SIMSA | Saskatchewan Industrial & Mining Suppliers Association Inc

September 1, 2023

Executive Director's Message

For SIMSA to stay focused on assisting its members "sell stuff" in the near future, we hired someone to focus on future opportunities in the more distant future – in nuclear power. We hired someone you can call to help with the decision to get into nuclear or not, and what segment – to help with risk assessment.

As you would have noticed in our announcements, SIMSA hired Tom Kishchuk as its Nuclear Specialist. SIMSA and its members will now be able to leverage his considerable experience, such as being the former President and CEO of Mitsubishi Hitachi Power Systems Canada, as well as the former Vice President of Operational Support for Federated Co-operatives Limited.

As SIMSA's Nuclear Specialist, Tom will maximize the amount of Saskatchewan content for new nuclear development in Canada and globally, especially in Saskatchewan, including but not limited to: Small Modular Reactor component manufacturing and deployment, certified services to the nuclear industry and nuclear fuel manufacturing.

Then, to assist in this effort, SIMSA has added three broad nuclear headings and several sub-headings to our member database. With these database enhancements, Governments, technology providers, and procurement functions can quickly identify who is "interested in nuclear" or "becoming accredited" for nuclear work, or "are accredited;" and then explore further to see which SIMSA members may be of interest.

SIMSA received an inquiry from VW (yes, the car people) for suppliers into their new EV battery plant. It seems our name is getting around.

Similarly, SIMSA hosted an 11-person delegation from Kazakhstan's uranium mining sector in our offices last week for a series of meetings and assisted in arranging several for interested members. The group was looking for suppliers to assist in their operations there, as well as various investment opportunities.

SIMSA and others meet with Kazakhstan delegation.

Our August 30th event with GE Hitachi, SaskPower, Ontario Power Generation and others, saw over 250-people gather to learn about participating in tens-of-billions of dollars in nuclear projects across Canada.

Finally, as a new policy item, we will be introducing “late registrant” ticket pricing in September. With the catering and seating information required by venues, plus the affiliated timelines on these, late registrants cause several issues. And then there is the disruption of workflow. As such, the “late registrant fee” will begin a week prior to the event and generally be double the regular fee. This increased cost will remain in place until two-days prior to the event, at which time sales will close.

Member's News

How RESPEC is assisting companies in finding suitable underground salt formations for hydrogen storage

1222 Apparel: The Power of Layering FR Clothing

Team Power Solutions is Growing!

Karri Howlett Consulting Upcoming ESG Workshop and ESG Accelerator Program

Advocacy

SIMSA has also created new marketing materials – some to be used in the province and some out of province in areas such as nuclear power. As we look to expand our members' business base, we cannot forget about our core market.

In province use – an example

In markets outside of Saskatchewan including into the USA, we run slightly different messages targeting specific sectors, such as the one below.

Out of province nuclear use – an example

Carbon News

From "ROI" to "ROI and ESG"

Traditionally driven by "ROI" (Return on Investment), this industry now incorporates ESG (Environmental, Social, and Governance) metrics into its strategic considerations. As per the recent CAMECO 2022 ESG Report, this shift is not just a superficial nod to environmental concerns, but a shift in industry priorities and processes.

Decarbonization is no longer just an external factor affecting EOI calculations through mechanisms like the carbon tax. It's now influencing executive and employee compensation structures. Companies are recognizing that integrating ESG metrics not only boosts their reputation but also impacts their bottom line.

Themes From CAMECO's ESG Report:

1. Efficiency
   - There are active initiatives to implement upgrades that curtail energy consumption during operations.
   - Examples of such solutions underway are in the form of LED lighting enhancements and the adoption of mine ventilation-on-demand systems. Additionally, air compressor and industrial boiler systems are being revamped with cutting-edge monitoring, leak detection, and repair procedures.
2. Electrification
   - Transition to Electric: The momentum is towards moving from fossil fuels to electrically powered vehicles and tools.
   - Emission Impact: While this shift will transition some direct emissions (Scope 1) to indirect ones (Scope 2), the net emission levels are projected to decline, primarily due to the efficiency of electric vehicles. The benefits will further accentuate as the electric grid greenifies.
3. Waste to Value
   - Waste Transformation: A sustainable approach is being adopted where typical process wastes are viewed as potential resources.
   - Examples: Some innovations include harnessing waste heat and integrating solar pre-heating for HVAC systems.
4. Fuel Switching
   - Alternative Fuels: An effort to transition from high-emission fuels such as propane and natural gas to green alternatives like hydrogen and nuclear energy.
   - On-site Solutions: Evaluations are ongoing to potentially generate low-carbon power or steam at the operational sites.
5. Carbon Economy
   - Carbon Strategies: The focus is on methods such as carbon capture utilization and storage, paired with investments in carbon offsets.
   - Strategic Monitoring: There's an emphasis on monitoring carbon offset developments in regions where Cameco operates, assessing their alignment with the company's long-term decarbonization goals.

