

PETROLEUM INDUSTRY ORAL HISTORY PROJECT  
TRANSCRIPT

INTERVIEWEE: Don Axford

INTERVIEWER: Nadine Mackenzie

DATE: November 3, 1983

Nadine: Mr. Axford, when and where were you born?

Don: I was born in Winnipeg, Manitoba, September 16, 1920.

Nadine: What did your father do?

Don: My father was a barrister in Winnipeg.

Nadine: Where were you educated?

Don: At the University of Manitoba, taking only a B.Sc.

Nadine: And what made you go into geology?

Don: It was the day the Second World War was declared by Canada and Great Britain etc., Sept. 3 and I on that day was just finishing a camp which had been arranged by the Manitoba government to teach people prospecting. So I'd spent the previous three months out in the woods with the benefit of the Manitoba government sponsorship, about eighty of us younger men. And we'd clambered all over the Pre-Cambrian Shield looking for ores and that got me very intrigued in geology. I think . . . , in any event I was always interested in earth sciences and things natural and so there was a subsequent shift into geology.

#018 Nadine: Are you the only one in the family who went into the geology?

Don: I am the only one, the other became a Ph.D. in Economics, one became a chemical Engineer with the Aluminum Company of Canada and the other decided university was a waste of time and went out on his own and got his own little company going.

#021 Nadine: How long did you study geology for?

Don: I studied it for four years.

Nadine: Can we talk also about your military training.

Don: Yes, if I can back up a bit, after the 1939 field experience, I also worked in the Alberta and British Columbia foothills doing basic field work as an understudy. And that was really wonderful experience but in 1943 I joined the Canadian Navy and took training in radar, ended up in the Trans-Atlantic Convoy group from Newfoundland to Londonderry, Ireland.

#028 Nadine: Did you not think of staying in the navy or having a military career?

Don: I thought just the reverse, I'd love to get out of the navy and get back into geology.

Nadine: What did you do during the summer when you were at university. Did you take some summer job with geology?

Don: Yes, on those occasions I worked with Dr. Spivac who you've probably come

across his name, and Dr. Hugh Beach with Texaco. At that time they were with the geological survey out of Ottawa and they hired me as a beginning student and so that was great. So I did work in the Peace River country and that area generally.

#035 Nadine: And when you left the University of Manitoba what did you do?

Don: I of course, had taken, the two years before the war, then joined the navy and then I came back and I took two years starting in '46. So in 1946, Dr. Spivac already having known me from the previous summers in '42 hired me, he was then with Mobil Oil. And so that started my Mobil Oil career in 1946 taking a boat up the MacKenzie River to the Arctic Ocean and then back into the Peel River area. And we went from there into the Yukon and so that was a wonderful experience. That was also with Dr. Goodman who you have the name of. In any event after 1946, having the navy or the government pay for the additional education, I took two additional years and then graduated from the University of Manitoba. I had envisaged going on with an Honours Degree and Leduc came along so I decided this was a propitious moment to get into the oil industry and I took the earlier degree and went into the petroleum industry, again starting with Mobil Oil because Dr. Spivac knew me and had some regard for me.

#050 Nadine: Can we talk about your work at the time, what were you doing exactly?

Don: Well, Mobil Oil which had really started as almost a two man or three man company in Canada in 1942 had expanded to a, probably 15 person company by the time I joined them so that was a real experience to go with a major company with a branch so small. Dr. Spivac, in my opinion was an outstanding trainer of geologists and so I benefitted greatly by coming to work for him. I think he had the capability of letting a young fellow not only have his head but to have him exposed to experience enough that would be really beneficial to him. I also would have to commend Dr. Goodman who was then with Mobil Oil. And he was a very scientific type so he injected a lot of the enthusiasm of the geological science into my working relationships. A third person was Dr. Willis Wright who was a really gentleman geologist and loved being out in the field. Those three Ph.D.'s in Mobil, as a group to work with was absolutely wonderful for I as a beginning person in geology. There were a couple of other fellows in there, one was James Manning who subsequently became a vice-president with Husky and has just recently retired. And he had a University of Alberta education and therefore knew the Alberta scene and he really took me in hand at the very first and could inject the Alberta geology that I had missed at the University of Manitoba and so that was a wonderful thing. The other person was Bob Bishop and Bob Bishop was an interesting fellow because he had come out of the New York office and had direct relationships with the top management in New York. He had a further interesting background which was that he had sat on the well in Prince Edward Island in 1942 which is really the first well drilled offshore in Canada. It was drilled to the greatest depth and kept the depth record for deepest drilling in the British Empire for almost two decades. It was further interesting in that they had to build and island to put that rig on and there was the interesting story there that when Mobil

pulled out they had the island and it was a possible hazard to navigation. A Mr. Ivan Redon, who was a production manager thought up the brilliant idea of selling it to the city of the capital of Prince Edward Island for the princely price of \$1 for the development of a park. And so they accepted that and so it is still a piece of property of the city.

#087 Nadine: How long was your first post with Mobil Oil?

Don: When you say the first post, I started in '48 and then worked continuously with them. Dr. Wright had the great pleasure of touring the province to look for surface evidence of structure relating to petroleum. And of course, Leduc was known and the additional drilling was underway and so we toured from the U.S. border all the way up, passing by Leduc and evaluated many of the areas through a five month period and so I got to see most of the surface of Alberta for the first five months. And from that moment on then I went into the office and essentially have stayed in the office, aside from skirmishes into distant areas. It was interesting to me because I had joined geology thinking I would get a lot of outdoors and aside from the several summers spent early in my career, from then on I was an office person.

#101 Nadine: You were moved to New York in 1956. Can you tell me about it?

Don: In 1956 the New York office was becoming more intrigued with what was going on in Canada. Mobil Oil had had it's first discovery at [Dewhammel ???] and then at [Pembena ???] and then other various discoveries. And so they had thought up the idea that they would like to have a person from Canada go into New York and report directly to the management in the New York office. I was the first one to go on that assignment. It was clearly for a one year period, it again was absolutely a wonderful experience because there I worked with those people reporting to the Chairman of the Board of Mobil Oil. We met directly with the Executive Committee headed by Mr. [Neckerson ???], a fellow associated with the Rockefeller's, who was the head of Mobil Oil. And so you quickly learned to do things in an appropriate fashion in relation to Head Office requirements.

#114 Nadine: It was very good training then.

Don: It really was. I've had wonderful training all the way and with wonderful people. It's been an honour.

Nadine: And you were staff geologist?

Don: I was staff geologist at that time, yes.

#118 Nadine: Can you tell me about the Pembina discovery?

Don: Yes, I had a specific part in that project and it occurred in the following manner. Dr. Spivac, who was the chief geologist and the fellow who really was setting up the plays for Canada had come across the fact that the Seaboard Company was prepared to farm out four townships of acreage. And he came to me and said, Don do you think there are any opportunities for reef in this area. Well I said I did not think so and nevertheless would evaluate the proposal and see what we could do. It was clear that Dr. Spivac very much wanted that big tract of land. In any event I

did a few weeks work on it and came to the conclusion that indeed, there was practically no opportunity for, well there was no opportunity for Leduc Reef. The Leduc Reef had been established pretty well by drilling and was known to be present to the east of the Seaboard acreages. Well I drew up a recommendation and that is in Mobil Oil and recommended the acquisition of the property because it gave the opportunity for the discovery of oil in shallower zones, over the interval of the Leduc. The requirement of the farm out was to drill down to the Leduc but we were ready to accept that requirement because we felt there were opportunities to the top of the Devonian which might develop a discovery if we drilled there. Now that was drawn up and Spivac accepted the recommendation and it was taken through and approved and we got the farm out. Now at that particular time, oh by the way, I must stress the fact that there has been a lot of discussion that Mobil took it believing there was going to be reef and I've had that expressed many times through the past many years and I do stress the fact that the farm out was taken recognizing there was no Leduc reef. In the recommendation I had said that I felt there was the opportunity for a large scale strata-graphic trap because of the configuration of the regional area and giving recognition to the reefing to the east which represented the edge of a basin and then the trending foothills to the south which went off to the southeast and then certain things on the north. In any event that was in the recommendation. Now after that time then it was agreed that we would set up a district office in Regina. And it also was decided by Dr. Spivac that Arnie Nielson would take over that posting. And so he came to me and said well Nielson is going to take over this posting, I think that he should also write a recommendation on this so that we have that in the file and we'll know that he has a clear recognition of what that well is being drilled for.

#160 Nadine: What was Arnie Nielson doing at the time?

Don: Arnie Nielson was a geologist just as myself, but he was a geologist with less seniority so he was working in a different slot than I was. Now I think this expresses Joe Spivac's strength in that he always included everybody in an operation. And that is one thing that showed through all the many subsequent years and why I think that he was so successful in developing geologists who seemed to have some capabilities of accomplishing good geological studies etc. Arnie accepted the post and then went up to Edmonton and started the first division office of Mobil Oil, so he opened the Edmonton office with the new assignment and with this first well to be drilled in Pembina. He set about putting together the prognosis for the well which is the listing of what you expect to encounter in the well and he had an assistant at that time, Tony Mason. Tony Mason is a very important fellow in the Pembina discovery who never appears in it. Well, Tony Mason and Arnie, having drawn up a preliminary prognosis, went to the University of Edmonton and saw [Follensby ???] and talked the cardium with him and asked whether the cardium could be a productive zone. Follensby and Arnie Nielson having been a graduate of the University of Alberta and having had Follensby and Stelk as professors had a further dissertation out of the university, yes, the cardium could be rather an interesting zone so they did put the

cardium in the prognosis and so that was a very specific item, it became very important in all the further communications and claims on the Pembina discovery. In any event Tony Mason went out and sat on the well and Jim, I can't remember, I'll think of his name in a minute, he went out and was more or less the engineer in charge of the well, and they drilled the well down, earned the farm in and did not encounter the Leduc but we didn't expect it but they did not encounter any Mississippian production either. And then they had noticed this small amount of oil staining in the cardium, the drill stamp tested it and got only oil flecked mud and so there was a monstrous dispute with the engineering department who said we will abandon the well and give it up because it's not worth taking. And Arnie Nielson and Tony Mason insisted, no the cardium is a significant zone and we feel that it's at the wedge edge of the cardium as it comes out, having discussed it with Follensby and group. And this is why Follensby always gives full credit to Mr. Nielson and insisted that the test be conducted, absolutely insisted. And they ran the test and in my recollection, they weren't too happy with the amount of flow that they had, it wasn't that much gas and certainly oil didn't hit the surface immediately. And they went away and then subsequently came back and by golly, they looked in the tank and it was full of oil. And so that was the start of the cardium discovery. Now subsequent to that, I as a staff man in the head office, Calgary and Arnie Nielson as the manager in Edmonton and Joe Spivac over both of us and also the exploration vice-president, the requirement soon came up to select leases in the Seaboard acreages and that was done, it was done mainly by Nielson and Tony Mason in the Edmonton office but with some input from the headquarter office. And to my still continuing surprise, the very best spots were picked and we took the leases in subsequently what became the better part of the reservoir. And I am still puzzled to this day with such limited information as we had. We had very poor seismic and no feature and it turned out to be a strata-graphic trap and that strata-graphic trap is patchy and yet we either did a very good professional job or lucked out and ended up with the thicker sands in almost every one of our leases.

