Dear [REDACTED]

Re: Your request for access to information under Part II of the Access to Information and Protection of Privacy Act, file # NR-010-2014

On August 20, 2014, the Department of Natural Resources received your request for access to the following records/information:

Communications with the minister's office relating to hydraulic fracturing, from the period June 1, 2014 to Aug. 12, 2014. Specifically, any reports and/or briefing notes provided out of what has been referred to as the province's "internal review" on fracking.

I am pleased to inform you that your request for access to these records has been granted, in part. Access to some information contained within the records has been refused in accordance with the following exceptions to disclosure, as specified in the Access to Information and Protection of Privacy Act (the Act):

18(2) The head of a public body shall refuse to disclose to an applicant a Cabinet record, including
       (c) a supporting Cabinet record.

18. (1) In this section
       (a) "cabinet record" means
           (ix) that portion of a record which contains information about the contents of a record within a class of information referred to in subparagraphs (i) to (viii);

       (d) "supporting cabinet record" means a Cabinet record referred to in paragraph (a) which informs the Cabinet process, but which is not an official cabinet record.
20(1) The head of a public body may refuse to disclose to an applicant information that would reveal
(a) advice, proposals, recommendations, analyses or policy options developed by or for a public body or minister; and,
(b) the contents of a formal research report or audit report that in the opinion of the head of the public body is incomplete unless no progress has been made on it for more than 3 years.

23(1) The head of a public body may refuse to disclose information to an applicant if the disclosure could reasonably be expected to
(b) reveal information received in confidence from a government, council or organization listed in paragraph (a) or their agencies.

As required by subsection 7(2) of the Act we have severed information that is excepted from disclosure and have provided you with as much information as possible. In accordance with your request for a copy of the records, the appropriate copies have been enclosed. Please note that the formal reports associated with the internal review on fracking have not been provided as they will soon be made public. As stated in the Act:

14(1) The head of a public body may refuse to disclose a record or part of a record that
(b) is to be published or released to the public within 45 days after the applicant’s request is received.

Section 43 of the Act provides that you may ask the Information and Privacy Commissioner to review this partial refusal of access or you may appeal the refusal to the Supreme Court Trial Division. A request to the Information and Privacy Commissioner shall be made in writing within 60 days of the date of this letter or within a longer period that may be allowed by the Commissioner. The address and contact information of the Information and Privacy Commissioner is as follows:

Office of the Information and Privacy Commissioner
34 Pippy Place, P. O. Box 13004, Stn. A
St. John’s, NL, A1B 3V8

Telephone: (709) 729-6309
Facsimile: (709) 729-6500

In the event that you choose to appeal to the Supreme Court, you must do so within 30 days of the date of this letter. Section 60 of the Act sets out the process to be followed when filing such an appeal.

Please be advised that these responsive records will be published following a 72 hour period after the response is sent electronically to you or five days in the case where records are mailed to you. It is the goal to have the responsive records posted to the Office of Public Engagement’s website within one business day following the applicable period of time. Please note that requests for personal information will not be posted online.
If you have any further questions, please feel free to contact the department’s ATIPP Coordinator at (709) 729-3214.

Sincerely,

[Signature]

CHARLES W. BOWN
Deputy Minister
Hydraulic Fracturing

Presentation to

Minister Dalley

July 23, 2014
PRESENTATION SUMMARY

• Basics and History of Oil & Gas Activity WNL
• Current WNL Activity
• Regulatory Framework Overview
• Hydraulic Fracturing Concepts
• Industry Initiatives
• Jurisdictional Comparison
• Hydraulic Fracturing in the NL Context
• Key Challenges
• Reports on Hydraulic Fracturing
• NL Work Related to Hydraulic Fracturing
• Consultation Options
• Next Steps
Age / Basin

- **Lower Paleozoic**
  - Anticosti Basin

- **Upper Paleozoic**
  - Bay St. George Basin
  - Deer Lake Basin
  - St. Anthony Basin

**KEY MESSAGE:** ROCKS OF WESTERN NL ARE MUCH OLDER THAN EASTERN NL PRODUCING FIELDS
History of Petroleum Exploration in Western NL

Birth of an Industry

Evening Telegram – Oct. 10, 1893

NEWFOUNDLAND OIL WELLS

A Prospector Finds Them Near Cow Head on the Newfoundland Coast.

Mr. Pippy, formerly of Harbour Grace, but for some time past a resident of Truro, N.S., called at the TELEGRAM office yesterday morning to show some samples of oil taken from wells in Sandy Bay, while Mr. Pippy was prospecting there some time ago.

