

PETROLEUM INDUSTRY ORAL HISTORY PROJECT
TRANSCRIPT

INTERVIEWEE: Ed Barroll

INTERVIEWER: Nadine Mackenzie

DATE: March 1984

Nadine: This is Nadine Mackenzie speaking. Today is the 13th of March, 1984. I'm interviewing Mr. Ed Barroll. Mr. Barroll, thank you for having accepted to participate in our project. When and where were you born?

Ed: Well, I was born right here in Calgary, Nadine, I'm a native Calgarian, in May of 1923 actually which was quite a good time to be born in Calgary I feel.

#008 Nadine: What did your parents do?

Ed: My father was a butcher and he ran a small meat market on about 11th Street and 15th Avenue West.

Nadine: Were they Canadian?

Ed: Oh no, he came from a small village in Wales. And he immigrated to Canada in 1911 I believe, and sent for my mother in 1912.

Nadine: Why did they come to Canada? Did they have family?

Ed: No, no, not at all. I never really found that out until, during World War II, I was in England and in the same little village in Wales, Crickhoul ??? I was sitting in a pub and a man came up and told me that he knew my father. He also told me that he was responsible for the fact that I was a Canadian. And I was at some loss to comprehend this and then he told me the story that he had shown my father an advertisement in a newspaper, in the Cardiff paper, that they needed a butcher in a place called Calgary, in Canada. And gave my father the copy of the paper and to cut a long story short, my father was the 6th of 6 brothers and if you know anything about the hierarchal system of inheritance in Britain, why, he didn't really have much there. So he answered the ad and came out to Calgary and I think it was a great move for him. He was an avid hunter and fisherman and of course, at that time, why, he greatly enjoyed the freedom and the egalitarian sort of a society that existed then, where it was just a wonderful thing for him.

#025 Nadine: Where were you educated, here in Calgary?

Ed: Yes, I went to Connaught Public School and Central High School and after the war I went down to the University of Oklahoma for a couple of years.

Nadine: What did you study at the University of Oklahoma?

Ed: Petroleum Engineering.

Nadine: Why did you choose this subject?

Ed: For several reasons. One, that in my formative years, I had a fair amount of exposure to the community in Calgary and there were two classes of people had money in

those days, one were the wealthy ranchers, although very often they weren't too well off, in terms of absolute dollars. But the people who were involved in the oil business, actively, there were many of them who were undoubtedly the top of society in Calgary at that time. They were the wealthiest, they had more money and they rather obviously showed that they had money compared with other people. So I assumed that was a good place to go for money and I haven't been totally disappointed I guess.

#038 Nadine: How long did you stay in the University of Oklahoma?

Ed: Well, we had a special deal with the veterans after World War II and that was that by taking the rather difficult first year university here in University of Alberta and by taking some rather extended we could get out of the University of Oklahoma in two years. So as a consequence we could come up with and Engineering Degree in three years and of course, most of us had spent 4 or 5 years in the services and we wanted to accelerate life a little bit and that was attractive to us, so that's what we did.

#044 Nadine: You were a flying officer during the war, can we talk about that?

Ed: Sure, if you wish, but they didn't give me a commission until the war was over. I was a sergeant pilot all the time I was on active service. I suppose that might have some reflection on disciplinary views of life.

Nadine: But you were based in England?

Ed: In England, I trained in England and I was on active service in Burma.

Nadine: And you stayed there from '42 to '46?

Ed: No, I joined up in 1942 and I was overseas in '43 and came home in '46, yes.

Nadine: So when you came back, then you went to university?

Ed: Yes, as soon as I got out of the services I looked for the only job that I could find. And I had some experience in surveying so I wound up as a surveyor for a seismic crew working out of High River, towards High River, Black Diamond. We shot some line that went westwards in to Turner Valley, so I got some exposure to some of the old steam rigs that were operating there at that time and some of the people that were working on the rigs there. I thought they were a real nice bunch of guys, so shortly after that, I quit the seismic business and got in the drilling business as a roughneck.

#059 Nadine: Which company were you working for then?

Ed: My first job was with Cantex Drilling Co. and that was in little junk steam rig working under a production derrick on the community pasture down south of Patricia. We drilled a couple of holes there that were tentative oil wells. It was a rather pleasant experience, recollecting it, that summer of that year they'd had a lot of rain in the spring time and the wells we were drilling on the community pasture there, in fact you couldn't see a fence from the top of the derrick, it was all a sea of grass as far as you looked and you could count maybe 30 or 40 antelope from the top of the derrick that would be grazing in this grass. And it was very pretty. Anyway that old steam rig was a hard way to learn. It had no sub-structure. It was set up on pegs and there was a lot of real bull work there. But I met several people there who had a very significant affect on the rest of my

life. Principally an old tool pusher down there who was pushing this rig, a guy by the name of Sandy Addison, who was an old Turner Valley hand. For a young man, he had an excellent attitude towards work and set a tremendously good example himself. On top of being a very likeable sort of a man and a very admirable character. So that was very much worthwhile for me. I think as far as an approach to the oil business, he affected me as much as anyone in those early days because he certainly got the message across to you, the name of the game was to work hard and make a contribution. And of course, in those days, we used to work straight time. We never got any time off except on a long change, so our noses were held pretty close to the grindstone too. We didn't have any of the mechanical aids that they have nowadays of course, and there was a lot of real heavy bull work involved.

#083 Nadine: How many hours a day were you working?

Ed: Well, we worked eight hours. Probably that was about as much of that as you could stand too, much of the time.

Nadine: Very hard work?

Ed: Yes, hard work and dirty work too. The technology that later evolved and the perhaps more efficient way of drilling a hole in the ground really hadn't come into being at that time. The rigs were very poor, there was a lot of junk that had to pretty well put together and broke down with monotonous regularity at every location. And of course, they were steam rigs too, which was quite different from modern mechanical power rigs.

#092 Nadine: How long did you keep this job for?

Ed: Well, there was a bunch of us going to university at that time, and we all had the same routine. His majesty's government gave us the generous contribution of \$60 a month plus our tuition plus our books. And \$60 a month went a lot further then than it does now but it was still not very generous. Down in the United States of course, in the southern states, they have a rather short school year, they let out in May down there and don't get back with it until mid-September. So we used to all leave school and we wouldn't even stop, we would have a job lined up and we'd all head back for Alberta and we'd be working on the rigs within 3 or 4 days of when school ended usually. And we'd work all summer, stack up a little money and then turn around and head down. It really wasn't a bad routine, we got lots of exercise and fresh air in the summertime to compensate for the study and academic life in the wintertime.

