

**PETROLEUM  
HISTORY  
SOCIETY**

**ARCHIVES**

*Newsletter of the Petroleum History Society*

*June 2005; Volume XVI, Number 4*

**P.H.S. Lunch and Learn Meeting – June 8, 2005**

Speakers: **Simone Marler** (Shell Canada Limited) and  
**Colleen Killingsworth** (Canadian Centre for Energy Information)

*On:*

**That was Then; This is Now:  
Educating the Public about the Petroleum Industry**

"Our industry is a responsible developer and provider of resources that are crucial to our way of life, yet few seem to know the facts." These words capture both the frustration and the challenge for those inside the energy sector. But much has been done. The 1983 opening of the Energeum, the E.U.B.'s interpretive centre, was part of a wider movement to educate people about the importance of the energy industry to our province and the nation. That work continues today in new and innovative ways.

Simone Marler, former Energeum curator and now Public Affairs Manager with Shell Canada Products, and Colleen Killingsworth, President of the Canadian Centre for Energy Information, take stock of past achievements and the future for energy information.

**TIME:** 12 noon, Wednesday, June 8, 2005.

**PLACE:** Fairmont Palliser Hotel (133 - 9<sup>th</sup> Avenue S.W.) – Colonial Room (check marquee)

**COST:** Members \$25.00 and Guests \$30.00 (most welcome)

**R.S.V.P. if you wish to attend to: Clint Tippett, 691-4274 or  
[clinton.tippett@shell.com](mailto:clinton.tippett@shell.com) by noon Monday, June 6**

*Additionally In This Issue ...*

The Bull Wheel 2

Paul Chastko Oil Sands 5

New Release: David Finch's  
"Hell's Half Acre" 7

Pre-publication form for  
Sandy Gow's "Roughnecks,  
Rock Bits and Rigs" 8

*Archives* is published approximately 6 times a year by the Petroleum History Society for Society members. Back issues are archived on our website at:

[www.petroleumhistory.ca](http://www.petroleumhistory.ca)

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***THE PETROLEUM HISTORY SOCIETY***  
**THE BULL WHEEL**



**Next Board Meeting:** The Board will meet next on Thursday, June 2, 2005 at noon at the Glenbow Museum and Archives. Meet in the lobby just before noon.

**Volunteers:** We are always on the lookout for people with the energy and dedication to help us grow and to undertake projects on the Society's behalf. Please contact Clint Tippett (691-4274), Doug Cass (268-4203) or Hugh Leiper (249-0707) if you would like to get involved.

**Next Luncheons:** Our luncheon slate for the Fall session is firming up nicely and we hope to bring you an excellent series of talks. We are seeking speakers and interesting subjects. If you would like to consider presenting, please contact Clint Tippett, President P.H.S., at 691-4274 or Director Debbie Knall at 780-463-3859 (Edmonton).

**Canadian Centre for Energy Information:** The P.H.S. has a "Content, Marketing and Traffic Partnership" with the Centre. This arrangement is an expression of the mutually beneficial cooperation that we hope will exist between our two organizations. Please see [www.centreforenergy.com](http://www.centreforenergy.com) for more details. Of particular interest to our members is their on-line historical volume "Evolution of Canada's Oil and Gas Industry" that can be downloaded free of charge.



Canadian Centre  
for Energy Information

[www.centreforenergy.com](http://www.centreforenergy.com)

**Canadian Petroleum Hall of Fame:** The annual call for nominations for this prestigious group closes on May 31. Your society and its members have been hard at work collecting information and preparing submissions for several historically prominent individuals who we believe deserve recognition in this context. Stay tuned for the results. The induction ceremony takes place in late September each year. For more information and details concerning past inductees, please refer to their website at [www.canadianpetroleumhalloffame.ca](http://www.canadianpetroleumhalloffame.ca).

**Aubrey Kerr Interview:** The C.B.C. recently interviewed Aubrey as a part of a feature on Leduc and "where are they now". Aubrey's personal involvement in the discovery and its aftermath made him an ideal individual to address this topic. His various books contain a wealth of information about this glorious phase in the life of the industry. To order copies you can go to the "bookstore" on the C.C.E.I. website referred to above.

