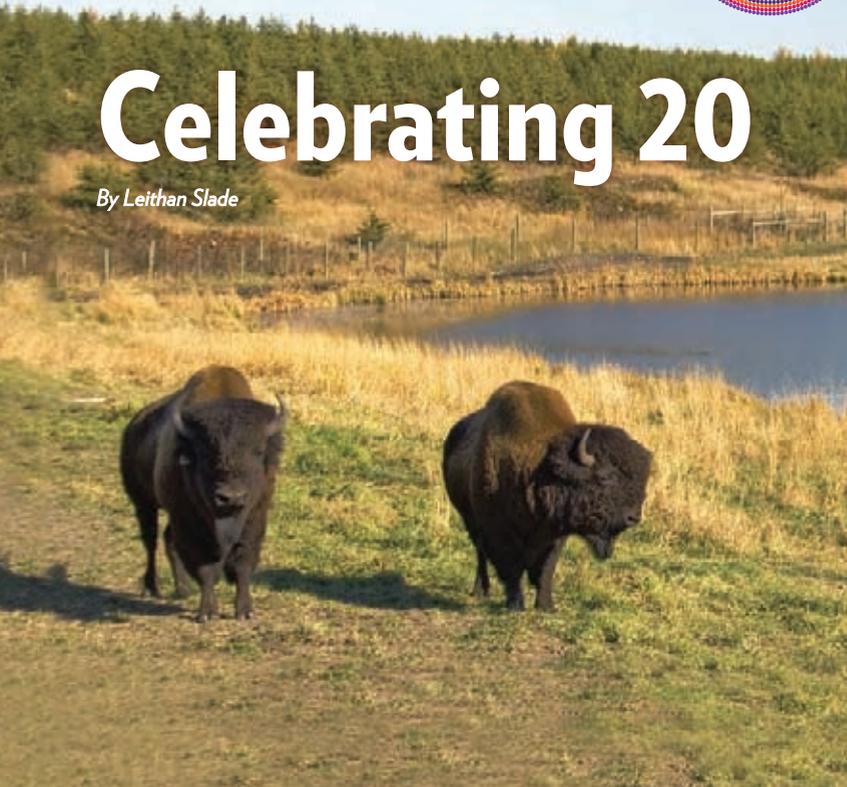




Celebrating 20

By Leithan Slade



This year, Syncrude and the Fort McKay First Nation celebrate 20 years of the Beaver Creek Wood Bison Ranch.

In 1993, talk of reclaiming some of the land disturbed by Syncrude's mining operations evolved into the idea of introducing large mammals to test the land's sustainability. Both cattle and elk were considered before it was suggested that Syncrude reintroduce an animal that had once roamed Alberta's Boreal forest—the wood bison.

Today, the herd numbers in the hundreds.

Brad Ramstead, ranch manager and a senior reclamation scientist with the Fort McKay Group of Companies, believes the project is a great accomplishment: "If we were able to reclaim ground and work 20 years to sustain the largest land mammal in North America, I think you can say we've been fairly successful." ●

Photography: John McQuarrie

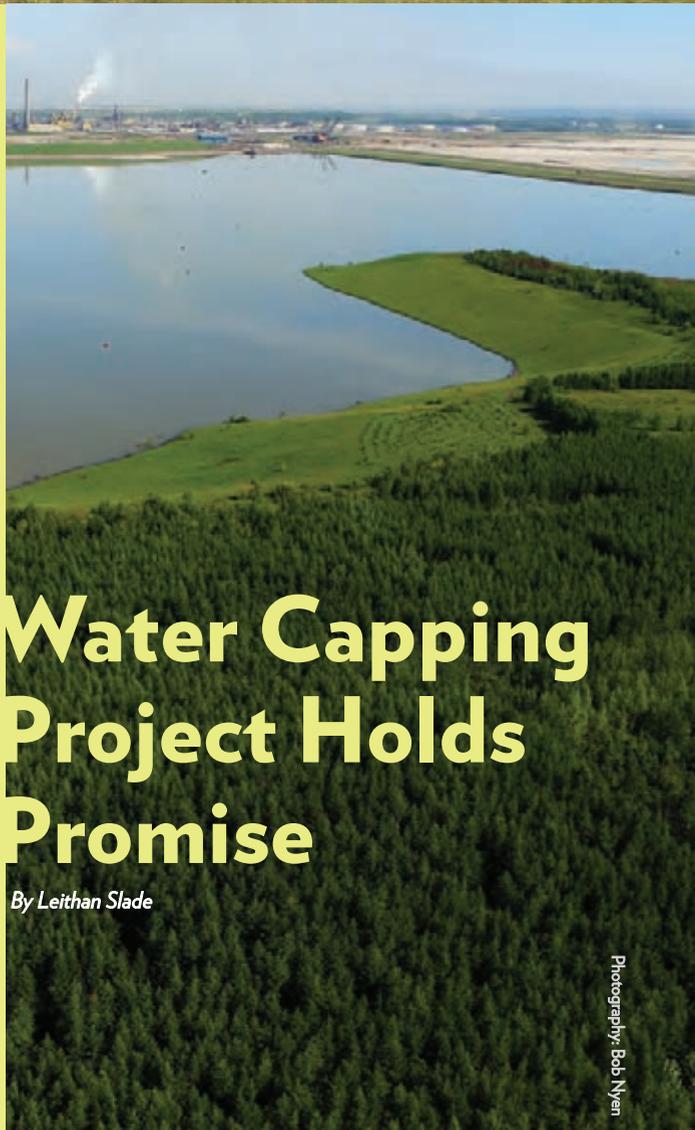
The taps have been turned off as Syncrude continues towards commissioning the industry's first commercial demonstration of tailings water capping technology.

Studied for over 25 years at Syncrude, water capping involves placing a layer of water over a deposit of fine tails (clays and silts). Scientists demonstrated the success of this technology through laboratory and field research, which is seeing 11 test ponds already evolving into natural ecosystems.

A commercial-scale project is now underway west of Highway 63 in the former West mine pit. Effective December 31st, 2012, the flow of fine clays, silts and tailings water into the pit was stopped, marking the beginning of the remediation of material through a natural biological process.

The area will contain fine tails under a five-metre layer of water. Fresh water will be added from nearby Beaver Creek Reservoir, bringing nutrients and seeds to help spur the growth of aquatic vegetation. Water will also flow out to a recycle water pond where it will be used in the extraction process.

Research indicates that, over time, a water-capped lake will develop and evolve into a healthy aquatic environment. "We won't see the area evolve immediately because the natural process takes time," says Michelle Velez, Syncrude senior tailings advisor. "We will continue to monitor its development over the coming years to ensure the lake indeed provides a safe and effective means of incorporating tailings into this type of reclaimed landscape. It holds great promise for the industry." ●



Water Capping Project Holds Promise

By Leithan Slade

Photography: Bob Nyen