#225 Nadine: Why was Tony Mason not given full credit in the Pembina discovery?

Don: I have no real answer for that, I feel that Tony Mason was critical being the well sight geologist out at the well, he was critical in that he had to have the persistence to say that had to be tested. He was critical because he had also proposed that maybe the cardium was a good objective but I think in the subsequent enthusiasm of the discovery, often key people are neglected. Key people. . . , any discovery is usually a consequence of the activities of quite a large group. Now I'm also a great believer that any discovery really requires somebody to push and shove and be there. Now I think Arnie Nielson pushed and shoved and he was there and on the sight and he got that thing done and he had to push for that test. I think Tony Mason with the lesser profile has never been recognized for his contribution. He had to stimulate Arnie Nielson.

#243 Nadine: After New York, you came back to Calgary and you were Chief Research

Geologist?

Don: That is correct. That became the situation because Arnie Nielson was selected as Chief Geologist and they were a little embarrassed making him Chief Geologist and not me Chief Geologist and so they made me Chief Research Geologist so the two of us were in parallel. Now to me, although I would have preferred the other assignment, it became a great thing in my career because then I related to the research labs in Dallas and I also responded to all the scientific efforts of the Canadian group and therefore could get much more into the meat of exploring than into pure administration. The other tended to become more pure administration. Nevertheless, I think we worked well together. Arnie and I are a little different, in that Arnie is, in my opinion, one of the great administrators in Canada. He's really terrific with paperwork, hanging on to details, he's tremendous at presenting, very . . .

#265 Nadine: So he's a good administrator.

Don: Yes, very competent in meetings. I was always a more rambunctious fellow, and I say that . . ., I was and I will stay rambunctious all my life. I would be more prone to pick up a thing and push for it and get it done even against objections, where an administrator might tend to go a little more smoothly. In any event, that situation prevailed until 1960 and during that time we had further discoveries, many of which I participated with and so that was a good growing experience.

#276 Nadine: What were these discoveries?

Don: Well, the Virginia Hills discoveries, the big Beaver Hill Lake discoveries were all under way. And at that time we were also talking about. . ., well, let me back up. The Virginia Hills discoveries were much more difficult to locate, they weren't the high reefs of the Leduc. And at that time we were talking about again, townships of acreages and the objective was to get this land over these more deeply buried and thinner reefs. And I can remember going to one sale where there were four townships available, maybe more than that and our group had assessed these opportunities and we came to the conclusion that one large tract was the best by far and then there was the second, third, fourth in order of priorities and by golly it intrigues me that we decided as a result of New York management decision that we could not spend the money on the best tract. And so it went to Imperial and, I forget, for 1.5 million or 3 million which gave them certainly well over a township of production. Absolute outstanding bargain according to today's situation. Now they might have even ended up with four townships in a group there but my point is that you know, such were the times that here it was visible that that was the best and yet we were trying to save nickels and. . ., New York was trying to save nickels and we went the second best. So Mobil ended up with good representation in the area but not the best, Exxon got it. Another example, but this is a little earlier so I'm backing up in my history and that is pre, the assignment in New York. We were chasing the Leduc in a southwesterly trend which was to become Wizard Lake. And Wizard Lake, of course, was discovered by Texaco and Wizard Lake has been the mainstay of the

entire Texaco Corporation up here and we there, we working geologists knew that was the area to go and yet at that time our New York management wouldn't approve our purchase of that acreage which was side open because the cost was \$10 an acre and we passed up the Wizard Lake because \$10 an acre was too much.

#332 Nadine: It must have been quite frustrating then?

Don: Oh it was just a flow of events that just continued. Sierra, subsequent to when I was Chief Research Geologist, Sierra in British Columbia, a big gas field, in a staff meeting, I indicated that maybe we should buy this other reservation. It would be cheaper, it was in an area where you might expect reef and everybody in that meeting indicated that they weren't too keen on it.

Nadine: This is the end of the tape.

Tape 1, Side 2

Don: In any event, here we were going to this sale and I finally talked Dr. Spivac, again a principled man who was always in this and too little seen in the recognition for what he's accomplished. He said all right Don, we'll go and buy that silly tract of yours and we'll take a chance at it. Well we bought that tract and that became the Sierra field and that was something that was visible. There was another reef discovery where we had laid out the opportunity for reef and it became a 400 million barrel field and yet we did not make the move on that because the situation in all the meetings didn't quite come together. There was some objection to it and Mobil failed to take a participation in that field. Now I'll have to remember the name but the point that I'm making is, not that we missed it and not sour grapes, just the reverse, that you know, you go into these meetings and all kinds of diverse opinions come out and there's a lot of give and take in any meeting and then the final conclusions are reached. And in my opinion it's just absolutely astonishing how sometimes you miss a major thing because in a half hour meeting or one hour meeting, the wrong decision is taken or it is bypassed. Let me back up again to . . . , I think it is pre the New York experience and that was Weyburn. The Weyburn oil field in Saskatchewan, this is another area where a discovery had theoretically been made at the up dip end of Weyburn and that well produced on drill stem test from the Weyburn producing zone a very small amount of oil and quite a bit of water. But it was in very, very poor verocity and poor permeability. Mobil had a large tract of land just to the south of that or down dip. And the theme was expressed, let's go down dip and drill it because what we're looking at in that up dip well is verocity so poor that you have some water trapped as well as oil but if you go down dip from it you'll get pure oil. Practically no one would accept that theory and yet based on the absolute scientific data that you have world wide you could make the proposition that would be the case. In that instance, Mobil said no, we will not drill that, we're going to farm it out. I

said if you're going to farm it out, I'll quit the company and I'll go take it. They said, well Axford if you wish to do that, go ahead, but I did fight enough that it was not farmed out. White Rose which is the predecessor of the Canadian Oil Company which is the predecessor of, which is it, who took them over. . . , in any event White Rose went and drilled a well in one section right in the Mobil block and discovered the Weyburn field. We had held the darn block and so we ended up with a fantastic position in the big Weyburn field. Another aside, Fosterton, we had a man in charge of Mobil Oil at that time by the name of Walt [Hohag ???] and Walt Hohag, who currently lives in California was a great entrepreneur and there are many stories on Walt Hohag. But in any event, we had at that time, set up a Saskatchewan district, so now we had Arnie Nielson in Edmonton and then we had Alan Graves over in Saskatchewan. Well they had been over there for a number of months and Mobil Oil Canada was coming to it's budget and wanted to present something to it's New York management and get approval. And so Walt Hohag came down, a great pusher, and he said, Don, we should develop a project for Western Saskatchewan. I have to back up here, Walt Hohag, I've given him credit for being an entrepreneur and I give him credit for giving most of the land in that subsequently became productive for Mobil in Saskatchewan and Mobil did wonderfully well in Saskatchewan. Hohag is the man who made the deals with Woodly Petroleum and Southern Production and Central Del Rio and other companies and brought in all the southwestern Saskatchewan which got bit production for them. The central area which is the Weyburn thing and then the eastern area which was the [Allida ???], Nottingham trend which became so productive. In any event, here he had this great amount of land and he wasn't about to let that district geologist not come in with a proposal, so Dr. Goodman and I sat together for three days and we said, well let's go drill Fosterton #1. And Fosterton #1 was to be located on a seismic feature that just wasn't very much. The area criticized our decision to put Fosterton #1 as a budget location and they indicated the seismic feature wasn't good, it wasn't a good area to be, there weren't many wells drilled there. Andy Bailey had come out with his theme of the Swift Current high and all this thing which you must have in the records but here it was pretty open and no significant discovery. Dr. Goodman and I developed a cross section and we showed the presence of a sand coming in that would be the main target and we drilled the well with great objections from the area and it came in as the Fosterton discovery and that led to all the other trend discoveries in that area. Now having taken some credit for this thing, I have to also put in a humorous aside and say that we made a tremendous error in our illustration and I can remember the illustration to this day because we didn't have slides at that time, we would draw these on huge charts and diagrams. And our sandwich we had coloured in and put so brilliantly in yellow and then this little seismic anomaly. We showed it as a cretaceous sand and it turned out to be a jurassic sand. Well of some interest and still a continuing part of a very long story, we had a running battle with the district for almost a year after where they criticized us because they indicated it was a jurassic sand and they were absolutely right. Now we hadn't enough information in Calgary to do that and I guess, well they didn't

know that truncation occurred either until they got the discovery and then they started tying everything together so, here's another one that was sort of drilled on a mistaken situation and there are a great number of those. And while I'm talking Saskatchewan and still pre New York, there was a fellow over in Saskatchewan by the name of Ken Colter. And Ken Colter, I'd give him credit for the Mobil participation in the Allida, Nottingham discoveries. Ken Colter was a geologist like myself, filled with imagination, some measure of impatience. He had benefitted from the fact that he had gone into seismic and I had also been in seismic coordination, by the way. But here, Ken Colter, with very poor seismic, in southeastern Saskatchewan, came into the office one day and he said, here, I'm going to recommend all these wells. And he had a low [bade ???] outline, taking every high on that seismic and saying, well I have a truncation here and that truncation is going to end. If we drill this little nose at this spot we'll get production and he was practically laughed out of the conference room. They thought that was too wild and that he had shown too much imagination and not enough control and he should go back and rethink the whole thing.

