



FULL DISCLOSURE

Photo: Jennifer Grant, Pembina Institute

Environmental liabilities in Canada's oilsands

PERSPECTIVE
FOR INVESTORS

Risks of oilsands investment

Canada's oilsands contain the world's largest remaining deposit of oil that is still open to investment by western oil companies. As such, the oilsands are crucial to the long-term financial future of many of the world's leading oil companies. Yet the economics of oilsands extraction, even at today's relatively high prices, are fairly marginal, and a lack of disclosure by companies may be making the financial picture look better than it actually is. Major costs, including the multi-billion dollar costs for reclaiming the land disturbed by oilsands mining, are largely carried off the balance sheet. To better understand and manage the risks associated with the oilsands, investors should engage with both companies and securities regulators to encourage improved disclosure of environmental liabilities.

While Canada's oilsands may be one of the world's largest hydrocarbon reserves — and one that remains accessible for publicly-traded companies — they are also the world's most expensive major source of oil.² New in situ oilsands projects require an oil price of \$65 to \$95 per barrel to make their projects economic.³ This break-even price is rising as the world comes out of recession and the price of labor and input commodities like steel has begun to increase. Some analysts project that the break-even price for new oilsands projects could soon approach levels seen several years ago, when by some estimates it exceeded \$100 per barrel.⁴

The marginal economics of oilsands production means that projects are uniquely vulnerable to anything that either increases the cost of production or decreases the price of oil. The fragility of oilsands economics was clearly illustrated during the last recession; between July 2008 and June 2009, 85% of deferred or cancelled non-OPEC production capacity was located in the oilsands.⁵

In addition to oil price risk, the economics of oilsands extraction are threatened by the significant costs as-

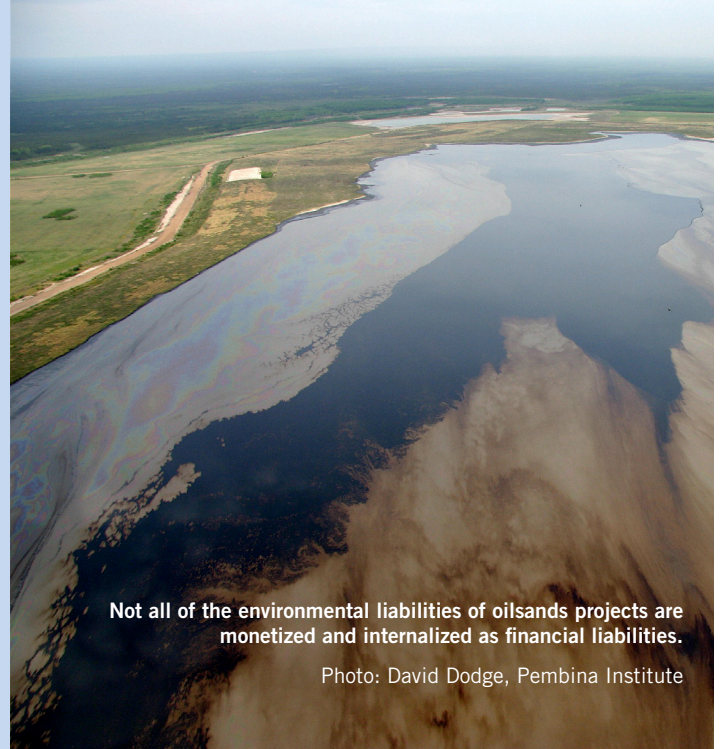
sociated with managing the environmental impacts of development, including the production of tailings and impacts on climate, water, land and endangered species. Furthermore, the financial implications of several precedent-setting Aboriginal court challenges on consultation and environmental impacts by the industry may raise production costs even higher.

