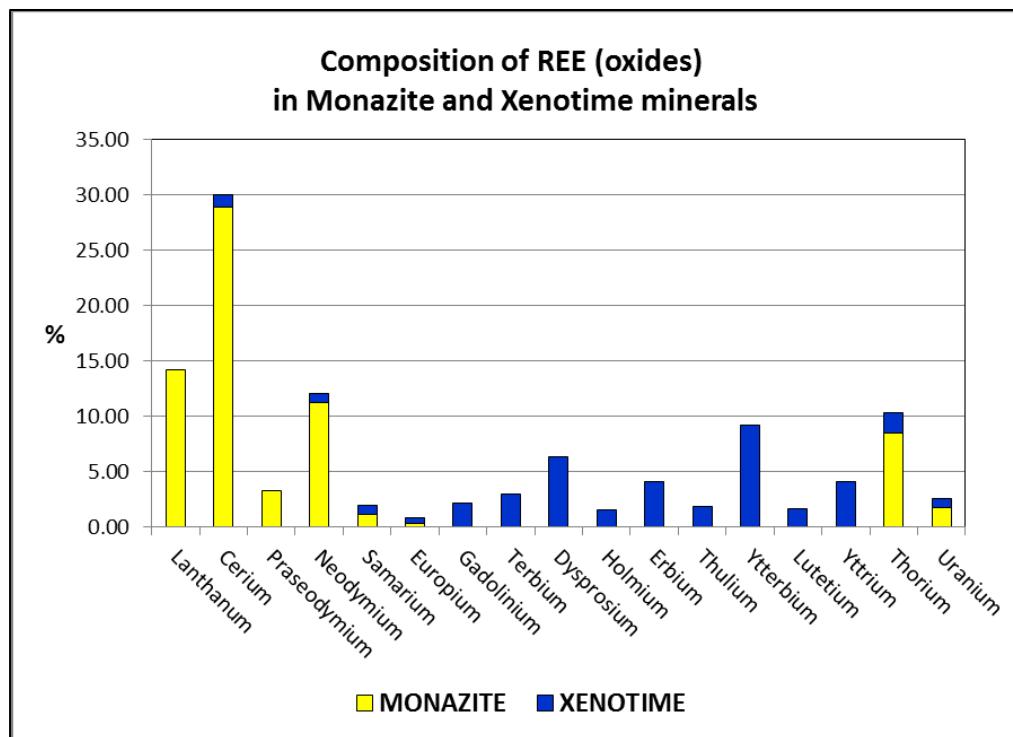


Figure 2 - Illustrates the division of the REO between Monazite and Xenotime, and the importance of Xenotime to the high contribution of HREO in the Charley Creek REO mix. Values for Europium, Terbium, Thulium and Lutetium estimated from ICP assays.

REOxide	% of TREO (Average of 2620 aircore samples)	FOB Oxide Prices TOYOTA estimates for 2016	FOB Oxide Prices <i>Metal Pages</i> 25 April 2012	FOB Oxide Prices TOYOTA estimates for 2016 Charley Creek DISTRIBUTION	FOB Oxide Prices <i>Metal Pages</i> 25 April 2012 Charley Creek DISTRIBUTION
		US\$/Kg	US\$/Kg	US\$/Kg	US\$/Kg
Light REO (75.87% of TREO)					
La2O3	18.07%	10	24	1.81	4.34
CeO2	38.63%	5	24	1.93	9.27
Pr6O11	4.24%	75	110	3.18	4.66
Nd2O3	14.93%	75	110	11.20	16.43
Medium REO (5.79% of TREO)					
Sm2O3	2.82%	9.00	85.00	0.25	2.40
Eu2O3	0.59%	500.00	2300.00	2.93	13.46
Gd2O3	2.39%	30.00	100.00	0.72	2.39
Heavy REO (18.33% of TREO)					
Tb4O7	0.37%	1500	1900	5.51	6.98
Dy2O3	2.11%	750	1050	15.83	22.16
Ho2O3	0.41%	65	65	0.27	0.27
Er2O3	1.20%	40	40	0.48	0.48
Tm2O3	0.16%	25	25	0.04	0.04
Yb2O3	1.03%	25	25	0.26	0.26
Lu2O3	0.15%	320	320	0.49	0.49
Y2O3	12.90%	20	128	2.58	16.51
				47.46	100.12
white=NO CURRENT PRICE AVAILABLE; USING ESTIMATES					

Table 2 - Average Element Distributions and Basket price calculations for average grades for the Western Dam/ Dads Dam/Cattle Ck (Charley Creek distribution).

