September 2014

Who invests in the infrastructure required for oil and gas?

Typically government invests in major road infrastructure and companies build secondary roads and drilling/production pads and facilities.

Is there an area in Canada where the citizens are using oil and gas resources locally?

Natural Gas is used throughout Canada as a local resource, a domestic supply. In the north both Normal Wells and Inuvik have been using local natural gas to supply the town for the last decade.

Should ground water monitoring be conducted by independent organizations?

I believe that ground water monitoring should be conducted by companies that are independent of the Energy Companies that drill the fracture stimulate the oil or gas wells.

What baseline health data do you collect from your labour force?

To my knowledge there is no health data collected on the labour force in the Northwest Territories.

How will the land be remediated and returned to its natural state after drilling?

Our obligation is to return the land to a natural state on all exploration ventures (seismic, drilling pads, roads etc.) and once production is terminated on all production facilities and infrastructure. This is done through remediation reclamation procedures that are done throughout western Canada.

Is the list of chemicals used in your operations made public in all of your operations, even if not required?

All of our fracture stimulation fluid data, including chemicals are part of the public record in the Northwest Territories,

http://www.mvlwb.ca/Boards/slwb/SitePages/search.aspx?app=S12A-001

Why should we pursue Yukon gas if it is so expensive to obtain?

Bringing all of your Energy from the south is more expensive than having a made in the Yukon solution which will bring jobs and opportunities for Yukoners to have Natural Gas and, potentially, diesel fuel (through the conversion of natural gas to syn-diesel) that will allow for the Yukon to become self-sufficient and not rely on southern energy products.

Response from John Hogg to remaining public questions from the Select Committee Regarding the Risks and Benefits of Hydraulic Fracturing public proceedings May 28, 2014

Should oil and gas exploration be required to undergo an environment assessment?

Yes, and I think the YESA Board is now, and will continue to be involved in all future exploration and drilling programs within the Yukon.

Do you know where frack fluids that do not return to the surface go?

The fracture stimulation fluids, which consist of mostly water, are left in rocks within the subsurface where they are slowly, over geological time, absorbed back into the rock formations deep in the subsurface km's below the potable water table.

What is the total amount of hydrocarbons consumed by MGM operations?

Again, in our documentation,

http://www.mvlwb.ca/Boards/slwb/SitePages/search.aspx?app=S12A-001 all of the fuel used for our operations is part of the public record. I believe we used more than 2 million litres of diesel for our 2012-13 drilling program

How many subcontractors are involved with MGM drilling operations?

99% of the personal working on MGM's drilling programs were subcontracted to MGM Energy Corp. during our drilling or seismic programs in Northwest Territories.

What was the carbon footprint of your test drilling operation?

I'm not sure how you define carbon footprint, as stated above we consumed close to 2 million liters of diesel during our 2012-13 drilling program

How many years do you continue to monitor a well after you've closed it down?

In a convention drilling operation, if we abandon the well, we would only return to the site for land and site reclamation, if we suspend the well, with a wellhead, we are required to return every year, and report to the National Energy Board on the status of the well.

What is the contingency plan if your test wells get contaminated?

I'm not sure what you mean by "test well", if you mean our exploration well, there are a number of strings of casing that protect the groundwater. We monitor the test well with our three groundwater wells and there was no contamination of the potable water table, before, during or after our test well was drilled.

What would be the total number of wells in the full build out of your project?

We do not have a project, we were exploring for the Canol Shale. In general, a shale well project could have as many as 8-16 wells per square mile, drilled from a single pad.

Has your company invested in any renewable energy projects?

No.

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How deep are your fracking operations?

Our shale is at a depth of 1800-2500 metres below the ground.

Do all liquids move through the subsurface?

Hydrocarbons, oil and gas and water all move in the subsurface but are stratified by rocks some of the rocks are porous and some of the rocks are non-porous, that is the principle by which hydrocarbons become trapped in the subsurface, when they are not trapped they leak to the surface (there are many examples of this around the world)

How many wells have been fracked in the Northwest Territories?

To date, four wells have been drilled and fracture stimulated in the Canol play; two of the wells were vertical and two of the wells were horizontal.

Do you test the water for biogenic and thermogenic methane before and after fracking?

We test for methane, before, drilling and after drilling. We have not seen methane thus we have not tested for thermogenic vs. biogenic differences.

What assessment of fish and wildlife has MGM initiated to monitor the impacts to the health of those populations?

We have done numerous studies of the effects of our program on wildlife, again the extensive work is found on the Sahtu Land and Water Board, SLWB website, http://www.mvlwb.ca/Boards/slwb/SitePages/search.aspx?app=S12A-001

Is the baseline data adequate in Yukon? If not, what need to be done to frack safely?

There are a number of items that I outlined in my talk about baseline data.

How is gas collected transported out?

Natural Gas is normally transported by pipeline, it can also be transported as compressed natural gas, CNG, or liquefied natural gas, LNG, on trucks, trains and ships.

Is development in Yukon financially feasible?

I believe if a discovery was made of substantial size that development is feasible for a Yukon energy project that would bring jobs and opportunities for Yukoners.