

# ARCHIVES

Newsletter of the Petroleum History Society

January 2010; Volume XXI, Number 1

### P.H.S. Lunch and Learn Meeting - Wednesday, January 27, 2010

## Full Steam Ahead: H.F. Clarke Industrial Inc. - since 1907

by Gordon S. Clarke and Sharon A. McLeay

Gordon Clarke has, along with Sharon McLeay, written what has been described as "a corporate and family memoir" on the subject of this company and the role that Gordon's family played in its creation and growth. The result is a comprehensively documented and well-illustrated 206-page book that chronicles life in Calgary from the early 1900's to the present time. The description on the back of the volume sums up the contents as follows:

"The year is 1903. With \$75,000US tucked into his makeshift money belt, mechanical engineer Samuel Saunders Clarke leaves a successful practice in Buffalo, New York to start his own business in the far-flung Canadian town of Calgary. It's a risky undertaking, yet he knows that the earth in Calgary never stops rumbling from the sound of building excavations, and he's willing to bet that there will be unlimited demand for steam heat engineering. His steam heating system designs are so successful that town fathers, architects, contractors and jobbers soon start calling him "Steamheat Sam". His business savvy earns him the title "Slippery Sam" from his competitors. .... This engaging book is at once a historical account of the HVAC [Heating, Ventilation and Air Conditioning] industry, a corporate history of H.F. Clarke and a family memoir. It is the story about the men who applied their innovation and drive to the use of pipes, valves, pumps and boilers to meet the demands of a growing industry." The company's technologies were and are, amongst many other things, closely allied with those of oil and gas production, processing and transportation.

Please come out and hear the rest of the tale from Gordon, Sam's grandson.

TIME: 12 noon, Wednesday, January 27, 2010.

PLACE: Calgary Petroleum Club, 319 – 5th Avenue S.W. – Cardium Room

COST: Members \$30.00 and Guests \$35.00 (most welcome) (cash or cheque only)

R.S.V.P. if you wish to attend to: Clint Tippett, 403-691-4274 or clinton.tippett@shell.com by noon, Monday, January 25

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.

# THE PETROLEUM HISTORY SOCIETY THE BULL WHEEL



**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 403-691-4274.

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 <a href="www.centreforenergy.com">www.centreforenergy.com</a> 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.



www.centreforenergy.com

#### 2010 P.H.S. MEMBERSHIP DRIVE

CALL to all Petroleum History Society Members – our target for New Members is 24.

We offer a win-win formula at the following functions:

Luncheon January 27, 2010,

Luncheon February 24, 2010 and

Annual General Meeting March 31, 2010.

Each Member signing up a new Member will receive, at any above functions, a copy of award-winning author Aubrey Kerr's *A Sampling of Searchers*, published just prior to his passing in February 2008.

An oilpatch collector item to cherish and display, A Sampling of Searchers is unlikely to be reprinted.

Member growth sustains the Society and its role in oilpatch history.

This personal challenge to each Member, to paraphrase an historic famous speech by an historic famous Leader:

"Ask not what your Society can do for you, but what you can do for your Society".

Will YOU Help?

