



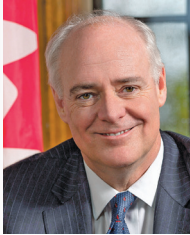
MOVING OIL BY WATER

FIVE FACTS EVERY BRITISH COLUMBIAN NEEDS TO KNOW

THE CANADIAN CHAMBER OF COMMERCE

LA CHAMBRE DE COMMERCE DU CANADA





Oil and its transportation have become one of the most pressing policy debates of the last few years. In order to preserve Canada's economic competitiveness, Canada needs to make a series of decisions about transportation infrastructure.

The oil industry, while largely based in Alberta and Saskatchewan, touches the Canadian economy as a whole. This broader economic benefit happens through the purchase of goods and services from companies based in other provinces, contributions to federal and provincial tax revenue and the provision of remittances from oil sands workers and investment opportunities for pension plans. This is truly about the economic good of Canada as a whole.

British Columbia, Canada's gateway to Asia, is at the heart of these discussions. The issue is complex, and there is a lot of conflicting information on the risks and benefits. We believe there are a few key facts—five, in particular—that need to be a greater part of the discussion about transporting oil by water.

At the Canadian Chamber of Commerce, we are committed to having this discussion. The choices we make will shape our economy for years to come.

As Canadians, we all need to be part of this discussion.

A handwritten signature in black ink that reads "Perrin Beatty". The signature is fluid and cursive, with a period at the end.

Perrin Beatty
President and Chief Executive Officer



As we look to our economic future, our success will be our ability to open new markets and generate new economic opportunities. For a resource rich jurisdiction like Canada, success will be defined by our ability to get our abundant natural resources to the new driver of global growth, the Asia Pacific.

British Columbia will have a critical role to play in defining whether it will take advantage of these opportunities for the benefit of all Canadians. Indeed, the decisions British Columbia makes regarding its natural resources and the role it plays as Canada's Gateway, will determine our standard of living for generations to come.

The importance of these decisions is being undermined by a lack of a common fact base. We need to move beyond emotion and establish a clear understanding of the benefits and risks enhancing our oil export capacity will have to the province and the country.

We have a responsibility to ourselves, and to future generations, to ensure we make an informed decision. To further this public discourse, we have partnered with the Canadian Chamber of Commerce to highlight five key facts that must form a critical part of our conversation.

John Winter
President and Chief Executive Officer

Canadians recognize the opportunity new markets for oil represent for the economy.



However, British Columbians, including coastal and First Nations Communities, are deeply concerned about the risks of transporting oil, particularly over water.

Risk is the probability of an event times the size of its impact. A large marine oil spill would have a devastating impact on coastal communities; a possibility government and business must prepare for and prevent. Yet the probability of such a spill is extremely low. To make an informed decision British Columbians need an accurate measure of the probability of a spill as well as the benefits.



5 FACTS that must be part of the debate
over transporting oil by water:

1

We Can't Ignore The Benefits

In 2012, the direct and indirect impacts of oil extraction mostly happening in Alberta and Saskatchewan on the GDP of other provinces was:

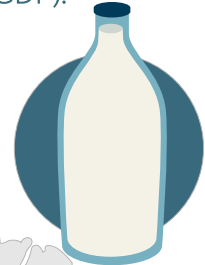
\$1.5 billion

in BC, similar to the forestry and logging industry's direct contribution to GDP (\$1.6 billion).