#105 Nadine: Were you with Jim Lineham at the University of Oklahoma?

Ed: Yes, I was and I know Jim and Jenny Lineham very well indeed. It's kind of funny, you asked me a few minutes ago about why, one of the reasons I got involved in the oil business and Jim Lineham was an officer overseas in the Air Force. I didn't know him at all at that time, but I was at a station over there called Little Rizington??? and at that time it was beginning to be assumed that we were going to live through the war and the Canadian Air Force, RCAF did send people out to advise us on post war careers. And I'll

be darned if one of the guys who didn't show up there, and gave us a little lecture on the oil business was Jim Lineham. Subsequently of course, I went to university with him and got to know Jim and Jenny Lineham very well and they're delightful people.

Seems to be a little skip in the tape.

#115 Ed: The first job you mean?

Nadine: Yes, what did you do there?

Ed: Well, I was fortunate during successive summers that I was at university I worked for the same people with the same company. General Petroleum and Sandy Addison was the pusher on this rig so he hired me back, so I guess I must have been considered to be some good. After graduating from university I received two job offers, both of them in the United States, for the grand sum of \$325 a month with Gulf Oil Corporation in Louisiana was one of them that I recall, the other I forget. Suffice it to say that I could come back and work at the oil fields as a driller and make more money, considerable more money. Which I did, I came back and worked for Easton Drilling Co. At that time we were drilling up Redwater, and the winter of '49 and '50, I spent out there, part of the year as a driller and then I wound up pushing tools for them in the spring of 1950. That was an extremely bitter cold winter and the temperature never got much above 50 below zero for about six weeks early in the year and all of the guys who came up from Texas and Oklahoma suddenly decided they should go home and get more clothes. And they all left and so some of us Canadian boys inherited their jobs. Anyway, I finally got an opportunity to go and work with Seconi Vacuum??? Exploration Company in the spring of '50 and went to work for them as an engineer. I was the first graduate engineer they hired, I believe as it turned out. The man that I worked for had some engineering education but there were two of us in fact, that had some oil field capability and the total production department in Mobil was three men and a secretary when I joined them.

#141 Nadine: ???

Ed: That's right. I drilled and completed Mobil's first commercial well in the Dewhammel??? field early in 1951 and that turned out to be a very nice little oil field. It's still producing today as a matter of fact. So we drilled up that field and made dual completions to the D2 and D3 and shortly after that, Mobil was drilling wildcat wells all over Alberta and we were looking after some of them too.

#149 Nadine: I've forgotten to ask you, were you involved with Leduc, the discovery?

Ed: No, not at all. Not the discovery well. When I was up there, the Atlantic 3 well was wild and we were drilling in the field up there then. I worked on a well there called BA Perch #1 actually and we had an old steam rig on there too and we made an oil well. That was rather interesting times of course, I could reminisce a little bit about that if you want to.

#157 Nadine: Sure absolutely. What were your feelings about the discovery?

Ed: Leduc? Leduc was rather well known throughout the whole North American oil industry. It was a very big discovery in North American oil industry terms. And was the subject of some discussion amongst the petroleum engineering professors for instance at the University of Oklahoma when I was down there. We were all rather optimistic that the oil business was a good place to be. We were very glad, as I recall, to be young and educating ourselves to take advantage of this. And we recognized that we'd made a very good career choice. Beyond that I would say that most of us who were veterans at least, felt that we had some catching up to do. Most of us had been raised in a period, in our formative years I suppose, in the late thirties, where we knew we had to work if we were going to get anywhere. So it was good times and I think we tended to be prepared to work a great deal harder and to accept many of the vicissitudes of the working life much more than young people were, let's say, in the late 70's. I think a little financial desperation is always a good thing.

#177 Nadine: You spent also, some time in Saskatchewan.

Ed: Yes, I believe it was the winter of 1952-53, Norman Elfinstone ??? was sitting on a well that, I think . . ., gee I forget what Mobil was at that time, let's say Seconi Vacuum Exploration still, was drilling near a place called Fosterton about 40 miles northwest of Swift Current. And my boss phoned me up one night and said, they had something looking pretty interesting in this well and I should get down there. So I jumped in my car and got as far as Gull Lake and there was a blizzard blowing and one thing and another, but people told me I could get north of Gull Lake across the sand hills there, the edge of the sand hills to Fosterton and I knew the road north out of Swift Current was in bad shape. So it took me about 12 hours to get across there anyway. And when I got to the rig, it was in terrible shape, everything was froze up and it wasn't a very well run rig, I'm afraid. Anyway it was a pretty desperate situation and they were snowed in. Anyway Norm Elfinstone, who's still a resident around Calgary here, was the well sight geologist and he said, come and have a look at this and tell me what you think of it. So under his microscope he had a sample of a core that he had pulled and I took a look at it under the microscope and my goodness me, it was just like looking in the brown sugar bowl. It was just beautiful, rounded quartzitic sand was heavily oil stained. So when we got things organized around there and thought out a little bit we ran a drill stem test and the thing flowed oil. Visually it was rather disappointing because the oil didn't have much gas in it. It only had 100 cubic feet per barrel of gas and it was about 24 gravity crude. But my goodness me, a very prolific well and there was a bout 90 feet of sand in that well, it went about 20-25% porosity. We finally came to the conclusion that we had something there that was looking pretty good and of course then the excitement got cranked up a little bit. Anyway we drilled a few more wells around there and that spring, I had been living in Calgary and was married at this time and had a baby daughter who was just a few months old and the company asked me to go down there and take over the management of the field there. So I did, told them yes I would do it, but I wanted to have some place to live and if I was going to work in the field I didn't want to spend a lot of time driving back

and forth to Swift Current so I suggested that we should set up a camp at Fosterton, which we did. I moved my wife and new daughter down there and she was resident out on the bald headed prairie down there all by herself, setting about 50 yards away from this otherwise straight bachelor camp. So it was kind of a tough winter for her. Anyway we expanded the staff pretty rapidly and ultimately got five little rigs running down there, they were drilling about one hole a week. We made a number of discoveries, almost sequentially, Success, Cantor, Midway. . . .

#231 Nadine: What was the name of your boss at that time?

