



- Press Release

Cold Lake First Nation Elder advises: Danger! Using steam and pressure where the Earth is fragile

Cold Lake First Nation Elder Nancy Scanie declares that instead of laying off thousands of workers and denying entry to the heavily damaged Primrose site to Cold Lake First Nation, companies and governments should work together with First Nations, employing Traditional Ecological Knowledge and their workforce in this time of oil and gas slow down, to perform their due diligence required by law, and clean up. Due to negligence of past governments, industrial clean-up in Alberta is pressing.

Steam injection and groundwater withdrawal in the Cold Lake region have affected groundwater and continue to do so. Four continuing leaks, first reported at Canadian Natural Resources Ltd.'s (CNRL) Primrose facility in 2013, are on the Cold Lake Canadian Forces base, which is also on Cold Lake First Nation traditional territory, and on the prairie evaporite dissolution edge, where pressures underground are higher than the strength of the earth itself. In September 2014, steam extraction by CNRL was allowed to be re-started in this damaged area by the Alberta Energy Regulator.

The Cold Lake area has a delicate underground geology: active karst processes are constantly creating series of underground caverns. Groundwater flow in this area is very complex: Traditional Ecological Knowledge speaks to this fact observed by science. The earth is not exactly solid here: an underground belt called the prairie evaporite dissolution edge stretches south past Fort McMurray and just east of Cold Lake, then into Saskatchewan. This belt provides abnormalities such as underground valleys connecting deep and shallow groundwaters, really fast water recharge, groundwater more salty than seawater in some places, eruptions of H₂S bearing saline fluid, sinkholes, and continued subsidence after oil and gas activities. Extremely high pressure underground provides a driving force for upward groundwater flow in other places, so there are both downward and upward groundwater flows.

Recent earthquakes near Fox Creek, an oil and gas extraction hot spot in Alberta, have risen in number from less than 10 per year to over 200 in 2014. The largest recent earthquake measured was a magnitude of 4.5, larger than any recorded earthquake ever in Alberta. Without actually saying so, by imposing new regulations in February 2015 on oil extraction where earthquakes exceed a magnitude of 2.0, the government of Alberta now recognizes that fracking causes earthquakes.

Considering the recent revelations that earthquakes in the Fox Creek area were caused by local fracking processes, the Alberta Energy Regulator's Approvals for steam assisted gravity drainage, cyclical steam, fracking, and other oil and gas extraction technologies using steam and pressure in the Cold Lake area must be urgently re-examined.

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