

Briefing Note: Teck Resources Ltd. proposed Frontier Oilsands Mine

For: Hon. Minister Wilkinson, Minister of Environment and Climate Change

By: Environmental Defence, Indigenous Climate Action, Stand.earth, Greenpeace Canada, Oil Change International

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Introduction

The Minister of Environment and Climate Change Canada (ECCC) will need to determine whether Teck Resources' ("Teck") proposed Frontier Oilsands Mine ("Frontier mine") is likely to cause significant adverse environmental effects. Frontier Mine was recommended for approval by a Joint Review Panel (JRP) - under the *Canadian Environmental Assessment Act, 2012* ("CEAA 2012") - despite finding that the mine would have 'irreversible' impacts on the environment and 'significant' adverse effects on Indigenous Peoples. If built, the Frontier Mine, with a proposed 41-year life cycle, is projected to disturb over 29,000 hectares and produce 260,000 barrels per day at full capacity making it the largest tar sands surface mine ever built.

This briefing outlines the numerous reasons why this project has no place in the forward-looking country this government has repeatedly committed to building:

- The greenhouse gas (GHG) emissions from Frontier Mine, in addition to significant emissions from currently operating and projects with approvals to date, are fundamentally inconsistent with the steps Alberta and Canada will need to take to meet Canada's 2030 and 2050 targets for GHG emissions;
- Frontier Mine infringes on section 35, treaty rights and inherit rights of First Nations;
- The JRP found the Frontier Mine would have significant adverse and irreversible ecological impacts. It would further damage already stressed old-growth boreal forest and wetland habitat for endangered species, including the last remaining free roaming buffalo herd and the critically endangered Whooping Crane. Frontier Mine's viability is based on overly optimistic oil price forecasts;
- Concern over the likelihood that the public will be exposed to the significant costs associated with reclamation of the Frontier at end of mine life or earlier; and
- Teck has a poor track record when it comes to the environmental impacts of its projects.

Beyond the specific, negative aspects of the proposed Frontier Mine identified below, there are also the more intangible opportunity costs that need to be considered. Spending \$20 billion on a project that will deepen the biodiversity, climate and cultural crises arising from the old fossil fuel economy diverts desperately needed financial resources and human ingenuity away from the new systems that will solve these crises. Additionally, there is a risk that significant public

resources may be needed to cover the liability of this project if the project does not prove to remain profitable over its mine life. In the midst of a climate emergency and with the need for considerable resources to be directed towards the decarbonization of the economy in the coming decades, this is unacceptable.

Frontier Mine's emissions are inconsistent with Canada's climate targets

*More detailed briefing available on request

If constructed, the Frontier mine would contribute 6 Mt CO₂e per year, when including upstream emissions from the production of fuels used on site (natural gas and diesel being the most significant) and emissions due to land use changes related to the project. For perspective, all light duty vehicles in British Columbia emit 4 Mt/year. Over the lifetime of the project, its cumulative emissions are estimated to reach 151 Mt CO₂e. The full life cycle emissions of this project are estimated to be 602 Mt CO₂e. This is known as “well-to-wheel” and assumes 25% of emissions occur upstream and 75% occur downstream.

The JRP recognized that Frontier Mine would make it more difficult to achieve Canada's targets and commitments under the Paris Accord, but that any determination as to the significance of the impact of the project GHG emissions on Canada's targets was deemed by the JRP to be outside of their jurisdiction. Therefore, due to the urgency of the climate crisis it is up to the Minister to determine the significance of the emissions.

A recent report found that carbon emissions from oil and gas in existing fields and mines take the world beyond 1.5°C of warming and nearly exhaust a 2°C carbon budget. New oil and gas development in Canada between now and 2050 could unlock an additional 25 GtCO₂, more than doubling cumulative emissions from the sector, and equal to the lifetime emissions of more than 200 average Canadian coal plants.¹ This report shows that the continued expansion of oil and gas is incompatible with a climate-safe future.

This government has committed Canada to a target of carbon neutrality by 2050, alongside more ambitious short-term targets. Due to the significant capital investment required of a project (a projected \$20.6 Billion of capital expenditure), a federal approval of the Frontier mine would represent an additional “lock in” of emissions until 2067 and is incompatible with Canada's action on climate. Rejecting Frontier Mine would be an important display of this government's renewed commitment to showing climate leadership.

