

**OPI**

## *OPI Line 9 Brief*

*Prepared by:*

*The Ontario Petroleum Institute*

*for Presentation to the National Energy Board of Canada*

*Ontario Petroleum Institute  
555 Southdale Road East, Suite 104  
London, Ontario*



## *MISSION*

Founded in 1963, the Ontario Petroleum Institute Inc. is a non-profit industry association which represents explorationists, producers, contractors, geologists, petroleum engineers and other professionals, individuals or companies directly related to the oil and gas, hydrocarbon storage and solution-mining industries of Ontario.

Fundamental objectives of the Institute are:

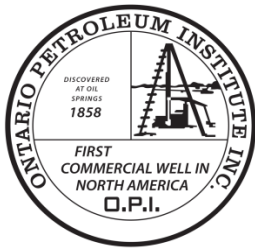
To encourage responsible exploration of the oil, gas, hydrocarbon storage and solution-mining industries of Ontario

To maintain close liaison with government agencies which regulate the industry

To disseminate information relevant to member needs

To promote the legislative goals of the membership

To inform and educate the general public on the significance of the industry to the province of Ontario



## Table of Contents

1.0 Executive Summary	2
2.0 Ontario – A History of Commercial Oil and natural Gas Production	3
3.0 Ontario Oil and natural Gas Industry in 2013	3
4.0 Market	6
4.1 Transportation	7
5.0 Ontario Oil and Natural Gas Beyond 2013	8
5.1 Future Exploration and Production	8
5.2 Market Opportunities	8
6.0 Ontario Economy	9
6.1 Viable Contributors to the Ontario Economy	9
7.0 Line 9 Reversal	10
8.0 Summary Conclusion	12



## ***1.0 EXECUTIVE SUMMARY***

The Ontario Petroleum Institute's (OPI) primary objective is to encourage the responsible exploration and production of oil and natural gas.

Ontario oil and natural gas producers have been safely harvesting energy for 155 years. The industry is an important part of the Ontario economy producing oil and natural gas primarily in southwestern Ontario.

The OPI's participation as an "Intervener" in the matter of the application under section 58 and under Part IV of the *National Energy Board Act* (NEB Act) asking the Board to approve the reversal of the segment of Line 9 between North Westover, Ontario and Montreal, Québec, in addition to requesting an expansion of the entire Line 9 capacity from Sarnia, Ontario to Montreal and a revision to the Line 9 Rules and Regulations Tariff to allow transportation of heavy crude is on behalf of the Ontario commercial oil and natural gas producers that explore, develop and produce energy.

Ontario commercial oil and natural gas producers have supplied energy through historical and modern methods to oil refineries since the 1860's, and to natural gas distributors since the early 1900's.

To remain viable contributors to the Ontario economy the producers' ability to market its current and future production is an important priority. All of province's commercial production is currently sold to Imperial Oil. The fluctuation in the price of oil in recent times has resulted in the industry seeking competitive alternatives to obtain the best price possible. It is estimated that 50% of all the potentially recoverable oil and natural gas located in southwestern Ontario reservoirs remains to be developed. Recovering this potential will require a significant financial investment for exploration and development. Producers' need a competitive market in which to sell and receive maximum returns.

The reversal of the Enbridge Line 9 pipeline offers producers an enhanced competitive market alternative for current and future production. It benefits Canadian economic growth by opening up opportunities for market access to our natural resources and enhances the supply component in both the domestic and export markets. It is Canada's national interest to establish enhanced market access. The benefit gained by Western Canada through selling supply at competitive prices is equally beneficial to Eastern Canada with security of supply and, with lower competitive prices from time to time, it does not take advantage of western producers. All Canadians should have access to their natural resources.

There is currently a surplus of supply of crude oil in North America, mostly from increased production from Alberta's oil sands and the Bakken play in South Dakota and Saskatchewan, the impact of which has resulted in lower prices for oil in the Sarnia refinery area. The reversal of Line 9 will give Quebec access, which they don't currently have, and opens up a market access to lower priced Canadian crude oil.

## **2.0 ONTARIO—A HISTORY OF COMMERCIAL OIL AND NATURAL GAS PRODUCTION**

Ontario's importance in launching the petroleum industry and commercial oil production 155 years ago cannot be understated. The list of firsts includes first commercial oil well in North America (world), first petroleum company, first oil exchange. It was from this early discovery that drilling and refining techniques were developed.

Oil from the first commercial fields in the communities of Oil Springs and Petrolia in southwestern Ontario still flow today from those historical wells that spawned oil production in North America. In 2013 there were 18 companies operating 717 wells from "historical oil fields" producing oil in Ontario.

