

PETROLEUM INDUSTRY ORAL HISTORY PROJECT  
TRANSCRIPT

INTERVIEWEE: W. G. (Bill) Ayrton

INTERVIEWER: David Finch

DATE: June 14, 2001

DF: Today is the June 14<sup>th</sup>, the year is 2001 and we are with Mr. W. G. Ayrton, I think you go by Bill don't you?

BA: I do.

DF: At 1409 Shelbourne St. S.W. in Calgary. My name is David Finch. Could you start by telling us where and when you were born?

BA: I was born on the 14<sup>th</sup> of May, 1933 in Belfast, Northern Ireland. What was your second question there or was that it?

DF: Well, that's where you got started. Now tell us about your education and how you got interested in geology.

BA: Well, I went through public school in England and didn't really know what I wanted to do. I went over to Europe and I studied languages, with the goal of being an interpreter. And I realized about a year and half into that that I would go broke if I did that because I was competing against mainly young ladies who spoke 3 or 4 languages from birth and then learned several other languages. And I was starting just with English and then I realized I had to learn the diplomatic language, the legislative language, the commercial language to be successful and I was giving that whole area up when a friend of mine who I used to hike with a lot took me to the mountains in Switzerland, with the Alpine Club and I just loved what I saw up there. He said, you better come and listen to some of these lectures at the University of Geneva which were given by some of the old time professors who had written papers on the naps and the thrust faulting of the mountains and the [flish and the melass]??? and I just loved it. So from there on I changed direction and this friend of mine said, you've always talked about Canada, combine the two. So I applied to McGill University, got accepted and immigrated to Canada in I believe it was May of 1955 and then went to McGill in September of that year. That was really the start.

DF: And how did you get into oil geology?

BA: Well, I think fairly early on, it was actually my first Christmas there, I went to the wonderful head of the department called Dr. Tom Clark of McGill and said, I don't know too many people around here, I'm going to be here alone for Christmas and do you have anything I can do. He said, come and help me over the Christmas vacation and you can help me log some cores of the St. Lawrence lowlands. Of course, that was soft rock and I sort of always had that interest. And then the summer jobs I had were in mapping with the Quebec Department of Mines in the Gaspé Peninsula. So that was again, soft rock oriented although there was definitely an emphasis on finding and defining mineral resources and identifying those in reports for the prospectors to go and try and develop. With the Department of Mines, they actually in a sense, sponsored my Masters and my

Ph.D. thesis. So again, those were in primarily the soft rock area. Two of the professors I had suggested I go to Northwestern University because I could sit at the feet of Krumbein and Sloss, who had written the definitive book on stratigraphy, Larry Sloss, who developed the sequence type of stratigraphy. And of course, that was a magnificent experience for four years. I needed a job after that because I was broke and Pan American came calling and hired me to come and work in Calgary. So I did that in 1963. So there was always a strong influence there towards the soft rock side, and all my field experience was essentially geared towards that except a couple of summers early on where I did uranium exploration and iron ore exploration in northern Canada.

#047 DF: So what was that soft rock search, like you said for the Quebec Department of Mines, what were they looking for there?

BA: They were primarily quadrangle mapping projects and the first one I was the sort of senior assistant with, now he became a professor called Jacques Beland, at Quebec University and he was mapping in the Matapedia Valley area of the Gaspé and I got my Masters thesis out of that on the York sandstone. And then I had my own party for, I think it was 5 years, down in the Chandler, Port Daniel area of south coast of Gaspé and did a quadrangle mapping project which had a wonderful thesis built into it on trying to sort out the various orogenic belts of activity because it appeared there had been 3 periods of folding. So my thesis was pretty much a structural geology type of thesis. But what Quebec wanted out of it was a report and a quadrangle map and they were good enough to pay me half of all my summer earning, again, on completion of an acceptable report, which my wife came with me to Calgary and she sat down and typed that thing and in those days it was on 10 pages of carbon paper. One mistake and you erase 10 pages. So we got that in and got a nice bonus from the Quebec Department of Mines and I had already started working here with Pan American. So that was sort of the start in Calgary. So it was a terrific program by the Quebec Department of Mines.

DF: Tell us about what you did when you first came to Calgary then?

BA: We drove here from Chicago. Never had seen the west before, thought we were going to the surface of the moon as we came across North Dakota, were delighted when we drove into Calgary from the south and saw this sort of quite hilly city that was green and had nice houses and streets and a river and the mountains in the background and said, this looks pretty good. We got a small apartment in lower Mount Royal near 17<sup>th</sup> Ave. and rented that for a year and at that time I was starting work with Pan American, which eventually of course, became Amoco. I started work on the Swan Hills reef area and over the years worked on some magnificent projects, Pointed Mountain and Beaver River up in the Yukon area, northeast B.C. I always felt very lucky in this profession. I said this when I was accepting an award from APEGGA, that I almost felt guilty about accepting an award because the things I was given to work on, you know, people would pay money to work on them. One example was seeing the first seismic that ever came in from the Grand Banks. We saw salt domes and salt ridges, things we'd never seen in western Canada before. So that was fascinating. I got involved a lot with recruiting, training, hiring of personnel at Amoco. I think that gave me an interest in something that I pursued

in later life and that's the whole training field. So that was an enormous benefit there, the people were wonderful, the projects were great, the social life that went along with it was exceptional. Unfortunately I don't think I know a soul there anymore.

#092 DF: What does that say about what's happened in the last few years?