The JRP determined that Frontier Mine would be compatible within the Government of Alberta's 100 Mt limit on GHG emissions. Though the JRP acknowledged uncertainty about the limit, it relied on projections of emissions growth that were very optimistic and reliant on the previous government's Carbon Competitiveness Incentive Regulation (CCIR), which has been replaced

¹ Global Gas and Oil Network (2019) Oil, Gas and The Climate: An Analysis of Oil and Gas Industry Plans for Expansion and Compatibility with Global Emission Limits. Available: <http://ggon.org/oilgasclimate2019/>

by the proposed Technology Innovation and Emissions Reduction (TIER) regulation. However, between mining and in situ oilsands projects already operating, in construction or previously approved, emissions cumulatively result in 131 Mt CO₂e per year, not including the Frontier Mine. Furthermore, although the 100 Mt emissions limit has been legislated, there are currently no regulations in place and no mechanism to enforce the 100 Mt emissions limit, or reduce total sector wide emissions over the coming decades to demonstrate compatibility with a Canadian ambition for carbon neutral emissions by mid-century.

Violating Treaty Rights, Inherent Rights and Section 35 Rights

The JRP also found that the Project was likely to result in significant adverse environmental effects on the asserted rights, use of land and resources, and culture of Indigenous groups who use the Project area. As stated in an open letter to the Minister from Indigenous Climate Action and supported by other Indigenous organisations, Frontier Mine represents an infringement on treaty rights. Communities downstream of the project are already experiencing degraded ability to use their traditional lands and territories as a result of tar sands extraction over the last 60 years. The Frontier mine is proposed to be located only a mere 17km from the Indigenous settlement of Poplar Point, a reservation of the Athabasca Chipewyan First Nation, and within a traditional hunting and fishing grounds of many neighbouring Indigenous communities. It's long past time for Canada to honour its treaties and respect Indigenous rights by rejecting the proposal.

It's also important to note that while many of the impacted nations' leaders have signed participation agreements with Teck for this project, some have stated they felt they had no choice because their efforts to stop tar sands developments on their lands have always been ignored.² Mikisew Cree First Nation (MCFN) argued no approval should be given to Teck until provincial and federal governments conduct a full regional assessment of industrial impacts, including on the Wood Buffalo National Park. This has not been done. Teck would also have adverse effects on section 35 rights, the right to hunt, fish and trap as well as Inherent or Aboriginal Rights. Each of these legal frameworks are a distinct set of inalienable rights enjoyed by Canada's First Nations collectively and protected and enshrined in the constitution domestically and internationally in the United Nations Declaration on the Rights of Indigenous Peoples.

Threats to critical habitat for endangered species and Wood Buffalo National Park

This would be the closest tar sands development to Wood Buffalo National Park and the Peace-Athabasca Delta. Declines in ecological health within the park are linked to cumulative tar sands development upstream on the Athabasca River, and the project would only

² McCarthy, S. (2018) First Nation chief who opposed oil sands signs deal with Teck sharing benefits of bitumen expansion. Available at: <https://www.theglobeandmail.com/business/article-first-nation-chief-signs-deal-with-teck-to-participate-in-frontier-oil/>

exacerbate these threats. The JRP found that the project was likely to result in significant adverse environmental effects to wetlands, old-growth forests, wetland- and old-growth-reliant species at risk, the Ronald Lake bison herd, and biodiversity, such as the Whooping Crane as well as almost one million migratory birds that fly over the region. The mine would result in the loss of 3,000 hectares of old-growth forest and 14,000 hectares of wetlands. It threatens to destroy large portions of habitat for one of the only free-roaming, disease-free herds of Wood Bison. Degrading the habitat that sustains these species will likely jeopardize their recovery, and proposed mitigation measures are unlikely to address these adverse effects. Today there are over 150 tar sands projects in Alberta. The Frontier Mine is going forward in a regulatory context that has failed to adequately consider the cumulative impacts of the oil sands.

