The Arctic Islands Adventure and Panarctic Oils Ltd.

by Dan Masterson, Arctic Engineer (Chevron Canada)

The story of oil and gas exploration in the Arctic Islands of Canada and the Sverdrup Basin of that region is largely the story of Panarctic Oils Limited. Panarctic was incorporated on May 27, 1966 by Federal Letters Patent and operations started in 1968 with the first seismic work. J.C. Sproule of Calgary was a major force behind its formation. Panarctic was an industry/government consortium established to explore for oil and gas in the Canadian Arctic Islands with up to 37 participating companies. Panarctic drilled 150 wells through to the late 1980’s. 38 of these wells were drilled offshore from floating ice platforms in water depths up to 550m. 17.5 TCF of natural gas reserves were discovered over this period along with a number of smaller oil pools including the Bent Horn accumulation that was seasonally produced into the 1990’s. Ben was involved throughout the later years of Panarctic’s activities and will provide a comprehensive overview. This will also provide a useful context for last November’s video presentation by Len Maier on the King Christian blowout.

Please see page 2 for the schedule for the Annual Meeting and speaker bio.

TIME: 4:00 p.m., Wednesday, March 26, 2014.
PLACE: Calgary Petroleum Club, 319 – 5th Avenue S.W.
COST: Members and Guests (most welcome) - free of charge
DRESS: Business casual at minimum, ties not required

For the sake of our snack planning, please
R.S.V.P. if you wish to attend to: Micky Gulless at 403-283-9268 or micky@petroleumhistory.ca by noon Monday, March 24

Note: A variety of classic oilpatch books authored by P.H.S. members will be on display at this event with complimentary copies available to attendees. Thanks to Director Neil Leeson.
Next Luncheons: Our luncheon slate is coming together for this Spring. Our thoughts now turn to the Fall. We are always seeking speakers and interesting subjects. If you are considering making a presentation, please contact Clint Tippett, President P.H.S., at 403-691-4274.

Publications Available at Luncheons: Director Neil Leeson has undertaken to promote the important work that members of the P.H.S. have done to document the history of the petroleum industry through the publication of books. A variety of oilpatch classics authored by P.H.S. members will be in display at our luncheons - with free copies to all attendees.

The schedule for the P.H.S Annual Meeting on March 26 will be:

4:00 p.m. Meeting commences – call to order
4:05 p.m. President's Report
4:20 p.m. Treasurer's Report and related business
4:30 p.m. Election of P.H.S. Officers and Board for the 2014-2015 term
4:45 p.m. 2013 P.H.S. Awards
5:15 p.m. Keynote Speaker: Dan Masterson on Panarctic
5:45 p.m. Questions, Answers and Discussion
6:00 p.m. Mix and Mingle with snacks and cash bar - Please come out and join us!

Dan Masterson – Keynote Speaker for the Annual Meeting: Dan has 40 years of experience in offshore and onshore civil and structural engineering for the oil and gas industry. He has broad experience in structure design, transportation by pipeline and shipping, including pipeline design and ship transit analysis, and large-scale testing, often involving the field management of large projects in difficult, remote locations. He has designed a variety of equipment for Arctic uses, including large-scale hydraulic equipment for ice testing, and ice force measurement panels. His qualifications include B.A.Sc., M.A.Sc. and Ph.D. degrees in Civil Engineering. Dan is also the author or co-author of 100 technical publications.

