



**PETROLEUM
HISTORY
SOCIETY**

ARCHIVES

Newsletter of the Petroleum History Society

December 2007; Volume XVIII, Number 7

P.H.S. Lunch and Learn Meeting – Wednesday, December 5, 2007

**History of Encana Fee Title Lands in Canada:
From a Past Employee's Point of View**

by Gordon Dainard, Landman

This talk will provide a pictorial overview of the history of fee title (freehold) lands as they pertain to the mineral fee title lands currently held by EnCana. It will cover many historical points during the period from 1676 to the present day. Attendees will gain a high level of understanding of the basic events that have resulted in EnCana's ownership of fee title lands in Canada.

Gordon was born and raised in Southern Alberta and received his Diploma in Business Administration from the Lethbridge Community College in 1970. He moved to Calgary shortly after graduation. His first job was with Canadian Pacific Oil and Gas Limited as an accounts payable clerk. His career continued on for thirty plus years through various corporate changes including the eventual merger of PanCanadian and Alberta Energy to form EnCana Corporation. Gordon has conducted many seminars and workshops on the history of EnCana lands and leases and was the creator of both a historical brochure and an online training module on the History of EnCana Fee Title Lands in Canada. His last position with EnCana was as the Fee Title Knowledge Sharing Advisor. He retired in July 2007. Gordon is currently the President of the Canadian Association of Petroleum Land Administration (CAPLA).

TIME: 12 noon, Wednesday, December 5, 2007. **NOTE NEW LOCATION**
PLACE: Telus Conference Room, Saddledome – Calgary Stampede Grounds (refer to p. 10)
COST: Members \$25.00 and Guests \$30.00 (most welcome) (cash or cheque only)

**R.S.V.P. if you wish to attend to: Clint Tippett, 691-4274 or
clinton.tippett@shell.com by noon Monday, December 3**

**Individuals who indicate that they will be attending but do not materialize will be considered
“no shows” and will be invoiced for the cost of the luncheon.**

Individuals who do not R.S.V.P. cannot be assured of seating.

**We apologize for the need to implement these policies but we are finding it necessary to optimize
both the financial and operational aspects of our luncheon program. Thanks.**

THE PETROLEUM HISTORY SOCIETY
THE BULL WHEEL



Next Board Meeting: The Board will meet November 29 at the Glenbow Museum and Archives. Thanks to Treasurer Doug Cass and the Glenbow for their hospitality.

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: We are seeking speakers and interesting subjects. If you are considering making a presentation, please contact Clint Tippett, President P.H.S., at 691-4274.

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 exists between our two organizations. Please see 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.



Tidbits:

Petroleum History Calendar: A very attractive "16 month" 2008 calendar has been produced by the organization "Soul of Alberta". It is called the "Alberta Petroleum Discovery Calendar" and can be purchased at Coles or McNally-Robinson at a cost of \$20.00. Although the P.H.S. was not financially involved in this initiative, we endorsed its creation and consequently our logo is contained in it. Added bonuses are the multiple photos for each month and the amount of corresponding explanatory text. You can also check it out at www.soulofalberta.com where an ordering form can also be found.

Petroleum Book Club: This is a new branch of the Petroleum News of Alaska. According to its website "The club's goal is to provide accurate information about the international energy industry to authors". An individual annual membership includes one copy of each of 10 books in some way related to the industry with the option for active participation in the on-line member review forums. The cost is not insignificant at \$360.00 per year for Canadian subscribers (including shipping and handling). Both authors and subscribers can post comments for up to 8 weeks after book shipment. If this sounds interesting to you, check it out at www.pnabookclub.com.

Passing:

Garnet S. Edwards: Garnet passed away quietly on November 13, 2007 at the Beverly Care Centre in Calgary. He was born in Manitoba in 1916 and moved with his family to Alberta as a young boy. His career in the oil industry began in 1931 with Union Drilling in Turner Valley. During his later career in Edmonton he worked for various drilling contractors - Commonwealth Drilling, Canadawest Drilling and Northern Development Drilling. He also spent time as general manager for Eastman Oilwell Survey Company. He and his partner subsequently purchased Tubetest Service and operated that company throughout western Canada and on the East Coast. Following his retirement in 1978, Garnet built seven working cable tool rig models that he donated to various museums in Alberta. In 1997 Garnet's accomplishments were recognized when he became one of the original inductees into the Canadian Petroleum Hall of Fame. Garnet served on the executive of O.T.S., was a valued member of the Petroleum Club for forty-one years and was a member of the South Edmonton Optimists Club. Garnet Edwards was a truly dedicated and valuable oil patch pioneer.

