



OIL TANKERS IN CANADIAN WATERS

SUMMARY PRESENTATION

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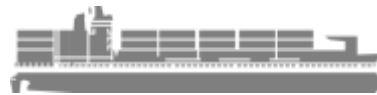
OIL TANKERS 101

Roughly 60% of all oil transported worldwide travels by tanker.
How do oil tankers compare to other commercial ships?



Oil Tanker

- Transports oil, refined or unrefined
- Piping visible on deck
- No large cranes visible



Container Ship

- Transports shipping containers
- Containers stacked visibly above deck
- Large crane visible



Roll-on/Roll-off (RORO) Ship

- Transports wheeled cargo, such as cars
- Sits high above the water
- Multiple vehicle decks



Bulk Carrier

- Transports unpackaged cargo, such as coal, grain and iron ore
- Large hatches visible on deck
- Can have large cranes visible

OIL TANKERS 101

- Tanker types are based on purpose and sizes
- Capacity is measured in deadweight tonnage (DWT)



Panamax

230m | Max DWT 80,000



Aframax

245m | Max DWT 120,000



Suezmax

285m | Max DWT 200,000



VLCC

330m | Max DWT 320,000

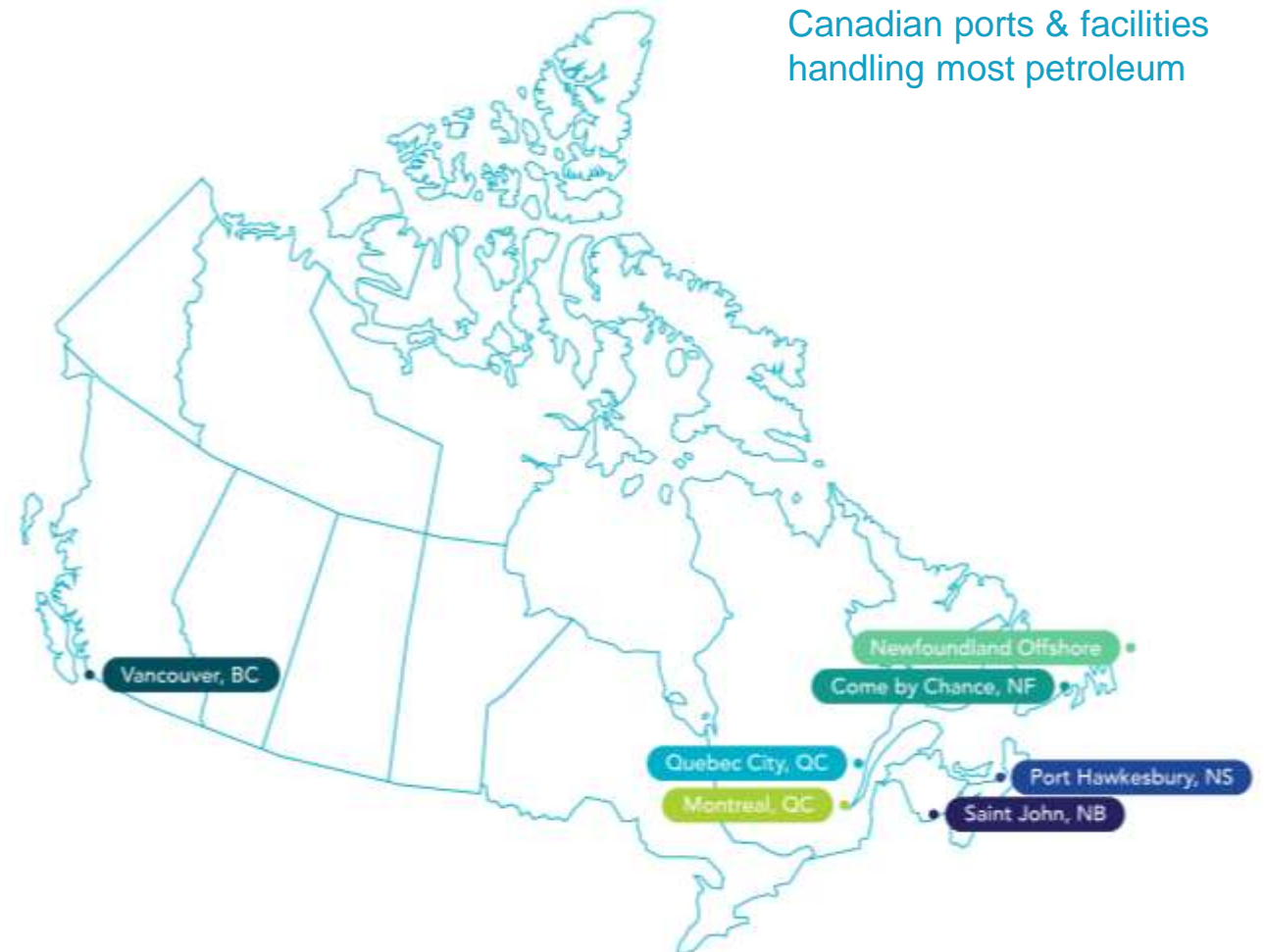


ULCC

415m | Max DWT 550,000

TANKERS IN CANADIAN WATERS

- **Over 20%** of total tonnage handled by Canadian ports is petroleum
- **20,000**: estimated number of tankers transiting in Canadian waters annually
- **85%** of these transits take place on the Atlantic coast