BA: Well, there's certainly been tremendous changes. I suppose the big change that I've seen is that, I don't think I was alone, I think most people felt that they joined a big company, they would be there from cradle to grave as long as they didn't screw up somehow and that the company would look after you. There would be promotions and reviews and you would be appreciated. And then we got into that terrible time I suppose, that maybe started what, 15 years ago, you know, the major lay offs. And they seemed so indiscriminate that if you had 20 friends and sat them down at the table you'd be lucky if one of them hadn't been let go, the other 19 had. And I think that caused a fundamental change in almost, the work ethic, there wasn't the loyalty anymore, there wasn't the training being provided to people, they were sort of on their own. And I'm not sure they work nights and weekends like we did and they certainly skip jobs, you know, they jump jobs much more freely than we ever did in those days.

DF: So what happened 15 years ago to make the corporations do this?

BA: I think they were. . I've probably been through 4 cycles where we've been up and down and up and down, and one of them of course, was the National Energy Policy that was instituted that just caused people to flee from Canada. I'd already left Amoco at that time. And the price of oil and gas being so low, people were actually shutting in wells and companies were cutting back to the bare bones. I mean the motto around town was leaner and meaner. And we saw those big lay offs that had a humorous side to them, people made jokes about optimists were geologists who brought their lunch to work that day. Imperial Oil's song. . what the heck were the words to the song of Imperial Oil, oh yes, *you're on your way*. Many of those sort of jokes were going around and the philosophy of never let people go on Friday's because they're quite likely to commit suicide on the weekend had a very sombre not to them. So those were not, I didn't think, very good days. I'm glad to see now that we're back in the 2000's and things are good again, that people are paying attention to the most valuable resource and that's people. But it wasn't always that way.

#124 DF: Inevitably though, this boom too will go bust, do we learn anything from these cycles, do the corporations?

BA: I don't know whether they do or not. I feel the successful companies, the ones that are able to reduce their risk to sort of acceptable limits are flexible in adapting to change, whatever it is. Sometimes that change is fairly negative but they have to adapt to it. But I still feel that their most valuable resource is people and hopefully that might be one thing they learn is just, try and hang on to your people. Because now I think there's a shortage in a lot of areas of skilled people around. Maybe that's what they've learned, certainly we've learned that it is cyclical and it doesn't last forever and there are just too many parameters that can affect it, whether it be a political one, Bush sneezes and isn't too well

from his medical or whether it's some sort of rumble in Saudi Arabia. I mean all of these things are totally out of our control but can affect us.

DF: Let's go back to the beginning or your career, what were field practices like when you got started?

BA: Interesting question. I started here in '63 and I think I missed the best of the field seasons. I think they were probably 10 years before, but personally I was very lucky, I got to go out and do field work in the Jasper area for a month one summer with Amoco. An interesting and worthwhile project. We were mapping the Triassic coquinas, it's the shell banks that are in the Triassic. Oil and gas had already been discovered in those in areas, sort of in central Alberta like Kaybob and we saw a trend and we saw a trend on it and we thought we could anchor that trend in the foothills. We were very successful in mapping it, we put a buying area around a huge block that was very sparsely drilled and ended up discovering ??? gas fields. I felt I had a part in that just because of that field mapping. So I don't see nowadays many parties going out to map in the foothills, much of it is done, much of it's available, either through consultants or the Geological Survey. And I think one thing that maybe comes out with that is the pet peeve I've got with young geologists now is they don't look at the rocks. And we have such a glorious opportunity with the core storage area here, to actually go look at the samples. But there seems to be a fascination with just looking at the wire line logs and the wiggly lines and saying this zone correlates with this zone, therefore it's exactly the same. And when you look at the rocks it isn't. They don't maybe have the time to do it, because we're chasing land sales and they're so busy or they don't maybe have the training to do it and they're scared to go look at them because they're not quite sure what they're looking at. I feel maybe that is sort of a bit of an outcome of not doing as much field work because they're not used to looking at rocks, either in outcrop or in samples. Another thing is probably very few new geologists actually go on well site anymore and when we started we were going less I think, back in the 60's but it was traditional to send a young fellow out for 2 or 3 wells at least, just to get the experience of doing it.

#176 DF: Did you do it?

BA: I did it, yes. I did it. . .

DF: Tell us exactly what you learned on a well when you were a young geologist?

BA: I learned that I'd been in Calgary less than a week with my wife, we were renting an apartment and the furniture had not arrived. The only thing we had was a card table and a starter set of two knives, two forks and two plates and I was set out on well site. So there was that learning that boy, when you've got to go you go. I went out with a wonderful teacher, a more senior geologist called Norm White and was on a well up in the Swan Hills area and one of the first things we saw when we drill stem tested the Swan Hills, we saw the most beautiful fluorescent yellow oil to surface. I've never seen that since. Of course, we try not to do it but it was really something to see that oil coming bubbling over the floor of the rig. After being trained on a couple of wells, I then looked after, I think it was, 5 wells in the House Mountain area that we were looking for additional Swan Hills reefs. And I sat a few more and I always enjoyed that. One's up at Pointed Mountain were

really interesting, I sat those for awhile. So I do feel that is an important part of training for the young geologist, to at least go out and see it and appreciate the difficulty the drilling personnel have to put up with.

DF: Can you tell us exactly what you did when you were sitting a well, in a 24 hour cycle, what would you do?

BA: It was first of all making sure that we were getting good samples. Because we'd been warned that often the roughnecks would just fill 20 bags all at once and not really set up a system to collect proper samples. Then when we got them in the sack we would wash them, we would put them in a little sieve, get the mud off them, put them in frying pans in those days, whereas nowadays people I think are using sort of vacuum air dryers, we used the old frying pans. Then popped them in to the examination tray, logged them, put them into vials. Usually it was taking several sets, one for the government and 2 or 3 for partners and on some of the big wells, another set for the research lab.

