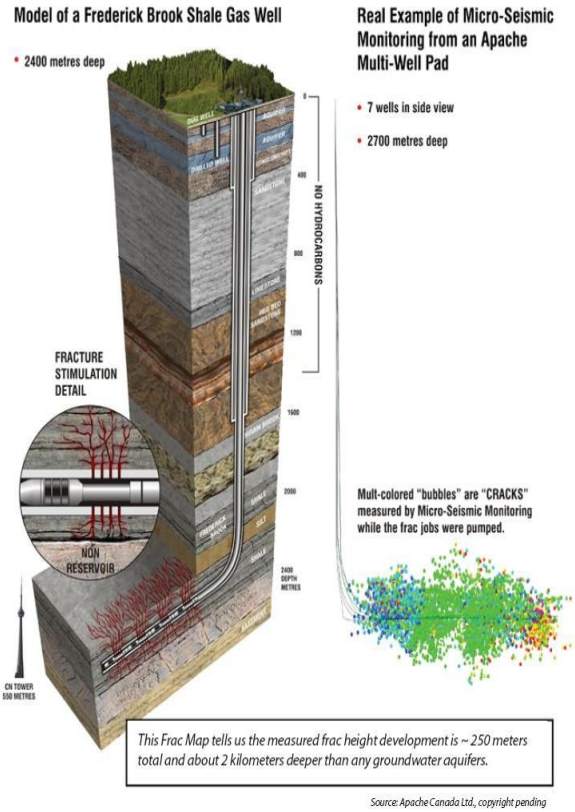
NOVA SCOTIA
Environment

April 2011

HYDRAULIC FRACTURING
Frequently Asked Questions

What is hydraulic fracturing?
Hydraulic fracturing involves injecting fluid under high pressure into drilled wells to fracture the rock at specific depths and let the oil or gas in these zones flow more freely to the surface. The fluids used could include water and/or a combination of water, sand and other materials and chemicals. These wells are typically hundreds of meters below the depth that Nova Scotians use for drinking water.



What are the chemicals used?
The chemicals used vary but are generally only about 1% of the volume of material injected. Chemicals improve the efficiency of the process and may include surfactants (soaps) to reduce the barrier between the hydrocarbons and water, biocides to prevent growth of algae and slimes, corrosion inhibitors, foaming and gelling agents.

Has hydraulic fracturing been used in NS?
Yes. It was used in the Kennetcook area in 2008 without incident. There has been no impact on water resources as a result of this activity in Nova Scotia.

What is the provincial approval process for hydraulic fracturing in Nova Scotia?

The Department of Energy issues a call for exploration proposals, which are reviewed and evaluated. If a proposal is successful, government can enter into a lease agreement. A company can only undertake an activity, like hydraulic fracturing, by making a separate application to the Department of Energy outlining the activity. This application is reviewed by a committee of relevant government departments and an independent engineer. The company is also required to hold a public open house in the community and reach a lease agreement with the land owner.

From there, Nova Scotia Environment requires any company looking to pursue this technique to submit an application for an Industrial Approval. This application includes details about the area where the activity is being proposed, including proximity to water courses; details on fluids, including handling and disposal; monitoring of fluids; and an emergency response plan. Nova Scotia Environment also requires a complete list of any chemicals to be used. Approvals contain project-specific terms and conditions and public consultation may be required.

What are the environmental risks of onshore exploration?
Drilling projects can have environmental impacts, particularly on water resources, if they are not done properly. Our rules, regulations and monitoring are all designed to protect us against poor ractices. Any drilling activity in this province must meet stringent environmental and operational requirements or it is not approved.