Innovations in refining laid the foundation for the distribution and marketing of oil that became North America's largest industry in the 20<sup>th</sup> century with the advent of the automobile and its requirements for gasoline. A group of local refining operations in Petrolia, Ontario soon banded together to form one of Canada's most visible corporate entities – Imperial Oil. Ontario commercial oil producers and Imperial Oil have a long established business relationship which has continued to this day.

While oil is often most identified with transportation petroleum products are used in a variety of everyday products: cosmetics, synthetic fabrics and rubber, plastics and medicines.

Ontario natural gas producers have supplied energy to natural gas distributors – familiar names like Enbridge, Union Gas and Trans-Canada Pipelines since the early 1900's

The experience and expertise obtained from these early beginnings in southwestern Ontario would provide the foundation for exploration and production activity worldwide.

The OPI membership includes the following:

***Commercial oil and gas production companies, drilling contractors, well and oilfield services, geologists, geophysicists and engineers, environmental consultants, financial/legal services, land services, trades and utilities***

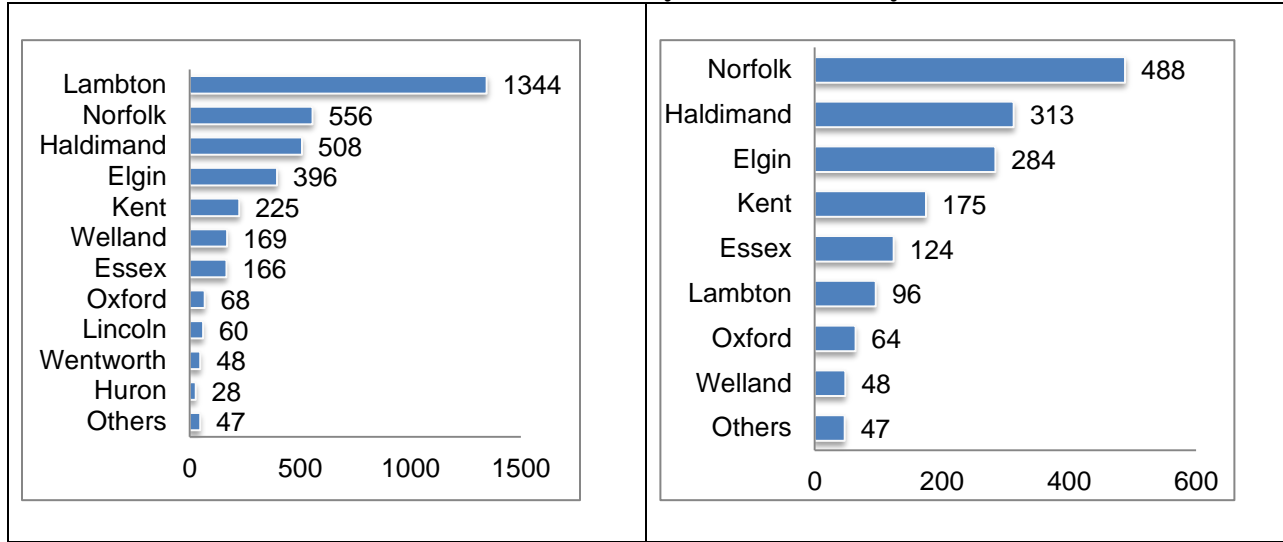
In addition, the OPI manages the Ontario Oil, Gas and Salt Resources Library, a resource centre for the industry providing information management relating to drill cuttings samples from over 13,100 wells, cores from over 1,027 wells, and file information on approximately 27,000 wells. The Library annually publishes a pool and pipelines map showing the network of pipelines across southwestern Ontario (*Diagram 5*).

## **3.0 ONTARIO OIL AND NATURAL GAS INDUSTRY IN 2013**

The oil and natural gas industry exists primarily in Southwestern Ontario (*Diagram 1*) where 130 companies are in the commercial oil and natural gas business. One of North America's largest underground natural gas storage hubs is located in Dawn Township, underground salt caverns in the Sarnia area are used to store many of the refined hydrocarbon products produced at refineries and petrochemical plants in the Sarnia area, and a thriving salt and solution mining industry operates in Goderich and Windsor.