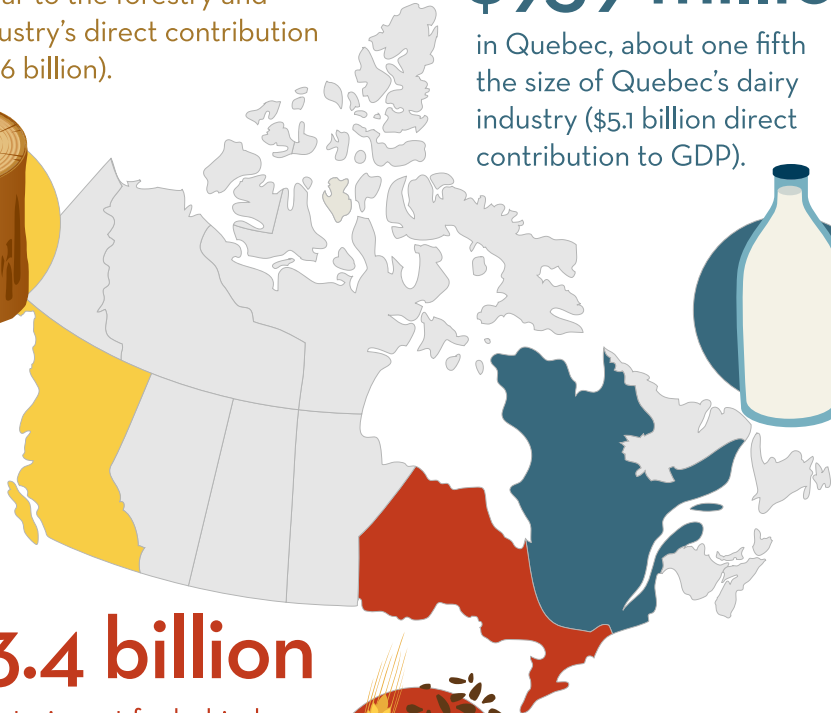
\$939 million

in Quebec, about one fifth the size of Quebec's dairy industry (\$5.1 billion direct contribution to GDP).



\$3.4 billion

in Ontario, not far behind the direct contribution of agricultural (\$4 billion).



The federal government received **\$5 billion** in taxes in 2012 from the oil industry, about the same as Canada's overall foreign aid budget in 2013. That money is shared by all Canadians through federal government services and equalization payments.



If new pipeline infrastructure like Northern Gateway, the Trans Mountain Pipeline expansion and Keystone XL is built,

it would result an additional **\$35 Billion** in GDP for BC over the next 25 years and help deepen Canada's ties with growing economies in Asia.



There are other opportunities as well.

BC's emerging clean tech sector, worth **\$2.5 billion** in 2011, will play an important role in reducing the **environmental impact** of the energy sector in Canada and around the world.



2

Exxon Valdez was a quarter century ago. Times have changed.

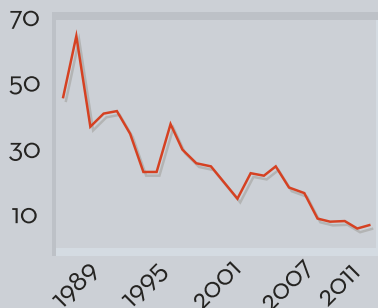
The Exxon Valdez, an oil tanker that spilled thousands of barrels of crude off the coast of Alaska in 1989, is an image people think of when it comes to oil spills

SINCE THE 80S

the world has been transformed by stricter legislation, stronger regulations and policies, new technologies and practices.

Over the last 25 years, the marine oil transportation industry has dramatically improved its safety record:

Number of Spills From Tankers



Volume of Oil Spills From Tankers (Tonnes)

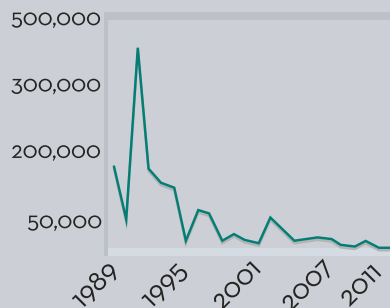
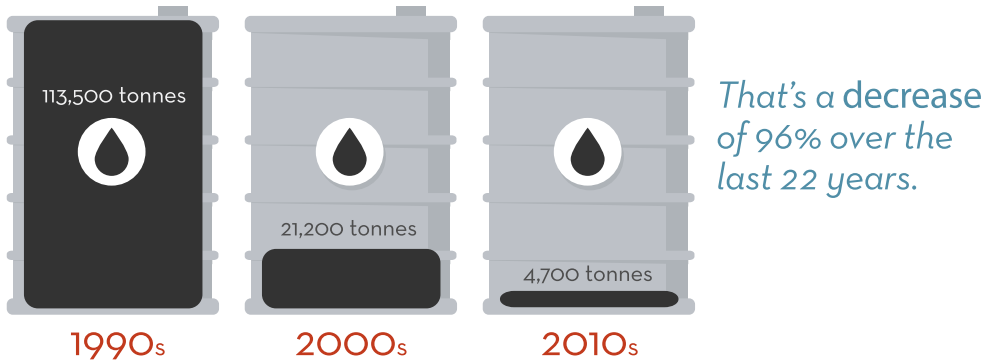


