

# Strategic Metals & Rare Earths Letter

## INTERNATIONAL

the independent information and advisory publication on investing in Strategic Metals & Rare Earths

**January 2018**

Heavy Rare Earths Oxides (HREO)		Light Rare Earth Oxides (LREO)	Critical Metals and Special Minerals	
europium (Eu)	erbium (Er)	lanthanum (La)	yttrium (Y)	lithium (Li)
gadolinium (Gd)	thulium (Tm)	cerium (Ce)	scandium (Sc)	cobalt (Co)
terbium (Tb)	ytterbium (Yb)	praseodymium (Pr)	niobium (Nb)	graphite (C)
dysprosium (Dy)	lutetium (Lu)	neodymium (Nd)	tantalum (Ta)	tungsten (W)
holmium (Ho)		promethium (Pm)	beryllium (Be)	titanium (Ti)
		samarium (Sm)	gallium (Ga)	zirconium (Zr)
			indium (In)	hafnium (Hf)
			germanium (Ge)	antimony (Sb)

### Overview of listed REE focused companies (by market capitalization)

31 January 2018	Trading symbol		Share price		Change in %	12 months prices		Total shares issued million	Market cap. million	
			Jan. 31 2018	Year-end 2017		H	L		local	US\$
<b>US:</b>			<b>US\$</b>	<b>US\$</b>		<b>US\$</b>	<b>US\$</b>		<b>US\$</b>	
Rare Element Resources	OTC US	REEMF	0.20	0.230	-13	0.440	0.070	79.6	15.9	15.9
Texas Mineral Resources	OTC US	TMRC	0.19	0.210	-10	0.390	0.120	44.9	8.5	8.5
			<b>C\$</b>	<b>C\$</b>		<b>C\$</b>	<b>C\$</b>		<b>C\$</b>	
Ucore Rare Metals	TSX.V	UCU	0.20	0.240	-17	0.365	0.185	270.2	54.0	43.8
<b>Canada:</b>			<b>C\$</b>	<b>C\$</b>		<b>C\$</b>	<b>C\$</b>		<b>C\$</b>	
Avalon Rare Metals	TSX	AVL	0.14	0.120	13	0.200	0.110	212.2	28.6	23.2
Commerce Resources	TSX.V	CCE	0.07	0.075	-7	0.110	0.060	309.6	21.7	17.6
Eagle Plains Resources	TSX.V	EPL	0.21	0.250	-16	0.250	0.130	84.5	17.7	14.4
Appia Energy	CNSX	API	0.14	0.170	-18	0.465	0.100	52.3	7.3	5.9
Canada Rare Earth	1) TSX.V	LL	0.07	0.045	56	0.095	0.025	166.9	11.7	9.5
Search Minerals	TSX.V	SMY	0.07	0.045	56	0.100	0.030	156.1	10.9	8.9
Matamec Explorations	2) TSX.V	MAT	0.04	0.030	17	0.080	0.025	137.0	4.8	3.9
Medaillon Resources	3) TSX.V	MDL	0.11	0.145	-24	0.280	0.080	25.2	2.8	2.2
Canadian Int. Minerals	6) TSX.V	CIN	0.25	0.275	-9	0.600	0.110	9.2	2.3	1.9
Int. Montoro Resources	4) TSX.V	IMT	0.06	0.060	-8	0.150	0.030	23.9	1.3	1.1
Quest Rare Minerals	5) OTC US	QRMLF	0.002	0.010	-80	0.220	0.001	94.6	0.2	0.2
<b>Australia:</b>			<b>A\$</b>	<b>A\$</b>		<b>A\$</b>	<b>A\$</b>		<b>A\$</b>	
Lynas	7) ASX	LYC	2.08	2.180	-5	2.400	0.750	590.3	1,227.8	992.1
Hastings Technology Metals	ASX	HAS	0.29	0.360	-19	0.380	0.070	671.2	194.6	157.3
Alkane Resources	8) ASX	ALK	0.31	0.330	-6	0.410	0.210	506.1	156.9	126.8
Northern Minerals	ASX	NTU	0.10	0.080	25	0.150	0.080	903.0	90.3	73.0
Arafura Resources	ASX	ARU	0.12	0.100	20	0.150	0.050	575.8	69.1	55.8
<b>Western Europe:</b>										
<b>Greenland:</b>			<b>A\$</b>	<b>A\$</b>		<b>A\$</b>	<b>A\$</b>		<b>A\$</b>	
Greenland Min. and Energy	9) ASX	GGG	0.09	0.100	-10	0.200	0.080	1,110	99.9	80.7
<b>Sweden:</b>			<b>C\$</b>	<b>C\$</b>		<b>C\$</b>	<b>C\$</b>		<b>C\$</b>	
Leading Edge Materials	10) TSX.V	LEM	0.76	0.910	-16	1.005	0.510	88.9	67.6	54.7

