EDMONTON - Leaked fracking fluid has contaminated groundwater after a “serious” incident at a well site near Grande Prairie in September 2011, according to an investigation by the Energy Resources Conservation Board which regulates the energy industry.

Calgary-based Crew Energy “inadvertently” released toxic fluids at too shallow a level in a natural gas well and then failed to realize the leak was occurring underground, said the ERCB report released Thursday.

“There were multiple opportunities to recognize that a problem existed which could have prevented or at least minimized the impact of hydraulic fracturing operation above the base of groundwater protection,” says the report.

While a drinking water source near the surface was not affected, a groundwater basin below it was contaminated, said ERCB spokesman Daren Barter, adding this is considered a “serious” if rare incident. The ERCB gave the company a “high risk enforcement action” ordering it to supply a revised fracking plan.

Hydraulic fracturing involves injecting fluids under high pressure into underground rock formations to cause cracks or fractures to release natural gas.

Only non-toxic fluids can be used above the base of groundwater. The level is set for each region by Alberta Environment.

About 40 cubic metres of the propane gel injected underground remains there, so no drilling is allowed in a 200-metre radius of the well site.

Alberta Environment tested the contaminated water this fall and found chemicals from fracking fluid, including benzene, toluene, ethylbenzene and chloride.

A sandstone layer separates the two water sources so the risk to drinking water was deemed “insignificant,” says Alberta Environment.

Alberta Environment will continue to monitor the contaminated water “for some time” to make sure the toxic fluids do not migrate or spread underground, said department spokesperson Jessica Potter. If that happened, “we would have to deal with it,” she added.
Rob Morgan, a Crew Energy executive, said his company contracted the fracking at the well site to Caltex Energy Inc., while the operation was monitored at the Crew Calgary office. Some staff have been replaced, he added.

The company has been working with the ERCB and the environment department since the incident and has already changed its fracking process to avoid a recurrence of the problem.

Toxic fluids are now put down the well casing and cannot be released until ports or openings in the casing are far enough underground, he said.

Barter also said the ERCB did not release details of the incident at the time because the location was considered remote and there was no impact on the public.

The ERCB rarely issues a fine, and instead gets the situation corrected, said Barter. If a company fails to comply, the well operation could be temporary suspended, he added.

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