



## Oil Sands Update

Energy From Athabasca

December 2009

### Letter from the Editor

As 2009 draws to a close, it is a good time to revisit the oil sands industry's activities over the past year. Canada's oil sands producers have been extremely active in their efforts to share information and improve the knowledge of North Americans about development of this valuable resource.

There are important issues to be discussed and the public is looking for accurate facts to help them get engaged in the discussion. We've taken this call to action seriously and made communicating about what we do a top priority. We've produced this newsletter, fact books, participated in countless meetings and presentations, and ensured a wealth of information is available online.

The new [Oil Sands Developers Group](#) website was launched this year and features facts and information about the energy potential of the oil sands, including an interactive map showing the location of all disturbance and reclamation activity, air and water monitoring stations, as well as real time data.

The [canadasoilsands.ca](#) site was developed by the Canadian Association of Petroleum Producers and has recently been revamped. It is full of facts and hosts discussion about the impact of development of the oil sands, where any and all are invited to share their views – good or bad.

In the past year I have personally made more than 70 presentations in Canada as well as others in the U.S. and in Europe. Representatives of the industry have been interviewed by reporters countless times, and we have repeatedly made



Don Thompson  
President, OSDG

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### Suncor Unveils Plans to Use New Patented Technology

Suncor Energy recently submitted a regulatory application for [Tailings Reduction Operations](#) (TRO), a process expected to significantly improve how the company manages tailings.

“TRO is a significant advance in tailings management and reclamation,” says Kirk Bailey, Executive Vice President, Suncor - Oil Sands. “We believe it will help us meet new provincial regulatory requirements and just as importantly, the changing expectations of stakeholders.”

TRO involves converting fluid fine tailings more rapidly into a solid landscape suitable for reclamation. In the process, Suncor's fine tailings, which

ourselves available as sources or fact-checkers.

All of this on top of the communication efforts by individual companies, through shareholder communications, media relations, websites, blogs, tweets and tours. These companies are generous with their time and resources, hosting dozens of tours for academics, civic and church leaders, and journalists, just to name a few.

We still have a lot of work ahead to correct the misconceptions about the oil sands that have been promoted by opposition groups. But this is a resilient industry, one that has consistently depended on innovation and sheer will to achieve our goals. And with economic outlooks improving daily, we are all feeling optimistic about the future.

Don Thompson  
President, OSDG

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## Improvements to Tailings Ponds Coming Soon

Tailings ponds, a mixture of water, clay, sand and residual bitumen left over from oil sands mining, have always been a top industry concern and oil sands operators are working hard to develop new technologies that hasten the settling process of tailings ponds, reduce or eliminate tailings ponds and speed up the reclamation process.



**Suncor Tailings  
Pond Reclamation**

[Shell Canada's](#) Albion Sands project, for example, uses thickeners in the tailings that allow water to be recaptured before being released into the pond. This reduces the size of the pond and the amount of water used in production. In another example of industry taking the lead on tailings technology, Suncor recently submitted a regulatory application for [Tailings Reduction Operations](#) (see side bar for more details on TRO) it expects will improve the company's tailings management. Other promising technologies currently under development include:

- Composite Tails - Combines fine tails with gypsum and sand, causing the tailings to settle faster than they would on their own.
- CO2 Injection – Involves injecting flue gases such as CO2 into tailings ponds to feed the growth of micro-algae, which can then be processed into products like ethanol, bio-diesel and fertilizer.
- Thickened Tails - Tailings are sent through a product separating vessel to thicken the mixture before it is pumped

settle out over the course of two to three years to a yogurt-like material called Mature Fine Tailings, are mixed with a polymer and deposited in thin layers over areas around the tailings ponds where they consolidate to a solid form. The process results in a dry material capable of being reclaimed in place or moved to another location for reclamation.

The drying process occurs over a matter of weeks, allowing for more rapid reclamation. Suncor expects the new process to improve tailings management and reduce existing tailings inventory.

These proposed changes to operations are subject to approval by the Energy Resources Conservation Board, Alberta Environment and Suncor's Board of Directors.