Support for the P.H.S.: We would like to express our great appreciation to all of our members for their ongoing support. Three categories of our membership also deserve special mention – and they are not necessarily mutually exclusive. Firstly, our sustaining members for their extra ongoing financial involvement. Secondly, those of our Lifetime members who don't rest on their laurels but continue to pitch in. And finally, those of all categories who have made additional donations – and over the last two years have included John Andrichuk, Rick Green, Brent McLean, Chris Ruud, Uldis Upitis, Evelyn DeMille and Sandy Gow. Thanks!!!

Leduc No. 1: JuneWarren Publishing Limited recently released a magazine jointly sponsored with the Canadian Petroleum Discovery Centre in Devon on the occasion of the 60th Anniversary of the Leduc No. 1 find. The full colour, 44 page volume was distributed with Oilweek Magazine and provides a good sampling of the various facets of petroleum history in Alberta.

Oilweek Rewind Page: Publisher Bill Whitelaw of Oilweek has chosen to incorporate historical flavour into the magazine with the monthly feature "Rewind", subtitled "A selection of events in Oilweek from [the current month] in decades past". For example the July 2007 issue featured the initial flow of Alberta Trunk Line gas into the new TransCanada Pipeline in July 1957 and the launch of the Alaska Pipeline "Pre-build" project in July 1982. A quick entree to our history.

Search for Authors: The Canadian petroleum scene has been impacted by several major developments over the last year and it would be very valuable to our membership if someone was to take the bull by the horns and provide us with analyses in the context of Canadian petroleum history. The issues in question are: 1). The ongoing revenue feuds between the federal and provincial governments on the East Coast (offshore ownership and equalization payments), and 2). The on-going royalty controversy in Alberta. Any volunteers?

Archives is published approximately six times a year by the Petroleum History Society for Society members.

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Back issues are archived on our website at www.petroleumhistory.ca

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Writing Petroleum History a New Way – The creation of “PUMPED: Everyone’s Guide to the Oil Patch”

*By David Finch
For the Petroleum History Society Luncheon
October 25, 2007*

Two days after the release of the 2007 Alberta Royalty Review a fellow asked me “When have you ever seen anything like this? The vitriol for the industry? The anger?”. “In the 1970s, my dear friend,” I said to him, when Peter Lougheed went through this same process. But then again, my friend was not living in Alberta at that time. We in the Petroleum History Society all know petroleum history is important, but the events of the last month show how it is important.

Today’s talk is about the writing of “PUMPED: Everyone’s Guide to the Oil Patch” and I’m here to share with you some of the thoughts that went into writing this new book. Context means everything when it comes to understanding life and it is just as important when getting to know the oil industry as any other part of life. My publisher moved here from Saskatchewan 11 years ago and she went looking for a book to explain the oil patch. Asking an engineer or a geologist didn’t help, what they told her was so technical that she could not understand what they were saying. So she asked me for an opinionated, informed, interesting book, something that explains the industry in terms everyone can understand.

How do you turn a topic that is by turns technical, political, economic, unpredictable and emotional into a good book? It’s all about the context – and you people right here in the room have helped me understand that context. Or have helped me see that the context is so complicated that we must agree to continue learning.

Here are some examples of the topics I cover and their context. First, there is the **Jargon**. These are terms that make no sense to most people, so learning their background, their humor and their stories helps us understand. **Discovery** comes next. Geologists and geophysicists can become quite technical in their explanations, but I’ve learned from you in this room that the quest for oil is a detective story – reading the rocks, learning to apply seismic and many other techniques. Your stories of discoveries and serendipity and failure bring this part of the industry to life. **Gushers** is the chapter about drilling. It is simple, but invisible. By explaining the evolution of drilling I have opened up the minds of my readers to understanding the quest. It may be there, but drillers have to get it out. Context is important here too. **Consumers and the Outrageous Price at the Pump** was hard to write because everyone assumes a conspiracy or worse. But at the core of this emotional topic is consumption – we are addicted to oil. Addiction is fine – air, water, food – we need them all. Setting the context allows me to show readers how they have choices of cars, where they live, how they get to work. But the real rip-off at the gas station is the snacks - \$2.49 for a litre of water.