Donations to the Petroleum History Society: Members will have noted that the opportunity to donate to the Society is a part of our annual membership renewal process. We have been extremely fortunate to have in our midst many generous individuals from both the regular membership and the lifetime category who have seen fit to provide some additional contributions to enable us to fulfill our historical mandates and, indeed, to open some doors on activities that we might not otherwise be able to contemplate. Once the renewal process is finalized, we will provide a list of our donors.
Historical Society of Alberta at Turner Valley: The H.S.A. will be holding their Annual General Meeting, Awards Luncheon and presentations at the Royal Canadian Legion building in Turner Valley on Saturday, May 31, 2014 starting at 10:30 a.m. The location was selected, of course, in recognition of the centennial of the discovery of the Turner Valley Field on May 14, 1914. The official aspects will be followed by a tour of the historical gas plant and interpretive centre starting at 1:30 p.m. and running through to 4:00 p.m. Registration is required at a cost of $40 per person. Please send your registration and money (cheque) to the Historical Society of Alberta, Suite 622, 304 – 8 Avenue S.W., Calgary, Alberta T2P 1C5.

Palliser Hotel Anniversary: 2014 is also the 100th anniversary of a major Calgary feature – the Palliser Hotel (now more accurately called the Fairmont Palliser) on 9th Avenue S.W. Groundbreaking occurred on May 12, 1911 on property owned by the Canadian Pacific Railway. The hotel was named after Captain John Palliser who was an explorer in the region in the 1850’s. Architect Lawrence Gotch of E. and W.S. Maxwell of Montreal designed the Edwardian building with a characteristic Chicago school look. It was built by P. Lyall and Sons Construction Company with materials such as stone, steel, reinforced concrete and brick at a cost of $1,500,000. It officially opened on June 1, 1914 just as the Turner Valley boom was in full flight. The building was originally 12 stories high with another 3 stories added in 1929, making it Calgary’s highest building until 1958. It was operated as a part of Canadian Pacific Hotels and Resorts until 1999 when the consolidation with Fairmont occurred. The building is significant for the petroleum industry as in the early days it was the only place in town where reasonable accommodation and food could be consistently obtained by people in the industry. Indeed prominent Calgary business people sometimes maintained a permanent base in the hotel. There are numerous stories about the transactions and other interactions that occurred there including rules on what sort of discussions would be allowed (no dry holes) and exhibitions of boots full of oil to proclaim discoveries. It is not a coincidence that the Palliser, together with the Hotel Macdonald in Edmonton, were the two first establishments to be re-issued with liquor licences when Alberta abolished Prohibition in 1924.

The Western Canada Basin – The Little Oil Patch that Could: A 1999 article in the Journal of Canadian Petroleum Technology with this title by R.G. Knoll of H-Tech/Maurer Engineering caught my attention a while ago. Its conclusions were that “Canada’s oil industry leadership in exploitation technology [the article mainly looked at horizontal wells] is not simply the result of having thin, marginal, depleted reservoirs. It is promoted by a combination of many factors, including a collective spirit of co-operation and innovation, which are particularly evident in the relatively minor oil-producing industry [by global standards] of the WCB. The unique aspects of this industry have allowed a minor league producing region to achieve a dominant global position in the scope and diversity of advanced exploitation technology.” Part of the reason for this level of accomplishment is related to this phrase in his acknowledgements: “The WCB oil industry is exceptionally networked, basically everyone knows everyone”.

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PASSINGS

Downing, John Arthur: John passed away on Tuesday, January 28 2014 in Calgary, Alberta at the age of 97. Born in Vernon, British Columbia on February 14, 1916 to Arthur and Annie Downing, John grew up there, worked for a time as a hard-rock miner in Montana, served four years overseas in WWII and returned to earn his degree in geological engineering from the Montana School of Mines. Soon after, he met and fell in love with Elaine. They married in 1949 and shared their lives for 64 years, raising three children, enjoying four grandchildren and numerous nieces and nephews. John was one of Alberta's most important petroleum geologists and made significant contributions to the art and science of oil and gas exploration, setting the framework for future development leading to today's thriving industry. During the late 1950's he was involved with Ted Link in Cree Oils prior to its acquisition by North Star Oil. John embraced life with the equanimity and balance of a master. Loving husband, father, grandfather, uncle, friend, brother; ardent scientist, naturalist, mountain man, animal lover, student of Shakespeare; patient and honest mentor, teacher and benefactor; highly respected and trustworthy businessman and partner; pioneer of new ways and new trails; innovative developer of epicurean peculiarities. John was a Lifetime Member of the P.H.S. and a frequent luncheon attendee.