Ed: At that time, Leonard Stevens had taken over the production department for Mobil. He was an ex-Shell man who, during World War II, had spent a considerable amount of time in Venezuela. Prior to that he trained with Shell in Britain and in Southeast Asia. Some of the Shell operations in Borneo I believe, that general part of the world, Indonesia. Leonard was quite a young man in those days and had some very good experience. He was typical of the best type of Englishman that I think came to us in those days. He knew his way around the oil field and had good background and was rather a delightful man to work with, had a good sense of humour and a good understanding of people.

#245 Nadine: In '54 you became District Superintendent.

Ed: Yes. While I was down in Swift Current of course, the Pembina discovery was made so I was transferred back to Calgary to provide some Head Office Engineering and Management direction I suppose, to this activity. Of course, Mobil made that discovery, Arnie Nielson is generally credited with it. He was District Superintendent in Edmonton at that time that discovery was made. Jim Ork was made District Superintendent, first of all in Drayton Valley and subsequently moved to Edmonton. But Mobil expanded extremely rapidly at this time and had about 15 rigs running in Drayton Valley. Angus MacNeil was drilling superintendent up there and a large number of people that are pretty well known in the industry now, went to work as engineers up there. And it was a great training ground because there was a lot of activity. At that time, I had general responsibility for sort of an overview of what these fellows were doing and providing some management direction and control I suppose.

#267 Nadine: Who really discovered Pembina?

Ed: Mobil did, there's absolutely no doubt about it.

Nadine: Was it team work or was it. . . .?

Ed: Well, all wells are really. But what happened there was that, of course, you've got to remember that Turner Valley was productive from Mississippian rock and everyone, in those days, was looking at the Mississippian sub crop on the plains as a good possibility for production. If you could get a little Devonian rock, Leduc or Niscue or whatever, that was considered a helpful shot too. At any rate, that well was targeted for the Mississippian as I recall, and Arnie being District Exploration man, had put in the well prognosis that his secondary objective, the Cardium was a very important secondary

objective. Of course he was involved in the selection of the location as well. When the well came in and the Cardium was tested, in those days we weren't used to production from thin sheet sands and there was a good deal of pessimism because it was only 10 or 15 feet on the log of real good sand and the rest of it was, we thought indeterminate at that time. You've got to remember, this was before well fracturing or any of the other completion techniques were available to the industry. We had a well placed executive in Mobil Canada who avowed that he would drink every drop of commercial oil that was ever produced out of the field. Out of kindness I will leave him nameless. It wasn't me. Yes, it's true, Arnie was responsible to a good degree for that discovery I feel.

#303 Nadine: And you were also in charge of Engineering Supervision of all operations in Alberta and British Columbia.

Ed: Yes, I held a number of jobs at that time and that was one of them.

Nadine: Were you living in Calgary and traveling?

Ed: Yes, I was.

Nadine: Were you traveling a lot?

Ed: I was traveling a fair amount all over Alberta and B.C., yes.

Nadine: And in '55 you became District Superintendent, on the development of Wayne Field. What was Wayne Field?

Ed: Well the Wayne field was a little field just outside of Drumheller, this side of Drumheller. It's still on production too. It was a rather minor discovery, as it turned out, there's a pretty nice little basal-quartz oilfield in there. We drilled 5 or 6 wells in there, we drilled the best one first unfortunately. Today, they would be regarded as something of bonanzas I suppose but in those days, we didn't think too much of them. We'd been spoiled by good reef fields and tremendous big sheet sand fields like Pembina.

#323 Nadine: You were also appraising drilling of CPR in East Calgary gas fields?

Ed: At that time Mobil drilled a well out east of Calgary, we called it Calgary 3610 and once again, this was a Mississippian shot that was going to be carried down to have a look at the D3, hopefully.

Nadine: This is the end of the tape.

Tape 1 Side 2

#020 Nadine: I was District Superintendent of Southern Alberta at that time and as I say, we drilled this Calgary 3610 well, which was within sight of the city and just a little bit north of the airport. The gas plant that Canadian Occidental has out there sits fairly close to the sight of the discovery well. This was the discovery well for the Calgary gas field. An interesting well in that it was extremely sour gas, 35 % H₂S and of course, it's poisonous and gave us a great deal problem with embrittlement of steel. The technology wasn't very well developed to handle it at that time, although some of the people at Shell were very helpful to us. And we had some real problems completing that well but we got an excellent sour gas well out of it. Mobil Corporation in their wisdom, decided they didn't want to be in the sulfur business and invited Jefferson Lake Sulfur company up from Manderson, Wyoming, where they ran a plant for Mobil. So they farmed it out to Jefferson Lake, almost over my dead body. I thought at the time, and told people so, it was an extremely stupid idea but they just didn't want to come up with the capital to build the plant. So Harold Manley negotiated to build a gas plant and provide Mobil with processing capacity, I think to the extent of some 40,000,000 cubic feet a day. And Mobil farmed out to them and they had an obligation, Jefferson Lake, to drill a number of appraisal wells in the field. Then Harold Manley got extremely lucky. The first step out well found gas in the Elton??? and it turned out that the first well had narrowly missed the Elton gas field which was much sweeter and had some liquids in it. So Harold Manley continued negotiations with Mobil and ultimately that was the origin of the East Calgary gas field as it's known today. I think in retrospect, Jefferson Lake, made an excellent deal there and I think Mobil can't be too proud of that farm out. They farmed out after they had discovered the field which really is not too creditable.

#046 Nadine: And then what did you do?

Ed: Subsequent to that, I was on vacation in Vancouver with my family and Leonard Stevens called me and told me that there was a job opening, which was based in Paris, France and would I like it. My response was immediate I think, so I jumped aboard a plane anyway and went down to New York and found out what the job was there and then I flew over to France to speak to the local management. in a nutshell, what the story was, that Mobil wanted very badly to get into Algeria, where Hasi Massaud??? and some of the big African gas fields had been discovered. As kind of an entry fee, the French government had told Mobil, who'd been in the refining, marketing business there since about 1890, and was a long established company, Mobil Oil Francais. Anyway, they told Mobil that what they wanted them to do was make a contribution towards the French national effort by drilling some wells in France, in metropolitan France. And if Mobil would do this, they would contemplate letting them lease up some of Algeria. Mobil had to take on a French partner, a company called Retga??? and they wanted me to drill some wildcat wells. So I took a look at the situation in France. One of the ideas was to bring a

rig in from Germany. We couldn't use any of the French contractors because as I say, the French government wanted us to bring some new blood on the scene. So with what might be typical French business procedure, they told us we had to bring a new rig on but we also had to pay 200% import duty.

