Welcome to the first Critical Minerals Association monthly update.

While we're planning our events post-Covid 19, we've brought together some of April's Critical Minerals news stories.

Read on for:
- Q&A with Roskill
- Q&A with Minviro (ESG)
- Q&A with Camborne School of Mines (Technology Metals for a Green Future MOOC)
- News Archive
- Artisanal & Small-Scale Mining in the DRC

Enjoy!

Kirsty & Jeff

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Missed anything? Got a suggestion? Just give us a shout at kirsty@criticalmineral.org

Want to learn more? Check out our website: https://www.criticalmineral.org/ & follow us on twitter @CMA_Minerals
Q&A Roskill

In our first Q&A session with Roskill, we spoke with Jack Bedder, and David Merriman about:

- UK opportunities for Critical Minerals
- Effects of Covid-19 on Critical Mineral and EV markets
- Challenges to global critical mineral supply chains
- What governments can do to secure critical mineral supplies.

Find out more here.
Q&A Minviro

Our second Q&A session with Minviro, Rob Pell and Laurens Tijsseling features:

- The future of ESG in the mining industry and increased expectations for transparency
- Importance of robust environmental data in mining
- How Life Cycle Assessments (LCAs) can reduce CO2 emissions/ environmental impacts of mining/ EV production

Find out more [here](#)

Across supply chains, we want to know our lithium is sustainably sourced. How can we compare environmental impacts of Li chemical products? Check out Minviro's Lithium LCA Partnership's framework on standardising Life Cycle Assessment comparisons [here](#)
Q&A Technology
Metals for a Green Future

Camborne School of Mines, University of Exeter created a free, 4-week online course starting May 4th to outline the importance of technology metals for a low carbon economy. Spread the word and let's bring more people into the conversation on sustainable mining/technology metals. Sign up here.

Week 1: Subject background and definitions
Week 2: Overview of geology
Week 3: Mining and processing
Week 4: Responsible sourcing and circular economy

Find out more here
Critical Mineral News

With Covid-19 raging in headlines, most of April has been observing mining operations come in and out of lockdown, modify production targets and wait in uncertainty.

The following news articles from Mining Weekly, Mining.com, Reuters, Roskill, Proactive, Argus Media and others, provides an overview of what has been happening in critical mineral mining for:

- Copper
- Cobalt
- Graphite
- Lithium
- Nickel
- Tin
- Tungsten
- PGMS
- Manganese
- Rare Earth Elements

*The Critical Minerals Association takes no credit for any articles and makes no endorsement of any of the content.*
• Global (17.4.20)
  - Covid-19 threatens Cobalt supply. Roskill so far recorded the closure of 21 Cobalt operations including Vale’s Voisey’s Bay, Glencore’s Sudbury, Ambatovy, Coral Bay, Taganito, CTT

• Africa
  - **DRC: RMI/ RCS Global Group (23.4.20)**
    - Responsible Minerals Initiative (RMI) and RCS Global Group announced new strategic partnership to scale efforts to improve artisanal and small-scale mining of cobalt in the DRC.
  - **DRC: Katanga Mining (9.4.20)**
    - Congolese officials banned Katanga Mining from completing its agreement to purchase land adjacent to the Katanga mine for US$250M
  - **DRC: Katanga Mining/ Glencore (23.4.20)**
    - Glencore to take Congo subsidiary Katanga Mining private
  - **DRC (17.4.20)**
    - DRC will begin massive public health campaign to offset impacts of Covid-19 on Cobalt/Copper industry

• North America
  - **USA: First Cobalt (15.4.20)**
    - First Cobalt expands property in Idaho by 50% to include Iron Creek copper-cobalt deposit
Copper

• Overview
  ○ **Proactive (20.4.20)**
    - Near term copper outlook uncertain, long-term outlook is more bullish

• Africa
  ○ **Zambia: Glencore (15.4.20)**
    - Zambia threatens to expropriate Glencore's copper mines as the latter halts operations
    - Glencore reversing plans to shutter mine (20.4.20)

  ○ **Botswana: Kavango**
    - Kavango Resources has recorded progress across its projects – the Kalahari Suture Zone (KSZ), the Kalahari Copper Belt (KCB) and Ditau (23.4.20)
    - Independent review confirms magmatic nickel/copper/PGM deposit for Kavango (29.4.20)

  ○ **Zambia: Rio Tinto/ Midnight Sun Mining (27.4.20)**
    - Rio Tinto signs $51 million earn-in and joint venture agreement with junior company Midnight Sun Mining on Zambia copper deposits

