



K+S' Capital Markets Day 2018

Workshop IV – Bethune

Bethune, 5 September 2018

Sam Farris, President of K+S Potash Canada

Sam Farris



Sam Farris joined K+S Potash Canada in August 2011 as Production Manager, and was appointed Vice President and General Manager of Operations in July 2012. He assumed the role of Senior Vice President and General Manager, Bethune Site in July 2017, and became President and General Manager, Operations in July 2018.

Sam holds a Bachelor of Science in Mechanical Engineering and a Master of Science in Thermal Science, both from the University of Saskatchewan. He has over a decade of solution mining experience. He and his wife Lynnette, along with their two sons, enjoy taking vacations to unique Canadian destinations where they can camp, hike, bike, and ski.

From PotashOne to Legacy. From Legacy to Bethune



Bethune Mine 2018 – partner of the region



K+S Potash Canada (KSPC) selected as one of Canada's Top 100 Employer's for 2018

Bethune mine receives Safety Award

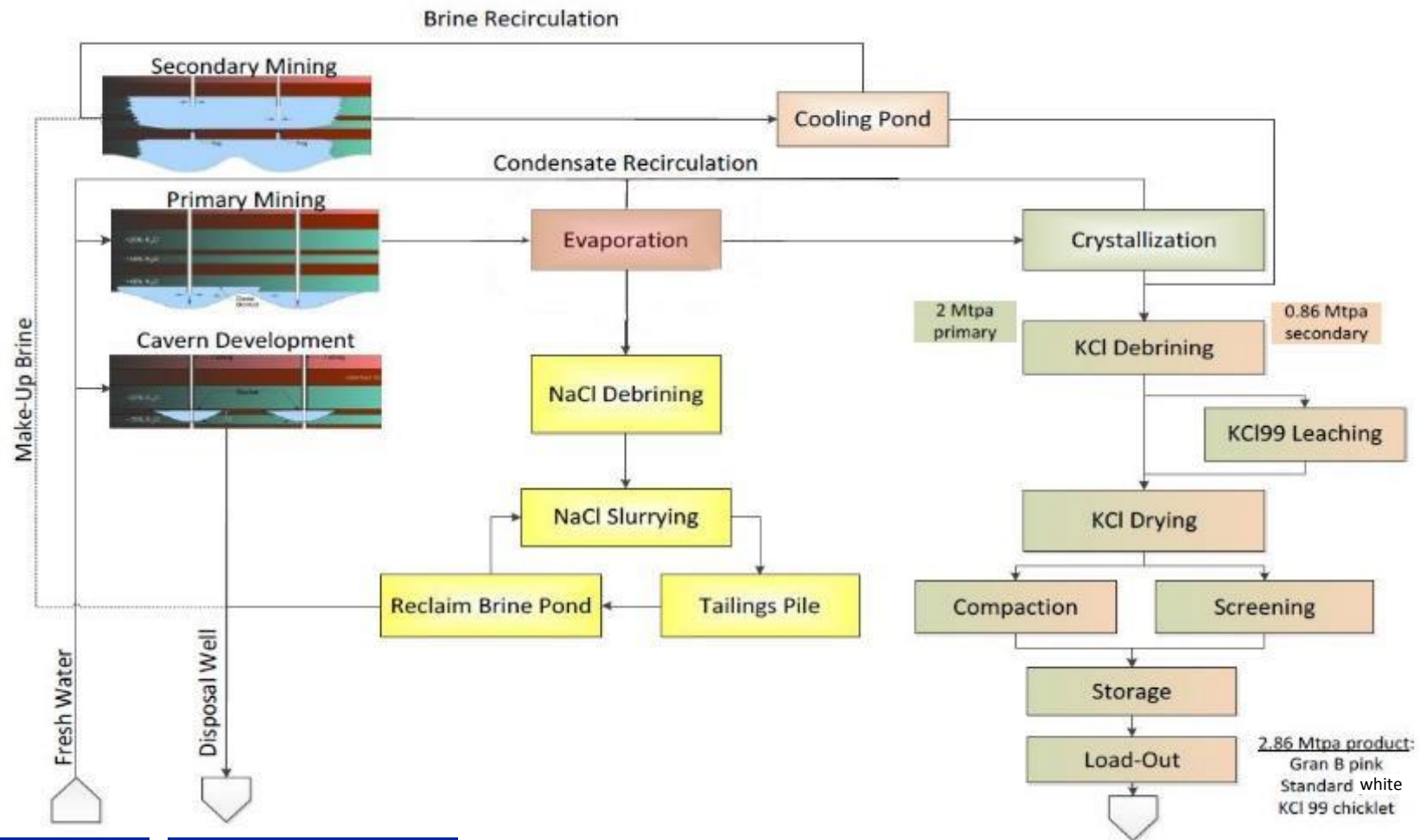
KSPC works to include and consult with Indigenous communities