#101 Nadine: So nobody liked his idea?

Don: They criticized it as being too loose. And he went back and that's when Imperial drilled, either Allida or Nottingham and that set up Mobil because the Imperial discovery, you could go to Colter's map and we successively drilled 1, 2, 3, 4 and just went down field after field. Now I guess I'll jump to the next one, in 1959 which is of some interest to you and that is that Sable Island. I was in a conference room attending an employee relations meeting on benefits and this has never held a high interest for me. And so I was very bored with the whole thing and I happened to see an arrow relief map on the wall, and I'm not going to go into this whole story because it becomes rather interesting. And there I saw Sable Island, and not listening to the benefits performance and being more interested in the geological aspect, I thought I wonder what lies underneath that island and I got to thinking about that and I thought, well when I get out of this conference room I'll go take a look at that. And to make a long story short, we went out, I gathered all the data on the Sable Island area in the Atlantic east coast, nobody had any acreage offshore in North America on the east coast at that time. And the only well that had been drilled on the east coast that was significant to moving offshore was at Cape Heffers where they were right at the edge or one mile in the water. But the data that were assembled indicated that under Sable you had a very thick basin and it wasn't the way we'd been taught in school. In school we'd been always brought up with [Schucert ???] and Dunbar and in my schooling and in the Maritime schooling even after we took Sable was that there was a land mass off to the east which provided sediments. And on Nova Scotia on shore, those sediments came from the east so they said if you go out to Sable Island you're going to hit a basement high, a mountain top and there will be nothing out there. Well there was a geophysical line run there by the Lamont geophysical laboratory out near New York and that refraction line had shown the presence of a basin. They had one about ten lines from really South America all the way up to Sable Island but one

went right by Sable. And that line not only demonstrated the presence of very interesting sedimentary section, but in my opinion shows much the same configuration as we see on any line that is done out there now. Further there was a single six foot outcrop in Mahone Bay just south of Halifax, which indicated a more marine environment to the Atlantic side and if there was a marine environment in the Mississippian then there must have been an ocean over there. If I come across Nova Scotia you come to Windsor and that's a salt basin and that's an inland sea or something else. But this little six foot section was very intriguing. There were probably twenty three other [??] but another significant thing is that the fisherman in their nets often dragging on the bottom would pick up a scoop of rock and that rock showed tertiary and cretaceous rocks which were the same kind of rocks that you see in the Gulf Coast. In any event, this is another one, which when . . . , it's another proposal which, presented in a meeting was turned down, just absolutely flatly turned down.

#153 Nadine: On what grounds?

Don: That it was, it was too far out an idea and you couldn't go way down to the East Coast and it was unreasonable to do so anyway. And the ideas were too loose. Well, here, again you have Dr. Spivac as the Chief Geologist and now we had ???, the exploration manager was Arthur Detmar and Arthur Detmar, he heard about this meeting and he said, Don, I heard you made a recommendation for such a wild thing as to go into the Atlantic. And I said yes, I have but it's been turned down. He said, well come in and let me hear about it. And so on a Friday, the first meeting was on Thursday and on Friday we went into another meeting. Now you can imagine Dr. Spivac and everybody else glowering because we'd already turned it down and here was a whole rerun. Well, to make a long story short and I can go into some details there but this isn't the appropriate time, we were thrown out of that meeting too. They said that's the silliest thing we ever heard. And so I went home after a visit with Bob [Sparre ???], he took me off to his. . . , well we went over to the Petroleum Club, then we went and then we went to Bob Sparre's and very late, or very early in the morning I headed home, having been defeated in this project I had worked on for quite awhile and gathered a lot of data on. And I wasn't feeling too hot about the whole thing and I went to sleep and I thought goodness gracious, isn't it nice that I can sleep in Saturday morning. Well by golly, 8:30 the phone rings and there's old Arthur Detmar, exploration manager, he says. Don, I couldn't sleep all last night. All I could think of was that silly Atlantic project of yours. He says I've arranged an air ticket for you and Lynn Williamson to go down to Halifax and go get that acreage. He says I want you to file on it both federally and provincially so the two of you go down, Williamson was the landman and also while you're down there, learn a little more about it. So by golly here I'm wakened when I really want to sleep and at twelve noon we were on that little old aircraft which took a very long time to get down to Halifax. And so we go down to Halifax and Lynn and I, we get the provincial rights, they were absolutely astonished that we were asking for petroleum rights in the Atlantic.

#189 Nadine: Did they give them to you without problem?

Don: Without problem? Well it took a few weeks to get the paper work done but they essentially agreed immediately and it was the first approach. And we took it under a mining arrangement and a mining arrangement was where you have a 5,000 acre tract so we took a million 5,000 acre tracts, well we took a million acres. We took all the land which went down to the depth of 600 feet because that was what we thought could be drilled economically. We didn't visualize you could go into deeper water but we focused on Sable for the internal, professional reasons, we thought that was the very best area and it's proved to be the best area to this very point. Well, we got the Nova Scotia permits, Lynn Williamson flew on to Ottawa and he got the federal permits, at least set them up and then we subsequently got them. And then I got some additional data in Nova Scotia and headed back so that was the start of Sable Island. Since I'm on that then I would like to go, just. . . , well it's too long a story, but we did in 1967 move the first rig on Sable Island and by that time I was back in Canada as vice-president of exploration and the only thing I want to add at this point is that there were a lot of people involved in ??? Venture, the discovery venture. There was a chief geophysicist in Mobil by the name of Kidder and he's another fellow that you could interview sometime. Jim Kidder, Venture was his pet thing from almost 1966 on, he thought Venture was the best and Venture and Venture and Venture and Venture. Now my background in here which probably will come out in a subsequent thing is that I brought that block into Mobil. I then took a whole lot of other additional acreage in the ocean and on the shelf for Mobil and then when I went to Petro Canada, I put Petro Canada into it because I thought it was so good. And then when Petro Canada ran out of money, I put Keiser into it and then when Keiser was out of it, well when they sold out then I worked with East Coast Energy, although that was primarily Gordon Kroll who did that but I've been associated within the stream of my working life. Now do you want to back up and get back on track? Those were some of the discoveries.

#228 Nadine: Then in '68 you left Calgary again?

Don: Yes. In any large organization you always have periods of reorganization and here there were rumours about that Mobil was going to be reorganized and Fred Moore was going to come up, Fred Moore, who had been a manager in Canada and had then gone down to New York and become a manager there for all North America. He landed back up in Calgary and he said, well there's going to be a reorganization and we're going to change things and during that meeting in the conference room he kept looking at me and I kept thinking, well he's looking at me but he doesn't mean me. And he'd say, there are going to be transfers and he'd look at me and by golly after that meeting I went back. . . .

#240 Nadine: You got the message?

Don: Yes. Well after the meeting I went back up and I thought, well I better prepare something because all of these big shots are visiting and I better have some

professional data to show them and no sooner did I get up than I got the phone call and was told to come up to Mr. Detmar's office and meet with Fred Moore. And I went up there, and I tell this story just because I think things in the future are going to be so different and this again was a Friday and they told me to be in Midland on Monday. Well that's the way you accepted transfers, you were just told just like that and by golly you were gone. Well I was a little rebellious, as I sometimes am, and I said no, I'm not going to be in Midland on Monday, I'll be there Tuesday. So on Tuesday I was down in Midland and that was in February and I was transferred there as Division Geologist replacing a fellow by the name of Joe Nealy who was moving off to the west coast to take over the division responsibilities there. In any event that was quite a different experience and a changed experience in that we moved into Midland, a city in the middle of the desert which went with temperatures up to 115 in the summer but had a very mild winter. It was a totally petroleum oriented community, very friendly people and I benefitted greatly by being Division Geologist, where I could tour the whole area and had a company plane to do that. In any event, my responsibility encompassed much of Texas, not the Gulf Coast, into Oklahoma, into New Mexico, all of New Mexico and all of Arizona. And the Permian Basin which is the central producing area there, with the Central Basin Platform as the critical producing area had yielded about seven billion barrels of oil, so it was a very important and nevertheless, fairly mature area of petroleum. And so I had the opportunity to not only see that but take part in it and it was absolutely wonderful. I worked for five years and developed projects and . . . , as more of an administrator now, just like a chief geologist, I was the equivalent thing. Then we got a number of things accomplished, one was the drilling of [Kayanosa ???] which became a big gas producer for Mobil. We also recommended Gomez but it was passed up because it was too deep and it subsequently became the world's deepest production at 22,000 feet. And although too deep, it also had a tremendous amount of gas, so we had a few sections. We got maybe 10,000 acres in the thing. But it subsequently, I think has developed twenty-two trillion feet of gas. Now then we also drilled Vacuum deep, Vacuum was an old producing area and we went deeper there and drilled that and made a deeper discovery. Again, I mention the Gomez one where economics gets in the way and you always have to look at economics but none of us can recognize we're going to have such a change in price that will accommodate almost any of the earlier economics. One of the interesting things is we also knew where all the . . . , to the west there were great accumulations of carbon dioxide and we thought, well that's an area we'll just have to stay out of. Recently carbon dioxide has become a great repressuring agent for fields, so you can sell carbon dioxide just like you can sell natural gas so we should have also taken that.

#304 Nadine: What is the exact work of a Division Geologist?

