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To pursue the history,
heritage & development
of the oil & gas industry

INTERNATIONAL SYMPOSIUM AND FIELDTRIP

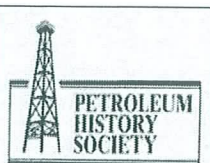
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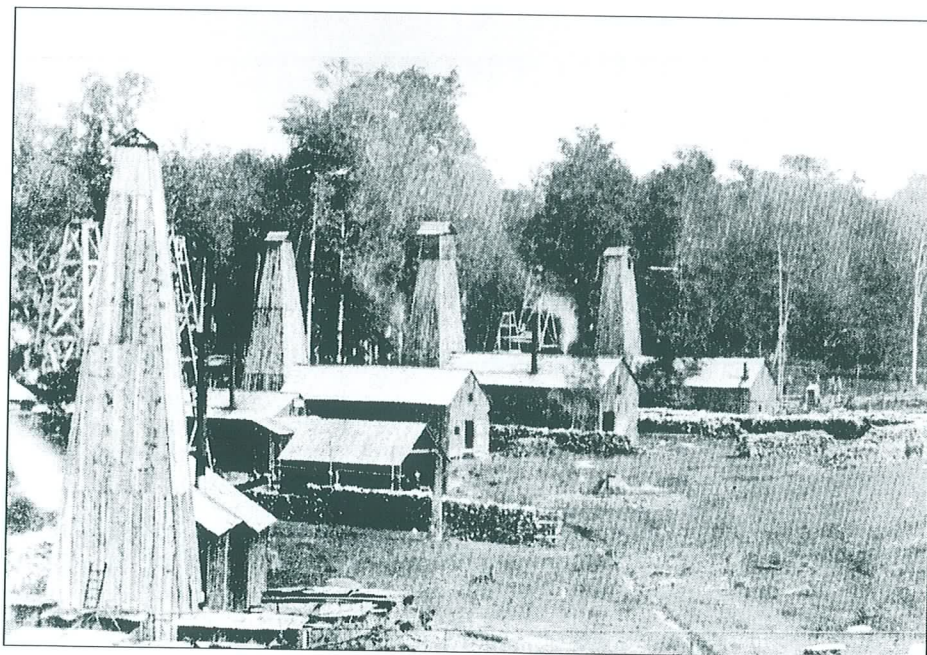


*Preserving history of
the petroleum
industry in Canada*



OIL SPRINGS, ONTARIO 150 YEARS BACK TO THE FUTURE

May 7 - 10, 2008 - Sarnia, Ontario



Petrolia Oil Field (Oil Museum of Canada)

PROGRAM AND ABSTRACTS

**OUR DEEP APPRECIATION IS EXTENDED TO
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*May 7 - 10, 2008
Sarnia, Ontario*

Co-Organizers
Robert Cochrane, Cairnlines Resources Limited
Robert Bott, Petroleum History Society
Joe Van Overberghe, Executive Director, Ontario Petroleum Institute

PROGRAM AND ABSTRACTS

Edited by
William R. Brice, Petroleum History Institute

INTRODUCTION

Bitumen and natural asphalt was used by Abraham Gesner in 1846 to produce the new illuminating product he called "kerosene." As early as 1850, Sir William Logan, Director of the Geological Survey of Canada, was sent a sample of bitumen from Lambton County (Fig. 1), and T. Sterry Hunt had described its properties in a Survey report of 1849/1850. Earlier, perhaps drawn by the knowledge of the local oil seeps, James Miller Williams (Fig. 2), originally from New Jersey and who held a large interest in a carriage factory in Hamilton, moved to London, Ontario, in 1840, where he bought a series of oil leases from Charles Nelson Tripp. Tripp, a prospector from Schenectady, New York, had tried, unsuccessfully, to create a company producing asphalt from the Enniskillen gum beds in Lambton County, but he had to sell his leases and became an employee of Williams. Then in 1857, Williams and Tripp began digging (note the verb "digging") a well on the banks of the Thames River near Bothwell specifically in search of petroleum, but found very little. Williams then turned his attention to a site in Enniskillen, where Tripp had worked before, at Oil Springs, Ontario¹. This time their digging² was successful, and a well 49 feet (about 16 m.) deep and seven by nine feet square (2 x 3 meters) filled within 10 feet (3 m.) of the top with over 13,000 gallons of oil. In one ten-hour period, over 1500 gallons were pumped out, only reducing the depth by 3 feet (0.9 m.) (Purdy 1957). Apparently this Canadian crude oil, like most oil, had a very strong smell and when it was transported by rail to New York City, the smell lingered along the tracks across the entire state for several days after the train had passed (Brannt 1894). The supply was such that Williams built a refinery, and thus started the modern oil industry in North America, about one year before Drake had his lucky find³. By 1862 there were about 300 active wells in the Enniskillen area with each one producing a minimum of about 400 gallons per day (Erni 1865).

That is one version of the story, however, J. T. Henry (1873), Brannt (1894), Whiteshot (1905), and J. D. Henry (1914) provide a different set of players, although they were still located in the township of Enniskillen, in the county of Lamberton⁴ at the extreme western edge of Ontario. They claim that the first discovery was made by one Mr. Shaw who had emigrated from Massachusetts in 1836. During 1856-57, Shaw, who was viewed as being somewhat demented by the locals, set out to form a stock company which would bore down through the swamps to extract, "...from the bowels of the earth a substance which he averred existed there in exhaustless quantities." (Henry, J. T. 1873, pg. 129). In 1857, Shaw, the local lunatic, after many failed enterprises, commenced digging a well, as if for water, about 100 yards from his house. After several days of digging, he heard a loud noise while eating lunch and discovered a thick black, foul-smelling mud, which proved to be mostly thick petroleum, was rising from the hole. Eventually the petroleum-rich mud covered most of the area, almost engulfing his house, and the well continued to flow for over 67 hours. Word spread quickly and land changed hands for as

¹ Some authors put this discovery at Petrolia (Hilborn 1968), but the site was at Oil Springs (de Witt 1984).

² Erni (1865) stated that Williams, "...bored into the earth..." with no further explanation.

³ Although W. H. MacGarvey, in a Preface to J. D. Henry (1910, pg. vii), stated that Williams discovered the petroleum in 1860; *after* Drake's success at Titusville.

⁴ There seems to be at least two different spellings of the County name.