KSPC partners with both Ducks Unlimited Canada and Nature Conservancy of Canada for unprecedented wetland and grassland offset projects

KSPC gives back to the communities where we live and work as part of our corporate social responsibility and social license to operate



Our production process

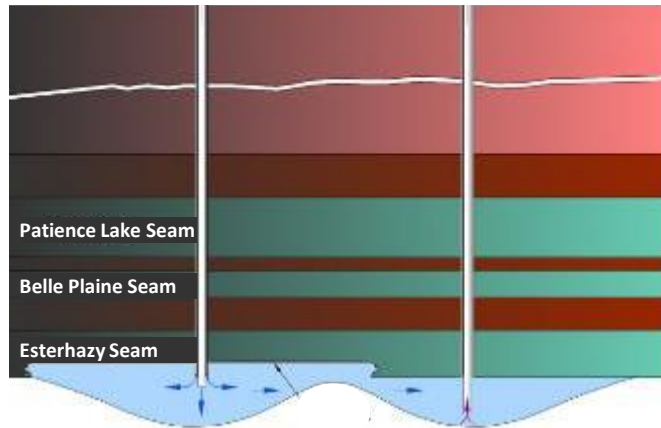


Comes from Buffalo Pound Lake

License to discharge into ground (for the whole lifetime of the mine)

Primary versus Secondary Mining

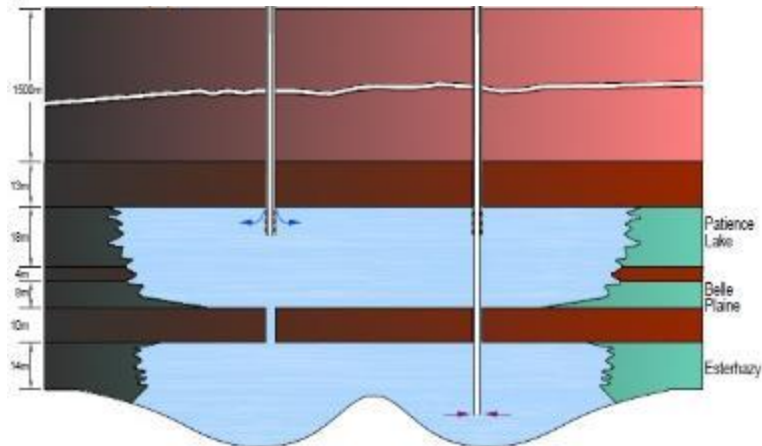
Primary Mining [Freshwater mining / Vacuum cooling crystallisation]



- Primary mining uses freshwater.
- Connection of two boreholes to a cavern with the corresponding creation of a surface is initially created by NaCl solution mining.
- This process is controlled vertically by a barrier (a thin layer on the surface of the brine).
- During the primary mining process, the cavern expands to create an ideal form for commencing secondary mining.