e-mail neilleeson@shaw.ca for further info

Recent additions to the Archives at the Glenbow Museum relating to petroleum: Records relating to the history of the Canadian oil industry are of particular interest to the Glenbow Archives and over the past decade several major donations have taken place. The largest was the corporate records of Imperial Oil that were amassed by the corporate archives program in Toronto between 1980 and 2005 and transferred to Calgary and Glenbow in 2006. Amounting to over 500 meters of material, the papers include complete Board minutes from 1880 to the 1990s, records of senior management, files relating to upstream and downstream operations, financial records, manuals, an extensive photograph and film/videotape collection, and copies of most company publications throughout its history. The archive has already attracted the interest of many researchers within and outside of the company and once the completed inventory is available online [likely in 2011] will be very accessible to the public. Glenbow also received an addition to the records of Royalite Oil from the Department of Culture, which had taken a large collection of plans, drawings, and manuals to Edmonton when they took over the gas plant site. This valuable material has now been added to the large Royalite archive already held by the Glenbow also holds an extensive collection relating to the Canadian Petroleum Association and its affiliates – this was enriched by the donation of the records of the Arctic Petroleum Operators Association which began as an independent organization but which eventually merged with the CPA. Most of the records of the other professional associations related to the petroleum industry are also housed at Glenbow and were expanded with the donation of material from the Canadian Oil Scouts Association in 2008 and 2009. Other industry groups whose files were donated include the Petroleum Communication Foundation, forerunner of the Centre for Energy Information, as well as the Petroleum Accountants Society. Glenbow also received major collections of personal papers from Aubrey Kerr, Jack Gallagher and Hal Godwin of Seismic Service Supply; and smaller donations from Don Axford, Ron Helmer, Robert Svare and Leon Plotkins. The Library and Archives at Glenbow are open from 10 AM to 5 PM, Tuesday thru Friday, and welcome anyone to visit to use these collections. On the website [www.glenbow.org] there are several databases providing much greater detail about each collection, as well as 95,000 scanned photographs, many illustrating the history of the petroleum industry in Canada. Thanks to P.H.S. Treasurer and Glenbow Chief Archivist Doug Cass for this.

**Passings:** We belatedly note with sadness to passing of P.H.S. Member Bob Price on September 23, 2009 at the age of 85. Many of you will recall Bob at last Spring's AGM where, despite his somewhat frail condition and reduced mobility, he participated in the event as best he could. Other recent noteables are Bill McGregor of Numac fame on May 17, 2009 at the age of 93 and John Ballem, well known lawyer and author of oilpatch fiction, on January 9, 2010 at the age of 84.

**P.H.S. Awards – Call for Nominations:** We have established the tradition of awarding accomplishments in several areas at our Annual General Meeting at the end of March. Our categories for 2009 are Book of the Year, Article of the Year, Multimedia Award, Preservation Award, and Lifetime Achievement Award. Please forward your suggestions to Pres. Clint Tippett.

**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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#### Bringing to Rest an Industry Icon – the Dingman #2 well at Turner Valley

A presentation to the Petroleum History Society by Kary Cuthill, Lionhead Engineering November 25, 2009

Good afternoon everyone. Thank you for the invitation to share with you a story that will resonate with most if not all of you given your interest in the history of our industry and the birthplace of what Canada enjoys today as the most successful natural resource play in history. And so, our story begins with the dawn of the Canadian oil and gas business through the eyes of a young risk taker named Archibald Dingman and the incredibly significant discovery of the Turner Valley oil and gas field.

Let's begin. As many of you know, Western Canada's flourishing oil and gas industry derived its start in the Turner Valley field in the early 1900's. 100 years ago a gentlemen by the name of William Herron, a speculator, self-taught geologist, and wildcatter took a walk along the banks of Sheep Creek at Turner Valley and found gas bubbling up in the mud flats along the banks. Mr. Herron recognized that the hills surrounding Turner Valley were in fact an anticline, a geological feature that could trap large quantities of oil and gas. Using rudimentary equipment that included an old whiskey barrel, he was able to sample and analyze the gas and found that it contained heavy components, commonly called naphtha, which was used to fuel cars in those days.

Recognizing an opportunity, Mr. Herron proceeded to liquidate all of his assets and spend every last dime he had on buying up nearly 7000 acres of land with petroleum mineral rights in the area around the seepage. Unfortunately, Mr. Herron didn't leave any money in his kitty to drill a well. To the rescue came Archibald Dingman and a group of investors from Calgary that included lawyers R.B. Bennett, later Canada's 11<sup>th</sup> prime minister, and James Lougheed, a future Senator and grandfather to Alberta Premier Peter Lougheed. Together with Mr. Herron, they formed Calgary Petroleum Products Ltd. which soon began drilling the Calgary Petroleum Products Well #1, more popularly known as Dingman #1, in 1913 and then subsequently Dingman #2 in 1914. They used the technology of the day, cable tool drilling rigs. While neither well was a true gusher, news of the Dingman discoveries resulted in a wild frenzy of speculation and investment into what people hoped would be the next big wildcat discovery. In a matter of only 3 months, 500 new oil and gas companies were incorporated with the goal of raising funds to drill wells. I can only imagine what a wild and exciting time that would have been living in Calgary and Turner Valley. The Turner Valley Gas Plant that was built in 1914 to process the gas from the Dingman wells tragically burnt down in 1920. Lacking the funds to rebuild the \$50,000 plant, Calgary Petroleum Products Ltd. merged with Imperial Oil to form The Royalite Oil Company, which now had the financial backing to rebuild the plant and drill new wells in Turner Valley.