#067 Nadine: This is some very good business?

Ed: Yes well it was. Anyway I came back to New York and told them I could fix them up on that. What I talked them into letting me do was getting a second hand rig and buying it at the straight up purchase price and at that time, there was quite a lot of slack in the drilling industry.

Nadine: So where did you get it from?

Ed: Well, I bought a second hand rig in California for I think about \$75,000 which was

a pretty cheap price in those days. And then we took it into National [Splash, Torrance]??? yard in Las Angeles and we practically rebuilt the rig there. Of course, we imported it into France a completely shopped and rebuild rig and paid the French government on the purchase price you see. And the rig was probably worth, maybe half a million bucks or so. We had to train French crews and hire French people. We were allowed to bring in a training staff so I was fortunate in that respect, I hired a bunch of French Canadian drillers and derrick men. Guys who came from little places in Alberta like, Legalle???, all the little places outside of Edmonton, there were a lot of guys. We hired fellows with names like Prefontaine, and Parentault and Terre and things like that. So we settled in there and a guy by the name of Merles Dorscht and Tommy Miles were guys who were actually in charge of the filed operation. But we drilled wells down around Bordeaux, Parentiis, Whar??? Valley, Paris basin and places like that.

#087 Nadine: Were you living in Paris?

Ed: Yes, I was living in Versailles at the time. It was one of the more pleasant memories of my life. We had a very good time there and enjoyed the country and the people a great deal. We also had a lot of fun with the French Canadian boys over there too. Some of them acquired linguistic aids with some girlfriends they associated with down around Bordeaux and when we moved the rig up in the Paris basin, why all the Frenchmen up there were rather surprised that these Canadians all spoke French with a southern accent you see.

Nadine: Can you speak French, yourself?

Ed: [Responds in French]

Nadine: So how long did you stay in France?

Ed: We were there a couple of years.

Nadine: And then you were also going to Gabbon??? and Sahara at the time?

Ed: Yes, at the time, Mobil was contemplating some farm in operations from some French companies, in what was originally, I suppose, the French colonial possessions in Africa. The transition was taking place at that time to self government. So we looked at Gabbon and some operations in the Sahara and Mobil was interested in whether they

should involve themselves in this. The French Franc was in rather bad shape at that time and the French government and French companies were looking for outside capitalization and the American dollar was very hard. So there were some great opportunities there for American companies but really the demand for crude wasn't that great at that time so it was hard to make a judgement as to whether you should proceed with some of these things or not.

#108 Nadine: How were the offices of Mobil Oil in Paris?

Ed: We were on Rue de Lon??? right beside Garcan Lesar??? and the Head Office was on Rue de Corsel???

Nadine: That's nice.

Ed: Yes. They never let us drillers there very often. We stayed around the crummy station there at Rue de Lon???

Nadine: And after Paris, you came back to Canada?

Ed: Yes, I came back to Mobil Canada and was involved in various management jobs. I went up to Edmonton then though as District Superintendent in Edmonton in '60. And I was involved in development drilling in north Carson Creek, Swan Hills fields and a good deal of wildcatting in the North Country.

#118 Nadine: And you were also involved with unitization?

Ed: Well, I was unitization manager or Joint Interest Manager as Mobil called it, after coming from Edmonton down to Calgary. Actually I came down as Production Manager or Operation Manager it was called in those days. When I left Edmonton I came down and replaced a very good friend of mine, who died of a heart attack, unfortunately, Ted Thurston, who's very well known in the Canadian oil industry. Ted was Operations Superintendent from Canada and he had a heart attack and died in the office one day. So I was called upon to fill his job after that, so I was transferred down to Calgary in 1960. And I became Operations Manager which was looking after all operating aspects of drilling and production for all of Canada. After that, I served that job for awhile, a very good friend of mine, Ken Joint, who had come up here from Texas as Production Manager, wanted me to become Join Interest Manager and Ken very rightly advised me that I needed more exposure to some of the tougher negotiating aspects and business aspects of the oil business. So I wound up negotiating Mobil's interest in some of these units. Oh for instance, the Carson Creek unit, even in those days, 1% of it had a present worth value of about \$1,000,000. Of course, it ultimately had a value much higher than that, in today's values probably 5 or \$10,000,000. At any rate, these were long, protracted difficult negotiations and it was a great experience for me and I made lots of short term enemies and long term friends in some of those tough negotiations.

#143 Nadine: Why were the negotiations so difficult?

Ed: Well, you've got to understand that in those days, to get a good allowable out of an oil field, your allowable, the amount that you're able to produce was directly related to

the ultimate recovery that you could predict from the field. And of course, in a large field where there is a multiplicity of owners, it's impractical in an engineering sense to attempt to develop secondary or tertiary recovery schemes even, in small tracts all over the field. It has to be done on a unitized basis, the whole thing has to be done at one time. So of course, before people will put up the capital to do this, they have to determine what their share of the field is. And so this is what the negotiations were about. And if I can negotiate my company an incremental 1% I just made them a million dollars. When you get down to this negotiation, everybody recognizes the ultimate goal of realizing a much enhanced cash flow out of a field. But yet you've got to make an agreement with other people. And you've got to say, okay, you've got 50%, you've got 25%, you've got 15% and you've got 10% and hope it adds up to 100. The first time everybody sits around a table, well it always adds up to 150%. And from that point on, the battle is on and it's a battle of engineering and wits and establishing oneself in a preferential position. To get in a preferential position very often involved working within government rules to your own advantage. For instance, when we were unitizing Carson Creek North, Mobil had, properly speaking, somewhere around 75% of it. And we wound up with 78% I think, but one of the reasons we could is we went to the government and the government issued us a pressure maintenance??? order, which automatically enhance our ultimate recovery and our cash flow. But the other people in the field didn't participate in the study, we kind of snuck that one by them and as a consequence we were very much in the catbird seat for that negotiation. However in many cases, it was nothing for unit negotiations, in some of the real tough ones where there's many participants. . . , like when some of the big units in Pembina were formed, there would be as many as 20 or 30 parties to the unit. And some of them would have certain parameters that would favour them. So you'd have factions forming and underground negotiations and if you'll vote on this issues, well we'll support you on that one and all of this kind of thing going on.