Daily News – Mar. 2, 1894

A NEW INDUSTRY


The first meeting of the Newfoundland Oil Company assembled in the Seaman’s Home on Wednesday last, at the call of Mr. G. A. Pippy, one of the owners of the property, and the active promoter of the company.

KEY MESSAGE: OIL AND GAS ACTIVITY HAS BEEN OCCURRING FOR A LONG TIME
GENERAL OILFIELDS, LIMITED

3 Pumpers, 1 Bailer and 3 wells being drilled

Refined 3 tons of Oil per week (approx. 20 – 25 barrels)
Onshore – Hydrocarbon Prospectivity

Legend
- Bituminous Outcrop
- Drill Hole
- Oil Shale
- Petroliferous Odour
- Petroleum Well

Newfoundland Labrador
Current WNL Activity

Legend
- 2013 Calls for Bids
- Black Spruce Exploration Corp.
- Corridor Resources Inc.
- Investcan Energy Corp.
- Energi Oil Inc
- Shoal Point Energy Ltd.

BSE - Ongoing evaluation
BSE - Ongoing evaluation, lease reduction
Shoal Point Energy / BSE - Ongoing evaluation, well site evaluations
Investcan Energy - All activities on hold pending resolution of EA process

Corridor Resources Ltd. - EA ongoing

BSE - Black Spruce Exploration Corp.
Regulatory Framework

- Enforcement
- Monitoring
- Compliance
- Reporting
- Auditing
Regulatory Overview

Onshore Western Newfoundland:
- Natural Resources
- Environment and Conservation
- Service NL

Offshore Newfoundland and Labrador:
- Canada-Newfoundland and Labrador Petroleum Board (C-NLOPB)

Onshore to Offshore Drilling:
- Joint Responsibility
Onshore Regulatory Overview

• Department of Natural Resources
  o The Petroleum and Natural Gas Act
    ➢ The Petroleum Regulations
    ➢ The Petroleum Drilling Regulations

• Department of Environment and Conservation
  o Environmental Protection Act
  o Environmental Assessment Act

• Service NL
  o Occupational Health and Safety Act
Offshore Regulatory Overview

**Acts**

**Regulations**
- Oil and Gas Operations Regulations
- Newfoundland and Labrador Offshore Area Line Regulations
- Canada Oil and Gas Lands Regulations - Land Division Only
- Newfoundland Offshore Area Registration Regulations
- Oil and Gas Spills and Debris Liability Regulations
- Petroleum Drilling and Production Regulations
- Certificate of Fitness Regulations
- Petroleum Installations Regulations
- Diving Regulations
- Petroleum Geophysical Operations
- Draft Newfoundland Petroleum OSH Regulations
Hydraulic Fracturing Concept

- Hydraulic fracturing (commonly known as fracking) is a technology used to improve and enhance recovery from wells.
- The process involves creating small cracks, or fractures, in deep geological formations to allow natural gas or oil to flow into the wellbore.
- The natural gas or oil then flows/pumps to the surface under controlled conditions through the wellhead for processing and sales.
- During the process, a mixture of water, sand and small amount of chemical additives designed to protect the integrity of the wellbore and enhance production is pumped under high pressure into the formation to create fractures.
- The fractures are kept open by sand or “proppant”, which provides pathways to allow the HCs to flow into the wellbore.
Conventional Well vs. Unconventional Well

**Conventional well**
Oil and gas are accessible using vertical drilling

- **Drinking water aquifers**
  Depth - Less than 150 metres (m)

- **Oil or gas pocket**

**Unconventional Well**
Oil and gas are accessible using horizontal drilling and hydraulic fracturing

1. **Fracturing Fluid**
   Fracturing fluid containing water, sand and chemicals is injected at high pressure.

2. **Rock is cracked open (fractured), releasing the oil or gas inside.**

3. **Flow-back water is recovered.**

**Oil or gas**

- Oil or gas is collected and transported.

**Highly impermeable rock**
Depth 1,000m - 4,000m
Industry Initiatives

• The recent media attention and focus on hydraulic fracturing has resulted in a number of jurisdictions, agencies, associations and academics having conducted or being in the process of conducting reviews, studies or reports that assess the effects of this activity and recommend operating practices to ensure impacts are minimized.

Petroleum Technology Alliance of Canada (PTAC)
• A recent PTAC report suggests implementing Best Management Practises (BMPs) as an effective mechanism to reduce and mitigate the risks associated with hydraulic fracturing operations in the following areas:

Canadian Association of Petroleum Producers (CAPP)
• CAPP has also established a series of Hydraulic Fracturing Operating Practices that address the following issues:
Industry Initiatives (cont.)

