"There has **not** been A SINGLE documented case of water well contamination resulting from hydraulic fracturing operations in Alberta." Alberta Energy Regulator (AER)

LIPG Fails To Reveal "The Fine Print"

"We are committed to protecting fresh water sources and we want to assure residents that our activity will not affect their water wells." LIPG - Lochend Industry Producers Group

🛕 Propane frac into freshwater aquifer, **Grande Prairie** Regulator monitoring WW

🗛 Jacks, Spirit River WW explosion 3 men injured

Adopted from LIPG "Water Sense" advertisement in the Cochrane Eagle Oct.24, 2013 and Rocky View Weekly Oct. 29, 2013

"Cal Hill, executive manager of the Regulatory Development Branch of the Energy Resources Conservation Board (ERCB) ... admitted that he knew of no toxic fluids 'that are prohibited' in the province."

\Lambda Campbells, Ponoka thermogenic and sour gas in WW

> Other Ponoka WW's including an explosion

AZimmerman's WW Wetaskiwin

Hudson's Hope, BC WW's producing sand and mud - some have gone dry

> Rosebud Signer WW Lauridsen WV Ernst WW many other WW

Huhn's Sundre



How many families silenced?

CNRL - Cold Lake fractured caprock contaminated Hawkwood's WW and others Lochend (near Calgary)

A Talisman - Farrell Creek, BC frac chemicals leaking contaminated

> Rosebud explosion ter reser 1 man injured

Rosebud Hamlet Regulator Monitoring

> A Rosebud Hamlet unicipal drinking

"There is no amount of regulation that can overcome human error."

Alberta Energy Regulator (AER)

WW=Water well(s) contaminated after fracking.

A=Fresh groundwater contamination tested/documented by regulator.



Lochend Industry Producers Group (LIPG) Fails To Reveal "The Fine Print"

Jacks, Spirit River – Water well explosion, 3 men injured:

Methane, ethane, heavier hydrocarbons

http://www.youtube.com/watch?v=jpW_j7uPCWs - *WARNING - Video contains graphic images of water well explosion injuries.

http://www.frackingcanada.ca/industrys-gas-migration/

Sept. 2011 - Propane frac into freshwater aquifer, Grande Prairie – Regulator monitoring water well:

Gasfrac 42 cubic metres (42,000 litres) gelled propane frac into fresh groundwater, frac chemicals found in regulator monitoring water well (a year later, testing indicated continued contamination from frac'ing)

known carcinogen benzene, known neurotoxin toluene, ethylbenzene, xylenes, petroleum hydrocarbon fractions F2 through F4, chlorides, isopropanolamine, nitrogen, ammonia and those not yet disclosed or tested for.

http://www.ernstversusencana.ca/gelledpropane-gel-gasfrac-crew-caltrex-hydraulic-fracturing-fluid-contaminated-groundwater-near-grandeprairie-ercb

Oct. 2011 - Marshall Abbott, CEO Bernum Petroleum:

"... I think I can safely say the ERCB (Energy Resources Conservation Board) has been quoted as saying that there's never been an incident of a well being fracked in Alberta where it impacted water wells ... or otherwise caused any surface disturbance."

http://www.cochraneeagle.com/2011/10/oil-exploration-increasing-in-springbank/

Campbells, Ponoka – thermogenic and sour gas in water well:

Methane, ethane, propane, butane, pentane, sour gas

http://www.frackingcanada.ca/alberta-the-campbells/

http://www.frackingcanada.ca/who-votes-for-this/

http://www.frackingcanada.ca/the-regulators-conclusion/

Other Ponoka water wells - including an explosion

From: Sent: To:

Ronalie Campbell

October-31-13 2:52:02 AM btennant@cochrane.greatwest.ca (btennant@cochrane.greatwest.ca); jcharlton@cochrane.greatwest.ca (jcharlton@cochrane.greatwest.ca); kcruickshank@cochrane.greatwest.ca (kcruickshank@cochrane.greatwest.ca)

To the Editor,

I was informed of this full page ad in your October 24, 2013 Cochrane Eagle by the LIPG <u>http://pages.cdn.pagesuite.com/5/4/54366f80-1bb0-4da2-99ea-ca473f5aa577/page.pdf</u>

In Sept 2011, the Energy Resources Conservation Board (ERCB), now Alberta Energy Regulator (AER), documented a confirmed case of hydraulic fracturing contaminating fresh groundwater near Grande Prairie, Alberta.