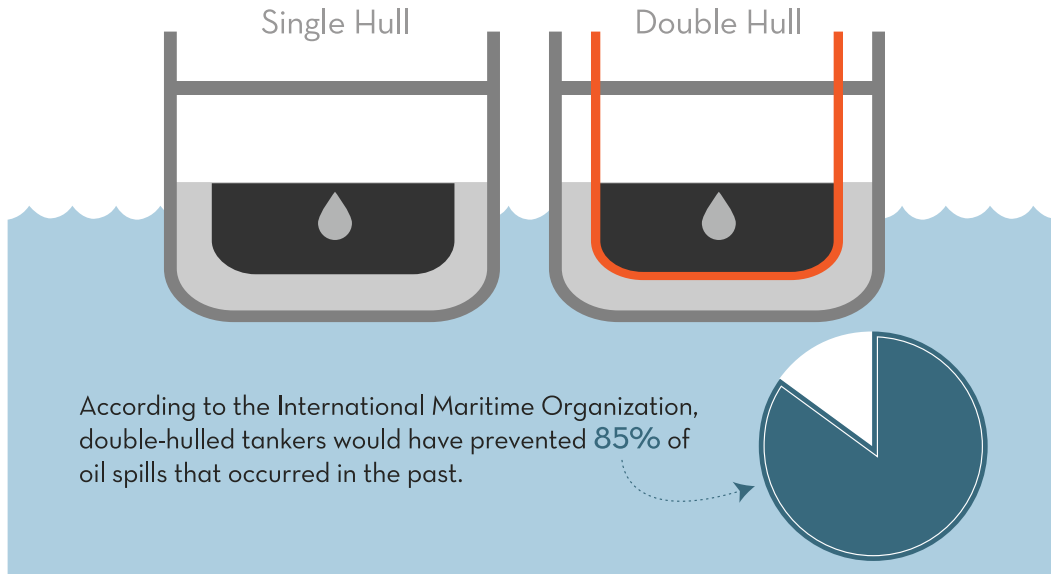
Fig: Number and quantity split for oil spills larger than 7 tonnes, 1989 to 2012.

Source: International Tanker Owners Pollution Federation

The average volume of oil spilled from oil tankers around the world fell from 113,500 tonnes a year in the 1990s, to 4,700 tonnes a year for the first three years of the 2010s.



New technologies like **DOUBLE HULLED TANKERS** vastly reduce the possibility of a spill. *The International Maritime Organization and Transport Canada* requires all vessels carrying oil to have a double hull in order to enter Canadian waters.



According to Cpt. Stephen Brown, President of the Chamber of Shipping of British Columbia:

“Had the Exxon Valdez been built to construction standards first introduced in the 1990s, there would have been little to no oil spill in that incident.”

Aside from technology, government and industry has further strengthened safety procedures with measures such as:



Tug Escort Requirements



Enhanced Navigational Aid Systems

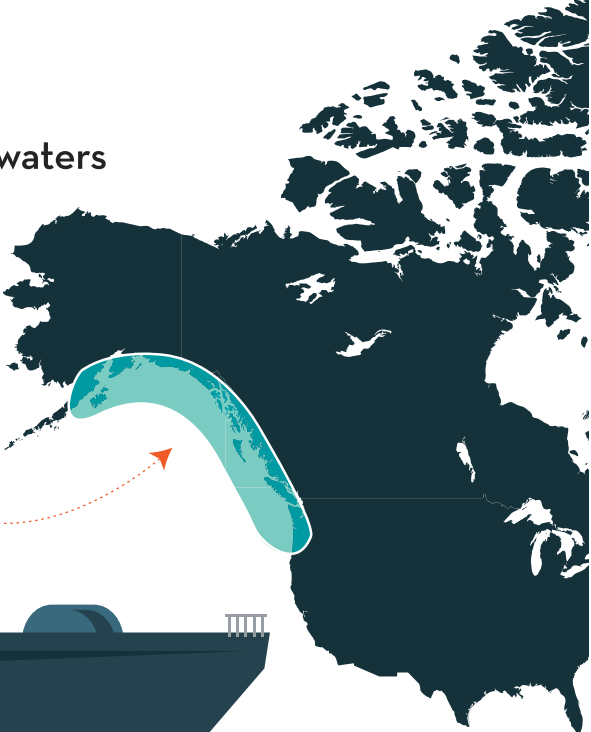


Additional Training


3

Oil tankers have been in BC waters for more than 50 years.