Don: A Division Geologist, in this case, we had different district offices. We had the Division Office in Midland, Texas, we had a District Office managing a certain area out on the perimeter of Midland and environs, one at Wichita Falls, one in

Roswell, New Mexico and there was one at Farmington but we didn't have anything to do with that. In any event you had geologists in each of these District Offices, they responded to managers, the managers responded to the Central Division Office and I as Division Geologist would look after all the exploration throughout the area. They would have a counterpart in geophysics, they would have a Division Geophysicist, so he would do the geophysicist, we would do the geology.

#322 Nadine: And they were working together?

Don: All working together up here and then the major decision about what would be done and what wouldn't be would be done through the top there. I think the Division geologist and the organizational arrangement that was set up then was a pattern for the time. You know, major companies generally follow other major companies and so at that time, everybody had these various district offices and the district offices, they were a power unto themselves and the District Manager had tremendous capabilities of saying yes, we'll do this or not do this. The way he did it was, if he didn't like it, it wouldn't be presented to the division. Now he had to present it through to the division to get the okay but he had tremendous negative powers. He also had tremendous positive powers, but the point I'd like to make is, that was a great time but it expressed the management organization to decentralize everything and have these districts, which in essence were like huge ranches with a ranch manager and that ranch manager was all supreme relative to his people and I tell you, we had some who wouldn't allow people to smoke in their offices.

#345 Nadine: And people would not smoke?

Don: And they would not smoke. And they ran their office just like a closed ranch. But it was great system for a decentralized arrangement.

Nadine: This is the end of the tape.

Tape 2, Side 1

Don: I'll just put in an exceptional thing that occurred during my stay there and that related to the Midland Division which was then headed up by Harold Fitzgeorge, who subsequently became a Manager up here by the way. And that was at the time of drilling Kayanosa, and Kayanosa is this deep discovery that was made on a four section farm in. His boss was Blexrude and that was my boss, Owen Blexrude was the exploration manager in the area, but in any event, here drilling into this formation that blew out and I think it must have set some kind of record up till maybe the Ocean Ranger, there were 119 people injured and 6 people killed. Now this was very deep and high pressure gas and when the drilling was under way people noticed that the mud was dropping away in the hole which is the first sign you often get of a blow out where you're going to lose the mudded holes, all the pressure down. And it kept going down, now the question is why were so many people involved when a rig normally has a compliment of say, eight or so on

board during any activity. Well as the mud was going down there were all the Mexican brasseros in the near-by field who were looking after the cotton and so they decided, holy smokes, they better bring in those Mexican brasseros to mix mud and they'd keep up with the mud going down the hole. And so they brought in all these Mexican brasseros and they brought them in off the field and they were handling all of these sacks of mud and they were throwing it into the hopper and down the hole it was going as fast as it was going. And so thus they had assembled a huge crew. Well, by golly they couldn't keep up with it and down the hole the mud went and up came the gas and it blew out and . . .

#022 Nadine: And six persons were killed.

Don: Yes, and 119 injured, all around the place, so that's an anecdote.

Nadine: What about other discoveries when you were in Midland?

Don: I think I've mentioned enough of those. I've mentioned Kayanosa and Gomez and the Deep Vacuum and those were the important ones. We also were in the Morrow Sands and in the Anedarco Basin. We had gone in to Hamble County and got deep sands which then were uneconomic and which became the great play afterwards when the price of gas went up. We went into the Anedarco Basin deep and drilled into gas bearing sands at say, 12, 14 thousand feet. But they weren't enough to take when gas then was selling in the pan handle at five cents per MCF. And it might have reached a price of twenty-five cents when we were drilling there. Well, we, although we made discoveries, we just gave them up because they were uneconomic. And that subsequently became the big play but the sands had already been laid out and more or less illustrated so that you could go back in with gas at a dollar or two or three or four or five, you could go down there. Now in this last year of course, we've had this big reversal where gas prices have gone down and they're all withdrawing from there once again, so we go through these cycles always.

#036 Nadine: In '65 you are back in New York. Why did you move again?

Don: In Midland, I had also got interested in computers and so in the Midland Division we had started the first large scale project of putting in a data bank using computers. I forget the actual figure, I think there were something like 80,000 wells within the area of study. Well I should back up. First we did an in house Mobil pilot program and we put all this data in computers and so that was the first project for Mobil Oil and it was started under my direction. And then secondly, because computers were becoming all the rage, a group, primarily led by our super-scientists in Shell who are always super-scientists to me, they wanted to do a whole regional project so they started what is called the Permian Basin Well Data Project and that was to put the whole 80,000 wells into a computer and handle the whole thing. And so this was put together in part by Forgetson and one fellow ahead of him. Shell always had sort of elegant fellows to do this, they're always very attest to the science, and in any event, we, with the other large companies, put together this Permian Basin and developed a massive data. Well New York at this time was considering changing it's situation. As I arrived down

in Midland, you had the remnants of the Magnolia Empire. Mobil Oil was broken down into many, many companies and Magnolia was in charge of the U.S. southwest. And Magnolia, just in the same manner I've described for the little district offices that ran their ranches, Magnolia often ran the thing in the manner that they want. We had one up in White City, Michigan where that fellow just ran it and he just told the New Yorkers what he wanted to do and if they wanted to do something different he didn't do it. Well there was a feeling at this, 1964, that they were contemplating big changes and instead of the decentralized, they would now go to more centralized organizational arrangement and this has been a progression from that time to this very time. Where not only was the theme that they would gain greater control in the centralized area but now with the computer capabilities, they would be able to handle it all better. And so I was picked out of Midland and brought into New York, and by the way, Dr. Spivac was in there. And so I moved in with Spivac and we both responded to John Moody and John Moody is an eminent geologist currently very sick. And John Moody had been a vice-president with Gulf and then Plymouth Oil and then Mobil hired him and here he was a new big stick in charge of all exploration and production in North America. He picked me out and he said, well look at that fellow Don, what he's doing over there. And he has started the computer data processing in Mobil and to back up there, I'd circulated all these district and division offices in the U.S. explaining the new computer capabilities but I also had some background from this industry one. So we'll take Axford and he's kind of a goofy geologist anyway and we'll put him in New York and we will let him see what should be done with regard to exploration in North America. And the approach was called Basin Analysis. And under Basin Analysis, you were to go anywhere in the Mobil offices in North America and get all the data and then start tying all of these basins together and understand them on an overall basis so that you could come to some conclusion as to whether that fellow in White City, when he said go or not go, whether you'd press the button and say, you say not go but we're going to go. And so along with another one or two fellows that were brought in with me, John Delay who worked with me and others, we began the assemblage of all the data in North America for Mobil Oil. And once again, I am indebted to Mobil for all of the fantastic experience that they have given me. So during that period, from 1965-67, I typically would be gone and in the various offices for more than half a year, I was always away from my home, at least once a week, say for three days, and then come back or I'd be gone for the whole week or two weeks. But I'd be gone more than half the year.

#092 Nadine: And your title was Senior Exploration Analyst?

Don: Yes, that was Senior Exploration Analyst and that was to collate, to assemble all of this data. And we did it. And we put it into a computer and we ended up with every formation, every horizon in North America, all in the computer and all assessed and all put in order of priorities.

#098 Nadine: So you must have acquired a fantastic knowledge about computers too?

Don: Well, I got a little knowledge but I'm getting much outdated now. But yes, I had good knowledge in the computer business for awhile there. But more importantly I got insight into every producing area in North America, I will highlight one situation which I hope you'll find interesting and that is that in this analysis, here we'd put everything out and we'd gone up to the Alaska district and looked at Alaska. And we'd of course looked at North Slope and Prudeau Bay and, do you know, it's intriguing, and maybe this is tales out of school, but the area people, and they had that time responded to Los Angeles. The people responsible for Alaska and all the way through to their headquarters in Los Angeles and then back to us in New York, they thought Prudeau Bay was the biggest opportunity that was available within their division and so recommended it. And so I had in my big listing, the North Slope and I had it very, very high, and then Mobil went up and drilled a couple of wells and got absolute disasters. They didn't have anything. They weren't drilled in the North Slope, they were drilled, I forget whether it was Bethel Basin or . . . , it was drilled in the area to the south of where the big discovery was made. Well in any event, here after that, then I'm still, our group still putting this huge bible together and trying to categorize all these areas, by golly we went back to the district area and they said, oh, the North Slope, we've downgraded the whole thing. Well, by golly, I said, you can't do that, it's way at the top of the list and now I've got everything ready to go. And they said, oh no, we've drilled this and we think that maybe it isn't as good as we thought. In any event, to make a long story, short, they talked me, and I accepted all their things because they were much more knowledgeable than I and they said, okay we've got reservoir problems and all this and that. And so we slid the North Slope away down the list. And so here the point that I'm making is the emotion, and the recent experience have a tremendous impact on the assessment by geologists so in any event, it's an embarrassment to me that I published this thing and the North Slope was fairly low in the priorities.

#128 Nadine: That was in '65-'67. Do you find a lot of difference now with modern computing?

Don: It's all the difference between the modern rockets and the bow and arrow. The modern computing, we've got such sophistication in there and such capabilities, it's the difference between, not quite the old original Univac or the first computer that filled a whole room and can do the same kind of calculation a little hand calculator can do now. We have changed to machines so sophisticated we can print out maps and we can do all kinds of analytical analysis, but you might have never seen these things where we can have this data and the map will print out to the size of this room in the matter of half a minute. Our problem now is we've got access to so much data and so much analysis that it's hard to draw out that which is critical. Okay.

#141 Nadine: This is the end of the first interview with Mr. Don Axford.

Tape #3, Side 1

Nadine: This is the second interview with Don Axford. In 1967 you left New York where you were the Senior Exploration Analyst and came back to Canada. What did you do?