Conflict was an easy chapter to write because there are so many examples of the fight for spoils. I chose to review seven examples back to Sir John A. Macdonald, but for today I want to review the Alberta Royalty Review of 2007. As you may know, I went and saw the 2006 version of the royalty review that, though heavily censored, showed that we had lots of room for an increase. As Jim Gray says “It’s all about power and control.” So this will be interesting. Historical context informs this royalty review in several ways – all of which I shared with the government and anyone else who wanted to listen. The points I made to them were as follows. Royalty reviews happen every ten years or so in the past. There is always outrage, ridicule and

condemnation. Industry's bottom line is different from that of government and that is as it should be – it has a different mandate. But government's duty is to take the longer view – the EUB and the NEB are two examples of government agencies that have a duty to take that long view. Emotions always run high during royalty reviews, but that is part of the game of oil too. Royalty reviews have been done several different ways. For example, in 1961 the Manning government appointed a panel of government and industry experts to study the royalty rate. After a year, it recommended a 0% increase but Manning and his Cabinet decided to raise the base rate from 5% to 8%. As Carl Nickle of the Daily Oil Bulletin noted "Thus, frank discussion between representatives of government and industry has in this case brought a degree of compromise." Then in 1971 Premier Lougheed conducted the royalty review as a committee of the whole and then made the final decision to raise the rates – drastically – behind closed doors with the Cabinet. In the 1980s and 1990s as the world oil price spiraled downward, the government took its hands off the oil industry, deregulated it, and allowed market forces to have their way. But neither the NEP of 1979 or 1980 – which were very hands on – nor the 1985 decision to let oil prices become totally deregulated in Canada worked well. Today we need a new way; micromanaging does not work but neither does giving away the farm. It should be government's role to set goals and objectives, then allow industry to meet them.

One major change happened two years ago when conventional oil production was surpassed by oil sands production. There have been just three major developments in Western Canadian oil history. It was not the discoveries at Turner Valley, Norman Wells or even Leduc that created the first boom in Alberta. It was the construction of the pipelines in the 1950s that gave access to continental markets. That was the first big event. But pipelines quickly flooded the market. The next big event was the oil price hikes of 1970s – up 12 fold in less than a decade. This increase in the value of the product masked the fact that production per well had been falling since 1950s. Then in 2005 the oil sands production surpassed conventional production. Based on the 1967 and 1978 oil sands plants, the oil sands industry is booming. As a result, petroleum is now a commodity like coal. The supply is stable and, even though prices, technology, other factors are still variable, the future of oil in Alberta is as a mining venture. The supply and market are now assured. My review of the 1979 (Joe Clark) and 1980 (Pierre Trudeau) NEPs to Stelmach concluded as follows. Though based on the flawed assumption that oil was headed for \$100 per barrel, the goal of these programs was unassailable: the implementation a set of sound, flexible and fair policies that would see that the public in Canada was well served by the complex relationship between the owner of the resource, the producer of the petroleum, and the investor. If Alberta can create a set of oil and gas policies that can accomplish this goal, it will be a leader to other provinces as well as for the federal government.

Bitumen was a fun chapter to write, though Fort McMurray reminds me of Turner Valley during its boom days. There is lots of activity, little control, enormous potential for good but also just as much chance for waste of resource and environmental disaster. It was because of mismanagement of the resource at Turner Valley that the ERCB was created. Can the reconstituted ERCB and this government get control over the issues at Ft. McMurray? I'm not sure. **Frontiers** was also fun to write because it allowed me to review the many exciting prospects for new sources of oil and gas – oil shale, offshore oil and gas, coal bed methane, gas hydrates and many more. But the most productive frontier is economics. Roland Priddle, NEB chair, taught me a lot about the discoveries that are made when the price changes. We are not running out of oil, just 5 cent and \$5 oil. We may soon run short of \$50 oil. Context is everything. But the area of economic discovery most exciting to me is conservation. Raise the price at the pump to \$2 like in most of the G8 countries and the market will react with creativity – new efficiencies, more public transit, more people thinking smartly.