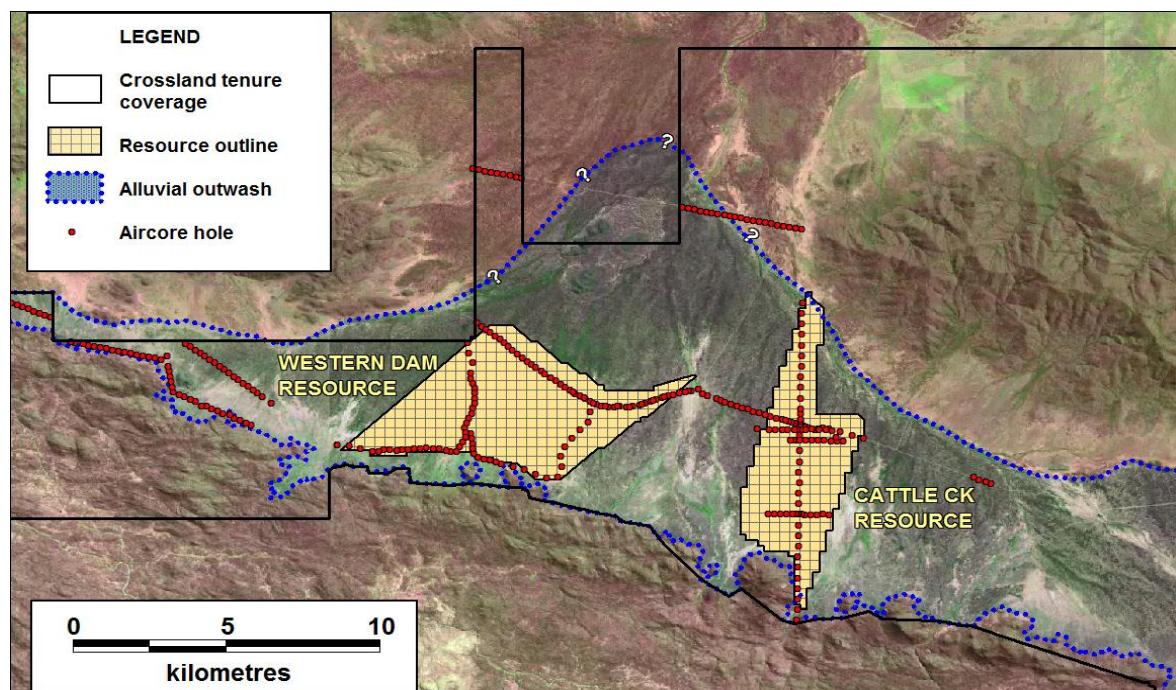


Figure 3 - Shows the areas at Western Dam and Cattle Creek containing the estimated Resources, together with the locations of aircore holes used for the calculation. Background is Landsat imagery.

APPENDIX A - DETAILS OF RESOURCE CALCULATION PROCEDURES

The Resource estimate is based upon samples from 211 aircore holes (111 at Western Dam and 100 at Cattle Creek). The holes generally penetrated the entire alluvial profile and in most cases continued to refusal in fresh bedrock after penetrating a saprolite zone of variable thickness. In Cattle Creek, Tertiary sediments may be present between the surface alluvium and the saprolite developed on Proterozoic bedrock. Hole collars were surveyed using survey-grade GPS instrumentation ($\pm 30\text{mm}$). Recovered sample weights through the alluvium average around 80%, though a lower recovery in the first 1-2m of hole is often observed. There is no significant indication of segregation of samples based on SG differences where this was checked by twinning aircore and auger holes at the Cockroach Alluvial project near to these prospects.

All holes were sampled on 1m intervals and a subsample of chips that was sieved and washed for lithological description is kept in storage. Samples were initially composited into 4m samples using a tube sampler, and the higher grade intervals were re-sampled on 1m intervals. Where comparisons are available the composited samples generally represent a reliable average of the individual metre intervals. These samples of unprocessed drill material have been utilised for this Resource estimate. Therefore recovery factors need to be applied to estimate recovered grades. Quantitative test work currently under way should determine optimum recovery factors to apply.

A density of 1.8 has been applied to all alluvium. This is based upon mass and volume measurements of 12 test pits across similar alluvial material in the Cockroach alluvial deposits nearby. The relative consistency of these results shown in Table 3 below justifies this decision.

All samples have been analysed for all of the Rare Earth Elements as well as other elements of interest using digestion by lithium metaborate fusion and ICP-MS, at the accredited laboratories, ALS Global in Perth, and ITS- Genalysis in Adelaide. The accuracy and precision of analyses from each lab has been monitored by analysis of internal quality control data and by submission of duplicate samples to each laboratory. Results within the composition ranges of the samples used in this estimate are satisfactory for both laboratories.

Samples were logged immediately following drilling, coded and recorded into the project data base where the results are matched with assay data. The database has been validated using algorithms within the mining software utilised for the study and all anomalies identified by the software have been addressed. Data entry is mostly by cut and paste from assay reports with positioning and sample sequences double checked with checksum columns on sample numbers. Cell formulas on calculated cells have been checked at least twice before incorporation into the database.

Prior to commencement of the Resource estimate, all holes were re-logged by an experienced mining geologist with the view to determining which zones could be classified as free-digging, and washable into component grains, suited to alluvial processing techniques.

Geological Cross-Sections were constructed showing:

- a) A composite REE grade, in this case, the dollar value derived from summing the FOB prices for each of the Rare Earth Oxides predicted for 2016 by Toyota, ("Toyota 2016 \$ values"- see Table 2)
- b) The original lithological logging, and
- c) The "mineability" log described above.

