

Strategic Metals & Rare Earths Letter

INTERNATIONAL

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

Overviews as at October 31, 2018



Marino G. Pieterse, publisher and editor

| 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)

| October 31, 2018 | Trading symbol | Share price | | Change in % | 12 months prices | | Total shares issued million | Market cap. million | | |
|----------------------------|----------------|----------------|------------------|----------------|---------------------|------|-----------------------------------|------------------------|-------|--|
| | | Oct.31 2018 | Year-end 2017 | | H | L | | local | US\$ | |
| US: | | | | | | | | | | |
| Rare Element Resources | OTC US REEMF | US\$ | US\$ | | US\$ | US\$ | | US\$ | | |
| | | 0.11 | 0.23 | -52 | 0.31 | 0.07 | 79.6 | 8.8 | 8.8 | |
| Texas Mineral Resources | OTC US TMRC | 0.20 | 0.21 | -5 | 0.35 | 0.10 | 44.9 | 9.0 | 9.0 | |
| C\$ | | | | | | | | | | |
| Ucore Rare Metals | TSX.V UCU | 0.18 | 0.24 | -27 | 0.30 | 0.17 | 277.0 | 48.5 | 36.9 | |
| Canada: | | | | | | | | | | |
| Commerce Resources | TSX.V CCE | 0.07 | 0.08 | -13 | 0.10 | 0.06 | 310.5 | 20.2 | 15.4 | |
| Appia Energy | CNSX API | 0.23 | 0.17 | 35 | 0.32 | 0.11 | 58.4 | 13.4 | 10.2 | |
| Canada Rare Earth | 1) TSX.V LL | 0.07 | 0.05 | 44 | 0.10 | 0.03 | 172.9 | 11.2 | 8.6 | |
| Eagle Plains Resources | TSX.V EPL | 0.09 | 0.25 | -64 | 0.29 | 0.08 | 90.2 | 8.1 | 6.2 | |
| Search Minerals | TSX.V SMY | 0.04 | 0.05 | -22 | 0.09 | 0.03 | 179.6 | 6.3 | 4.8 | |
| Medaillon Resources | TSX.V MDL | 0.15 | 0.15 | 0 | 0.20 | 0.08 | 31.2 | 4.5 | 3.4 | |
| Int. Montoro Resources | 3) TSX.V IMT | 0.05 | 0.06 | -17 | 0.08 | 0.04 | 27.8 | 1.4 | 1.1 | |
| Canadian Energy Materials | 2) TSX.V CHEM | 0.15 | 0.28 | -45 | 0.39 | 0.11 | 9.2 | 1.4 | 1.1 | |
| Australia: | | | | | | | | | | |
| Lynas | ASX LYC | 2.11 | 2.18 | -3 | 2.96 | 1.54 | 665.4 | 1,404.0 | 994.0 | |
| Hastings Technology Metals | ASX HAS | 0.18 | 0.36 | -50 | 0.38 | 0.16 | 778.1 | 140.1 | 99.2 | |
| Alkane Resources | 4) ASX ALK | 0.22 | 0.33 | -33 | 0.38 | 0.18 | 506.1 | 111.3 | 78.8 | |
| Northern Minerals | ASX NTU | 0.08 | 0.08 | 0 | 0.13 | 0.07 | 1,180.0 | 94.4 | 66.8 | |
| Arafura Resources | ASX ARU | 0.07 | 0.10 | -30 | 0.14 | 0.06 | 629.6 | 44.1 | 31.2 | |
| Western Europe: | | | | | | | | | | |
| Greenland: | | | | | | | | | | |
| Greenland Minerals | 5) ASX GGG | 0.09 | 0.10 | -10 | 0.13 | 0.07 | 1,130.0 | 101.7 | 72.0 | |
| Sweden: | | | | | | | | | | |
| Leading Edge Materials | TSX.V LEM | 0.31 | 0.91 | -66 | 1.00 | 0.25 | 89.5 | 27.7 | 21.1 | |