**Diagram 1**

**Location of Active Wells by Ontario County: 2012**



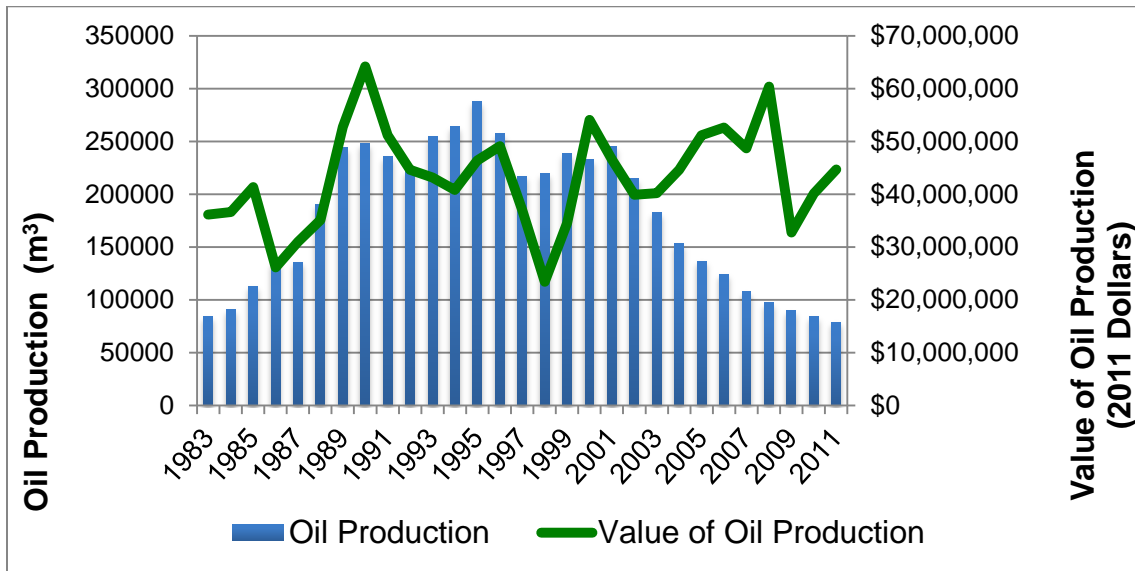
**3.1 Production**

The value of production and storage in Ontario in 2012:

- 1,183 wells produced 76,113 m<sup>3</sup> (478,000 barrels) of oil= \$38.3 million (*Diagram 2*)

