



**PETROLEUM  
HISTORY  
SOCIETY**

**ARCHIVES**

*Newsletter of the Petroleum History Society*

*September 2007; Volume XVIII, Number 5*

**P.H.S. Lunch and Learn Meeting – Wednesday, September 19, 2007**

**Sulphur: Its Importance in the Petroleum Industry and  
Its Role in the Alberta Economy - by Dr. Peter Clark**

Sulfur, like carbon, is a very abundant element in the Universe due to its ready nucleosynthesis in stars and distribution through super-nova events. Linkage of the carbon and sulfur cycles in nature result in accumulation of sulfur in both oil and gas. Thus, both Alberta sour gas and oil sands hydrocarbon are contaminated with sulfur. Recovery and processing of sour gas in Alberta has resulted in development of unique technologies and expertise that have had key impacts on its economy. Further utilization of the massive oil sands deposits will result in increased development of sulfur technology in our Province. This presentation will give an overview of these points illustrating how the history of sulfur in Alberta has impacted industrial development in the Province and how it will affect its future.

*Dr. Peter D. Clark is a Professor of Chemistry at the University of Calgary and the Technical Manager of Alberta Sulphur Research Limited. He was born and educated in the UK and received his B.Sc. and Ph.D. in chemistry from the University of Hull, East Yorkshire. Since 1995 he has directed the growth of ASRL into an internationally-based organization recognized for its expertise in a wide array of sulphur chemistry and technology. His experience is global and his perspectives insightful.*

**TIME:** 12 noon, Wednesday, September 19, 2007.

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

**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, 691-4274 or  
[clinton.tippett@shell.com](mailto:clinton.tippett@shell.com) by noon Monday, September 17**

**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 next at noon on September 13, 2007 at the Glenbow Museum and Archives. Thanks to Treasurer Doug Cass for his 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 always seeking speakers and interesting subjects. If you would like to consider presenting, 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](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.



**New Publications:**

A book launch for P.H.S. Director **Aubrey Kerr's** new self-published book "**A Sampling of Searchers**" was held on July 17 at the Trinity Lodge in Calgary. P.H.S. Members Helen Turgeon and Evelyn DeMille organized the event to recognize Aubrey's latest accomplishment. The book is available for purchase in the DeMille Technical Books section at McNally-Robinson Booksellers on the Stephen Avenue Mall. It contains profiles of prominent oil patch players known by Aubrey.

**"Oil City – Black Gold in Waterton Park"** by **Johan Dormaar and Rob Watt** has been published by the Lethbridge Historical Society. No. 45 in their series of historical volumes, this comprehensive work is described as follows: "Johan and Rob's arduous synergistic effort has resulted in 97 pages of very interesting information on people, history and geology. Researching through records in Waterton, Pincher Creek, Calgary, Edmonton, Ottawa and elsewhere is supplemented by the results of their treks through the back country in Waterton National Park. They bring Oil City of the early 1900's to life with 87 photos and illustrations in a soft cover 8.5" by 11" format printed on glossy stock." Both authors have extensive experience in the region with Johan being a retired agronomist based in Lethbridge and Rob a Park Ranger in Waterton Park. Cost is \$20.00. The historical context for the Waterton promotions is of particular interest.

## Passings:

As previously noted at our recent luncheon, longtime P.H.S. member **Ralph Edie** passed away on April 15, 2007 at the age of 85 years. Ralph was born in 1921 at Smokey Lake, Alberta, attended school in Waskatenau, Alberta, obtained his B.Sc. and M.Sc. (Eng.) degrees from the University of Alberta and graduated with his Ph.D. from the Massachusetts Institute of Technology in 1952. According to his obituary "After working in Calgary with several consulting and international petroleum companies, Ralph practiced geology with fervent passion for more than fifty years as a Consulting Geologist with his partner Dr. John Andrichuk [also a long time member of the P.H.S.]. He published extensively and presented his papers before Canadian and international geological symposia throughout his career."

Best known to Shell employees and within the world of clastic sedimentology, **Rufus J. LeBlanc** of Houston, Texas passed away on June 19, 2007 at the age of 90. According to the notice that appeared on the AAPG Explorer, Rufus spent more than 40 years at Shell's Bellaire Research Laboratory and was best known for his pioneer and exemplary work on recent sediments, synthesis of Gulf Coast geology – and Cajun stories". Those who attended his classes, your President amongst them, also fondly remember his affection for (hard to get) Cuban cigars and Big Band music, his fear of flying and his judicious use of a rubber hose as a theoretical motivational tool. He is mentioned here as an example of the contributions made by our American counterparts who either educated Canadian professionals or immigrated to Canada. Rufus was cut from the same cloth as 2000 Canadian Petroleum Hall of Fame inductee Eddie LaBorde, a fellow Louisianan. Besides their technical and business accomplishments, these individuals have added a certain spice to the patch that is often missing these days.