OIL TRANSPORTED IN CANADIAN WATERS



Pacific Coast

Canadian Traffic

6MT



US Traffic Through Canadian Waters

37MT



Atlantic Coast

Great Lakes, St. Lawrence Seaway

24MT



Estuary and Gulf of St. Lawrence

67MT



Atlantic Coast

192MT



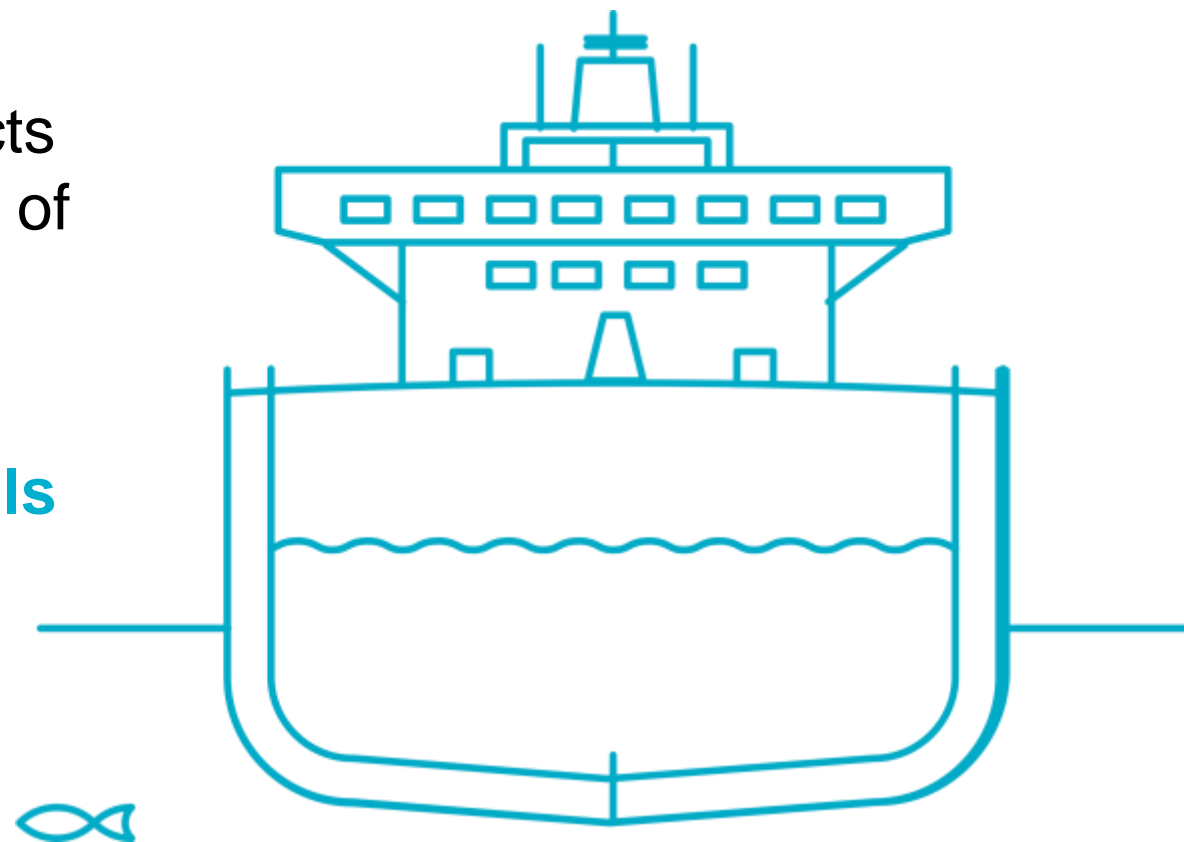
*MT = millions of tonnes

MARINE OIL SPILLS

All vessels carrying oil-based products as fuel or cargo contribute to the risk of an oil spill.

