THE OFFICIAL PUBLICATION OF THE SASKATCHEWAN MINING ASSOCIATION

ORE

COAL:
Powering the Province

WETLANDS
RECLAIMING HABITAT

A NEW CLASS OF ENGINEERS
MINING IS FOSTERING NEW OPTIONS IN EDUCATION

FREE THE CHILDREN
A JOURNEY TO KENYA: A PERSPECTIVE OF OURSELVES

SM 45+ YEARS SASKATCHEWAN MINING ASSOCIATION

FALL / WINTER 2013

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One of Poplar River Mine's trains ready to be loaded with coal.

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COVER PHOTO
Chances are, the light you are using to read this is powered by coal. Our two feature stories in this issue shed new light on this importance resource, and how Saskatchewan is leading the way in resource technology.

CONTENTS

MINING: GREAT FOR SASKATCHEWAN BUSINESSES!

A MESSAGE FROM SMA EXECUTIVE DIRECTOR – PAM SCHWANN

As Saskatchewan moves from the season of air conditioners to furnaces, it is timely to give some thought as to why we can have the instant gratification of cool air in those few days of +25C this past summer, or perhaps more importantly, the electricity to ignite the furnace in the -25C days and nights ahead. And you can't think about that without thinking about what primarily powers the province – Coal, the subject of our cover story.

Coal is responsible for providing the majority of baseload power in Saskatchewan. In 2012, coal from Sherritt International's three operations supplied 52% of our electricity compared to gas (22%), hydro (19%), wind (3%), imports (3%) and other sources (1%).

New federal environmental regulations related to reducing greenhouse gas (GHG) emissions eliminated conventional coal-fired electricity generation as future low-cost option. Our feature story outlines how SaskPower's Boundary Dam Integrated Carbon Capture and Storage Demonstration Project will ultimately lead to a 90% reduction in carbon dioxide emissions while continuing to use local and accessible coal resources. With over 40% of the world relying on coal as their primary source of electricity, this innovative technology has global potential to reduce GHG's.

Continuing with the global theme, the economic commentary speaks to the international work underway to provide greater revenue transparency amongst the mining sector, governments and communities; the Tagging Along article follows PotashCorp's community investment coordinator Renee Glushyk to a community in Kenya; and circling home, the eARTh article showcases the natural beauty of stones through the exquisite jewellery of internationally renowned, Regina – based Hillberg & Berk

Mine operations are literally in the backyard of many communities and ensuring they are environmentally sustainable is an important part of today's operations. The wetland reclamation work undertaken by Mosaic in partnership with Ducks Unlimited illustrates one example of how development and environmental protection can co-exist and even enhance your community's backyard.

The mining sector is a leading user and innovator of technology and this issue explores how laser-based (LiDAR) technology accurately measures changes to surface and subsurface formations. Along with advancements in technology, workforce development is a priority for the mining sector. This issue identifies two examples of how skilled and professional employees are being developed – the mining option at the U of S College of Engineering and the coordinating role of the International Minerals Innovation Institute, and AREVA's on-site mill operator training coordinated by Northern Career Quest.

Our Beyond the Bio features home-grown Neil McMillan, whose broad shoulders carry the dual role of President & CEO of Claude Resources Inc. and Chair, Cameco Board of Directors. This issue also outlines how the SMA's growing education outreach program can support educators. Class now in session – read on.

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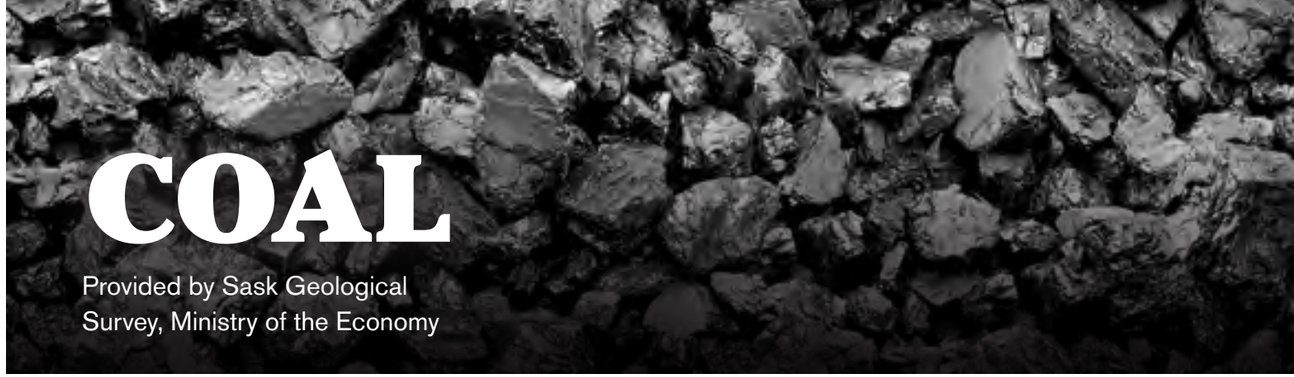


COAL

Provided by Sask Geological Survey, Ministry of the Economy

How do coal deposits form?
Coal forms through the accumulation of decaying organic materials that settle in swampy anoxic environments before being buried and subjected to long periods of heat and pressure. In Saskatchewan, deposition of these organic materials occurred numerous times: primarily, during the Cretaceous period at around 110 million years ago (Ma) (Mannville Formation) and around 75 Ma (Belly River Formation); and during the Tertiary Period at around 65 Ma (Ravenscrag Formation). The majority of Saskatchewan coals are lignite in rank, meaning they were subject to less heat and pressure and have lower thermal values than bituminous or anthracite rank coals. While some deposits of sub-bituminous coals do occur at deeper depths, all of the coal currently mined in the province is near-surface lignite from the Tertiary Ravenscrag Formation which outcrops in the southern part of the province.

Glossary of terms

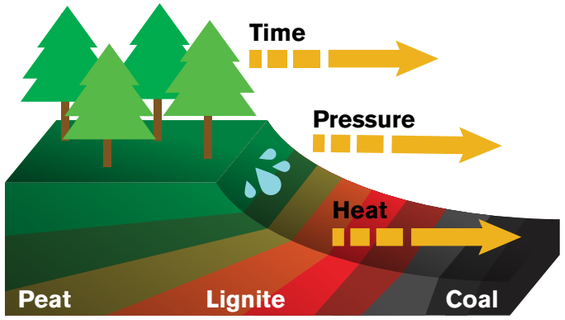
Anoxic – total depletion of oxygen.

Anthracite – highest carbon content coal with fewest impurities. Hard, compact coal with a high lustre.

Bituminous – a rank of coal higher than lignite, but poorer quality than anthracite.

Lignite – lowest rank coal, brownish-black in colour, lower carbon, and higher moisture contents.

How is Saskatchewan coal mined?
Coal was the first mineral ever to be mined in Saskatchewan – as far back as the 1870s. Many of the early coal mines in Saskatchewan were small underground operations where miners would excavate into hillsides and use logs and timbers to support their drifts. Today, coal mining in Saskatchewan is entirely mechanized with very large drag lines that remove the surficial cover and extract the lignite. After the coal is removed, the disturbed area is reclaimed according to government approved reclamation plans. Typically, overlying sediments are set back in place and land is recontoured to improve drainage for farming and create wetland areas. Saskatchewan is Canada's third-largest coal producer, after British Columbia and Alberta, typically producing around ten million tonnes of coal annually, which accounts for about 15% of national production.



What is Saskatchewan coal used for?
Originally used to heat farms and small villages, today the vast majority of Saskatchewan coal is used for thermal power generation, with a small amount going to produce lignite char for barbeque briquettes. Although there have been hundreds of small coal mines across the province over the past 140 years, today there are only three. The Bienfait, Boundary Dam, and Poplar River coal mines, all operated by Sherritt International, feed SaskPower's Shand and Boundary Dam Power Stations near Estevan and the Poplar River Power Station near Coronach, respectively. These thermal power stations, which were built next to the coal mines, have a collective generating capacity of 1682 megawatts and supply a large portion of the province's electricity. SaskPower operates an Emissions Control Research Facility at Poplar River and has undertaken an innovative Integrated Carbon Capture and Storage Project at Boundary Dam, which is anticipated to reduce greenhouse gas emissions by one million tonnes per year. Unlike other higher rank coals, lignite is not suitable for use as coking coal in steel production, but its potential for alternative fuel generation continues to be evaluated.