**P.H.S. Pin Sets:** Our pin sets (of 6) have been reduced in price to \$40.00. Please contact the Society if you are interested in buying one or several sets. These make great and original Calgary- or Western Canada-related gifts. Detailed comprehensive descriptions accompany each plush-boxed set.

**EnergyWalk:** An initiative called the “The Energy Walk: A Tribute to the Oil and Gas Industry” is well underway with plans to develop a number of historical displays related to the industry for exhibit in Calgary for the 100<sup>th</sup> anniversary of Alberta’s creation. Various corporate partners have pledged money or venues and the P.H.S. has played a small role by advising the organizers on the availability of historical resources. President Clint Tippett has also scoured his garage for some historical momentos that may be incorporated into the displays. These exhibits will be available for viewing at several downtown venues including Fifth Avenue Place, Petro-Canada Centre and the Telus Convention Centre by early June and will run through to late September.

**Sandy Gow’s Book: “Roughnecks, Rock Bits and Rigs: The Evolution of Oil Well Drilling Technology in Alberta, 1883-1970”:** This soon-to-be-released book has been highlighted previously on these pages. Through our discussions with its publisher, the University of Calgary Press, we have taken a number of pre-orders for the book and will shortly be submitting them to the Press. For those individuals who participated in this offer through the P.H.S. (listed below as a reminder), we anticipate that approximately \$5.00 more over the \$25.00 already collected will have to be levied to cover the \$26.97 pre-sales price plus shipping to the Society, handling and taxes. Copies will have to be picked up either at a luncheon or by other arrangements. Individual shipping of copies bought through the P.H.S. will not be undertaken. For those of you who have not yet ordered a copy, please use the form supplied on page 8 of this issue and send your order directly to the U. of C. Press, as indicated.

Those individuals who have already ordered copies are: Donald J. Fraser, Christopher Ruud [6], Clinton Tippett, John Downing [3], Uldis Upitis, Bob Erickson [2], Leroy Field, Peter Simon, Gordon Williams, John Frey, Blair Taylor, Cal Sikstrom, Robert Bott, Eugene Hall, Tony Vandenbrink, Bill Cummer, Doug MacFarlane, Brent McLean, Bob Rintoul, Earl Martin, Aubrey Kerr, Pete Savage and Frank Seeliger. More information will follow once we receive your copies.

**C.S.E.G. Convention:** Unfortunately we were unable to coordinate a booth for the recent convention of the Canadian Society of Exploration Geophysicists. Director Sean Callaghan did, however, raise the profile of the P.H.S. by sponsoring a copy of Earle Gray’s “Great Canadian Oil Patch, 2<sup>nd</sup> ed.” in the related silent auction and by making some of our brochures available. Thanks Sean!

**Earle Gray’s “The Great Canadian Oil Patch (2<sup>nd</sup> ed.): The Petroleum Era from Birth to Peak”:** Earle spoke about a small but interesting section of his new work at our Annual General Meeting on March 23. A more complete review of his remarks will appear in a subsequent issue of Archives. Bill Whitelaw of JuneWarren Publishing Ltd. indicated that a “trial” batch of the book had been made available for sale through McNally Robinson and that those copies had moved rather briskly. The official launch of the book, originally scheduled for April 5 in Calgary, has been delayed until the fall in order to coincide more closely with the official date of Alberta’s centenary. It should be mentioned that at the conclusion of his talk, **Earle threw down a challenge** to the P.H.S. and its members. The essence of it was that with the 150<sup>th</sup> anniversary of the 1858 discovery of oil by Williams in southwestern Ontario only three years away that we should take it upon ourselves to document once and for all that this event, and not the Drake well of 1859, marked the beginning of the oil industry in North America. Let’s get at it!