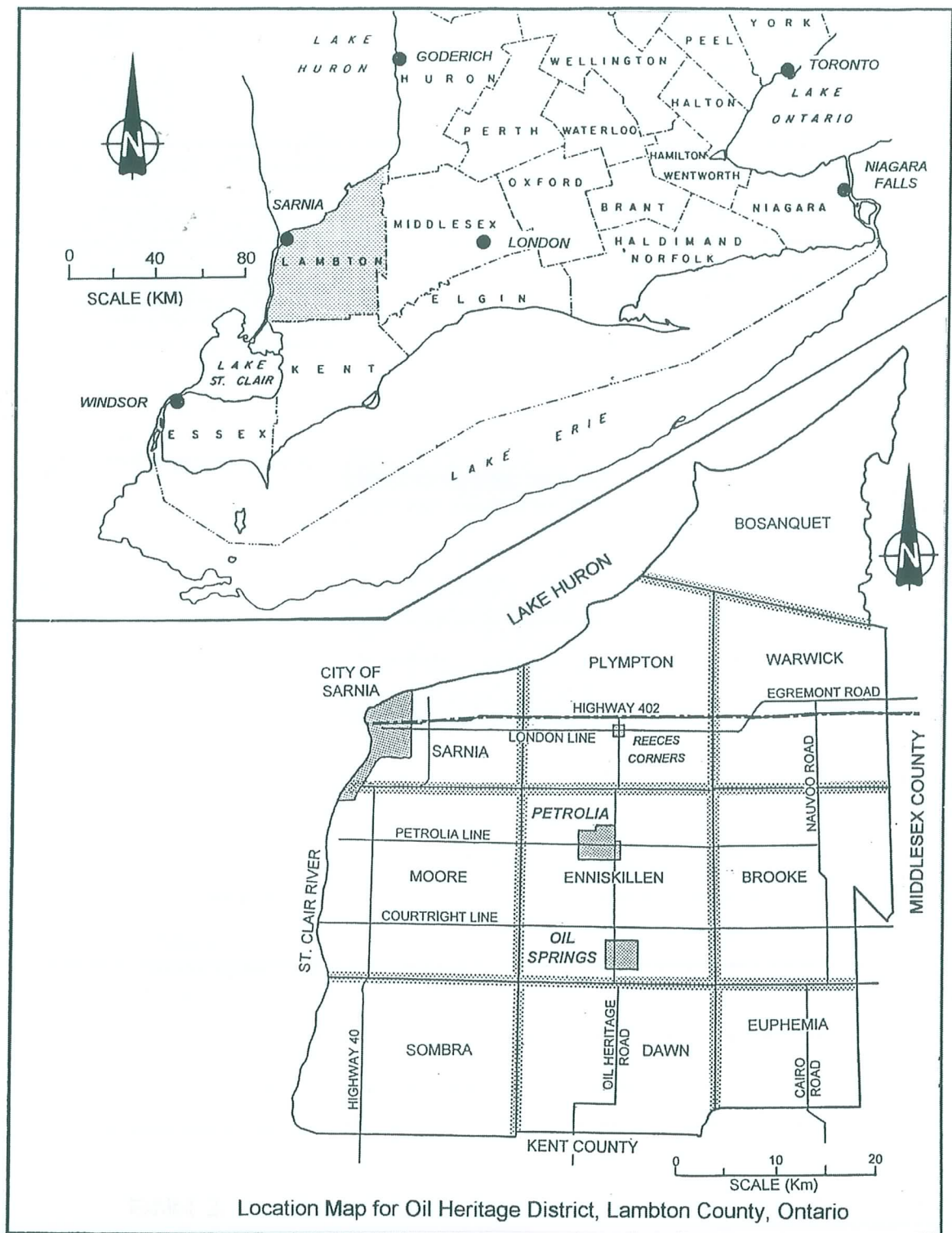
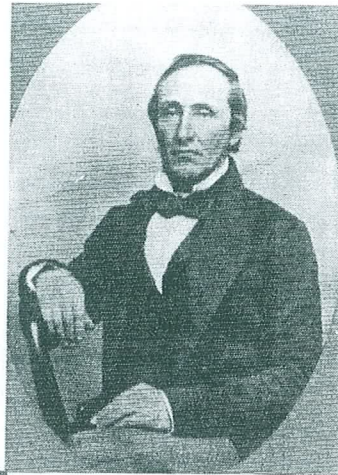


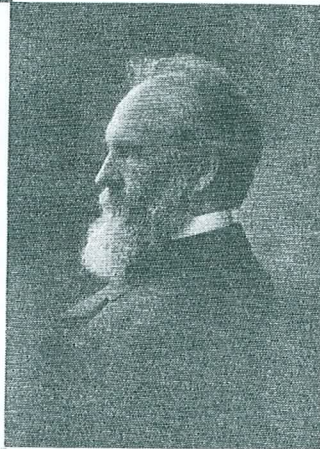
Figure 1. From Cochrane and Fairbank 2000, p. x



**JAMES MILLER
WILLIAMS**
1818 – 1890
World's First Oil Producer



HUGH NIXON SHAW
1812 – 1863
Driller of The First Oil
Gusher in Oil Springs Field



JOHN H. FAIRBANK
1831 – 1914
Entrepreneur
and
Oil Producer



J. (Jake) L. ENGLEHART
1847 – 1921
Refiner



W. H. M^cGARVEY
1843 – 1914
Foreign Driller

Key personalities in the early development of the petroleum industry in Lambton County.

Figure 2. From Cochrane and Fairbank 2000, p. 2.

much as \$2,500 per acre. The town that sprang up around this activity was called Oil Springs. Shaw made, and spent, quite a fortune, and the irony of the story, as told by Whiteshot (1905) is that after losing his money, Shaw ended up in the Pennsylvania oil fields from 1868-1870 working as a common laborer. He died in Titusville "unknown and broken hearted." According to Whiteshot (1905), shortly after these events at Oil Springs, another discovery was made five miles to the north, and the town that developed around these new wells was named Petrolia. Hence while there seems to be some confusion as to exactly who did what when; both discoveries were made before Drake and his crew drilled their well not very far south of the border, and exactly one year, to the day, before Drake's discovery, an article in *The Sarnia Observer* stated that: "...an abundant supply of mineral oil which the owners of the land were taking steps for making available for the purpose of light, etc., by erecting works thereon for purifying said oil and making it fit for use... The ingredient seems to abound over a considerable tract of land where it was discovered; and in fact, the earth is so thoroughly saturated by it, so that a hole dug, 8 or 10 feet in width and about the same depth will collect from 200 to 250 gallons a day; the supply seemingly inexhaustible.

Thus in 2008 we celebrate the 150th anniversary of that discovery and the development of the Canadian Oil Industry.