The American Petroleum Institute (API)
• API has developed a set of 5 documents that specifically address the risk management issues accompanying unconventional well construction and management:
  o Hydraulic Fracturing Operations – Well Construction and Integrity Guidelines
  o Water Management Associated with Hydraulic Fracturing
  o Practices for Mitigating Surface Impacts Associated with Hydraulic Fracturing
  o Isolating Potential Flow Zones During Well Construction
  o Environmental Protection for Onshore Oil and Gas Production Operations and Leases

Enform
• Enform, a Canadian upstream oil and gas industry association which advocates for and develops resources for the continuous improvement of the industry’s safety performance, recently published an interim Industry Recommended Practice (IRP) on the subject of hydraulic fracturing

Petroleum Services Association of Canada (PSAC)
• PSAC’s Working Energy Commitment, outlines principles under which its members conduct themselves. The development of a code of conduct that addresses hydraulic fracturing operations is underway and will be built through collaboration with on-the-ground stakeholders in communities where oil and gas development is active.
Other Canadian Jurisdictions

Alberta

- The Alberta Energy Regulator (AER) is the oldest upstream oil and gas regulatory agency in Canada. It regulates the largest oil and gas industry in Canada, and has been a leader in developing regulatory frameworks for oil and gas activities.

- In December 2012, the AER released “Regulating Unconventional Oil and Gas In Alberta: A Discussion Paper”. The AER states that it intends to develop a new regulatory framework for unconventional resource development, building upon its existing regulatory framework, with the aim of:
  - clearly identifying and mitigating potential risks to public safety, the environment, and the resource, ensuring orderly development, and avoiding imposing unnecessary regulatory burden on industry.

- As a complement to its Discussion Paper, the AER has a page on its website that outlines its suite of regulatory requirements to address Mitigating Risks of Hydraulic Fracturing. Key components of this non-exhaustive list of current regulatory requirements respecting various aspects of hydraulic fracturing included:
  - Protecting Groundwater from Fracturing
  - Management of Fracturing Fluids
  - Noise
  - Water Usage
  - Traffic and Road Usage
New Brunswick

- New Brunswick is a very small producer of natural gas and oil, and has relied to date on its existing regulatory framework to regulate production of gas and oil. But its potential shale resource has garnered a very high, and often negative, public profile based on information and images of shale gas development largely derived from the eastern USA. These public concerns prompted the Government of New Brunswick to undertake a major review of how to regulate oil and gas activities, including hydraulic fracturing, most effectively.

- In February 2013, the New Brunswick Government, under its “Responsible Environmental Management of Oil and Natural Gas Activities” initiative, published its “Rules for Industry”.

- In May 2013, the government released The New Brunswick Oil and Natural Gas Blueprint (Blueprint) which provided a plan to address the strategic economic, social and public health considerations of NB’s oil and natural gas sector. There were 16 action items in the Blueprint designed to allow NB to capitalize on opportunities in the sector and aimed at guiding their oil and natural gas industry.

- On June 30, 2014, New Brunswick released its first report on progress made in implementing the 2013 Blueprint. The report concluded that significant progress was been made on the action items and highlighted the implementation of a new natural gas royalty regime and the creation of a research institute.
Other Canadian Jurisdictions (cont.)

British Columbia

- BC has a modern, results-based legislative and regulatory framework for oil and gas activities. It is also the province with the largest shale gas resource in Canada and hydraulic fracturing is already being used extensively.

- BC was the first jurisdiction in Canada to mandate public disclosure of chemicals used in hydraulic fracturing. Fracture Fluid Reports must be submitted to the Oil & Gas Commission (OGC) within 30 days of finishing completion operations at a well and the report will be posted on their website by the OGC immediately upon receipt. The OGC initiated this requirement by announcing it through an Information Bulletin and making it part of industry’s reporting requirements as authorized by regulation.

Quebec and Nova Scotia

- QC and NS are not permitting new hydraulic fracturing activities for shale gas pending reviews of the environmental impacts and the identification of best management practices.

National Energy Board (NEB)

- Responsible of oil and gas development in non accord Frontier areas under COGOA. In September 2013, issued a document outlining the filing requirements for proposed work or activities requiring an Operations Authorization involving hydraulic fracturing.
Hydraulic Fracturing in NL

• A fracturing treatment occurred in the Flat Bay area on NL’s West Coast in 2004.
• Additional work has been proposed for several areas where hydraulic fracturing potentially could be used.
• NR has not received a formal application for these approvals to date.
Hydraulic Fracturing in NL

- Black Spruce Exploration have an agreement with Shoal Point Energy to explore and develop Green Point “oil-in-shale” project.
- This project will likely include hydraulic fracturing.
- ENVC has stated that any fracturing operations would be subject to the provincial environmental assessment process.
Opposition to Hydraulic Fracturing in NL