**Red Adair:** This famous oil well firefighter passed away on August 7, 2004 at the age of 89. I recently ran across a memorial to this remarkable individual in the August 14, 2004 issue of "The Economist" (I'm a bit behind on my reading!). The note closes with the following description: *"In more than 50 years of firefighting, he dealt with almost 3000 fires. Remarkably, he was never much hurt. A crane crushed him once, and he suffered a few days of smoke-blindness. Exploding gas threw him in the air, but he seemed to bounce. In his later years he was deaf, not surprisingly, for much of his life had been spent amid the roar of flames or explosions. He had perfected the art of snoozing while conflagrations raged around him. Although he anticipated Heaven, he rather hoped for a sighting of Hell."*

**First Rotary Rig in Alberta (?):** We were recently asked if a rotary bit from a well near Bow Island drilled in 1926 could have been part of the first such rotary equipment used in Canada. Reference to a manuscript copy of part of Sandy Gow's book (see above), indicated that it was not, and stated that *"the first of these rotary rigs appear to have arrived in Alberta in late 1914 ..."* and that *"When rotary rigs arrived in Turner Valley in the spring of 1925, rotary drilling had already been in use in the province for over ten years."*

**Nuking the Oil Sands:** The Calgary Sun has been running an excellent series of historical anecdotes as part of the centennial celebrations. On February, 18, 2005 they included the story of how the application of nuclear explosions was once thought to be applicable to the problem of exploiting this vast resource. The article is partly quoted here:

*"The process [for oil recovery] baffled scientists and theorists from around the globe, and dozens of proposals were put forward. The most unnerving plan was pitched by Richfield Oil of California: nuclear explosions. After all, if a couple of atomic bombs could end the Second World War, why not nuke the oil sands into submission? In April 1959, Dr. John Covey, Branch Director of the Federal Mines Department, gave the bizarre proposal a green light. He speculated that the project might require 100 atom bombs, each costing \$1 million. "That sounds like an awful lot of explosives, but you have to remember that this won't be accomplished overnight" he told reporters. Although the dubious wisdom of bathing northern Alberta in radioactive fallout apparently didn't alarm most folks, a University of Alberta radiation geneticist telegraphed Premier Ernest Manning that "the idea poses an alarming hazard to the Canadian population".*

*The plan was to bury a series of 9-kiloton nuclear devices deep below the oil sands and detonate them. By autumn a test site had been chosen at Pony Creek, 64 miles from Fort McMurray, and "Project Oilsand" was going ahead as scheduled – until the Russians inadvertently scuttled it. With the heightening of the Cold War, Ottawa suddenly decided that nuclear explosions for peaceful purposes might increase foreign espionage activity, so the plan to nuke northern Alberta was cancelled."*

**Petroleum Panorama – Oil and Gas Journal 1959: Oklahoma City (1928):** This fabulous oil field overlies a structure so huge that at one time two geologists refused to map it for fear of ridicule. The discovery well in 1928 was one of the most publicized in history and produced more than a million barrels before it was plugged back to shallow sands. The field has produced more than 710 million barrels from 14,000 acres. **Signal Hill** has produced more oil than any other field in California. Discovered in 1921, it was a "geological" find. Recovery has exceeded 400,000 bbl. per acre from three sands that have an aggregate thickness in excess of 2500 feet. In the early days of the field, spacing was so tight that rigs stood floor to floor."

## DEVELOPING ALBERTA'S OIL SANDS

A luncheon presentation by Dr. Paul Chastko

May 4, 2005

"Ladies and Gentlemen, I am pleased to be here today to talk about the oil sands.

On a January afternoon in early 1998, I was sitting in the office of Dr. Alfred Eckes, Jr., who some of you may remember served as the Chairman of the United States' Federal Trade Commission in the 1980s. That day, his role was much less formal, but nonetheless important – at least to me – because he was also my adviser for my doctoral studies at Ohio University.

We were just wrapping up one of our weekly discussions on the growth and development of synthetic fuels policy in the United States. At that point, I said to Dr. Eckes that one of his observations about the influence of government policy on the development of synthetic fuel projects during the Second World War reminded me a bit about the situation with the oil sands back in Alberta. "The oil sands," replied Eckes. "What are those?" From that inauspicious beginning grew the project that culminated in my doctoral dissertation and ultimately to the book that was published by the University of Calgary Press late last year, *Developing Alberta's Oil Sands: From Karl Clark to Kyoto*.