How much coal is there in Saskatchewan?
While coal resources have been defined in several regions of southern Saskatchewan from the Kindersley area to Lac La Ronge to the more recent discoveries near Hudson Bay, the majority of significant evaluation work has been done for the coal fields in the Estevan, Willow Bunch, and Shaunavon areas. These three coal fields are estimated to contain nearly five billion tonnes of lignite resources of immediate interest (i.e., less than 45 metres deep and extractable through current mining techniques). At current consumption rates, these resources are sufficient to supply Saskatchewan with thermal electric power for over 300 years. ■

COAL:

KEEPING THE LIGHTS ON IN SASKATCHEWAN

Lot 38 Dragline uncovering coal.

OUR PROVINCE'S NUMBER ONE ENERGY SOURCE HAS A LONG HISTORY. WE CAN FEEL GOOD ABOUT ITS FUTURE AS WELL.

We've been mining it for well over a century, and we have enough for three centuries to come. But mounting concerns over greenhouse gas emissions might suggest that coal's days are numbered. Coal is the major fuel used for generating electricity worldwide. According to the World Coal Association, in 2012 coal was used to generate 41% of the world's electricity. Coal is also Saskatchewan's principle resource for generating electricity in our communities. New technologies, however, (see Boundary and beyond, p.6) are pointing to a brighter, cleaner future, ensuring Saskatchewan can continue to use this reliable and accessible, local resource.

All coal mining in Saskatchewan is surface mining, unlike the often infamous underground mines in Kentucky, China, and other locations where coal mining disasters have occurred. Surface mining today is a sophisticated operation using massive machinery, computer-based monitoring and logistics systems, and comprehensive safety programs. Surface-mineable deposits are located in

A Brief History of Saskatchewan Coal

The first record of coal seams in Saskatchewan was contained in report from the Palliser Expedition in 1859. The seams, in southern Saskatchewan, are lignite coal of the Tertiary Ravenscrag Formation that runs through southern Saskatchewan and into North and South Dakota, Montana and Wyoming. Mining of lignite probably began during the early 1870s in the Willow Bunch, Wood Mountain and Cypress-Shaunavon areas, by "farmers or small groups of farmers using open-pit methods." More than 400 mines, operating at various times, are recorded in the provincial government files.

Continuous commercial lignite production started in the Souris coalfields in 1890, and these coalfields, surrounding Estevan, "have always dominated the industry."

By 1955, underground coal mines in Saskatchewan could not compete with the larger mines of the Souris area, and disappeared. In 1959, "a rapid increase in provincial utilization" occurred when the first unit of SaskPower's Boundary Dam station started up. This was followed by the second unit in 1960, and by the third, fourth and fifth units in 1969, 1973 and 1977. Recent federal government regulations are targeting these older plants to be shut down starting in 2015, thus spurring the major initiatives to modernize them using new, clean technologies.

According to the Saskatchewan Ministry of Energy and Resources, Saskatchewan currently is the third largest producer of coal in Canada, accounting for approximately 14 to 17 per cent of total coal production. At present there are three producing coal mines in Saskatchewan, all operated by Sherritt International - at the Bienfait, Boundary Dam and Poplar River Mines. All coal is currently surface mined from large open pit mines, employing dragline excavation with truck and shovel mining equipment.

Principal Source: Saskatchewan Industry and Resources, 2003

Aerial view of Lot 38 Dragline at the north end of Pit 6. From left to right you can see the reclaim process; coversoil removal, open pit, spoil pile, leveling, and revegetation.

three coal basins: Estevan, Willow Bunch/Wood Mountain and Shaunavon.

In 2012, approximately 27 per cent of all thermal coal mined in Canada came from the three Saskatchewan mines owned by Sherritt International Corporation, according to Sean McCaughan, senior vice-president, Coal at Sherritt.

It stays in Saskatchewan to fuel SaskPower's coal-fired power stations which generate more than 50 per cent of the electricity used in the province.

Saskatchewan's coal is also being used for environmental benefit by reducing mercury emissions associated with some coal-burning generating stations in the United States. Sherritt, in partnership with Cabot Norit Activated Carbon, has developed an activated carbon plant in Bienfait, Saskatchewan. Activated carbon has widely been accepted as a technology to reduce mercury from flue gas in coal-fired plants. Sherritt describes activated carbon as "a solid material comprised primarily of carbon that has been specially treated to increase the porosity, and thus the surface area, of the material. The high surface area that results from 'activation' allows for greater absorption of chemical species, such as mercury, onto the solid carbon. The surface area and pore structure of activated carbon depend greatly on the raw materials and processing methods used. Coal is a common raw material used to produce activated carbon."

With the heavy reliance on coal throughout the world, significant research is going into clean coal technologies, such as activated carbon at Bienfait and the Boundary Dam 3 project near Estevan, scheduled to start operations this fall. Coal does have a future – and that's good news for the urban and rural residents of Saskatchewan, who turn the lights on every day thanks to this major Saskatchewan resource. ■

The Three Types of Coal

Bituminous:

- Most plentiful form of coal in the United States.
- Used primarily for electrical generation and the steel industry.
- Carbon content: 45-86 per cent.
- Heat value: 10,500 to 15,500 BTUs per pound.

Subbituminous:

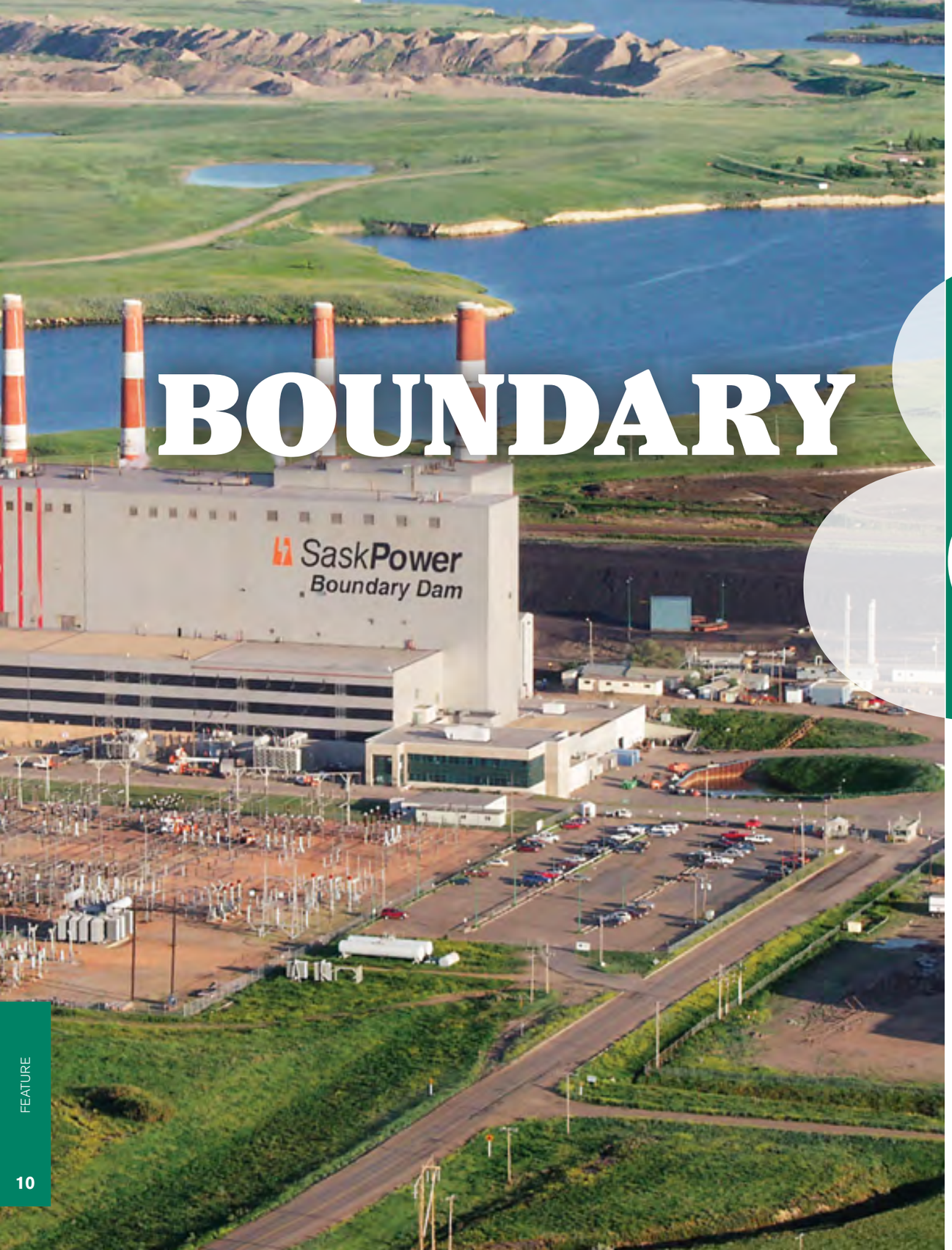
- Found mainly in the western USA and Alaska.
- Attractive because of generally lower sulfur content.
- Carbon content: 35-45 per cent.
- Heat value: 8,300 – 13,000 BTUs per pound.

