

Strategic Metals & Rare Earths Letter

INTERNATIONAL

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

November 2017

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)

		Trading symbol		Share price		Change in %	12 months prices		Total shares issued million	Market cap. million	
1 December 2017				Current 2017	Year-end 2016		H	L		local	US\$
US:											
Rare Element Resources		OTC US	REEMF	0.260	0.060	333	0.530	0.030	79.6	20.7	20.7
Texas Mineral Resources		OTC US	TMRC	0.170	0.110	55	0.390	0.100	44.9	7.6	7.6
				C\$	C\$		C\$	C\$		C\$	
Ucore Rare Metals		TSX.V	UCU	0.255	0.310	-18	0.365	0.220	270.1	68.9	53.4
Canada:											
				C\$	C\$		C\$	C\$		C\$	
Commerce Resources		TSX.V	CCE	0.080	0.050	60	0.110	0.050	309.6	24.8	19.2
Avalon Rare Metals		TSX	AVL	0.120	0.145	-17	0.225	0.110	199.1	23.9	18.5
Eagle Plains Resources		TSX.V	EPL	0.175	0.155	13	0.235	0.130	84.4	14.8	11.5
Appia Energy		CNSX	API	0.140	0.250	-44	0.465	0.100	52.3	7.3	5.7
Search Minerals		TSX.V	SMY	0.035	0.060	-42	0.100	0.030	152.4	5.3	4.1
Canada Rare Earth	1)	TSX.V	LL	0.030	0.035	-14	0.060	0.025	166.9	5.0	3.9
Matamec Explorations	2)	TSX.V	MAT	0.035	0.045	-22	0.080	0.030	137.0	4.8	3.7
Medaillon Resources	3)	TSX.V	MDL	0.155	0.080	94	0.280	0.080	25.2	3.9	3.0
Canadian Int. Minerals		TSX.V	CIN	0.350	0.500	-30	0.600	0.110	2.8	1.0	0.8
Int. Montoro Resources	4)	TSX.V	IMT	0.045	0.020	125	0.150	0.030	17.9	0.8	0.6
Quest Rare Minerals	5)	OTC US	QRMLF	0.004	0.150	-97	0.225	0.001	94.6	0.4	0.3
Australia:											
				A\$	A\$		A\$	A\$		A\$	
Lynas stocksplif?		ASX	LYCDA	1.910	1.120	71	2.300	0.630	548.7	1,048.0	793.3
Hastings Technology Metals		ASX	HAS	0.320	0.070	357	0.380	0.070	671.2	214.8	162.6
Alkane Resources	6)	ASX	ALK	0.340	0.340	0	0.450	0.210	506.1	172.1	130.3
Northern Minerals		ASX	NTU	0.100	0.120	-17	0.150	0.090	798.0	79.8	60.4
Arafura Resources		ASX	ARU	0.100	0.060	67	0.150	0.050	575.8	57.6	43.6
Western Europe:											
Greenland:											
				A\$	A\$		A\$	A\$		A\$	
Greenland Min. and Energy	7)	ASX	GGG	0.100	0.070	43	0.200	0.060	1,100.0	110.0	83.3
Sweden:											
				C\$	C\$		C\$	C\$		C\$	
Leading Edge Materials	8)	TSX.V	LEM	0.550	0.510	8	0.930	0.460	88.7	48.8	37.9

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) also gold producer

7) world's largest undeveloped multi-element REE-uranium-zinc occurrence

8) Plan of arrangement between Flinders Resources and Tasman Metals and name change effective 25 August 2016