#212 DF: What did you cook them on?

BA: We cooked them on, I think it had to be a propane stove. It was just at the time that Atco were developing the trailers, you know the Atco, Atcor now, I think it really got its start by sending those trailers up north. We in fact worked with them to try and design bigger, better well site trailers, with what we would like to see in it. We didn't have gas snickers on location that I remember when I started off. And we didn't have some of the fancier equipment that's around, like the pit boss and the payson unit, the computerized stuff that's on the wells now. And of course, they were drilled I think, slower. What I'm hearing now from my friends that are well sitting is these polycrystalline bits are making life almost unbearable for the well site geologist because they can drill a well in central Alberta with one bit. And often the company says look we don't need you until we're down to maybe 3,000', by that time there's no way they can catch up. The samples are coming at them faster than they can look at them, the quality isn't as good because they're pounding them down so fast and by the end of the well they're exhausted. And then another thing happens is if they are so tired they go to sleep and that's when the wire line loggers arrive and they don't even talk. And that seems like a real setback because if the wire line loggers aren't sure what they're supposed to be logging and screw up and nobody tells them to do a repeat run, you know, you've lost an opportunity. So there's an area there that is definitely I think changing. Obviously the speed and that would relate to the costs is improving but the quality of samples and the quality of logging those samples I think is maybe deteriorating. But on the other hand we're using more professional people I think. Most wells are sat now by well site professionals that spent their life doing that. And of course, I remember the food was exceptional. My weakness was the butter tarts that were always out in the cook shacks and the camaraderie with the drillers that taught me a lot. I'd never seen a rig when I arrived in western Canada, very few people had but just being there and seeing how it works and the toughness of that job, I enjoyed that experience.

#248 DF: How have you seen geology change over the years you've been active?

BA: Certainly one thing is a project that would have taken me three months and probably two assistants, two techs, to complete, I can do in an afternoon now.

DF: How come?

BA: That's because of the data sources, like Acumap, where it's all there for you at the click of a button and you can pull up any well, any log, make maps. So the speed of data research has tremendously improved and I think it's probably cut down on what I call the grunt work, which has to be a big advantage. The tremendous addition of seismic, when we look at 3-D seismic. I heard someone the other day say, is it true 3-D seismic makes all geologists go brain dead. Of course, the underlying thought there is it's so good, it's so definitive, that if it's working for you, that the edges of fields can be very accurately defined, the height of pinnacle reefs can be very accurately sliced and spliced together. I disagree with the comment because what I see now is that a successful company has to have that integration of the geologists and the geophysicists working together right from the beginning, when they're planning the program, integrating what they hope to see, doing the modeling of what they might see, and analyzing the results and always integrating the rock data with the geophysical data. It's interesting, I was doing some work for Peters & Co., who are the financial group in town that invest in and help raise money for a lot of the small, independent and smaller companies, and what they'd asked me to do was put together a list of the 25 questions I would ask an oil and gas company. And they wanted to have that by their desk, by their phone so when they interviewed a company on the phone they could ask some intelligent questions. And I did that and went over to review it with them and we had a good talk session about it and the 26<sup>th</sup> question that I hadn't put down there, but that they put value on and I thought it was an interesting one was, do you have a well integrated geological, geophysical team working together and specifically that the geophysicist has expertise in 3-D seismic. So it wasn't just me saying this, this is money saying this, that the investors should be interested in making sure companies had that expertise. So I've seen that area change. The computerized maps are certainly interesting. Actually since I've been consulting I don't see as many of those as maybe I would like to. But everything we did was all hand drafted with the drafting departments. So nowadays it's all pretty well done on the computer and it gives them a wider range of options of things they can do. I did mention before the lack of looking at the rocks, I see that as a negative change. What else?

#302 DF: How about the field experience?

BA: Yes. I don't think it's there. We, back in the 60's and 70's when we were hiring, the ideal candidate had one summer with the GSC, had one summer with oil and gas, had probably had a meaningful summer in the mining industry and one other summer somewhere else, four summers. I think you'd be very lucky to find students that had that now. There are jobs that they get that probably don't have much value, you know, a lot of the maybe geochemical studies that were done where they go up the stream, take the sample, shake the bottle, send it into a lab, do no interpretation. I mean I can't really believe that that was valuable field experience, they weren't looking at any rocks. So I think that yes, it would be nicer to have that. And of course, the GSC has had budgets cut and they don't have the

field parties going out that they did and I don't think the provincial surveys are as active as they were. So that's a big loss I think, for training.

DF: Tell us about any significant discoveries that you were a part of during your career. Now it doesn't have to mean a specific well, you were talking about in the foothills areas and so on you were chasing reefs.