1) vertically integrated REE business  
2) also gold and base metal assets  
3) 1 for 4 share consolidation effective on 28 July 2017  
4) also uranium assets  
5) filed a notice of intention to make a proposal under the bankruptcy and insolvency act (Canada) on 5 July 2017; 4th extension until 4 Dec.2017  
6) share consolidation 20 for 1 effective November 15, 2017; private placement of up to 2.5 million flow-through common shares at a price of C\$ 0.20 up to total proceeds of C\$ 500,000  
7) share consolidation 1 for 10 effective November 29, 2017  
8) also gold producer  
9) world's largest undeveloped multi-element REE-uranium-zinc occurrence  
10) Plan of arrangement between Flinders Resources and Tasman Metals and name change effective 25 August 2016

31 January 2018		Trading symbol		Share price		Change in %	12 months prices		Total shares issued million	Market cap. million		
		Jan. 31 2018	Year-end 2017	H	L		local	US\$				
<b>Central Asia:</b>												
<b>Kyrgyzstan:</b>												
Stans Energy	TSX.V	HRE	C\$ 0.03	C\$ 0.035 *	-14	C\$ 0.060	C\$ 0.030	177.3	C\$ 5.3	4.3		
<b>Africa:</b>												
<b>Tanzania:</b>												
Peak Resources	ASX	PEK	A\$ 0.05	A\$ 0.050	0	A\$ 0.130	A\$ 0.030	615.9	A\$ 30.8	24.9		
Montero Mining and Exploration	11) TSX.V	MON	C\$ 0.33	C\$ 0.280	18	C\$ 0.485	C\$ 0.120	10.6	C\$ 3.5	2.8		
<b>Burundi:</b>												
Rainbow Rare Earths	12) AIM	RBW	GBP 14.38	GBP 14.750	-3	GBP 16.88	GBP 10.25	174.6	£ 25.1	33.6		
<b>Kenya:</b>												
Pacific Wildcat Resources	13) TSX.V	PAW.H	C\$ 0.015	C\$ 0.015	0	C\$ 0.015	C\$ 0.005	295.1	C\$ 4.4	3.6		
<b>Malawi:</b>												
Globe Metals and Mining	14) ASX	GBE	A\$ 0.02	A\$ 0.020	0	A\$ 0.020	A\$ 0.010	469.7	A\$ 9.4	7.6		
Mkango Resources	TSX.V	MKA	C\$ 0.15	C\$ 0.110	36	C\$ 0.240	C\$ 0.040	105.0	C\$ 15.8	12.8		
<b>Namibia:</b>												
Namibia Rare Earths	TSX.V	NRE	C\$ 0.04	C\$ 0.040	0	C\$ 0.095	C\$ 0.040	83.7	C\$ 3.3	2.7		
11) also phosphate assets South Africa												
12) listed as at 30 January 2017												
13) also tantalum mine in Mozambique and gold-silver project in Nevada												
14) also graphite project												