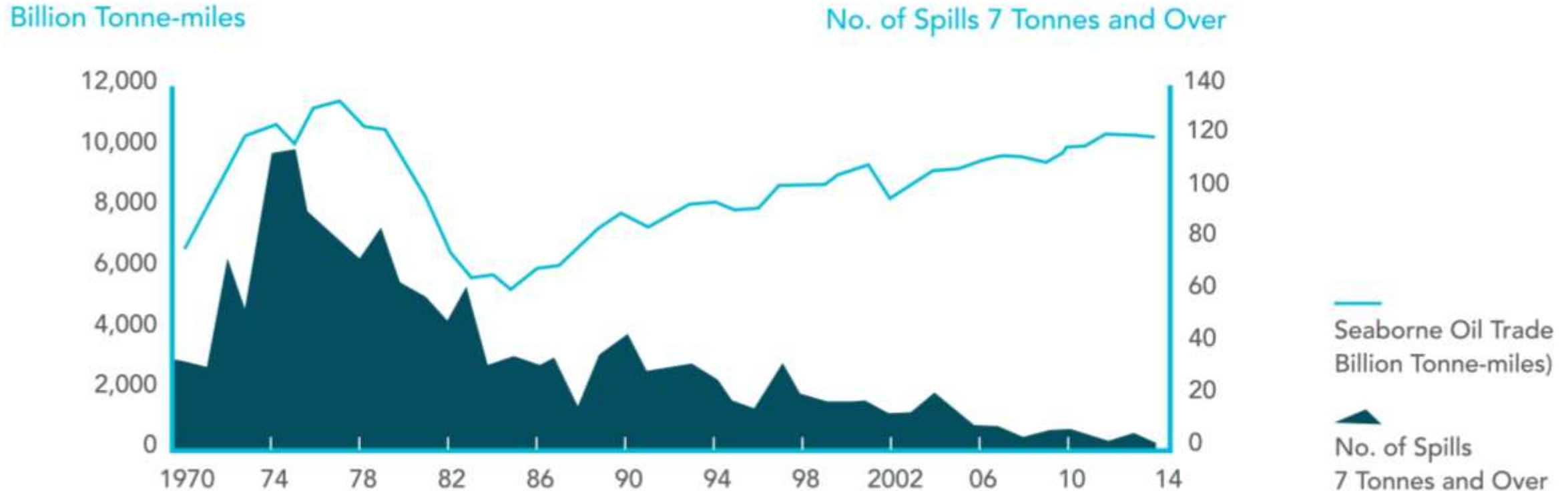
Common causes of marine oil spills

- Groundings
- Collisions and allisions
- Hull or equipment failures

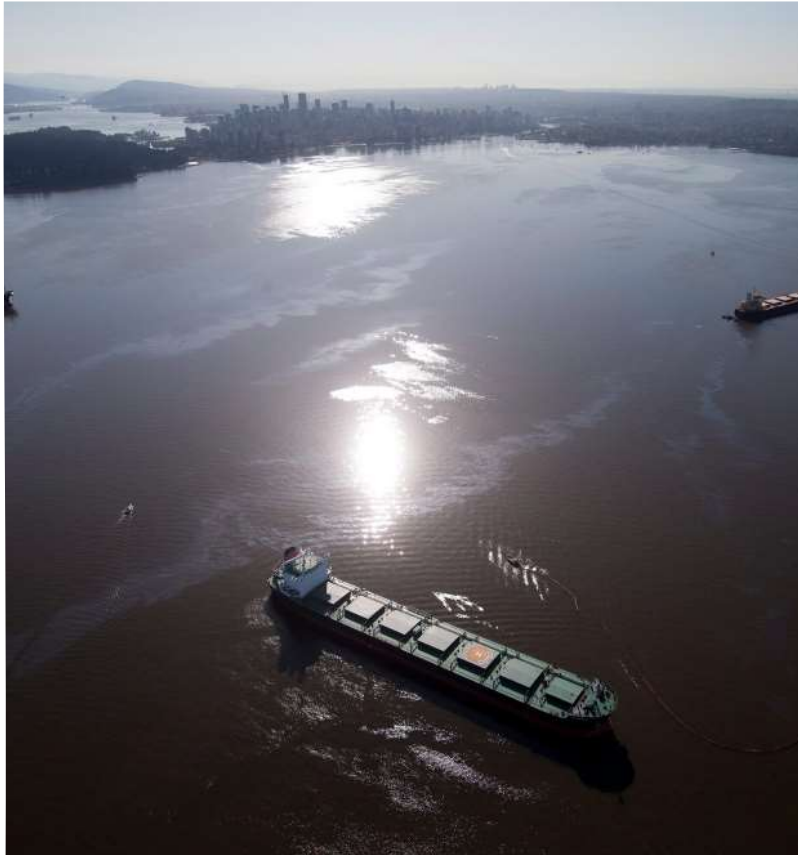


MARINE OIL SPILLS

The number and volume of oil spills have been decreasing globally over the past decades.



OIL SPILLS IN CANADIAN WATERS



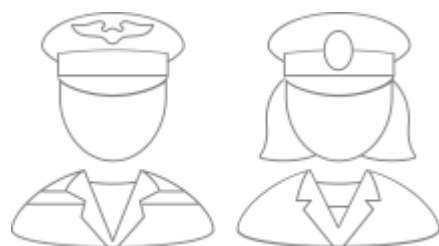
- Most recent tanker spill (>10,000 L) happened **20+ years ago**

2003 to 2012:

- **67%** of ship-source oil spills recorded were <1,000 L
- **78%** of large spills (>10,000 L) recorded involved fuel oil – did not result from a tanker cargo spill

OIL SPILL PREVENTION

Measures to prevent ship-source spills in Canadian waters include:



**Local
Marine Pilots**



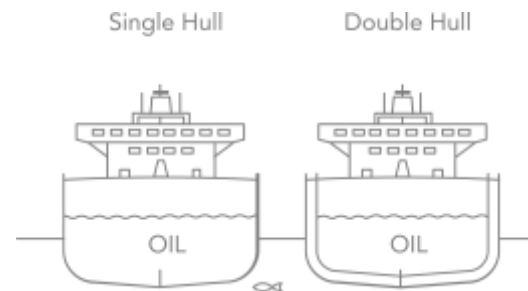
Tug Escorts



**Navigational
Aids**



**Marine
Inspections**



**Mandatory
Double Hulls**

OIL SPILL RESPONSE

To enter Canadian waters, tankers must have an agreement with a certified response organization (RO).

Response organizations either help with response efforts or clean-up on behalf of the tanker (polluter).