William R. Brice

REFERENCES CITED

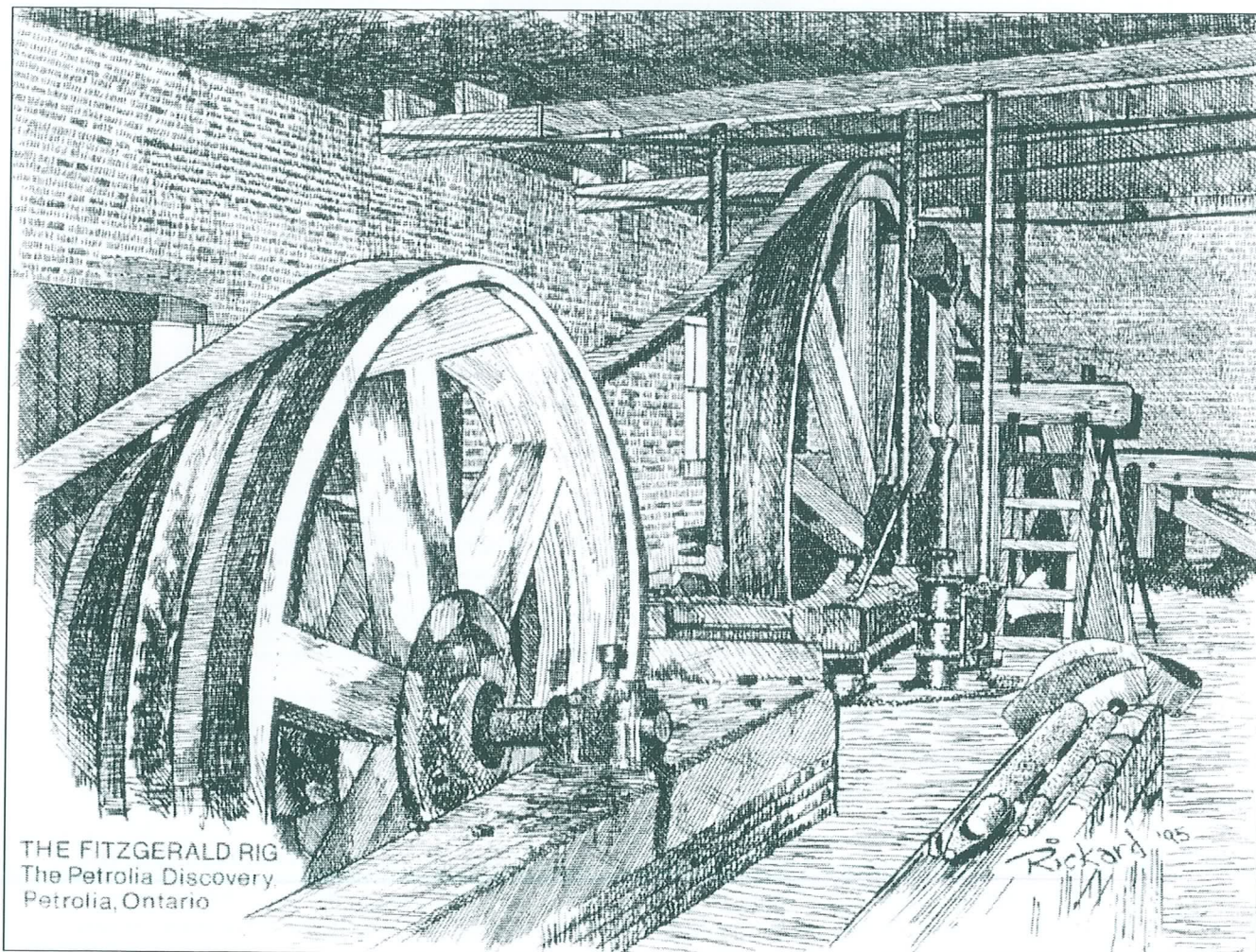
- BRANNT, William T., 1894, *Petroleum-its history, origin, occurrence, production, physical and chemical constitution, technology, examination and uses; together with the occurrence and uses of natural gas*: Philadelphia, Henry Carey Baird & Company, 715 p. (London edition by Sampson Low, Marston & Company, 1895).
- COCHRANE, R. O. and FAIRBANK, C. O., 2000, *Oil heritage tour of Lambton County - the birthplace of the Canadian Oil Industry*: Ontario Petroleum Institute, American Association of Petroleum Geologists 2000 Eastern Section Meeting, 74 p.
- ERNI, Henri, 1865, *Coal oil and petroleum-their origin, history, geology, and chemistry*: Philadelphia, Henry Carey Baid, Industrial Publisher, 196 p.
- HENRY, J. D., 1910, *Oil fields of the Empire-a survey of British Imperial petroleum questions and a comprehensive technical description of the oil fields of Trinidad and Newfoundland*: London, Bradbury, Agnew & Company, 279 p.
- HENRY, J. D., 1914, *History and romance of the petroleum industry*: London, Bradbury, Agnew, & Company, Ltd., Vol. 1, 320 p
- HENRY, J. T., 1873, *The early and later history of petroleum with authentic facts in regard to its development in western Pennsylvania; ...; the Parkers' and Butler County oil fields; also life sketches of pioneer and prominent operators with the refining capacity of the United States*: Philadelphia and New York, Burt Franklin [Oil Region Alliance, Oil City, PA, 2006 Re-print of Volumes I and II as a single volume], 607 p

HILBORN, James D. (Editor), 1968, *Dusters and gushers; the Canadian oil and gas industry*: Toronto, Pitt Publishing Company, 278 p

PURDY, G. A., 1957, *Petroleum; prehistoric to petrochemicals*: Toronto, Copp Clark Publishing Company, 492 pp.

WHITESHOT, Charles A., 1905, *The oil-well driller; a history of the world's greatest enterprise, the oil industry*: Mannington, West Virginia, The Acme Publishing Company (Charles Austin Whiteshot), 895 p.

de WITT, Jr., Wallace, 1984, The first commercial oil well in North America (Abst), in Program and Abstracts, The fifteenth annual Appalachian petroleum geology symposium, "Old Appalachian oil fields": *Circular no. C-34*, West Virginia Geological and Economic Survey, pg. 5.



THE FITZGERALD RIG
The Petrolia Discovery
Petrolia, Ontario

(Ontario Oil Museum)

**TIME LINE FOR EARLY PETROLEUM DEVELOPMENT IN
PETROLIA AND OIL SPRINGS AREA**

1819	Birth of Queen Victoria
1833	<i>Completion of Survey of Enniskillen Township</i>
1837	Queen Victoria Succeeds George IV to British Throne
1842	Creation of the Geological Survey of Canada
1846	<i>Dr. Abraham Gesner Produces Kerosene Oil from Coal</i>
1849	Creation of the County of Lambton
1849	Start of Great Western Railway From Niagara Falls to Windsor
1853	<i>Lambton Becomes an Independent County</i>
1854	<i>C.N. Tripp Founds International Mining and Manufacturing Company (IMMC)</i>
1854	<i>Dr. A. Gesner Obtains US Letter Patents to Produce Kerosene From Crude Oil</i>
1855	<i>Sale of IMMC to James Miller Williams</i>
1858	<i>James Miller Williams Produces Oil from Dug Wells in Oil Springs</i>
1858	Opening of Great Western Railway between Sarnia and London
1859	Col. E.L. Drake Drills an Oilwell at Titusville, Pennsylvania, USA
1861	<i>J.H. Fairbank Arrives in Oil Springs</i>
1861 to 1865	American Civil War
1862	<i>Hugh Nixon Shaw's Oil Gusher in Oil Springs</i>
1866	<i>Captain B. King Discovers Oil in Petrolia</i>
1866	<i>Founding of Oilwell Supply Company</i>
1866	<i>Building of Railway Spur Line from Wyoming to Petrolia</i>
1866	<i>Town of Petrolia Incorporated as a Village</i>
1866	Discovery of Oil at Oil Springs, Texas, USA
1867	Confederation of Canada
1865	<i>Opening of Van Tuyl & Fairbank</i>
1869	<i>Opening of Little Red Bank by Vaughn & Fairbank</i>
1871	<i>World's First Oil Exchange at Vaughn & Fairbank</i>
1874	<i>Departure of First Foreign Drillers from Petrolia</i>
1880	<i>Sixteen Companies Form Imperial Oil Company in London</i>
1885	Last Spike Driven on CPR Railway
1888	<i>Construction of Victoria Playhouse</i>
1890	<i>Construction of 'Sunnyside', Home of J.H. Fairbank</i>
1898	<i>Imperial Oil Refinery Moves to Sarnia</i>
1898	<i>Rockefeller's Standard Oil Trust Acquires Control of Imperial Oil</i>
1901	<i>Formation of Canadian Oil Refining Company</i>
1901	Spindletop Oil Discovery in Texas, USA
1901	Death of Queen Victoria
1903	<i>Construction of Fitzgerald Pumping Rig</i>
1904	Discovery of Natural Gas in Medicine Hat, Alberta
1910	Discovery of Oil in Turner Valley, Alberta
1914 to 1918	World War One
1914	<i>Opening of Baines Machine Shop</i>
1930	Discovery of East Texas Oilfield, USA
1939 to 1945	World War Two
1942	Establishment of Polymer Corp. To Make Synthetic Rubber
1942	Dow Plant in Sarnia to Make Polystyrene
1947	Discovery of Oil in Leduc, Alberta
1952	<i>Canadian Oil Moves From Petrolia to Corunna</i>