BA: Well, we were chasing the Triassic, I mentioned that one, mapping that and I think that definitely contributed to that discovery. Another one was Lake Erie, which was very interesting. I had been assigned some of these, we called them frontier areas, but more different or remote areas other than western Canada to look at. I liked Ontario so I did the project work on that and felt that we should be chasing some Guelph reefs, Silurian reefs and the Clinton cataract sands and I projected the trends out into Lake Erie. I had a good friend who was working with Consumer's Gas, a gentleman called Cam Berry and I went down to meet with him and the bottom line was we get together a deal where Amoco would joint venture with Consumer's Gas. They already had some acreage, we'd enlarge the acreage block and we'd put a multi-well drilling program together. So I committed Amoco to that, had absolutely no authority because I was a junior geologist and came back and told management what I'd done and thank god they agreed with me. And that was a very successful program. With one small exception, it was primarily to have to find gas out in offshore Lake Erie, however one well that we drilled which was almost right on the Canadian-U.S. border in the middle of the lake discovered and tested about, I think it was 300 barrels of oil a day. Boy did that cause a fuss in Standard of Indiana's office, which was head officed at Amoco in those days. The whole Midwest was their huge marketing area and they were absolutely petrified of an oil spill leak in the middle of Lake Erie. Abandon the well. And we did. And I mean that was obviously a management decision based on the down side of ever having an oil leak there because years and years ago there was a small oil leak and those barrels are still theoretically floating around today because people remember it. So I was involved in that, very involved in the Grand Banks and I wish I could say that was a discovery but it really wasn't. We drilled, I'm going to say, 40 wells out there, with Chevron and with Imperial Oil and they were all dry holes. The research that we did on it was indicating that the area was just not mature enough to generate oil and gas. As we got further into the northeast in our acreage, into what's called the Jeanne D'arc, it got better and better and we were getting oil shows in our wells and it was very encouraging. We wanted to proceed north, ran out of acreage, and Hibernia is just a few miles to the north. So you win some and you lose some. So those area some I remember. Also the wells that were drilled up in Beaver River and Pointed Mountain, I was involved in some of those. They certainly weren't my discoveries but I was in charge of the area at the time we did some of the development drilling and the development drilling was successful.

#395 DF: And where is that?

BA: Beaver River and Pointed Mountain are foothills and they are right at the join of the northern B.C. and the Yukon Territories border. So it's in the Fort Liard area, which is very hot right now, but they were the big anticlinal structures. The Nahanni middle

Devonian dolomite was the target zone. So a number of fields have been developed since up in there but the two big ones were Pointed Mountain and Beaver River.

DF: And they came on production?

BA: Came on production. Actually Beaver River was thought to have much higher reserves than it did and for whatever reason it watered out earlier than expected. We believe it may well have been related to fracturing in the dolomite and pulling too hard on the wells. So Pointed Mountain was the next field and it was handled with kid gloves to make sure that didn't happen and I believe it's still producing gas and of course, some of the new discoveries that have been made at Fort Liard are tying into the Pointed Mountain gas plant area. So it was very remote and very wild country. I mapped it all, I wasn't the original mapper of a lot of it but I put together a lot of the mapping and did some of it myself, flying over it in helicopters and looking at aerial photographs of the whole area. That was a wonderful challenging project as well. It was real geology.

DF: Did you do any of that mapping on the ground?

BA: Yes. Did some on the ground. Most of it with air photographs and tying together other bits and pieces that people had done and making very large regional maps of the area and then recommending the overall program for that area. We had a great manager at Amoco in those days called Johnnie Meeker and he died last year unfortunately. But he came into my office one day and he said, Bill have you ever heard of PERT technique and I said, no I haven't. He said, it's called Program Evaluation Review Technique and he said, what you do on the left hand side is write down all the things we have to do, like drilling, buying land, shooting seismic, government meetings, time requirements and then put a calendar across the top and put in all the little things, what has to come first, what comes next and see if you can figure this out for us. So for the next week or so I just shut myself in my office and I made a PERT diagram and I showed it to him and he said, fabulous, approved, let's go. I learned a lot from that man, he had great ideas and he was enthusiastic and he followed through. So I learned what a PERT was and I think I've used that literally tens of times each year just looking at projects that I'm working on.

#459 DF: Did you ever do any of your field work in canoes?

BA: Yes. I ran all the rivers that ran into Hudson Bay. I was working for the Iron Ore Company of Canada, my second summer out in the field and we had a two man canoe, I was with a friend of mine called Bob Vaningen and we had a magnetometer mounted in the front of the canoe, we ran down these rivers and we basically looked for two things, one was the river disappearing over the edge of an enormous waterfall at which point we had to get out and pack around it and the second thing was for the magnetometer to take a big dip. The needle would swing down and when that happened we would map the surrounding area, see if we could get some samples of iron ore and identify those on maps and then as we did river after river try and join up with trends. So yes, I really enjoyed the canoes. That was one party, I did another one down the Ristigouche River, which separates Quebec's Gaspé from New Brunswick. We spent probably two weeks running that river and doing the geology. So the thing we were warned of on that river were the river guides who were protecting the salmon and some of the very, very exclusive,

expensive salmon lodges were along that river with membership going to New York well heeled investors. So we were told not to even take fishing rods down so we didn't but during the two weeks we got to know the river guides and they often had more than their limit and they'd flip us a salmon into the boat and say, time to break for lunch guys and we'd gut it and fry it up and have an absolutely incredible lunch of Atlantic salmon. So I did that in canoes.

DF: Do you remember what kind of canoes you were using?

BA: No, I don't. They weren't anything particularly special. The river guides, they had very flat boats that would get them into the narrows and they actually used sort of a punt on the back to negotiate up rapids in them. But we were coming downstream all the time so we were just in regular canoes.

DF: Cedar canvas, wooden?

BA: They would have been wooden with, I think a sort of canvas over the top

DF: But not aluminum.

BA: Not aluminum I don't think. The other canoe trip I did, which was purely pleasure but I'd recommend it to anyone, was just running the Bow River, from Lake Louise down to Calgary. I did that with a friend called Don Matheson years ago, over two weekends. We camped on a little island that's just above Vermillion Lakes. The Banff park wardens came by on the road, yelled at us through the megaphones, you cannot camp here and we said, yes, we're having a wonderful trip, can't hear you very well. And of course, they couldn't get to us because the river was in between us and we had a great night camping. We then turned that over to a friend at Amoco called Herbie Benthin, who was a wonderful idea man, and he ran with that and eventually had a provincial campsite made out of that island so people can camp on it now. Herbie Benthin, I don't know whether you've heard about him but he started the Calgary Canoe Club, he started the river clean-up on the Bow River. He was one of the people that built Dinny, the great big dinosaur at the Zoo, which I believe has 6 or 8 car bodies in it and he took me and 20 others to see a dinosaur skeleton in Drumheller. But when we got out of the bus he had 20 blindfolds and he made us put on the blindfolds and go elephant style for about half an hour up the trail and said, now you can take them off. He just didn't want us coming back and taking that sample. So interesting characters that we've met over the years. Herbie was one of them and he certainly influenced me.