1) vertically integrated REE business

2) name change from Canadian International Minerals, effective April 12, 2018

3) also uranium assets

4) also gold producer

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

| October 31, 2018 | Trading symbol | | Share price Oct.31 2018 | Year-end 2017 | Change in % | 12 months prices H L | | Total shares issued million | Market cap. million local US\$ | | |
|---|----------------|-------|-------------------------------|------------------|----------------|----------------------------|--------------|-----------------------------------|--------------------------------------|-------------|------|
| Central Asia: | | | | | | | | | | | |
| Kyrgyzstan: | | | | | | | | | | | |
| Stans Energy | TSX.V | HRE | C\$ 0.02 | C\$ 0.04 | -43 | C\$ 0.05 | C\$ 0.02 | 181.4 | C\$ 3.6 | 2.8 | |
| Africa: | | | | | | | | | | | |
| Namibia: | | | | | | | | | | | |
| Namibia Critical Metals | 6) | TSX.V | NMI | C\$ 0.215 | C\$ 0.04 | 438 | C\$ 0.46 | C\$ 0.04 | 180.3 | C\$ 38.8 | 29.5 |
| Tanzania: | | | | | | | | | | | |
| Peak Resources | | ASX | PEK | A\$ 0.03 | A\$ 0.05 | -40 | A\$ 0.07 | A\$ 0.03 | 799.3 | A\$ 24.0 | 17.0 |
| Montero Mining and Exploration | 7) | TSX.V | MON | C\$ 0.105 | C\$ 0.28 | -63 | C\$ 0.49 | C\$ 0.09 | 21.9 | C\$ 2.3 | 1.7 |
| Burundi: | | | | | | | | | | | |
| Rainbow Rare Earths | | AIM | RBW | GBP 4.67 | GBP 14.75 | -68 | GBP 24.35 | GBP 4.60 | 187.9 | £ 8.8 | 11.1 |
| Kenya: | | | | | | | | | | | |
| Pacific Wildcat Resources | 8) | TSX.V | PAW.H | C\$ 0.015 | C\$ 0.02 | 0 | C\$ 0.02 | C\$ 0.01 | 295.1 | C\$ 4.4 | 3.4 |
| Malawi: | | | | | | | | | | | |
| Mkango Resources | | TSX.V | MKA | C\$ 0.16 | C\$ 0.11 | 41 | C\$ 0.24 | C\$ 0.06 | 111.1 | C\$ 17.2 | 13.1 |
| Globe Metals and Mining | 9) | ASX | GBE | A\$ 0.01 | A\$ 0.02 | -50 | A\$ 0.02 | A\$ 0.01 | 465.9 | A\$ 4.7 | 3.3 |
| 6) name change from Namibia Rare Earths as at May 30, 2018; diversified strategic portfolio of critical metals, including cobalt, lithium, graphite, tantalum, niobium, vanadium and gold | | | | | | | | | | | |
| 7) also phosphate assets South Africa | | | | | | | | | | | |
| 8) also tantalum mine in Mozambique and gold-silver project in Nevada | | | | | | | | | | | |
| 9) also graphite project | | | | | | | | | | | |

Overview of listed LITHIUM focused companies (by market capitalization)

