

# Placentia Bay Industry Showcase

## / Update on Activities in the Canada-Newfoundland and Labrador Offshore Oil and Gas Area

Speaking Notes for Chair and CEO, Scott Tessier  
September 20, 2017

## Slide 1 – Introduction

First of all, I'd like to thank the Placentia Area Chamber of Commerce for inviting me to speak today. It's my pleasure to share the stage with Ray and Sam.

If you are having any trouble seeing the screen, my slides and remarks will be posted on our website.

For those of you unfamiliar with the C-NLOPB, we are the independent, arms length regulator of petroleum activity in the Canada-Newfoundland and Labrador Offshore Area.

Our responsibilities include safety and environment, which are our highest priorities, as well as resource management, exploration and local industrial benefits.

We were created over 30 years ago through the Atlantic Accord and its implementing legislation, which set out a framework for joint management by the federal and provincial governments.

More information about the Board and our work is available on our website, but I'll also offer a word here about what we do not do, which is promote the industry. Our role is to oversee operator compliance and while we enable exploration, production and development on behalf of governments and the public, promotion of the industry falls outside our mandate and is in fact a role for industry itself, along with governments and Nalcor.

## Slide 2 – Safety Moment

I'll begin with a safety moment, which doubles as a plug for an upcoming event.

Dr. Faisal Khan, a Memorial University Professor, is also a Canada Research Chair and Director of C-RISE, which is Memorial's Centre for Risk, Integrity and Safety Engineering.

Following the success of two previous C-RISE conferences and our own international Safety Conference in 2014, Dr. Khan and I realized that it would be mutually beneficial to formally combine forces this year.

So, from October 18th to 20th, the 3rd Workshop and Symposium on Safety and Integrity Management of Operations in Harsh Environments will take place at the Holiday Inn in St. John's.

The conference will feature keynote speakers from around the world and will include training sessions on risk and integrity management tools developed to enhance the understanding of operational challenges in harsh environments, and symposium sessions to share research advancements and to identify and discuss potential solutions to those operational challenges.

The sub-theme of this year's conference is 'Remembering the Ocean Ranger', and we will have a special panel discussion with first-hand accounts and recollections of the disaster and how it forever affected the industry and our province.

Further details of the conference are available on the conference website, which is also accessible through a link on the C-NLOPB homepage.

### **Slide 3 - Disclaimer**

A bit of housekeeping before I proceed further: this is a disclaimer that applies to all the maps used in my presentation. I won't read it but it refers to Canada's jurisdiction over resources outside the 200 mile limit. Canada has filed a submission with the UN Commission on the Limits of the Continental Shelf, the review of which is pending. The disclaimer is a caution to interest holders of potential implications for any licences that extend outside the 200 mile limit under the UN Convention on the Law of the Sea.

### **Slide 4 – Canada-Newfoundland and Labrador Offshore Area**

Our offshore is vast and has more than 20 underexplored sedimentary basins. The area we regulate is 1.8 million square kilometers. That's bigger than the US Gulf of Mexico and bigger than the Norwegian Shelf Offshore Area.

As mentioned, under the Atlantic Accord Acts, our jurisdiction extends to the outer edge of the continental shelf. This is why you see C-NLOPB-issued licences outside the 200 mile limit represented on the map by the red line.

### **Slide 5 – Offshore Activities**

In addition to regulating production, the C-NLOPB oversees precursor activities such as seismic data acquisition, exploration drilling and sub-sea development.

2016 was busy, despite the downturn.

We completed approximately 500 regulatory review, licencing, auditing and authorization activities, including 12 new authorizations and 10 amendments to authorizations.

## **Slide 6 – Licences and Wells**

Currently there are 29 exploration licences, 55 significant discovery licences and 12 production licences.

Since 1966, there have been 443 wells drilled in our offshore, including 218 development wells, 56 delineation wells and 169 exploration wells.