These sections were used to digitise outlines of mineralisation in alluvium as interpreted by the author.

A cut-off “Toyota 2016 \$ value” of US\$4.30/ Tonne was used as a boundary between mineralised and non- mineralised “mineable” alluvium. This figure was based on information supplied by Crossland’s consultant for average costs of sand mining and wet plant processing to produce the first phase of Heavy Mineral Concentrate, to which a 70% recovery factor was applied. Therefore, US\$4.30/T is the break-even operating cost assumed for alluvial mining and first pass wet-plant processing. In reality, very little material is included within the mineralised outline that does not exceed the cut-off by at least one multiple (i.e. US\$8.60/T). All outlines follow the land surface, (that is, there is no overburden on the mineralisation), and reference was made to aerial images to determine the broad boundaries at surface of the alluvial deposits. The base of the alluvial mineralisation was either:

- a) The logged natural base of alluvium on saprolite
- b) The logged base of “mineable” alluvium, generally upon material logged as calcrete, which is developed at two horizons in the profile:
 - i. A thin zone about 4-5m below surface. In frequent cases, this zone is around a metre in thickness and would be readily broken by the large machinery that would be employed to mine the project. Therefore where sustainable grades are present, these intervals were included within the mineralisation outline.
 - ii. A deeper zone generally developed at the base of the alluvium, around 9-10m from surface that is hard enough to terminate free digging machinery
- c) Occasionally, an assay cut-off.

Particularly on the Cattle Creek Grid, the alluvium in places bottomed on saprolite with high REO values, and in some cases this had been logged as “mineable”. In these instances, portions of the material were included within the mineralised outline, even though recoveries from this material in an alluvial processing operation may be reduced.

WEIGHT Kg	CUMULATIVE VOLUME m^3	DENSITY T/m^3		
1403.33	0.78	1.80		
1325.53	0.72	1.84		
1369.60	0.81	1.69		
1422.17	0.80	1.78		
1318.10	0.71	1.86		
1426.47	0.76	1.88		
1637.12	0.87	1.88		
1244.60	0.72	1.73		
1142.13	0.67	1.70		
1386.85	0.67	2.07		
1576.91	0.90	1.75		
1470.88	0.82	1.79		
		AVERAGE DENSITY	1.814	

Table 3 - Results of Density Measurements in 12 Test Pits at Cockroach Alluvial Prospect.

Outlines of alluvium so defined were constructed on sections at 400m intervals across each prospect area. Within these sectional outlines, zones of Indicated Resource were defined around drill hole intersections, extending 400m beyond intersections within the alluvium outline. Both the alluvium outline and the Indicated Resource outlines were wireframed to produce separate three dimensional model bodies, and these bodies were used to generate block model cells of 200m by 200m horizontal by 4m vertical size, with each cell dimension subdividable into four to produce sub cells to more precisely represent edges of 3D shapes.

Cells were populated with Resource category (Indicated or Inferred, derived from the 3D models) as well as grade parameters, using inverse distance squared interpolation from the drill sample database within an 800m radius by 50m thick horizontal search ellipse that queried samples that fall within the 3D alluvium outlines.

In order to maximise the level of local assay variability, only the closest 1-4 samples within the ellipse were interpolated for each cell centroid. Cells within the Indicated Resource category are totalled, and weighted averages of grade parameters calculated to produce the Indicated Resource Estimate.

Inferred Resources are totalled from those cells within the Alluvium outline/ Block Model outside the Indicated Resource outlines that were populated from the 800m by 50m search ellipse. No semi-variograms were derived from the drill data at Cattle Creek or Western Dam. However a spherical semi-variogram derived from grid drilling of the nearby Cockroach Prospect alluvial prospect, a much smaller and more irregular deposit than those estimated herein, had a range of approximately 900m. We believe the choice of an 800m by 50m search ellipse, with Indicated Resource within 400m of relevant sample points, and Inferred Resource the populated cells within alluvium outlines beyond the interpreted Indicated Resource outlines is a conservative estimate of additional potential within each grid.

In reality the consistency of alluvial REE grades, along with Crossland's success in recovering high grade REE concentrates from the alluvial samples suggests that the resources could be extended to many multiples of those reported here with additional drill definition.

While there are obvious average grade variations between the Cattle Creek and Western Dam Grids, and an additional grid at Dad's Dam remains to be estimated, little is known of grade distribution and the distribution of heavy REE across the very large extent of alluvium in alluvial fans within the Crossland Exploration Licences beyond the volumes drilled in the Cattle Creek, Western Dam and Dad's Dam areas.



Geoff Eupene FAusIMM (CP)
Exploration Director

The information in this report that relates to Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Geoffrey S Eupene CP, a Fellow of the Australasian Institute of Mining and Metallurgy. He is a director of the Company and a full time employee of Eupene Exploration Enterprises Pty Ltd. He has sufficient experience which is relevant to the styles of mineralisation and types of deposits under consideration, and to the activity which he is undertaking to qualify as a Competent Person as defined in the December 2004 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the JORC Code). Geoffrey S Eupene has consented to the inclusion in this report of the matters based on his information in the form and context in which it appears.