It is appalling that companies are allowed to print such bold faced lies. <u>There are documented cases of</u> <u>contamination</u>. I guess with advertising, though, it's always "buyer beware". The only problem is people are not in the business of buying this fracking. It is coming upon an unsuspecting public, whether they want it or not. Both regulators of environment and energy investigated our water well for gas contamination for 7 years, and found thermogenic gases (methane, ethane, propane, butane) and sour gas. They proudly say that they could find no connection to the many oil and gas wells in the area, but the truth is they only investigated 9 of a possible 50+ in the surrounding mile of our water well. Some wells were not tested because they were shut in at the time. Why? Was it convenient to avoid the most likely sources? We can't answer for their actions but we do have years of proof that industry's natural gas is entering our water well and may soon contaminate the whole aquifer. How soon will that be the story for the people of Lochend?

The practice of hydraulic fracturing is questionable at best, and destructive to most. To advertise it's good merits is just poor ethics. This is like a criminal posting an ad to extoll that breaking into houses is really a community benefit. Would you print that? Please consider how this reflects on your paper.

Your readers may want to compare the Facts and Fiction. See video presentation at this link <u>http://www.frackingcanada.ca/alberta-the-campbells/</u>

Sincerely,

Ronalie Campbell

Hawkwood's water well and others – Lochend (near Calgary):

"An <u>online radio program released today</u> contains some shocking allegations of impacts of fracking on the ranch Hawkwood runs with his wife Nielle, a half hour drive northwest of Calgary. Nielle has recently lost some of her hair and the Hawkwoods have seen 10 percent of their cattle herd die from a mysterious illness they believe is connected to fracking and related radiation."

'So basically I've lost 10% of my cow herd, which is 17 cows, and these cows have crashed. The other ranchers are experiencing the same thing, but they don't want to come forward, cause they don't want to create a problem or they have oil and gas on their property and they've had to sign non-disclosure agreements. The one fellow, he told me that if he does have a cow problem, he phones them and he's got a cheque in the mail - as long as he doesn't speak up.

... Right now we're looking at a cow that has just passed away, during the evening ... she's actually a 4-year-old cow, and I don't know why she died. This will be cow number 18 I've lost.'



Photo: David Kattenburg, Green Planet Monitor

"After showing host Kattenberg a 4-year-old cow who died the previous night, Hawkwood declares, 'I am totally – maybe I shouldn't say this – pissed off with our government.' Hawkwood continues:

'Governments are supposed to protect us...and when this cow dies, and the number of cows I've lost and hear about other farmers and ranchers who've had the same experience and the same problem. Now if this continues up and it's going to create more problems, we're not even going to have a cow herd left. ... It is a real nightmare in this province and in this country...and something has to change.""

The Hawkwood interview starts at the 11:30 min mark here.

http://commonsensecanadian.ca/fracking-dead-cows-radiation/

CNRL - Cold Lake, fractured caprock, groundwater and soil contamination:

CNRL, 2013 - bitumen in groundwater CNRL, 2009 - bitumen emulsion contaminated Bonnyville Aquifer Imperial – 3 shallow aquifers contaminated with chlorides benzene, toluene and ethylbenzene

"Cold Lake bitumen leak has likely contaminated groundwater, report says:

Alberta Environment says bitumen leaking on CNRL's Cold Lake lease has entered aquifers and the company must take immediate steps to minimize its migration into subsurface water and soil.

Sticky bitumen, which has oozd to the surface for more than six months, 'has entered local non-saline groundwater aquifers, likely contaminating the groundwater,' says the 15-page enforcement order issued by Alberta Environment late Monday.

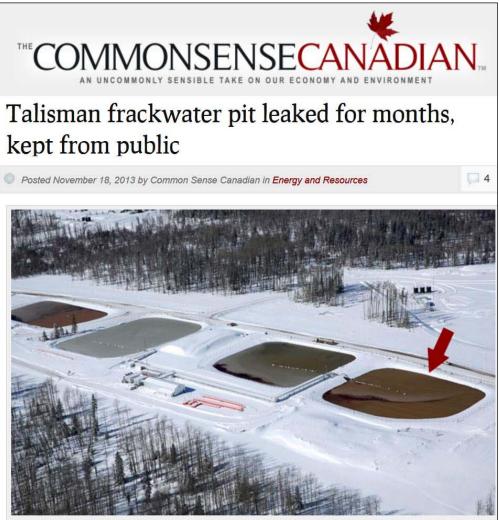
... Notely said that under the order the company is still allowed to continue using high-pressure steam one kilometre from the small lake ..."