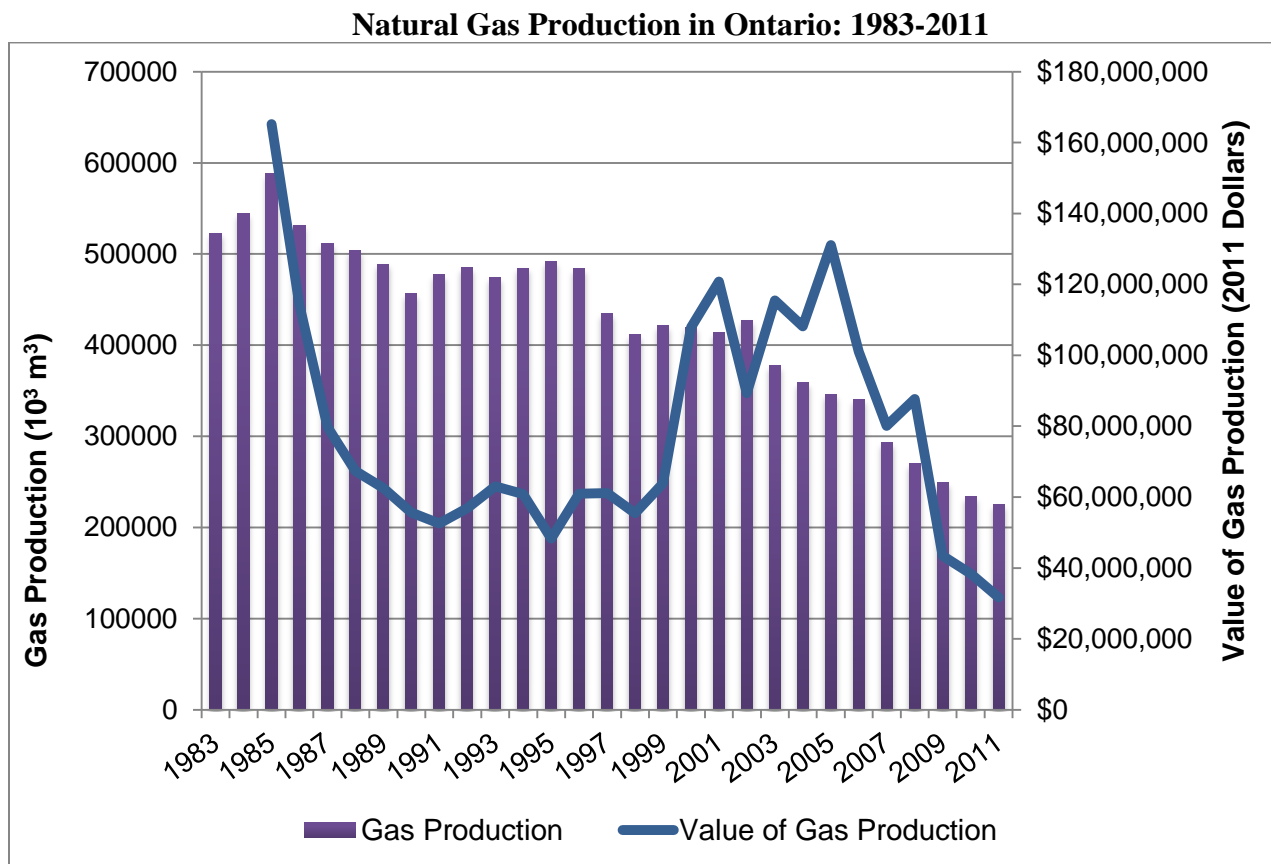
**Diagram 2**

**Oil Production in Ontario: 1983-2011**



- 1,221 wells produced 220,300 thousand m<sup>3</sup> (7.8 bcf<sup>1</sup>) of natural gas = \$21.6 million

**Diagram 3**



- 6,900 million m<sup>3</sup> (244 bcf) of natural gas storage capacity = \$1 billion in value
- 3.5 million m<sup>3</sup> of hydrocarbon storage capacity = ± \$2 billion in value

Of the 1,183 oil wells 717 of these are classified as producing well for “historical oil fields”.

The estimated annual value of the oil and natural gas sector to the Ontario economy is \$4 billion.

The Ontario Ministry of Natural Resources (MNR) regulates the industry through the Oil, Gas, and Salt Resources Act and associated regulations and standards, Regulation 245/97 and the Provincial Operating Standards, which are designed to ensure safe operations, protect the environment and the general public to ensure the safe extraction of Ontario’s natural resources.

<sup>1</sup> billion cubic feet

#### 4.0 MARKET

The market for Ontario oil and natural gas has traditionally been Ontario. These activities provide Ontario consumers with the following:

- a percentage of Ontario's supply of oil and related products;
- percentage of Ontario's supply of natural gas;
- storage of natural gas imported to Ontario by pipeline from Western Canada and the United States; and
- underground storage caverns of product necessary for Ontario's petrochemical refining industry

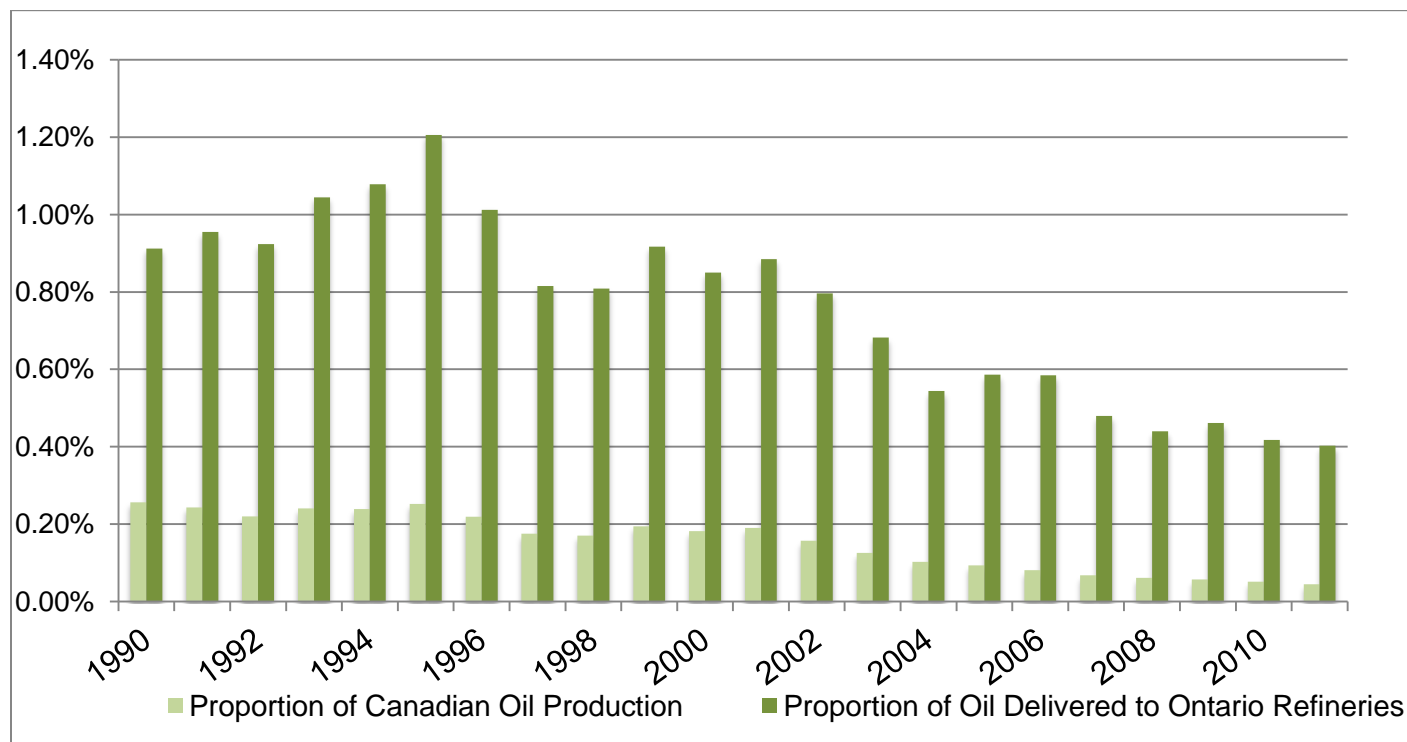
Ontario producers have long standing business relationships with Imperial Oil, Enbridge and Union Gas.