The second major gas boom in Turner Valley came at the drilling of Royalite #4 in 1924, just north of the town of Turner Valley. This well was drilled to a deeper limestone reservoir, and encountered sour gas with pressures so high that the well blew out uncontrollably, pushing a mile of drill pipe 130 feet into the air, causing a spark and burning down the rig. After the well was brought under control, the unwanted natural gas was separated from the valuable naphtha at the site and was piped to a nearby coulee for flaring. At a continuous flow rate of 20 million cubic feet per day, the rumble and roar of the gas being piped and flared there was so loud that it earned the coulee its nickname "Hells Half Acre". Shortly after the Royalite #4 discovery, hundreds of wells were punched into the ground with names like McLeod, Turner Valley Royalties, and Okalta Oils, many with several large naphtha and natural gas finds. Turner Valley was once again bustling with activity, but the real crown jewel, oil, had yet to be discovered in significant amounts.

The third and final Turner Valley oil boom came in 1936, at the southwest flank of the field. Drilled to a depth of 2500m, Royalties No. 1 became Canada's first true oil gusher and helped to turn Turner Valley into the largest oilfield in the British Empire. By 1942, production from 232 wells in Turner Valley had peaked at over 28,000 barrels per day. The complete lack of conservation measures in those early days resulted in much of the gas cap being flared as an undesirable waste product. In fact, so much gas was flared that it was said that folks in Calgary could read their newspapers at night by the glow of the flares in Turner Valley. Unfortunately the lack of conservation measures taken by industry in those early years resulted in approximately 1.8 trillion cubic feet of gas and over half a billion barrels of recoverable oil either being wasted or left in the ground.

The Turner Valley Oil Field has also played an important role in the chapters of our regulator's history book. As a result of the lack of conservation measures in Turner Valley, the Alberta Government established the Petroleum and Natural Gas Conservation Board in 1938 to regulate the industry, to conserve the otherwise flared natural gas and to maximize the economic recovery of petroleum resources for the benefit of Albertans. The Conservation Board quickly became a model for other jurisdictions in the development and administration of conservation measures. Interestingly enough, Charles Dingman, nephew of Archibald, was one of the three original Board members. From 1938 to today, the Board has played a key role in protecting our province's resources and ensuring the finding and development of petroleum is done safely and with the best interest of the public in mind.