#182 Nadine: It tends to be tit for tat, all the time.

Ed: Yes, and the way it was done in Alberta, it had to be totally voluntary. Over in Saskatchewan, up until this time, they had quite a different system over there. They had legislated unitizations. Over there what you did, was they had to hold a public hearing, and the government was represented by a rather prestigious consultant. Everybody would stand up and say why they thought they should get x% of the field and why they thought the field should be developed in a certain way and try to present the most advantageous case possible for their own particular ends. They were represented by counsel. There was a great deal of preparation and coaching and all this sort of thing went on.

#194 Nadine: That must have taken a long time.

Ed: It did. And these hearing would be held and then after due consideration, the government would take everything and they would say well, now we've just made a decision and they'd split it up. I don't know which system was best. I know you couldn't blackmail, if I may use that term, anybody under the Saskatchewan system. On the other hand, companies that had the engineering power and the power to make a strong

presentation generally, probably enjoyed an advantage. Conversely here in Alberta, a small company could opt to stay out of a unit, it couldn't be force to join. As a consequence, if their participation was necessary to the efficient functioning of the unit production, they could in fact blackmail the unit and if they only had 1%, 2% coming they'd say, well, you big guys have got to give me 3 and sometimes they'd make it stick.

#212 Nadine: Then you moved to Denver in '65?

Ed: Yes, I went down there and reported to a delightful gentleman named Wade Moriarty. I was Operation Manager down there, looking after all of the production that Mobil had, basically north of Texas, Louisiana. There was a Gulf Coast division at that time and there was a Central Plains division. Most of the production we had was in Wyoming, Kansas, Oklahoma. Some in neighbouring states. That was quite a switch for me. The U.S. oil business is quite different from the Canadian oil industry in many way. I enjoyed the experience, enjoyed the people. . . .

Nadine: Was it a complete change or is there a lot of difference between them?

Ed: Well, the oil business in the United States is quite different from the oil business in

Canada. It's less well regulated, it's smaller, you don't have big pieces of big fields because all of the land was originally split up to individual land owners where here probably 95% of the land was held by the Crown and the Crown dealt it off in big pieces. Down in the United States, land was held in much smaller pieces, leased up in smaller pieces. The laws controlling and regulating the oil industry down there are generally not as good as they were in Alberta at that time. So that you wind up with something that's much more difficult to run from a central location and there's more people involved down there. Certainly you have a larger basket full of paper every time you come to work down there I'll guarantee you. And more abstruse problems. But they're all small problems and you can't get a real big grip on things down there. There's a tremendous amount of detail work that's got to be done. As a consequence everybody down there, per force, has to delegate a reasonable amount of authority to various departments and also lower in the organization chain I think, as far as producing decisions are concerned.

#248 Nadine: How long did you stay in Colorado?

Ed: Now very long, I was only down there a little over a year I believe, eighteen months.

Nadine: And then you came back to Calgary?

Ed: Yes, I came back as Manager of Production.

Nadine: And you were also Vice-President.

Ed: Yes.

Nadine: What does a Producing Manager do?

Ed: There are two fundamental areas of operation in the producing oil business. One is exploration, that's the man who goes out and finds the oil and makes all the land negotiations and sticks a pin in the map and says drill there. He also looks after seismic work and interpretation. As I say, he runs the land department and negotiates for the basic

leases and reservations on which to operate. But however, once he sticks that pin on the map, his work is largely done. Then the production department takes over. They drill the well. . . , if it's a dry hole, they put the plugs to it and of course, they always get blamed by the exploration department for ruining a good prospect by not completing it efficiently. However there's rarely much truth in this. From that juncture, if the well is successful, development of the field. . . , everything subsequent to discovery rests with the production department. As to which department is most important, I think realistically we have to say, in the early days, if you had a good imaginative exploration manager, and he could get you a good land position and successfully interpreted the geology, that was probably most important. As the industry became more and more mature and understanding perhaps, of some of the producing mechanisms then the economics of production, I think became important.

#282 Nadine: You had also the responsibility for Canadian producing operations?

Ed: Yes, I did at that time, when I was Production Manager.

Nadine: So were you travelling all over Canada?

Ed: Yes, pretty well. We were involved down the East Coast in '67, we drilled the first well on Sable Island for instance, and Don Axford was Exploration Manager at that time and Arnie Nielson was running the Canadian company. Don picked up, as I say, a good exploration man makes some pretty good long range guesses and I think Don was largely instrumental in leasing up an excellent lease position around Sable Island and also on the Grand Banks.

#295 Nadine: And then you moved to Houston?

Ed: Yes. By this time Ken Joint was the Manager of the Gulf Coast region down there and I went down there as Production Manger. That involved all Mobil's production on and off shore, principally in Louisiana and Texas. That was extremely interesting exposure. the off shore game in those days was where everyone seemed to be concentrating. And I got pretty good exposure to the offshore industry. The OCS sales in those days, were very large and people were bidding many, many millions of dollars for those off shore tracts. So it was an interesting time. I had division offices in New Orleans and Midland Texas and Corpus Christi. I was very fortunate, the men that I was working with down there were, without exception almost, delightful people. I've got a great deal of respect for the average western American, these people are good people. They have I think, exceptionally good value characteristics, the way they view life and certainly, they are people who I have found to be eminently hard working and good business men.

#325 Nadine: Was the supervisor called K. R. Joint?

Ed: Yes, Ken Joint was up here in the 60's and I was reporting to him down there then He was a man who was a delight to work with, an extremely capable oil man and I value his friendship.

Nadine: This is the end of the tape.

Tape 2 Side 1

Nadine: The interview with Mr. Ed Barroll. Mr. Barroll, after some time in Texas, you came back to Calgary. What were you doing in Calgary?

Ed: Well, at that time I was Vice-President in charge of Exploration and Production for Mobil. And I reported at that time to Arnie Nielson for several years. I think interesting things were occurring at this time, the exploration drilling on the Grand Banks of Newfoundland and on the Scotian shelf, offshore from Halifax. Mobil ran a considerable number of rigs down there at that time, semi-submersibles and jack-ups. And we were in the process of proving up reserves, looking for an economic volume of reserves of oil on the Grand Banks and gas on the Scotia shelf so that we could justify investment in an offshore development project. As a consequence of this involvement we were spending a great deal of money. Mobil is the operator in the best of both the Grand Banks and Scotian Shelf lands and we were spending large sums of money for ourselves and partners. So that it was quite a challenging assignment and extremely interesting.