PROGRAM OF EVENTS

"OIL SPRINGS, ONTARIO 150 YEARS - BACK TO THE FUTURE"

May 7 - 10, 2008

PROPOSED SCHEDULE OF EVENTS

May 7 - WEDNESDAY	Noon - 1700	Registration and Poster* Set-up (Holiday Inn)
	1800 - 1900	Reception; Viewing Posters (Holiday Inn)
		Dinner on your own
		*The posters are listed in the Abstract Section.
May 8 - THURSDAY	0830 AM	Continental Breakfast Holiday Inn
	0900-0915	Bus leaves for Victoria Hall - Symposium
		Call to Order and Mounting of Posters
	0915 - 0930	Introduction and Welcome
	0930 - 1030	Earle Gray GESNER, WILLIAMS AND THE BIRTH OF THE OIL INDUSTRY
	1030-1100	Coffee Break - Poster Viewing
	1100 - 1130	David Finch EAST AND WEST: ONTARIO'S INFLUENCE ON THE WESTERN CANADIAN PETROLEUM INDUSTRY
	1130-1200	Deborah M. Knall A MISSING LINK? THE CARMAN & FAIRBANK OIL FIELD AT BOTHWELL, ONTARIO (1900-1920) AS A KEY TO UNDERSTANDING SOCIAL AND CORPORATE DEVELOPMENT IN CANADIAN OIL PRODUCTION
	1200 - 1330	LUNCH
	1330 - 1400	Robert Bott IMPERIAL OIL'S DOMINANT ROLE IN THE CANADIAN OIL INDUSTRY
	1400 - 1430	Adriana Davies REPRESENTING CANADA'S OIL INDUSTRY HERITAGE ON THE WORLD WIDE WEB
	1430 - 1500	David Stauff AN OIL FAMILY HISTORY - 140 YEARS OF BLACK GOLD
	1500 - 1530	Coffee Break - Poster Viewing
	1530 - 1600	Discussion
	1600	Bus Returns to Hotel - Dinner on your own
	1900	Bus leaves for Victoria Hall

1930 **Dr. Thomas Homer-Dixon** is to be the guest speaker for the evening of May 8, 2008 at Victoria Hall in Petrolia. Dr. Homer-Dixon is the author of "The Ingenuity Gap", winner of the Governor-General's award for non-fiction and "The Upside of Down" wherein he reviews the rise and fall of the Roman Empire in terms of energy use and supply and makes some cogent observations about our present civilization.

Bus returns to the Hotel at end of program

May 9 - FRIDAY	Continental Breakfast	Holiday Inn
0830	Bus leaves for Victoria Hall	
0915 - 0930	Introduction & Announcements	
0930 - 1000	Gary May THE POLISH CONNECTION	
1000 - 1030	Jeff Spencer A PHOTOGRAPHIC JOURNEY THROUGH TWO EARLY OHIO OIL BOOMS	
1030 - 1100	Coffee Break and Poster Viewing	
1100 - 1130	William R. Brice SAMUEL M. KIER (1813-1874) - THE OFT-FORGOTTEN OIL PIONEER	
1130 - 1200	William Wingo TECHNICAL ASPECTS OF THE DESIGN AND OPERATION OF THE REID TWO-CYCLE GAS ENGINE TYPE A, SISTERVILLE	
1200 - 1330	Lunch	
1330 - 1400	Milissa Mann "STORIES OF A THIRD-GENERATION INDEPENDENT OIL PRODUCER" AN ORAL HISTORY PROJECT	
1400 - 1430	Kathy Flaherty ALL ABOARD FOR OIL COUNTRY!	
1430 - 1500	Herman Trabish Readings from the novel <i>OIL IN THEIR BLOOD, The American Decades</i>	
1500 - 1530	Discussion	
1545	Bus returns to the Hotel	
1800 - 1845	Honors & Awards Reception (Holiday Inn)	
1845 - 2000	Honors & Awards Banquet	
2000 - 2130	Keynote Address	
May 10 - SATURDAY	Continental Breakfast	Holiday Inn
0830 - 1800	Field Trip (lunch) - 1800	Official End of Meeting

ABSTRACTS

IMPERIAL OIL'S DOMINANT ROLE IN THE CANADIAN OIL INDUSTRY

By Robert D. Bott,
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Imperial Oil Limited has been Canada's dominant integrated oil company since it was established in 1880 as an amalgamation of Ontario refiners. Initially Imperial tried to fend off John D. Rockefeller's Standard Oil Trust, but succumbed to the Trust in 1898. After the breakup of the Trust in 1911, Imperial became a subsidiary of Standard Oil of New Jersey, and is now 69.6 per cent owned by ExxonMobil. Imperial has led many of the notable achievements of the Canadian oil and gas industry:

- Sponsoring research that led to the process for desulphuring refined oil products;
- First cracking plant, and many other advances in refining;
- The Norman Wells discovery in 1920 and the Leduc discovery in 1947, two of the most significant in industry history;
- Extensive operations in South America from 1920 to 1948, and a tanker fleet supplying oil to Canada;
- Lead partner in the Interprovincial Pipeline, the world's longest petroleum pipeline;
- A major role in Alberta oilsands development, including the first commercial in-situ project at Cold Lake and a major interest in the Syncrude project.

This will just be a brief overview of a history that could fill volumes. Much of the material will be drawn from Earle Gray's new history, Ontario's Petroleum Legacy, which Bott has edited, and from Mileposts, the 1989 corporate history of Interprovincial Pipeline, which Bott authored.

SAMUEL M. KIER (1813-1874) - THE OFT-FORGOTTEN OIL PIONEER

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During discussions of the early oil pioneers, one person is frequently absent from the hallowed group and he is Samuel Kier (1813-1874) of Pittsburgh, Pennsylvania. Perhaps he is overlooked because he was about 10 years ahead of everyone else. But Kier deserves to be listed among all the other greats of the early days of oil, such as George Bissell, Edwin Drake, Abraham Gesner, and James Miller Williams.