### **MacDonald Island Park Now Open to the Public**

Thanks in part to funding from private industry [MacDonald Island Park](#), a world-class recreational facility, is now open to the public. Home to the brand new 5,200-square-foot public library, the picturesque Miskanaw golf course and the brand new Suncor Community Leisure Centre, MacDonald Island Park provides a mix of recreational opportunities for all ages. The new leisure centre boasts an NHL-sized ice rink, an indoor running track, a fitness centre and many other amenities. In April 2010, the Olympic-sized pool with two waterslides and a splash park will be open to

into the pond. The fine solids settle out rapidly and are pumped out in the form of soft clay to be used for reclamation into a finished landscape.

- Water Capping – A layer of water covers a deposit of fine tails, forming a lake that should evolve into natural ecosystems and eventually support healthy plants, animals and fish.

In addition, technologies such as freeze-thaw evaporative drying and centrifugation are also in advanced stages of pilot testing...all focused on speeding up the settling of tailings so that the land can be reclaimed more quickly.

The technologies mentioned above are just a few examples of the commitment of oil sands operators to reduce the size of tailings ponds and speed the reclamation process. These technologies could also help the industry meet [environmental regulations](#) announced last February by the Energy Resources and Conservation Board (ERCB).

the public.

#### Pass it on

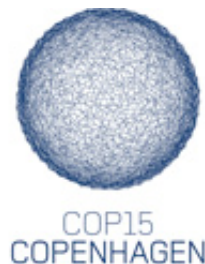
If you know someone who may be interested in receiving this newsletter, you can easily [forward up to five copies](#) at once.

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## Timeline: 2009 A Year In Review

### February

1. The Energy Resources and Conservation Board announces a [new directive](#) that requires oil sands operators to accelerate the development of new technologies to reclaim tailings from mining operations.



2. Imperial Oil confirms it is proceeding with its 300,000 barrel per day [Kearl oil sands project](#).
3. The province releases a [20-year blueprint](#) to better manage the economic, social and environmental challenges related to developing Alberta's oil sands.

### March

4. The Alberta government announces it will take bitumen in lieu of cash as oil sands royalty payment through its [Bitumen Royalty In-Kind program](#).
5. Suncor and Petro Canada, two of Canada's biggest oil companies, agree to a [\\$19.2 billion merger](#).

### May

6. [Cambridge Energy Research Associates](#) releases a study

demonstrating that on a full life-cycle basis, the gap between emissions from oil sands versus conventional oil production is just 5 to 15%.

## June

7. The Oil Sands Developers Group launches a new website featuring an [interactive oil sands map](#) showing the location of all oil sands projects, air and water quality monitoring stations, reclaimed land, among other details.
8. The Alberta Government announces it will inject \$2 billion into the research and development of [carbon capture and storage](#) technology.

## July

9. Environment Minister Jim Prentice announces that Canada will be adopting [climate-change regulations](#) that are comparable to those planned in the U.S. under the American Clean Energy and Security Act.
10. The Canadian Energy Research Institute (CERI) releases a [comprehensive assessment](#) of the role of the petroleum industry in the provincial and national economies. The report states that over the next 25 years, oil sands activity will generate 456,000 jobs and \$1.7 trillion in economic activity across Canada.
11. The Alberta government releases the final report of the [Carbon Capture and Storage Development Council](#). Its recommendations are designed to be a blueprint for how Alberta can best implement carbon capture and storage (CCS).
12. [Two independent studies](#) find direct emissions from producing, transporting and refining oil sands crude are in the same range as those of the other crudes refined in the United States.

## October

13. Suncor announces it intends to use a new patented technology called, [Tailings Reduction Operations](#), to speed up reclamation of its tailing ponds.
14. The Alberta government goes international with the signing of a [Letter of Intent with Shell Canada](#) to implement large-scale Carbon Capture and Storage (CCS) technology.

## November

14. [CERI's industry outlook](#) reports that \$309 billion will be spent over the next 35 years to increase output from 1.4 million barrels of synthetic crude and bitumen per day this year to 5.3 million bpd in 2041.

## December

15. World leaders meet in Copenhagen, Denmark, for the [United](#)

[Nations Framework Convention on Climate Change](#) to reach a new global agreement.

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## Community of Wood Buffalo the Most Generous in the Country

While the Wood Buffalo Region is well recognized as housing some of the largest industrial investments in the country, it is a little known fact the community is also home to the nation's most generous population. In fact, the more than 50,000 residents of this caring community donated \$5 million to the [United Way](#) in 2009, the highest per capita contribution in the country - for the third year in a row!