Respected analyst and columnist **John Shiry** passed away on July 28, 2007 at the age of 62. John was born in Kitchener, Ontario in 1945 and gained his Ph.D. from Queen's University in Kingston. After a stint of university teaching, he turned his attention to the oil patch where he developed the CANOILS database, which constituted the largest collection of financial and operations data in the Canadian oil and gas industry. Concurrently he published the Woodside Report and authored a weekly column in the Financial Post on the petroleum industry in Canada.

Ernest James Wingett "**Win**" **Irish** of Calgary passed away on August 24, 2007 at the age of 94. Win was born in 1912 in Luton, Bedfordshire, England. He was raised and educated in Lethbridge, Alberta and Vancouver, B.C. Like many of his contemporaries, he obtained his B.Sc. (U. of British Columbia) and M.Sc. (U. of Toronto) in Canada but travelled to the United States for his doctoral studies, gaining his Ph. D. from the University of Illinois. Win is best known for his long and distinguished career with the Geological Survey of Canada where he started in 1962 in Ottawa, later moving to Calgary with the ISPG. He spent many summers mapping northern British Columbia and was a treasurehouse of stories about local guides, pack horses and bears.

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

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## **Bob Rintoul on: The trials and tribulations of seismic exploration in western Canada during the post-Leduc decade (1947 - 1957)**

At the P.H.S. lunch on June 20, 2007, it was a pleasure to hear one of our own directors, Bob Rintoul, tell us about his early work experiences. Bob began his career in the oil industry in 1950. In 1957 he joined the explosives industry and in 1967 started his own explosives distribution business - Ace Explosives Limited. His employees bought him out in 1984 and he retired. Bob has since been active in business, professional and community organizations; has been involved with the Calgary Flames; and is also a noted philanthropist.

Following are summarized excerpts from Bob's talk. The full text can be found on our website at: <http://www.petroleumhistory.ca/history/speeches/rintoul.html>  
(If you don't have internet access, please contact Micky Gulless at 283-9268 for a printed copy of the full text of Bob's talk.)

### **Early Seismic Methods**

After the Leduc find, seismic exploration really blossomed in western Canada. In the mid 1950s there were approximately 175 crews operating in western Canada. In most cases the crews would work the prairies and foothills during the summer, then decamp for far northern regions after the muskeg froze over.

Seismic exploration then was much different than today. Nobody gave a second thought about leaving their family for up to four months at a time. Work was carried on in all weather conditions in temperatures as low as minus 70 degrees Fahrenheit.

- The **surveyor and rod man** flagged shot hole points every quarter mile and geophone intervals every 110 feet, noting the elevations and horizontal readings of these shot points.
- **Drillers** drilled shot holes (60 - 300 feet deep) at these points.
- A **reel truck crew** laid out the geophones and cable, using a large power-driven drum on the back of the truck. (After the hole was shot and recorded, they retrieved the back cable and geophones and laid them out beyond the next hole and so on.)
- **Jug hustlers** attached the geophones to the cable, to record a total of 24 traces per shot.
- The **shooter** loaded the shot hole with explosives and detonated the charge. The shock waves generated by the explosion were picked up by the geophones and transmitted by the cable to the **instrument truck** where the results were recorded onto film paper and developed after each shot.

### **Early Experiences**

In 1950, I was hired by Northwest Seismic Surveys at \$150 per month. Northwest were repairing and outfitting equipment in Calgary. I worked there for a few days and then was sent to Edmonton to prepare newly purchased Simplex cables. The prior cables were made up of individual wires taped together; the new model had the wires encased in a cold-weather-resistant solid rubber cover. Each day we wound our way on a dirt trail through the bush to the Carter Oil lab in west Edmonton. The lab had the equipment to fabricate the proper outlets (known as "pig tails"). Then we went to Bashaw with our new cables for a contract with Imperial Oil.

The life as a “doodlebugger” was all new to me and I loved it. I was fortunate to start as the cable man, laying out the cable and dropping off the geophones. We worked as long each day as possible as our monthly quota was 220 hours.

Back in town after the day’s shooting, the records were hung up to dry and equipment repaired. Then off to the beer parlor.