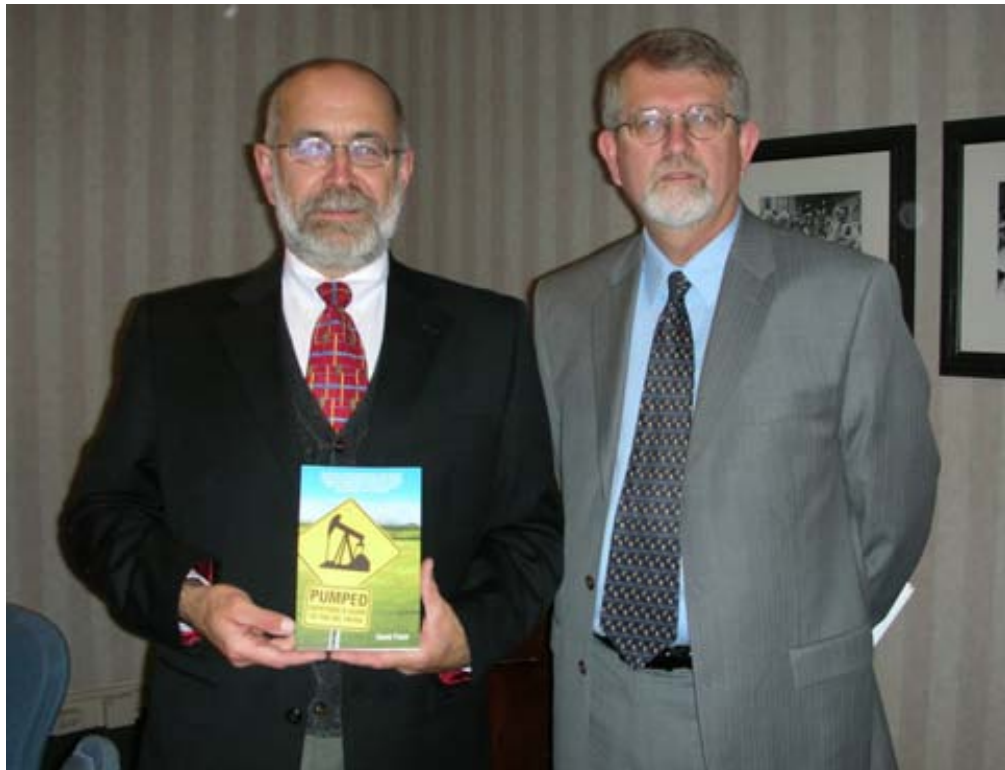
OOPS! – Mistakes and Lessons is a chapter many people in industry do not like to read but the public loves. The Canadian industry has made lots of mistakes and learned from those mistakes – and I think those lessons are worth celebrating. Orphan wells, gas station cleanups, Imperial Oil's refinery in Calgary, the Turner Valley gas plant cleanup – there all examples that should make us pay attention. We are making mistakes today and we need to pay attention and clean up as we go.

Booms and Busts – This time it's Different! It could be different, but this chapter shows the many, many factors that affect the boom and bust cycles. We are distracted by the royalty review these days, but what is happening the American economy could be a much, much more important development than the royalty rate. Cycles are mostly influenced by huge international forces, not by the actions of the Alberta government or the politicians in Ottawa.

And finally, this book has a glossary that is also an index. I've not seen anything like it before and I think it helps the reader get around the book quickly.

In conclusion, **PUMPED: Everyone's Guide to the Oil Patch** is the book for everyone because it provides context to today's events in the oil industry and helps us understand where we are going in the future. [*Pumped is published by Fifth House Publishers of Calgary.*]

Thanks for the invitation to speak to you today. (*and our thanks to David and P.H.S. Past President Micky Gulless for this transcript.*)



Speaker David Finch (left) proudly displays a copy of his new book "Pumped" after being thanked for his October 25 presentation by P.H.S. Treasurer Doug Cass (right). David authors a column in the Calgary Herald that appears approximately every second Sunday. Although the feature covers a wide range of topics, a petroleum history aspect is often an important component.

Maverick, Jr.

By Clint Tippett, President P.H.S.

The Glenbow Museum has been featuring its new Mavericks Exhibit and the book "Audacious and Adamant - The Story of Maverick Alberta" by Aritha van Herk (2007) has been published to accompany it. Under the Oil and Gas section, the first individual to be described is William Stewart Herron who was one of the driving forces behind the discovery of the Turner Valley Field in 1914. The Herron family was deeply involved in the development of the field through Herron Oil and Natural Gas Company and Okalta Oils and it is within that context that the book describes an episode in the winter of 1937-1938:

"Another son, W. "Bill" Herron, carried on the Herron tradition. As field superintendent of Okalta Oils, Bill oversaw work on the rigs. Once, the drilling string on a cable tool rig broke and to prevent them wasting precious time trying to fish the bit and the tangled mess of tools out of the well, Bill decided to take matters into his own hands. He stuffed a fur hat full of rags to protect his head, and ordered driller Red McGregor to lower him into the bore. He knew he was in lethal danger from falling rocks and poisonous fumes, but with a flashlight in one hand and the drilling cable in the other, he descended 290 feet and retrieved the equipment. His father was furious and fired him for taking such a foolhardy risk. Three days later he hired him back."