http://www.ernstversusencana.ca/alberta-environment-cold-lake-bitumen-leak-has-likely-contaminated-groundwater-nikiforuk-caprock-integrityrisks-of-steam-assisted-bitumen-recovery-too-little-discussed



Photos from Desmog Canada's article: Uncontrolled CNRL Tar Sands Spill Ongoing, 1.4M Litres Recovered

Talisman Frackwater Pit Leaked for Months, Kept from Public



Four frackwater pits in Talisman's Farrell Creek operations in northeast BC – photo taken in March. Pond A, on the far right, suffered a rupture, leaking contaminants into the soil and groundwater (Two Island Films)

by Damien Gillis and Will Koop

A pit storing contaminated fracking water in northeast BC was leaking into the surrounding soil and groundwater for up to six months before owner Talisman formally notified the Oil and Gas Commission and undertook clean-up efforts, *The Common Sense Canadian* has learned.

One of five lined pits connected to Talisman's Farrell Creek operations north of Hudson's Hope, referred to as Pond A, suffered a puncture through both of its protective layers, causing toxic fluids to begin escaping into the environment. The pits are used to store "produced water" from previous fracks to be reused later as part of a program to cut back on freshwater use. Ironically, this practice has now threatened local groundwater due to the ruptured liners.

It has proven difficult to obtain straight answers from the regulator or company, but through a series of recent communications, we have been able to piece together a rough timeline of the incident.

Holes in Talisman's liner, story

Talisman – Farrell Creek, BC - frac chemicals leaking, groundwater and soil contamination:

"A Talisman Energy storage pond for water used in the hydraulic fracturing process has been taken out of service after inspectors detected a leak.



Talisman's leaking storage "pond." Photo – Will Koop

Routine inspections uncovered problems in July with the double liner at the pond – one of five that the company operates in the Farrell Creek area of the Montney gas play in northeastern B.C., Talisman Canada spokeswoman Berta Gomez said on Wednesday.

... Preliminary tests have shown leaching of chemicals into nearby soil and groundwater ...

... An outside company has been engaged to assess the site and conduct more tests. The pond has been drained and soil is being excavated and removed for disposal.

... The pond, known as Pond A, is 80 metres long by 60 metres wide and about 12 metres deep. Energy companies use the containment structures to store 'produced' or flowback water – which contains small amounts of chemicals used in fracking, including benzene and methanol ...

... The Oil and Gas Commission is investigating the incident.

... It has not yet been determined how much fluid leaked, but about 4,600 cubic metres of soil has been excavated so far with another 300 cubic metres expected to be removed, OGC spokesman Hardy Friedrich said.

... In a recent interview, West Moberly First Nations chief Roland Willson said the band is concerned by the pace and scope of development.

'We used to have [natural gas] lease sites that were one hectare or so ... now we have five-hectare, sometimes 10-hectare sites doing 20 wells – we are seeing 48 wells being proposed. The footprint is way larger.''

http://www.theglobeandmail.com/news/british-columbia/leak-shuts-fracking-water-storage-pond-talisman-says-environmental-risks-arelow/article15176909/

Rich Coleman, BC Minister of Natural Gas Development:

"The net result of both our strong regulatory framework and our geology is that B.C.'s water supply is protected and safe. It has never been contaminated as a result of hydraulic fracturing."

http://www.straight.com/news/525056/rich-coleman-best-fracking-place-earth

Hudson's Hope, BC – Water wells producing sand and mud after frac'ing, some have gone dry:

... "They've already encountered problems,' Johansson said. 'One was that the sand came into the wells. Some people were able to pump and change the filters and able to continue to use the well.

'Three pulled the pumps and have to haul water. Some of those people have livestock – to haul water to keep livestock, that's a huge problem. It also affects property value.'

One landowner, Terje Bakkeskaug, said he has to haul water twice a day on some days, driving his pickup truck with a 1,000-litre barrel about 20 kilometres to the municipal pump.

After his taps gradually went from pumping out greyish water to a thick sludge, to ceasing altogether, Bakkeskaug started hauling water both for domestic use and his 50 heads of cattle.

Another Beryl Prairie resident, Claire Johnson, also pulled his pump after he said it completely plugged up.

'Pressure pushed mud and gravel 22 feet up the pipe,' said Johnson.

He replaced the whole water system, but eventually also turned to hauling water instead. He said the process, including labour, probably cost him around \$15,000.