## **Transportation Woes**

Imperial Oil provided us with a summer’s contract at Fort Vermilion. The reel and shooting truck hauling the explosives magazine carried the advance group. We drove straight through from Bashaw to Peace River, alternately driving and cat napping in the truck. We refueled in the town of Slave Lake which consisted of a hotel, grocery store and gas station. After traveling a few miles the pick-up quit. We were hauled back to the gas station and found our tank was full of water, not gas. Apparently independent truckers would deliver gas at a cheaper rate - this one sold the unfortunate gas-station owner a tank full of water. After a few hours to remove the truck’s gas tank, clean, replace and refuel we were on our way.

We stayed in Peace River overnight and then started up the new Mackenzie Highway - an 18-foot-wide road covered with “Texas pea gravel” (you know ... small boulders ). We arrived at High Level which was uninhabited. The mosquitos and black flies were unbelievable - clouds of them, and they were hungry for new blood.

A questionable road (more like a cat trail) proceeded east to Fort Vermilion. Using the winch on the shooting truck, it took us 12 hours to arrive at the ferry across the Peace River, a distance of some 48 miles. We arrived at 2 a.m. and it was still light. The ferry came across the river at 8 a.m. and we all piled into the reel truck and crossed the river. After being apprised of the fact there was not an oil camp nearby, we re-crossed the Peace and after another 12 hours we arrived back at High Level. Then we continued north on the Mackenzie Highway and found our camp 2½ miles north of the Fort Vermilion - High Level junction.

## **The Camps**

The camp was set up for both a big-rig crew and our seismic crew. In those days, big-rig service-company personnel remained at remote locations until the completion of a well or until their services were no longer required. Our camp grew to nearly 60 people and for entertainment we set up ball diamonds and had inter-crew competition.

An extremely large forest fire crossed the Mackenzie Highway about 80 miles south of us. We were unable to get supplies from Peace River town because they closed the highway. The Mountie from Fort Vermilion provided our essential supplies on his return trips from Peace River. The fire raged most of the summer and for two weeks we did not see the sun. The fallen ash was ankle deep and the smoke carried by the prevailing winds caused the airport in London, England, to shut down for a number of days.

We worked monthly shifts - 20 days in and 10 days out. We returned to civilization in two power wagons - some 10 men each. We rigged a canvas over the box of the truck and took turns riding in the cab. We were some sight when we hit Edmonton - dust covered but glad to have some time off.

In early December we moved to our next contract at Hondo, Alberta. Imperial had run out of camps so they contracted a Northern Alberta Railway work-crew camp for us. This consisted of two 12-bunk railway cars, a cook car and a water tender. When we arrived at the camp site, the cars were infested with bed bugs so we fumigated and whitewashed the inside of the cars as the walls were filthy dirty. When we returned them to the NAR the following spring they complained that we had whitewashed the walls!

There was no wash house and our sole source of water was a large steel drum, complete with a log floating on the surface so it wouldn't slop too much when the NAR moved us to Smith to allow a through-freight to pass. One small basin and a mirror were our washing facilities - rather hectic when 12 men carried out their morning ablutions. Our heat was supplied by coal-fired metal stoves - a person was hired to keep the fires stoked day and night. Our lighting was coal oil or high-test gas lamps.

### **Winter Operations**

That was quite a winter - 1950-1951. The snow was extremely deep and the temperature hovered around minus 25°F, sometimes plummeting to the minus 40s with constant winds. We worked primarily between Highway 44 and Highway 2 north of Athabasca where the terrain consisted of burnt out forests and open muskeg. The drills were equipped with 9-inch cylinder pumps for drill mud circulation and would freeze up before we could move from one shot hole to the next. The solution was to leave the mast in the upright position and continue circulation of the pumps. Due to very rough-dozed seismic trails, moving was a slow process.

In February 1952 I was transferred to one of the first track-driven portable bush crews. I flew to Peace River (my first flight) in a Ford tri-motor plane complete with web bucket seats. That winter there were 58 crews being supplied out of Peace River.

Our crew was located about 75 miles by bush trail west of Keg River in the Chinchaga area. The equipment consisted of the recording unit, a bunk house and the dining unit on skid-mounted Athey wagons pulled by D2 Caterpillar tractors. The crew moved 2 or 3 times a week. There were two auger drills mounted on D4 cats. The drills were converted Boyles Brothers mining drills. The survey transportation was a Fordson tractor with a tracked third bogey wheel. This unit would roll over backward if attempting to climb too steep a hill.

We didn't receive orders to leave for Calgary until April 15th. Most of the equipment remained in camp except for our conveyance to the Mackenzie Highway which was the recording unit on the Athey wagon pulled by a D2 cat. We had many close calls when some part of the unit would break through the thawing muskeg.