Krusche, Harald Wiktor: Harald was born on March 21, 1909 in Lodz, Poland and passed away on January 27, 2014 in Black Diamond, Alberta. He was a Major of the Polish Cavalry. During WWII while Poland was regrouping, Russia invaded from the East. Harald was taken POW to Oflag IIC Woldenberg. He escaped and then with the help of the Danish underground rowed across the Baltic to Sweden, from where he reached the Polish Forces in Scotland. At war's end he got his Master's from Imperial College and decided to emigrate to Canada, sponsored by the Dorosz family of engineers in Regina. As a Chemical Engineering pioneer he brought into production the first propane plant in Canada (Turner Valley) and the largest petrochemical plant in Canada (Celanese). He then introduced the idea of environmental engineering via the City of Edmonton, the Chemical Institute of Canada, and the Environmental Conservation Authority which was the first citizens' advisory board to propose effective environmental legislation in Alberta. He was an early member of the AWA, the Committee for an Independent Canada, and Alberta Hostelling. For reference, David Finch wrote an article entitled “Harald Krusche and Western Propane” in the journal Propane Canada, January-February 2008 issue.

Gordy, Peter Lawrence: Pete was born on December 4, 1930 in Kimberley, British Columbia and passed on January 15, 2014 in Nanaimo at the age of 83. He grew up in the mountains and had a life-ling love of the outdoors and a passion for exploring. After high school on Vancouver, Pete enrolled at U.B.C. to study geology, paying his way, in part, through seasonal work in the coal mines of the Elk River Valley. When he graduated in 1954, he joined Shell Canada’s Exploration department in Calgary where he became a well-respected expert in the structural geology of the Rocky Mountains. Pete’s rise through the management ranks and his guidance of Shell’s Foothills exploration programs are well remembered by all those who passed through Shell’s doors from the 1950’s to the mid-1980’s, when Pete retired. Pete had significant roles in the structural discoveries at Waterton, Jumping Pound West and Burnt Timber/Limestone as well as in the stratigraphic discovery at Caroline. It is said that the measure of a person is sometimes how long people talk about them after they have left the organization – and by that metric Pete was a legend.

Hriskevich, Michael: Passed away on January 31, 2014 at the age of 87.
TURNER VALLEY RESEARCH TOPICS – SOME THINGS TO THINK ABOUT

In preparation for the 100th Anniversary, it is interesting to ask about aspects of the field. Here is a list of some topics that may bear some research – or at least be poorly known:

ACTIVITY AND PLAY POTENTIAL
1. Profiles of key original companies – Royalite, Calmont, AngloCanadian, Okalta, Home, ...
2. Profiles of key successor companies – Anderson/Devon, Decalta, Talisman, Legacy, ...
3. What are the latest play concepts? – deep structure, strat traps ...
4. Is there still potential in the Mesozoic section that hosted the original discovery?

GEOLOGICAL, PETROPHYSICAL AND GEOPHYSICAL
1. Reservoir heterogeneity in the Turner Valley Fm. – the Perry and Eastin study (Shell) of 1948.
2. Understanding the geology of Dingman #1.
4. What was the significance of Turner Valley in the exploration of the Foothills Belt?

RESERVOIR ENGINEERING AND GEOCHEMISTRY
1. Where are the free water level and the gas-oil contact?
2. Compositional variability of hydrocarbon fluids at Turner Valley.
3. Key production histories.
6. What’s with the drilling gap between the gas cap and the oil leg?
7. What is the hydrogeological significance of Turner Valley?

MIDSTREAM AND DOWNSTREAM
1. Where and how was Turner Valley natural gas, crude and condensate processed?
2. Early handling of sour gas – processing and risk avoidance.
3. How did gas processing evolve as the field matured?