  ○ **DRC: Ivanhoe (28.4.20)**
    - Ivanhoe Mines has completed 13.5 km of underground development at the Kakula copper mine
Copper

• Asia
  ○ China
    ▪ Rebound of Chinese imports lifts copper prices (14.4.20)
    ▪ https://www.mining.com/web/shanghai-copper-hits-near-4-week-high-on-supply-woes/
  ○ Kazakhstan: Kaz Minerals (30.4.20)
    ▪ Kaz Minerals on Thursday to spend $50-$100-million less this year on its Aktogay expansion project due to Covid-19

• Europe
  ○ Kosovo: Vardar Minerals / Beowulf (17.4.20)
    ▪ Vardar Minerals identified further copper/zinc exploration targets at its Mitrovica licence, resulting in Beowulf investing a further £50 000 in Vardar
    ▪ https://www.miningweekly.com/article/additional-copperzinc-target-at-kosovo-mine-2020-03-31
Latin America

○ Chile: Escondida (15.4.20)
  - Chile looks into allegations that the Escondida copper mine did 'irreparable damage' to the Punta Negra Salt Flat

○ Chile: BHP/ Spence (21.4.20)
  - Delays expected in BHP's Spence mine $2.5 billion expansion due to Covid-19

○ Peru: MMG/Las Bambas (24.4.20)
  - Copper output fell 20% year-on-year in 1st quarter because of lower-than-planned production at Las Bambas due to Covid-19

○ Chile/ Peru: BHP (21.4.20)
  - BHP Group production guidance for copper remains largely unchanged though Antamina production temporarily suspended

○ Chile: Freeport (28.4.20)
  - Freeport's El Abra copper mine to scale back copper processing by 40% and lay off workers as global prices plunge
Copper

- North America
  - USA: American Pacific (15.4.20)
    - American Pacific buys permitted, past producing gold/copper Montana mine
  - USA: Freeport McMoRan (13.4.20)
    - Freeport McMoRan suspends New Mexico Chino operations due to Covid19
  - USA: Northern Dynasty Minerals (20.4.20)
    - US judge dismisses activists' case against Pebble copper-gold mine in Alaska
  - USA: Polymet (23.4.20)
    - Polymet turned to Supreme Court to view lower court ruling on air permit
  - Mexico (19.4.20)
    - Mexican workers ask federal government for mining to resume in May
  - Canada: Taseko (30.4.20)
    - Taseko is sticking to its copper production plans for 2020
  - Canada: First Quantum (28.4.20)
    - First Quantum has lowered its guidance for 2020 by 75 000 t of copper
  - Canada: Capstone (30.4.20)
    - Capstone says it can weather price slump without 2021 growth target delay
Oceania

- **Australia: Oz Minerals (15.4.20)**
  - Oz Minerals maintains production guidance for 2020

- **Australia: Sandfire Resources (17.4.20)**
  - Sandfire Resources reported solid quarter Jan-Mar but withdraws full year production guidance amidst Covid-19
Graphite

- **Africa**
  - **Madagascar: Next Source (9.4.20)**
    - Next Source will collaborate with Chinese and Japanese to build a battery anode plant jurisdiction near the company's Molo graphite project in Madagascar
  - **Tanzania: Armadale (30.4.20)**
    - Armadale raises £550 000 to advance Mahenge Liandu graphite project in Tanzania

- **Africa/Asia**
  - **Mozambique/China: Syrah Resources (6.4.20)**
    - Chinese supply recovers while Syrah Resources, Mozambique cuts production on COVID-19 restrictions
Lithium

- **Africa**
  - DRC: Manono (21.4.20)
    - Manono lithium/tin project to require $545.5m capital investment
    - [https://www.miningweekly.com/article/manono-to-cost-545m---avz-2020-04-21](https://www.miningweekly.com/article/manono-to-cost-545m---avz-2020-04-21)

- **Asia**
  - China: Tianqi/ Gangfeng Lithium (16.4.20)
    - Profit warnings issued by China’s largest lithium producers, Tianqi and Gangfeng Lithium
  - China: Tianqi Lithium (23.4.20)
    - Tianqi Lithium mulls sale of Australian assets to lighten debt-load