## Overview of listed LITHIUM focused companies (by market capitalization)

31 January 2018		Trading symbol		Share price		Change	12 months		Total shares	Market cap.	
		Jan. 31	Year-end	in %	prices		issued		million		
		2018	2017		H	L	million		local	US\$	
		US\$	US\$		US\$	US\$			US\$		
Albemarle Corp.	1)	NYSE ALB	111.590	127.890	-13	144.99	90.35	110.5	12,330.7	12,330.7	
FMC		NYSE FMC	91.330	94.660	-4	98.70	56.35	134.3	12,265.6	12,265.6	
SQM		NYSE SQM	56.380	59.370	-5	64.20	30.82	120.4	6,788.2	6,788.2	
Tianqi Lithium	2)	HKSE 002466	52.280	53.210	-2	78.17	29.74	1.140	59.6	7.6	
ERAMET		Paris ERA:FP	115.70	99.03	17	126.10	36.43	26.6	3,077.6	3,785.5	
			A\$	A\$		A\$	A\$		A\$		
Orocobre		ASX ORE	7.150	6.970	3	7.44	2.61	260.7	1,864.0	1,506.1	
Pilbara Minerals		ASX PLS	0.940	1.110	-15	1.25	0.31	1,650.0	1,551.0	1,253.2	
Galaxy Resources	3)	ASX GXY	3.390	3.830	-11	4.54	1.52	407.3	1,380.7	1,115.6	
Altura Mining		ASX AJM	0.360	0.400	-10	0.51	0.13	1,820.0	655.2	529.4	
Global Geoscience		ASX GSC	0.340	0.350	-3	0.42	0.09	1,330.0	452.2	365.4	
Tawana Resources		ASX TAW	0.470	0.460	2	0.58	0.10	505.0	237.4	191.8	
Neometals		ASX NMT	0.400	0.440	-9	0.53	0.24	543.5	217.4	175.7	
Lithium Power International		ASX LPI	0.510	0.570	-11	0.68	0.23	260.7	133.0	107.4	
European Lithium		ASX EUR	0.240	0.240	0	0.33	0.04	544.7	130.7	105.6	
Lithium Australia		ASX LIT	0.200	0.200	0	0.27	0.07	343.6	68.7	55.5	
Liontown Resources		ASX LTR	0.040	0.040	0	0.06	0.01	991.1	39.6	32.0	
Core Exploration		ASX CXO	0.070	0.080	-13	0.11	0.03	496.3	34.7	28.1	
Novo Lithio	4)	ASX NLI	0.060	0.050	20	0.10	0.04	372.8	22.4	18.1	
PepinNini Lithium		ASX PNN	0.040	0.080	-50	0.09	0.01	510.0	20.4	16.5	
			C\$	C\$		C\$	C\$		C\$		
Lithium Americas	5)	TSX LAC	8.340	11.180	-25	14.06	3.85	88.5	738.1	597.9	
Nemaska Lithium		TSX NMX	1.710	2.350	-27	2.44	0.95	400.4	684.7	554.6	
Millennial Lithium	6)	TSX ML	4.270	3.660	17	4.80	1.20	71.9	307.0	248.7	
Bacanora Minerals		TSX.V BCN	2.060	1.900	8	2.73	1.17	134.0	276.0	223.6	
Lithium X Energy		TSX.V LIX	2.490	2.400	4	2.54	1.40	98.4	245.0	198.5	
Neo Lithium		TSX NLC	2.080	2.300	-10	2.75	0.85	117.2	243.8	197.5	
LSC Lithium	7)	TSX.V LSC	1.430	1.640	-13	1.77	1.02	140.3	200.6	162.5	
Critical Elements		TSX.V CRE	1.340	1.700	-21	1.86	0.59	149.1	199.8	161.8	
Advantage Lithium	8)	TSX.V AAL	1.280	1.200	7	1.42	0.36	140.7	180.1	145.9	
Wealth Minerals		TSX.V WML	1.550	1.760	-12	2.34	1.22	103.3	160.1	129.7	
Standard Lithium		TSX.V SLL	2.400	2.140	12	2.85	0.71	61.0	146.4	118.6	
Power Metals		TSX.V PWM	0.710	0.740	-4	0.88	0.25	103.0	73.1	59.2	
Pure Energy Minerals		TSX PE	0.400	0.410	-2	0.65	0.38	131.8	52.7	42.7	
Argentina Lithium and Energy		TSX LIT	0.440	0.360	22	0.60	0.08	75.4	33.2	26.9	
Ultra Lithium		TSX.V ULI	0.340	0.460	-26	0.80	0.14	70.5	24.0	19.4	
Dajin Resources		TSX.V DJI	0.160	0.165	-3	0.22	0.08	149.4	23.9	19.4	
Aberdeen International		TSX AAB	0.180	0.190	-5	0.21	0.11	96.1	17.3	14.0	
McArthur Minerals		TSX.V MMS	0.065	0.065	0	0.16	0.05	231.3	15.0	12.2	
Frontier Lithium		TSX.V FL	0.060	0.650	-91	0.78	0.29	138.7	8.3	6.7	
Southern Lithium	9)	TSX.V SNL	0.360	0.340	6	3.80	0.32	5.9	2.1	1.7	
			GBp	GBp		GBp	GBp		£		
European Metals Holdings		AIM EMH	0.580	0.660	-12	1.39	0.57	139.9	81.1	114.3	