REGULATORY
1. Oil and gas spacing as related to Turner Valley.
2. Relationship between Turner Valley and the establishment of the Conservation Board.
3. Relationship between petroleum conservation in the U.S. and in Canada.
4. How effective were Unit Agreements in the development and production at Turner Valley?
5. The Spooner Case – significance for ownership.

HISTORICAL AND SOCIO-ECONOMIC
1. What was the impact of the 1930 devolution of subsurface jurisdiction from Canada to Alberta?
2. What was the relationship between the Palliser Hotel and Turner Valley?
3. What role did Wartime Oils play in the development of the field?
5. Me too! – The Role of Oil Mania in the promotion of early drilling campaigns.
6. Was Bill Herron aware in 1914 of the anticlinal theory of hydrocarbon trapping?
7. Turner Valley’s role in the British Commonwealth Air training Program of WWII.
8. Turner Valley – then and now through photographs and film.
9. Voices from the past – what do interviews with Turner Valley veterans tell us?
10. What was the relationship between the 1924 discovery and the formation of the CSPG?
11. What is the relationship between Turner Valley and the City of Calgary?
12. What was the relationship between Turner Valley and the E&D of the WCSB?
This is the table of contents from the latest (2013) issue of Oil-History, the journal of the Petroleum History Institute, based in Pennsylvania. Readers should note that most of these papers are written by amateur historians who have taken an interest in some aspect of petroleum history. If there is something that you would like to pursue, please let us know and we can assist.
An appeal from one of our members: Hello Members of the Petroleum History Society:

I am examining the geology, development and operations of BC’s conventional oil fields. An important aspect for understanding these old fields is the historical context. If members have memories of the early days of exploration and development for some of these fields I would appreciate having a conversation about them. At the moment I am focused on the Halfway oil trend including Milligan Creek, Beatton River and Wildmint (numbers 13, 12 and 17 on the attached map), but would like to share your thoughts about any of them. Below is my contact information:

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By Joseph A. Pratt with William E. Hale.  2013. Dolph Briscoe Center for American History, The University of Texas at Austin, Austin Texas.  xxi + 638 p., including notes, appendices, black and white photos and index. Hardbound. $49.95 USA.

"Exxon: Transforming Energy" by Joe Pratt with Bill Hale was described by a colleague of mine as, “Oh, that big fat book daunting encyclopedia.” Then I recommended that he should read it! The book is not nearly as imposing as you might think, given that 134 pages are supporting notes, appendices and an index. Yes, it is a scholarly book, and the fifth such work in the 129 year history of Exxon, but it is insightfully written and a source of information that petroleum history researchers will be accessing for decades. Pratt is a professor of Business and History, University of Houston. Hale is a retired senior Public Affairs Advisor of ExxonMobil, who recommended in 2003 that the book should be written. This made excellent sense since ExxonMobil had just donated its entire Historical Collection to the Briscoe Center. Among these documents are the recordings and transcriptions of more than 100 interviews of 81 employees during 2008 and 2009 as part of an ExxonMobil Oral History Project. The unique access to these historical documents makes this book an intriguing analysis of strategic corporate decision making during years of turmoil. A detailed inventory of the ExxonMobil Historical Collection is on line at the following URL: http://www.lib.utexas.edu/taro/utcah/00352/cah-00352.html. However, at the time of the book’s publication, oral history interviews were closed to the public. These may become available to researchers in the future.