- **Europe**
  - Czech Republic: European Metals/ Cinovec
    - The Czech Ministry of the Environment has granted a preliminary mining permit for the northwestern part of the Cinovec deposit (30.4.20)
    - Shareholders in European Metals Holdings have approved energy group CEZ’s investment in the Cinovec project (23.4.20)
    - [https://www.miningweekly.com/article/czech-republic-lithium-project-now-fully-funded-to-construction-2020-04-23](https://www.miningweekly.com/article/czech-republic-lithium-project-now-fully-funded-to-construction-2020-04-23)
• Latin America
  ○ Argentina: Livent Corp/ Eramet/ Lithium Americas (15.4.20)
    ▪ Argentina's burgeoning lithium sector stalled by Covid-19
  ○ Argentina: Kachi (30.4.20)
    ▪ Argentina's Kachi lithium project to cost $544m
    ▪ https://www.miningweekly.com/article/kachi-lithium-project-to-cost-544-million-2020-04-30
  ○ Argentina: SQM (24.4.20)
    ▪ SQM said Covid-19 had yet to hit its lithium output, but warned it might have to scale back plans for 2020 if slump continues in demand
  ○ Argentina: Orocobre (22.4.20)
    ▪ Lithium miner Orocobre has reported a difficult quarter with production down at its Olaroz lithium facility due to Covid-19

• Oceania
  ○ Australia: Australian Mines (6.4.20)
    ▪ Australian Mines aims to become Certified Carbon Neutral
  ○ Australia: Galaxy Resources (23.4.20)
    ▪ Galaxy Resources produced 14 306 t of lithium concentrate from its Mt Cattlin operation, in Western Australia, during the three months to March
• **North America**
  - **Canada: Advantage Lithium/ Orocobre (20.4.20)**
    - Dual-listed lithium miner, Orocobre completed takeover of Advantage Lithium
  - **Canada: Nano One Materials Corp (10.4.20)**
    - Nano One Materials Corp is working to improve lithium-ion batteries and has secured $11 million in funding
  - **USA: American Manganese/ Voltabox (15.4.20)**
    - American Manganese signed MOU with Texas-based Voltabox for end-of-life lithium-ion batteries for recycling of cathode materials
  - **USA: Rhyolite Ridge (30.4.20)**
    - Rhyolite Ridge lithium/boron project, in Nevada, would require a capital investment of ~$785-million, a definitive feasibility study (DFS) has found.

• **Roskill Lithium/EV Outlook**
  - Lithium demand downgraded amid Covid-19 and slow EV sales (6.4.20)
  - COVID-19 could wipe out US$1.0Bn of lithium supply in 2020 (9.4.20)
Nickel

• Asia
  ○ China: GEM/ ECOPRO (17.4.20)
    ▪ Chinese recycler and refiner GEM and South Korean battery producer ECOPRO to build high-nickel Li-ion precursor capacity in Fujian, China
  ○ Vietnam: Blackstone Minerals (15.4.20)
    ▪ Blackstone exercised option to acquire 90% interest in Ta Khao, North Vietnam

• Europe
  ○ Russia: Nornickel
    ▪ Nornickel, one of the world’s largest nickel producers, 2020 output guidance unchanged despite weak quarter

• Latin America
  ○ Brazil: Vale (18.4.20)
    ▪ Vale reduces 2020 output forecasts, citing Covid-19 as delaying facilities from reopening
**Nickel**

- **North America**
  - **Canada:** Glencore (14.4.20)
    - Glencore considering restarting Quebec mines before May 4

- **Oceania**
  - **Australia:** Panoramic Resources
    - Panoramic Resources temporarily halted operations at Savannah mine, Western Australia due to Covid-19 (15.4.20)
    - Panoramic cuts costs (30.4.20)
  - **Australia:** Western Areas (24.4.20)
    - Western Areas has maintained its production outlook for 2020, with the company reporting a solid first quarter
  - **New Caledonia:** Vale (30.4.20)
    - Vale has received non-binding offers for its nickel mining operations on the Pacific island of New Caledonia
Tin

• Global (6.4.20)
  • Tin producers suspend operations amid Covid-19 lockdown (MSC, Minsur, PT Timah and EM Vinto)

• Europe
  • UK: Strongbow/ Cornish Lithium (15.4.20)
    • Cornish Lithium discovers high-grade copper-tin mineralisation at Strongbow's licenses in Cornwall
    • https://www.theguardian.com/business/2020/apr/22/cornish-copper-find-metal-mining-industry

• Oceania
  • Australia - Renison/ Metals X (20.4.20)
    • Renison X tin mine in Tasmania not yet affected by Covid-19.