Don: I was then vice-president of Canada. Mr. Nielson was president, Mr. Ed Barrow was vice-president of production, I was vice-president of exploration. And so, we embarked, or at least I embarked on many things. One of them being Sable Island and we started the first move into the offshore, putting a Peter Baden rig onto Sable Island. That was a venture where we'd done our initial seismic work starting as early as 1961 or 2 and we had the results of it which showed a loose meandering high in the middle of the island and we thought it would be worthwhile to drill as cheaply as possible in the offshore area. We went down to Halifax and asked those people how to move this rig on the island and we were told that it was impossible. Nevertheless we went and borrowed a LST, a landing barge that had been used in the World War and offloaded the rig without a hitch. We drilled the well and I guess this reminds me that we must have discussed this in the first part, but we drilled the well down to a depth where we encountered the super-pressures which are the super-pressured gas that subsequently were encountered by the Venture discovery so I think that the very first well indicated the presence of gas in the Sable Island area. And interesting anecdote there is that because we were having such an operation, the accounting department had put all kinds of insurance to move the rig onto the island, to keep it on the island then move it off. But because we were encouraged by what we encountered and further had drilled the well deeper than we expected, the accounting department, in an attempt to save money had withdrawn the insurance while we were on the island and they forgot to put it back on. And when we moved the rig off, then we were not insured at all and so we took all of this equipment off and we did drop some kind of well head equipment overboard and lost about \$10,000 but we did make the operation without any insurance on it whatsoever and had we known that, we all would have been dreadfully worried. In any event, the whole operation went quite smoothly and we did get that first well away. I guess the main occupation that we had as I first came back was the further developments at Pembina. As you are aware Pembina is a multiplicity of small fields, not one big field. That was a seismic play. The seismic people could show the reefs pretty accurately. We had a fellow in charge of the Pembina area by the name of Bob Roloff, who is also one of the great explorers of Canada, currently working in New York for Mobil Oil. And it was under his jurisdiction with Hans Denboer, Mobil had developed a great capability and so we discovered probably ten additional small pools in the Pembina area. And that was very, very interesting work. At the same time we were expanding into British Columbia and also with the enthusiasm at that particular time, we moved on to take extensive acreages throughout Canada. This involved probably forty million acres or more off the east coast, we moved into the Northwest Territories and took extensive tracts all the way from the Alberta border to the Arctic Ocean and into the offshore Beaufort Sea. We picked up acreage in the Arctic Islands and so the Mobil Corporation was actively exploring throughout Canada. I guess that's the answer.

#055 Nadine: You were also a Director. Can we talk about that?

Don: Yes. Again Arnie Nielson ran a very good administrative ship, so every Thursday morning we would have a meeting of the Directors and one or two or three of the key officers who were not Directors and we would review the weeks activities, the previous weeks activities and then essentially plan for the next week. Or at times, we would move into the budgets and five year planning processes. Mobil Oil was one of the great planning companies at that time, and I guess still is. Mobil Oil stressed planning in all of their arrangements and had developed a very large planning group in New York. As a result our operations were all constrained to a series of activities throughout the year that caused us always to review, plan and schedule new activities. It would start with an objectives exercise, probably starting in the late fall where the company would indicate what it was trying to achieve in the year ahead and probably in the five years, and originally for ten years ahead. But ten years got too long a projection so we dropped that out. We then would go into a planning cycle and this would involve analysis of just about everything including personnel reviews where we would assess absolutely everybody in the company, to the actual ongoing activities. If we had a discovery we would have to lay out the development of that discovery. We would put in all of the projections for exploration and activities. And so you would work the year around in almost every third month, then you would come to some huge review. And it would culminate in September with the final preparation for the budget and internal reviews in Mobil of Canada and then it would move down to, generally the Phoenix area where we would review all North America. And so then we would meet with our counterparts of the U.S. Divisions and in October make presentations for the total North American scene. At that time there would be allocations according to the various merits and other things. There would be a review of all of the personnel who had documentation throughout the year on their capabilities. There would be promotions and changes and allocations and assignments of money. And that was what was accomplished though the year and it was a great process.

#087 Nadine: As a Vice-President of Mobil Oil did you have a lot of contact with the government of Alberta?

Don: The government of Alberta, we had quite a bit of contact with them but generally the detailed contract relating to the individual projects was handled by the District or Area Managers. Specifically we would have a Northern District or a Southern District or a Saskatchewan District. So say the Saskatchewan District, they would deal generally, with the provincial governments. In our frontier area activity, the Atlantic and other areas then we would deal first hand with the governments. So we did have intimate dealings say with, Nova Scotia and that would be Regan and people ahead of him and Buchanan now and then with the other provinces that we dealt with, Newfoundland for instance, we knew them and dealt with them first hand. And there are very many interesting stories I can tell you on that, also Quebec.

#100 Nadine: Can you tell me the story of the company from the time it was started in Canada?

Don: Mobil Oil had a fellow by the name of Dr. Fath who was a Ph.D. in geology and had become a fairly high administrator in New York and he was allocated to come up to Canada. I think earlier in this interview I mentioned that they had drilled a well in Prince Edward Island, the first offshore well in Canada. And I guess they were looking at Canada as a nice potential area to move into. So Dr. Fath came up here, looked around, went back and then came and recruited a number of individuals. One was this Dr. Goodman who I've mentioned previously, Dr. Wright and then subsequently Dr. Spivac. He brought with him on a later occasion, Bob Bishop. When I arrived there were very few employees. By that time Dr. Fath had withdrawn to New York and Dr. Corbett out of New York had taken over. Dr. Cliff Corbett was a very proper, academic person and he headed up a group with Bishop under him as sort of an Administrative Assistant or Exploration Manager if you wish. Dr. Spivac who was the Chief Geologist, B. E. Taylor, Bert Taylor was the Accounting Manager, there was another Accounting Manager whose name escapes me and I should remember it very shortly. And about two girls and then they also had James Manning as a young geologist and then Alan Wallace, so then I came in as the new man. So the compliment of geology included, under Dr. Spivac, James Manning, Alan Wallace and myself. Now Alan Wallace would be a good man for you to check because he has been around here quite a bit of time. In any event, when I arrived they had their headquarters in the Lancaster Building on 8<sup>th</sup> Ave. and 2<sup>nd</sup> St. and we occupied the upper floor and the Stampede Parade used to go out in front and we would sit on the parapet, which you can still see on that building and dangle our legs over and look down as the Stampede Parade passed by. It was a time of the real beginning of the oil industry. Leduc had just been discovered and developments were proceeding but there was a camaraderie within the whole oil fraternity which I think was absolutely tremendous. There was an openness, there was enthusiasm. Clifton Cross, to show just as a simple aside, the fun in the business at that time, Clifton Cross brought up a horse into the Lancaster Building and into the elevator and up to the 10<sup>th</sup> floor. Well by golly, that old horse, once he had been driven upward, he didn't think very much of getting back in that elevator and it was really something to see that horse go back in. Of course, doing what a horse does when he gets nervous, he diddled and manured all over the floor and then finally we got him in the elevator and then down he went. Now I guess the reason I tell that story is that I think it was a much simpler time and in many ways a much more enjoyable time. The big internationals were broadly accepted and I think contributed more to this country than has been recognized by the existing governments. The big companies brought all the knowledge and I told you that I owe them an indebtedness for having trained me. In those days Imperial was the most knowledgeable of the group. They having discovered Leduc, everybody bowed to them and they would put on presentations and we would have society meetings and Imperial would come and everybody would come to the meeting

because Imperial would reveal their discoveries and many of the details that were associated with it. And so there was a learning process and all of this was brought forth through the many succeeding years. It was a grand time. In my experience you could not have got a finer group of associates than your peers in the oil industry. There was politeness, certainly in Mobil Oil, a politeness and consideration and continuity and respect that are hard to duplicate. It was as though you had joined and you were all working towards one common goal. And you did work together and you associated together and you accomplished together. So it was a very, very good time. And now Mobil Oil didn't obtain their first discovery until about 1951. They had earlier had a little bit of a show out at Craig Mile but that turned to be of no consequence. It was a very limited reservoir and quickly depleted. And their first discovery, which was mentioned previously, was Dewhammel and then as the discoveries progressed and I've discussed a number of them in the previous communications, then the company grew. And so from the original compliment of say 8 or 9 or 10 of us, the company expanded through to 30 and 50 and then 100 and finally up to 1,000 employees. We moved out of the Lancaster Building, temporarily we had additional quarters over on 9<sup>th</sup> Avenue, that was almost in a warehouse because there was so few office spaces in Calgary. When I say warehouse that was exactly the way it was, it was a one story building, very cool in the winter and often leaked. But nevertheless we set up our exploration group over there for a time. And then following that, we moved into the Baron Building which is on 8<sup>th</sup> Ave. and we thought oh my, that was an elegant building so we took up quite a bit of office space over in that direction. And then following that of course, consolidated and moved into the present Calgary Tower as a large ongoing entity.

#195 Nadine: Then in 1976, you left the company. Why?

Don: I left for probably approximately fifteen reasons which we don't have to go into. First of all you have to recognize that I anticipated that I would work with Mobil my entire lifetime, I would reach the age of 65 and take retirement from Mobil and was quite dedicated to doing that. Nevertheless through all my working career, I have had an independent line of thinking and I've always thought, well sometime I would like to be out on my own. With that in mind we reached a point in 1976 where the company was considering moving me to Indonesia. At that time I had three children in school and very strongly family oriented and if I moved to Indonesia and most likely to Middan, I would have to leave my children at school and go down there and they would not be able to go with me. Typically as you know from the interview, I accepted transfers without any concern and I would have accepted this, but it seemed to me that there was some pressure for me to do it almost immediately. I thought, maybe this would be a time for me to try going out on my own. At that very moment Mr. Strong of Petro Canada had offered me the Vice-Presidency of that company. I had opposed the setting up of Petro Canada very vigorously, I have never been in strong support of the government moving into private enterprise where it was not needed. Nevertheless to abbreviate a long story, they had set the company up and had it about to start with

the offer of the job and with the many reasons that I was looking at, I thought rather than have some person from Ottawa who did not know much about the oil industry go into Petro Canada, maybe it would be better for somebody from the petroleum industry. With this in mind I thought I would see what I could do for Canada and the country and I say that sincerely. If I could move in there, have some success with exploration and put in some private or free enterprise thinking into the company that would be worthwhile. I knew that I was in great risk going over there because of my particular inclination. Nevertheless I decided I would take that risk. If all else failed I then could leave that company and go out on my own and enjoy my own little enterprise and that's the way it turned out.