Project Viability Based on Overly Optimistic Oil Price Forecasts

*More detailed briefing available on request

A project of this magnitude requires decades of sustained high oil prices to make it economical. In support of its decision, the JRP relied on a long-term oil price projection provided by Teck Resources “in excess of \$95 per barrel” for most of the project period. The JRP ignored, or rejected, ample evidence presented in the hearing that current prices for Canadian oil are unlikely to be in excess of \$95 per barrel for the long-term. A broad survey of market forecasts, including those conducted by the U.S. government, multiple Canadian Energy Regulatory Agency forecasts (CERA, formerly called the National Energy Board), and other credible oil and gas majors and industry consultants demonstrates a consensus that average oil prices are unlikely to reach or be sustained at a high enough price to cover break even costs for the project throughout its mine life. Therefore, the JRP based its decision on a highly optimistic financial forecast without meaningful consideration of the impact on the project with prices projected in other credible forecasts. If Teck finds that it cannot complete the reclamation of the project after construction of the project has started, the Canadian government will likely be on the hook for costs. The Frontier Mine is an economically risky project with little guaranteed benefit for the public.

Reclamation Liabilities

*More detailed briefing available on request

In the last fifty years of industrial-scale oil sands mining only 0.12 per cent of land disturbed has been certified as reclaimed. Further, no oil sands operator has successfully reclaimed a fluid tailings site.³ The proposed Frontier mine project would have a peak liability of \$4.3 billion dollars or \$2.9 billion at the end of mine life in 2067, with reclamation activities through 2081.

A project of this magnitude would require decades of sustained high oil prices to make it economical while also profitable enough to cover either the peak liability or end of mine life

³ Jodi McNeill and Nina Lothian, Teck Frontier Mine: Review of liability management and financial security options, (Edmonton: Pembina Institute, 2018)

reclamation costs.⁴ The Alberta Auditor General and a number of academics have expressed serious concerns that the management of liability by the province of Alberta is “gravely inadequate”,⁵ and poses significant risk that liability will not be covered by operators due to overvaluation of their assets and failure to account for stranded assets from global climate action.⁶ According to internal AER documents, the cost of the entire oilsands, oil, gas, and coal sector in Alberta is an estimated \$260 billion, with over \$130 billion estimated for the oilsands mining sector alone.⁷ As of 2019, only \$1.47 billion is held by the province of Alberta in security..

Under Alberta’s liability management program, operators are not required to post security of the vast majority of its liability until the last 15 years of mining operations,⁸ meaning with the current conditions proposed by the JRP, Teck Resources would not be required to post security until 2052. Teck will not have the financial resources to cover the reclamation liability under oil demand scenarios any less optimistic than those relied upon in the JRP hearing.

Teck’s environmental track record raises concerns

Systemic pollution problems at Teck’s facilities in British Columbia do not inspire confidence in this company’s capacity to manage the significant environmental risks posed by a massive oil sands mining operation. In 2016, one of its subsidiaries, Teck Metals, received the largest environmental fine in British Columbia’s history for spilling heavy metals and other pollutants into the Columbia River, in 13 separate spills between 2013 and 2015. Another of Teck’s subsidiaries, Teck Coal, has struggled for years to bring pollution problems under control at its coal mines in B.C.’s Elk Valley. U.S. officials at a transboundary commission report that selenium levels are 70 times higher in rivers affected by Teck’s coal mines than in other nearby rivers, putting aquatic life and human health at risk. In February 2019 the company reported that it “cannot operate [its] Elk Valley coal mines in compliance with the Fisheries Act and its current associated regulations.” Those mines are still operating.⁹

⁴ Kenyon, D. (2019) What it takes to greenlight a new oilsands mega-mine. Pembina. Available at: <https://www.pembina.org/blog/what-it-takes-greenlight-new-oilsands-mega-mine>

⁵ Auditor General of Alberta, Report of the Auditor General of Alberta (2015), 25. <https://www.oag.ab.ca/webfiles/reports/OAG%20Report%20July%202015.pdf>

⁶ Branko Bošković and Andrew Leach, Leave It in the Ground? Incorporating the Social Cost of Carbon into Oil Sands Development (2017), University of Alberta School of Business Research Paper No. 2920341.

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2920341

⁷ Global News (2018) Cleaning up Alberta’s oilpatch could cost \$260 billion, internal documents warn. Available at:

<https://globalnews.ca/news/4617664/cleaning-up-albertas-oilpatch-could-cost-260-billion-regulatory-documents-warn/>.

⁸ AER (2017) Guide to the Mine Financial Security Program. Available: https://www.aer.ca/documents/liability/MFSP_Guide.pdf

⁹ AboveGround (2019) Eye on EDC: Fueling the Oil sands. EDC client Teck plans largest-ever oil sands mine. Available: <https://aboveground.ngo/edc/fuelling-extreme-oil/#Teck>