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Side 2

BA: One of the ways Herbie influenced me was I was really impressed with that Bow River clean-up so the last five years now we have done a similar thing on Lake Windermere. So I've organized all the communities and all the clubs and the Boy Scouts in the little towns around the lake to get involved on the May long weekend and clean up the lake and whatever parts of the Columbia River they're adjacent to.

DF: Good for you.

BA: So thank you Herbie for that idea.

DF: How did you come to be associated with the well, ASPG, CSPG, what are your earliest recollections?

BA: The earliest ones were joining it immediately when I came because that had been recommended and going to the luncheons, which I thoroughly enjoyed and then getting involved in committees. I'm not sure what the first one was, I know I was Associate Editor of the Bulletin. I think that might have been the first one. I was involved in the first Atlas, with Bob McCrossan, in a small role, I think it was mostly in the packaging and selling of it. Then a variety of committees, some were social, there was the barbecue committee and the dance committee, helping out with conventions. It seems like I was on just about all of them at some time. But the main boost was when I became Vice-President and really enjoyed just being on the committee and I knew I would end up at that time being President because I think it was automatic. So I sort of spent the second half of the time I was Vice-President and the summer before just thinking of all the ways I could make changes, or make positive changes or get ideas started. Then I became President. I think before that I was co-Chair of the first convention that was held with the geophysicists. Bill Evans was the geophysical co-Chair, he was with Imperial Oil at the time. I was the geological co-Chair and the convention was the first big convention held in the new Calgary Convention Centre, not the Telus one but the one that preceded that. So Bill and I would wander around the Convention Centre with hard hats when it was being built, with our fingers crossed that it would get completed in time for us to open the doors. And they just made it. In fact on the weekend before the Monday when we opened, a pipe burst in the lower part of the Convention Centre, in one of the rooms that lead on to the big Macleod Room and the doors didn't open, the room flooded to about a depth of 6' and then the doors burst open and this flood of water went all over the floor, soaked the carpet and those people at the Convention Centre replaced the whole carpet in 24 hours. So that was sort of exciting. I think just being involved in that convention was just a great experience and I vowed at that time I was just going to really stay involved. Because it is a Society that has made a tremendous difference, I think in people's lives, the contributions that they've made and the contacts they've made and the publications that come out of it. It's priceless.

#044 DF: What do you remember from the year you were President?

BA: Oh lots.

DF: High lights.

BA: Highlights. Going down to Tulsa, hammering on the AAPG and getting a wonderful working contract for the big AAPG convention and for the first time convincing the AAPG they should split the profits with the local society. And we made a bundle.

DF: How did you do that?

BA: Fred Dix, great guy and he ran the AAPG and I went to see him and basically made him a proposal. They wanted to come to Calgary, the AAPG loves Calgary because it's got everything, it's got the field trips, it's got the mountains, it's got the people, the geological interest here. So they wanted to come, but I said, if you do come, here's the deal, we'll share the funds on courses, we'll share the funds on the field trips and on the registration, this will be the split and we'll organize the whole thing. You can have some say on how it's done but basically it will be organized by the CSPG but if we do it we're not doing it for free. Because prior to that they basically had and we'd missed a great opportunity. So he said, we've never done this before, we don't do this in Louisiana with the societies there and I said, well, this is Canada and this is the way we want to do it. Finally they agreed and we had a wonderful convention and we made a ton of money. George Eynon in later years, he was able to keep that going and his convention with the AAPG made a lot of money. So that I remember. I suppose the big thing and I've lumped that into my year there, was starting to Student Industry Field Trip. That had come out of a plane trip really, I was coming back from recruiting in Nova Scotia and New Brunswick and one question I always like to ask the students, tell me about the geology of Canada, what do you know. When I was at Dalhousie I got the same answer from 10 different people, well, I can tell you about the Muguma series, it's along the coast of Nova Scotia at Peggy's Cove. The rocks outcrop along the coast, obviously they'd seen them in field trips. Well, what do you know about the pre-Cambrian Shield, well, not very much, I know it's very old and it's got minerals in it. What do you know about western Canada and the oil industry, I don't think I can tell you much. And it seemed to me coming back on the plane, what a shame, this incredible work shop in our backyard and wouldn't it be nice if these guys could see it. So we put together a committee, we raised about half a million dollars from industry and donations and we put on the first Student Industry Field Trip and I think that was about 26 years ago. And it's gone every year since with about 34 students, one from every university across Canada. It quite possibly is the best program the CSPG has got. Our idea was, we would like to bring good students and interest them in the oil industry and it started really, as just a field trip which was meant to go from Calgary to Banff, across to Golden, and then back down and come back through the Crowsnest Pass, give them a couple of transex??? through the Rockies and the front ranges and the plains. Since that time others have contributed wonderful oil and gas finding game. I judge that every year and it's incredible the level these kids that didn't know what a rig was two weeks ago, are making presentations you'd be proud of in committee. So I'm proud of that. I started the women's group, the wives and that never really took off. Some ladies worked very hard on trying to make that a go but it just didn't seem like it got the support that we'd hoped it would. I wrote the first Operationals Manual for the CSPG. It had occurred to me that we were always inventing the wheel when a new committee came in and we should have what a committee is supposed to do,