Tungsten

• Europe
  • Spain: W Resources Plc/ La Parrilla
    • W Resources posted increase in tungsten and tin output from its La Parrilla mine for Q1 2020, as the project continued its ramp up (23.4.20)
    • Spanish tungsten producers (Almonty Industries (Los Santos), Saloro (Barruecopardo) and W Resources (La Parrilla)) hit by Covid-19 lockdown (9.4.20)
**PGMs**

- **Africa**
  - **South Africa (23.4.20)**
    - South African underground mines to return to 50% capacity
  - **South Africa: Implats (19.4.20)**
    - Implats ready for 'safe, orderly' start up once it is given the go-ahead to resume full-scale production after Covid-19 lockdown
  - **South Africa: Implats (17.4.20)**
    - Chief Executive of Implats' Impala Platinum Rustenberg mining operations granted bail after appearance on Covid-19 charge
  - **South Africa: RBPlat (20.4.20)**
    - RBPlat to begin phased restart with strict Covid-19 safeguards
  - **South Africa: Jubilee (17.4.20)**
    - Metals processing company, Jubilee Metals to restart operations under strict Covid-19 protocols

- **North America**
  - **Canada: Canadian Palladium Resources (20.4.20)**
    - Canadian Palladium Resources announces positive results in drill campaign at East Bull, Ontario
• Africa
  ○ Botswana: Giyani Metals (29.4.20)
    ▪ Canadian explorer and developer Giyani Metals Corporation filed updated and amended technical report for its Botswana K.Hill manganese project.
  ○ South Africa - Jupiter Mines (16.4.20)
    ▪ Jupiter given approval to restart operations partially at Tshipi Borwa manganese mine
  ○ South Africa: South 32 (6.4.20)
    ▪ South 32’s manganese operations have been moved to care and maintenance due to Covid-19 - South 32 seeks clarification
Rare Earth Elements

• Africa
  ○ Burundi: Rainbow Rare Earths (15.4.20)
    ▪ Rainbow Rare Earths continues to export through Tanzania
    ▪ miningweekly.com/article/rainbow-rare-earths-continues-to-export-through-tanzania-2020-04-15
  ○ Angola: Pensana (29.4.20)
    ▪ Pensana gets mining permit in Angola

• Oceania
  ○ Australia: Hastings Technology Metals (14.4.20)
    ▪ Hastings Technology Metals granted commonwealth environmental permit for Yangibana rare earth project in Western Australia
    ▪ https://www.miningweekly.com/article/hastings-gets-enviro-nod-for-yangibana-2020-04-14
  ○ Australia: Lynas (22.4.20)
    ▪ US Department of Defence intends to award Lynas with phase 1 contract for US-based heavy rare earth separation facility
Rare Earth Elements

- **Asia**
  - **Malaysia: Lynas (15.4.20)**
    - Lynas applies for leeway to continue operating in Malaysia during the country's Covid-19 lockdown (15.4.20)
    - Lynas plant in Malaysia remains closed due to Covid-19 lockdown (29.4.20)
  - **China: Markets (14.4.20)**
    - China's Rare Earth exports grow after slow output in Jan/Feb due to Covid-19
    - [https://www.reuters.com/article/us-china-economy-trade-rareearths-idUSKCN21W0DA](https://www.reuters.com/article/us-china-economy-trade-rareearths-idUSKCN21W0DA)
  - **China: China Innovation Centre (7.4.20)**
    - China building an innovation centre for research and development of new rare earth materials
  - **China: Northern Rare Earth (14.4.20)**
    - China Norther Rare Earth has decreased its price of PrNd by 5%
Rare Earth Elements

- North America
  - **Canada: Search Minerals (13.4.20)**
    - Search Minerals supplement rare earths discovery with zirconium and hafnium
  - **USA: USA Rare Earth (7.4.20)**
    - USA Rare Earth acquires US rare earth permanent magnet manufacturing capability
  - **USA: Mountain Pass (22.4.20)**
    - USA wants to reduce reliance on China for specialised metals, but government scientists have been told not to work with domestic REE mine
  - **Canada: Geomega Resources (20.4.20)**
    - Geomega Resources, a rare earth magnet recycling developer is retrofitting its pilot plant facility to produce hand sanitiser
Improving Artisanal & Small-Scale Mining - DRC

Our EV batteries will need increasing amounts of cobalt, mostly sourced in the DRC, with a reputation for conflict minerals, poor working conditions and child labour.

The Responsible Minerals Initiative and RCS Global Group has announced a partnership to improve artisanal and small-scale mining (ASM) of cobalt in the DRC.

"Such initiatives are among a growing number of approaches to try and improve conditions for ASM workers in the DRC whilst, at the same time, promoting sustainable sourcing." - Roskill

Thanks to our supporters!

Roskill

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DIAMOND FIELDS RESOURCES

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