1 December 2017	Trading symbol		Share price Current 2017	Year-end 2016	Change in %	12 months prices H L		Net shares issued million	Market cap. million local US\$		
Central Asia:											
Kyrgyzstan:											
Stans Energy	TSX.V	HRE	C\$ 0.035	C\$ 0.050	-30	C\$ 0.080	C\$ 0.030	177.3	C\$ 6.2	4.8	
Africa:											
Tanzania:											
Peak Resources	8)	ASX	PEK	A\$ 0.050	A\$ 0.070	-29	A\$ 0.130	A\$ 0.030	615.9	A\$ 30.8	23.3
Montero Mining and Exploration	9)	TSX.V	MON	C\$ 0.350	C\$ 0.200	75	C\$ 0.485	C\$ 0.120	10.6	C\$ 3.7	2.9
Burundi:											
Rainbow Rare Earths	10)	AIM	RBW	GBp 16.500	GBp 9) 11.630	42	GBp 16.88	GBp 10.25	154.6	£ 25.5	33.7
Kenya:											
Pacific Wildcat Resources	11)	TSX.V	PAW.H	C\$ 0.015	C\$ 0.015	0	C\$ 0.015	C\$ 0.005	295.1	C\$ 4.4	3.4
Malawi:											
Globe Metals and Mining	12)	ASX	GBE	A\$ 0.020	A\$ 0.020	0	A\$ 0.020	A\$ 0.010	469.7	A\$ 9.4	7.1
Mkango Resources		TSX.V	MKA	C\$ 0.095	C\$ 0.060	58	C\$ 0.190	C\$ 0.040	98.9	C\$ 9.4	7.3
Namibia:											
Namibia Rare Earths		TSX.V	NRE	C\$ 0.040	C\$ 0.050	-20	C\$ 0.095	C\$ 0.040	83.7	C\$ 3.3	2.6
8) suspended as at 29 August 2017 in connection with a pending committed \$ 1.5 million placement from ERP Strategic Minerals , with an announcement expected to be no later than 8 September 2017; also gold projects in Tanzania and Australia											
9) also phosphate assets South Africa											
10) listed as at 30 January 2017											
11) also tantalum mine in Mozambique and gold-silver project in Nevada; listing changed to US OTC on November 25, 2015											
12) also graphite project											

Overview of listed LITHIUM focused companies (by market capitalization)

1 December 2017	Trading symbol		Share price		Change in %	12 months prices		Total shares issued million	Market cap. million		
			Current 2017	Year-end 2016		H	L		local	US\$	
			US\$	US\$		US\$	US\$		US\$	US\$	
Albemarle Corp.	1)	NYSE	ALB	132.150	86.080	54	144.99	85.41	110.5	14,602.6	14,602.6
FMC		NYSE	FMC	94.500	56.560	67	94.94	55.79	134.3	12,691.4	12,691.4
SQM		NYSE	SQM	54.410	28.650	90	63.80	26.68	120.4	6,551.0	6,551.0
Tianqi Lithium	2)	HKSE	002466	60.740	32.450	87	87.40	31.20	994.4	60,399.9	7,731.2
ERAMET		Paris	ERA:FP	83.96	56.74	48	90.62	36.43	26.6	2,233.3	2,651.0
				A\$	A\$		A\$	A\$		A\$	
Pilbara Minerals		ASX	PLS	1.030	0.500	106	1.10	0.31	1,630.0	1,678.9	1,270.9
Galaxy Resources	3)	ASX	GXY	3.800	2.630	44	4.08	1.52	403.3	1,532.5	1,160.1
Orocobre		ASX	ORE	6.370	4.530	41	6.46	2.62	211.0	1,344.1	1,017.5
Altura Mining		ASX	AJM	0.390	0.140	179	0.47	0.13	1,770.0	690.3	522.6
Global Geoscience		ASX	GSC	0.220	0.070	214	0.26	0.06	1,310.0	288.2	218.2
Neometals		ASX	NMT	0.450	0.340	32	0.53	0.24	543.5	244.6	185.1
Tawana Resources		ASX	TAW	0.360	0.120	200	0.44	0.09	504.3	181.5	137.4
Lithium Power International		ASX	LPI	0.530	0.280	89	0.68	0.23	260.7	138.2	104.6
European Lithium		ASX	EUR	0.250	0.060	317	0.25	0.04	513.6	128.4	97.2
Lithium Australia		ASX	LIT	0.180	0.150	20	0.27	0.07	343.6	61.8	46.8
Core Exploration		ASX	CXO	0.100	0.070	43	0.11	0.03	496.3	49.6	37.6
Novo Lithio	4)	ASX	NLI	0.090	0.060	50	0.10	0.04	370.4	33.3	25.2
Liontown Resources		ASX	LTR	0.030	0.020	50	0.03	0.01	990.3	29.7	22.5
PepinNnini Lithium		ASX	PNN	0.040	0.020	100	0.01	0.050	483.9	19.4	14.7
				C\$	C\$		C\$	C\$		C\$	
Lithium Americas	5)	TSX	LAC	13.300	4.000	233	14.06	3.56	88.5	1,177.1	913.4
Nemaska Lithium		TSX	NMX	2.010	1.240	62	2.06	0.95	377.4	758.6	588.7
Millennial Lithium	6)	TSX	ML	4.050	1.470	176	4.38	1.20	70.0	283.5	220.0
Neo Lithium		TSX	NLC	2.060	1.060	94	2.45	0.85	116.2	239.4	185.8
LSC Lithium	7)	TSX.V	LSC	1.610	0.422	282	1.77	1.02	140.3	225.9	175.3
Bacanora Minerals		TSX.V	BCN	1.700	1.010	68	1.85	1.01	132.8	225.8	175.2
Critical Elements		TSX.V	CRE	1.460	0.510	186	1.85	0.48	149.1	217.7	168.9
Lithium X Energy		TSX.V	LIX	2.010	2.250	-11	2.37	1.40	93.9	188.7	146.5
Wealth Minerals		TSX.V	WML	1.800	1.250	44	2.34	0.96	97.4	175.3	136.0
Advantage Lithium	8)	TSX.V	AAL	1.160	0.970	20	1.42	0.36	137.5	159.5	123.8
Standard Lithium		TSX.V	SLL	2.460	0.550	347	2.85	0.32	60.8	149.6	116.1
Frontier Lithium		TSX.V	FL	0.630	0.260	142	0.78	0.24	137.7	86.8	67.3
Power Metals		TSX.V	PWM	0.660	0.250	164	0.85	0.09	84.2	55.6	43.1
Pure Energy Minerals		TSX	PE	0.425	0.600	-29	0.75	0.42	120.9	51.4	39.9
Ultra Lithium		TSX.V	ULI	0.470	0.170	176	0.80	0.14	64.7	30.4	23.6
Argentina Lithium and Energy		TSX	LIT	0.370	0.370	0	0.60	0.08	63.0	23.3	18.1
Dajin Resources		TSX.V	DJI	0.160	0.120	33	0.22	0.08	138.6	22.2	17.2
Aberdeen International		TSX	AAB	0.170	0.155	10	0.19	0.11	96.1	16.3	12.7
McArthur Minerals		TSX.V	MMS	0.065	0.075	-13	0.16	0.05	190.3	12.4	9.6
Southern Lithium	9)	TSX.V	SNL	0.070	0.230	-70	0.38	0.04	58.6	4.1	3.2
				GBp	GBp		GBp	GBp		£	
European Metals Holdings		AIM	EMH	0.700	34.750	-98	1.39	0.56	131.8	92.3	124.6