The Growing Importance of Scope 3

With a tightening regulatory landscape, especially in Europe, companies are meticulously refining their ESG reports. The potential advent of new regulations regarding Scope 3 reporting has pushed companies like Cameco to delve deeper into their supply chain.

In 2022, Cameco embarked on initial steps to gauge its Scope 3 emissions. As mentioned in their report: "In 2023, we will continue to refine our Scope 3 emissions profile to gain a comprehensive

understanding of our total emissions. The goal is to identify our most significant Scope 3 categories and the key players in our value chain. Collaborations with our main value chain partners and suppliers will be initiated, focusing on enhancing their energy and emissions management capabilities and pinpointing Scope 3 emissions reduction opportunities."

For stakeholders or partners who've been approached regarding their emissions data or have queries related to this domain, the door is open for dialogue and discussion.

The transformation of the mining sector underscores the importance of sustainable operations in contemporary business. As illustrated by CAMECO's proactive approach, the future promises a balanced focus on ROI and ESG, with the latter playing a pivotal role in shaping the industry's evolution.

Sector News

BHP released its "Economic and commodities" forecast this month. In it, amongst other things, they go through their thoughts on several commodities, including potash.

The key phrase is, "Longer–term, we see potash as a future facing commodity with attractive fundamentals. Demand for potash stands to benefit from the intersection of global mega–trends: rising population, changing diets and the need for the sustainable intensification of agriculture."

The full report is **HERE**.

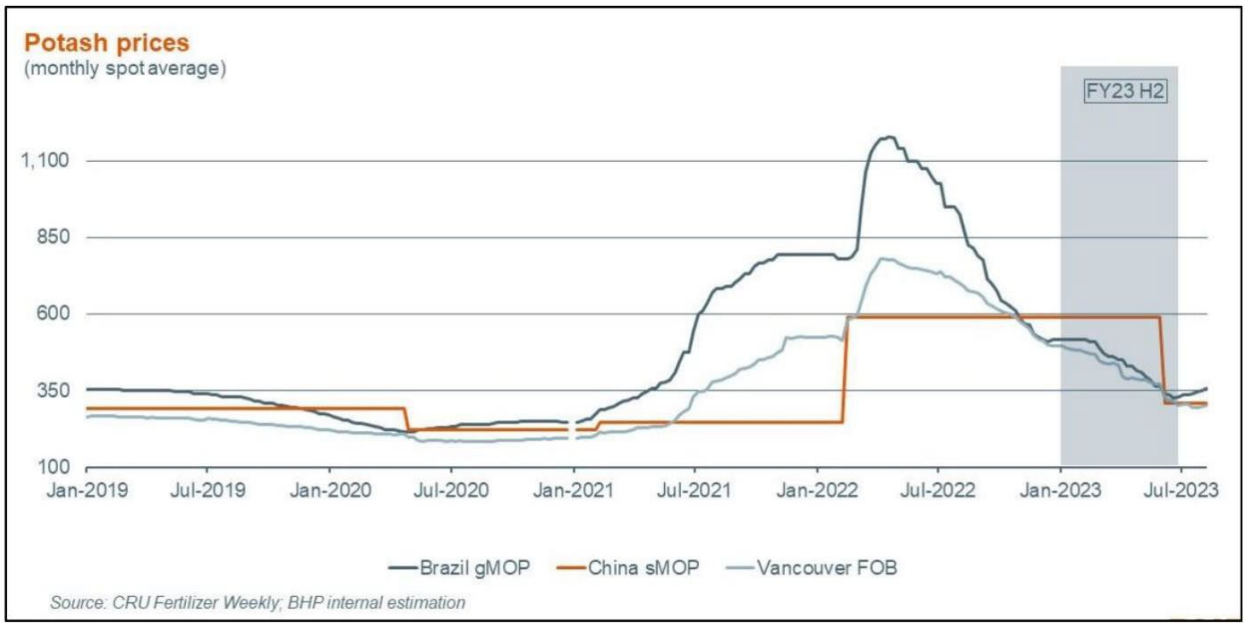
Below are direct extracts of select portions for ease of access.