Ontario has a unique marketing arrangement which has Imperial Oil essentially purchasing all of the province's crude oil production from Marcus Terminals Inc., a trucking company with terminal operations in Sarnia, Ontario.

While it would appear that there is ample opportunity to continue to sell into Ontario, given the amount of oil and natural gas that the province currently imports, recent market conditions have opened up the possibility for producers to consider other options.

**Diagram 4**

**Proportion of Canadian Oil Production from Ontario**



That market condition is the price of crude oil and natural gas. Natural gas prices have, after a downward trend in recent years, shown a recent resurgence. However, until there is a sense that some stability exists production will remain level and new exploration will be delayed.



As for oil, it's a different story and one that has a direct impact on Ontario producers and, as such, has influenced their participation in this process.

Significant increases in North American oil production has resulted in dramatic changes in the market and specifically to the prices received by Canadian and Ontario producers. Oil prices have been discounted up to 20% lower than the benchmark set for crude oil by the price of West Texas Intermediate (WTI) and Brent prices.

These discounts directly impacted Ontario producers. Falling prices result in lower net returns which affect current production as well as planning for future exploration and production.

Changing market conditions also had competitor companies now looking for alternate sources of supply due mostly to the congestion created in the transportation network from increased production. The net result – Canadian pipelines were at peak capacity.

This prompted Ontario producers in 2012 to look for an alternative market for oil. Despite their long standing relationship with Imperial Oil it became a matter of sheer economics – the discounted Canadian price was having a significant effect on company margins and impacting the bottom line.

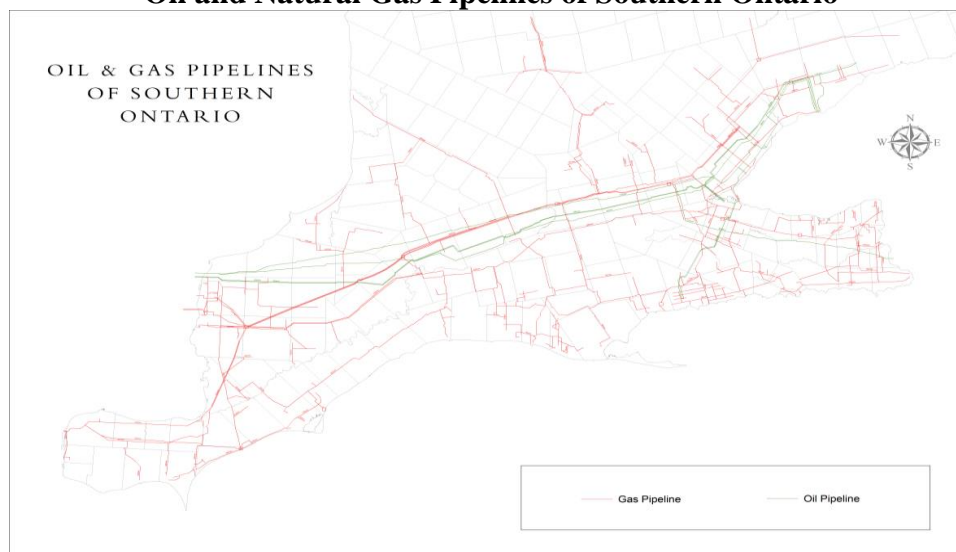
#### ***4.1 Transportation***

The delivery of oil and natural gas in Ontario is done through two methods of transport: pipelines and tanker truck.