Lignite:

- Saskatchewan's major type of coal – a geologically young coal, sometimes called "brown coal."
- Used mainly for electrical power generation.
- Carbon content: 25-35 per cent.
- Heat value: 4,300-8,300 BTUs per pound.

Source: American Coal Foundation

Coal from Poplar River Mine is shipped by train to the Poplar River Power Plant; photo of a hauler on its way back to the pit, as it passes the train loading facility.



BOUNDARY & BEYOND

SASKATCHEWAN'S "CAN-DO" ATTITUDE IS CHANGING THE FUTURE OF ONE OF OUR OLDEST RESOURCES.

In our Fall/Winter 2012 issue, ORE reported on SaskPower's initiatives at Boundary Dam near Estevan, where clean coal technology is being implemented to give Saskatchewan's power plants new life. This year, "We're now in the home stretch, and it's exciting," says Mike Monea, president of Carbon Capture and Storage Initiatives at SaskPower.

The United Nations lists carbon capture and storage (CCS) as one of the most promising technologies to rapidly reduce greenhouse gas emissions. Boundary Dam 3 (BD3) will be the largest commercial-scale, post-combustion, coal-fired power station using this new technology. According to SaskPower, the system is "capable of cutting CO_2 emissions by up to 90 per cent, or approximately one million tonnes a year. That's the equivalent of taking more than 250,000 cars off Saskatchewan roads annually."

Boundary Dam 3 is scheduled to be commercially launched in April 2014. Upwards of 1,400 workers, including engineers and contractors, have dedicated approximately 3.0 million hours of work to the project – all without a single lost-time accident. "That's impressive" notes Monea, "considering how massive and complex the facility is, with a myriad of pipes and infrastructure."

Equally impressive is how BD3 will prove that coal-fired power generation can be both ethical and viable. "We will prove the business case," says Monea. "In fact, it now looks like we will even beat our projections; the findings are better than anticipated."

Leadership in CCS is also being demonstrated with the Shand Carbon Capture Test Facility (CCTF), where technology developers can test and demonstrate the effectiveness of their proposed technology for the capture of CO_2. Groundwork for the CCTF is scheduled to begin this fall, with plant construction scheduled to be completed in late 2014. World-class expertise and research is being fostered not only by SaskPower, but also Saskatchewan organizations such as the Petroleum Technology Research Centre (PTRC) and the University of Regina.

Also happening this fall is start-up of the Aquistore Project, managed by the PTRC. The CO_2 from Boundary Dam will be compressed and transported by pipeline to the Aquistore site, located near Estevan. It will then be injected 3.4 kilometres

underground and monitored to prove the effectiveness of this storage method.

International interest in Saskatchewan's initiatives was clearly demonstrated at a symposium in May for the SaskPower CCS Global Consortium. Twelve countries were represented at the symposium. There might have been more, but SaskPower had to cap the registration because demand was exceeding capacity. "It was very flattering to have this much global interest in our projects," says Monea. Monea says the synergy of research will be a major benefit for consortium members, who will have access to millions of dollars' worth of reports, including information on some 125 different engineering aspects. "Governments are spending less on research than they used to. This is an important way to address that challenge."

Most importantly, says Monea, is that initiatives such as the Consortium are essential in the mission to "get the message out there" that coal can be a reliable, clean energy solution, and to generate public acceptance of this resource for decades to come. As Boundary Dam and related projects are proving, there is still a future for coal. That's especially important in a province that has a 300-year supply. ■

SaskPower's carbon capture building under construction as of May 2013.

Boundary Dam Power Station steam stacks.

Boundary Dam Power Station in Estevan, Saskatchewan.

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Wetlands are home to over 600 species of plants and animals such as this brood of mallard ducks - and are second only to rainforests in the level of biodiversity that they harbour. Unfortunately, up to 70% of Canada's wetlands have been lost in the settled areas of Canada. Photo Courtesy: Ducks Unlimited Canada/www.ducks.ca

RECLAIMING WETLANDS

IF YOU WERE A CANADA GOOSE OR ANY OTHER MIGRATORY WATERFOWL FLYING OVER THE ASSINIBOINE RIVER MAJOR BASIN, YOU JUST MIGHT BE LOOKING FOR A GOOD PLACE TO LAND.

Thanks to a partnership involving Mosaic Potash and Ducks Unlimited Canada, you will find it, despite the mine expansions going on in the area.

In its *Environment Impact Statement* submitted to the Ministry of Environment, Mosaic committed to a wetland compensation plan. Rather than do the work themselves, though, Mosaic turned to the experts in wetland identification and restoration: Ducks Unlimited Canada (DUC).

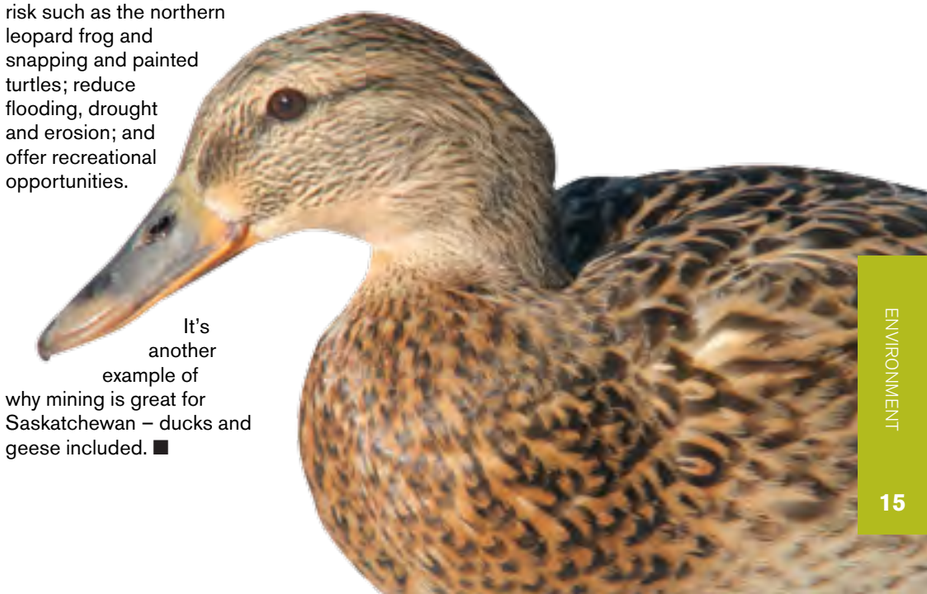
"It's been a great relationship working with DUC and the Ministry," says Jessica Theriault, director of environment for Mosaic's potash operations in Regina. "Sustainability is one of our values, and we're committed to demonstrating it."

The extent of reclamation is based upon a ratio approved by the Ministry of the Environment, with the number of acres adjusted depending on the actual acres of mitigation required. Through its contract with Mosaic, DUC identifies the most suitable areas to be reclaimed, acquires the property through land purchases or conservation easements, then restoration itself.

The benefits of this wetland restoration project extend beyond a good place for birds. Marshes, ponds and bogs filter water and provide safe water sources; provide essential habitat for many species, including those at risk such as the northern leopard frog and snapping and painted turtles; reduce flooding, drought and erosion; and offer recreational opportunities.

Wetlands provide habitat for more than one-third of Canada's species at risk including the leopard frog. Photo Courtesy: Ducks Unlimited Canada/www.ducks.ca

It's another example of why mining is great for Saskatchewan – ducks and geese included. ■



COUNTRIES, COMPANIES AND CITIZENS BENEFIT FROM GREATER REVENUE TRANSPARENCY

Brendan Marshall
Director, Economic Affairs, Mining Association of Canada

Resource extraction is a powerful ally of international development if done responsibly. Tremendous potential exists for the sector to assist many of the world's resource-rich but poor countries in elevating their living standards. For this to occur, however, a number of conditions need to be met.