Funding went to support 24 social-service organizations and 50 programs in the region, including the Family Crisis Society, the Pastew Place Detox Centre, the Salvation Army Emergency Shelter, Search and Rescue, and a host of others. The United Way is just one example of Fort McMurray's generous community spirit and cooperative nature. The organization's dedicated board of directors includes representatives from industry, religious groups, education, the business community and the Regional Municipality of Wood Buffalo who work together tirelessly to make their community a better place to live.

In fact, giving back to the community is a way of life for Wood Buffalo residents. Nearly half the region's population actively volunteers - more than twice the national average! Residents of Wood Buffalo give back to the community in so many ways: financial donations, volunteer work, community partnerships – the Regional Municipality of Wood Buffalo has launched a campaign detailing the [Big Spirit](#) of the RMWB.

Companies that call the Wood Buffalo area home are also putting millions of dollars back into the community. Last year, Suncor Energy spent \$4.1 million to support 60 groups and organizations, including Keyano College Theatre, the Northern Lights Regional Health Foundation, the Public School District, the Oilsands Discovery Centre, and a host of others.

Syncrude Canada has invested nearly \$12 million in the community since 2006, focusing on education, the environment, health and safety, science and technology, Aboriginal relations, local community development, arts and culture and recreation. Last year, the company announced the biggest donation in its

history - \$5 million to create the Syncrude Aboriginal Pre-Trades Program at Keyano College.

- [United Way raises \\$5 million \(Fort McMurray Today\)](#)

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## Site Visits Tell the Story of Oil Sands Development

Site visit programs are one of [Oil Sands Developers Group's](#) most valuable tools as we work to communicate accurate, credible information about Athabasca oil sands activity. Operated by our member companies, these programs cover every angle of the industry, from environmental issues to socio-economic impacts. "Site visits give a comprehensive view of the oil sands that covers the different methods of developing the oil sands as well as our industry's history and future," says Alain Moore, Chair of the OSDG Communications Committee. "We find that visitors leave with an improved appreciation of both the challenges and opportunities associated with development."



**Shell Peace River Operation**

The quality of site visits has improved over time alongside our member companies' growing program capacity. The increasing proportion of "joint site visits," featuring both [mining](#) and [in-situ](#) facilities, is an example of industry's cooperation on this file. Combined with a reclamation area visit, and often a supplementary presentation from an OSDG representative, these joint site visits offer a broad view of the oil sands industry. In-situ site visits are especially informative, as 97.5 per cent of the Athabasca region's surface area and 80 per cent of its oil sands resource cannot be developed by mining. The fact that such a large portion of the resource will need to be developed using in-situ technologies suggests that their inclusion in site visits will be increasingly important in the future.

The demand for site visits has grown significantly in recent years, with OSDG playing a key role in the coordination of those that benefit the industry as a whole. During the past year OSDG participated in 36 separate site visits that were arranged for a variety of audiences, including legislators, researchers, civil society leaders and business associations.

Of particular note was a visit by [David Jacobson](#), the newly appointed United States Ambassador to Canada. Prior to his visit, Ambassador Jacobson told an audience in Calgary that he had "learned a lot about the tremendous strides that have been taken over the last several years with respect to improving the environmental record in treating the oil sands." The Ambassador

was able to see the results of industry's environmental efforts firsthand at Syncrude's 104-hectare Gateway Hill area, which received the first oil sands mining reclamation certificate in March 2008. Reclamation progress at Syncrude's original base mine as well as the company's wood bison habitat, which was developed in cooperation with the Fort Mackay First Nation, were also part of the Ambassador's visit.

- [David Jacobson's blog](#)
- [U.S. Ambassador urges balanced oil sands approach](#)

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**Visit our website: [www.oilsandsdevelopers.ca](http://www.oilsandsdevelopers.ca)**

©2009 The Oil Sands Developers Group is important in addressing the need for accurate, credible information about Athabasca oil sands activity. On behalf of our members, we work closely with oil sands operators and developers, related industries, government, Aboriginal peoples, and other organizations active in the Athabasca region. Through communication and collaboration, we help define and address regional issues related to oil sands development.

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