Movement of oil by tanker has been part of the economic landscape of BC since Port Metro Vancouver began receiving oil tankers in 1957. According to the government of British Columbia, there are currently about **1,180 tanker movements a year** off the West Coast heading to and from the Ports of Vancouver and Kitimat, as well as traffic between Alaska, Washington and California.



In addition to tankers, a study commissioned by the BC government estimates that every year tank barges transport **millions of m³** of gasoline, diesel and fuel oil to Vancouver Island and remote communities along the BC Coast.



4

BC is unique (but not when it comes to the challenges of marine navigation)

B.C. is unique in the beauty of its forest, mountains and coasts. It is not unique in terms of marine safety.

Ships on both the West and East coasts face similar navigational issues including:

Strong Tidal Currents



Narrow Channels



Tough Weather





Over the last 16 years Newfoundland Transshipment, a company that transports oil from offshore Newfoundland, has moved

over 1 billion

barrels of oil safely and without incident from offshore fields to world markets.

Proposed pipeline projects will increase vessel traffic. The BC Government estimates that Northern Gateway and Trans Mountain projects would add another

1,100 TANKER MOVEMENTS,

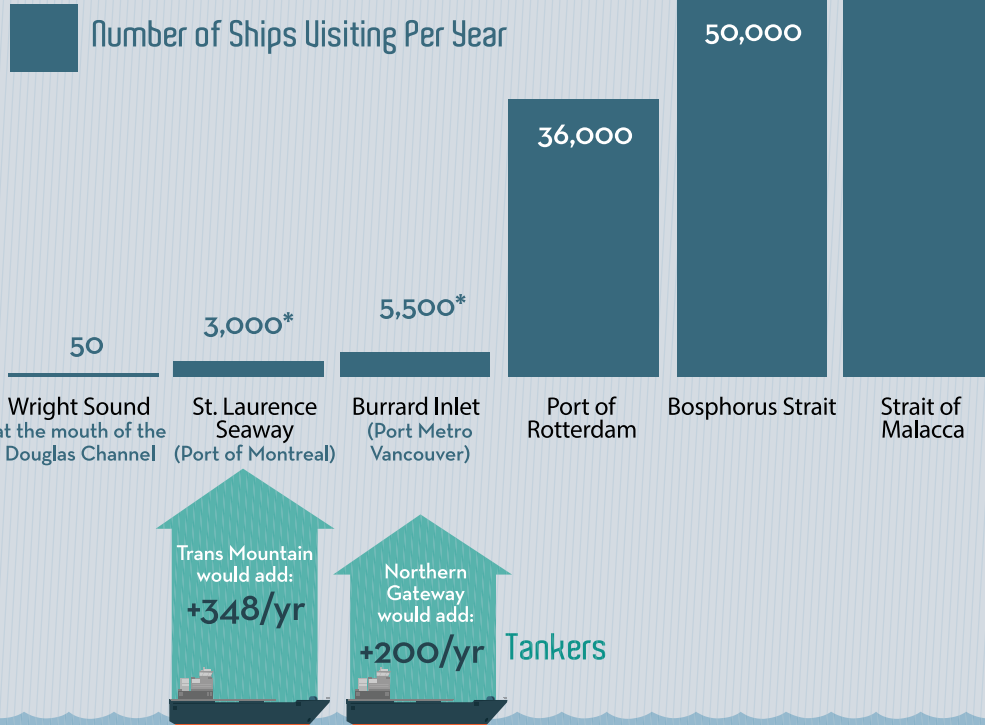


almost **doubling** oil tanker traffic on the West Coast.