A network of pipelines flow natural gas to distributors such as Union Gas or Enbridge or, in some instances the natural gas produced is retained for local commercial use

***Diagram 5***

#### **Oil and Natural Gas Pipelines of Southern Ontario**



Marcus Terminals Inc. purchases crude directly from producers provides hauling and storage services prior to delivery to Imperial Oil's refinery in Sarnia, Ontario. Wellheads produce oil flows through gathering lines (pipelines) to battery sites which store the crude oil which is then transported by Marcus Terminal tanker trucks to their storage facility in Sarnia, Ontario.

## 5.0 ONTARIO OIL AND NATURAL GAS INDUSTRY BEYOND 2013

### 5.1 Future Exploration and Production

It's generally understood, after 155 years of production, that 50% of the potentially recoverable oil and natural gas remains to be developed. Ontario currently imports the majority of its energy supply for power and transportation. Increasing this supply from the province's own natural resources enhances the security of that supply and contributes to the economic well-being through the jobs created and the services and supplies purchased in towns, cities and municipalities across Ontario.

The development of unconventional resources, which has progressed rapidly in the northeast United States, has yet to be introduced into Ontario. Equivalent targets of organic-rich facies including the Georgian Bay–Blue Mountain Formation that have been explored and/or exploited in other jurisdictions remain unevaluated in Ontario.

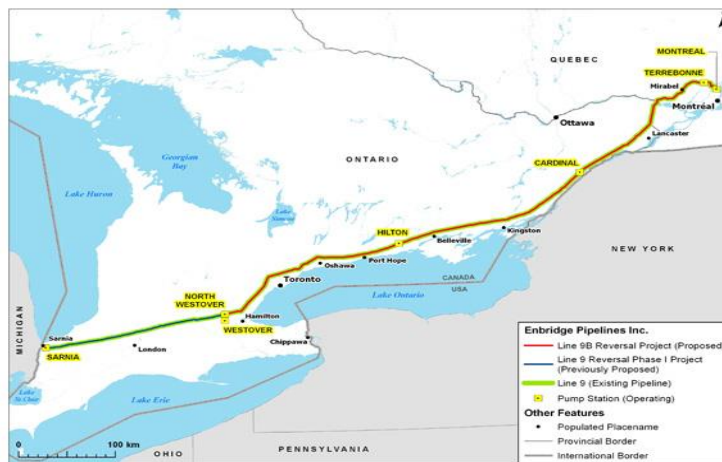
### 5.2 Market Opportunities

There were three essential choices: (1) east to refineries in Quebec and New Brunswick; (2) south into the United States; and (3) negotiate a better price with Imperial Oil or another refiner, Shell Canada for example.

Presently, option (3) is in effect. Ontario producers have a satisfactory purchase price arrangement with Imperial Oil. However, as in all business there is no guarantee that this arrangement will exist in perpetuity. Imperial Oil's Ontario supply can be obtained from beyond provincial borders. Added to that Ontario producers are vulnerable to any difficulties with transportation infrastructure that could interrupt the delivery of oil to Imperial's Sarnia refinery leaves Ontario.

It is around the issues of price and delivery that prompted consideration of other options. Option (2) would have product shipped by tanker truck to U.S. refineries. The downside for this option is increased costs for transportation - longer hauling distances -; and administration - cross-border issues - affecting timely delivery.

### Enbridge Line 9



The logical and practical choice for an alternative market would be to refineries in Eastern Canada – Montreal and Saint John – practical only in the sense that pipeline delivery is available. The reversal of Line 9 provides that availability.

## 6.0 ONTARIO ECONOMY

### 6.1 Viable Contributor to the Ontario Economy

The Ontario oil and natural gas industry has made a significant contribution to Ontario's economy, especially in southwestern Ontario. Since the beginning an estimated 50,000 oil and gas wells have been drilled on land as well as offshore in Lake Erie.

Today the impact of this contribution to the energy needs of a significant number of Canadian consumers can be seen in many ways:

- Oil exploration and production
- World class oil refinery operations
- Natural gas exploration and production
- Natural gas underground storage
- Salt solution mining
- Hydrocarbon underground storage associated with the petrochemical industry