## **Slide 7 – Current Operating Facilities and Production**

To date, 1.6 billion barrels of oil has been produced from four projects – Hibernia, Terra Nova, White Rose and North Amethyst.

Hibernia is in its 20<sup>th</sup> year of operations and last year they surpassed 1 billion cumulative barrels produced. By our estimates, which are inherently conservative, there are over 600 million barrels remaining there.

White Rose, pictured here in the top right, has been operating since 2005 and produces from two fields. 230 million barrels have been produced from the White Rose field and nearly 50 million barrels have been produced from the North Amethyst field.

The White Rose Extension will provide an additional 174 million barrels.

Terra Nova, shown in the lower right, has been producing for 15 years with 399 million barrels to date, and approximately over 100 million barrels remaining.

Hebron, the newcomer to the Jeanne d’Arc basin, has begun drilling. It is expected to see first oil this year with estimated reserves of over 700 million barrels.

## **Slide 8 – Forecast**

So, this is the C-NLOPB production forecast for the approved development projects in the Canada-Newfoundland and Labrador Offshore Area.

Again, it's somewhat conservative, consistent with our nature as regulators.

Overall, production is expected to reach 75 million barrels for the 2017-2018 fiscal year, noting that's highly dependent on facility and field performance, both of which can be quite challenging to predict accurately.

Hibernia, shown in blue, continues to be a workhorse for our offshore, probably producing just under 50 million barrels.

Terra Nova, in red, and White Rose, in orange and yellow, are currently predicted to produce 10.4 million and 14.5 million barrels, respectively.

Hebron, shown in green, is expected to reach peak production in 2023.

All of these predictions are subject to adjustment.

## **Slide 9 – Exploration Potential**

The C-NLOPB administers the land tenure process and authorizes exploration. Our geologists and geophysicists research the prospectivity of land and, with input from industry through the nomination process, make parcels of land available in our Calls for Bids.

We also facilitate exploration by authorizing geoscientific and exploratory drilling programs, provided operators meet legislative and regulatory requirements and have undertaken measures to reduce any risks to levels that are as low as reasonably practicable.

## Slide 10 – Scheduled Land Tenure System

A scheduled land tenure system was implemented by the Board in 2013 and has been quite successful in attracting new players to, and interest and investment in, our offshore by enhancing transparency, predictability and input.

It provides additional time for companies to conduct geoscientific assessments of the hydrocarbon prospectivity in the lesser explored basins. That's one reason why we see so much seismic activity these days.

The system starts with identification of a region and issuance of a Call for Nominations for Areas of Interest. Input from industry is used to identify Sectors, as is our relevant strategic environmental assessment, or SEA.

After companies have had sufficient time to conduct geoscientific assessments of the Sector, a Call for Nominations for Parcels is issued leading to a Call for Bids, pending Board and Government approvals.

Our Offshore Area has been organized into eight regions, with three categories and three licence timing cycles.

The regions are:

- Labrador North and South;
- North Eastern and Eastern Newfoundland;
- South and South Eastern Newfoundland;
- Western Newfoundland; and
- the Jeanne d'Arc Region.

The activity categories are:

- Low Activity regions, which generally have few exploratory wells and less modern seismic data acquisition;
- High Activity regions, which typically have elevated exploration activity levels, including 2D and 3D seismic data acquisition and exploration drilling; and
- Mature regions, which would have substantial 2D and 3D seismic data coverage and extensive exploration/delineation drilling and production activities

The system also works on three licence timing cycles:

- 4-year for Low activity regions
- 2-year for High activity; and
- 1-year for Mature

### **Slide 11 – 2017 Call for Bids**

In April, we issued a Call for Bids in the Jeanne d’Arc Region. Interested parties have until noon on November 8, 2017 to submit sealed bids for the parcels. The sole criterion for selecting a winning bid will be the total amount of money the bidder commits to spend on exploration of the parcel during Period I, which is the first period of a nine-year licence. The minimum bid for a parcel is \$10 million in work commitments.