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

Overview of listed COBALT focused companies (by market capitalization)

1 December 2017	Trading symbol		Share price		Change in %	12 months prices		Total shares issued million	Market cap. million		
			Current 2017	Year-end 2016		H	L		local	US\$	
	C\$	C\$	C\$	C\$	A\$	A\$	A\$				
Cobalt 27 Capital	1)	TSX.V	KBLT	12.500	9.000	39	13.75	7.42	24.8	310.0	240.6
eCobalt Solutions		TSX.V	ECS	1.270	0.540	135	1.48	0.48	131.6	167.1	129.7
Pacific Rim Cobalt		CNX	BOLT	1.270	0.466 *	173	1.30	0.33	66.7	84.7	65.7
Fortune Minerals		TSX.V	FT	0.260	0.125	108	1.48	0.48	131.6	34.2	26.6
First Cobalt	2)	TSX.V	FCC	1.250	0.390	221	1.65	0.25	58.8	73.5	57.0
US Cobalt	3)	TSX.V	USCO	0.600	0.200	200	0.99	0.45	54.0	32.4	25.1
CobaltTech Mining	2)	TSX.V	CSK	0.320	0.240	33	0.45	0.11	92.4	29.6	22.9
Lico Energy Metals		TSX.V	LIC	0.165	0.135	22	0.24	0.08	132.4	21.8	17.0
Cruz Cobalt		TSX.V	CUZ	0.270	0.130	108	0.33	0.11	64.6	17.4	13.5
Castle Silver Resources		TSX.V	CSR	0.300	0.070	329	0.32	0.02	56.0	16.8	13.0
Global Energy Metals	4)	TSX.V	GEMC	0.135	0.160	-16	0.67	0.10	35.4	4.8	3.7
Ardea Resources	6)	ASX	ARL	1.590	0.180	783	2.20	0.17	83.4	132.6	100.4
Cobalt One	2+5)	ASX	CO1	0.120	0.050	140	0.19	0.04	737.8	88.5	67.0
Cobalt Blue Holdings	7)	ASX	COB	0.420	0.180	133	0.45	0.14	106.4	44.7	33.8

* 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) to merge with CobaltTech Mining and Cobalt One, to be completed around December 7, 2017

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) name change from Equator Resource - effective May 26, 2017; signed Letter of Intent to merge with First Cobalt on June 23, 2017

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

Overview of listed GRAPHITE focused companies (by market capitalization)