#243 Nadine: Can we talk about the beginning of Petro Canada in Calgary?

Don: I, having left Mobil with some concern, went to my first meeting and went over to the International Hotel and up to the top floor and there was Mr. Strong with Mr. Hopper, a secretary and that is my first recollection of Petro Canada. We had a meeting and it was agreed that the various positions were as outlined. Mr. Strong would be Chairman and Chief Executive Officer, I would be Vice-President of Exploration and Production, none of which had started up and Mr. Hopper would be an assistant to Mr. Strong. We discussed office space and what to do about it. In subsequent meetings Maurice Strong indicated that he had come across office space now known as Red Square where Petro Canada is to this date, at 4<sup>th</sup> Avenue and 2<sup>nd</sup> Street and so we took up a small suite of offices on the 4<sup>th</sup> floor as I recall. The 4<sup>th</sup> floor had been laid out as an example of offices that could be set up within this building which had won in a design contest. And so it was all done in this nice white oak and it was very elegant and modern but nevertheless very small and so from the International Hotel we moved over to the Red Square Building. It was an interesting time and I guess of some significance that I'm employee #1 of Petro Canada.

#279 Nadine: That was very historic what happened.

Don: Well, Mr. Hopper was always upset that I got the nod as #1 and became #1 because essentially Mr. Strong was on a temporary assignment and further had indicated that he wouldn't stay with the company long and Mr. Hopper was a consultant momentarily from the government and then my name started with and A. And so the man who finally put it out said, well we'll give Axford #1. Mr. Hopper was always a little upset about that and in subsequent meetings before the group in Petro Canada had indicated that it was pure accident that I got the #1 which it probably was but nevertheless I was also one of the very first employees unless you take the secretary who was there a few hours ahead of me and had really come along with Strong. In any event, from that moment we embarked on our arrangement to set up a company. We started employing various people to fill particular slots. Eventually I brought in Gordon Jones as an Administrative Assistant to me, Ernie Pelsler as Chief Geologist, John Godfrey as Land Manager and I went down and got Willis Reid as a Geophysicist and Bill Thompson as a geophysicist. Bill Thompson and Willis Reid, I went all the way down to Houston

to pick them out. So that became the nucleus of the operational group.

#309 Nadine: Was there a big opposition from the oil patch here in Calgary?

Don: Well certainly, they were surprised when I accepted the job. I know that Don Harvey who was then a Director of the company had indicated some considerable embarrassment about accepting a Directorship to Petro Canada, so yes, there was a stigma. And maybe I was. . . .

#317 Nadine: Was it a political stigma?

Don: Oh yes, and maybe I was a little naive as I often am. And I felt well, at least I'm in there to do some good for the industry and to keep this company on what I considered to be a more proper public or private enterprise track. And I think in the first year we did achieve that. We achieved a number of ordinary farm outs and I think we achieved a great number of things that were very beneficial to Petro Canada. When I say there was a certain amount of stigma, I think yes, there was stigma attached to the individuals that you met on the street. They were very curious about this new Canadian company. I think the stigma was exaggerated when you got with an American group. When you got with an American group, I tell you there was direct opposition and they would let you know that they were opposed and they felt that it was a very bad thing.

Nadine: This is the end of the tape.

Tape 3, Side 2

Don: Now further, when we talk stigma I want to separate that from the greeting to the company that were expressed by the other companies. To me it was a real surprise that many companies were very anxious to do business with Petro Canada. And so there was no stigma there. If you went over to Shell for instance, Shell would welcome you in and Shell, I think was very ambitious to take part in the ongoing activities. Shell having spent a lot of money on the East Coast, were very encouraging to making some kind of relationship with you on the East Coast where they would just as soon spend Petro Canada money as their own. Mobil, we had the relationship from the point of view that I had come from there so I could relate to them. But nevertheless most other companies, Imperial, they all were very welcoming to any dealing with Petro Canada. This was beneficial in that one of the things that has been brought out is the activity of Petro Canada in the frontiers. This was an area that I knew very well and Mr. Strong will say, I brought Axford in because I knew he knew the east coast and knew that he could get on with that. Mr. Hopper, who opposed the east coast activities during much of the time I was there, will now say well he was for the east coast too because we've had some success there. In any event, the many companies in the frontier areas were very anxious to get some of our money and to have it spent in their areas. One the other hand I was very anxious to make very specific approaches to

certain areas that I thought were good. I did wish to get into the Sable Island area which I felt to be by far the best in the east coast that was visible at that time, even though it was recognized to be a gas area. And so we made the deal with Mobil Oil and got an interest in the Sable Island block. To do so we had to commit to ten wells and one of those wells was Venture and I've gone into this in the preceding discussion where Venture was a very deep test and Mobil suggested that we set it up as a separate requirement. In other words we drill nine wells and then we'd have to drill Venture. And I wanted it set up as a separate thing too because I knew it would take a little bit of extra gumption to go ahead and drill that deep well. Mobil itself had looked at it and always gone away from it. They'd always moved away because it was expensive and it was risky. And so we did set it up as a special and specific commitment. Well I think that was beneficial. Mr. Hopper complained about that for awhile but I don't think he complains about it anymore. We did move Petro Canada into the Sable Island block with the commitments. We did make. . . , well we went ahead and drill the wells and then the final well was Venture which made the discovery which turned the Scotian shelf around. It was interesting that you had to go to the tenth well which is often the case in our business, when you just think the end of the world has come and you expressed more risk than you should have expressed then that's when you win through. And that is what occurred here. In addition we made farm in to Shell in the surrounding area, so we had wider tracts on the Scotian block, in the Scotian shelf. We had moved into the Newfoundland area and taken acreage. And we liked the Hibernia area very much and wanted to get into the Hibernia area. I've given you the story on Hibernia which had first been recommended in 1969, ten years before it's drilling and discovery. We also had moved into the Arctic Islands and in the Arctic Islands, that was an interesting story because the Arctic Islands had become very quiet and there was considerable risk that not much activity would be accomplished there. Looking at the mandate of Petro Canada to get activities accomplished in fairly remote areas, I went out and I got Gulf and Imperial, Exxon, to join me with Pan Arctic and to put together the Pan Arctic off shore drilling project. Off shore and on shore drilling project and so that became a group. We started that to get that thing going and I think that maintained the activity in the Arctic Islands which otherwise would be much reduced. We moved in with Texaco and drilled the well that was in the deepest water ever drilled in the world in off shore Newfoundland and that arrangement was consummated during that period when I was there. I had wanted to go into the western plains. I felt Petro Canada needed early income. You can't run an oil company on just frontier and hope for the future. You need some early income and I wished to move into conventional exploration but was not allowed to on the interim basis. So we did not do much exploration in the western provinces which I wished to do. The reason for that is that we were then taking over Arco and the proposal was that until we took Arco over we should hold back our own exploration. Arco would give us a great number of employees and give us opportunities ahead and so the thrust was to take Arco over. Arco was. . . , the Arco takeover, I think was very definitely masterminded by Maurice Strong. It was his proposal and he had

the relationship with Anderson, the head of Arco, and had essentially set the whole arrangement. The problem was to put all the facts and figures together to make sure that the price being paid was commensurate with the worth being brought in. In the first while I was not too keen on the Arco situation because I felt that they were more involved with gas and far out things but it didn't take long for me to shift over and come to the conclusion, oh this would be a very good acquisition and it would be an acquisition which would set us up in the western, mature provinces. Mr. Strong of course was pushing that way, Mr. Hopper was totally opposed and totally opposed to the very last in relation to the Arco takeover. Although he became the principal negotiator and therefore you have the stories that he was a very good negotiator because he didn't care whether the deal went through or not. So I give the credit for the Arco takeover, much of it, to Mr. Strong. I think Mr. Strong also was a good person to be in charge of the public entity.

#094 Nadine: Yes, can we talk about Mr. Strong. What type of man was he.

Don: Well, he was a good fellow to work with because, first of all, he didn't spend that much time in the office. He was always away and then he'd come in for a few days each month and therefore he left you to your own devices. Now secondly he was big enough and had confidence enough that he left you with the decision making capability and an opportunity to get things done that was commensurate with the start up of a new company. He was fairly innovative in many things and was always a willing participant and a willing listener. And a willing listener is very hard to come by in some big companies you might be surprised to know. But he was always receptive to ideas and new things and therefore was a good man to work under because you could just move these things ahead. In that first year we were able to establish excellent positions in the east coast which are really appearing ready to pay off now. We had taken over Arco and established that position. We had participated in the other areas, specifically the Arctic Islands and Labrador.

#111 Nadine: What is Maurice Strong doing now?

Don: Maurice Strong is now heading up the CDC Investment Group. You'll remember that the Canadian government wanted him to move into the Canadian Development Corporation and then made an adjustment and then set up two parts of CDC and one is an investment group. And so he is in Vancouver heading up this new group that is charge with looking after multifarious investments of Canada including many of these aircraft industries and other things that are having trouble. My understanding is that he is occupied full time and very busy with his activities.

#119 Nadine: After one year with Petro Can you left. Why?

Don: Mr. Strong had been the Chairman and Chief Executive Officer and under him we were accomplishing, I think, very good things. There was a switch as the year continued and Mr Strong, who had said he was going to leave did decide to give up the Chief Executive Officer position, although he would remain as Chairman of the Board. Mr. Hopper was put forth as a candidate to replace him. And Mr. Hopper had the support of Gillespie in

Ottawa and the bottom line was that Mr. Hopper became President. Once Mr. Hopper came in, this fellow who had been so relatively quiet during the time when Mr. Strong was in became much more forceful in his ambitions for the company. He felt very strongly that I was spending too much money or making too many commitments in the Atlantic. He also felt that I had many different themes particularly in the private enterprise than he, and so I think we had a fairly strong developing difference of opinion. That difference of opinion wasn't critical to my leaving. Mr. Hopper and I could have got along. I've had bosses much tougher than Mr. Hopper and I could have lasted out. I had infinite confidence that the things we had done would prove to be discoveries and should I stay that I ultimately would get some credit for that. Nevertheless I had in the back of my mind that during my entire life, I had felt that I would like to be out on my own. Looking at that and giving the recognition that I was getting up in years, why should I stay in a company with unhappiness for the next five years and waiting for results when I could go out and do something different. I have infinite faith in my own capabilities and therefore I just chose not to stay there which I could have done but alternatively to leave and embark on my new adventure, which I did.