The book’s primary author says in the Preface that the book is not an encyclopedia, and indeed much of Exxon's history during the past four decades is not presented. However, the main challenges and business drivers are discussed in eleven clearly written chapters covering such subjects as the rise of producer power, search for non-OPEC oil and gas (Colder and Deeper), price swings, the Exxon Valdez disaster, politics and the ExxonMobil merger, which greatly broadened ExxonMobil’s international field developments. The interviewees are generally senior managers and executives, so the point of view of is at a corporate level. The reader is given insight to some of the most critical business decisions ever made for ExxonMobil. The tone is generally laudatory. Besides weaving executive quotes the book also uses material from annual corporate reports and public communications. Consequently there is a “public affairs” feel to the book, especially in Chapter 10 and the “Transformation” epilogue which summarizes the economic dominance in various sectors of the largest fully integrated oil and gas company in the world. ExxonMobil is a majority shareholder of Imperial Oil Limited. In an 11 September 2007 interview Lee Raymond says, "All we heard from Imperial for years was the [need to consider] the minority shareholder." The tensions between Exxon and its upstart, but older affiliate Imperial Oil Limited are palpable. I can almost hear him saying, "Who do they think they are?" A few pages of the book refer to Imperial Oil Limited’s Cold Lake in-situ heavy oil and the Syncrude Canada oil sands ventures. There is no mention about the Mackenzie Valley Pipeline, Alaska Highway Gas Pipeline, or even the successful Norman Wells Expansion Project (First Northern Oil for Southern Markets in Canada in 1985). The technical innovation of building six drilling and production islands in the Mackenzie River, and constructing the second northern pipeline in North America seems worthy of a mention in the book section titled "Colder and Deeper." "Exxon" is a good book, a little dry and devoid of passion, but highly readable for veterans of the petroleum industry with any association with Exxon or Mobil in their careers. Oil and gas professionals and workers will learn much about the development of ExxonMobil during three decades of volatile markets, the Exxon Valdez oil spill disaster, and the Exxon Mobil merger creating a world financial and political power.

Review by Cal Sikstrom, Thelon Environment and Communications Limited, P.O. Box 8054, RPO Marine, Cold Lake, Alberta T9M 1N1. Our thanks to Cal for this submission. Cal is ex-Imperial.
STIMULATING THE LIMESTONE at TURNER VALLEY

The following is an excerpt from "In the Light of the Flares", page 35

“In the late 1920’s much had still to be learned as to the best way to get optimum production from the limestone. Royalite 23 was across the road south from the new townsite (Bailey Hill) and it was decided to try a shot of glycerin. It was not fluid but in dynamite form and was stored in a belt house on the rig over night with steam heat, to have it well warmed up for morning. On the midnight shift the crew was sitting in the dog-house eating their lunch, when one walked out to oil the machinery and saw the dynamite was on fire. His call “Fire” really got action. Everyone left that derrick with all speed possible and not one got hurt but the dynamite blew up the derrick that went down and drill pipe all twisted was lying everywhere. It was a mess. When No. 23 blew up and the concussion was heard all over the valley, people rushed up there to see what happened. One of the first on the scene was a blonde who was the girl friend of the only bachelor on the crew. The next day as they talked over the happenings of the night before, he reminded the others that he was the only one who had a woman rush over to see if he was alright, to which one of them was quick to answer, “She wasn’t worried about you. Her first words were “Is the car hurt?” He had a nice new Oakland! Among other things: one fellow said he went out the first door he saw which was the one to the sump and he went right across that sump and he didn’t think he was ever going to get through it. They didn’t believe one could walk across that watery sloppy mud, but there were his tracks and they were nine feet apart, but then he was one of the light weights on the crew. He only weighed in at 190 lbs. At least three of the others were around 240 lbs. each but that didn’t slow them up any. There was a steep bank a short distance north of the derrick and across the road and they were over that before the dynamite exploded. The driller later said “Me and Big Andy” were neck and neck going down that road. We went over that cutbank like it was level ground and when we hit the bottom on the other side I was on my knees and still going and I says ”By God I am living yet”. That was one accident where no one was hurt and people were so glad to find them alive. Later for a time acid was used in some wells with the thought it would penetrate the formation. How successful? Well it was an idea that was worth trying.”.

The wreckage at Royalite #23 in 1931. Photo NA-2570-18 courtesy of Glenbow Archives.