

November 1, 2011

Rating: SPECULATIVE BUY

Target Price: \$0.80↑

All figures in C\$, unless otherwise noted.

Recent Price:		\$0.56
52 Week Range:		\$0.36 - 1.28
Shares O/S:	Basic (MM)	130.4
	F.D. (MM)	169.0
Market Cap	F.D. (MM):	\$94.6
Average Daily Vol. (3 mo.) (MM):		0.52
Fiscal Year End:		Dec 31
Cash (as of June 30/11) (MM):		\$0.3

**Company Description:** Ucore Rare Metals Inc. is a Canadian based company focused on the development of Bokan Mountain, its heavy rare earth deposit located in southeast Alaska.

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## Ucore Rare Metals Inc.

(UCU – TSXV, \$0.56)

### *Superman Saves the Day (and Some Money)*

- ▶ **X-Ray Vision:** Ucore Rare Metals Inc. (Ucore) management now plans to implement an unconventional sorting technology. By utilizing X-ray transmission (XRT) on crushed ore, it has been shown that 97% of rare earths can be retained while reducing raw ore volume by 54%. In effect, for a small cost, the company can place a sorting system underground and increase its *in situ* grade from 0.75% TREO to 1.50% TREO by rejecting gangue material prior to it entering the rest of the milling process. If this can be proven to be viable on a commercial scale, we expect some robust figures on the project. In the meantime, the most important catalyst will be Ucore's PEA due at the end of this year. At this time, **we maintain our SPECULATIVE BUY rating and raise our target to \$0.80 from \$0.65, based on our DCF model using a 12% discount rate.**
- ▶ **Conventional vs. XRT:** Ucore's deposit involves veins of REE-bearing mineral. By its nature, mining veins involves substantial amounts of gangue material. This new process raises the grade of the ore post the actual mining and initial crushing stage. The operation will now require less material be milled and treated to produce the same amount of REO. This will have the effect of reducing both capex and opex at Bokan Mountain.
- ▶ **The Savings:** At present, while we recognize that there are likely improvements to capex, we do not know enough regarding the cost of implementing XRT and the proportional costs that might be saved on milling and leaching, so we will leave our capital cost for the project alone. Mining costs themselves do not change. However, by having to leach only half the material, operational expenditures are improved. We estimate that opex drops by 30%, at minimum, since REO-bearing minerals do consume a significant amount of acid during the leach. The result is that our target price for Ucore increases to \$0.80 from \$0.65, based on our current price deck, unchanged capex and a 12% discount rate.

*Please see end of this report for important disclosures*

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- 1 This company has compensated Byron for investment banking services in the preceding 12 months. If those services were managing or co-managing an initial or secondary offering of securities for this company, the issuance of this report is, at minimum, 40 calendar days from the closing of an initial offering, or 10 calendar days from the closing of a secondary offering.
- 2 The research analyst(s) and/or associates who prepared our original research report **have not** viewed the material operations of this company.

### Investment Rating Criteria

STRONG BUY	The security represents extremely compelling value and is expected to appreciate significantly from the current price over the next 12-18 month time horizon.
BUY	The security represents attractive value and is expected to appreciate significantly from the current price over the next 12-18 month time horizon.
SPECULATIVE BUY	The security is considered a BUY but in the analyst's opinion possesses certain operational and/or financial risks that may be higher than average.
HOLD	The security represents fair value and no material appreciation is expected over the next 12-18 month time horizon.
SELL	The security represents poor value and is expected to depreciate over the next 12-18 month time horizon.

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