Transparency through financial disclosure, when implemented properly, enhances responsible resource development and helps address a key challenge impacting the broad social acceptance that underpins many companies' privilege to operate. But this privilege can be compromised when the consequences of mismanaged resource revenues create an atmosphere of distrust among project stakeholders and, in some instances, escalate into events that disrupt operations or delay project development. Part of the privilege to operate lies in the project-generated benefits the host communities receive by virtue of development and continued operation. By creating jobs and business opportunities, developing infrastructure, providing skills training and building capacity, resource development can meaningfully reduce poverty through direct and indirect social and economic impacts.

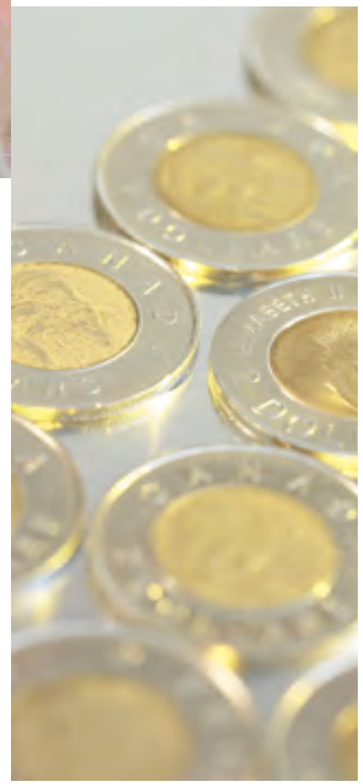
In many instances, governments accrue significant benefits through the collection of mining taxes and royalties. These revenues have the potential to be transformed into valuable public investments such as health and education services and infrastructure. Such investments would reinforce a company's privilege to operate while also addressing local challenges through investment. Barriers remain, however, that prevent the potential benefit from such investments in the public interest from being realized.

Some developing countries have weak civil society institutions. Poor governance and mismanagement have, at times, meant that the expenditure of extractive sector revenues have not always enhanced the public good as one might expect. In some cases, revenues collected by public officials have not made their way into government coffers. Secrecy around flows of funds from the extractive sector has also contributed to mistrust between local citizens, their governments and companies, at times leading to outright conflict.

These challenges are systemic and, lying within the host country's jurisdiction, have historically been beyond the purview of any single company to address independently. Acknowledging this,

organizations such as the Extractive Industries Transparency Initiative, Publish What You Pay (PWYP) and the Revenue Watch Institute (RWI) have promoted their vision for the transparent and accountable management of natural resources and the revenues generated there from.

Efforts have sought to equip communities with the information necessary to hold governments accountable for the expenditure of extractive sector revenues. This entails developing credible frameworks for the public disclosure of company payments to governments, and government



reporting of payments received. By developing an accountability framework, the theory holds that resource revenues will be more likely to benefit the citizens and rightful proprietors of the resources.

As these frameworks become mainstream, investors managing significant portfolios that are key to the development of resource projects have been more vocal about their desire for strong disclosure rules. Both the ethical dimension of good-conscience investing and the desire to avoid risk associated with projects operating under volatile regimes have come to the fore.

Many countries and companies are now participating in these frameworks, and individual countries like the U.S., have implemented their own rules independently. This momentum has raised the profile of transparency over the last decade, culminating with the G8 adopting it as the theme for recent meetings held in June. Immediately prior, Canada announced its intention to implement a transparency framework for company payments to foreign governments, with consultations beginning later this year.

Given that approximately 60 per cent of the world's mining companies are registered in Canada, and more than 800 Canadian exploration companies are active in 100 countries, Canada's commitment to this initiative is significant. Canadian stock exchanges, the Toronto Stock Exchange and TSX Venture in particular, host the lion's share of the total global value of mining sector market capitalization, and mining equity capital raised.

In July 2012, the Mining Association of Canada, the Prospectors and Developers Association of Canada, PWYP and the RWI signed a memorandum of understanding to develop a Canadian framework for mining, and oil and gas companies to disclose payments made to governments. The working group recently completed the draft framework and has made it publicly available for comment. The aim is to make informed policy recommendations to federal government policymakers and/or provincial security regulators for the Canadian adoption of mandatory disclosure requirements based on the framework. ■

LiDAR:
SHEDDING LIGHT ON A SHIFTING LANDSCAPE

The average person on the Prairies considers the earth beneath their feet to be consistently solid and stable. In the mining world that perception is much different. Knowing what geological shifts are taking place – some of them too imperceptibly gradual to measure without using technology – helps to plan mining operations and, most importantly, keeps miners safe.

This is particularly true with conventional underground potash mining, which takes place in soft rock formations that are more susceptible to collapse after the ore is extracted. Early detection before this can happen involves inspection of the ground surface to discover subsidence (or sinking) of the ground above and around the mining activity. The Government of Saskatchewan has specific requirements for mining companies to monitor subsidence.

The newest and most cost-effective way to monitor subsidence is airborne remote sensing using LiDAR (an acronym for light detection and ranging). LiDAR is a laser-based technology which, in a manner similar to radar, bounces laser beams off the surface of the earth to create 3-D images. Thanks to powerful computers which can process the high volumes of data that the beams generate, scientists use these images to detect subsidence.

LiDAR creates a 'bare earth' image that is unaffected by the growth of trees, crops or other vegetation. Even so, experts recommend carrying out annual surveys at the same time of year each year to minimize the impact of variables such as soil conditions. LiDAR can be done any time of the day or night. However, it does not work above clouds or after a rainfall.

Because of LiDAR, in conjunction with other monitoring procedures, mining companies can detect small changes in surface topography and underground operations can be shored up well in advance to prevent any mishap. At the same time, LiDAR also ensures that above-ground structures, ranging from buildings to highways and rail lines, are not put at risk. ■

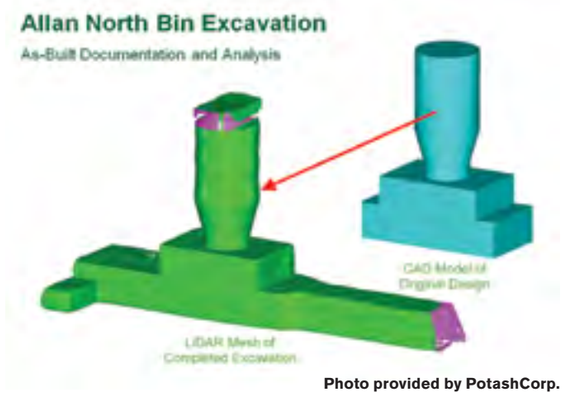


Photo provided by PotashCorp.

Glossary of terms

LiDAR – Laser pulses at up to 167HZ and receives up to four returns per pulse, measuring a range and intensity for each.

Ground GPS – Records GPS data at up to 10Hz during flights to improve accuracy to CM level 1.

Airborne GPS/ INS – Measures the locations and altitude of the aircraft at up to 300 times per second.

An abstract shot of pieces from Hillberg & Berk's Aurora Lux Collection featuring kunzite, lapis, honey quartz, kynite.

eARTh

BEAUTY WRITTEN IN STONE

"There's something about gemstones I've always been drawn to," says Rachel Mielke, president of Regina-based Hillberg & Berk. "As the company has grown, so has my inventory of unique and beautiful stones."

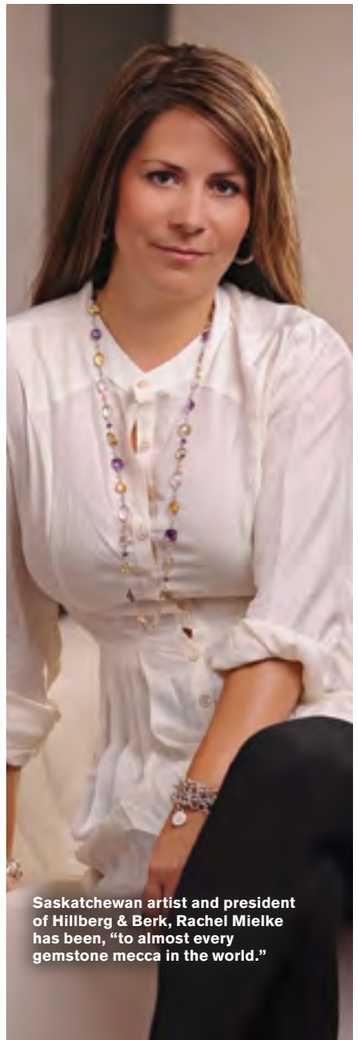
The work of this visionary artist has attracted an international customer base, including celebrities. Her unique creations are often inspired by the stones themselves, which she finds in markets around the world. "We look for high quality naturally occurring beautiful stones with unique cuts," says Mielke. "We don't stick to a certain grade of stones, as some of our more interesting designs incorporate very high quality stones with more rough and unfinished stones like pyrite."