While significantly higher oil prices would offset some of these cost increases and improve the financial attractiveness of the oilsands, there is robust evidence from industry experts like Cambridge Energy Research Associates (CERA) that oil prices cannot rise much beyond \$120 to \$150 per barrel before leading the world into a demand-destroying recession. With a break-even point of \$95 (and rising) per barrel for some in situ oilsands projects,⁶ the economic viability of the oilsands industry contains very little flexibility.

Given this economic tightrope, the financial viability of the oilsands industry is particularly vulnerable to external price shocks or adjustments with internal accounting.

Environmental liabilities = financial liabilities

Oilsands projects, both in situ and mining, have significant environmental impacts. All of these impacts produce a suite of environmental liabilities to ecosystems, human health and the economics of a particular project. Not all of these environmental liabilities are monetized and internalized as financial liabilities. For instance, the liabilities from greenhouse gas (GHG) emissions are largely excluded at present and do not impact the financial accounting of oilsands projects. This is not the case for reclamation liabilities. Under provincial environmental regulations and national securities law, reclamation liabilities must be internalized and included in a company's financial reporting.



Not all of the environmental liabilities of oilsands projects are monetized and internalized as financial liabilities.

Photo: David Dodge, Pembina Institute

Estimating and disclosing oilsands liabilities

At the moment, investors have little access to reliable data that accurately reflects the reclamation liability that companies are likely to incur.

Due to the dearth of successful reclamation projects in the oilsands and the poor disclosure of reclamation costs, it is difficult to get reliable estimates of the scale of reclamation liabilities. Suncor Energy anticipates spending over a billion dollars implementing its new TRO™ tailings management technology.⁷ Syncrude has increased its annual reclamation funding sevenfold in seven years to \$140 million per year.^{8,9} Syncrude has also paid \$46,282 per acre to reclaim a 659-acre upland site and has targeted \$375,939 per acre for a current experimental project to reclaim a wetland.^{10,11}

Despite being required to submit accurate reclamation costs to the Alberta government, the oilsands industry actually discloses a far smaller magnitude of liability. For instance, in 2008 the average reclamation cost submitted to the Alberta government by oilsands mine operators was only \$4,846 per acre. Given this difference between reported costs and the much higher costs seen in practice, the Pembina Institute has con-

servatively estimated that in 2008 unaccounted liabilities for oilsands mines alone amounted to up to \$15 billion.¹² If business as usual continues, the amount of unaccounted liabilities could reach \$17 billion to \$33 billion by 2025.¹³ This demonstrates that provincial liability management regulations for the oilsands have not historically been an accurate proxy for the actual liabilities being accrued. Given the marginal economics for the oilsands industry, this discrepancy should be of significant concern for investors.

“At this time no [tailings] ponds have been fully reclaimed using this [TRO™] technology. The success of the TRO™ and the time to reclaim tailings ponds could increase or decrease the current asset retirement cost estimates. Our failure to adequately implement our reclamation plans could have a material adverse effect on our business, financial condition, results of operations and cashflow.”

— Suncor Energy Inc, 2010 Annual Report, p 36

Asset retirement obligations (AROs)

Besides provincial regulations, a disclosure tool often required by securities regulators is the asset retirement obligation (ARO). The purpose of an ARO is to inform investors and the public about how a company accounts for future risks from reclamation obligations and provides assurance that a company is accurately assessing these risks. Ideally, AROs incorporate all foreseeable long-term reclamation costs discounted to a present-day value.

Unlike provincial liability management regulations, the ARO does not represent money that is set aside; rather, it is a quantification of future risk. While certainly imperfect as a tool, it allows companies and investors to manage some of the risk associated with funding reclamation efforts.



▲ Remediation costs are excluded from an ARO.

Photo: David Dodge, CPAWS

Limitations of AROs

Uncertainty over new ARO standards. In a 2008 report to Canadian mining industry accountants, the accounting consulting firm Deloitte included AROs in their top 10 list of accounting concerns as Canada transitions to international accounting standards in 2011.¹⁴ The U.S. is set to adopt the new IFRS standards in 2015.