Now I would like to take you forward to the Dingman #2 well and Lionhead Engineering's chapter in the history book. As a well abandonment company we seldom have an opportunity to write the final pages of a well's whose life history has such a rich heritage and place of importance. Most of the wells we encounter have served their purpose, and have lived a full life, so to speak. However, this well is different. Abandoning Dingman #2 is the kind of project that we dream of tackling, not only for the obvious technical and operational challenges, but also for the sake of safely, laying to rest an important industry icon. And so, the story comes to a close with the final days of Dingman #2, a well which took nearly 3 years to drill to a depth of 1000m using cable tool rig technology. Today Dingman #2 would be drilled in a mere 5 days. Isn't it amazing how far we have advanced technology and increased our experience over the past century! Turning now to the abandonment of this well itself, ironically, Lionhead was not the first to make an attempt. That status is given to Royalite in 1949, an abandonment attempt that proved unsuccessful. As a result of steel prices being driven up by the Second World War, wells abandoned at that time had their steel casings blasted and pulled using nitro-glycerin and then sold for cash. The expected lack of casing in the well was one of several challenges that we identified as we developed our wellbore re-entry plan. As it turns out, during the 1949 abandonment, they weren't very successful in actually recovering much casing. In fact about all they were successful at was severely damaging the casing in their failed attempts to pull and recover it, making it all the more difficult for us to be successful in our abandonment this year. The well remained in a dormant state until 1981, when new owner, Gulf Canada, attempted to re-enter the well and repair the sour gas that was leaking from inside and around the casing. Gulf's attempt also resulted in failure as a result of lost circulation, sloughing shales, and fluids that were being pumped during the abandonment ending up coming out the nearby banks of the Sheep River. At that time, the sour gas leaking from the well was piped to the nearby natural gas seep along the banks of the river, lit on fire and flared. In 2007, Alberta Community and Cultural Spirit, a department of the Alberta Government and current owner of the well and nearby gas plant, requested proposals to conduct an engineering review of the state of the Dingman #1 and #2 wells, aimed at determining if they were compliant with current ERCB regulations.

We were fortunate to be selected as a result of our technical expertise and our 20 years of well abandonment experience. We conducted a rigorous engineering assessment of both Dingman wells and identified that, while Dingman #1 was in fact abandoned to today's standards, Dingman #2 was not. Our final report identified the deficiencies in this well and a general plan to address them. In 2008, we began the planning component of this abandonment including a detailed engineering review, obtaining regulatory approvals, developing an Emergency Response Plan, conducting community relations exercises, and sourcing specific equipment to fit the needs of this abandonment. In planning for this abandonment, we had to develop some unique solutions to a variety of complex challenges that this well and its location presented to our team. A very small lease footprint, the sour gas leaking from the well, its location within the town of Turner Valley, its close proximity to the town's drinking water supply wells and the Sheep River, and the numerous wellbore issues that had to be overcome required our team to spend countless hours developing a comprehensive well abandonment program that we believed had the greatest chance of success. During the planning process we quickly recognized a pre-requisite for success would be to communicate what was happening at every stage of the abandonment with everyone involved. With such a complex project it was also critical that we stayed focused on the overarching goals that we established at the start: That was to abandon the well in accordance with today's regulatory standards, to protect the Sheep River and useable groundwaters that the wellbore penetrated, and to stop the sour gas that was flowing directly from the well. This year, we executed those abandonment plans using both coiled tubing and drilling rig operations, and while everything didn't always go according to our plan, our preparation and contingency planning really proved its worth, and we successfully dealt with everything the old well could throw at us.

In the end, we knew that we had done a good job when we completed the work with the well successfully abandoned, with no one hurt, with no negative environmental impact, and with everyone involved happy to celebrate our success. In addition to the hard work put forth by the Lionhead team, this project could not have been a success without the collaboration of many, including the ERCB, the Town of Turner Valley, the owner of the well - Alberta Culture and Community Spirit, our parent company - CCS Corporation, and numerous oilfield service companies. The ERCB has my utmost respect in their handling of this project, especially the hard work put forth by its Calgary and Mindapore staff, for making sure that the final abandonment program and Emergency Response Plan that were developed had the greatest chance of success and that the public's interests were always kept at the forefront. The Mayor, Operations Manager and Councilors of Turner Valley have also played an important role in this historic project. The town has worked closely with us to ensure the protection of the Town's water supply and to act as a hub for communication with its citizens. I thank our customer -Alberta Culture and Community Spirit - for their environmental stewardship and for committing the funds to abandon this leaking well at a time when money is tough to come by. And finally, to Archibald himself. I never had the pleasure of meeting him, but I wish for the sake of my generation that we might learn from him that where there is a spirit of risk taking and rewards, not just for an individual or a company, but also for a town, a community, a province, and even a whole nation. Archibald was there at the beginning of Alberta's prolific industry and it must have been such an exciting time to be a risk taker. I am sincerely grateful to be a small part of the history that you were destined to create, and to be a part of a team who could bring an icon of your legacy to its final resting point. May he rest in peace knowing that his work was appreciated, and that there are many here today who still honour his ingenuity and hunch that perhaps there was something special about a small town in southern Alberta named Turner Valley.