Lately, she has been particularly fond of Labradorite, a shiny stone also referred to as "firestone", found in Labrador. "A unique piece of Labradorite might look like the boreal forest; it has just so much depth, moonstone and tourmaline."

"A specific stone might inspire the palette of an entire design or collection," she adds. "Inspiration never runs out when you are working with nature."

Jewellery and gemstones – another facet to showcasing the earth's resources. ■

Labradorite, onyx and sterling silver bracelet from Hillberg & Berk's Aurora Lux Collection.



Saskatchewan artist and president of Hillberg & Berk, Rachel Mielke has been, "to almost every gemstone mecca in the world."

A NEW CLASS OF ENGINEERS

DISCONTINUED IN SASKATCHEWAN IN THE LATE '70S, THE BACHELOR OF MINING ENGINEERING DEGREE IS ON ITS WAY BACK.

As with virtually every industry in Saskatchewan today, finding highly qualified people is one of mining's ongoing challenges. To help answer that challenge, the industry is doing more than searching for them; it's helping to create them. That's what Saskatchewan's International Minerals Innovation Institute (IMII) is doing to help meet the industry-wide demand for people, and especially, engineers with specialized skills in mining.

The demand continues to grow as mining companies launch new initiatives such as mine expansions. Simultaneously, an increasing number of long-term employees are retiring. Furthermore, even first-year engineering students are aggressively wooed by other sectors, notably oil and gas in Alberta.

One of the best ways to get young students thinking of mining as a career option is to be sure it's an option in their educational programs. The SMA had been working with government and post-secondary system to develop more mining-related training since 2008 when the SMA's first Labour Market Study identified that over 18,000 new workers would be required in the next decade.

Formed in 2012, IMII is a co-funding partnership of industry, government, in cooperation with the post-secondary educational institutions in Saskatchewan.

June 21st, 2013
University of Saskatchewan, Engineering Building, Speaking: The Honourable Gord Wyant, Minister of Justice.

IMII focuses on the two key generators of advancement in the minerals industry: E&T (education and training) and R&D (research and development). These are areas where the six mining companies who are currently members and either mining or doing pre-development work are cooperating for everyone's benefit. Pam Schwann, Executive Director, of the SMA was pleased that the E&T pillar addressed the SMA's advocacy efforts for increasing post-secondary, mining-related training. For education and training, their input through an IMII E&T Advisory Panel determines the needs of the industry.

IMII then works with the government and institutions to see what can be done.

"IMII brings all these institutions and organizations to the table, to see where efficiencies can be gained, and where we can collaborate to develop programs rather than working in isolation and duplicating efforts," says Rodney Orr, IMII's original executive director. He adds that IMII is not involved in designing programs – only in identifying the needs and helping to foster solutions.

A prime example is the $1.67 million IMII has invested over the next three years to introduce mining option courses at the University of Saskatchewan's College of Engineering. "Some of the courses already existed," Schwann points out. "But now you will have five to seven courses that are tailor-made to fit with chemical, geological and mechanical engineering." Starting in 2015 or 2016 (depending on the stream they're in at the College), students can graduate with, for example, a B.Eng. in Chemical Engineering with an option in Mining. That's the first milestone in the long-range plans.

The U of S once offered a Bachelor of Mining Engineering degree, but discontinued the program in the 1970s due to low demand. Now the demand is greater than ever before. "Regardless of what stage you're at in mining, whether it's initial planning, exploration or well-established operations, you need engineers," says Schwann. With continued emphasis on mining at the College of Engineering, Schwann predicts that by 2019 we'll have this century's first U of S graduate with a Bachelor of Mining Engineering degree.

There will be no shortage of job offers. ■

BEYOND THE BIO

NEIL MCMILLAN
PRESIDENT & CEO, CLAUDE RESOURCES INC.
CHAIR, CAMECO CORPORATION
BOARD OF DIRECTORS

In each edition of ORE, we go beyond the official bios to give our readers insight into the leaders of Saskatchewan's mining and exploration companies.

He's a farm boy from Plenty, Saskatchewan and proud of it. Never wanting to take "no" for an answer, Neil McMillan has always been willing to take risks. "It's the Saskatchewan work ethic – an attitude that if something needs to be done, you just step up and do it."

After graduating from high school, Neil wanted to be an RCAF Snowbirds pilot. The residual effects of childhood polio, though, caused him to fail the physical. "I remember walking out of the doctor's office," Neil recalls. "Now what?"

He decided to go to the University of Saskatchewan. Neil readily admits he did not set any records for class attendance at the College of Arts and Science, but graduated nonetheless.

About this time, Dave Steuart – Saskatchewan's legendary Liberal politician, cabinet minister and senator – asked Neil to work for him. Neil accepted and moved to Regina in 1972. Two years later, friends of his father back in Plenty convinced the young Liberal to run in the upcoming 1975 provincial election. The incumbent was the NDP Minister of Social Services. At first, nobody gave Neil a chance, but he ran a determined campaign. On his 24th birthday, he became the youngest Liberal MLA in Saskatchewan's history.

Nobody thought Neil had a chance in the next election in 1979, either, and this time they were right, even though he did come close. "It's the only job I've ever been fired from," Neil quips. He went to work as a stockbroker, where again he exceeded expectations. In 1994, Neil and his colleagues at RBC Dominion Securities in Saskatoon won "Branch of the Year" among 66 branches in Canada.

He was asked to move to Toronto, but that did not interest Neil or his family. A much more appealing opportunity for advancement came from Claude Resources, a gold mining and exploration firm based in Saskatoon. Neil joined Claude in 1995, was appointed President in 1996, and has been with Claude ever since. "I have always asked one thing of my employees above all else," says Neil. "They must have the same values I try to demonstrate every day – a set of ethics based on the Golden Rule of acting toward others in the way that you would want them to act toward you."

Neil is adamant that ethics is the key to success in any endeavour or career. He believes that is the principal reason why this "farm boy from Plenty" became Board Chair of the world's largest uranium mining company. In typical prairie fashion, he is not boastful about his achievements. As his brother told him many years ago, "It's far better to be interested than interesting." Those who know Neil will tell you he is consistently both. ■

TAGGING ALONG

RENEE GLUSHYK
COMMUNITY INVESTMENT COORDINATOR
POTASHCORP, SASKATOON

PotashCorp 2013 Kenya trip participants beading with the Mamas.

"It's an interesting and fun job, but not the kind of job that in school I ever thought I'd have one day," is how Renee Glushyk describes her role as Community Investment Coordinator at PotashCorp's head office in Saskatoon. In July, she had the opportunity to travel with a group of 27 PotashCorp employees from Saskatchewan, New Brunswick, the U.S. and Trinidad to see the important work of Free The Children (FTC), an international development organization (see insert). PotashCorp has committed up to $9.6 million towards various FTC initiatives, including being the founding partner of the organization's Agriculture and Food Security pillar of the Adopt a Village program. The company invited employees to play a role in FTC's work and employees were able to apply for the chance to participate in the trip.

Being among those selected had a special meaning for Renee. As Community Investment Coordinator, she is responsible for numerous projects that support PotashCorp's commitment to give back to the community, including the global community. When PotashCorp brought *We Day*, a FTC youth-based initiative, to Saskatchewan for the first time this past February she was involved in the event. She was very familiar with the important work of the organization and the partnership that PotashCorp had developed with them. The trip, however,

Renee mixing mortar for the walls of the dormitory at Kisaruni School.

Renee picking beans at Oleleshwa Farms.

was a dramatic change in perspective from the company's head office in Saskatoon to the dusty roads of Kenya.