what it's responsibilities were, what it's budget was, what it's time deadlines were, who was on it. So we put that together and that's been kept up to date ever since. The other one I started was the Tracks Award, yes, there's one on the wall, I got one. And it was really to recognize the volunteer contribution of many people. We had a few big awards, you always got something for organizing the convention etc., but there were so many other volunteers that did things of value and didn't get recognized that we thought that was a way to do it. So it was meant to mean you left tracks and the tracks of course, should be dinosaur tracks so how do you put a dinosaur track on a 6" slab of tile. Rein deWit, a Dutchman that worked at Amoco, he said let me play around with it. So he came back the next day with a beautiful clay model and three dinosaur footprints across it and I said, Rein, how did you make those. He said, I slaughtered a chicken last night and I used its feet and they worked beautifully. So those were the Tracks and those are still give. So those are a few of the things I remember out of that year that we got started. That can be one of the neat things of being President is the following year you are still the past-President on the executive and you have the satisfaction of seeing some of your ideas coming to pass.

#116 DF: Any controversial things happen that year?

BA: I tried to start one, I wouldn't say it's super controversial but I thought it would be a terrific idea to have a publication on the best fossil collecting locations in western Canada. You know, a place that school kids could go or amateur geologists could go to collect it. And I got absolutely booed out of the room by my committee because they said, you'll draw attention to it, people will go there, they'd pillage it, they'll take it and I think they probably were right. So that one didn't fly. The other one we started was the geology of the Calgary area and I see that's coming around to its second publication this year. So that was initiated during that term.

DF: I see in your annual report for the year you were President that you wanted to do what you could to make the Canadian aspect of the Society a special concern. How did you go about doing that?

BA: Well, we set up representatives in all the provinces and Societies and tried to get them to contribute to articles on a regular basis to the Reservoir and that we thought we could maybe hold a number of our meetings in locations other than Calgary. Of course, the time I was there it was the Canadian Society but it hadn't been too far ahead of that that the name had changed from the Alberta Society. There was often letters to the editor in the Reservoir about it not being a Canadian representative Society, in fact it was a Calgary Society. So we made an effort in that direction. To be honest I'm not sure how successful that has been and others have tried to do the same thing and it's tough. When you do run meetings and conventions away from Calgary there's a very high risk that financially it's not going to be successful because of attendance. We're not always sure there's just that much interest in soft rock in certain areas. So that's a tough one.

DF: I also see that you have on your list of publications a history of the CSPG, what ever happened to that?

BA: I don't know. How is that written in there, was that a committee.

DF: You had initiated seven projects under the publications . . . here's the paragraph right there.

BA: Let me have a look. I mean, I think that was going to be Jack Porter doing that and he still writes but to be honest I don't remember exactly what that was.

DF: The next year he was appointed the Chairman of that committee.

BA: Well, that may well have been it. But I don't think . . . you'd know better than I because you're involved in this now, I don't think a history was every written.

#152 DF: No. A history could come out of these interviews actually. What do you think a history of the CSPG could include?

BA: We were talking about this the other with some of the past President's that I had asked to join me to review the Reservoir actually, the pros and cons of the current Reservoir, which is another story. But we did come up with an idea that we thought might be interesting in that it would probably be much better off in a history and that would be sort of looks like the direction you're going, a President was President for a certain year, what happened in that year in the CSPG. What happened in industry, and what big discoveries were made in that year. Not that they had anything to do with that President particularly but it's sort of interesting to look at the evolution of the big discoveries and the new trends that were developed. The idea came from looking at the Oilmen's Golf Tournament book that they put out sometime in the last couple of years. I think they had an anniversary so each of the Presidents of the Oilmen's was featured and it was really very interesting the way they did it. I thought maybe we could do that and this might be something we put in the reservoir. But I think the way our discussion on the Reservoir is going it would be much better place let's say, in a history. So that was one thought. The successes I think, would be interesting, the failures. Maybe the ideas that were before their time and never got acted on would still be interesting. Hey, I've got one of those and that's similar to the oil fields volumes but a quick synopsis of plays that would include maybe a discovery well, a field, a good short article on the geology and typical logs, log picks on it and possibly seismic section. I always thought that would be very useful to geologists starting off, something they could get as a quick reference. So I mean that would be a new idea to follow up on, rather than part of our history. I don't know how many of these would be documented of ideas that were started and never followed up on, they may still have merit. You should listen, I hope you're going to be invited to the past President's dinner this year but there's a bunch of old timers that have a list of things written on their sleeve that they wish were done and never were and that's the evening they come out, you know the gripes and. .

#190 DF: That was going to be my next questions, what happens at those meetings?

BA: It's a great evening in terms of just meeting you old buddies, there's always a great meal and the wine flows quite freely. Then the tongues flow quite freely. The current President gives a review and sometimes he gets off quite lightly and sometimes we launch into him and say, why haven't you done this, why haven't you done that, why did you proceed in a certain direction. He tries to give the best answers he can and there's always a few good laughs. For example at one of the last meetings, a past President, maybe you've

interviewed him, Ed Klován was quite vociferous about the quality of the Reservoir and held it up in his right hand and compared it to an equivalent publication, which was a flyer from Safeway. And said, we've got bargain basement sales on this in both places and the amount of real information is about the same, nothing and a few other comments. It provoked some great discussion. Obviously he was exaggerating the case to make a point but as a result we have sat down and formed a little committee to look at the Reservoir and see whether it does meet the needs of today's geologists. We're in the middle of sort of trying to analyze that now. So hopefully that's one of the good things that will come out of it but I actually think it's a source of some great talent that actually isn't used enough by the CSPG, is the past Presidents. They're in there, they do their thing, they're a year for past President and. .