'I've spoken with a number of people whose wells have sanded in during the period when fracking was taking place,' said Katharine Trajan of GW Solutions, the engineering firm specializing in hydrogeology and groundwater that took on the study. 'That connection, we haven't studied it in detail ...'"

http://www.timescolonist.com/water-quality-study-underway-in-hudson-s-hope-to-provide-data-on-effects-of-fracking-1.674126

Zimmerman's water well - Westaskiwin:

Methane, ethane, heavier hydrocarbons

http://www.bctwa.org/FrkBC-Sept2007-Ernst-FrenchArticle.pdf

http://www.frackingcanada.ca/industrys-gas-migration/

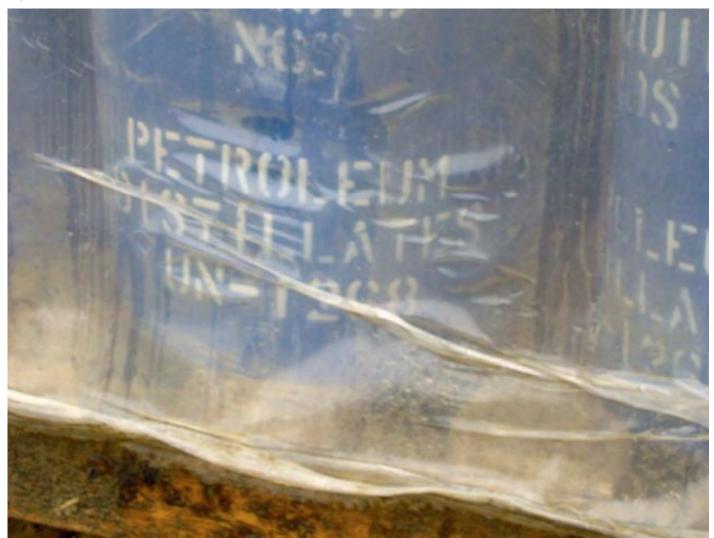
Rosebud Hamlet monitoring water wells by regulator:

Methane, ethane, carcinogen hexavalent chromium, arsenic

Still do not know what chemicals Encana injected.

http://www.frackingcanada.ca/the-last-road-to-redemption/

http://www.ernstversusencana.ca



Chemicals stored on a Rosebud area frac site. Photo from: Jessica Ernst's presentation – <u>Fracking Community: Actions and Omissions Speak</u> Louder Than Words.__

Rosebud Hamlet municipal drinking water supply (groundwater sourced by water wells):

Methane, ethane, indicators of kerosene range petroleum distillates, bromodichloromethane, phenanthrene, toluene, methyl ethyl ketone, xylene, benzene, butylbenzyl phthalate, di-ethyl phthalate, di-n-butyl phthalate, bis(2-ethyhexyl) phthalate, benzothiazole.

Still do not know what chemicals Encana injected.

http://www.frackingcanada.ca/the-last-road-to-redemption/

http://www.ernstversusencana.ca

Private water wells at Rosebud:

Signer:

Methane, ethane, propane, butane, benzene, ethylbenzene, toluene, xylenes, about 50 other indicators of oil and gas industry contamination.

Lauridsen:

Methane, ethane, toluene

Ernst:

Methane, ethane.

petroleum hydrocarbon fractions F2,

barium and strontium doubled, and chromium increased by factor of 45 after encana frac'd the aquifer that supplies the community's water,

F-2 petroleum hydrocarbons (primary components of various fuels including gasoline, kerosene, diesel fuel and jet fuel),

2.0 µg/L of 2-Propanol 2-Methyl (hazardous),

3.6 µg/L of Bis (2-ethylhexyl) phthalate (carcinogen, can damage liver).

About 13 other private citizen water wells contaminated with methane and ethane. Encana continues to refuse to disclose what chemicals were injected.

http://www.ernstversusencana.ca/8-landowners-reject-closure-of-groundwater-cases-demand-proper-study-of-industrial-contamination

Rosebud Water Reservoir Explodes:

"Investigators say an accumulation of gases appears to have caused the Jan. 11 explosion that destroyed the Rosebud water reservoir building and sent a Wheatland County employee to hospital with injuries.

... Gooler said the operator was unable to detect the gases by smell and did not use a detection device. Garvin sustained non-life threatening, but fairly substantial injuries, including two broken wrists and some burns to the face and hands.

... The reservoir sustained significant damage, including moving the concrete roof 16 inches, and some vertical cracks to the walls."

http://www.strathmorestandard.com/2005/01/27/rosebud-has-boiled-water-order-following

Chlorinating methane infused water creates dangerous chemicals:

"Residents and businesses of Rosebud were alerted to a water usage advisory on Sept. 14, issued by the Calgary Health Region.