1) owns 51% of [Talisson Lithium](#)

2) owns 49% of [Talisson Lithium](#)

3) completed acquisition of [General Mining](#); 1.65 Galaxy share for 1 General Mining share) as at 16 August 2016

4) [Dakota Minerals](#), name change in [Novo Lito](#) effective June 5, 2017

5) formerly [Western Lithium USA](#), name change effective March 31, 2016

6) formerly [Redhill Resources](#), name change effective May 31, 2016

7) previously [Oakham Capital](#); closed three-cornered amalgamation transaction on February 22, 2017; [Enirgi Group](#) largest shareholder (18.19%)

8) bought portfolio of exploration projects in [Argentina](#) from [Orocobre](#) in consideration of US\$ 30.5 million in shares and warrants in [November 2016](#)

9) formerly [Signal Exploration](#) name change effective November 11, 2016; share consolidation of 1 for 10, effective December 11, 2017

## Overview of listed COBALT focused companies (by market capitalization)

31 January 2018	Trading symbol		Share price		Change in %	12 months prices		Total shares issued million	Market cap. million	
			Jan. 31 2018	Year-end 2017		H	L		local	US\$
			C\$	C\$		C\$	C\$		C\$	C\$
Cobalt 27 Capital	1) TSX.V	KBLT	12.300	12.300	0	13.75	7.42	34.3	421.9	341.7
First Cobalt	2) TSX.V	FCC	1.100	1.240	-11	1.65	0.42	195.1	214.6	173.8
eCobalt Solutions	TSX.V	ECS	1.510	1.950	-23	2.10	0.77	131.6	198.7	161.0
Fortune Minerals	TSX.V	FT	0.265	0.295	-10	0.38	0.17	333.4	88.4	71.6
Pacific Rim Cobalt	CNX	BOLT	1.160	1.400 *	-17	1.59	0.33	44.5	51.6	41.8
US Cobalt	3) TSX.V	USCO	0.740	0.600	23	0.99	0.45	55.2	40.8	33.1
Cruz Cobalt	TSX.V	CUZ	0.385	0.280	38	0.41	0.16	74.4	28.6	23.2
Castle Silver Resources	TSX.V	CSR	0.440	0.350	26	0.55	0.08	60.9	26.8	21.7
Lico Energy Metals	TSX.V	LIC	0.140	0.115	22	0.24	0.08	132.4	18.5	15.0
Global Energy Metals	4) TSX.V	GEMC	0.185	0.225	-18	0.67	0.10	35.4	6.5	5.3
			A\$	A\$		A\$	A\$		A\$	
Ardea Resources	5) ASX	ARL	1.440	1.900	-24	2.20	0.17	89.7	129.2	104.4
Cobalt Blue Holdings	6) ASX	COB	0.680	0.800	-15	0.89	0.14	106.5	72.4	58.5

\* listed as at October 24, 2017

1) name change from Arak Resources - effective 10 April 2017; 1 for 20 shares consolidation as at 23 June 2017

2) completed merger with Cobaltech Mining and Cobalt One; number of issued shares increased from 58.8 million to 193.7 million shares

3) name change from Scientific Metals - effective May 25, 2017

4) announced on September 25, 2017 the acquired option from Hammer Metals for the Millennium cobalt-copper project in the heart of Mt. Isa, Queensland, Australia

5) subject to joint-venture agreement with Broken Hill Prospecting on Thackeranga cobalt project; closed IPO for more than A\$ 10 million on January 27, 2017; listed on January 31, 2017