Primary versus Secondary Mining

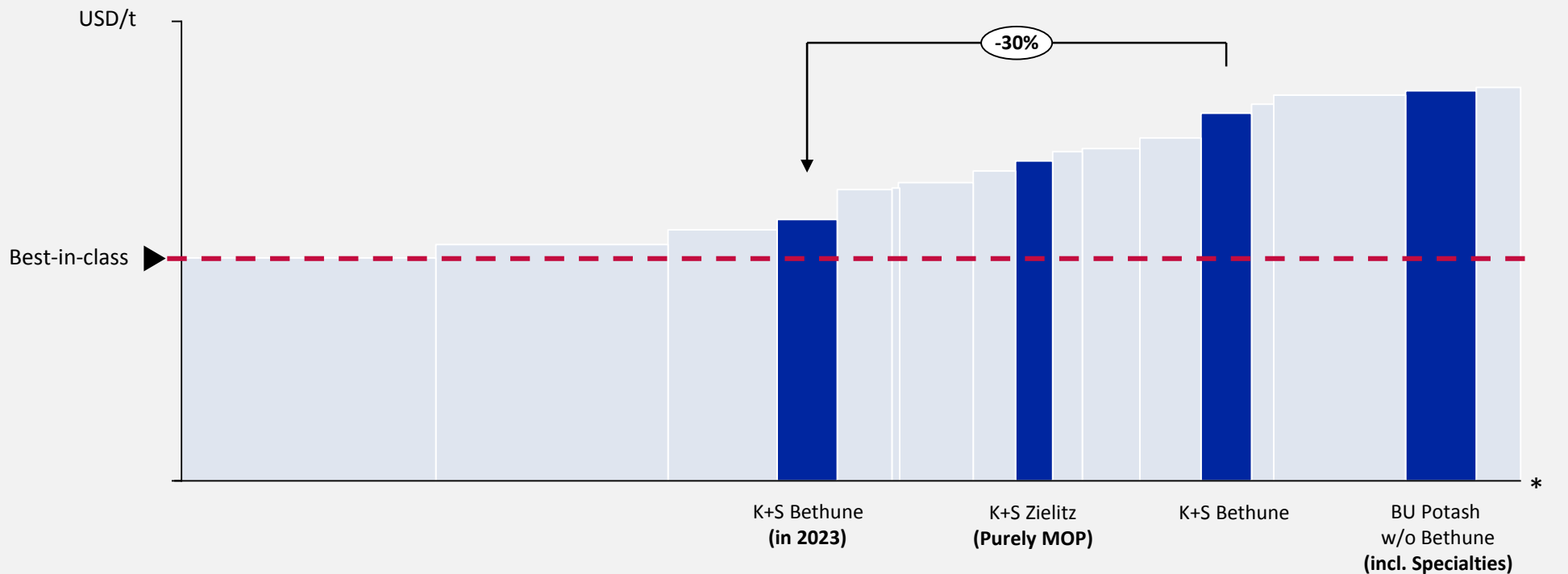
Secondary Mining [NaCl brine mining / crystallisation pond]



Operates at
50% lower
production
costs than
Primary Mining

- Secondary mining exclusively uses a NaCl-saturated brine in order to dissolve selectively KCl from the existing caverns.
- **Advantages (in comparison to primary mining):**
 - lower energy intensity (e.g. injection brine is heated via waste heat from evaporators and KCl is crystallized in the cooling pond via natural cooling)
 - substantially more efficient with the use of water
 - reduces salt to tailings up to 30 %
 - mitigates potential risk from primary mining cavern performance

Site costs (FOB) in comparison (2020)



Source: CRU Report 2016, K+S

* column width = production capability in million tons

The Bethune ramp-up to 2.86 million tons in 2023 (production capability) significantly improves K+S's competitive position.

Bethune – Logistics

★ K+S Potash Mine, Bethune

✦ New Potash Handling Facility at Pacific Coast Terminals, Port Moody

➔ Long-term agreement with Canadian Pacific Rail in place to transport potash ex Bethune site

➡ US deliveries not yet started, potential logistics partners into the US north-west will be UP and BNSF

➡ potential logistics partners into the US corn belt will be CPR, NS and CSX

“Export business”

Different train sizes:
btw. 14,000 - 18,500 metric t

Train Cycle Time:
loading BT-VC-BT:
~ 12 days

Over 900 K+S railcars
~ 160 railcars per train

Inland freights:
~ USD 25/t

“At Port”

160,000mt storage capacity, 3 grades

45,000mt vessels are the majority
(loading in 2 days)

“US business”

Smaller train sizes:
10,000mt or smaller

Train Cycle Time estimate:
loading BT-US-BT: ~ 30 days
200 railcars
dedicated for US services



Bethune – Sales Split beyond 2018



~ 20 %

- MOP (gran) pink to US corn belt and NOLA
- Mainly spot business
- Typical Use: Blended Fertilizer