This story was told in more detail by P.H.S. Vice-President Frank Dabbs in his 2001 book "Branded by the Wind – The Life and Times of Bill Herron":

"The most dramatic Bill Herron legend grew from an incident near the end of 1937 during the drilling of Okalta No. 7. What set the scene was the rush to get Okalta into the action triggered by the Turner Valley Royalties discovery [1936], by Stewart's sense of urgency, often profanely communicated to his son, and by Bill's growing self-confidence that he hadn't met a technical problem he couldn't solve.

It was early winter; the crew had just started drilling the well using the rotary rig that had completed work on Okalta No. 6. Working conditions were awful: cold, wet and windy. The bit had penetrated just 300 feet into the ground when the string of tools that operated the bit broke free from the socket that attached them to the drill stem. For several days, Bill, Red McGregor (whom he regarded as the greatest driller ever in Turner Valley) and Peter Dorch (who ran the boilers that powered the rig) tried to fish the tool string back out of the well, using a complicated bailer. The more they wrestled for the bit, the more the uncased sides of the well crumbled in. Each night, Bill drove to Calgary to have dinner with his father and talk into the night about how they could save the well. Finally, Bill lost his patience. He rounded up a spool of heavy cable and dragged it into the drilling rig floor. He borrowed Dorch's fur hat and stuffed it with rags to fashion a makeshift hard hat. He put it on, hitched a flashlight to his belt, grabbed the end of the cable and ordered McGregor and Dorch to lower him into the hole, which was just wide enough for his shoulders to pass.