The Calgary Health Region has been working with Alberta Environment and Wheatland County to monitor levels of chlorine disinfectant byproducts in the hamlet's municipal water supply.

... Enhanced monitoring has been occurring since the construction of the new reservoir in Rosebud.

This monitoring indicates that the hamlet's water treatment plan is currently unable to maintain low levels of a disinfectant byproduct called bromodichloromethane below new guidelines for Canadian Drinking Water Quality that came into effect Jan. 1.

Low levels of disinfectant byproducts are commonly formed during the regular treatment process for drinking water and are a result of chlorine reacting with organic matter in the source water.

Exposure to disinfectant byproducts over many years is suspected to increase one's risk of developing certain types of cancer and exposure to bromodichloromethane levels above the guideline value has been linked to a possible increase in the risk of miscarriage in pregnant women.

.. 'We're supplying water to them right now because they're not suppose to drink or prepare food with this water,' Armstrong said.

Wheatland County is installing a NSF certified device for reducing trihalomethanes, as indicated by Calgary Health Region.

...'Boiling water will not take this out because it's not a bacterial, it's a chemical reaction.""

http://www.strathmorestandard.com/2006/09/21/water-usage-advisory-issued-for-rosebud

Alberta Environment advises residents with industry's stray methane in their water, to go ahead and chlorinate it:

... 'we were told by Alberta Environment to shock chlorinate our well

... Then we found in information published by Health Canada, adding chlorine to methane gas creates trihalomethanes and chloroform which are known to be toxic.'

http://www.frackingcanada.ca/alberta-the-campbells/

Huhn's spring water, Sundre:

"Chris Huhn is looking for answers after a spring on his Westward Ho property became contaminated following a nearby hydraulic fracturing (fracking) operation conducted by Imperial Oil.

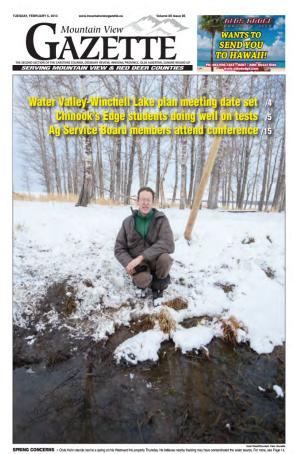
... Huhn said prior to the fracking operation he had been in contact with the company and requested water testing be conducted before and after the fracking operation. **Company officials told him that such testing was not necessary and that the fracturing operation posed no risk to his water spring**, he said. 'Numerous times I asked for that testing,' he said. 'I told them I believed there was a risk to my spring and I want it tested. I said I wanted it tested directly before and directly after because if there is an impact I want to see it right away.'

'They said their geologist said there was no risk from the fracking and that they didn't see a reason to test. They said there was no risk.' Imperial Oil spokesperson Christine Graves said Friday: 'We just recently received a notification from the individual regarding his (Huhn's) concerns. We are currently reviewing the concerns. It's probably going to be a couple more business days before we have a chance to really get into this and develop our position on it.' ...

Huhn has filed a 32-page complaint letter with the ERCB over the lack of testing prior to and following the fracking.

'Nothing has happened with the ERCB,' he said."

http://www.ernstversusencana.ca/front-page-spring-contaminated-after-fracking-in-mountain-view-county-alberta-landowner-wants-answers



"Spring Concerns - Chris Huhn stands next to a spring on his Westward Ho property Thursday. He believes nearby fracking may have contaminated the water source." Photo - Noel West/Mountain View Gazette

From: Sent: To: Jessica Ernst

October-29-13 5:58:17 PM rsonghurst@airdrie.greatwest.ca; ddrossel@airdrie.greatwest.ca; mskelton@airdrie.greatwest.ca; cchristianson@airdrie.greatwest.ca

Dear Editor,

Please immediately remove this ad in your October 29, 2013 Rocky View Weekly by the LIPG <u>http://pages.cdn.pagesuite.com/9/2/92d25715-3a10-45d8-aec0-1f8bac06b188/page.pdf</u>, request that the LIPG publish a correction and apology, and notify me when this is done. If it isn't done, I will file formal complaints with the Better Business Bureau, <u>http://www.consumerinformation.ca</u> and <u>http://www.adstandards.com/en/</u>.