Potash

The last six months have been characterised by a steady downtrend in prompt potash prices, as the industry continued the process of progressively unwinding the extremely high prices associated with the scarcity regime that emerged in the first half of calendar year 2022.

. . . . With annual contract uncertainty passed, disruptions to Canadian west coast logistics, much improved affordability conditions and seasonal turns in the demand cycle in key importing regions have contributed to prices stabilising early in financial year 2024.

Realised prices for producers tend to reflect developments in prompt pricing assessments with a lag that is partly dependent on the perpetual dance between prompt and fixed price contract markets. We estimate that approximate realised prices for Canadian producers (FOB Vancouver equivalent) as of early July 2023, were close to $300/t. The peak for the fly–up period was around $780/t, achieved in the months immediately following the opening of the Russia–Ukraine conflict.



The old saying that "the best cure for high prices is high prices" is very pertinent in potash.

Contrary to metals and other bulk commodities, the cure can come quickly from the demand side, even as a supply disruption unfurls. In metals, once demand jumps out materially in front of supply, it can be a multi–year to decade–long process for new supply to bring a disrupted market back to balance (depending upon the level of conviction in the deficit and the type of development options the industry is facing ex ante). In potash, the adjustment can come almost immediately: not via new supply, but via a buyers' strike (aka potash holidays) as farmers reason that they can skip a season and get roughly the nutrients they need from "mining" the soil and recycling crop residues and manures. This is exactly the bet that many farmers took in the second half of calendar 2022 once it became clear that the rally in crop prices was roughly half the scale of the rally in fertilisers, including MOP (the major bulk product within the potassium universe). Demand simply hit an air pocket. Import volumes in key prompt price regions like Brazil, the US and SE Asia declined sharply. Accordingly, non–FSU suppliers began to introduce soft curtailments in the December quarter of 2022 and started to soft–pedal on newly–minted medium–term growth objectives (of which more below). So, an industry that was expected to be supply constrained for most of calendar year 2022 closed the period constrained by demand as well: albeit major regional MOP–crop intersections (e.g., Brazilian soybeans, American corn and wheat, South–east Asian palm oil) were back closer to balance versus the long run affordability trend.

Overall shipments declined 17% YoY in calendar 2022 to 59 Mt, a stunning drop from 71 Mt in calendar 2021. With the exception of China, all of the major importing regions saw YoY declines. Production came down a lesser –12% YoY, from 72 Mt to 63.4 Mt.

. . . .

Moving to the exporters now, and it is clear that Belarus has mitigated its main logistics constraints more rapidly than expected. After its production more than halved in calendar 2022 (from 13.1 Mt to 6.3 Mt, 4.9 Mt of which was exported), it is back in the 7–8 Mt export range in the first half of calendar 2023. Russia did not fall anywhere near as far as Belarus did, as it never lost access to its infrastructure, but nor is it ramping up back to pre–Ukraine conflict levels: indeed, production in calendar 2023 is expected to be lower than last year. Some of that will be due to the fact Russia is sacrificing some port and rail capacity to accommodate its Belarusian ally (at the sovereign, not company level). Canada's run–rate in calendar 2023 to date is down –5%, with voluntary mine curtailments from late in calendar year 2022 setting things up for a decline YoY.

Getting away from temporary adjustments in trade flows and logistical issues, how will the new geopolitics of the FSU impact upon the potash industry in the longer run? The most honest answer is that it remains too early to tell. The secondary answer is that at a minimum it is reasonable to expect a delay of some years from the original timetable for new mines in the FSU.

The careful pre–Ukraine calculus that helped motivate our Jansen stage 1 decision was partly based on a ~5 Mt FSU project pipeline in the 2020s. There are obvious risks pertaining to both the timing and ultimate delivery of those projects given the new state of affairs. We also note that Nutrien reported an "indefinite pause" on its mid–2020s expansion plans at its Q2 earnings call. Pushing the other way there is more Laotian product moving into China than was previously expected.