| October 31, 2018 | Trading symbol | | Share price | | Change in % | 12 months prices | | Total shares issued million | Market cap. million | |
|------------------------------|----------------|--------------|----------------|------------------|----------------|---------------------|-------------|-----------------------------------|------------------------|----------|
| | | | Oct.31 2018 | Year-end 2017 | | H | L | | local | US\$ |
| | | | US\$ | US\$ | | US\$ | US\$ | | US\$ | |
| Albemarle Corp. | 1) | NYSE ALB | 105.42 | 127.89 | -18 | 144.99 | 86.75 | 108.5 | 11,438.1 | 11,438.1 |
| FMC | | NYSE FMC | 81.53 | 94.66 | -14 | 98.70 | 72.73 | 134.6 | 10,973.9 | 10,973.9 |
| SQM | | NYSE SQM | 47.14 | 59.37 | -21 | 63.75 | 39.54 | 120.4 | 5,675.7 | 5,675.7 |
| | | | HK\$ | HK\$ | | HK\$ | HK\$ | | HK\$ | |
| Tianqi Lithium | 2) | HKSE 002466 | 29.14 | 53.21 | -45 | 71.22 | 26.75 | 1.140 | 3,322.0 | 421.9 |
| | | | Euro | Euro | | Euro | Euro | | Euro | |
| ERAMET | | Paris ERA:FP | 83.90 | 99.03 | -15 | 167.20 | 66.75 | 26.6 | 2,231.7 | 2,477.2 |
| | | | A\$ | A\$ | | A\$ | A\$ | | A\$ | |
| Pilbara Minerals | | ASX PLS | 0.80 | 1.11 | -28 | 1.25 | 0.68 | 1,740.0 | 1,392.0 | 985.5 |
| Orocobre | | ASX ORE | 3.72 | 6.97 | -47 | 7.44 | 3.16 | 261.4 | 972.4 | 688.5 |
| Galaxy Resources | | ASX GXY | 2.28 | 3.83 | -40 | 4.54 | 2.07 | 407.5 | 929.1 | 657.8 |
| Kidman Resources | | ASX KDR | 1.17 | 1.88 | -38 | 2.48 | 0.82 | 399.6 | 467.5 | 331.0 |
| Altura Mining | | ASX AJM | 0.20 | 0.40 | -50 | 0.51 | 0.18 | 1,820.0 | 364.0 | 257.7 |
| Global Geoscience | | ASX GSC | 0.23 | 0.35 | -34 | 0.53 | 0.20 | 1,470.0 | 338.1 | 239.4 |
| Argosy Minerals | | ASX AGY | 0.20 | 0.26 | -23 | 0.48 | 0.16 | 923.5 | 184.7 | 130.8 |
| Neometals | | ASX NMT | 0.26 | 0.44 | -41 | 0.51 | 0.21 | 544.0 | 141.4 | 100.1 |
| Tawana Resources | | ASX TAW | 0.24 | 0.46 | -48 | 0.58 | 0.22 | 578.1 | 138.7 | 98.2 |
| AVZ Minerals | | ASX AVZ | 0.06 | 0.23 | -74 | 0.37 | 0.06 | 1,890.0 | 113.4 | 80.3 |
| Piedmont Lithium | | ASX PLL | 0.13 | 0.20 | -35 | 0.26 | 0.12 | 559.2 | 72.7 | 51.5 |
| Lithium Power International | | ASX LPI | 0.24 | 0.57 | -58 | 0.68 | 0.24 | 262.5 | 63.0 | 44.6 |
| Prospect Resources | | ASX PSC | 0.03 | 0.05 | -40 | 0.08 | 0.03 | 1,990.0 | 59.7 | 42.3 |
| European Lithium | | ASX EUR | 0.10 | 0.24 | -58 | 0.33 | 0.05 | 547.9 | 54.8 | 38.8 |
| Sayona Mining | | ASX SYA | 0.03 | 0.07 | -57 | 0.12 | 0.02 | 1,720.0 | 51.6 | 36.5 |