The Energy Resources Conservation Board (ERCB), before the government changed its name to Alberta Energy Regulator (AER), documented a confirmed case of hydraulic fracturing contaminating fresh groundwater near Grand Prairie, Alberta, in September 2011. The ERCB (now AER) lied for over a year about this case, even though testing of regulator monitoring water wells proved the contamination was caused by hydraulic fracturing.

The AER continues to lie and so do industry lobby groups such the Canadian Association of Petroleum Producers (CAPP) and Lochend Industry Producer's Group (LIPG), cowardly hiding under the regulator's dishonest skirts.

Albertans vote loyally for big oil parties, the PCs and Wildrose. The least they deserve in return, is for newspapers to stop running disingenuous ads by industry lobby groups.

For proof, please refer to:

http://www.ernstversusencana.ca/gelledpropane-gel-gasfrac-crew-caltrex-hydraulic-fracturing-fluidcontaminated-groundwater-near-grande-prairie-ercb

More cases of documented contamination may be found in this brief summarizing some regulator and industry research:

http://www.ernstversusencana.ca/wp-content/uploads/2013/06/Brief-review-of-threats-to-Canadasgroundwater-from-oil-gas-industrys-methane-migration-and-hydraulic-fracturing-v4.pdf

Finally, I would appreciate Rocky View Weekly publishing my letter, with links. You and your readers deserve a few industry and regulator facts.

Thank you.

Sincerely

Jessica Ernst www.ernstversusencana.ca ----- Original Message ------

Subject:	Re: Request for Rocky View Weekly to
	remove misleading ad by LIPG
Date:	Wed, 30 Oct 2013 12:10:41 -0600
From:	Cam Christianson
	<pre><cchristianson@airdrie.greatwest.ca></cchristianson@airdrie.greatwest.ca></pre>
To:	magog@sasktel.net

I received your request to stop running an ad in the Rocky View Weekly. I am sorry but I won't stop this ad. This ad was booked from a third party agency into our paper which screens all ads. It is our responsibility to not run libellous ads but this ad is not libellous. I am sorry if you have any issue with what they are advertising but it is their rights. I would suggest you contact the LIPG.

Until something has been proven in court we will run ads for this company and any others. It isn't our companies policy to be the court or the jury.

Thank You

Cameron Christianson Publisher Rocky View Publishing #403-2903 Kingsview Blvd Airdrie, AB T4A 0C4

ph: 403-948-1885 ext: 22 cel: 403-669-4849 fax: 403-948-2554

Publishers of Airdrie City View, Rocky View Weekly and Airdrie House and Home

More "Fine Print"

Insurance companies warn of increased risks, damages and liability:

"Drilling activity is up, and the use of this new technology is now common.

This shift to unconventional drilling and heavy multi-stage fracking has created new insurance issues for the industry:

- Increase in blowouts during the completion/fracking stage.
- Increase in blowouts involving communication between multiple wells.
- Increase in blowouts caused by casing/cementing failure.
- Increase in blowouts caused by surface events.

In addition to these blowout trends, we are seeing:

- An increase in blowouts involving producing wells.
- An increase in blowouts involving plugged and abandoned wells.

While fracking has been the cause of some of the blowout increases, producing wells and plugged and abandoned wells are experiencing underground blowouts from the failure of old and corroded casings.

These underground blowouts can lead to cratering events that are costly and difficult to bring under control. Underground blowouts can be much more expensive to bring under control than surface blowouts, yet many operators do not insure these wells or have high enough limits for them.

Another issue that has arisen from fracking is an increase in surface and water table pollution events that can result in expensive claims and erode the Control of Well limit rapidly, if not entirely.

As a result, many of the blowouts that are now occurring are under-insured."

http://www.amwins.com/SiteCollectionDocuments/Client%20Advisories/Client_Advisory-fracking-COW-6.11.pdf



Workers stand in secret frack fluids after a frack communication blowout, Innisfail, Alberta. Photo - Alberta Surface Rights Group

"An investigation into a well blowout near Innisfail last January that spewed oily liquid over a farm field concludes it was the fault of a company fracking a neighbouring well.

However, no enforcement order is contemplated because the actions of the company were not in violation of Energy Resources Conservation Board regulations at the time.

In a report released Wednesday, the ERCB notes that Midway Energy Ltd.'s well completion operations resulted in an increase in pressure in a nearby Wild Stream Exploration Inc. well, causing a release of about 500 barrels of fracturing and formation fluid to surface at the wellhead.

It says 'communication' between the wells occurred within the same formation about 1,850 metres below the surface and adds the well bores were about 129 metres apart at their closest point.