#154 Nadine: With your own company, what do you do now?

Don: Well, if I pick up from where I left Petro Canada, I started out as is typical of any individual with myself and essentially a secretary, I began relating with Inco, International Nickel. And we did quite a bit or work down, in relation to their holdings in Guatemala and Belize. And I also, importantly looked at Petro Canada who had drilled about eight wells on the Sable Island project and were discouraged with the results, worked with Keiser and brought Keiser in to put up ten million dollars to finish the Petro Canada project. So we moved Keiser into the Sable Island area and then subsequently of course, they sold their property and then subsequently it has become a part of the Nova Scotia government company and also East Coast energy, of which I'm a Director. So I've had a continuing involvement with Sable Island. I also took part in an extension to the Steelman Oil Field in Saskatchewan and drilled along with Cherokee and Blue Sky the discovery well. We got quite an addition pool up there in which my company had a small interest. We also went in with, golly let me see what his name is now, went into the Batram area and we got a little extension there. And so I'd taken part in those two little discoveries. We started working with Chevron and moved into the Bay of Fundy and caused Chevron to do a lot of work in the Bay of Fundy area which culminated with the drilling of a well just recently. I also worked with Bow Valley and then Nova or Husky and put them into approximately six million acres north of Sable Island in the Atlantic. This very tiny operation continuing from the one man, one secretary operation of the first year after leaving Petro Canada is not very much bigger than where it was with the exception that we now have eight people in the office and we have participated in an additional discovery in southern Alberta at Turin. To make a long story short, oh we participated in additional discovery in Saskatchewan at Hastings. And so we now have a small little company with interests in sixty million acres, small interest, has to be a small interest in sixty million acres, and these include, eighteen million in the east coast area, fifty million in Australia, a million in Belize, about a million in Thailand and Malaysia and we have ongoing prospects, probably forty in Saskatchewan and twenty-five in Alberta. We have a

participation in forty thousand acres in North Dakota and four hundred thousand acres in other parts of the United States.

#222 Nadine: Do you travel a lot?

Don: I travel all the time and that's one of my problems, I have to get that cleared away. In other words I should spend more time here. I think I've emphasized in the preceding communication that contrary to many of my peers who tell me to focus on one thing, I do just the reverse and I buckshotted in many directions and then when something good comes up I can take advantage of it. So this rather wide spread participation of a very small company expresses my philosophy and I am saying that although it causes a great deal of additional work it also gives me very much more exposure to some good things.

#233 Nadine: So it's more interesting like that. Can we talk now about your professional affiliations?

Don: You've asked about the additional professional affiliations and again, I have to indicate an indebtedness to all of the people that I associate with. Specifically the American Association of Petroleum Geologists has been an absolutely wonderful association to be related to. I've worked with them in many capacities and received an honour from them, distinguished honour award. Currently they have my up from Treasurer of that Association. It has approximately 80,000 members. The thing that intrigues is that they publish just wonderful professional articles that have helped me tremendously through the years. The Canadian Geological Association has also been very, very beneficial. I've indicated that in the early years, when I felt that the industry was so much smaller and you felt a real part of everything that was going on, the Canadian Association of Petroleum Geologist provided details week after week and month after month on the ongoing developments in Canada. They would give you information on reef plays and then on sand plays. Their publications have been very useful, their field trips have been very informative and the association with the individual geologists has been excellent. I'm also a member of other paleontological and other societies related to geology and I guess this expresses the scientific interest stimulated not only by me great interest in my geological profession but the background that was given to me as I was associated with the research group in Mobil Oil which gave you an introduction to everything geological, geophysical or anything that was being studied at that particular time. Another group that I have been related to is the U.S. Potential Gas Supply Committee and I have been a member of that I would guess, for maybe fifteen years. I've been on the Executive Committee and in essence I have been a principal member of the group to report on Canada and at time the only member from Canada. That group is charged with assessing the future capabilities of the United States area to produce gas and so you'd meet with gas representative from all across the U.S. These would be from exploration and producing companies, from gas pipelines, from government agencies, from all components of the gas society. It was just absolutely wonderful relating to them and every six months you got an overview on the gas situation in the United States. I think that sometimes we Canadian geologists are too provincial in our attitude. I believe that many Canadian geologists for instance don't belong to the American Association of Petroleum Geologists and certainly don't get the exposure of which I'm talking here. I think I've particularly benefitted from the

international relationships that were established. Primarily having worked with Mobil in the U.S. and then establishing these relationships through that association. I guess I should also mention that I have been with the insurance company and Board Chairman for nine years and to me, I'm often looked at as a fellow who is more interested in pure exploration and they forget the other aspects which are the management of the concerns that I've had. And also in insurance where you just get into numbers and it was almost like a holiday for me to get associated with an insurance company where you would talk statistics and all kinds of mathematical things which we don't normally associate. . . , well which we do associate with geology but which some people don't get into in too great a detail. And you also ask about the Board Memberships. I have been on the Board of several small oil companies and this includes Odax Oil and Gas, Ranchmans, Viking, Frio, I've related to Bethlehem Copper, Consolidated Imperial Resources and others. The others include Integrated Energy in the United States, which is a company which has been put together by bringing in probably 10,000 properties and then setting up a company instantaneously and almost overnight it developed from a nothing company to a company with \$400,000,000 worth of assets and \$40,000,000 in revenue each year.

Nadine: This is the end of the tape.

Tape 4 Side 1

Don: The participation in these various Boards has certainly given me a broader view on the petroleum industry. It not only allows you to meet and associate with all kinds of individuals but you look at problems at all different levels. Mobil Oil, it was a pleasure to be in that company, to be a Board member of the Canadian group, to attend the meetings and to listen to [Tavelrius ???] the president talk about world wide operations and the political ramifications of all of the things going on in the Middle East. He long before anybody else said, well the United States seems to be playing the wrong side and maybe they shouldn't stress only the Israeli side, they should pay some attention to the Arab side. And I think he had a point. In the other companies, in the Integrated Energy, you have the opportunity to see where you through a whole lot of properties and you have to get along with 300 different land holders, all who've brought it in and some who object to some of the things you're doing and some who support you. You get all the way down to a tiny little company like Odax Oil and Gas where the individual personalities play such a big part. I would claim that as a result of such participations that I have become a much more broad minded petroleum person than I was before. It's been a wonderful experience again, to be able to participate in the various Boards. In conclusion I'm going to say that I couldn't have picked a better field of endeavour for me than the petroleum industry. It's just been a wonderful introduction to very great and fine people. When I look at the group, considering the great numbers I've met, it's always surprising to me what fine caliber we've dealt with. Typically it's been a pretty straight forward game, although lately it's become much more complex. And that complexity is showing up as a result of the economic downturn. But nevertheless it's just been wonderful.

#056 Nadine: Can we talk about the training of oil people in your time comparing to what it is

nowadays?

Don: I think in our time, we were not so focused. When we came through school at whatever level you had a reasonably general overview of say, geology and therefore there was a need for your associates and yourself to grow as you worked in the enterprise. And you drew on your associates, you drew on your company and you learned a tremendous amount through time, much by practical experience and much by participation. I think the young fellow today have a much tougher assignment in that they have just a lot more thrown at them at school. They have had the benefit of say, fifty years of hard exploration in Canada and a hundred plus years in the U.S. and I think they get much more detailed information which is instantly relatable to the work assignment that they get as they leave university. I think therefore the young fellows of today start with a much better base and can move ahead more scientifically than we could. I think that we benefitted by having such broad exposure. We benefitted originally because we were moved here, there, everywhere and we therefore could see geology in all different areas. I think a young fellow of today, coming out with this better base, he should work hard to get exposure in all other different territories. I think that is going to make the difference in the individual, I think that person that comes out with that broader base and is set to a particular assignment and left there for many, many years, then he's not going to grow. I would hope, well let me back up, there's some pessimism with regard to our industry now and some people say all the things have pretty well been accomplished. I don't believe that at all, I think that there's such scope for further additional work. We've achieved such greater understanding. The modern books put forth the information in such a succinct style now. There's a need for greater mathematics, there's a need for the handling by computers, and I think that all of this can be done so much more professionally and there's so much scope to do that, that the young fellow today has more future than I had when I started.

#087 Nadine: Mr. Axford, what do you think of the National Oil Policy?