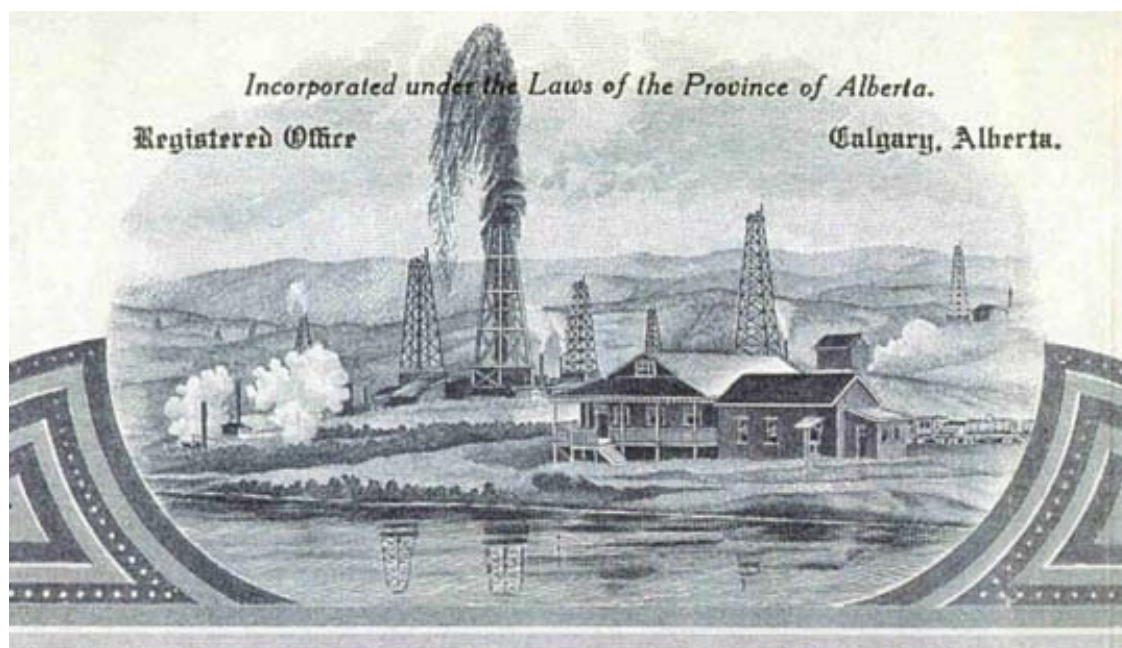
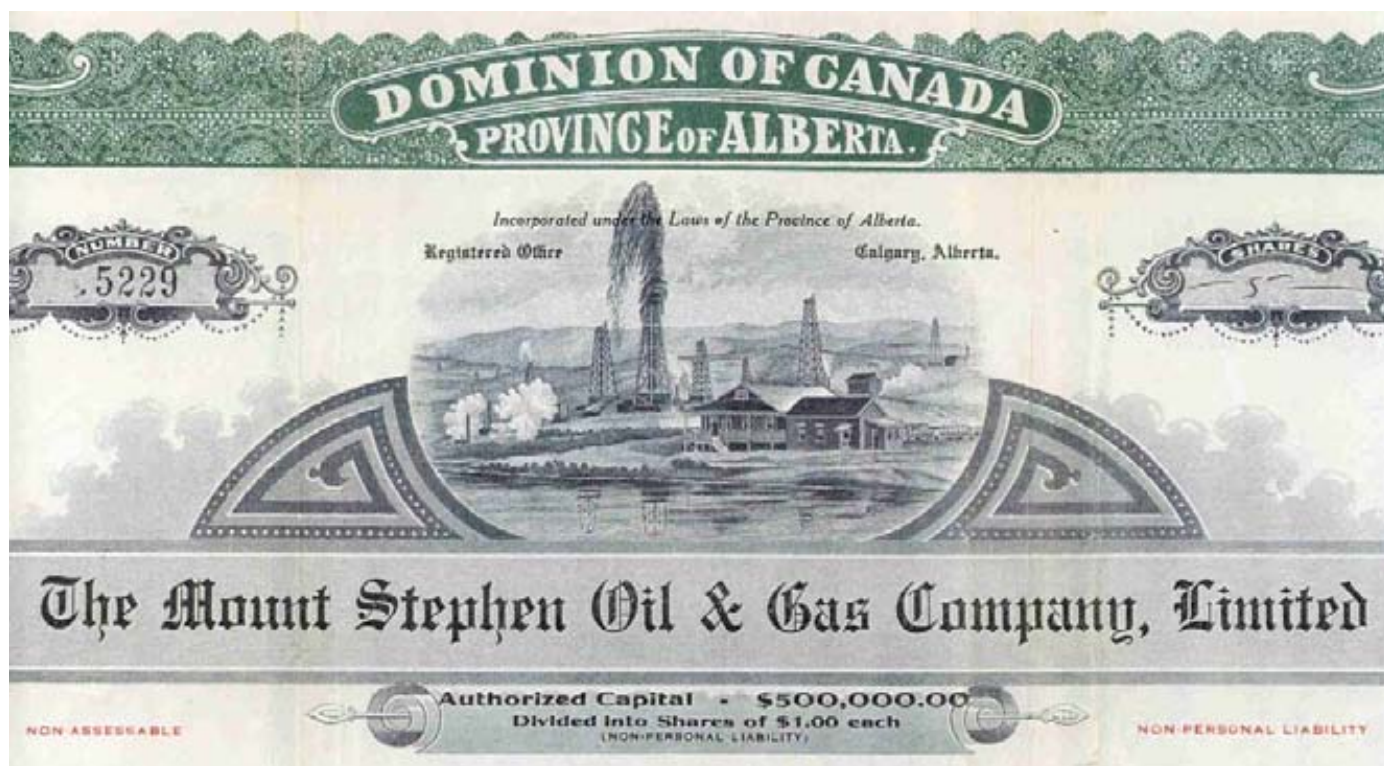
McGregor blanched. He was a drinker whose affection for whisky had cost him job after job until only Bill would hire him, and only on condition that he stay sober for the rest of his life. "Bill," Red McGregor pleaded, "don't make me do this. Your Dad will fire you when he finds out, but he'll kill me. Bill, if you make me do this I'll go back to drinking for sure." "Well, I'll kill you first, Red," Bill warned, and went down the hole. As McGregor skilfully played out the cable, rocks and clods of dirt crashed into Bill's head and dirt poured down his collar... It took two trips up and down the

hole for Bill to size up the problem and devise a rough hoist to raise the tangled mass of drill bit and tool string. Had he and the crew not figured out how to rescue the gear, the hole would have been lost, costing Okalta a large sum. But Stewart didn't thank him, he fired him. Bill stayed fired for three days until his Dad cooled down, relented and rehired him after exacting a strict promise to never jeopardize his life for the fear of losing a few dollars".