| Lithium Australia | | ASX LIT | 0.10 | 0.20 | -50 | 0.27 | 0.09 | 463.9 | 46.4 | 32.8 |
| Core Exploration | | ASX CXO | 0.05 | 0.08 | -38 | 0.10 | 0.04 | 633.9 | 31.7 | 22.4 |
| Liontown Resources | | ASX LTR | 0.02 | 0.04 | -50 | 0.06 | 0.02 | 1,120.0 | 22.4 | 15.9 |
| Force Commodities | | ASX 4CE | 0.02 | 0.08 | -75 | 0.17 | 0.02 | 423.9 | 8.5 | 6.0 |
| PepinNini Lithium | | ASX PNN | 0.01 | 0.08 | -88 | 0.09 | 0.01 | 686.7 | 6.9 | 4.9 |
| | | | C\$ | C\$ | | C\$ | C\$ | | C\$ | |
| Nemaska Lithium | 3) | TSX NMX | 0.77 | 2.35 | -67 | 2.44 | 0.60 | 846.4 | 651.7 | 496.0 |
| Lithium Americas | | TSX LAC | 4.83 | 11.18 | -57 | 14.06 | 4.00 | 88.6 | 427.9 | 325.7 |
| Millennial Lithium | | TSX ML | 1.62 | 3.66 | -56 | 4.80 | 1.38 | 82.6 | 133.8 | 101.8 |
| Critical Elements | | TSX.V CRE | 0.81 | 1.70 | -52 | 1.86 | 0.65 | 158.6 | 128.5 | 97.8 |
| Neo Lithium | | TSX NLC | 1.02 | 2.30 | -56 | 2.75 | 0.91 | 117.5 | 119.9 | 91.2 |
| Standard Lithium | | TSX.V SLL | 1.36 | 2.14 | -36 | 2.85 | 0.80 | 74.4 | 101.2 | 77.0 |
| Advantage Lithium | | TSX.V AAL | 0.61 | 1.20 | -49 | 1.42 | 0.57 | 157.8 | 96.3 | 73.3 |
| LSC Lithium | | TSX.V LSC | 0.55 | 1.64 | -66 | 1.72 | 0.29 | 162.2 | 89.2 | 67.9 |
| Wealth Minerals | | TSX.V WML | 0.57 | 1.76 | -68 | 2.34 | 0.49 | 119.7 | 68.2 | 51.9 |
| Frontier Lithium | | TSX.V FL | 0.34 | 0.65 | -48 | 0.85 | 0.30 | 148.4 | 50.5 | 38.4 |
| American Lithium | 4) | TSX.V LI | 0.63 | 0.46 | 37 | 0.74 | 0.21 | 61.0 | 38.4 | 29.2 |
| Power Metals | | TSX.V PWM | 0.26 | 0.74 | -66 | 0.88 | 0.20 | 101.3 | 25.8 | 19.7 |
| Avalon Advanced Materials | 5) | TSX AVL | 0.07 | 0.12 | -46 | 0.16 | 0.06 | 242.2 | 15.7 | 12.0 |
| NRG Metals | | TSX.V NGZ | 0.11 | 0.47 | -76 | 0.62 | 0.10 | 136.7 | 15.0 | 11.4 |
| Pure Energy Minerals | | TSX PE | 0.10 | 0.41 | -76 | 0.57 | 0.09 | 145.8 | 14.6 | 11.1 |
| Ultra Lithium | | TSX.V ULI | 0.17 | 0.46 | -64 | 0.80 | 0.15 | 70.6 | 11.6 | 8.9 |
| Dajin Resources | | TSX.V DJI | 0.08 | 0.17 | -55 | 0.22 | 0.05 | 152.3 | 11.4 | 8.7 |
| Aberdeen International | | TSX AAB | 0.08 | 0.19 | -61 | 0.21 | 0.07 | 96.1 | 7.2 | 5.5 |
| McArthur Minerals | | TSX.V MMS | 0.03 | 0.07 | -62 | 0.10 | 0.02 | 256.5 | 6.4 | 4.9 |
| Argentina Lithium and Energy | | TSX LIT | 0.14 | 0.36 | -61 | 2.40 | 0.12 | 19.0 | 2.7 | 2.0 |
| | | | GBp | GBp | | GBp | GBp | | £ | |
| Bacanora Lithium | 6) | AIM BCN | 42.50 | 106.50 | -60 | 100.00 | 30.00 | 134.5 | 57.2 | 72.6 |
| European Metals Holdings | | AIM EMH | 0.44 | 0.66 | -33 | 0.82 | 0.27 | 141.5 | 62.3 | 79.1 |