"It was an emotional experience," says Renee. "The community members are so happy with what they have and the assistance that they are getting from Free The Children. The community members warmly greet and welcome you with singing and dancing and are thankful for our involvement. It certainly makes you appreciate what you have at home and not to take for granted all that we have."

Free The Children is an international development organization and educational partner involved in programs in 45 countries. Recognizing that sustainable solutions involve a holistic approach, the Adopt a Village program focuses on five core pillars to end poverty: Education; Clean Water and Sanitation; Alternative Income and Livelihood; and Agriculture and Food Security.

For more information, including ways to lend your support, visit www.freethechildren.com ■

NEW ROADS TO NORTHERN SUCCESS

AREVA'S COMMITMENT TO NORTHERN EMPLOYMENT HAS INSPIRED NEW WAYS TO ATTRACT AND RETAIN EMPLOYEES.

Saskatchewan's two operating uranium mining companies – Cameco Corporation and AREVA Resources Canada Inc. – are leaders in northern and aboriginal employment, not just in the mining industry, but in all industries nation-wide. "The industry has been consistently around the 50 per cent mark for several years at our operations," says Véronique Larlham, communications specialist with AREVA Resources. "However, our target is closer to 70 per cent."

To achieve that mark, AREVA has introduced new programs such as job shadowing, where high school students ages 16 - 18 from the north can spend a day and a night at the McClean Lake operation "shadowing" an employee during their work day. It's a compelling opportunity to see the various facets of the operation and to envision a future career in the industry. AREVA pays for accommodation, meals and air transportation. "Once these young people can see the possibilities, they have something they can aspire to – something that motivates them to stay in school and study hard," says Larlham.

Motivation is the major factor in the success of other programs at AREVA, such as the six-week Mill Utility Operator training program at McClean Lake that guarantees a job to the eligible candidates upon completion. It's an ego boost just to be selected. Applicants undergo a rigorous interview and screening process. Only about 10 per cent (i.e. 12) of the applicants for the various programs are selected. It's not just geographic and cultural barriers that are being overcome, either. On average, just over one-quarter of the participants in the Mill Utility Operator program are female. The successful applicants then receive training and mentorship which lets them, "hit the ground running," according to Ian Pollock, a Training Advisor at AREVA. "They become orientated to the job site, to the people they will be working with." The program effectively eliminates the disconnect between the classroom and the worksite. For example, participants learn what it's like to follow the week-in, week-out work schedule, to know what it's like to be homesick, to get on a plane, to get up early, and all the other factors that might otherwise be overwhelming to a new employee.

> "WHEN THEY START THEIR JOB FULL-TIME, THEY ALREADY KNOW PEOPLE AT THE MINE, AND HAVE FOUND GREAT PEOPLE TO MENTOR THEM,"

At the same time, the participants have the advantage of not having to attend a post-secondary institution far away from their northern home, for months at a time. There's lots of support to help them along. The small class size is important in making them feel comfortable and in developing friendships. "When they start their job full-time, they already know people at the mine, and have found great people to mentor them," notes Pollock.

Other institutions are becoming interested in AREVA's program because of its success. "To our knowledge, this program, which is partly funded through the Northern Career Quest, is unique," says Pollock. "What we're most proud of, though, is that almost all of the graduates are staying with us." So far, not one of the participants has quit after going on to full-time employment. ■

education.sma@sasktel.net
pinterest.com/educationsma
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EDUCATION

MINING: GREAT FOR SASKATCHEWAN, FUN IN THE CLASSROOM!

With revisions to the Saskatchewan K-12 curriculum, there is an increased need in the classroom for appropriate Saskatchewan-specific resources. The SMA is answering that need by developing resources and programs that are not only Saskatchewan specific, but also curriculum-correlated.

Students now have more opportunities than ever before to explore and learn about the many facets of our minerals industry and related careers.
The SMA's most recent project is a good example. This past spring, the SMA developed a potash kit to accompany their potash lesson plans. The kit contains samples for each student and the teacher in a classroom, plus a thumb-drive with complete instructional resources. Lesson plans are also available to download from the SMA website. Over 675 kits, requested by school divisions, were shipped during the summer and are now in the classrooms.

"Our goal is to support the curriculum and our province's teachers with relevant materials," says Kate Grapes-Yeo, SMA's Education Outreach Coordinator. Over the school year she will be travelling to school divisions and conferences to present the SMA's resources to teachers during professional development workshops.
This not only informs teachers about the SMA's resources; it also provides important feedback from educators for future educational resource development and refinement of the current materials. Often, the approach is to evolve existing instructional resources. The potash kit began with a lesson plan developed by a Saskatchewan teacher who had seen a potash demonstration on one of SMA's GeoVenture tours. He used that demonstration to create a lesson plan for his Grade 7 students. SMA then built on that lesson plan to create appropriate resources for Grade 4, Grade 7 and Grade Twelve (Chemistry 30).

A teacher herself, Grapes-Yeo knew there was a need for these resources. Her role as Education Coordinator puts her teaching degree, her Masters of Science in Geology, her career in mineral exploration across Canada, and her experience as a middle-years teacher all to good use. Before her current position with SMA, she did contract work with the Association for the past four years, such as the GeoVenture tours every summer. She has also developed education materials for other organizations.

In developing classroom materials, SMA ensures that the information is factual, unbiased and age-appropriate. Because mining is not just about geology, the total library of materials will eventually cover all of the earth sciences and engineering, as well as creating awareness of the other career opportunities in mining. The level of sophistication for the resources and programs depends on the grade level at which the resources will be used. All development is done through consultation with and feedback from teachers and school divisions across the province.

Looking ahead, the SMA is continuing to concentrate on interactive, inquiry-based materials. They are also looking at the possibility of providing a list of mining professionals that teachers could invite to the classroom. Currently, Grapes-Yeo is working on webinars and videos. Support for the classroom helps to build students' awareness of the importance of mining in the province, and the career opportunities available. "Compared to agriculture, which has high visibility in Saskatchewan, mining is commonly underground or in remote locations," says Grapes-Yeo. "With teaching resources about Saskatchewan's minerals industry, we hope that mining will become more real and relevant to our students." ■

If you would like to arrange a workshop for your teachers please contact: education.sma@sasktel.net

WE'D LOVE TO HEAR FROM YOU!

ORE is intended for readers from all walks of life, throughout Saskatchewan and abroad. We appreciate your suggestions for stories.

Please send your suggestions to **sma@tapcom.com**

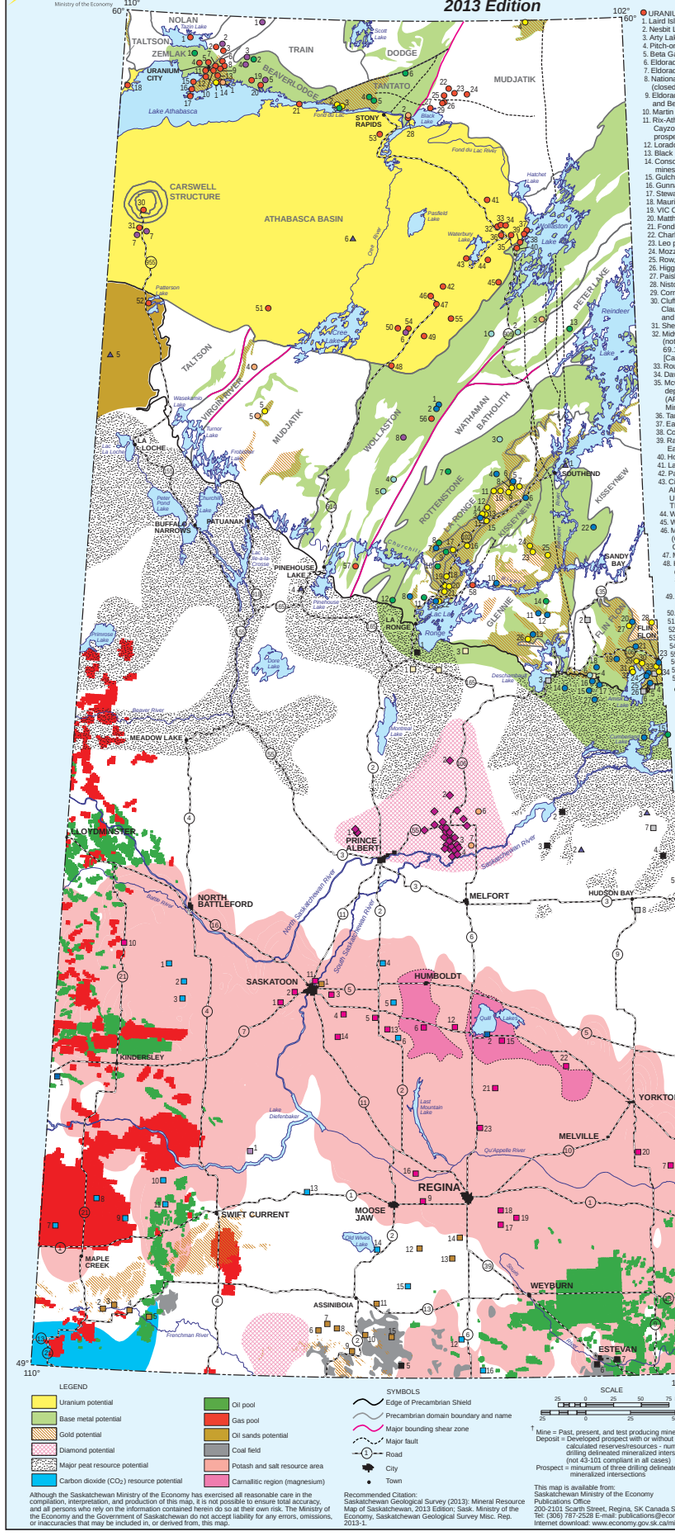
ORE | THE OFFICIAL PUBLICATION OF THE SASKATCHEWAN MINING ASSOCIATION FALL/WINTER 2013