When Doug Cass approached me about speaking to the Petroleum History Society, I immediately wondered what I could possibly say that would be of some interest to the Petroleum History Society. It occurred to me that my conversation with my adviser represents in microcosm one of the common features of oil sand development over the decades – the need to educate people about what the oil sands are and what kind of potential they contain. I need not explain to the people in this room the simple fact that the oil sands deposits located around Fort McMurray contain approximately 1.75 and 2.5 trillion barrels of oil, of which between 200 and 300 billion are recoverable using current technology. Nonetheless, when I began the project, most people outside the industry seemed to know two things about the oil sands. They're large. The second is that it was an incredibly intense operation to extract the oil from the sand – something one observer likened to extracting honey from a bowl of sugar.

The next question I'm almost always asked is: "How did this book get written by a graduate student working at Ohio University?". The short answer to that question is that I was born and raised in Calgary. I'm the son of a geophysicist and I grew up in and around Alberta's oil patch. Ironically, I only began working on the oil sands when I was in Ohio. I guess it is true that all roads do lead back home.

Research that would eventually produce the oil sands industry as we know it today originated back in the 1920s when the province and researchers at the University of Alberta began serious investigations into finding a use for the oil sands.

As many of you already know, Dr. Karl Clark spearheaded these efforts. Initially, the most promising avenue of research for the oil sands was its use as a natural road top asphalt – only gradually in the 1920s did Clark and other researchers begin to appreciate its potential as a source of crude oil. Development through the 1930s and early 1940s was spotty. The Alberta Research Council's efforts were shut down by a lack of funds during the Depression and for the duration of the Second World War.

After the litany of errors that plagued the Abasand plant, a facility originally operated by entrepreneur Max Ball and then by the Federal Government, the Provincial Government believed it had to continue investigating the potential of the oil sands or risk them being marginalized forever. By the late 1940s, a pilot plant at Bitumount yielded encouraging results, and it was clear that the province had gone as far as it could on its own. The question now was whether or not the oil sands could be commercially viable.

The oil sands made their first tentative steps on the world stage with the publication of Sidney Blair's report to the Province of Alberta in 1950. I say tentative because it is clear that the Provincial Government of Ernest Manning, while supportive of oil sands development, did not want to unduly harm Alberta's conventional industry. In many ways, then, the Blair Report can be seen as a politically document, and Blair himself suggested that oil sands development was possible rather than probable. Nevertheless, the report suggested that the oil sands were a commercially viable source of crude oil that could compete on the world market. The Blair Report suggested the oil sands had production costs of \$3.10 per barrel while the oil would fetch \$3.50 on the market. Less publicized, but nonetheless present, was Blair's caveat that oil sands profitability was directly linked to the size of any future oil sands facility. Only by processing large quantities of sand and producing large volumes of oil could an investor expect to reap any profit.

The Blair Report created a stir in the oil industry. Not waiting for the conference to take place, a steady stream of executives and engineers arrived from across the world, including Anglo-Iranian Oil. With great fanfare, Dr. D.A. Howes, the head of Anglo-Iranian's research and development division, was quoted in the *Edmonton Journal* that his company came "to see if the Blair Report could be believed." The editorial writers at the *Journal* could not have been more pleased. "When the Anglo-Iranian company sends a group of its experts to 'take a look' at the possibilities, importance of the McMurray deposits to the world, and to Alberta is immediately conceded."

To capitalize on the report, the province offered to make all of the technical data and research collected by the Alberta Research Council available to the public. To facilitate the process Mr. Blair suggested that the province should host a symposium on the oil sands. With that, the province began preparations for the very first Oil Sands conference in the fall of 1951.

Senior oil company executives, officials from various levels of government, and a score of scientists gathered at the University of Alberta to hear and discuss papers on a variety of oil sands-related topics. The conference also gave the province an opportunity to outline both its leasing and royalty strategies. Nathan Tanner, the Minister of Mines, emphasized that the Province would do all it could to encourage development of the oil sands, a project that was "in the interest of the people of the Province and of Canada as a whole, and, further, to the security of this continent."