This is a great oilfield story although there is a certain sense of insanity about it. But how does it stack up against the facts? Luckily, the Energy and Utilities Board and its predecessors have always required that daily "tour" (pronounced "tower") sheets be submitted for all wells drilled in Alberta. Consequently I was able to visit the Core Research Centre out near the University of Calgary and there requested the sheets for Okalta No. 7. Here's what I found:

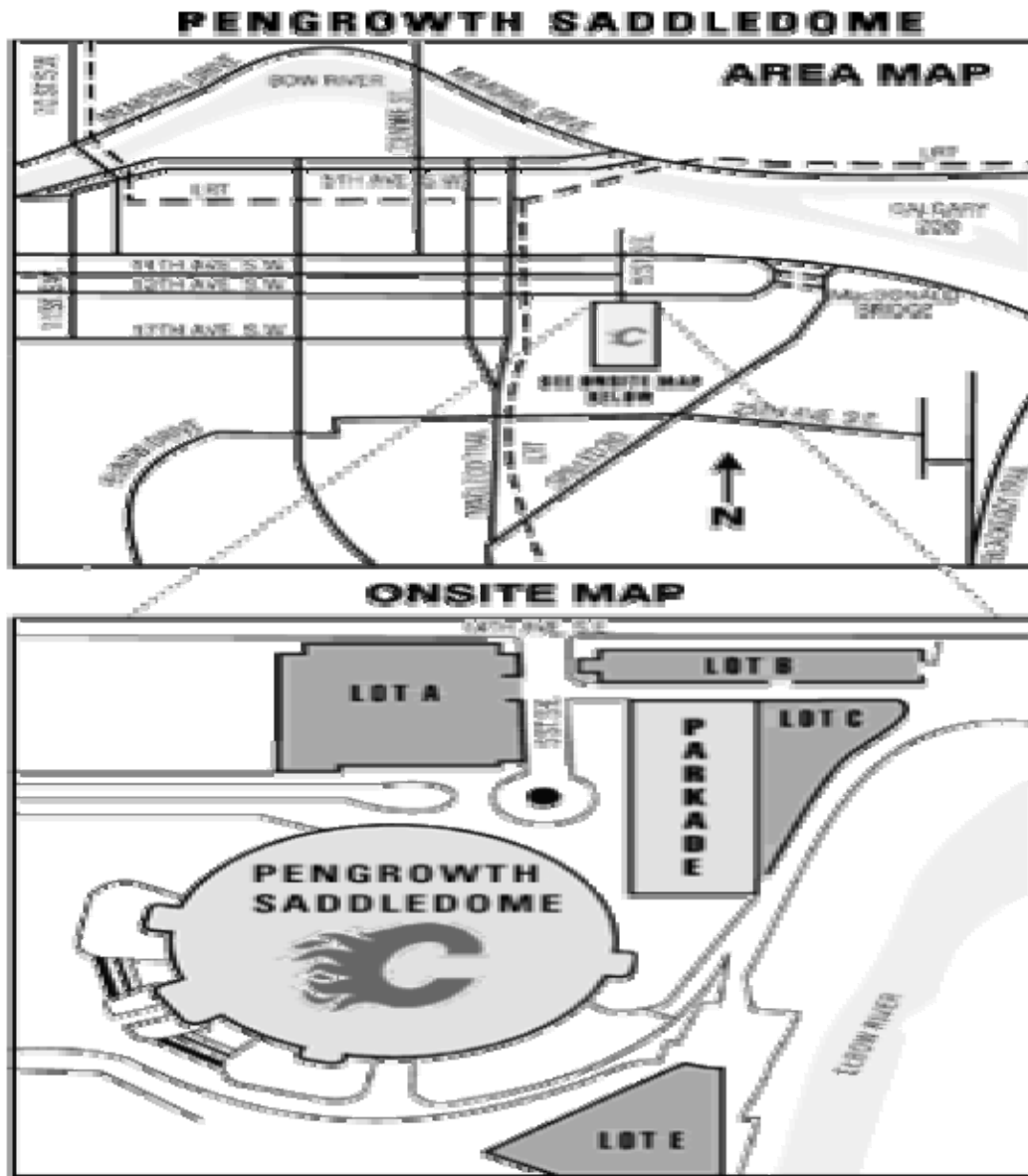
The well was spudded in glacial drift/gravels on January 23, 1938 about 200m from the north bank of the Highwood River at the south end of the Turner Valley Field. From our current knowledge, this puts it at about the same elevation as the Brown Royalties oil discovery well at the top Mississippian level. [Okalta No. 6, in contrast, had been a dry hole well down dip on the west flank of Turner Valley thrust sheet.]. Three man crews (named on the sheets) were on the rig for each of the eight-hour shifts. At 90 feet No. 7 hit the top of the Bearpaw Shale. A problem zone was encountered at 109 feet and the tools were stuck in the hole. After a successful fishing trip to retrieve the equipment and a little more drilling, 21 inch casing was set to 103 feet. These operations lasted from Jan. 27 to Jan. 29. When the hole reached 204 feet on Feb. 1 another fishing operation was required when the pin "jumped" on the 20 inch bit being used. A more difficult job ensued lasting until Feb. 9. Sidetracking around the lost bit was attempted but on Feb. 5 the bit was at last recovered. After a short period of drilling, a string of 18 inch casing was set to 222 feet. At 310 feet the base of this deformed zone, corresponding to the top of the underlying Belly River Sandstone, was encountered. Beyond that point there doesn't appear to have been any major problems. Drilling reached total depth at 7425 feet on November 19, 1939. It appears that the well was deepened in 1944 to a depth of 8548 feet by which point it had drilled completely through the leading edge of the productive carbonate thrust sheet. R. McGregor's name is on the sheets throughout and the Operator's agent who signed the sheets was W. S. Herron. P. Dorch's name only appears after 1100 feet. On a sad note, the July 24, 1939 tour sheet indicates that the rig was shut down on that day for the funeral of W.S. Herron.