1 December 2017	Trading symbol		Share price		Change in %	12 months prices		Total shares issued million	Market cap. million		
			Current 2017	Year-end 2016		H	L		local	US\$	
	A\$	A\$	A\$	A\$	A\$	A\$	A\$				
Syrah Resources	ASX	SYR	4.090	3.050	34	4.64	2.21	296.4	1,212.3	917.7	
Magnis Resources	ASX	MNS	0.460 *	0.760	-39	0.91	0.36	550.4	253.2	191.7	
Kibaran Resources	ASX	KNL	0.150	0.190	-21	0.20	0.12	244.2	36.6	27.7	
Nouveau Monde Graphite	TSX.V	NOU	0.490	0.235	109	0.54	0.21	133.9	65.6	50.9	
Zenyatta Ventures	TSX.V	ZEN	0.700	0.850	-18	1.29	0.58	60.5	42.4	32.9	
Northern Graphite	TSX.V	NGC	0.530	0.300	77	0.70	0.22	66.7	35.4	27.4	
Focus Graphite	TSX.V	FMS	0.085	0.065	31	0.15	0.06	308.4	26.2	20.3	
Alabama Graphite	TSX.V	CSPG	0.140	0.150	-7	0.22	0.11	145.3	20.3	15.8	
Canada Strategic Metals	TSX.V	CJC	0.115	0.115	0	0.16	0.09	102.9	11.8	9.2	
CKR Carbon	1)	TSX.V	CKR	0.100	0.080	25	0.19	0.05	111.0	11.1	8.6
Graphite One Resources	TSX	GPH	0.040	0.080	-50	0.13	0.04	250.8	10.0	7.8	
Canada Carbon	TSX.V	CCB	0.095	0.260	-63	0.31	0.09	103.3	9.8	7.6	
Eagle Graphite	TSX.V	EGA	0.035	0.030	17	0.05	0.02	278.0	9.7	7.6	
Great Lakes Graphite	TSX.V	GLK	0.070	0.070	0	0.11	0.03	125.7	8.8	6.8	
Lomiko Metals	TSX.V	LMR	0.105	0.215	-51	0.35	0.09	25.1	2.6	2.0	
Next Graphite	2)	OTC	GPNE	0.020	0.030	-33	0.08	0.01	51.4	1.0	1.0

* suspended at July 2, 2017 as a result of changed Tanzania mining frame work

1) formerly Caribou King Resources; earned 63% interest in the Aukam Graphite Project in Namibia from Next Graphite in January 2017

2) 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)

1 December 2017	Trading symbol		Share price		Change in %	12 months prices		Total shares issued million	Market cap. million	
			Current 2017	Year-end 2016		H	L		local	US\$
Almonty Industries	TSX.V	All	C\$ 0.530	C\$ 0.270	96	C\$ 0.69	C\$ 0.20	170.6	C\$ 90.4	70.2
Wolf Minerals	ASX	WLF	A\$ 0.070	A\$ 0.080	-13	A\$ 0.15	A\$ 0.05	1,098.0	A\$ 76.9	58.2
Carbine Tungsten	ASX	CNQ	A\$ 0.020	A\$ 0.020	0	A\$ 0.02	A\$ 0.01	482.9	A\$ 9.7	7.3

Overview of listed TITANIUM focused companies (by market capitalization)

1 December 2017	Trading symbol		Share price		Change in %	12 months prices		Total shares issued million	Market cap. million	
			Current 2017	Year-end 2016		H	L		local	US\$
Kronos Worldwide	NYSE	KRO	US\$ 27.66	US\$ 6.78	308	US\$ 29.49	US\$ 11.12	115.9	US\$ 3,205.8	3,205.8
Tronox	NYSE	TROX	US\$ 24.47	US\$ 10.31	137	US\$ 28.40	US\$ 10.20	91.1	US\$ 2,229.2	2,229.2
Argex Titanium	TSX	RGX	C\$ 0.06	C\$ 0.06	-100	C\$ 0.10	C\$ 0.04	295.3	C\$ 0.0	0.0
Iluka Resources	ASX	ILU	A\$ 9.28	A\$ 7.27	28	A\$ 10.02	A\$ 6.44	418.7	A\$ 3,885.5	2,941.4
Mineral Deposits	1) ASX	MDL	A\$ 0.95	A\$ 0.49	94	A\$ 1.00	A\$ 0.37	197.0	A\$ 187.2	141.7
TNG	ASX	TNG	A\$ 0.14	A\$ 0.14	0	A\$ 0.18	A\$ 0.11	804.5	A\$ 112.6	85.3
BlueJay Mining	2) AIM	JAY	GBp 24.00	GBp 6.78	254	GBp 25.75	GBp 6.25	770.7	£ 185.0	246.9

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