1) owns 51% of Talison Lithium

2) owns 49% of Talison Lithium

3) completed C\$ 1.18 billion (US\$ 849 million) financing package at a price of C\$ 1.00 per share on May 30, 2018

4) NewView Capital of China to acquire a 19.89% equity interest

5) formerly Avalon Rare Metals

6) name change from Bacanora Minerals; changed listing from TSX to AIM; effective March 26, 2018

Overview of listed COBALT focused companies (by market capitalization)

| October 31, 2018 | Trading symbol | | Share price | | Change in % | 12 months prices | | Total shares issued million | Market cap. million | |
|----------------------|----------------|------|----------------|------------------|----------------|---------------------|------|-----------------------------------|------------------------|-------|
| | | | Oct.31 2018 | Year-end 2017 | | H | L | | local | US\$ |
| | | | C\$ | C\$ | | C\$ | C\$ | | C\$ | US\$ |
| Katanga Mining | TSX | KAT | 0.64 | 1.85 | -65 | 2.83 | 0.55 | 1,907.4 | 1,220.7 | 929.0 |
| Cobalt 27 Capital | TSX.V | KBLT | 5.02 | 12.30 | -59 | 14.00 | 4.76 | 84.8 | 425.7 | 324.0 |
| Royal Nickel Corp. | 1) TSX.V | RNX | 0.64 | 0.18 | 266 | 1.18 | 0.07 | 378.2 | 242.0 | 184.2 |
| eCobalt Solutions | TSX.V | ECS | 0.63 | 1.95 | -68 | 2.10 | 0.54 | 160.0 | 100.8 | 76.7 |
| First Cobalt | 2) TSX.V | FCC | 0.20 | 1.24 | -84 | 1.65 | 0.19 | 339.3 | 66.2 | 50.4 |
| Canada Cobalt Works | 3) TSX.V | CCW | 0.60 | 0.35 | 71 | 0.90 | 0.15 | 73.4 | 44.0 | 33.5 |
| Fortune Minerals | TSX.V | FT | 0.10 | 0.30 | -66 | 0.38 | 0.09 | 338.6 | 33.9 | 25.8 |
| Cobalt Blockchain | TSX.V | COBC | 0.13 | 0.09 | 47 | 0.40 | 0.01 | 164.4 | 20.6 | 15.6 |
| M2 Cobalt | TSX.V | MC | 0.26 | 0.62 | -58 | 1.00 | 0.22 | 63.0 | 16.4 | 12.5 |
| Declan Cobalt | CNX | LAN | 0.32 | 1.40 | -77 | 0.42 | 0.17 | 41.2 | 13.2 | 10.0 |
| Pacific Rim Cobalt | CNX | BOLT | 0.14 | 1.40 | -90 | 1.59 | 0.10 | 51.1 | 7.2 | 5.4 |
| Cruz Cobalt | TSX.V | CUZ | 0.08 | 0.28 | -73 | 0.41 | 0.07 | 78.6 | 5.9 | 4.5 |
| Cobalt Power | TSX.V | CPO | 0.03 | 0.20 | -85 | 0.35 | 0.03 | 158.6 | 4.8 | 3.6 |
| Global Energy Metals | TSX.V | GEMC | 0.07 | 0.23 | -69 | 0.27 | 0.06 | 47.1 | 3.3 | 2.5 |
| Quantum Cobalt | CNX | QBOT | 0.10 | 0.32 | -68 | 1.90 | 0.08 | 27.5 | 2.8 | 2.1 |
| Sienna Resources | 4) TSX.V | SIE | 0.05 | 0.24 | -79 | 0.39 | 0.05 | 53.2 | 2.7 | 2.0 |
| Lico Energy Metals | TSX.V | LIC | 0.12 | 0.12 | 0 | 2.00 | 0.10 | 18.6 | 2.1 | 1.6 |
| | | | A\$ | A\$ | | A\$ | A\$ | | A\$ | |
| Ardea Resources | ASX | ARL | 0.54 | 1.90 | -72 | 2.20 | 0.52 | 105.0 | 56.7 | 40.1 |
| Cobalt Blue Holdings | 5) ASX | COB | 0.23 | 0.80 | -71 | 1.67 | 0.20 | 116.2 | 26.7 | 18.9 |