- The Provincial Government and the C-NLOPB have received correspondence related to hydraulic fracturing
- Most opposed the activity outright, while others requested a time-out to learn more about the process and others supported the activity
  - Port au Port – Bay St. George Fracking Awareness Group
    - Calling for a moratorium on exploration and drilling in the Gulf of St. Lawrence
  - St. Lawrence Coalition
    - Created to persuade government bodies to issue a moratorium on oil and gas exploration and exploitation in the Gulf of St. Lawrence
  - NL Fracking Awareness Network (NL-FAN)
    - Called on the provincial government to commission an independent review of hydraulic fracturing
Pause on Hydraulic Fracturing in NL

- Direction was provided to NR and ENVC not to accept applications for onshore and onshore-to-offshore petroleum exploration using hydraulic fracturing.
- This measure was announced on November 4, 2013 and provided an opportunity for government to:
  - undertake a balanced review of regulations, rules and guidelines in other jurisdictions;
  - to complete the technical work necessary to fully assess the geological impact in Western Newfoundland and, following this process;
  - to undertake public engagement to ensure that residents can comment and are fully informed before any decision is made.
Key Challenges of Hydraulic Fracturing

- Water Management
- Surface Infrastructure Development
- Subsurface Reservoir Management
- Stakeholder Engagement
- Life-Cycle Wellbore Integrity
Reports on Hydraulic Fracturing

- 2012 Fall Report of the Commissioner of the Environment and Sustainable Development

- In April 2014, the Council of Canadian Academies (CCA) released a report “Environmental Impacts of Shale Gas Extraction in Canada”

NL Work Related to Hydraulic Fracturing

- Creation of a Hydraulic Fracturing Working Group
- Reports on Existing Regulations, Regulatory Initiatives in Other Jurisdictions and a Draft Guideline Specifically Addressing Potential Onshore Hydraulic Operations in the Province. – Precht Consulting
- Commissioned an in-house Technical Report on Green Point Shale
- Draft Onshore Petroleum, Drilling and Conservation Regulations
- Preparation of a backgrounder on the Petroleum History of Western Newfoundland
- Preparation of a backgrounder on Hydraulic Fracturing: The Basic Facts
- Stakeholder Consultations and Public Consultations
Draft Regulations also prepared and consultations occurred with following departments/agencies:

- ENVC
  - ILUC
- Service NL
- Workplace Health, Safety & Compensation Commission
- Labor Relations Agency
Creation of a Hydraulic Fracturing Working Group

- Group’s last involvement was to provide comments on Precht et al Consulting report
- Met with Dr. Maurice Dusseault, Jan. 31, 2014
  - Review of multidisciplinary hydraulic fracturing workshop held at U. of Waterloo
Precht et al Consulting Reports

• Conducted jurisdictional reviews on regulatory approach to unconventional resource exploitation, review of rules, guidelines and best management practices, development of Hydraulic Fracturing Guidelines and best practices

• Reviewed draft Onshore Drilling and Production Conservation Regulations - Final Draft Report received which consists of three parts:
  • Part 1: NL Legislation Pertaining to Petroleum Activity
  • Part 2: Canadian Jurisdictional Regulatory Approaches and Perspectives
  • Part 3: Hydraulic Fracturing Guidelines for Oil and Gas Operations in NL

  – Internal Review completed on Part 3
    • Received comments from C-NLOPB, ENVC, T&W, OHS and Justice.
    • Justice continuing legal review of guidelines
Technical Report on Green Point Shale

- Commissioned in-house technical report
- Final Draft Report completed
- The key points from the report include:
  
  S. 20(1)(b), Newfoundland Labrador
Backgrounders

- Backgrounder on the Petroleum History of Western Newfoundland
  - Draft document prepared – under review

- Preparing a backgrounder on Hydraulic Fracturing: The Basic Facts
  - Draft document prepared – under review
Stakeholder Consultations

- Meeting with Petroleum Services Association of Canada in November 2013 (Elizabeth Aquin, Senior VP)
- Meeting with Dr. Maurice Dusseault, Jan. 31, 2014
- Minister met with Port au Port/ Bay St. George Fracking Awareness Group, Feb. 18, 2014
- Minister met with Shoal Point Energy, Mar. 5, 2014
Two Consultation Options
Next Steps

• DNR in Consultation with the Working Group will:
  
  – Monitor the results of the current reviews underway in other jurisdictions;
  
  – Monitor work done to study and assess risks to the environment including Federal Government initiatives and mitigation strategies such as the CAPP guidelines and best practices;
Questions?