Government of Saskatchewan
Ministry of the Economy

Saskatchewan Geological Survey Misc. Rep. 2013-1

MINERAL RESOURCE MAP OF SASKATCHEWAN

2013 Edition



KEY TO NUMBERED MINERAL DEPOSITS†

URANIUM
1. Laird Island deposit
2. Nesbit Lake prospect
3. Arty Lake deposit
4. Pitch-ore mine (closed)
5. Beta Gamma mine (closed)
6. Eldorado HAB mine (closed) and Baska prospect
7. Eldorado Eagle mine (closed) and ABC deposit
8. National Explorations and Eldorado Dubyna mines (closed) and Strike deposit
9. Eldorado Verna, Ace-Fay, Nesbitt Labine (Eagle-Ace) and Beaverlodge mines and Bolger Open Pit (closed)
10. Martin Lake mine (closed)
11. Rix-Athabasca, Smitty, Leonard, Cinch Lake and Cayzor Athabasca mines (closed); St. Michael prospect
12. Lorado mine (closed)
13. Black Bay/Murmac Bay mine (closed)
14. Consolidated Nicholson Bay and Fish Hook Bay mines (closed)
15. Gulch mine (closed)
16. Gunnar mine (closed)
17. Stewart Island prospect
18. Maurice Bay deposit
19. VIC Claims prospect
20. Matthews Lake prospect
21. Fond-du-Lac deposit
22. Charlebois Lake and David deposits
23. Leo prospect
24. Mozzie Lake deposit
25. Row, West Row and ART prospects
26. Higginson Lake (Dianne) prospect
27. Paisley Lake prospect
28. Nisto mine (closed)
29. Corrigan Lake prospect
30. Cluff Lake mine (closed) - D, Dominique-Peter, Claude and Dominique-Janine (North, EX OP, UG and EX Pods) deposits
31. Shea Creek - Anne, Kianna and Colette deposits
32. Midwest mine - Midwest and Midwest A deposits (not producing) (AREVA Resources Canada Inc., 69.16%; Denison Mines Inc., 25.17%; OURD [Canada] Co. Ltd., 5.67%)
33. Roughrider and J Zone deposits
34. Dawn Lake deposit
35. McClean Lake mine - JEB, Sue A, B, C and E deposits (mined out); McClean, Caribou, Sue D (AREVA Resources Canada Inc., 70%; Denison Mines Inc., 22.5%; OURD (Canada) Co. Ltd. 7.5%)
36. Tamarack deposit
37. Eagle Point mine (Cameco Corp.)
38. Collins Bay 'A' and 'B' Zone deposits (mined out)
39. Rabbit Lake mine (mined out); mill processing Eagle Point mine ore
40. Horseshoe and Raven deposits
41. La Rocque Lake deposit
42. Paul Bay Ore Shoot deposit
43. Cigar Lake mine (Cameco Corp., 50.025%; AREVA Resources Canada Inc., 37.1%; Idemitsu Uranium Exploration Canada Ltd., 7.875%; TEPCO Resources Inc., 5%; start-up 2013?)
44. Wolf Lake and Sand Lake deposits
45. West Bear deposit
46. McArthur River mine - McArthur River deposit (Cameco Corp., 69.805%; AREVA Resources Canada Inc., 30.195%)
47. McArthur River - BJ Zone deposit
48. Key Lake mine - Gaertner and Deilmann deposits (mined out); mill (Cameco Corp., 83.333%; AREVA Resources Canada Inc., 16.667%) processing McArthur River mine ore
49. Moore Lake - Maverick deposit; 525 and 527 prospects
50. Millennium deposit
51. Centennial deposit
52. Patterson Lake South deposit
53. Black Lake prospect
54. Phoenix deposit
55. Harrigan Zone prospect
56. Burbidge Lake (BURR) prospect
57. Duddridge Lake (Thor) deposit
58. La Ronge mine (closed)

COPPER-NICKEL-(PGE) AND COPPER-COBALT
1. Dianne Lake deposit
2. Dirrty Lake deposit
3. Cole Lake prospect
4. Currie Lake deposit and Pine Channel prospect
5. Axis Lake and Rea Lake deposits
6. Dumas Lake deposit
7. Rottenstone mine (closed)
8. Gochager Lake deposit
9. Mal Lake prospect
10. Triangle Lake deposit
11. Nemeiben Lake (Dunlop) deposit
12. Howard (Little Clam) Lake deposit
13. Swan Lake prospect
14. Hidden Lake deposit
15. Namew Lake mine (closed) (in Manitoba)

LEAD-ZINC
1. Johnson Lake (Marina) prospect
2. George (Brakewell) Lake deposit
3. Deception Lake prospect
4. Sito Lake deposit
5. Fable Lake deposit
6. Western Nuclear mine (closed)

POTASH AND SALT
1. Vanscoy potash mine (Agrium Inc.) and salt plant (NSC Minerals)
2. Cory Division potash mine (PotashCorp) (by-product CaCl$_2$ brine)
3. Patience Lake Division potash solution mine (PotashCorp)
4. Allan Division potash mine (PotashCorp)
5. Colonsay potash mine (The Mosaic Company)
6. Lanigan Division potash mine (PotashCorp)
7. Esterhazy K-1 and K-2 potash mines (The Mosaic Company) and salt plant (Compass Minerals)
8. Rocanville Division potash mine (PotashCorp) and salt plant (NSC Minerals)
9. Belle Plaine potash solution mine (The Mosaic Company) and fine salt plant (processes waste salt from potash mine) (Canadian Salt Co. Ltd.)
10. Unity solution salt mine and plant (Compass Minerals)
11. Saskatoon chloride-based chemical plant (ERCO Worldwide)
12. Jansen project
13. Young project
14. M & J project
15. Wynyard project
16. Legacy project
17. Milestone project
18. Kronau project
19. Sedley project
20. Melville project
21. Muskowekwan project
22. Foam Lake project
23. Southey project

SODIUM SULPHATE
1. Aroma Lake deposit
2. Whiteshore Lake (Palo) deposit
3. Lydden Lake deposit
4. Muskiki Lake deposit
5. Berry Lake deposit
6. Little Manitou Lake deposit
7. Bitter Lake deposit
8. Ingebrigt Lake plant (closed)
9. Vincent Lake deposit
10. Snakehole Lake plant (closed)
11. Verlo East deposit
12. Ceylon Lake (Salt Lake) deposit
13. Chaplin Lake plant (Sask. Minerals)
14. Frederick Lake (Bishopric) plant (closed)
15. Horseshoe (Shoe) Lake plant (closed)
16. Sybouts East (East Coteau Lake) plant (closed)

POTASSIUM SULPHATE
1. Alsask Lake plant (closed)
2. Big Quill Lake plant (Compass Minerals)

MAGNESIUM SULPHATE
1. Beechy plant (Touchwood Resources)

CLAY RESOURCES
1. Saskatoon clay quarry and plant (Cindercrete Products Ltd.)
2. Ravenscraig clay quarry (brick) (I-XL Industries Ltd.)
3. PR-1 and PR-3 clay deposits (stoneware)
4. Eastend clay deposit
5. Frenchman clay prospect
6. Wood Mountain - Fir Mountain kaolin prospect
7. Flintoft clay pit (refractory and ball clay) (closed)
8. Gollier Creek kaolin mine (Whitemud Resources)
9. Rockglen clay pit (brick clay)
10. St. Victor bentonite deposit (swelling bentonite)
11. Readlyn ball clay deposit and Willows clay pit (refractory and ball clay)
12. A.P. Green Claybank brick plant (closed)
13. Truax bentonite quarry (Canadian Clay Products Inc.)
14. Wilcox bentonite plant (Canadian Clay Products Inc.)
15. Willow Bunch clinker quarry (Colored Shale Products Inc.)