1) major nickel-cobalt project

2) merger with Cobaltech Mining and Cobalt One; in addition acquisition of US Cobalt, effective June 4, 2018

3) name change from Castle Silver Resources, effective February 22, 2018

4) cobalt-nickel-copper project in Sweden

5) spin-out of Broken Hill Prospecting

Overview of listed GRAPHITE focused companies (by market capitalization)

| October 31, 2018 | Trading symbol | | Share price | | Change in % | 12 months prices | | Total shares issued million | Market cap. million | |
|------------------------|----------------|------|----------------|------------------|----------------|---------------------|------|-----------------------------------|------------------------|-------|
| | | | Oct.31 2018 | Year-end 2017 | | H | L | | local | US\$ |
| | | | A\$ | A\$ | | A\$ | A\$ | | A\$ | US\$ |
| Syrah Resources | ASX | SYR | 1.72 | 4.51 | -62 | 4.95 | 1.36 | 343.6 | 591.0 | 426.7 |
| Magnis Resources | ASX | MNS | 0.28 | 0.46 | -39 | 0.55 | 0.27 | 610.4 | 170.9 | 123.4 |
| Talga Resources | ASX | TLG | 0.49 | 0.56 | -13 | 0.92 | 0.42 | 217.4 | 106.5 | 76.9 |
| Bass Metals | ASX | BSM | 0.02 | 0.02 | 0 | 0.04 | 0.02 | 2,510.0 | 50.2 | 36.2 |
| Kibaran Resources | ASX | KNL | 0.14 | 0.14 | 0 | 0.23 | 0.11 | 275.7 | 38.6 | 27.9 |
| | | | C\$ | C\$ | | C\$ | C\$ | | C\$ | |
| Mason Graphite | TSX.V | LLG | 0.54 | 2.45 | -78 | 3.05 | 0.44 | 136.0 | 73.4 | 56.3 |
| Nouveau Monde Graphite | TSX.V | NOU | 0.33 | 0.45 | -26 | 0.53 | 0.25 | 174.2 | 57.5 | 44.0 |
| SRG Graphite | TSX.V | SRG | 0.92 | 1.85 | -50 | 2.25 | 0.70 | 50.9 | 46.8 | 35.9 |
| Zenyatta Ventures | TSX.V | ZEN | 0.43 | 0.67 | -36 | 0.84 | 0.40 | 64.9 | 27.9 | 21.4 |
| Leading Edge Materials | TSX.V | LEM | 0.31 | 0.91 | -66 | 1.00 | 0.25 | 89.5 | 27.7 | 21.3 |
| Northern Graphite | TSX.V | NGC | 0.24 | 0.49 | -51 | 0.60 | 0.21 | 65.1 | 15.6 | 12.0 |
| Graphite One Resources | TSX | GPH | 0.05 | 0.09 | -47 | 0.12 | 0.04 | 326.1 | 14.7 | 11.2 |
| Canada Carbon | TSX.V | CCB | 0.11 | 0.09 | 22 | 0.17 | 0.04 | 106.7 | 11.7 | 9.0 |
| Ceylon Graphite | TSX.V | CYL | 0.17 | 0.21 | -19 | 0.26 | 0.14 | 54.8 | 9.3 | 7.1 |
| Focus Graphite | TSX.V | FMS | 0.02 | 0.08 | -73 | 0.10 | 0.02 | 348.4 | 7.0 | 5.3 |
| NextSource Materials | TSX.V | NEXT | 0.11 | 0.07 | 62 | 0.22 | 0.05 | 49.1 | 5.2 | 3.9 |
| Eagle Graphite | 1) TSX.V | EGA | 0.12 | 0.30 | -62 | 0.36 | 0.11 | 37.8 | 4.3 | 3.3 |
| Great Lakes Graphite | TSX.V | GLK | 0.03 | 0.06 | -50 | 0.08 | 0.03 | 132.7 | 4.0 | 3.0 |
| Berkwood Resources | TSX.V | BKR | 0.09 | 0.34 | -74 | 0.47 | 0.07 | 39.9 | 3.6 | 2.8 |
| Lomiko Metals | TSX.V | LMR | 0.05 | 0.13 | -65 | 0.31 | 0.04 | 51.0 | 2.3 | 1.8 |
| | | | US\$ | US\$ | | US\$ | US\$ | | US\$ | |
| Next Graphite | OTC | GPNE | 0.03 | 0.03 | 0 | 0.07 | 0.01 | 51.4 | 1.5 | 1.5 |