6) recent spin-out of Broken Hill Prospecting

## Overview of listed GRAPHITE focused companies (by market capitalization)

31 January 2018	Trading symbol		Share price		Change in %	12 months prices		Total shares issued million	Market cap. million	
			Jan. 31 2018	Year-end 2017		H	L		local	US\$
			A\$	A\$		A\$	A\$		A\$	A\$
Syrah Resources	ASX	SYR	3.920	4.510	-13	4.95	2.21	297.0	1,164.2	940.7
Magnis Resources	ASX	MNS	0.400	0.460	-13	0.77	0.36	553.4	221.4	178.9
Kibaran Resources	ASX	KNL	0.150	0.140	7	0.20	0.12	255.7	38.4	31.0
			C\$	C\$		C\$	C\$		C\$	
Nouveau Monde Graphite	TSX.V	NOU	0.370	0.445	-17	0.54	0.23	134.7	49.8	40.4
Zenyatta Ventures	TSX.V	ZEN	0.710	0.670	6	1.29	0.52	63.6	45.2	36.6
Northern Graphite	TSX.V	NGC	0.450	0.485	-7	0.70	0.24	64.7	29.1	23.6
Focus Graphite	TSX.V	FMS	0.070	0.075	-7	0.15	0.06	340.9	23.9	19.3
Graphite One Resources	TSX	GPH	0.070	0.085	-18	0.11	0.04	250.9	17.6	14.2
Canada Strategic Metals	TSX.V	CJC	0.130	0.105	24	0.16	0.09	102.9	13.4	10.8
Alabama Graphite	TSX.V	CSPG	0.075	0.090	-17	0.22	0.07	145.3	10.9	8.8
Eagle Graphite	TSX.V	EGA	0.035	0.030	17	0.05	0.04	278.0	9.7	7.9
Canada Carbon	TSX.V	CCB	0.075	0.090	-17	0.28	0.08	103.3	7.7	6.3
Lomiko Metals	TSX.V	LMR	0.180	0.130	38	0.33	0.09	36.2	6.5	5.3
Great Lakes Graphite	TSX.V	GLK	0.050	0.060	-17	0.11	0.03	125.7	6.3	5.1
			US\$	US\$		US\$	US\$		US\$	
Next Graphite	1) OTC	GPNE	0.050	0.030	67	0.08	0.01	51.4	2.6	2.6

1) sold 63% interest in the Aukam Graphite Project in Namibia to CKR Carbon in January 2017

## Overview of listed TUNGSTEN focused companies (by market capitalization)

31 January 2018	Trading symbol		Share price		Change in %	12 months prices		Total shares issued million	Market cap. million	
			Jan. 31 2018	Year-end 2017		H	L		local	US\$
Almonty Industries	TSX.V	All	C\$ 0.590	C\$ 0.550	7	C\$ 0.69	C\$ 0.20	175.5	C\$ 103.5	83.9
Wolf Minerals	ASX	WLF	A\$ 0.060	A\$ 0.050	20	A\$ 0.15	A\$ 0.05	1,090.0	A\$ 65.4	52.8
Specialty Metals Int. 1)	ASX	SEI	0.030	0.020	50	0.04	0.01	482.9	14.5	11.7

1) name change from Cabine Tungsten effective 11 December 2017

## Overview of listed TITANIUM focused companies (by market capitalization)

31 January 2018	Trading symbol		Share price		Change in %	12 months prices		Total shares issued million	Market cap. million	
			Jan. 31 2018	Year-end 2017		H	L		local	US\$
Kronos Worldwide Tronox	NYSE	KRO	US\$ 27.45	US\$ 25.77	7	US\$ 29.49	US\$ 12.58	115.9	3,181.5	3,181.5
	NYSE	TROX	19.63	20.51	-4	28.40	12.52	91.1	1,788.3	1,788.3
Argex Titanium	TSX	RGX	C\$ 0.05	C\$ 0.05	0	C\$ 0.10	C\$ 0.04	336.2	C\$ 16.8	13.6
Iluka Resources Mineral Deposits TNG	ASX	ILU	A\$ 10.43	A\$ 10.17	3	A\$ 10.52	A\$ 6.50	418.7	A\$ 4,367.0	3,528.6
	1) ASX	MDL	1.16	1.03	13	1.20	0.40	197.0	228.5	184.6
	ASX	TNG	0.16	0.14	14	0.18	0.11	804.5	128.7	104.0
BlueJay Mining	2) AIM	JAY	GBp 23.60	GBp 22.75	4	GBp 26.40	GBp 6.80	771.5	£ 182.1	256.5

1) owns 50% of the TiZir joint venture in partnership with ERAMET of France

2) name change from FinnAust Mining Plc, effective March 13, 2017