We would like to than Kary for making this presentation to our Society's luncheon and for sharing with us both the operational details of what Lionhead accomplished and its historical context.

#### No Regrets, No Apologies: The Life of Bob Rintoul

11.30.2009 – "With Bob, you camp throughout Alberta and Saskatchewan with rough-and-tumble, hard-drinking seismic crews ... You bed down in shanty-town bunkhouses after rowdy nights in prairie bars. You survive dangerous winter roads and hole up in farm homes while blizzards blow through ... Bob introduces you to dozens of men and women who helped build these provinces. He weaves the genesis of their legacies through his chronological account of the dawn of a new Western Canadian powerhouse."

"When you see this life in full, with "No Regrets and No Apologies," you will be left with no voids or ambiguities. As always, Bob puts it all on the table - a life laid bare for us all to see and learn from." – from the Foreword by Ken King, President and CEO, Calgary Flames.

**BOB RINTOUL** was born into Depression-era Alberta. He showed an entrepreneurial bent from a young age and grew to become one of the province's successful businessmen through his company, Ace Explosives. In *No Regrets, No Apologies*, Bob, a born storyteller, gives an inspired account of his life: a rollicking tale of hard work, sheer determination, novel ideas, and holding fast to what matters in life. Entrepreneur, oilman and philanthropist Bob Rintoul explains, "I have never sacrificed my principles to satisfy other people. I'm a risk-taker. I try to make life a little better for others as well as our family, and that pretty much summarizes my time on this earth. I've done my best."

**No Regrets, No Apologies** will be available in January 2010 from the University of Calgary bookstore. 403-220-5937, toll free 1-877-220-5937, <a href="mailto:bkstore@ucalgary.ca">bkstore@ucalgary.ca</a>, \$25 plus GST, handling and mailing where applicable, published by Kingsley, ISBN 978-0-9784526-6-7.

Book production costs have been paid by the author. All book sale proceeds are being donated by the author to the Bob and Nola Rintoul Endowment in Bone and Joint Research – Southern Alberta, University of Calgary.

The launch party for *No Regrets, No Apologies* will be at the end of January 2010. Stay tuned at http://bobrintoul.com.

#### **ABOUT THE AUTHORS**

GORDON ROBERT (BOB) RINTOUL was born in Calgary, Alberta, in 1930 and completed his education at Calgary's Central Collegiate High School. He married Nola E. Cooper of Moose Jaw, Saskatchewan, in 1951, and they now have two children, five grandchildren, and four great grandchildren. Bob worked for Safeway as a young adult, and joined the geophysical industry in 1950, attaining the position of Party Manager. In 1957 he began work in the explosives industry and in 1967 started his own explosives distribution business, Ace Explosives Limited, distributing for both Canadian Industries Limited and subsequently DuPont of Canada Limited in Western Canada and the Territories. His employees bought him out in 1984 at which time he retired. While in business, Bob served the community in the following organizations: Secretary of the Canadian Society of Exploration Geophysicists; Alberta Motor Truck Association Board: Calgary Heritage Park Board: Charter Member of the Bank of Montreal Small Business Advisory Panel; co-founder, first President, and Honorary Life Member of the Canadian Explosives Distributors Association of Canada; Member of the Board of the Canadian Federation of Independent Business; and a member of the Group of Twelve, who made it possible for the Canadian National Hockey Team to move to Calgary in 1978. Currently, Bob is on the Board and is Vice President of the Petroleum History Society, a member of the Southern Alberta Pioneers and Descendants, an Ambassador for the Calgary Flames, and on the advisory boards of the Alberta Bone and Joint and Patient Wellness for the new Calgary Health Region South Campus Hospital.

**DAVID FINCH** researches and writes the history of the Canadian West and is the author of more than twenty books, including *Pumped: Everyone's Guide to the Oil Patch*.