In the winter of 1952-1953 we left Calgary on Boxing Day to a new contract on a large block of land along the BC - Alberta border. We arrived in Dawson Creek on December 29th and were advised we couldn't continue to our camp site as the tractors dozing out the trails were sinking into the muskeg. After a week, cold weather firmed up the muskeg and we went on to our camp north east of Charlie Lake. We were a large crew with the same personnel as noted in the early part of this paper with the addition of a garage with a mechanic and helper, a cook and helper, and a camp attendant. We also had a very large power plant to provide electricity. This was an extremely cold winter with temperatures dipping to minus 70 degrees Fahrenheit. We worked every day! Our trucks were V8 Fords and when we returned from the field we plugged two block

heaters to each truck, one for each bank of 4 cylinders. We could start the vehicles in the morning but couldn't move them. We had to thaw out the grease in the wheel bearings with blow torches. Even the heating oil used to heat the bunk houses froze.

We broke camp near the end of March and headed back to Calgary with the equipment. We traveled the shortest route possible which required a crossing of the mighty Peace River. The Dunvegan bridge had not been built so we crossed on the ice. The water was running over the ice surface - a scary crossing.

During the winter of 1953-1954, we were working a prospect southwest of Rockglen near the badlands close to the U.S. border. In that area, the ranchers and farmers stockpiled their supplies for the winter during October. The county never ploughed their roads and the farm and ranch houses were miles apart. We moved into the prospect in February and opened the roads for the locals. Our operator was ill and I took his place on the crew. One day at about 2 in the afternoon ugly clouds started to form in the west and I sent word up to the drills to finish whatever hole they were on and head for home. Before we could pick up the cables and phones, one of the most severe blizzards I have experienced enveloped the crew. The drill crews were long gone by then. I had to have a crew member walk in front of the recording truck to define the edge of the road. We made it to a farm house where we holed up for two days. It was fortunate that the farmer had been able to replenish his supplies when we opened up the roads because our crew of seven plus a dozer operator holed up in the farmer's home. About 10 p.m. that night we heard a faint knock on the door and it was one of our water truck drivers who had not made it to the highway. His truck was bogged down in a drift and he had crawled 2½ miles, hand over hand, following a barbed-wire fence back to the farm. When we left 2 days later, I replaced the food supplies for the farmer and gave him another \$200 for his poker losses to the crew. He wouldn't take any other compensation.

***For a more scientific look at the geophysical industry I would recommend you read "Traces Through Time" by David Finch. Also Allan Anderson included a number of tales from my wife's' and my days in the seismic industry in his book "Roughnecks and Wildcatters".***



Seismic Safety Course, Calgary, Alberta during April 1956. Participants in the 5<sup>th</sup> Annual Seismic Safety and First Aid Clinic sponsored by the Workmen's Compensation Board. Photo by Jack De Lorme, published in The Albertan, April 14, 1956, courtesy of the Glenbow Archives.



Glenbow Archives NA-3832-3

Seismic drill working for General Geophysical southeast of Trout Lake, British Columbia during February 1954. Workers are well bundled against the cold. Safety was essential given the spinning drill pipe and chains. Courtesy of the Glenbow Archives.



Glenbow Archives NA-2864-20167

Seismic drill truck in Calgary, Alberta during November 1971. Photographed by Bill Herriot for the Calgary Herald this picture was published in the November 19, 1971 edition with the caption "Expensive land crew equipment lies idle while business is terrible." Ironically it wasn't long before the first oil shock of the early 1970's jolted the industry into a frenzy of activity, reviving the profitability of all those who had invested in the industry.



## PETROLEUM HISTORY SOCIETY - SURVEY OF MEMBERS

Your Society conducted an on-line survey of its membership earlier in the year. Many thanks to Past President Micky Gulless for crafting the suite of questions, for finding a very economical way to do this via "SurveyMonkey" and for pursuing the project to its conclusion. The overall response rate of 52% from the membership is an encouraging sign of the interest that our members have in our activities. Thanks for your participation.

The results were a mixture of compliments and suggestions – pointed criticisms were few and far between. Some suggestions will be simple to implement while others are more fundamental and will force us to critically examine the ways in which we are pursuing the various facets of our mandates related to petroleum history. As expected, there are also contradictory signals.

I have summarized some of the more interesting comments below and I look forward to trying to implement many of the suggestions with the involvement of our membership, the Executive and the Board. Bear with us as we try to adapt and if we try something new – humour us!

- Clint Tippett  
President – Petroleum History Society

**Archives:** 84% rated as excellent or good. More than 50% were very interested in luncheon announcements, Bull Wheel, short features, luncheon talk summaries and pictures with captions. Interestingly 41% like obituaries. The sole neutral score went to social news.