#017 Nadine: Was the staff at Mobil increasing all the time.

Ed: Yes, particularly from the era of about 1979 through 1980 I would say. By this time we had proven the existence of commercial gas reserves in the Venture area, off Sable Island. And by this time we knew that we had well in excess of 1,000,000 barrels of proven reserves in the Hibernia fields. However, about the same time as we proved the existence of these reserves, the economic conditions were worsening very rapidly from a world wide deficit of crude in the late 70's, which was recognized and the general knowledge in the industry and the general belief in the industry is that we were going to be short of crude for the rest of the century. In 1980 and 1981 we were just starting to get glimmers of the fact, that perhaps the perceived shortage, in effect, wasn't really going to exist, and that in terms of international trade, the market for crude oil would weaken and the forecasts of very high prices for crude oil, up to \$100 a barrel by the end of the decade of the 80's was now known to be totally erroneous. Of course, by this time, we knew that Hibernia was going to cost multi-billions of dollars to develop it. I was involved in the engineering studies and all of the work that was done by Mobil as operator. We spent, as I recall, something in excess of \$30,000,000 making studies on how best to develop the Hibernia field. And there was a great divergence of belief as to how it should be done. There were two fundamental choices, one was that we could put in a bottom supported structure, that would be strong enough to resist the impact of a 10,000,000 ton iceberg. And of course, 10,000,000 ton icebergs have been known to pass through the area of the Hibernia field. A bottom supported structure of this nature could only resist the impact of that tremendous force of a 10,000,000 ton berg travelling at perhaps several knots by building a tremendously heavy strong structure. And nothing

like this had ever been really contemplated before. As a consequence we got into some very far out engineering and some very abstruse concepts of how we should best undertake this. Suffice it to say that we thought with a bottom supported structure that we really couldn't look towards developing the Hibernia field without an investment of somewhere in the neighbourhood of eight billion dollars. However there was an alternative. The alternative was to develop a floating production system. Floating production systems are not a new thing. They had been used in the North Sea to some degree. However floating production systems in an ice prone area, particularly where the bergs were known to scour the bottom of the ocean did give us reason for looking at several new concepts. Overlain on all of these problems is the fact that we're in probably, one of the worst sea areas in the world. Most people don't realize that the Grand Banks of Newfoundland are very nearly due south of the tip of Greenland and they sit out in the middle of the Atlantic Ocean. The Gulf Stream brings warm unstable air up from the southwest and the Labrador Current brings icebergs and very cold, stable air down from the Arctic. Where they mix is right on the Grand Banks with rather cataclysmic results. In the summer months it's the world's greatest fog generator. And probably one of the few places in the world where you can have an extremely dense fog and a 30, 40 mile an hour wind blowing at the same time. It never blows away, it just makes more of it. And in the early winter months, January and February, we had disastrous weather out there with winds up to 80, 90 miles an hour are common and seas of 40, 50 feet are very common too. So a floating production system has it's problems as well. At any rate, we devised a scheme and we anticipated that for something in the neighbourhood of three billion dollars, we could, probably, put production on stream from Hibernia with a floating production system, involving a tethered tanker, several floating semi-submersible floating production platforms, subsea templates and subsea completions. One of the problems that remained is that the production out of Hibernia is going to be a fairly high gas-oil ratio production and one of the great problems in producing large volumes of gas across a floating system is to conserve the gas you have to compress it and reinject it into the formation. The problem there at Hibernia was that the formation was known to be badly faulted and it was a multi-zone reservoir and the difficulty of having the injection compressors mounted on a floating platform and handling these very high volumes of gas did create an engineering problem which hadn't been really resolved. With a floating system, the concept was that whenever the bergs came down, and in fact, flow ice, the alternative that was available to the operator was just to disconnect all of the floating part of the apparatus and to head south into the Gulf Stream about a couple of hundred miles away and anchor down there and wait for better conditions. And then of course, bring the equipment back in and redeploy it, set all the anchors, hook up the floating tanker and all this sort of thing.

#092 Nadine: What about the cost of all that?

Ed: Well, I think with a floating production system, we had to accept that fact, that perhaps on an average year we were going to lose somewhere between 60 and 90 days producing time because of ice invasion into the area. On the other hand we weren't

exposed to what I would call a disastrous loss. What I would call a disastrous loss is if one had built, at tremendous expense and very long lead time, a bottom supported platform and that platform in fact, had been damaged or bumped over. If that loss occurred, oh for instance, if the well casings that came up through the platform down at the sea floor were damaged, it would be an absolutely disastrous loss. There isn't really any major company in the world that can stand that sort of risk exposure. This was some of the considerations. Now overlain on all of the technical problems were political problems. All during this time of course, both Newfoundland and the Federal Government were claiming sovereignty. Two sets of regulations existed. We had to comply with both of them. We had. . . .

Nadine: Was there a lot of negotiations to

Ed: Oh yes, a lot of negotiations. But we had to suffer with domineering civil servants and ministers who wanted us to obey them but not the other party. As well as ignorance and self serving attitudes. For instance, the Minister for Newfoundland, Mr. Marshall, always favoured the bottom supported platform and he said so in writing, for two fundamental reasons, one is because it was going to cost eight billion dollars and two because it had to be built in Newfoundland. Now I guess this is great economics for Newfoundland but it's kind of hard on oil companies. And this perhaps, rather irrational approach to economic life was something that we suffered with greatly. One of the great tragedies, and perhaps the great tragedy of my working life was the loss of the Ocean Ranger with some 82 men aboard. I received notice of that, I was called at about midnight one night and told that there was a tremendous storm out there and that all of the rigs were hung off and that they had ceased operations and they were waiting for this storm to go through but they couldn't maintain communication with the Ocean Ranger and that they knew from rather sparse radio communication that the rig was in trouble. Along about 1:00, the fellow who was in charge of production at that time, Jim Snead, phoned me and said, they had sent boats and helicopter over to where the rig was and they couldn't find the rig and the assumption was that it had gone down. So Dory Little and I chartered a jet and we got aboard the jet about 6:00 in the morning and we went down to St. John's and we knew by this time that the rig had been lost with all hands.

#134 Nadine: Everything had disappeared completely.