Samuel Martin Kier, son of Thomas and Polly Martin Kier, was born September 19, 1813, somewhere along the Conemaugh River between Saltsburg and Livermore in Indiana County, Pennsylvania, and moved to Pittsburgh when he was 21. He quickly became involved in the express business (like the later

Railway Express) as a forwarding agent. In 1846, Kier, in partnership with James Buchanan, later President of the United States, established "Independent Line," working with special "section" canal boats which could be taken apart and put on railroad cars where they were available, or put together and pulled along the canal system where there was no railroad. When later partnered with Benjamin Jones (of Jones and Laughlin Steel Company), this canal boat company eventually became, the "Mechanics Line." But by 1854 with expanded railroad competition, the canal boat Company was discontinued and Kier, Buchanan, and Jones went into the fire-brick business in Bolivar, Pennsylvania (later moved to Salina, Pennsylvania). They, Kier and Jones, also purchased iron furnaces at Armaugh, near Johnstown, Pennsylvania.

Kier's connection to the oil business came through his father. Thomas Kier in 1839, financed by his son, began a salt business at Tarentum, Pennsylvania, on the Allegheny River near Pittsburgh. Thomas, had local drillers, using the spring-pole method, put down wells to depths of 500 feet to obtain the brine which was then evaporated to produce salt. But a thick, black substance soon began seeping into the brine wells spoiling the product. By 1842, it was really becoming a serious problem. At first the oil was allowed to run off into the river, then his father tried to skim off the oil and burn it to fuel evaporation furnaces, but without success. It could be used in torches at night, but the burning torches gave off terrible smelling smoke. But to them, it was just a useless material that was ruining their brine wells.

At this point fate stepped in. Samuel Kier's wife became ill and the local physician prescribed "American Oil," which Kier noticed looked, smelled, and tasted exactly like what was coming out of his father's brine wells and being allowed to run into the river or out on the ground. Being the business man that he was, he knew a good thing when his wife had to take it. Kier started bottling his own oil, "Kier's Rock Oil," and a new business was underway, and "Kier's Rock Oil" was soon on druggist's shelves across Pennsylvania. To keep up with the demand, Kier had one of the brine wells tubed and pumped. As the salt water supply began to diminish, oil replaced it, and soon the well was producing only oil. Thus in 1845, Kier had established the first "oil pumping well."

But Kier thought there might be other uses for this thick, black material. In 1842, he sent a sample of the waste product from the brine wells to a chemist, J. C. Booth, of Philadelphia, who suggested that distillation of the crude petroleum would produce a good burning fluid, and he furnished Kier with drawings of a suitable still to do this. Kier soon constructed a still and began to produce what he called "Carbon Oil." There was only one problem, the kind of lamp required to properly burn this product had not been invented, so he developed a lamp that would burn his "carbon oil" without producing smoke.

By 1854, Kier had moved his refining business into the City of Pittsburgh to the corner of Grant Street and Seventh Avenue. While this first distillation device, called a still, had a capacity of about one barrel of crude, by 1855 he built another one with a capacity of about six barrels. Thus by the mid-1850s, Kier was operating the only oil refinery in the United States. There were others in other parts of the world, but this was the only one in the U.S. Thus Samuel Kier is truly one of the great pioneers of the early petroleum industry in the United States and deserves to be in the same company as Drake, Bissell, and all the New Haven fellows.

Representing Canada's Oil Industry Heritage on the World Wide Web

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URLs: www.albertasource.ca – the Alberta Online Encyclopedia www.heritagecommunityfdn.org

E-learners are using the 'Web' for research purposes and the demand for authoritative resources is growing daily. The Heritage Community Foundation has pioneered in the creation of digital heritage content that showcases all aspects of the historical, natural, cultural, scientific and technological heritage of Alberta.. For Alberta's 100th anniversary, the Foundation designed and created the *Alberta Online Encyclopedia* – www.albertasource.ca - a multimedia learning resource that brings Alberta to every user of the Web.

It is a truism that there is general ignorance among Canadians about industrial history as well as the evolution of science and technology in our country. To help address this content gap, the Heritage Community Foundation, with funding support from the Imperial Oil Foundation, in 2003 began to create *Canada's Petroleum Heritage*. The result is an online resource that through text, images, audio and video provides a rich historical perspective on the oil industry to the 1950s with a particular focus on Alberta within the Canadian context.

Audio and video elements include material from the following:

- **Roughnecks, Wildcats and Doodlebugs: A Popular History of the Oil Patch and the Petroleum Industry in Alberta**, CKUA Radio Network's 16 part documentary series featuring interviews with industry pioneers and builders
- **The Petroleum Oral History Project Collection** - located at Glenbow Museum and Archives. the collection consists of several hundred recorded conversations and 200 photographs
- **Aubrey Kerr's various publications on Alberta's Oil patch**—Mr. Kerr has given the Heritage Community Foundation copies of all his publications and is delighted to make these materials accessible to educational and other users.
- **Earle Gray, Canada's senior oil industry historian**,—Mr. Gray contributed 10 historical essays dealing with different aspects of the industry

LEO RANNEY - PIONEER IN HORIZONTAL DRILLING

Charles Fairbank (POSTER)

Leo Ranney born in 1884 was a geologist and engineer who pioneered the idea of horizontal drilling. The poster is a reproduction of an article published in Fortune Magazine in September 1947. The concept was applied in the Province of Ontario in 1985 when a shaft was sunk into a small shallow oilfield near Sarnia, Ontario, Now horizontal drilling is a common practice in the oil industry.

EAST AND WEST: ONTARIO'S INFLUENCE ON THE WESTERN CANADIAN PETROLEUM INDUSTRY

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An enduring myth permeates the Canadian oil patch – eastern Canadians hate the West. Though this theme serves a purpose – like when Westerners want to blame the international economic downturn of the 1980s on Ottawa's infamous National Energy Program – the fact remains that numerous central Canadian petroleum industry pioneers, and some key Americans, migrated west to Alberta in the early 1900s and helped develop an industry that became pivotal to Canada's self-sufficiency in oil, natural gas and bitumen.

This paper reviews the careers of important individuals who helped find, develop and sustain the Western Canadian oil industry and explains how this relationship between the regions has contributed to the vitality of the Canadian oil patch.

ALL ABOARD FOR OIL COUNTRY!

Kathy J. Flaherty, ABARTA Oil & Gas Company, Inc., 1000 Gamma Drive, Suite 400, Pittsburgh, PA 15238, kflaherty@abartaenergy.com

"The Wildest Excitement Prevails In This Field To-nite."

"Oil Men Excited."

"A Real Gusher."

Although sandwiched between the fish market report and miscellaneous grocery news columns deep within the daily newspapers, headlines such as these invited attention. Is it any wonder that excursions to the oil regions were popular? Daily summaries of oleaginous pursuits populated newspaper columns. Articles overflowing with urgency and enthusiasm alternated with articles brimming with the despair of dry holes and decreased oil production. Drilling activity in each new geographical area refreshed the phenomenon. Oilfield correspondents speculated about everything: the depth to pay sand, any up-hole indications of oil, reservoir quality, the time until the pay was reached, geological trends, plans and

intentions of the well owners and operators, and even the chances of success for an offsetting well. Hourly production, drilling progress, shipments, fluctuations in oil output and other such parameters made up a regular portion of the oilfield news.