~ 40 %

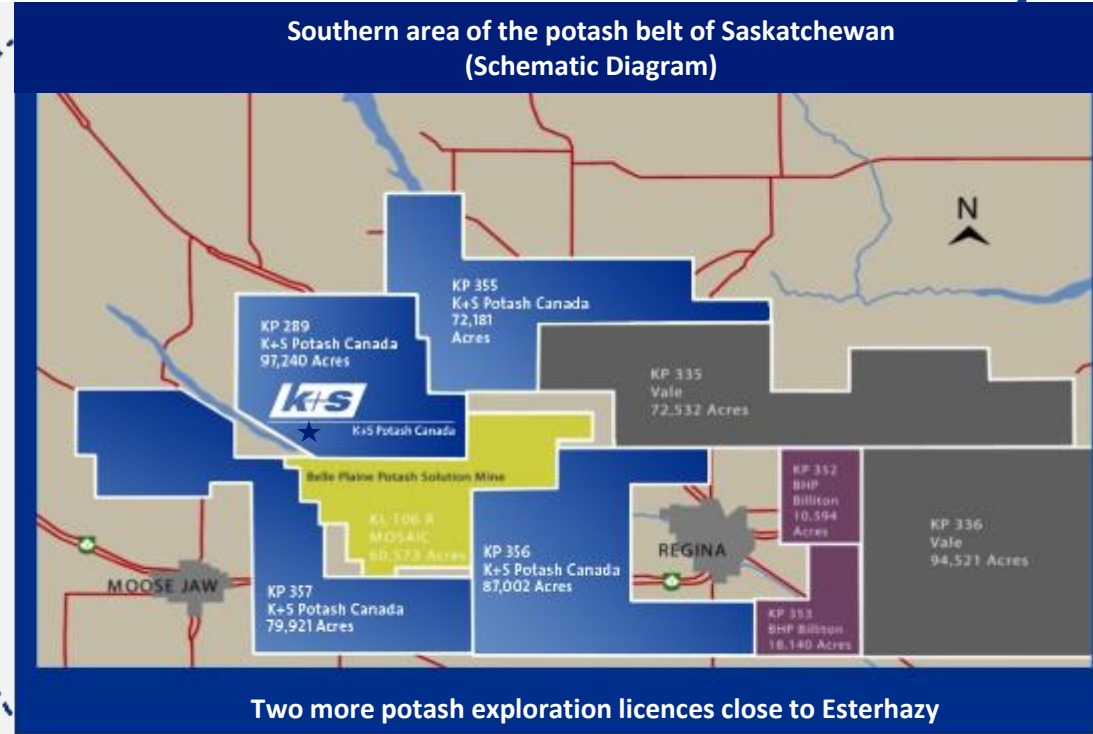
- Mainly MOP (standard) to China and India
- Mainly contracted
- Typical Use: NPK & SOP Processes
- Local office in Singapore and Shenzhen

~ 40 %

- Mainly MOP (gran) pink to Brazil
- Mainly spot business
- Typical Use: Blended Fertilizer
- Local office in São Paulo