How does this stack up? **Firstly, cable tool or rotary?** The sheets for the shallow section are sprinkled with terms that suggest cable tool – sand reel, drilling line, jerk line, socket, swivel, dressing the bit, cutting off bad drilling line, sheaves and shortening the pitman. The scout ticket for the well states "standard to 3085 feet rotary". I would interpret this to mean that the upper part of the hole, including the zone of interest, was drilled with a cable tool rig and that the portion from 3085 to total depth was drilled with a rotary rig. The sheets also describe just the bit on bottom, not a tangled mess. The size or length of the bit is not specified. I thought these bits were many yards long, like a great chisel but the sheets suggest just a few feet. **Secondly, how about Herron's exploits?** The stories say they were at 290-300 feet when the problem occurred but the tour sheets don't substantiate that. It is notable that there isn't any mention of a person being lowered down the well but perhaps that isn't the sort of thing one puts on a tour sheet. The most likely interpretation was that the episode occurred at 204 feet between Feb. 1 and Feb. 9 and that Herron descended through 103 feet of 21-inch diameter cased hole and then down as much as 101 feet of 20-inch diameter open hole. This still sounds unlikely to me but our readers will need to answer that for themselves. Not to mention that you'd have to be upside down to actually do anything at bottom! The fact that there is nothing on the tour sheets to prove the legend may or may not be significant. Perhaps you just had to be there.



Masthead and detail of a Stock Certificate for the Mount Stephen Oil and Gas Company Limited. This is one of the companies that blossomed in the aftermath of the 1914 Turner Valley discovery and, unlike at least a few of its fellows, actually did drill several wells in the vicinity of the field, although without success. A high density of wells with a few of them gushing oil were the hallmarks of success and each company tried to outdo its competitors. Railroad connections were a litmus test of true success – an engine and tank cars can be seen sneaking in behind the buildings to the right. Ironically, despite its much greater later success, Turner Valley never did warrant a direct rail spur and its production was taken away in pipelines.

Bring this with you!
Map for Access to Pengrowth Saddledome, Stampede Park
for the December 5, 2007 Luncheon of the Petroleum History Society



Access to the Telus Conference Centre, where the luncheon is being held, is via the north doors or what is known as the "Avison Young Entrance". Signs will show the way once you are in.

If you are coming by **C-train**, get off at the Victoria Park stop and walk east along the +15 level through the Roundup Centre and past the Corral. Descend to street level before you get to the Saddledome and loop around the north side to gain entrance. The front doors of the Saddledome are locked at this time of day and you won't be able to get in that way.

If you are **driving**, come in via 14th Ave S.E. and then 5 St. S.E. and park in what is labeled Lot A directly north (above) of the Saddledome on the map above. Parking is free at this time of day. Do not enter the main lots to the west of the Saddledome, as you have to pay to get in there.