1) share consolidation 1 for 10 shares, effective May 4, 2018

Overview of VANADIUM focused listed companies (by market capitalization)

| October 31, 2018 | Trading symbol | | Share price | | Change in % | 12 months prices | | Total shares issued million | Market cap. million | |
|-----------------------------|----------------|-------|----------------|------------------|----------------|---------------------|--------------|-----------------------------------|------------------------|-------|
| | | | Oct.31 2018 | Year-end 2017 | | H | L | | local | US\$ |
| Bushveld Minerals | AIM | BMN | GBP 35.50 | GBP 8.50 | 318 | GBP 38.00 | GBP 7.00 | 1,110.0 | £ 394.1 | 500.4 |
| TNG | ASX | TNG | A\$ 0.12 | A\$ 0.14 | -14 | A\$ 0.22 | A\$ 0.1 | 925.6 | A\$ 111.1 | 78.6 |
| Australian Vanadium | ASX | AVL | 0.04 | 0.02 | 100 | 0.07 | 0.01 | 1,640.0 | 65.6 | 46.4 |
| Technolpgy Metals Australia | ASX | TMT | 0.49 | 0.20 | 145 | 0.85 | 0.18 | 70.0 | 34.3 | 24.3 |
| Tando Resources | ASX | TNO | 0.12 | 0.08 | 50 | 0.26 | 0.04 | 193.6 | 23.2 | 16.4 |
| Aura Energy | ASX | AEE | 0.02 | 0.02 | 0 | 0.04 | 0.02 | 1,070.0 | 21.4 | 15.2 |
| First Vanadium | 1) TSX.V | FVAN | C\$ 1.42 | 0.22 | 545 | C\$ 1.96 | C\$ 0.215 | 37.2 | C\$ 52.8 | 40.2 |
| Prophecy Development | TSX | PCY | 0.56 | 0.44 | 27 | 0.64 | 0.11 | 78.8 | 44.1 | 33.6 |
| Blue Sky Uranium | 2) TSX.V | BSK | 0.14 | 0.24 | -42 | 0.32 | 0.13 | 109.8 | 15.4 | 11.7 |
| Vanadium One Energy | 2) TSX.V | VONE | 0.19 | 0.08 | 131 | 0.32 | 0.13 | 48.1 | 8.9 | 6.8 |
| Vanadian Energy | 3) TSX.V | VEC | 0.13 | 0.03 | 420 | 0.18 | 0.06 | 26.5 | 3.4 | 2.6 |
| Western Uranium | 4) OTC US | WSTRF | US\$ 2.22 | US\$ 0.81 | 174 | US\$ 2.70 | US\$ 0.44 | 25.9 | US\$ 57.5 | 57.5 |

1) name change from *Cornerstone Metals* effective September 25, 2018
2) uranium-vanadium project
3) name change from *Uracan Resources*, effective on October 5, 2018
4) uranium-vanadium project; name change to *Western Uranium & Vanadium* to be completed in coming weeks