COAL AND PEAT
1. Lac La Ronge lignite (sub-bituminous) deposit
2. Carrot River peat moss mine (Premier Tech Horticulture)
3. Carrot River peat moss plant (Premier Tech Horticulture)
4. Hudson Bay area coal deposits
5. Poplar River coal mine (Prairie Mines)
6. Boundary Dam (Shand, Costello, and Utility) coal mine (Prairie Mines)
7. Bienfait coal mine (Prairie Mines)

BUILDING MATERIALS
1. Neyrink Lake black and grey granite (diorite) building stone
2. Sahli green granite building stone
3. Deschambault marble (dolomite) quarry (Graham Construction)
4. Mystic Lake "Verde Antique" marble (veined amphibolite) building stone
5. McNally Lake buckskin marble (dolomite) building stone
6. Amisk Lake red marble (dolomite) building stone
7. Waskwei River cement rock deposit
8. Hudson Bay cement rock deposit

SILICA SAND
1. Bow River silica sand deposit
2. Nipekamew River silica sand deposit
3. Wapawekka Lake silica sand deposit
4. Hanson Lake silica sand quarry (Preferred Sands Unlimited)
5. Red Deer River silica sand quarry (Red Deer Silica Inc.)

GOLD
1. Box mine (closed), Athona deposit and Frontier Adit prospect
2. ELA prospect
3. Pine Channel prospects
4. Nirdac Creek prospect
5. Ithingo Lake deposit
6. Twin Zone and Wedge Lake deposits
7. Golden Heart deposit
8. EP and Komis mines (Golden Band Resources Inc.)
9. Corner Lake deposit
10. Tower East and Memorial deposits
11. Birch Crossing deposits
12. Jojay deposit
13. Star Lake mine (closed)
14. Joiu and Decade mines (closed)
15. Jasper mine (closed)
16. Greywacke deposit
17. Roy Lloyd mine - Bingo deposit (Golden Band Resources Inc.)
18. North Lake deposit
19. Contact Lake mine (closed)
20. Preview North and South, PAP A, B, and C and PAP/Preview SW deposits
21. Sulphide Lake deposit
22. Anglo-Rouyn tailings
23. Seabee mine (Claude Resources Inc.)
24. Porky Main/West deposits
25. Santoy 8 mine (Claude Resources Inc.), Santoy 7 mine (closed), and Santoy Gap deposit
26. Brownell Lake occurrences
27. Manson Bay (Schotts Lake) deposit
28. Eccles Lake (Dolly) prospect
29. Graham mine deposit
30. Robinson Creek deposit
31. Prince Albert (Monarch) mine (closed)
32. Laurel Lake (Amisk Gold) deposit
33. Newcor, Bootleg (Rio), and Henning-Maloney mines (closed)
34. McMillan prospect

COPPER-ZINC
1. Janice Lake prospect
2. Jansem prospect
3. Frog Lake prospect
4. Reef Lake prospect
5. Discovery Lake prospect
6. Brabant Lake PEG/McKenzie deposit
7. Borys Lake deposit
8. Elizabeth Lake deposit
9. Anglo-Rouyn mine (closed)
10. Pitching Lake deposit
11. SAD Zone (HBED Zone) deposit
12. Hook Lake (Gee Lake) deposit
13. Brownell Lake deposit
14. Bigstone Lake deposit
15. Miskat Lake prospect
16. McIlvenna Bay deposit
17. McDermott Lake (Balsam Zone) prospect
18. Ramsay (Quantz/Keputch) deposit
19. FCM and Abbott Lake deposits
20. Schotts Lake deposit
21. Otonabee Lake deposit
22. Knife (Mokoman) Lake deposit
23. Flin Flon and Callinan mines (closed)
24. Birch Lake and Flexar mines (closed)
25. Konuto Lake mine (closed)
26. Coronation mine (closed)
27. Grassberry deposit
28. Archibald Lake deposit

IRON FORMATION
1. Fish Hook Bay deposit
2. Triana deposit
3. Spence Lake prospect
4. Nyberg Lake (VH) deposit
5. Ithingo Lake prospect
6. Kelsey Lake deposit
7. Choiceland deposit

RARE EARTH ELEMENTS
1. Hoidas Lake - Nisikkatch Lake (+ uranium and thorium)
2. Bear Lake (+ uranium and thorium)
3. Alces Lake (+ uranium and thorium)
4. Oldman Lake
5. Archie Lake (+ thorium)
6. Maw REE Zone
7. Douglas River
8. Kulyk Lake (+ uranium and thorium)

KIMBERLITE
1. Sturgeon Lake
2. Candle Lake
3. Fort à la Corne kimberlite field
4. Star Kimberlite

MISCELLANEOUS
1. Deep Bay graphite
2. Pasquia Hills oil shale
3. Bainbridge nodular manganese
4. Pinehouse limestone
5. Axe Lake oil sands
6. Wolverine Point phosphate

† Mine = Past, present, and test producing mines
Deposit = Developed prospect with or without calculated reserves/resources - numerous drilling delineated mineralized intersections (not 43-101 compliant in all cases)
Prospect = minumum of three drilling delineated mineralized intersections

LEGEND
- Uranium potential
- Base metal potential
- Gold potential
- Diamond potential
- Major peat resource potential
- Carbon dioxide (CO_2) resource potential
- Oil pool
- Gas pool
- Oil sands potential
- Coal field
- Potash and salt resource area
- Carnallitic region (magnesium)

SYMBOLS
- Edge of Precambrian Shield
- Precambrian domain boundary and name
- Major bounding shear zone
- Major fault
- Road
- City
- Town

SCALE
25 0 25 50 75 Kilometres
25 0 25 50 Miles

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SMA MEMBERSHIP

- Abasca Resources Inc.
- Agrium Partnership
- Alpha Minerals Inc.
- AREVA Resources Canada Inc.
- Associated Mining Construction
- BHP Billiton
- Boart Longyear
- Cameco Corporation
- Canadian Salt Co. Ltd. (The)
- CanAlaska Uranium Ltd.
- Claude Resources Inc.
- Denison Mines Corp.
- Fission Energy Corp.
- Foran Mining Corporation
- Forum Uranium Corp.
- Golden Band Resources Inc.
- Great Western Minerals Group Ltd.
- HudBay Minerals
- Hudson Bay Minerals & Smelting Co. Ltd.
- JCU (Canada) Exploration Company Ltd.
- K+S Potash Canada GP
- Kitsaki Procon Joint Venture
- La Ronge Gold Corp.
- Mosaic Company
- Mosaic Belle Plaine
- Mosaic Colonsay
- Mosaic Esterhazy
- North Atlantic Potash Inc.
- PotashCorp
- PotashCorp Allan
- PotashCorp Cory
- PotashCorp Lanigan
- PotashCorp Patience Lake
- PotashCorp Rocanville
- Purepoint Uranium Group Inc.
- Rio Tinto
- Sherritt Coal
- Shore Gold Inc.
- Skyharbour Resources Ltd.
- Thyssen Mining Construction of Canada
- UEX Corporation
- Vale Potash Canada Limited
- Westcore Energy
- Western Potash Corp.
- Xtreme Mining & Demolition Inc.
- Yancoal Canada Resources Co., Ltd.

Graham is proud to be a key partner of Saskatchewan's mining industry. By building, upgrading, expanding and renovating facilities throughout the province, we provide valuable construction services that help fuel growth.

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