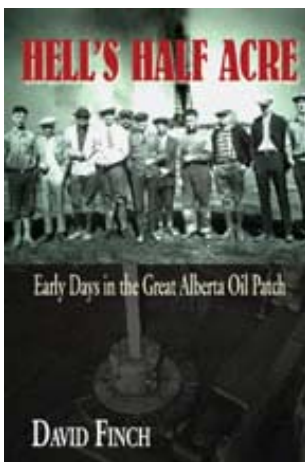
What is particularly striking about those remarks made by Tanner how far the oil sands have travelled and how far they still have to go. On the one hand, one of the foremost experts on oil and energy in the United States, noted historian Daniel Yergin repeatedly tells anyone who will listen that the oil sands represent the future of North American Energy. But for every Daniel Yergin, there are those sceptics who doubt that the oil sands will ever be a secure or reliable source of oil."

Our thanks go to Paul for his presentation and for providing us with a copy of his remarks. Copies of his book are available from the University of Calgary Press.

# HELL'S HALF ACRE

## Early Days in the Great Alberta Oil Patch

### David Finch



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Alberta History/Natural  
Resources  
**HERITAGE HOUSE**  
5 x 9 208 pp  
40 b & w photos 1 map  
\$19.95 CA \$16.95 US

David Finch's new book, *Hell's Half Acre*, gives the reader a close look into the story of the people who lived and worked in Turner Valley—western Canada's first commercial oilfield, located southwest of Calgary.

Beginning in 1914, the oil fields attracted thousands of workers from across North America to the drilling rigs, processing plants, and the pipeline crews that dug the first trenches. In addition to the beginnings of an oil industry, Turner Valley provided Alberta with a rich historical legacy of epic proportions, along with a cast of very colourful characters.

Finch draws on contemporary accounts and dozens of interviews with Turner Valley pioneers, as well as probing the vast visual history of archival photographs, to capture the life and times of an exciting era in Alberta history.

Imagine natural gas flares so plentiful and powerful that night turned into day and the glowing sky could be seen from Calgary. The smell of sour gas and its deadly effects were a constant danger, as were the primitive work conditions associated with the early years of oil exploration. But on the workers toiled, constructing massive drilling rigs out of huge timbers, working day and night in a relentless search for black gold. Then the Second World War brought an unprecedented level of urgency and tension to Turner Valley when the national treasure became a military target.

*Hell's Half Acre* relives these fascinating times, and reveals in entertaining detail the people, the companies, the booms, and the busts.

**David Finch** holds an M.A. in Canadian History from the University of Calgary, where he studied the Canadian petroleum industry. He is the author of 15 books about the Canadian West, including *R.M. Patterson: A Life of Great Adventure*. David lives in Calgary with his family.



# Petroleum History Society Special

## The University of Calgary Press

wishes to extend a very special offer that you don't want to miss!

The University of Calgary Press is proud of our commitment to publishing scholarly works with an emphasis on Alberta heritage and history. We are pleased to announce the upcoming publication of:

### **Roughnecks, Rock Bits, and Rigs: The Evolution of Oil Well Drilling Technology in Alberta, 1883-1970** by Bonar (Sandy) Gow

**List Price: \$44.95 Pre-Sales Offer Price: \$26.97**

*Roughnecks, Rock Bits, and Rigs* provides an overview of the evolution of oil well drilling technology in Alberta from 1883 through 1970, the time of the province's major oil exploration boom. This is the first comprehensive study that focuses on the technologies that made the industry viable, from power sources and drill bit designs to the composition of drilling muds and the use of fishing tools. During the early exploration years, the individuals working in the oilfield developed and adapted these technologies to suit their specific needs, largely through trial and error. This spirit of innovation and ingenuity is captured in Gow's accounts of the evolution of drilling processes and equipment, as well as the personal stories of those who worked on the front lines of this vital provincial industry.

**With this special pre-sale offer, you will receive 40% off the list price of *Roughnecks, Rock Bits, and Rigs*. Please complete the order form and return it to the address below. Payment will only be processed upon publication of the finished book and not until the U of C Press has taken delivery of the book.**

Please return completed order form to:

University of Calgary Press: 2500 University Drive N.W. Calgary, AB Canada T2N 1N4  
fax: 403.282.0085 e-mail: [ucpress@ucalgary.ca](mailto:ucpress@ucalgary.ca) tel: 403.220.7578

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