Ed: Everything had disappeared. This was a great tragedy and all of us felt terribly disappointed and responsible to a degree. We. . . .

Nadine: What happened really? Was it really a lack of safety or . . . ?

Ed: No it wasn't. You've heard the . . . I don't know what you'd call it but. . . for want of a nail, the shoe was lost, and for want of a shoe, the horse was lost and so on to the loss of the nation. It's classic.

Nadine: Event after event.

Ed: Yes, it's a series of events. Well, in substance though what happened, we now believe, and the investigation have led us to believe, there was an observation port. . . , now, on this particular rig, which at the time it was lost, the biggest and best semi-submersible in the world. However, the operating company who owned the rig,

Odeco???, had put the control room down in the upper part of one of the legs and below the main deck of the platform. The reason it was put down there is so that the operator could see the wave level, the sea level. . . , on the various legs of the semi-submersible, and so that he could see approaching work boats and all this sort of thing. However it did put control room down in an area that was vulnerable to wave action. And they recognized this and did have a very heavy porthole, with a shield that they could close on it and flange up when bad weather came. The unfortunate fact was, that they didn't close this cover, when the storm came through, for some reason, probably negligence, in the last essence. However I suppose the operators felt the same way that I would have felt, that the porthole was designed with very thick glass in it, that should have withstood wave impact in any event. But anyway, the glass broke, the wave broke into the control room, partially flooded it.

Nadine: And this storm was absolutely. . . .

Ed: Yes, and it flooded the control panel and shorted out the control panel. It was an electrical control panel and it operated the valves and the pumps which ran the ballast system for the rig. Certainly, when that happened, why then, they had some difficulty controlling the ballasting of the rig. the rig took on a list and when the rig listed, this pointed out some short coming in the way the ballast system operated. In other words, we were given to understand, that when the rig listed, the rig had such long pontoons that the height of the suction was changed and there was some problems with the pumps picking up suction. However given the conditions that we understand, and all we've heard about it, and we've heard a great deal about it, you can only suppose that the last hours on the rig must have been rather terrible. They were gradually losing control and ultimately the rig tipped over end for end and went down. It was a very great tragedy.

#178 Nadine: That was a great tragedy. Were there any other events while you were Vice-President for Mobil Oil?

Ed: Yes, as I say, we were busy appraising the Venture field. That was an extremely interesting project because we were getting into tremendously high pressures at very great depths. We were drilling these wells with jack-up rigs off the east tip of Sable Island. We were carrying these holes or attempting to carry these holes down to about 20,000 feet and at about 15,000 feet, we started to get into over pressures. And got into very heavy overpressure, we had bottom hole pressures, somewhere around 15,000 pounds per square inch. the beautiful thing about the Venture field though, is that it's got tremendous porosity in the order of 20-25% and with this kind of pressure exerted on the gas of course, it's tremendously compressed until it's almost a liquid. So a relatively small volume of reservoir at this very great depth under this great pressure contains a tremendous amount of gas. The challenge in drilling these wells was to get casing strings down there into the over pressure and to hold back the over pressured gas so that when we drilled ahead, we wouldn't break the hole down with very heavy drilling mud, up to 18 pounds per gallon we were using. Of course, most operating people who have to live with it, who are down there on the rig, what they like to do is to get the casing in the hole and case off the very high pressure. But if you do this prematurely, you commit all your

casing strings and you just can't get your well down. It's called in the industry, casing yourself out of hole to be sure you're safe. And so some of the time I was on the other end of the phone telling them, well maybe we should try to go a little bit further and all of our drilling engineers and drilling managers were pretty much involved in this question. The productivity of those wells was quite frightening. I went down there to be present at the testing of some of the original wells and for instance, we would run about 5 3/8 inch chokes in series and still producing 15,000,000 cubic feet of gas per day. And still a one hour test would cut out about half of these chokes, and they're ceramic chokes so they're beautiful wells. I don't know gas wells anywhere else in the world that are any better. The knowledge is still not in, there's lots of rigs working down there now, on the Scotia Shelf, thanks to the petroleum incentive payment system, for all it's worth, it has accomplished that. And we're learning a great deal more about the geology down there, but of course, at that time, this was very much a new area and there were a lot of questions that weren't answered and we were struggling with them.

#222 Nadine: Were you travelling a lot between Calgary and these places at the time?

Ed: Well a fair amount. We still had all the Western Canadian production to look after and we were running the whole thing out of Calgary. Subsequent to my departure from Mobil in late '82, they split the organization and set up the Eastern Division which they run out of Toronto and the Western Division which they run out of Calgary. Certainly it was a very heavy load.

Nadine: When you were Vice-President at the time, the President was Arnie Nielson and then when he left Mobil sought a court order. What did you think about that?

Ed: Yes, what happened was, in actual fact, what occurred, was Superior Oil Co. in the United States, hired a man away from Mobil, whose name was C.L. Barney, who had been here in Canada. Charlie Barney was a very aggressive and tough minded production man. Mr. Keck??? who owned a good percentage of the stock, and literally controlled Superior Oil Co. in the U.S., decided he needed some talent, so having hired Barney away from Mobil, Barney then started to hire all his friends out of Mobil. And he could offer them considerably more money than Mobil was paying, so

#244 Nadine: So the competition was on.

Ed: There was a great shift of talent out of Mobil into Superior. It so happened at that time that Mobil wanted Arnie Nielson to move down to New York and Arnie had some real genuine family problems, his wife had just died and we knew Arnie very well and his wife. . . . , it was a tough time for Arnie. So he declined the honour of going to New York to run Mobil's world wide exploration. That was the job they wanted him down there for. And he got so much pressure from New York, I think, to move down there, that all of the time Mobil had been pressuring him to move to New York, Mr. Keck had been pressuring him to join Superior Oil Co. and run Canadian Superior here in Canada. I think Keck's impressions of Arnie must have been very favourable because I think what really happened was he kept raising the ante as Arnie was saying no.

Nadine: And the salary really. . . .

Ed: And the salary went up and his negotiating position improved. Anyway when Arnie finally decided he couldn't go along with New York on the move down there, he had an immediate jump over to Superior all set up and he took the opportunity and left, much to his own advantage financially and in some other ways. Now at this date, we now know, as of March of 1984, that Superior Oil Co. shares in the United States, Mobil has acquired some 20% of them from the Keck family and it looks like they're going to make a run at taking over, both Superior and Canadian Superior. So that I'm sure that Arnie will have the opportunity of either getting back in the fold or taking some sort of golden handshake. My estimate is he'll probably take the latter.