**Events:** 61% of respondents attended events regularly or occasionally but about 39% attended seldom or never (23%). Members are satisfied with events, including price and location although the latter was a lower score, likely due to parking shortages and traffic. *We need to be a bit careful here, however, as those who are not happy may not have continued as members or at least may not have responded.*

**Volunteering:** Eight people indicated a willingness to volunteer.

**Specific Positive Comments:** "Living abroad and trying to keep up. This is an excellent newsletter and I commonly share it with co-workers."; "I like the variety of stuff in it"; "Short off-beat stuff like the oil shale article is wonderful because you can't get it elsewhere"; "I read every issue – cover to cover"; "Archives provides high quality and valuable content – memory is short but the PHS newsletter is there for years"; "I must comment on the interesting stamps used on your mailings"; "Broad national and international perspectives much valued and unique".

**Suggestions for Improvement:** "Archives perhaps a bit too long"; "A more up-to-date design would be an improvement"; "Current events are longer/more detailed than necessary"; "There's more than Turner Valley and Calgary"; "More equipment and techniques can be explored in depth and perhaps more on the geology side"; "Review new books"; "Lay out Archives in two columns and use more white space"; "Luncheon speaker summaries should be summaries (and not verbatim)"; "Industry veterans should contribute more to the Society"; "More pictures"; "Larger print size for older members"; "Include a calendar of upcoming events in the newsletter"; "Include fun articles like the oil shale piece"; "Some consideration should be given to the use of compensation for volunteers or executive assistant"; "Be careful about personal bias (paraphrased)": "Consider other venues for luncheons and other events to attract younger folks".

## FAR-REACHING INSIGHT IN THE 1940'S

*P.H.S. Member and Award Winner David Finch recently penned this note to Charles Frank of the Calgary Herald following the presentation made by David Breen to our Society in the Spring:*

Your "Royalty Position May Hurt Big Oil" today in the paper prompts me to write with a comparison to the late 1940's.

In the fast-paced period of oil development after the discovery of oil at Leduc in 1947, the Alberta Government was nimble, fair and economically astute, according to Dr. David Breen, Chairman of the History Department of the University of British Columbia. Breen, the author of the history of the ERCB, was in Calgary on Wednesday to present a paper to the Petroleum History Society called "Big Oil, Drilling Concession and the Public Interest: A Canadian Response." In brief, Breen points out that though Imperial Oil held the rights to explore on huge tracts of land, the Alberta Government quickly changed drilling concession legislation as it became apparent that massive quantities of oil were to be found in the Devonian formations - old coral reefs. Then, as now, industry expected "modest demands and limited government interference" and the Provincial Government established an entry arbitration board that had final say in all disputes so that "nobody, not even farmers, could interfere with development." There was no doubt that the government supported economic growth. However, when Imperial Oil quickly converted its exploration reservations into petroleum leases, "giving it drilling and production rights on almost all of the land in the discovery township..." in the area around the Leduc No. 1 discovery well, small Canadian oil companies and members of the opposition cried foul.

By August of 1947, just six months after the discovery, the Crown had changed the regulations so that 50 per cent of the exploration land had to be return to the Province which then auctioned off the "Crown Reserve" by sealed bids. The majors did not like the change, and even a Calgary Herald editorial cautioned "Don't Strangle Alberta's Oil Industry" on August 28, 1947 - but someone in government was balancing the public interest with the pressure from the oil patch. The government revised the regulations yet again in 1948 so that the maximum a company could lease shrank from a single block of sixteen sections to just nine. Industry responded to the changes quickly and, as a result, small players were able to get into the game. Most dramatic were the rewards to the Crown which stood by and let free-market forces run up the bidding on lands near successful wells. For example, income to the Alberta Government grew from \$3 million in cash bonuses for land auctioned off in the Woodbend Field - the next one after Leduc, to \$10 million in the Redwater Field. By 1949, 20 per cent of the provincial budget income was provided by these bonuses and in 1950 it grew to 50 per cent.

Breen has not yet determined who in government - was it Ernest Manning, perhaps? - came up with these Solomon-like changes, but the benefits to the independent producers and the residents of Alberta were unprecedented. And big oil did not leave the province. When the Premier called the election in 1948 his government was richly rewarded for its careful crafting of this innovative source of income. As Breen concludes, during 2005-06, "revenue generated from the bonuses and the sale of Crown leases is estimated at \$3.4 billion, nearly three times the sum expected from crude oil royalties." A lasting legacy, indeed, and proof that politicians can be nimble, fair and far-sighted in their creation of regulations that honour the market and the public interest. Are there any leaders in government with this sort of wisdom today?

*Truly,  
David Finch - Historian*