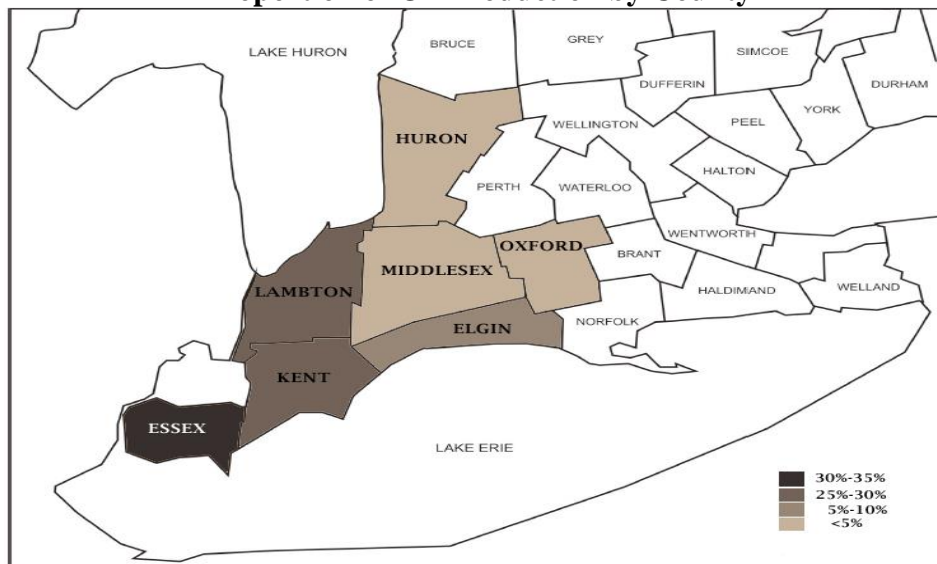
These producers are supported by drilling contractors, well and oilfield services, geologists and engineers as well as a range of professional consulting services. Exploration has resulted in the discovery of many producing oil and gas fields and natural gas storage pools.

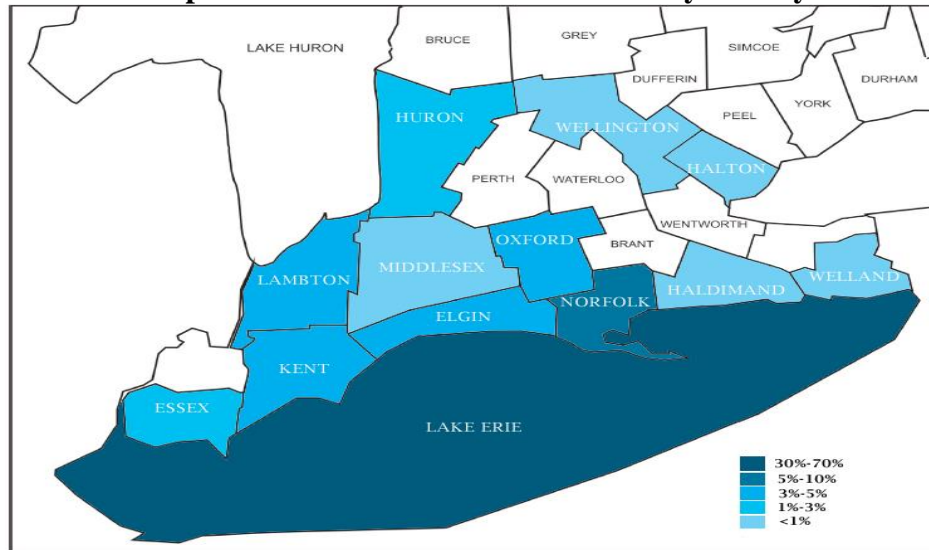
An estimate of the oil and natural gas industry's contribution to the Ontario economy:

- Approximately 1,000 plus direct/indirect employed in exploration, production, storage and salt solution mining in Ontario
- Industry assets = \$650 million
- Personal total taxable income = \$55 million
- Services and goods purchased by the industry = \$90 million
- Lease payments and royalties paid to land owners and the crown = \$10.4 million
- Municipal taxes = \$4 million per year

**Diagram 6**

**Proportion of Oil Production by County**



**Diagram 6****Proportion of Natural Gas Production by County****7.0 LINE 9 REVERSAL**

The Ontario Petroleum Institute has reviewed the Enbridge Pipelines Inc. – Line 9B Reversal and Line 9 Capacity Expansion Project OH-002-2013 application.

The OPI on behalf its 350 members that represent: Producers, Cavern Storage, Consultants, Drilling Contractors, Well Services, Institutions/Financial/Legal, Land, Government, and Trades is intervening in Project OH-002-2013 to support Enbridge Pipelines Inc. – Line 9B Reversal and Line 9 Capacity Expansion.

The OPI provides the following reasons and rationale in support of the application:

**(1) It is in the Interest of Ontario Oil and Natural Gas Producers**

The OPI's interest in the project is in support of the 100 plus companies that commercially explore, develop and produce oil and natural gas in Ontario. Commercial producers have been safely and responsibly supplying oil through historical and modern methods to refineries in the province for 155 years and, as such, the industry is an integral part of the Ontario economy.