Overview of listed MAGNESIUM focused companies (by market capitalization)

| October 31, 2018 | Trading symbol | | Share price | | Change in % | 12 months prices | | Total shares issued million | Market cap. million | |
|--------------------|----------------|-------|----------------|------------------|----------------|---------------------|--------------|-----------------------------------|------------------------|------|
| | | | Oct.31 2018 | Year-end 2017 | | H | L | | local | US\$ |
| American Manganese | NYSE | AMYZF | US\$ 0.11 | US\$ 0.22 | -50 | US\$ 0.28 | US\$ 0.10 | 166.1 | US\$ 18.3 | 18.3 |
| MGX Minerals | CSE | XMG | C\$ 0.62 | C\$ 0.98 | -37 | C\$ 1.96 | C\$ 0.49 | 125.3 | C\$ 77.7 | 59.1 |
| Giyani Metals | TSX | WDG | 0.17 | 0.23 | -27 | 0.40 | 0.15 | 81.8 | 13.5 | 10.3 |
| Element 25 | 1) ASX | E25 | A\$ 0.19 | A\$ 0.23 | -17 | A\$ 0.35 | A\$ 0.15 | 83.5 | A\$ 15.9 | 11.2 |
| Korab Resources | 2) ASX | KOR | 0.03 | 0.03 | 0 | 0.06 | 0.02 | 306.8 | 9.2 | 6.5 |

1) name change from *Montezuma Mining* as at May 15, 2018
2) also phosphate, precious metals, cobalt and base metals assets

Overview of listed TUNGSTEN focused companies (by market capitalization)

| October 31, 2018 | Trading symbol | | Share price | | Change in % | 12 months prices | | Total shares issued million | Market cap. million | |
|--------------------------|----------------|-----|----------------|------------------|----------------|---------------------|-------------|-----------------------------------|------------------------|-------|
| | | | Oct.31 2018 | Year-end 2017 | | H | L | | local | US\$ |
| Almonty Industries | TSX | All | C\$ 0.80 | C\$ 0.55 | 45 | C\$ 0.98 | C\$ 0.35 | 181.4 | C\$ 145.1 | 110.4 |
| Wolf Minerals | ASX | WLF | A\$ 0.04 | A\$ 0.05 | -20 | A\$ 0.09 | A\$ 0.03 | 1,090.0 | A\$ 43.6 | 30.9 |
| Specialty Metals Int. 1) | ASX | SEI | 0.02 | 0.02 | 0 | 0.04 | 0.01 | 554.9 | 11.1 | 7.9 |

1) name change from *Carbine Tungsten* effective 11 December 2017

Overview of listed TITANIUM focused companies (by market capitalization)

| October 31, 2018 | Trading symbol | | Share price | | Change ² in % | 2 months prices | | Total shares issued million | Market cap. million | |
|------------------|----------------|------|----------------|------------------|-----------------------------|--------------------|---------------|-----------------------------------|------------------------|---------|
| | | | Oct.31 2018 | Year-end 2017 | | H | L | | local | US\$ |
| Kronos Worldwide | NYSE | KRO | US\$ 15.01 | US\$ 25.77 | -42 | US\$ 29.49 | US\$ 13.06 | 115.9 | US\$ 1,739.7 | 1,739.7 |
| Tronox | NYSE | TROX | 12.17 | 20.51 | -41 | 28.40 | 10.75 | 94.2 | 1,146.4 | 1,146.4 |
| Argex Titanium | TSX | RGX | C\$ 0.03 | C\$ 0.05 | -40 | C\$ 0.07 | C\$ 0.03 | 397.2 | C\$ 11.9 | 9.1 |
| Iluka Resources | ASX | ILU | A\$ 8.23 | A\$ 10.17 | -19 | A\$ 12.20 | A\$ 7.62 | 422.4 | A\$ 3,476.4 | 2,461.3 |
| TNG | ASX | TNG | 0.12 | 0.14 | -14 | 0.22 | 0.10 | 925.6 | 111.1 | 78.6 |
| BlueJay Mining | AIM | JAY | GBp 11.75 | GBp 22.75 | -48 | GBp 27.50 | GBp 9.34 | 850 | £ 99.9 | 126.8 |

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