The Call for Bids parcels were covered in the 2014 Eastern Newfoundland Strategic Environmental Assessment (SEA). An SEA examines the environmental effects which may be associated with a plan, program or policy proposal and allows for the incorporation of environmental considerations at the earliest stages of program planning. SEA involves a broader-scale assessment that considers the larger ecological setting and consultation with a wide array of stakeholders.

A project-specific EA that focuses on site-specific issues must be completed before any work can begin within the licence area.

## **Slide 12 – Labrador Shelf Strategic Environmental Assessment (SEA)**

There is an SEA completed for each of the areas highlighted on this map. Over the past few years we have focused on reviewing and updating an SEA after a period of time, typically in the order of seven to eight years, to incorporate new information and update existing information.

The Labrador SEA was completed in 2008 and we are working to update it with our co-chair, the Nunatsiavut Government. A multi-stakeholder Working Group, which includes representation from Indigenous Groups, has been established to assist in conducting the SEA. Our commitment is that an SEA Update must be completed a minimum of 120 days prior to the close of a Call for Bids.

The Scoping Document for the SEA Update was completed after a period of public consultation, and the next step will be to seek interest from environmental consulting firms to help with the SEA Update. An important element will be the inclusion of traditional knowledge. Updates on progress will be posted on the Board's website.

## **Slide 13 – 2017 Geological Programs without Fieldwork**

Staff at our Core Storage and Research Centre in St. John's play host to those who wish to borrow samples to conduct geological programs without field work. Companies, researchers and students visit this location to view samples from each of the offshore wells in the form of cuttings, core, fluids and slides.

To date, 17 Geological Programs have been approved from 10 applicants and interest was shown in all eight land tenure regions.

## **Slide 14 – 2017 Geoscience Programs with Fieldwork**

2017 looks to be another successful year for seismic data acquisition. Multi Klient Invest AS, or MKI, is undertaking several seismic programs in our offshore area. The company is collecting 2D seismic data along the Southern Grand Banks and the Labrador Sea which shall total approximately 22,000 line kilometres of data.

In the West and East Flemish Pass, the Jeanne d'Arc Basin and the Carson Basin, MKI is undertaking four programs using three 3D vessels – The *Ramform Thethys*, *Titan* and *Sterling*.

If 3D seismic acquisition is completed as planned, 2017 will set a record for the highest single season 3D acquisition total at approximately 21,000 km<sup>2</sup>.

All together, five of the eight land tenure regions will be explored this year.

## **Slide 15 – New Activity**

As noted in my opening, there have been several important milestones over the past five months. ExxonMobil and its co-venturers completed construction of the Hebron Gravity-Based Platform and it is now on location on the Grand Banks and set to become our next producing project.

Four specialized facilities that have not been seen in our Offshore Area have begun operations. The Board carries out extensive safety assessments on the vessels involved prior to issuing authorizations.

In addition to the *Ramform Thethys*, *Titan* and *Sterling*, the *Transocean Barents* is a harsh environment, ultra-deepwater dual activity drilling rig built in 2009. It was brought in from the Norwegian Shelf and contracted by Suncor to work in the Terra Nova field.

## Slide 16 – White Rose Extension Program

Of particular importance to this area of the province is the White Rose Extension Project. The construction of the wellhead platform and the eventual production of oil will bring significant economic and social benefits.

The wellhead platform will tie back to the *SeaRose* FPSO and will eventually produce approximately 75,000 barrels of oil per day at peak. Husky Energy, the majority owner and Operator, expects construction to begin in late 2017 and first oil is expected in 2022, pending regulatory approvals.

Project costs are estimated at \$3.2 billion and some major contracts have been announced, including construction of the Accommodations Module and the Concrete Gravity Structure, the latter of which will be constructed by a partnership that includes Pennecon.

The Board will be overseeing Husky's adherence to its approved Development Plan and its Benefits Plan Amendment, with the latter focused on employment and contracting processes of Husky and its major contractors.