“Oil fever” invaded society from the poorest looking for work to the wealthiest seeking investment opportunities. Oil region visitors varied in their interests and motivations, but all wanted a first-hand look at the oil patch. Investors, future oil men, land-lease brokers, competitors, oil scouts, gentility, schemers, reporters, photographers, scientists, rig hands, roughnecks and the just plain curious found their way to the oil fields. Just plain curious myself, I tagged along on a few oilfield “excursions” through the archives. This article shares a few of those adventures.

GESNER, WILLIAMS AND THE BIRTH OF THE OIL INDUSTRY

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This paper will explore the links between the work of Abraham Gesner and James Miller Williams in the founding of the oil industry. Gesner, Nova Scotian physician, geologist and chemist, has been called “The father of the modern petroleum industry” (U.S. National Aeronautics and Space Administration www.nasaexplores.com/show_58_teacher_st.php?id=030304125124). Gesner’s development of kerosene in the 1840s led to the development of the U.S. coal oil refining industry. As a result, the oil industry was said to be “an industry waiting to happen,” ie waiting for a supply of crude oil. Williams was the first to provide that supply with the 1858 discovery of the Oil Springs field. He also established the first integrated oil company, with crude oil production, refining and marketing, no later than early 1859. This paper will discuss unconfirmed reports that Williams was guided by Gesner in establishing his refining operations. It will also examine the work of Gesner’s Scottish coal oil refining rival, James Young, and how Young beat Gesner in obtaining a U.S. patent for his process despite the fact that Gesner was first in the field, and the consequences of this.

A MISSING LINK? THE CARMAN & FAIRBANK OIL FIELD AT BOTHWELL, ONTARIO (1900-1920) AS A KEY TO UNDERSTANDING SOCIAL AND CORPORATE DEVELOPMENT IN CANADIAN OIL PRODUCTION

Deborah M. Knall
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A year before North America’s first commercial oil well began production at Oil Springs in 1858, oil was found near Bothwell, twenty miles southeast. Forty years later, in 1898, on leases purchased by partners C.O. Fairbank and Frank Carman, Bothwell oil production resumed in earnest. Oversight of the new field was entrusted to drillers from Fairbank fields at Petrolia, Bruce McLeod and his son J.H. McLeod. The McLeods corresponded regularly with Fairbank office manager, A.M. McQueen,

concerning field operations; this shared oversight strengthened their friendship, forming a foundation for development in the next stage of Canadian petroleum production at Turner Valley, near Calgary.

In 1915, Fairbank Oil's long association with the Imperial Refining Company resulted in McQueen accepting the position of vice-president responsible for Imperial's newly created exploration and production departments. With Imperial's 1921 acquisition of petroleum assets at Turner Valley, McQueen asked his trusted friend and colleague, J.H. McLeod, to carry the collective experience of three generations of Southwestern Ontario's oil producers to a new generation of oilmen emerging at Calgary. For the next quarter century, McLeod provided increasing leadership to Western Canadian petroleum production.

This paper draws on over twenty interviews with people in Alberta and Ontario, as well as analyses of primary and secondary sources, to provide a picture of oil production at Bothwell during the early 20th century. More importantly, this research reveals managerial and social networks evolving at Carman and Fairbank, as they were in businesses across North America during this period (Chandler, 1977; Taylor, 1992). These findings reveal a previously missing, but critical link in Canadian petroleum history, key to understanding the chain of events that brought Southwestern Ontario oilmen to Alberta.

“STORIES OF A THIRD-GENERATION INDEPENDENT OIL PRODUCER”: AN ORAL HISTORY PROJECT

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Today more than ever, Americans are keenly aware of the influence that oil has on their daily lives. However, when they talk about oil, most Americans limit their conversations to the industry's major companies and their record earnings. It seems that over the years the public's definition of the petroleum industry has become corporate offices filled with people in expensive suits. In response, the Oil Region Alliance of Business, Industry & Tourism (ORA) is attempting to broaden this definition by shining a light on an oft forgotten member of the petroleum industry: the independent producer.

In July of 2007, the ORA began an oral history project entitled “Stories of a Third-Generation Independent Oil Producer.” The project highlights 66-year-old independent oil producer William L. Huber of Plummer, Pennsylvania. With the help of his son, Mr. Huber operates 80 active stripper wells in the Oil Region National Heritage Area on the same lease his grandfather drilled. Using a humble and straight-forward style, Mr. Huber communicates his family's history and the traditions behind independent production. His story challenges Americans to remember the independent producer. This paper will document the process of creating “Stories of a Third-Generation Independent Oil Producer,” emphasizing the importance of collecting oral histories from the wide variety of people in the oil industry. Furthermore, it will describe the challenges associated with this particular historical methodology.

THE POLISH CONNECTION

Gary May

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The historic oil fields of southwestern Ontario are strewn with tales of success: John Henry Fairbank. Jake Englehart. John E. Crosbie. But perhaps the most poignant is the story of William Henry McGarvey. Rising from his beginnings as the son of a humble shopkeeper, to rubbing shoulders with European aristocracy, McGarvey ultimately died brokenhearted at how the clash of First World War superpower armies laid waste his empire.

Yet little is known about McGarvey's European exploits and what became of his company and family after he died in 1914. Author Gary May is intent on learning more about McGarvey and ensuring he takes his deserved spot among Canada's pioneers of oil. Last year, Gary travelled to the oil fields of Eastern Europe, and the streets of Vienna, in his bid to unearth more pieces of the McGarvey puzzle, and returned with an emerging picture of a man who is revered to this day in petroleum circles there as a key figure in the development of the industry.

McGarvey arrived in the Austria-Hungarian province of Galicia as head of the Continental Oil Company of Hanover, Germany, determined to learn whether the Canadian drilling methods he brought with him could be applied in conditions there. His early years in Galicia were marked by stories of subterfuge and low-tech industrial espionage, as local oilmen sought to understand his revolutionary methods. McGarvey was a hit, but his success did not come without controversy, as he found himself hauled into court over patents on the equipment he introduced.

One hundred and twenty years ago, the typical worker employed in those enterprises was from an agrarian, peasant background. McGarvey, aware of how foreign an industrial existence must be to them, employed a level of enlightenment with his workers and their families that placed him generations beyond his North American counterparts.

While he never learned the local languages, McGarvey was readily accepted into Galician society and recognized as a European businessman who introduced foreign capital to the country. The Canadian-born oil tycoon known to his friends simply as "Mac" was truly respected. His reputation was such that his visits to dozens of small communities across what are now Poland and the Ukraine, to put down test drilling holes, became the big news of the day.

If you visit Glinik, Poland today, you will still find the oil refinery and machinery factory McGarvey and his partner, Palestinian-born financier John Simeon Bergheim, built in the 1880s. The factory survived czarist Russian and German occupation, as well as the Communist era and today, under Poland's new democratic regime, it still churns out equipment for the mining industry.