... Barter added an agency committee was struck to keep track of incidents of communication between wells and it found 21 over the past year, of which five resulted in releases at the surface."

http://www.calgaryherald.com/technology/Update+Fracking+blamed+well+blowout/7688805/story.html?_lsa=5c88-85d1#ixzz2Esvevq00

"... Increasingly, however, there are reports of something called "communication" -- events in which a fracture travels through the ground and connects two gas wells.

Ken Paulson, chief engineer at the province's Oil and Gas Commission, said these events do not pose a contamination risk. Other experts say their principal impact is to undermine production.

But opponents of expanded shale drilling say instances of communication show that drillers lack a full

understanding of what happens when wells are fracked closer together, increasing the risk of contamination.

Anthony Ingraffea, an engineering professor at Cornell University, said that if a fracture hit a natural fault, it could allow contaminants to enter aquifers.

Communication has occurred in the U.S. as well: Regulators in Texas, Oklahoma, Michigan and Pennsylvania reported such events to Canadian officials as part of the Energy Resources Conservation Board's regulatory review.

Documents provided to ProPublica <u>show that energy companies have reported 25 cases of communication in</u> <u>British Columbia</u> since 2009. Companies are not required to report such events, so the list isn't comprehensive, Paulson said.

In May 2010, the province's Oil and Gas Commission <u>issued a warning when a drilling company inadvertently</u> shot sand from one fracking job into another well being drilled more than 2,000 feet away.

The advisory said the operator contained the resulting jump in pressure within the well but warned of a 'potential safety hazard.' When communication occurs, Paulson said, the biggest concern is that an operator could lose control of a well and cause a blowout."

http://www.propublica.org/article/oh-canadas-become-a-home-for-record-fracking

"Alberta's energy regulating agency yesterday held a technical briefing for media on the controversial practice of hydraulic fracturing. The picture that emerged was of a province playing catch-up with continental events that have other governments' regulators and researchers on high alert.

Cal Hill, executive manager of the Regulatory Development Branch of the Energy Resources Conservation Board (ERCB) said his agency is now actively investigating four (the ERCB later corrected that figure to five) well blow-outs caused by horizontal multi-stage hydraulic fracking.

... In Alberta, a Talisman horizontal frack job blew fluid into a nearby well in 2009 and that was followed by more explosive incidents in 2010 and 2011 as well as 18 inter-well blow-outs in British Columbia's shale gas fields.

Hill admitted that his agency, charged with developing oil and gas in a manner that is fair and in the public interest, didn't think that experience of B.C.'s shale gas fields or that province's public safety <u>advisory</u> on fracturing would apply to Alberta's shale oil deposits.

But subsequent events proved the agency wrong.

The Alberta regulator did not announce an <u>investigation</u> until a January 2011 fracturing incident made global headlines. That remarkable event sent oil and fluid spurting out of an existing well 1.2 km away from the oil shale well being fractured near Innisfail, Alberta.

... Hill said the horizontal multi-staged fracking technology posed two high risks to groundwater. The first involved fluid going up a badly sealed wellbore and then leaking into an aquifer. The improper handling of waste fluids on the surface could also contaminate groundwater.

He omitted any mention of two prominent U.S. studies in <u>Wyoming</u> and <u>Pennsylvania</u> that have strongly associated hydraulic fracturing with extensive methane contamination of groundwater and water wells.

... A 2011 US Congress <u>report</u> disclosed that fracking fluids can include coffee grinds, salt, ceramic balls, walnut hulls, lead, petroleum distillates, methanol, (a dirty air pollutant) benzene, toluene, xylene and millions of gallons of diesel. Many are proven cancer-makers.

... Hill admitted that he knew of no toxic fluids "that are prohibited" in the province."

http://thetyee.ca/News/2012/02/23/AlbertaCatchUp/

Marlon McDougall, former COO NAL Resources: "There is nothing toxic or something people should be worried about."

http://www.cochraneeagle.com/2011/05/oil-company-holds-local-open-house/#more-35404



Photo from Fracking Canada's <u>Fracking Rocky View County</u> - "600 litres of methanol sits on a frack truck near Cochrane, Alberta"

Medical professionals warn of known and unknown risks to health – and make recommendations:

"...As pediatricians specializing in environmental medicine, we at The Center for Children's Environmental Health are opposed to the current use of hydraulic fracturing not only due to the multiple known risks to children's health, but also due to the substantial lack of research into the health effects of this practice. While this particular void in research is prominent and must be addressed, multiple health concerns have already been brought up by a wide range of individuals and groups, from rural communities to political bodies and environmental organizations to public health experts."