## **Slide 17 – Other Near and Long Term Matters**

To begin to wrap up, there are a number of other near and long term matters worth including in my update to you today.

### Federal Review of Environmental Assessment and Regulatory Processes

The federal government is reviewing environmental assessment and regulatory processes in this country and undertaking work nationally intended to “regain public trust; protect the environment; advance reconciliation with Indigenous peoples; and ensure good projects go ahead and resources get to market”. An expert panel appointed by the federal government conducted public consultations over the past year. A discussion paper from earlier this summer that covers federal efforts in this regard is publically available.

We at the Board, the provincial government, and a variety of industry and other stakeholders in Newfoundland and Labrador and across the country have been engaged in consultations and we look forward to seeing the results of the federal government’s deliberations this Fall.

### Regulatory Modernization

As well, the Frontier and Offshore Regulatory Renewal Initiative, or FORRI, aims to modernize the regulatory framework governing oil and gas activities in Canada's frontier and offshore oil and gas areas. It is a partnership of federal and provincial government departments from Newfoundland and Labrador and Nova Scotia and includes participation of regulators who are providing technical advice to governments.

Modernizing the regulations governing frontier and offshore oil and gas activities will contribute to maintaining Canada’s high standards for safety, environmental protection and resource management.

## Provincial Oil and Gas Industry Development Council

In December 2016, the Provincial Government appointed members to the Oil and Gas Industry Development Council to help determine the long-term vision of the province's oil and gas industry. The Board is not a member of the Council, but we stand ready to assist and we look forward to the products of its work as well.

### Focus on Subsea Tiebacks

Interest appears to be growing to examine opportunities for sub-sea tie backs in small fields. The C-NLOPB is working with governments and local industry in looking at how subsea tiebacks might pose additional opportunities for offshore development in a safe and environmentally responsible manner.

Part of the work has included an examination of best practices and lessons learned from past shallow water tieback experiences such as Hibernia South and South White Rose extension projects, and in the North Sea.

### Asset Life Extension

Asset life extension is directly linked to cost pressures and is of particular interest for regulators around the world. We are no exception, working to ensure against cuts in areas like maintenance during times of budgetary restraint.

In our offshore, production installations are in the range of 13 to 21 years old. Aging infrastructure poses challenges to Operators in its maintenance and repair. In addition to normal wear and tear, our harsh environment forces continuous exposure to extremes of weather, waves, ice and oxidation.

Whether they are new or old, installations operating in our jurisdiction must be fit for purpose and meet the highest industry standards before the Board will issue an Operations Authorization.

Operators are required to have strong preventative maintenance programs and pay particular attention to safety critical equipment.

Special attention is being paid to temporary repairs, as well as ensuring that the scope of the maintenance, repair and replacement activities during the turn-around periods is comprehensive and complete.

### Digital Offshore/Remote Operations

Over the past year or so, there have been increased focus on and discussion with Operators about potential for digital and remote operations. We certainly are interested where the industry wants to go in this regard, as it touches on all areas of our regulatory oversight.

### Offshore Gas

The potential development of our natural gas resource is an area of interest for governments and the industry. There are several significant discoveries of natural gas, including five along the Labrador Shelf. The total amount of gas discovered in these five discoveries is over four trillion cubic feet. To put this in perspective, the Sable Gas Project off Nova Scotia is winding down and will have produced about three trillion cubic feet by the time it stops producing.

The economics and infrastructure required for the commercial development of natural gas have been confounding factors to date, but as the proven, possible and probable reserves continue to grow, it's an area that requires further consideration and examination.

## Slide 18 – Contact Us

I want to again thank you for this opportunity to provide an update on Board and offshore activities.

If you want additional information about the C-NLOPB, please check out our website, follow us on Twitter, view our videos on You Tube or contact by phone or email. We're trying to be more transparent, accessible, open and accountable than ever before.

Thank you again for your invitation. I'll gladly take questions and comments.