We consider that a material delay or non–arrival of a portion of these FSU growth tonnes is likely to create either an earlier balance point for the market, or a potential reshuffling of the theoretical inducement queue, with non–FSU latent capacity released, non–FSU projects coming forward and FSU projects moving backward. Or as is most likely, we observe some combination of these options whereby some of the space vacated by the FSU is captured elsewhere, but perhaps not to the point where it prevents the balance point being achieved sooner than previously expected. Nutrien's "indefinite pause" helps to ascribe updated likelihoods to the various combinations.

It is important to note that none of these options would change the real long–term price we have in mind – but it could alter the time by which it emerges as a durable trend. There are many, many possible permutations here, and against this backdrop it is strategically prudent for us to accelerate studies of our own capital–efficient organic options beyond Jansen Stage 1, as we have stated in other fora.

Beyond the balance point, with the market very likely to continue expanding in the following decades, our views on the most likely operating environment for the industry in the 2030s and beyond – an extension of what we have dubbed the "4th wave" of the potash industry – is a durable inducement pricing regime. You can read more about this framework here and here.

Longer–term, we see potash as a future facing commodity with attractive fundamentals. Demand for potash stands to benefit from the intersection of global mega–trends: rising population, changing diets and the need for the sustainable intensification of agriculture.

That latter point includes both the need to improve yields on existing land under cultivation, in the face of depleted native soil fertility, but to also begin factoring in the long run land–use implications of large–scale first–generation biofuel production, lower availability of crop residues as an alternate supply of potassium to chemical fertilizer38 under large–scale 2G biofuel production (e.g. “sustainable” aviation fuel), giga–industrial scale renewables and nature–based solutions to climate change. To be clear though, we consider that the impact of deep decarbonisation on potash demand is best characterised as attractive upside on top of an already compelling demand case: not a case in itself.

Something else that attracts us to conventional potash mining and processing is its generally favourable upstream environmental footprint among the major fertiliser nutrients, and beyond the mine gate potash does not generate some of the negative environmental impacts associated with excessive application of nitrogen and, to a lesser extent, phosphorus. The major issues here are leaching into and polluting waterways and the release of GHGs in the application process. Excess nitrogen and phosphorus flows to the biosphere and oceans have been identified as critical “planetary boundary” parameters.

Upcoming Events

Register for Upcoming Events HERE

- **Lunch and Learn: Business Cases for Smart Sensors on Legacy Machines – September 8, 2023**
  Learn about the business cases for making your legacy CNC machines smart.

- **Workshop with Susie Ashfield for Your Team's Communications – September 14, 2023**
  Speech Coach and Communications Trainer Susie Ashfield will virtually share advice and tips that make a HUGE impact to the way your team communicates.

- **Saskatchewan Suppliers Energy Forum (SSEF) – October 4, 2023**
  The 9th Annual Saskatchewan Suppliers Energy Forum will be on October 4, 2023 at the Delta Hotel in Regina, SK. Confirmed participants include Cenovus, Crescent Point Energy, Federated Co-operatives Limited, DEEP Energy, Cenovus, SaskPower, GE Hitachi, Westinghouse X-energy, and the OCNI.

- **New Product and Services Needs from the Mining Industry –October 5, 2023**
  Save the Date! SIMSA, the IMII, and the Estevan Tech Hub invite you a session to discuss the current needs in mining on October 5th at the Delta in Regina from 8 to 10:30 AM. These are needs that have not been addressed by the current supply chain. Tickets go on sale soon.

- **BHP Roundtable – November 7, 2023**
  Meet with BHP personnel and executives for a day of presentations and networking. Tickets go on sale soon.

- **Saskatchewan Mining Supply Chain Forum (MSCF) – April 17 & 18, 2024**
  Save the Date! The 16th Annual Saskatchewan Mining Supply Chain Forum will take place on April 17 and 18, 2024 at Prairieland Park in Saskatoon, SK.

- **SIMSA AGM – May 15, 2024**
  Save the Date! The SIMSA AGM will be on May 15, 2024 at Prairieland Park in Saskatoon.

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