DF: What time of the year is that meeting held?

BA: I believe it's usually February, March.

DF: Any other things you think the CSPG might want to do in the future?

BA: Yes. I would love to see them make a joint venture deal with a data source company like Acumap. I've worked a fair bit with Acumap so I picked them because I like them and respect them. The joint venture would be somehow involved with us selecting the best of our publications and tying them to information. An example would be a young geologist is transferred into northeast B.C. and is told there's land sales coming up in a month from now and they want recommendations. And he know nothing about northeast B.C. So they are now very used to going to the computer but one of the great things on the computer would be if we could then go to a series of quick references or links that would say here are some of the best papers written on the Triassic of northeast B.C. and you zero in on Graham Davies for example. Here again, is a typical well log, here's a couple of example fields and very quickly whoever is working on it has got a very good idea of what the background geology is there and then they can zero in more detail on the land blocks for example that they're thinking of buying. So I think we have a resource there that is mostly in hard copy now but could be put together in a useful format that tomorrows computer generation can access. So that was one thought that's just going through my mind, how do you do that, how do you make some money out of it, but I'm sure those things could be worked out. I'd love to see the field trips come back again, in the way they were a number of years ago. And I may be misjudging it, maybe they are good still but I just haven't seen field trips going into Hummingbird Reef for example, which is a classic but I do understand at this convention a number were cancelled from lack of interest. So who knows. But simple things like getting back to the rocks, any way the CSPG can encourage that. I haven't seen beer and bull sessions for years and they were wonderful. With a few selected speakers and controversial topics, maybe some posters around, just to stimulate geologic thought. Those are some things I'd like to see emphasized.

#256 DF: Good. Just a few more general questions then. What of your contributions do you consider to be most significant?

BA: Student Industry Field Trip has got to be number one. And you mean towards the CSPG I

guess.

DF: And in your career in general too.

BA: There's one that I was in charge of which was called, it was really in the continuing education field and it was to develop a series of really good high quality courses for our members. We got it going and developed the Geology of the Western Sedimentary Basin, which was essentially a 5 day course and wonderful lecturers in it. Then we developed one on the Mississippian and one on the Devonian and had two I believe, on the Cretaceous on the books. I was sort of in charge of trying to get all that pulled together. I was being paid as a consultant, not very much but I was being paid by the CSPG to do that and the executive the following year basically pulled the rug on, I believe a number of consulting contracts that they had out there. The concept was, we have a manager that's being hired and we have a staff and the CSPG should always be volunteer, therefore we're going to pull the rug on this one. Well, the program died and the only course that survived for maybe a year or so was the Geology of the Western Canadian Sedimentary Basin. And it suffered a really severe blow in that Bob Creed, who was a major contributor to that, died very suddenly. A couple of other of the instructors were maybe not as willing to participate as they had been. So that program was really I think, a very valuable one but it didn't survive. What was your question actually there?

DF: Well, in the course of your career what things have you done that you're most proud of?

BA: Okay. I was actually very proud of that program and I was very disappointed when it was killed. I think personally I'm very proud of the training courses that I'm putting on now. I feel they are answering a need that is not being made by the major oil companies because they don't have training centres anymore.

#302 DF: How many of those do you do in a year?

BA: They're up on the wall up there, so I suppose I average about 2 a month over 10 months, so I'm doing something like 20-30 courses. I've done one a week for the last two months, I did the last one yesterday so I'll take a break for the summer. So that's something I've developed here from very humble beginnings from a one hour lecture that was being given to students to convince them to come and join us in the oil and gas industry to a little longer show and tell for German investors over in Munich to tell them where their Deutschmarks were going to giving a course in house and then deciding to give it out on really a public basis. So I'm proud of that. Very proud of a couple of awards I've got. One was being given honorary membership in the Society for contributions I've made over the years. And this one which really surprised me when I got it, was the APEGGA, Frank Spraggins Technical Award.

DF: For what in particular was that?

BA: I'll maybe read you what is on there. To Dr. William Grey Ayrton, Professional Geologist, in recognition of your considerable technical expertise and professional contribution to the industry in Alberta. They're what they call their awards of excellence and they seem to be very rarely given to a geologist, they're almost always given to an engineer. I guess I was nominated, I didn't know it and suddenly got a letter in the mail, congratulations, you're getting this award in Edmonton and it was a wonderful ceremony.

They did a video of my life essentially and showed that on there, which I didn't know about, they'd interviewed a number of people. So that on, it was very satisfying to get the recognition that way of a career that I've really enjoyed.

DF: Especially considering that many of the people I've talked to say that CSPG and APEGGA don't always get along.

BA: Yes. I've been with that group. I've always wondered why they should be accrediting us and almost threatening that we can't work unless we have our APEGGA designation. And I've wondered, do they really give enough recognition to the geological fraternity and I think there's definitely improvements that could be made. But that's an area, it's almost like that making the Society very Canadian, is let's work in harmony with APEGGA, year after year we don't seem to make very much advance.

#344 DF: What have you enjoyed most about your career? How much of your career were you with a major and how much on your own?

BA: 1963 I joined Amoco, Pan Canadian then Amoco and in 19-I think-75. .

DF: Pan American you mean.