LIABILITY & COMPENSATION

The polluter is responsible for the clean-up efforts and the cost of clean-up.

Sources of compensation available:

	Ship Source Oil Pollution Fund (SOPF)	Unlimited
+	Supplementary Fund Up to \$994.7 million	\$1.36 billion
+	1992 Fund Up to \$205.9 million	\$369.1 million
+	Tanker Owner's Insurance \$8.2 million up to \$163.2 million	\$163.2 million

4 million

barrels is how much oil the largest tankers in the world can carry

Learn more at clearseas.org/tankers



100%

of tankers must have double hulls

Learn more at clearseas.org/tankers



20%

of total tonnage handled at Canadian ports is crude oil and petroleum products

Learn more at clearseas.org/tankers



85%

of all tanker movements in Canada currently take place on the Atlantic coast

Learn more at clearseas.org/tankers



67%

of oil spills in Canadian waters from 2003 - 2012 were between 100 and 1,000L in size

Learn more at clearseas.org/tankers



30%

of global maritime trade is oil and gas shipments

Learn more at clearseas.org/tankers



\$Unlimited

compensation is available if a tanker oil spill occurs in Canada

Learn more at clearseas.org/tankers



60%

of the world's oil is transported by tankers

Learn more at clearseas.org/tankers



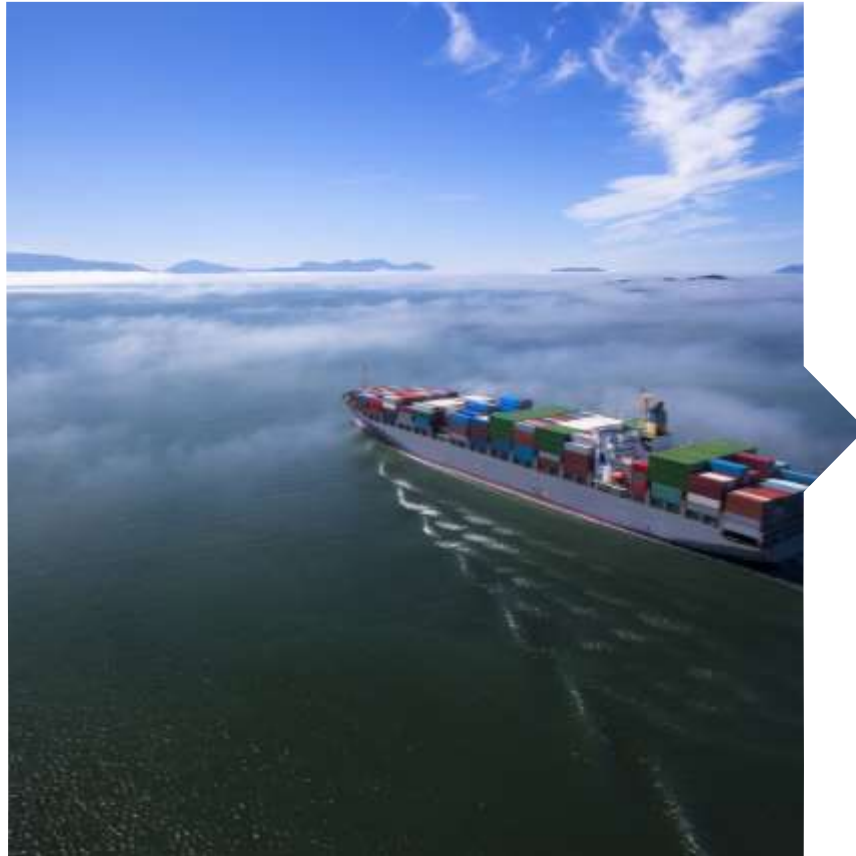
243,000 km

the length of Canada's coastline; the longest in the world

Learn more at clearseas.org/tankers



INFORMATION



Clear Seas Centre for Responsible Marine Shipping is an independent not-for-profit research centre that supports safe and sustainable marine shipping in Canada.



Reports and findings available at clearseas.org



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