Oil SANDS Myths

CLEARING THE AIR

COMPILED BY

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Sustainable Energy Solutions

CLIMATE CHANGE

1. Alberta's greenhouse gas legislation does not require real reductions in emissions from oil sands operations.

THE SPIN: "Alberta is a leader in how we manage greenhouse gases ..."*

THE PLAIN FACTS: While the scientific consensus is that there must be deep reductions in greenhouse gas emissions, Alberta's climate plan will lead to emissions in 2050 that are higher than 1990 levels.

* Government of Alberta, "Legislation Launches Climate Change Fund as Vehicle to Deliver Real Emission Reductions," 2008.

For the full story and references, download the report from www.oilsandswatch.org/pub/1839.

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2. Oil sands production is much more greenhouse gas intensive than conventional oil production.

THE SPIN: "When the entire carbon footprint of oil is considered, crude from the oil sands stacks up very closely with other sources."*

THE PLAIN FACTS: Whether you compare greenhouse gas emissions on a full life cycle basis or on production values, oil sands development consistently produces higher greenhouse gas emissions than conventional oil production.

* Government of Alberta, *Alberta's Oil Sands: Resourceful. Responsible.* September 2008.

For the full story and references, download the report from www.oilsandswatch.org/pub/1839.

3. Oil sands are the fastest-growing source of greenhouse gas emissions in Canada.

THE SPIN: "Oil sands make up about five percent of Canada's overall greenhouse gas emissions and less than one-tenth of one percent of the world's emissions."*

THE PLAIN FACTS: The oil sands operations are the largest source of projected *new* greenhouse gas pollution in Canada. They are the number one reason Alberta and Canada's emissions are rising instead of falling.

* Government of Alberta, *Alberta's Oil Sands*, 2009.

For the full story and references, download the report from www.oilsandswatch.org/pub/1839.

4. Continued increases in greenhouse gas emissions show that Canada's commitment to address climate change falls far short of what's needed.

THE SPIN: "Climate change is a serious issue and this government is dealing with it in a serious way."*

THE PLAIN FACTS: Canada's greenhouse gas targets fall short of what the science requires, are not reflected in law and will not be met with currently proposed policies.

* Hon. Jim Prentice, *House of Commons Debates*, 2nd Session, 40th Parliament, May 12, 2009.

For the full story and references, download the report from www.oilsandswatch.org/pub/1839.

5. Large-scale carbon capture and storage for oil sands emissions is currently a distant and uncertain prospect.

THE SPIN: "[Carbon capture and storage] will collect carbon dioxide emissions from oil sands operations and coal-fired electrical plants, and seal them deep underground. Proving this technology on a commercial scale is key to reducing Canada's greenhouse gas emissions."*

THE PLAIN FACTS: For carbon capture and storage to be implemented on a large scale in the oil sands, federal or provincial governments would have to put a price on emissions about five times higher than they have proposed to date. Very large investments would need to be made, and significant technical challenges overcome. Current government policies are not close to making this happen.

* Office of the Prime Minister of Canada, "PM and Saskatchewan Premier Announce Major Carbon Capture and Storage Project," March 25, 2008.

For the full story and references, download the report from www.oilsandswatch.org/pub/1839.

6. Companies are allowed to switch to burning dirtier fuels as a source of energy for oil sands extraction — further increasing greenhouse gas emissions from the oil sands.

THE SPIN: "In situ oil sands facilities that want to use heavier fuels for steam generation will have to incorporate carbon capture and storage into their building plans."*

THE PLAIN FACTS: With carbon capture and storage technology still in its infancy, facilities that switch from natural gas to dirtier fuels will not actually be capturing their increased emissions.

*Government of Alberta, "Alberta's Oil Sands and Greenhouse Gases (GHG)."

For the full story and references, download the report from www.oilsandswatch.org/pub/1839.

7. Oil sands mining uses two to four barrels of water for every barrel of bitumen produced.

THE SPIN: Water use for Alberta's oil sands development is low and "new technologies continue to reduce the footprint of oil sands development. … Up to 90 percent of the water used is recycled, depending on the maturity of the facility and type of extraction."*

THE PLAIN FACTS: Approximately 12 barrels of water are required to produce each barrel of oil from bitumen. Up to 70 percent of this water is reused, but that still means two to four barrels of water are used to produce each barrel of oil from oil sands mining operations.

* Government of Alberta, *Alberta's Oil Sands: Opportunity. Balance.* March 2008.

For the full story and references, download the report from www.oilsandswatch.org/pub/1839.

8. Oil sands companies are not required to stop withdrawing water from the Athabasca River, even if flows are so low that fisheries and habitat are at serious risk.