Flexibility in combination with production in Germany - Focus on netbacks

Bethune – Deposits for more than a 100 years



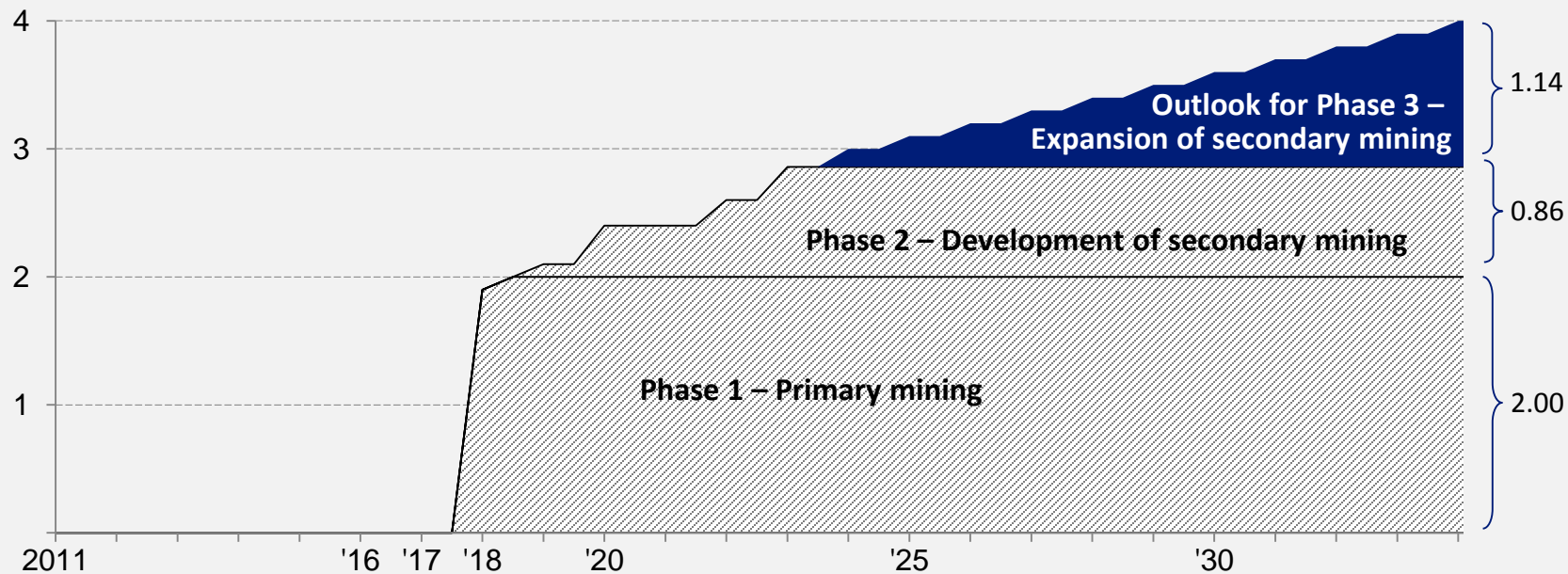
Reserves and Resources

		in mln. t KCl	% KCl	% K ₂ O
Reserves (Proven and Probable Reserves)	Legacy Project area	160	29	18
Resources (Inferred and Indicated Resources)	Legacy Project area + KLSA 009	981	27	17

The reserves figures were determined in accordance with the requirements of the Canadian standard NI 43-101 of the "Canadian Securities Regulators".

Bethune – There is even more to come

Production capacity
in million t KCl/a



Outlook for Phase 3
(Implementation:
2023 to 2034)

- Potential expansion of annual capacity by 1.14 to 4.0 million t KCl/a
- CapEx of around €500 per ton of capacity
- Water permit already in place for up to 4 million tonnes per year output
- Increase in share of secondary mining in total capacity to 50% (very low cost)
- Significant future cost competitiveness improvement as the mine expands beyond 2.86 million

Part of Shaping 2030: > €300m additional revenues possible

Safety Moment - Bethune Site Tour



- **Please remain with your KSPC tour guide at all times**
 - If you need to end your tour at any time, let a member of the IR Team know and we'll escort you out
 - Do not walk through overhead doors, follow your guide through the appropriate door
 - Do not cross any barricades or flagging

- **Personal Protective Equipment must be worn for the duration of the walking tour**

Your personalized bins will include:

- CSA-Approved hard hat, safety glasses, high visibility vest, and gloves
- a headset for hearing protection
- Please be mindful of your step – this tour route has been designated exempt for safety boots



Disclaimer



No reliance may be placed for any purpose whatsoever on the information or opinions contained in the Presentation or on its completeness, accuracy or fairness. No representation or warranty, express or implied, is made or given by or on behalf of the Company or any of its respective directors, officers, employees, agents or advisers as to the accuracy, completeness or fairness of the information or opinions contained in the Presentation and no responsibility or liability is accepted by any of them for any such information or opinions. In particular, no representation or warranty, express or implied, is given as to the achievement or reasonableness of, and no reliance should be placed on any projections, targets, ambitions, estimates or forecasts contained in this Presentation and nothing in this Presentation is or should be relied on as a promise or representation as to the future.

This presentation contains facts and forecasts that relate to the future development of the K+S Group and its companies. The forecasts are estimates that we have made on the basis of all the information available to us at this moment in time. Should the assumptions underlying these forecasts prove not to be correct or should certain risks – such as those referred to in the Annual Report – materialise, actual developments and events may deviate from current expectations. Given these risks, uncertainties and other factors, recipients of this document are cautioned not to place undue reliance on these forecasts.

This Presentation is subject to change. In particular, certain financial results presented herein are unaudited, and may still be undergoing review by the Company's accountants. The Company may not notify you of changes and disclaims any obligation to update or revise any statements, in particular forward-looking statements, to reflect future events or developments, save for the making of such disclosures as are required by the provisions of statute. Thus statements contained in this Presentation should not be unduly relied upon and past events or performance should not be taken as a guarantee or indication of future events or performance.

This presentation has been prepared for information purposes only. It does not constitute an offer, an invitation or a recommendation to purchase or sell securities issued by K+S Aktiengesellschaft or any company of the K+S Group in any jurisdiction.

Workshop IV – Bethune

Capital Markets Day, 5 September 2018

Sam Farris, President of K+S Potash Canada