A PHOTOGRAPHIC JOURNEY THROUGH TWO EARLY OHIO OIL BOOMS

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Photographs and postcards have helped to illustrate the history, geography, and industrial growth of the United States. This is evident in their depiction of the early “boom days” of the oil industry. Two of Ohio’s oil booms, the oil boom of northwest Ohio and the Bremen-New Straitsville boom of south-central Ohio, are well-represented by photographs and postcards of oil derricks, oilfield fires, storage tanks, and refineries.

The first giant oil field in the United States was discovered in northwestern Ohio near the city of Lima in 1885, a year after natural gas was discovered near the town of Findlay. The discovery of the Lima-Indiana oil field set off the “oil boom of northwest Ohio”, a period of land speculation and rapid oil field development that lasted over 20 years. The field propelled Ohio into the leading oil-producing state from 1895-1903. As the field was extended to the south, the nation’s first “over water” wells were drilled in Grand Lake St. Marys, then the largest man-made lake in the world. John D. Rockefeller’s Standard Oil of Cleveland, soon to monopolize the oil refining industry, built storage tanks, pipelines, and a refinery near Lima. The Ohio Oil Company, now Marathon Oil, was organized in the state in 1887 and still maintains an office in Findlay.

South-central Ohio’s Bremen oil field was discovered in 1907 in Fairfield County, which led to the discovery of the New Straitsville oil field in adjoining Perry County two years later. The villages of Bremen and New Straitsville saw the oil fields extended to town lots. Wells were often so close together that a person could jump from one derrick floor to another. The Bremen-New Straitsville oil boom lasted until the early 1920s and was the last significant Ohio oil boom in the early 1900s.

THE EARLY PETROLEUM INDUSTRY OF PETROLIA, ONTARIO ILLUSTRATED ON POSTCARDS

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In the early twentieth century, picture postcards were both a means of communication and a popular collectible. The North American petroleum industry was represented with postcard views of wooden oil derricks, oil gushers, oil fires, and refineries. Although Petrolia’s earliest oil boom was years before the *Golden Age* of postcard collecting (1907-1915), many earlier Petrolia oilfield images were used on this period’s postcards.

Petrolia oilfield postcard scenes include spring-pole drilling operations, three-pole ash derricks, the torpedoing of wells, the moving of wooden derricks using horse teams and rolling logs, and early horse-drawn oil tankers. The dangers of oil field-related work are depicted in 1907 scenes of a nitroglycerin

plant explosion. Early postcard views include Petrolia's Canadian Oil Refinery and nearby Sarnia's Imperial Oil Refinery.

AN OIL FAMILY HISTORY: 140 YEARS OF BLACK GOLD

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This is the story of five generations in an oil business family over the past 140 years. Those involved include my great grandfather, John McDonald, my Grandfather, Francis David McDonald, my Mother and father, Flora McDonald Stauff and Jacob Lauer Stauff, myself, David Lauer Stauff, and my brother Peter Stauff and his 2 sons, as well as my son Timothy Lauer Stauff who is currently working for a Calgary based oil company. Much of our family's involvement in the oil business has involved Imperial Oil Ltd and its predecessor Standard Oil.

My Great Grandfather, John McDonald, first came to Petrolia in 1867. He founded a boiler works there and also built a refinery under the name of the National Oil Works, which he sold to Standard Oil in 1898. His son Frank operated an oil producing property he acquired from his father. He sold his oil to Imperial Oil Ltd. and as a child I remember helping him with this process. Frank's daughter, my mother Flora, was a school teacher who went to Peru in South America in 1922 to teach in a school operated by International Petroleum, a subsidiary of Imperial. There she met and married Jacob L. Stauff, a petroleum engineer working for the company. He was killed in a well completion accident in 1934. She returned to Petrolia to raise their 3 children including myself. My brother Peter and myself both became geologists and worked for Imperial Oil. My son Timothy and both of Peter's sons have also worked in the oil business. The careers of the various family members have included all aspects of the business from exploration and production to refining, marketing, and administration. Crude oil, or Black Gold and its changing place in our world ties it all together.

SHELL'S INHERITED ROOTS IN THE CANADIAN OIL INDUSTRY

Clinton R. Tippet
Shell Canada Energy and President – Petroleum History Society

(Paper Withdrawn at author's request)

Shell Canada was established in 1911 at the time of the construction of its first marketing terminal in Montreal, Quebec. The company has expanded very significantly since then, partly through a set of acquisitions in the early 1960's that provided it with strong regional positions across the country and, in the process, made it heir to some of Canada's earliest petroleum enterprises. In 1960, Shell Canada purchased **North Star Oil**, a Winnipeg, Manitoba-based company founded in 1919 with refining and marketing operations throughout Western Canada. In 1958 North Star had acquired **Cree Oil**, a small explorer and producer with connections to Ted Link of Norman Wells and Leduc fame. In 1962, Shell Canada made an even larger acquisition as it took control of **Canadian Oils**, based in Ontario and

having assets nation-wide. Incorporated in the Sarnia area in 1908 by a group of regional refiners and marketers, it had roots deep in the oil-producing regions of southwestern Ontario, including a refinery at Petrolia. A subsidiary of National Refining Company of Cleveland until 1938, Canadian Oils had also just entered the Western Canadian upstream scene through its 1955 capture of **Anglo Canadian Oil**, an important regional player that had been formed in 1935 and had ridden the Turner Valley and Leduc oil booms into the 1950's. Shell Canada has continued its interest in Canada's original petroleum heartland in southwestern Ontario. In 1978-1980 it mounted a short exploration program exploring for pinnacle reefs in the deep Silurian section. It has repeatedly enlarged and upgraded the Sarnia refinery that it inherited from Canadian Oils and, at present, is considering yet another major refining investment in the area related to the upgrading of bitumen from its Alberta oil sands properties.

Readings from the novel: ***OIL IN THEIR BLOOD, The American Decades***

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OIL IN THEIR BLOOD, The American Decades, the second historical novel in the multivolume oil saga, brings to life the mid-20th Century as the United States emerges as an oil power and a superpower. Trabish once again uses a matriarch's remembrance of oil industry families over three generations and weaves hard fact with adventure, romance and melodrama.

From post-World War I Paris where the peace talks created the modern world to jazz age New York City, roaring 20s Chicago and oil boom Oklahoma, **Jacques LeFash Livingstone** discovers oil's secrets, runs from anything to do with oil, marries, has a son and finds himself an oil baron despite his best efforts.

In pre-World War II Washington, D.C., **Victoria Wade Bridger, Lady North**, accepts a diplomat's request to help American oil men explore in Saudi Arabia and, as a result, gets herself and her dearest friend caught up in espionage and the darkest moments of World War II.

After slogging with the American infantry across World War II Europe, **Monty Livingstone** gives up his dream of being a spy for his country and goes to work for Big Oil until, in early 1950s Iran, he is unexpectedly recruited into the Cold War. Suddenly, everything from his adolescence in the Oklahoma oil fields to a lost love in Berlin to his training by an MI-6 operative matters if he is to finish his CIA assignment.

Just like in his first volume (**OIL IN THEIR BLOOD, The Story of Our Addition**), Trabish's lean, muscular prose and relentless storytelling drills into every incident for a better understanding of metaphysical and stark cold truths about love, family and the dark commodity that drives our world.