THE SPIN: "All existing and approved oil sands projects together will withdraw less than three percent of the average annual flow of the Athabasca River."*

THE PLAIN FACTS: Talking about average annual flows masks the highly seasonal nature of flows in the Athabasca River. Winter flows may be 10 times less than spring or summer flows, and the oil sands industry has much greater impacts during these low-flow periods.

* Government of Alberta, *Alberta's Oil Sands: Resourceful. Responsible.* September 2008.

For the full story and references, download the report from www.oilsandswatch.org/pub/1839.

9. Capping toxic tailings waste in end pit lakes with water is an unproven and risky concept.

THE SPIN: "… water quality in the pit lakes will be acceptable for release and will support a viable, maintenance-free aquatic ecosystem …"*

THE PLAIN FACTS: The concept of end pit lakes is risky, experimental and has never been demonstrated.

*Imperial Oil Resources Ventures Limited, "Kearl Oil Sands Mine Development: Submitted to Oil Sands Environmental Coalition," 2006.

For the full story and references, download the report from www.oilsandswatch.org/pub/1839.

10. For over 40 years, oil sands mining companies voluntarily managed tailings on their own, in the absence of concrete government regulations.

THE SPIN: "Tailings ponds are, in fact, tightly regulated by Alberta Environment and the Alberta Energy Resources Conservation Board."*

THE PLAIN FACTS: Since 1967, oil sands mining operators have been allowed to manage tailings on a voluntary basis with little government enforcement. A directive released in 2009 will require operators to reduce a portion of the volume of future tailings waste, but still fails to address the 720 billion litres of legacy tailings on the landscape today.

* Dave Collyer, "Big Oil Is Listening to Canadians," Edmonton Journal, January 14, 2009.

For the full story and references, download the report from www.oilsandswatch.org/pub/1839.

11. Tailings lakes seep toxic waste. It is uncertain exactly what is seeping, how much is seeping and what ecosystem components are affected.

THE SPIN: "[Tailings ponds] are equipped with technology to monitor, intercept and return any seepage back into the pond. Tailings water is not released to the river."*

THE PLAIN FACTS: Tailings lakes seep toxins such as naphthenic acids — toxic water-soluble carboxylic acids — into the groundwater below and around the containment dykes or tailings lakes, but no information is available on the rates or the composition of seepage.

* Dave Collyer, "Big Oil Is Listening to Canadians," Edmonton Journal, January 14, 2009.

For the full story and references, download the report from www.oilsandswatch.org/pub/1839.

12. Tailings lakes house compounds known to be acutely toxic to aquatic organisms.

THE SPIN: **"The Athabasca River has always had traces of oil and related compounds in the water, because bitumen seeps into the river from oil sand exposed naturally in the riverbanks."***

THE PLAIN FACTS: **Toxic substances, including naturally occurring, soluble constituents of bitumen, become concentrated in tailings as a result of the bitumen extraction process. Tailings lakes may be leaking into the surrounding environment at a rate of 11 million litres a day.†**

*Dave Collyer, "Big Oil Is Listening to Canadians," Edmonton Journal, January 14, 2009.
†Matt Price, *11 Million Litres a Day: The Tar Sands Leaking Legacy,* 2008.

For the full story and references, download the report from www.oilsandswatch.org/pub/1839.

13. Reclamation of tailings lakes has not yet been demonstrated.

THE SPIN: "First tailings pond completely reclaimed by 2010."*

THE PLAIN FACTS: The first tailings pond is scheduled to be filled in by 2010, but this will only be accomplished by moving the toxic tailings somewhere else instead of eliminating them.

* Don Thompson, President Oil Sands Developers Group, "Oil Sands: Challenges + Opportunities," 2008.

For the full story and references, download the report from www.oilsandswatch.org/pub/1839.

14. Alberta's oil sands underlie one-fifth of the province, and development is already planned for more than 79,000 square kilometres.

THE SPIN: "To date there are 530 square kilometres (205 square miles) of land that has been disturbed by oil sands mining activity — which is less than the area of the City of Edmonton."*

THE PLAIN FACTS: Oil sands underlie 21 percent of Alberta, and projected development will greatly exceed the current impacts. An area larger than the province of New Brunswick has already been leased to in situ oil sands companies for development.

* Government of Alberta, *Alberta's Oil Sands: Resourceful. Responsible.* September 2008.

For the full story and references, download the report from www.oilsandswatch.org/pub/1839.

15. Cumulatively, the potential area affected by in situ development is about 40 times larger than the mineable zone.

THE SPIN: "In-situ processes have a significantly smaller footprint on the landscape."*

THE PLAIN FACTS: Recent research reveals that the land area influenced by in situ technology is actually comparable to land disturbed by surface mining. In situ oil sands could have a dramatic impact on 21% of Alberta.

* Government of Alberta, *Alberta's Oil Sands: Resourceful. Responsible*, September 2008.

For the full story and references, download the report from www.oilsandswatch.org/pub/1839.