However tankers are not the only ships transiting BC waters. For example, Trans Mountain's Westridge Marine Terminal currently accounts for 3 per cent of total traffic at Port Metro Vancouver; expansion plans would increase that to

14 per cent of total traffic.

Even with increased tanker traffic, the volume of vessel traffic in B.C. of all types of ships will remain low compared to many other waterways.



We need to take the challenges of safely navigating BC's waters seriously, but those challenges are neither unprecedented nor insurmountable.



5

BC and Canada deserves the world's best oil spill prevention and response system.

Canadians have the right to demand the best possible marine transportation safety system, and business would agree. Some of the parts are already in place;

FOR EXAMPLE

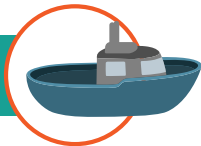
B.C. has the largest single **compulsory pilotage area** in the world, meaning that international ships/vessels must employ mariners with extensive local knowledge to help navigate local waters.



Since 2012, the federal government has implemented new measures in support of a world-class tanker safety regime including:



Doubling the budget for the National Aerial Surveillance Program to prevent and detect discharges of pollutants.



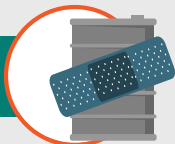
Requiring the Canadian Coast Guard to adopt the Incident Command System led by the Canadian Coast Guard to more effectively manage oil spill response.



Expansion of science and technology research on the environmental impacts of bitumen products when released into the marine environment.



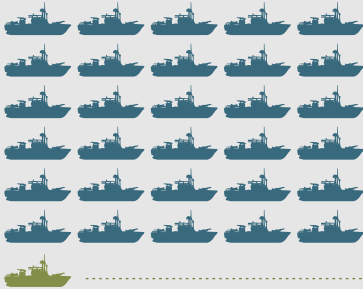
Increased inspections of foreign tankers on their first visit to Canada to ensure that 100 per cent are covered, followed by annual inspections.



Community partnerships in Aboriginal and Northern communities to foster engagement in planning processes for an oil spill response operation.

Western Canada Marine Response Corporation is part of an industry-funded, government-regulated spill response regime for all of Canada's coastal waters. **Their fleet includes:**

31 response vehicles

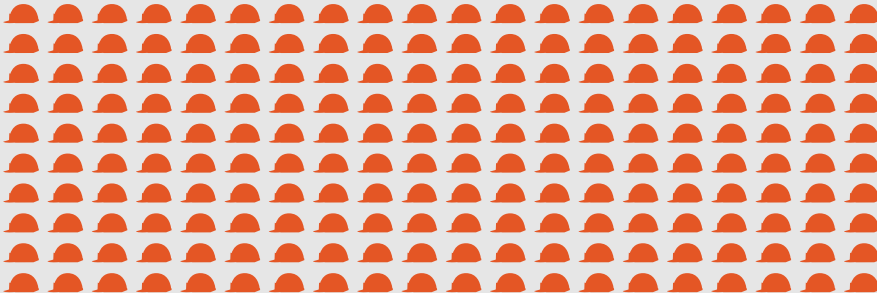


including the M.J Green

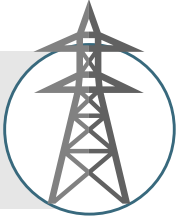


which can clean **10 tonnes** of oil from the water's surface in as little as half an hour

To build extra capacity, the WCMRC trains at least **200 members** of the Fishermen's Oil Spill Emergency Team every year.



Many people depend on the safe shipment of oil by water.



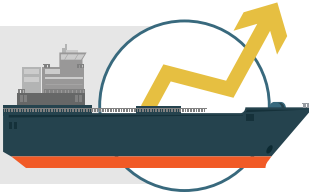
The people in BC's remote communities who depend on marine oil shipments to power their homes and vehicles.



The engineers, manufacturers, dock workers, scientists and others who rely on the oil sector as a key client for their goods and services.



The individuals and families across the country who rely on the government services oil sector taxes help to fund.



Managing risk, both within the marine sector and outside of it, will be essential to Canada's ability to prosper in the 21st century.

THE CANADIAN CHAMBER OF COMMERCE
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