TECHNICAL ASPECTS OF THE DESIGN AND OPERATION OF THE REID TWO-CYCLE GAS ENGINE TYPE A, SISTERVILLE

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This paper will discuss the operational cycle, function of component parts, design and personal observations on the evolution of the design of the Joseph Reid Gas engine.

The Joseph Reid two cycle gas engine is unique in both design and method of operation. Joseph Reid began the manufacture of gas engines in 1894, with the first engine being shipped from the Oil City factory on December 1st.

The 2 cycle design of the engine provides a power stroke with every revolution of the crankshaft, which is not unique to the Reid engines. What is unique to this engine is the utilization of a supply or charging cylinder and piston on either the left or right hand side of the main cylinder.

Another design feature of the Type A engine include a valveless, ported exhaust system and a fuel intake that minimizes wear and provides an extremely uniform mixture of gas and air to the combustion chamber.

The cycle of operation is based on a crankshaft with two throws, separated by ninety degrees of rotation that allow the charging cylinder to perform two functions in the operation of the engine: providing a fresh charge of mixed gas and air and then scavenging the main cylinder of the products of combustion.

A proportional feed valve supplies fuel and air from independent sources to the charging cylinder for mixing and delivery to the main combustion chamber. The rate of supply is controlled by a hand valve in conjunction with the flyball governor, which, in turn controls the speed of the engine based on the load that the engine is carrying.

References:

Author unlisted/ unknown: *REID TWO CYCLE GAS ENGINES AND PUMPING POWERS*, *Bulletin No. 29, October, 1924*, publisher unlisted.

Author unlisted/ unknown: *LIST OF PARTS OF THE REID TWO-CYLCE GAS ENGINES*, Oil City PA., Joseph Reid Gas Engine Co., Oil City, PA. publisher unlisted.

PETROLEUM HISTORY INSTITUTE AWARDS - 2008

Each year the Petroleum History Institute honors individuals who have made a contribution to the development and heritage of the international oil and gas industry with two awards.

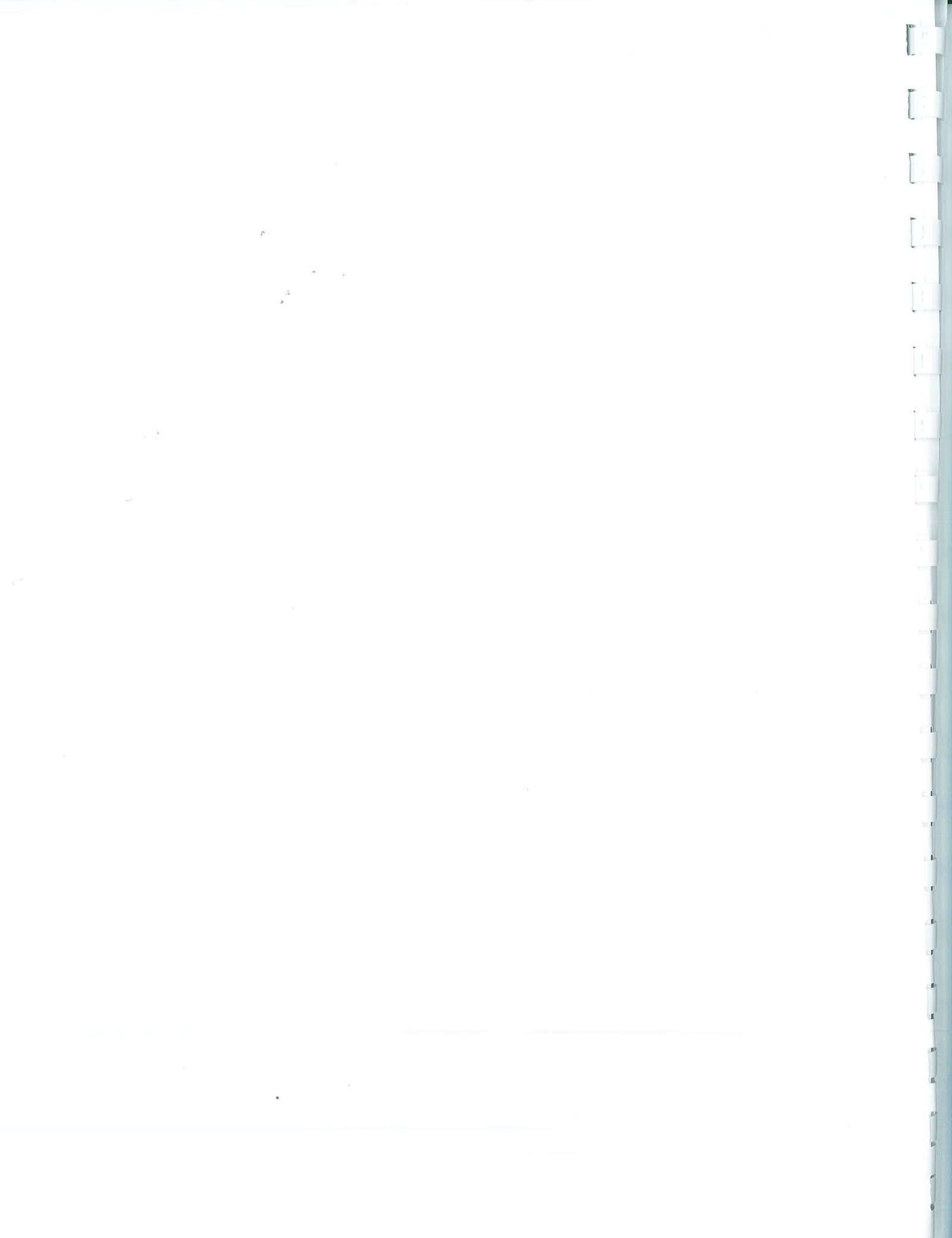
The **EDWIN L. DRAKE LEGENDARY OILMAN AWARD** recognizes the contribution of individuals who have made outstanding contributions to the business of oil and natural gas.

For 2008 PHI is proud to announce that **DR. JAMES BUCKEE**, recently retired President of Talisman Oil and **ROY HUFFINGTON**, chairman of the Board and chief executive officer of Roy M. Huffington, Inc., an independent, international oil and gas company located in Houston, Texas, and former U. S. Ambassador to Austria, are the **EDWIN L. DRAKE LEGENDARY OILMAN** awardees for 2008.

The **SAMUEL T. PEES KEEPER OF THE FLAME AWARD** honors and recognizes individuals who have provided great service in preserving and bringing before the public the heritage and history of the oil and gas industry. The award bears the name of a long-time petroleum geologist, oil historian, and one of the founders of the Petroleum History Institute.

For 2008 PHI is pleased to announce that **LOIS McELWEE**, Oil Region Alliance for Business, Industry & Tourism (Oil City, PA) and former Sesquicentennial Coordinator for the Drake Well 150th Anniversary, **CHARLES FAIRBANK**, and **EARLE GRAY**, both well known Canadian authors and historians, are being recognized for their contributions to the history of the oil and gas industries with PHI's **SAMUEL T. PEES KEEPER OF THE FLAME AWARD** for 2008.

Full biographies and photographs of the awardees will appear in the 2008 issue of *Oil-Industry History* and on the PHI web site.



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