The reversal of the Enbridge Line 9 pipeline offers producers an enhanced competitive market alternative for current and future production. To remain viable contributors to the Ontario economy the producers' ability to market its current and future production is an important priority. .

The fluctuation in the price of oil in recent times has resulted in the industry seeking competitive alternatives to obtain the best price possible. It is estimated that 50% of all the potentially recoverable oil and natural gas located in southwestern Ontario reservoirs remains to be developed. Recovering this potential will require a significant financial investment for exploration and development. Producers' need a competitive market in which to sell and receive maximum returns.

## **(2) The Project has a Direct Effect on the Ontario Oil Industry**

It would open up a market to Ontario producers to sell larger volumes of oil at stronger margins to an alternative market in Canada. The approval of the pipeline provides the commercial oil industry in Ontario with economic access to markets not currently available. The Line 9 pipeline provides an option that enables oil to be transported at a cost differential superior to road, rail and water. Having this added transportation choice helps open up any bottlenecks created by oversupplies and access to more markets firms up the price.

## **(3) The Status Quo Exposes the Oil and Natural Gas Industry to Risk**

The Project's approval enables the oil industry to establish a connection for the reasons stated in (2) which now do not exist. The severity of the harm could, potentially, be significant. The matter of market access is a serious issue. The inability of Ontario to have ready access to domestic and/or export markets will limit our ability to sell oil which would severely impact the oil production business in Southwestern Ontario.

## **(4) The Project and the Oil Industry on Common Ground**

The Project as it exists now has been exposed to oil producing companies since it was first constructed. The route of Line 9's western most section is in the general proximity of the majority of the oil production in Ontario. This production includes a network of pipelines to support the transportation of oil to refineries in Sarnia. The industry anticipates that the approval of the Project does open up the possibility of increased use of the area that may result from access to the pipeline for the purpose of transporting product.

## **(5) Improving market access for Canadian oil will generate strong economic benefits for Ontario – and Canada**

The OPI supports this position because the increased economic activity resulting from the Line 9 Reversal enhances the industry's contribution to the Ontario economy as indicated in on Page 10 of this document – *6.1 Viable Contributor to the Ontario Economy*.

Further, the Ontario industry accepts the argument that the reversal is being undertaken to meet the energy needs of industry in Ontario and Quebec. The reversal provides the Ontario industry the choice of continuing to supply Ontario consumers or, if circumstances dictate, to consumers in Eastern Canada.

## **(6) The reversal of Line 9B will create jobs and generate economic activity in Ontario**

The market access which has both a national and regional impact it brings an added and the very important benefit of retaining jobs and experience needed for the sector to operate. The collateral benefits for the Ontario oil and natural gas industry will be the skilled jobs required for the reversal of Line 9B most of which are transferrable to the Ontario sector. The \$121.8 million investment will certainly benefit Ontario exploration and production and well services companies that have expertise available for the project. (Enbridge feedback)

**(7) Enbridge is committed to its responsibility for the health and safety of communities along the route of Line 9B**

OPI member oil and natural gas producing companies have been safely using pipelines in gathering and transporting systems for more than 100 years. The OPI fully expects Enbridge to meet its responsibilities and commitment to operating Line 9 to the highest standards to ensure the health and safety of the communities along the route and in the surrounding areas of the route.

**SUMMARY CONCLUSION**

The OPI primary objective is to encourage the responsible exploration and production of oil and natural gas.

Commercial producers have been safely and responsibly supplying oil through historical and modern methods to refineries in the province for 150 years and, as such, the industry is an integral part of the Ontario economy. It is estimated that 50% of all the potentially recoverable oil and natural gas located in southwestern Ontario reservoirs remains to be developed. Recovering this potential will require a significant financial investment for exploration and development. Producers' need a competitive market in which to sell and receive maximum returns.

To remain viable contributors to the Ontario economy the producers' ability to market its current and future production is an important priority. The reversal of the Enbridge Line 9 pipeline offers producers an enhanced competitive market alternative for current and future production.

There is currently a surplus of supply of crude oil in North America, mostly from increased production from Alberta's oil sands and the Bakken play in South Dakota and Saskatchewan, the impact of which has resulted in lower prices for oil in the Sarnia refinery area. The reversal of Line 9 will give Quebec and Atlantic Canada access, which they don't currently have, and opens up a market access to lower priced Canadian crude oil.

It benefits Canadian economic growth by opening up opportunities for market access to our natural resources and enhances the supply component in both the domestic and export markets. It is Canada's national interest to establish enhanced market access. The benefit gained by Western Canada through selling supply at competitive prices is equally beneficial to Eastern Canada with security of supply and, with lower competitive prices from time to time, it does not take advantage of western producers. All Canadians should have access to their natural resources.