16. The Athabasca Boreal Forest will not be restored to its native state following mine closure.

THE SPIN: "All oil sands developments are ultimately reclaimed and returned to a natural state."*

THE PLAIN FACTS: In 40 years of oil sands operations no tailings lakes and no mines have yet been fully reclaimed. Even if reclamation is successful, Alberta regulations do not require restoration of the kind of habitat that used to be present.

* Canadian Association of Petroleum Producers (CAPP), "National Geographic: An Incomplete Perspective," 2009.

For the full story and references, download the report from www.oilsandswatch.org/pub/1839.

17. Oil sands mining reclamation standards are weak and lack transparency; only one square kilometre of land has been certified as reclaimed to date.

THE SPIN: "To date, more than 65 square kilometres (25 square miles) have been reclaimed."*

THE PLAIN FACTS: Only two-tenths of one percent of land disturbed by mining has been reclaimed and certified by the Government of Alberta and returned to Albertans. Lack of publicly available data make it impossible to validate industry claims of successful reclamation.

* Canadian Association of Petroleum Producers (CAPP), "National Geographic: An Incomplete Perspective," 2009.

For the full story and references, download the report from www.oilsandswatch.org/pub/1839.

18. The security bonds that are supposed to protect Canadians from costly environmental liabilities may be inadequate.

THE SPIN: "By law, industry must post financial security equivalent to the cost of reclamation."*

THE PLAIN FACTS: Detailed reclamation plans and costs are not publicly available. As well, full reclamation of toxic tailings waste has never been demonstrated, so real costs for that process are also fundamentally impossible to determine. There is no way to know if security bonds are sufficient to protect Canadian taxpayers.

* Government of Alberta, *Alberta's Oil Sands: Resourceful. Responsible*, September 2008.

For the full story and references, download the report from www.oilsandswatch.org/pub/1839.

19. First Nations are not consulted prior to mineral lease sales.

THE SPIN: "Oil sands developers must consult with First Nations in the area before development."*

THE PLAIN FACTS: Oil sands tenures are granted without consultation. Three lawsuits launched by First Nations affected by oil sands development allege that First Nations were not consulted properly before oil sands tenures were granted.

* Government of Alberta, *Alberta's Oil Sands: Resourceful, Responsible.* September 2008.

For the full story and references, download the report from www.oilsandswatch.org/pub/1839.

20. Aquatic monitoring is conducted by an industry-funded group that has been criticized for using an analytically weak, biased and inconsistent monitoring approach.

THE SPIN: "Stringent testing has consistently shown there has been no increase in concentrations of contaminants as oil sands development has progressed."*

THE PLAIN FACTS: A 2004 scientific peer review of the regional aquatic monitoring program for the Athabasca region criticized the design of the monitoring program, citing "significant shortfalls" and recommending more independent and expert input.

* Government of Alberta, *Alberta's Oil Sands: Resourceful. Responsible.* September 2008.

For the full story and references, download the report from www.oilsandswatch.org/pub/1839.

21. There is no regional environmental management system to address the cumulative impacts of oil sands development in Alberta.

THE SPIN: "The Alberta government is looking beyond oil sands development on a project-by-project basis to address the cumulative effects of development in the region."*

THE PLAIN FACTS: Nine years ago the governments of Canada and Alberta set up a multi-stakeholder association to recommend rules for oil sands development, yet today there is still no land-use plan, no regulations to halt oil sands water withdrawals on the Athabasca River during low flows, and no common standards for reclamation.

* Government of Alberta, *Alberta's Oil Sands: Resourceful. Responsible.* September 2008.

For the full story and references, download the report from www.oilsandswatch.org/pub/1839.

22. Absolute limits are lacking for air emissions, land disturbance and water withdrawals.

THE SPIN: "Stringent legislation and on-the-ground measures are in place to protect the air, land and water during oil sands development."*

THE PLAIN FACTS: There is no requirement to halt oil sands water withdrawals during low-flow periods when the river is at risk, nor are there limits on land impacts or on air emissions in the Athabasca Boreal Region around Fort McMurray, where the majority of oil sands emission growth is occurring.

* Government of Alberta, *Alberta's Oil Sands: Resourceful. Responsible.* September 2008.

For the full story and references, download the report from www.oilsandswatch.org/pub/1839.

23. There is substantial room for the oil sands mining sector to improve its environmental performance.

THE SPIN: "The oil sands industry is strongly committed to improving environmental performance."*

THE PLAIN FACTS: A 2008 grading assessment of 10 major oil sands mines using 20 different environmental indicators showed an average score of 33 percent. Only 2 out of 10 oil sands projects reported voluntary targets to reduce their impact on air, land and water.

* Canadian Association of Petroleum Producers (CAPP), "National Geographic: An Incomplete Perspective," 2009.

For the full story and references, download the report from www.oilsandswatch.org/pub/1839.