Significant underestimation of reclamation costs: Many liabilities do not appear in an ARO.

- Companies can exclude liabilities associated with operational assets. For instance, the billions of dollars it will take to reclaim tailings lakes can be excluded because they are classified as operational assets.
- Remediation costs are excluded. This is a significant concern given the scale of polluted land, air and water from oil sands operations.
- Liabilities from assets with an indeterminate life are excluded. This means that liabilities from entire plant sites can be excluded from an ARO.
- Liabilities whose reclamation costs cannot be 'determined' can be excluded. Currently, liabilities associated with massive sulphur and coke stockpiles are not included for this reason.

The end result of all these accounting loopholes is that companies carry few to no liabilities for oil sands reclamation as part of their ARO. Underreporting or underestimating AROs can make an unprofitable operation look like it is actually making money because it excludes major liabilities that it will be required by regulation to eventually address.

Failure to disaggregate AROs. Under Canadian and U.S. accounting practices, companies are not required to file disaggregated AROs per mine. As a result, except in the case of a pure-play oil sands mine operator, an ARO will include a host of reclamation liabilities from other sites. This limits the utility of ARO in informing investment practices specific to the oil sands and the government's ability to manage mine liabilities; companies with significantly higher risk exposure in the oil sands may appear to have minimal exposure when their operations are aggregated.

Recommendations for investors

It is clear that the liabilities associated with oilsands reclamation are significant, material, underestimated and largely undisclosed. Investors can, however, take a number of steps to better understand and manage the risks associated with their oilsands investments.

Engage securities regulators to improve disclosure rules

Improved transparency is key, as it allows investors to understand the true level of risk facing their portfolios, and it also provides a financial incentive for companies to minimize environmental liabilities. Investors should therefore encourage securities regulators to improve disclosure by:

- **Disaggregating oilsands liability from overall liability.** Currently, companies with significantly higher risk exposure in the oilsands may appear to have minimal exposure when their operations are aggregated. Disaggregating oilsands liabilities (or other higher-risk unconventional like deepwater offshore production) will allow investors to better discern a company's risk exposure.
- **Assigning lifespans to assets with indeterminate lives.** By assigning an uncertain lifespan to high-liability assets like tailings lakes, companies can manipulate their ARO to underestimate liabilities. Requiring all assets to have a set lifespan can help companies better manage liabilities and will give investors a more accurate sense of total liabilities.
- **Assigning liability to uncertain technology or uncertain retirement costs.** Liabilities associated with unproven technologies (e.g., many tailings technologies) or uncertain retirement costs (e.g., plant sites) are currently exempt from inclusion in an ARO. Simply because a liability is difficult to estimate doesn't mean that it should be made invisible to investors. Considering the scale of these liabilities and the marginal economics of oilsands, requiring all liabilities be estimated and accounted for would give investors a more accurate sense of their risk exposure.

Minimize exposure to oilsands liabilities

- **Engage directly with companies to encourage improved disclosure and ensure that adequate financial safeguards are in place.** Companies with oilsands operations need to have adequate insurance and access to capital to pay for reclamation in the event that the industry becomes uneconomic. Basing the ability to pay for fixed reclamation costs solely on the volatile value of undeveloped oilsands is unduly risk-tolerant.
- **Reduce exposure to higher-risk oilsands companies.** Not all oilsands companies have similar approaches to risk management. If investing in oilsands, direct investment to companies that are leaders in disclosure, tailings management, GHG management and Aboriginal relations. This not only reduces investor liabilities, it sends a market signal to oilsands companies about the advantages of innovative operations.
- **Increase investments in the clean energy sector.** A clearer signal than investing in lower risk oilsands companies is to invest heavily in high-growth clean energy companies.

Simply because a liability is difficult to estimate doesn't mean that it should be made invisible to investors. ►

Photo: David Dodge, Pembina Institute





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Want More Information?