Don: I think the National Oil Policy is a thing that has been very bad for Canada. I believe that it was designed to bring more money into the federal area. And also to bring more control, more centralization and I'm not very strong for centralization. My belief is that you have to allow individual enterprise where people can get up and do their thing and if you spread that over a broad base of persons across Canada and allow them to go on relatively unfettered that you'll get much more done than if you concentrate control up at the top. The problem with the National Energy Plan is that it seemingly has been put together by a group who, however smart did not realize some of the driving forces of the petroleum industry. The controls expressed within the National Energy Plan are more like a carrot in front of a donkey. A carrot is put in to entice you to come along to a certain point and then when you reach that point, much of the gain accrues to somebody else, not to the fellow who has pulled the . . . , the donkey who has pulled the cart. Now I've already said the National Energy Plan has been devised by people not too knowledgeable within the petroleum field. If I look at Mobil Oil, Mobil Oil has had a tremendous planning group. It's known as a planning company and in spite of many years of background and projections for years ahead, it has reached the point where I've heard the Executive President tell me, there's one thing about the planning department, they are always

wrong. Now this in spite of tremendous input in all the detail. I think the National Energy Plan follows that route. That we've had a small group who have come up with a tremendous plan and said this is the way we're going to go and this is best for the country. I challenge that, specifically I refer you to the time, also in Canada, where every major company decided they would go off into the frontiers. Therefore Imperial, Mobil, everybody went off into the Northwest Territories and started spending large amounts of money and then failed in obtaining what they had hoped for, early production, big production. And then withdrew back into the western provinces. I think that the federal government is duplicating that area. The federal government has said, we're going to pay eighty cents on the dollar for all this exploration in the frontier areas, so come on and we'll spend all the money in Labrador, in the Arctic Islands, in the Beaufort, in the off shore Atlantic. And to me it possibly will prove to be a misapplication of funds just as that earlier experience of the major oil companies. But in this case where the citizens are paying for it there will not be a quick recovery to a better position. There will be a momentum, a legislative momentum where that money will continue to pour into areas where it is uneconomic to do so. I think that there's much more flexibility in a free enterprise system than in the legislated National Energy Program. The National Energy Program is too orchestrated, it's too fixed in it's application, it has not achieved it's Canadianization. I think that the Canadianization process would have continued at the same level without the NEP. I think that it has set back Alberta specifically, it has harmed Alberta. I think that any weakening of one part of Canada is a weakening of all of Canada. I think that the recession that we see here has been amplified by all of the activity of the NEP. I dispute strongly Chretien's remark that this is one of the most wonderful policies put into Canada. I think it's one of the worst.

#144 Nadine: So how do you foresee the future of the oil patch?

Don: I visualize a bright future for Canada in the normal petroleum sense. The future is going to be heavily qualified by the situations that are occurring around us. The discovery of large quantities of gas in the United States, as one example would change our attitudes and our capabilities, particularly for the export of gas. That's fairly obvious. It's equally possible that new discoveries throughout the world will change the availability of oil. So it all comes down to the price of oil and the economics of supply and demand. Only a few years ago the federal government had declared that it's objective was to start up the production of heavy oils. They looked fondly on the Beaufort and more recently have looked fondly on Hibernia and yet if this oil is going to cost 20 or 30 or 40 dollars a barrel, if oil is available from other parts of the world at \$15 a barrel, those are not going to be economic to deliver. Gas at Venture, has become problematical in the last couple of years because it looks as though it can be landed in Nova Scotia at \$5 and the U.S. is now saying, all they'll pay is \$3. So even Venture Gas becomes a questionable source of energy. If you look at Canada with the longest coast line in the world which means the longest off shore area in the world. With a fairly sizable on shore sedimentary area available for searching, there's very little question that we have enough oil and gas to supply our needs. It might require rather dramatic changes in the usage of these things. Gas might be used more proportionately than oil, if our exploration continues to find more gas than oil, which it has in the past short while. Nevertheless I think that first of all

there's ample gas in Canada to supply Canadian needs. Secondly it's not clear that without the heavy oils that there's enough oil to supply Canada's needs. I believe there to be enough oil. I believe that with a proper mix of exploration, continuing, Hibernia, the further development of that basin, the resolution of the political disputes that are present there so that can be brought ashore. I think there's more oil out there. With the opportunity of improving our secondary recovery methods and getting greater amounts of oil out of the existing reservoirs. And with application of some effort towards some of the heavier oils, the Tarsands, Canada can also look after its oil requirements. I think that there is much opportunity for development along the Saskatchewan border in Alberta, where you can find medium or lower gravity oils and develop those much to the benefit of the nation. And maybe much of the money that's now being poured into these frontier areas under the NE Plan should have, more appropriately been assigned to such areas. In summary, I think there is a good exploration future in the petroleum field. I think there's much, much to be done in production work involving secondary, tertiary recoveries in the heavier oils. And all of this bodes well for Canada. I believe that the political processes have to be very carefully positioned so that the maximum is obtained. And again in summary, I think it comes down to stimulating individuals and individual companies and groups to get the job done. It's not a case of controlling and it's not a case of maximizing the take into other areas. The objective should be to maximize the activities to the benefit of all Canadians. Activities is the word, activities, accomplishments, not a tax drain, accomplishments.

#214 Nadine: I know that oil people work hard but are you planning to retire sometime?

Don: I don't plan to retire from the oil industry. I'm going to die with my working boots on. I will slow down some of my activities but I'm in the, what I consider, very advantageous position that I can run my own affairs. Nobody can shift me or nobody can do anything and I'm delighted to have my own company. I have no envy of people in large companies in so called high positions. I would rather be in my shoes anytime.

#224 Nadine: Who were the most influential persons in your career?

Don: Well, aside from my family I think the first one that had an impact is G. R. Macdonnell in intermediate grade school at Daniel McIntyre in Winnipeg. And I think that his skillful handling of young kids allowed me to make a decision to do a little better in school and go on to university. The second person in line of events is George Brownell. And George Brownell, he was the head of the geological department at the University of Manitoba and George was a committed geologist. He was primarily a mining man. I guess one of his claims to fame is he started up the [scintolometer ???] work which became basic within even the oil exploration which he had very little to do with. But George imbued in me a desire to do things in a very professional and gentlemanly way. Now the third person with really great impact was Joe Spivac, the Chief Geologist and Exploration Manager for Mobil and he was a very gentle person and he administered in a fashion where he gave you complete scope to do things and also he did them as a friend, and again, as a gentleman. And so he, I think led the way and pointed in a direction where if you were going to work and work in this field you would do things in a manner, which was not only beneficial to yourself but beneficial to those around you. So I think I learned a

magnanimous nature and a participating capability from Joe Spivac. Aside from those three people who I think helped me keep on a more proper path, you had a great number of people who provided lots of colour and also further direction and those include Dr. Fath, who had a capability of going into exquisite detail, Dr. Corbett who again, a gentleman, an academic fellow who stressed learning. Walt Hohag and [A. O. ???] Detmar, two Exploration Managers in a row, both quite different. One quite flamboyant and they allowed you to take on a certain amount of colour beyond the more routine or academic approaches. Mr. Nickerson, the Chairman of the Board of Mobil Oil showed us a man, Nickerson and Bartlett showed us men who, at the highest level in a very large corporation taught you how to deal with top executive committees. These were all wonderful people to be associated with, period.

#286 Nadine: What were the most exciting experiences in the oil patch?

Don: I think the most exciting thing for me is the relationships or the participation in the pure geological things. And they involve going up on the field trips where we went into the mountains or up into the north. It would include what we would consider as pure exploration. I've been in the mountains and as one example, fallen down a scree slope and there was a two thousand foot drop below me and the only thing that stopped me was there was a little willow that was in it's first year of life in the slope and it was enough to stop my precipitous tumbling over this cliff. And subsequently people had to come and get a rope and pick me up and draw me back up to a point of safety. I've almost fallen into cataracts and I've been in areas, which is hard to do now, in areas where there's been no sign of man. And that's in northeastern British Columbia where I could walk for hours and days and you would see no sign of man in there at all. And the first entry into the Arctic Islands, and we weren't the first to go up there, Dome had preceded us, but we went up fairly early and to go up into these areas, now you have to recognize the Eskimos are there so. . . , but it was the feeling of adventurism and the participation in new enterprises that was really absolutely wonderful. The entry into Sable Island in an area where they said we couldn't go there. Well we did. And the doing of seismic there, we have run seismic and then suddenly the trailing ends got snared by something and it turned out we had hooked onto a World War II freighter that nobody knew was there. And the freighter was sitting upright with all of it tanks and everything aboard, all just perfectly preserved. These are the real excitements of my participation in the petroleum industry. New ventures. There always is the joy of participation in new successes and even today you have that capability, of finding a new field and that is always a thrill to have that participation.

#337 Nadine: What do you consider your achievement?

Don: My achievements are in pure exploration. I consider my achievements, participation in Pembina, a participation in Rainbow, a participation in other discoveries, many other discoveries across Western Canada. A prime participation in the east coast exploration and I hope that I have also, like Dr. Spivac, imparted some knowledge and skills and feeling or participation to younger people.

#351 Nadine: Looking back at your career, is there anything you would do differently

nowadays?

Don: Yes, I would be smarter earlier and I would do things much more completely. I think there's much scope for improvement in our business and if I could start over I would hold onto many more details in each project that I was. . . , do a more complete job in any project and I think we would achieve our goals more rapidly and more efficiently. Alas there's always the problem of time and allocation of effort. Nevertheless I would work hard at being more complete and professional in the things that I'm doing.

Nadine: This is the end of the tape.

Tape 4 Side 2

Nadine: On the whole Mr. Axford, what do you think of the oil patch?

Don: I have enjoyed the oil patch as I've indicated throughout this whole dissertation. I think that the oil industry has been quite honest in most of the things that it has done, in everything that it has done. I can tell you, contrary to some of the communication that, Mobil Oil for instance, I have never seen them transgress rules and regulations of our society. It's been just the reverse, that Mobil from time to time has chosen not to do things because they felt that it would not be proper for a multinational or American company to do something different in Canada. I believe that the oil industry as a whole has contributed greatly to the strength of Canada. It's taken a lot of effort and man hours to reach the position we have reached. I guess if I look into the future and giving recognition to the NEP and to the governmental side, there has to be a greater understanding between the industry and the government. I think that from 1971 on and particularly from '79 on, we have had a great deal of dissension brought in. I believe that the industry has been subdued to a tremendous amount. This is expressed by Mobil Oil who aren't exploring and doing the innovative things that they did before because they feel suppressed. It's expressed by Exxon in the same manner, Exxon who have this wonderful building we're and they say if they'd known the NEP was coming up they never would have moved from the old building. But Exxon are not doing the innovative things, Exxon are not the leaders like I've described in the early history. In the early history, everybody communicated with everybody and everybody felt. . . , well they do so much they could communicate something to others. Now it's become so secretive.

#028 Nadine: Things have changed.

Don: Things have changed. It's become a much more controlled industry and with all those controls, there certainly isn't as much fun in the industry as there used to be and I think there's also a greater limitation to do things on a broader scale in spite of the NEP.

#032 Nadine: Thank you very much for this very interesting interview.