http://www.hydrorelief.org/frackdata/health_research/HEALTH-Testimony_to_NYC_MtSinaiPEHSU.pdf

"Reverse all the exemptions from federal environmental laws

Provide information and opportunity for informed consent

Enact laws which protect people, especially the most vulnerable

Prohibit non-disclosure agreements

Provide funding for much needed research

Use the Health Impact Assessment as a process to inform decision-makers and the public prior to the decision

Prohibit drilling while studies are being done and evaluated

Focus on renewables

Follow the Precautionary Principle

Only after we gain a clear understanding of why people become ill near gas drilling operations can a decision be made whether to permit this activity."

http://www.ernstversusencana.ca/wp-content/uploads/2013/09/2013-09-Larysa-Dyrszka-MD-Health-Impacts-from-fracing-shales.pdf



Photo from Fracking Canada's <u>Fracking Rocky View County</u> - "Reportedly, without consulting the community, Bonavista Energy drills near the community cornerstone of Westbrook School K-8 - Rocky View County, Alberta - October 2013"

Groundwater Contamination From Frac'ing Not Limited to Alberta and BC

2013 - Gwyn Morgan, Former CEO of EnCana:

"As I have noted previously, some 1.2 million wells have been hydraulically fractured over the past 60 years in the United States, yet neither the Bureau of Land Management nor the Environmental Protection Agency have found supportable evidence of fracturing-induced ground water contamination."

http://www.theglobeandmail.com/report-on-business/activists-muddy-the-water-on-gmos-and-fracking/article15235730/

But in 1987, the *Environmental Protection Agency* reported: "During the fracturing process, fractures can be produced, allowing migration of native brine, fracturing fluid, and hydrocarbons from the oil or gas well to a nearby water well."

New York Times: "This is a 1987 report to Congress by the Environmental Protection Agency that deals with waste from the exploration, development and production of oil, natural gas and geothermal energy. It states that hydraulic fracturing, also called fracking, can cause groundwater contamination. It cites as an example a case in which hydraulic fracturing fluids contaminated a water well in West Virginia. The report also describes the difficulties that sealed court settlements created for investigators.

... in 1982, Kaiser perforated the gas well pipe's casing, a step which allows natural gas from the target formation to travel into the well bore and allows fracking fluid to travel out into the surrounding rock to create fractures. It also says that Kaiser fracked the well on August 31, 1982. It shows the depth at which the company fracked the well, which was 4,216 to 4,364 feet deep. The hydraulic fracturing was conducted a little above the deepest point that the well was drilled to, which was roughly 4,500 feet. This shows that the fracking itself took place somewhat less than 4,000 feet below the depth of the water well. This is important because some within the industry have argued that it would be impossible for contaminants to travel thousands of feet upwards to the water table:"

EPA: "During the fracturing process, fractures can be produced, allowing migration of native brine, fracturing fluid, and hydrocarbons from the oil or gas well to a nearby water well. When this happens, the water well can be permanently damaged and a new well must be drilled or an alternative source of drinking water found.

In 1982, Kaiser Gas Co. drilled a gas well on the property of Mr. James Parsons. The well was fractured using a typical fracturing fluid or gel. The residual fracturing fluid migrated into Mr. Parson's water well (which was drilled to a depth of 416 feet). according to an analysis by the West Virginia Environmental Health Services Lab of well water samples taken from the property. Dark and light gelatinous material (fracturing fluid) was found, along with white fibers. (The gas well is located less than 1,000 feet from the water well.)

... When fracturing the Kaiser gas well on Mr. James Parson's property, fractures were created allowing migration of fracture fluid from the gas well to Mr. Parson's water well. This fracture fluid, along with natural gas was present in Mr. Parson's water rendering it unusable."

New York Times: "These are the comments that relate to the contamination of the Parsons water well. The industry appears to have wanted to exclude this case from the E.P.A.'s 1987 report because the water contamination involved production problems, not waste products. The industry specifically says that the damage in this case resulted from the hydraulic fracturing process and that the contamination appears to have traveled by way of a fracture that extended beyond the intended rock formation:"

American Petroleum Institute: "This case is not a waste but production operations issue. The damage here results from an accident or malfunction of the fracturing process. In this process, producing wells have sand

laden fluids pumped into the producing formations at rates that create cracks that are propped open to allow

flow of oil or gas to the wellbore. The process requires the fractures to be created to be limited to the producing formation. If they are not as is the apparent case here oil and gas are lost from the reservoir and are unrecoverable."