BA: Pan American. I think it was 1975 I left and I joined two German based companies, called Petro Mark and Blue Sky, which have long since disappeared and have been amalgamated. Three years after that, probably about '79 I started my own company which was called Flame Oil and Gas. I was looking for a good name and the name Flame came up and I checked it out and I found somebody already had it. But it was the name of a Cat operator up in the Pembina area and I phoned him up and he said, actually I'm going out of business, he said, would you like the name and I said, I really would. He said, I'll be in Calgary, we should make a deal on it. So I bought him a bottle of whiskey and got the name. And about 6 months later the Calgary Flames arrived in town and we did write to them and say, we are Flame Oil and Gas and we are supporters of the Calgary Flames and it would be wonderful if you could see that we get two free tickets right along the centre line. Funnily enough we never heard from them. But shortly thereafter they made the Stanley Cup and CBC were in our office and of course, all our young ladies were dressed up in Calgary Flames sweaters and we made the National News because we had the name Flame so it was a great name. I had Flame for I would say about 5 years and we merged it 3 times and eventually merged it into Canadian Wesgrowth and I ran that for a year and then we moved Canadian Wesgrowth into Ulster Petroleum and at that time, a fairly mutual agreement I took my leave and severance from that and started Flame again. The second time it wasn't as successful but we still have it, we should call it Spark, little Flame. So I still have that but since that time I've basically been consulting. So you were asking what were the really enjoyable times in it. I've always said that I can easily count on the fingers of one hand the people that over 35 years, that I really don't want to do business with or see again. There's maybe 2. In 35 years that's tremendous so the quality of people and the friendships and the working relationships has always been a highlight. And I compare that to my wife working in real estate, they were suing each other and not talking to each other and it wasn't a very nice industry I didn't think. So that has been enjoyable, the projects I've had an opportunity to work on, we've talked about Pointed

Mountain and Beaver River, Lake Erie, the Grand Banks, all over western Canada. When I was down in Tulsa at Amoco's head office, handling all the big recommendations, including Prudhoe Bay, the land sales, it was fascinating. So the work was always challenging, never dull. I think developing Amoco's training program was a highlight over time, and I do compare that to today. That's something that's changed. When a young guy joined us we knew for the next 3 years what courses he was going to go to because we wanted to get him to a certain level in his career by that time. Some would be in Tulsa, some in Calgary, some given by consultants, some by our own people. But there was a definite schedule. Nowadays I see 90% of the places that I go to, check the e-mail, see who's giving courses, we've got a budget, sign up for whatever you think might be worthwhile and we'll probably approve it. And a couple of companies now, it looks like Pan Canadian, maybe Anderson, are thinking more about going back to the old planned programs. But I enjoyed that, just putting that all together and seeing it work, getting top quality people involved in it. Similar thing with the CSPG in that training program we put together there. The CSPG has always been a highlight, the year as President and particularly the year after, seeing things come together. That Student Industry Field Trip, I give them the initial lecture every year, just after they arrive in Calgary and judge them when they present the results of the game. That is incredibly satisfying, just to see the level these kids have got to.

#443 DF: How long is the trip?

BA: Two weeks. I think they pay \$100 themselves and the rest is financed. I think it's influenced a lot of people. I was influenced and maybe you were too, in your career, by a few individuals or a few events and again, maybe you could count those on the fingers of one hand. But I honestly believe that any one that's been through that SIFT trip, that's one of those events that really says, boy, I didn't know anything about the oil business and I'm coming back. Because they were so challenged and reached a level of understanding they never expected to be at and they liked it. So those have all been great experiences. I've maybe had one year that I didn't enjoy it and I was involved in a merger where I had to work with a man that I considered very unethical and I wanted out of that as quickly as I could. But apart from that it's all been enjoyable and I wouldn't change it for anything. Running a small company was incredibly rewarding too. I'd been in a big company situation and I'd got to a stage in management where I was 4 1/2 days in committee and a lot of the committees were things I didn't think I was really contributing very much to. You know, should we give an ambulance to Fox Creek and maybe some aspects of the liaison with other companies or whatever, I didn't think they were worthwhile, it was just a waste of time. And then starting my own small company where everything is at the leading edge of importance it seems and you knew why it was important. Whereas at Amoco I was beginning to think, you know, I saw a project 6 months ago and I wouldn't see it again for another 6 months and you weren't up to date on things. With a small company you were right in there with everything and it was very exciting. Especially when you have discoveries.

#486 DF: Where were you in 1980 when the NEP came in?

BA: I was right in the middle of putting \$5 million together for Flame Oil and Gas first joint venture. I had I think, about 15 either individuals or joint venture groups of doctors, primarily, all ready to put up their money and I heard Peter Lougheed get up and tell the people of Alberta, not only are they outside our home but they've invaded our living room and all my investors just ran for cover. It took me about 3 more months to put everything back together with a revised program which included investing in the United States and I got it put back together again. But the timing on that just couldn't have been worse for me because I had invested my own money in getting the company started and I needed investor capital to get the projects going. And the NEP came in and bingo, it just shattered everything. And of course, a lot of the things that they brought in with it, you know, the Canadian, what did they call them, the PIP grants and that sort of thing caused us awful problems. So that's where I was when that happened. We did come out of it okay, we got our money put together and got Flame Oil and Gas started and it was a successful little company for 5 years.

DF: So none of the NEP, the grants and so on didn't help you?

BA: No.

DF: Not the way you were set up?

BA: I don't think they did because people had to prove their Canadian ownership when they invested money with us. I had investors call me and say, this yahoo from Ottawa is calling me to say, am I a Canadian and prove it and send in papers to show because I've given you \$15,000 of my money to invest in oil and gas and they're questioning whether I have the right to do that and they said, I'm teed off. The reporting aspect of it seemed like it was pretty onerous from the tax angle and the auditing angle.

DF: Well on that note we're running out of tape so I'd like to take this opportunity on behalf of the CSPG and the Petroleum Industry Oral History Project to thank you so much for opening your office to us this afternoon and entertaining a few questions and we really appreciate what you've had to say, thank you very much.

BA: My pleasure David.