For more information download our full report, *Toxic Liability: How Albertans Could End Up Paying for Oilsands Mine Reclamation* at www.pembina.org. There you will find more materials on environmental issues in the oilsands and their impacts. This report was prepared by Nathan Lemphers of the Pembina Institute and Andrew Logan of Ceres.

www.pembina.org

www.ceres.org



Endnotes

- 1 See for example Paul Sankey, *The End of the Oil Age* (Deutsche Bank, 2010).
- 2 IHS CERA, *Ratcheting Down: Oil and the Global Credit Crisis* (2008) http://www.ihs.com/products/cera/energy-report.aspx?ID=106591844&cpu=1&rd=cera_com
- 3 Deutsche Bank, *The Peak Oil Market: Price dynamics at the end of the oil age* (2009); and Goldman Sachs, *Canadian oil sands fieldtrip 2009: Key takeaways* (2009). The Canadian Association of Petroleum Producers (CAPP) estimates that in situ oilsands production will surpass production from mining in 2015: CAPP, *Crude oil: forecast, markets & pipelines* (June 2010), 27, <http://www.capp.ca/GetDoc.aspx?DocId=173003>
- 4 CERES, *Canada's Oil Sands: Shrinking Window of Opportunity*, prepared by Risk Metrics Group (2010) <http://www.ceres.org/oilsandsreport>
- 5 International Energy Agency, *Medium-Term Oil Market Report* (June 2009) 48, <http://omrpublic.iea.org/omrarchive/mtomr2009.pdf>
- 6 IHS CERA, "Break Point Revisited: CERA's \$120–\$150 Oil Scenario," May 2008, <http://www2.cera.com/news/details/1,2318,9475,00.html>
- 7 Suncor Energy, *Suncor Energy Inc. 2010 Annual Report*, 4, http://www.suncor.com/pdf/Suncor_English_Annual_Report.pdf.
- 8 "Over the last five years [from 2003-2008] Syncrude has invested about \$100 million on oil sands land reclamation. This year, Syncrude will spend more than \$50 million on reclamation. As well, over the next two years, Syncrude will invest more than \$35 million in groundbreaking wetlands and reclamation research projects. Syncrude is collaborating with 25 researchers - five scientists and 20 graduate students from four universities from across the country on a five-year, \$3.8-million project focusing on 16 different wetlands." Comment by "Cheryl [Robb] from Syncrude" on "Canada's Oil Sands" discussion forum, posted 18 June 2009, www.canadasoilsands.ca/en/forum/topic.aspx?id=95 (accessed May 14, 2010).
- 9 Darcy Henton, "Making strides in healing the scars: oilsands giants haul in trees, shrubs and soil to reclaim mines." *Edmonton Journal*, June 22, 2010.
- 10 Hanneke Brooymans, "Reclaimed Oilsands Site Receives Provincial Blessing — A 'Nice Milestone' Says Syncrude, Which Likely Spent \$114,000 per Hectare to Restore Land," *Edmonton Journal*, March 20, 2008.
- 11 Canadian Oil Sands Trust, 2009 Annual Report, 17, http://www.cdnoilsands.com/Theme/COS/files/COS_2009_eAnnual/index.html
- 12 For more information on the calculation methodology used, please refer to Nathan Lemphers, Simon Dyer and Jennifer Grant, *Toxic Liability: How Albertans May End Up Paying for Oilsands Mine Reclamation*, (The Pembina Institute, 2010) Appendix A, <http://www.pembina.org/pub/2075>
- 13 *Toxic Liability*.
- 14 Deloitte, *IFRS and the Mining Industry: Top ten accounting issues for Canadian issuers* (2008) http://www.corpgov.deloitte.com/binary/com.epicentric.contentmanagement.servlet.ContentDeliveryServlet/CanEng/Documents/Financial%20Reporting/IFRS/IFRS_Mining_Top%20Ten.pdf