#275 Nadine: And when he left, was he replaced by D.G. Little?

Ed: Yes, Dorington G. Little. Dory Little is an American who had an exploration background and spent a great deal of time in the Middle East. In his early days I think he worked in Abyssinia but he was principally a foreign operator, ultimately wound up as manager in Indonesia, where he made something of an enviable reputation I think, in his ability to deal with the Indonesians. Mobil had developed a very prolific, magnificent gas field in Indonesia that contained something in excess of twenty-five trillion cubic feet of gas and Dory Little participated in negotiations with the Indonesian government to liquify this gas. Built a tremendous big plant to liquify a billion cubic feet per day and to export it to Japan. As of today I think they've just expanded the plant to about a billion and a half cubic feet per day and I think there's about, somewhere between 7 and 10 LNG tankers running constantly, moving LNG out of this plant to Japan. Mobil was getting the liquids out of the operation which amounted to about 100,000 barrels a day of condensun??? which was very nice refinery feed stock for their Singapore refinery. And it was a very, very profitable deal and Dory Little is a very capable government level negotiator. Of course, at the time he came here, well it was known that there were delicate negotiations to be carried on with the federal government and the governments of Newfoundland and Nova Scotia and this was Dory Little's principal interest and activity. Shortly after I left Mobil. . . , well shortly after Dory Little left, Bill Mason came back, he replaced Dory Little, and the office was moved to Toronto and I decided that I hadn't left anything in Toronto that I really wanted to go down there for.

#313 Nadine: So you retired?

Ed: Yes, at that juncture.

Nadine: That was in '82?

Ed: '82, late '82, I left the company. I enjoyed my 32 years with Mobil. It was very interesting and challenging. I came into the business as a roughneck just out of the services after World War II and stayed with Mobil for most of that time until I was number 2 man when I left them.

Nadine: Then your whole career was with Mobil?

Ed: So I spent essentially, 32 years with Mobil. I guess one interesting way to look at it is that, in the production department at least, I was number two man when I came in

and I was number two in the whole deal when I left. The only difference was, when I came there was perhaps twenty people in the company and when I left there was probably 1,500

Nadine: This is the end of the tape.

Tape 2 Side 2

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Tape 3 Side 1

Nadine: Mr. Barroll, you retired in 1982, what then did you do?

Ed: Well shortly before my retirement I contemplated my options, which were to genuinely retire in totality and otherwise to make use of the experience that I had gained in the last decade prior to retirement. I thought that my position with Mobil had been a rather unique one, being Exploration and Production Manager, particularly relative to East Coast operations. And of course, Mobil was the only company that did operate commercial production on the East Coast of Canada. About this time, the National Energy Policy started subsidizing East Coast drilling, the Petroleum Incentive Administration Program had recently gone into effect. The policy was to inject a number of Canadian companies into frontier areas to the maximum extent possible and to replace major companies. This did make my experience valuable to certain companies who were attempting to use the East Coast and I wound up doing consulting work with a number of them.

#016 Nadine: Can you compare the training of the oil people in your time to what it is nowadays?

Ed: Well, very easily I think. When we look back in the post World War II period, you have to recognize that, to a degree, oil field was. . . , well to a certain extent, in its infancy. In those times there were no computers, so that, while most of the current knowledge concerning reservoir performance and a certain amount of drilling performance was relatively well understood, we had very few tools to quantify measurements and this sort of thing. As a consequence, we did depend a good deal more, I suppose, on hand calculations, on shall we say, feel, and on general experience and analogy was situational analogy. Of course, with the shortage of people and as a consequence of World War II, there were very few experienced people around. There had been losses during the war and a hiatus of perhaps 5 or 6 years in oil field experience to be made up. I think in this context, we have to remember that the 30's or preceding World War II were time of very little industrial and oil field activity. So really there was a great deficit to be made up and those of us who did choose to educate ourselves as best we could and even many who didn't leapt into the gap and did what they could to fulfill the effort needed by an expanding petroleum economy, which of course, at boom time, after Leduc and immediately post World War II, caused. Were we well trained? In one way we were. I

think in those days, it was much more common for people to come up from the rig floor and as a consequence they had a good background of understanding of the work that had to be done in the field and it was very much hands on type of experience. So that when we did come to take over an operation, we did it with a certain measure of confidence that we knew as much as anybody else probably, and that we'd seen a good deal of it done before. Nowadays, there's a great tendency to train young people to almost executive positions, and in fact the industry is oriented that way. Whereas we used to deal directly with drilling and producing oil and gas in a very direct sense, that was our work. All of the governmental regulations as related to royalties, taxes, economics, all of these things were a subsequent development. Now it's my feeling that younger men graduating nowadays, certainly have a much better education. There are more people looking for a lesser number of good jobs. Much of what they do is essentially non-productive, in other words, it's conforming with a rather complicated system. A fiscal system, management system, and so on. In the old days, pretty much, when we wanted to drill a well, we got our drilling license which was pretty straight forward, we went out and made a deal with the landowner and we drilled the well. Period. End of discussion. Nowadays, my goodness, there's a necessity to obtain permits from all directions, a great deal of paperwork, a great deal of planning. Everything is analyzed to death before it's done. In dealing with all of these minor abstrusities, a great deal of manpower is utilized and perhaps from my point of view, to a degree, wasted.

#059 Nadine: You have seen the ups and downs of the oil patch, you have been a witness to that.

Ed: Yes, that's true. The vantage point of a major company where I've spent most of my career is not a particularly good place to view this from. There were the hiring splurges and the lay-offs that occurred as the industry waxed and waned and this fell to us major companies. However, the bigger companies maintained an even keel. They have the inertia of large resources and probably a good slate of production behind them so they tend to plow ahead through thick and thin. The little fellows are the ones who have more to gain and lose in the cycles of the industry. It's rather amusing in a way, to find that there's a great deal of luck involved in people who I've known to be very successful financially, in particular where they stood at certain times. I've known very, very capable men who've decided they were going to have a shot at it on their own and jumped out into industry and their timing was terrible and they happened to hit a time when you couldn't finance anything because there were rather depressed conditions in the industry. Conversely I've known fellows who were very lacking in capability and who were fortuitously laid off by companies in a slack period and have had to go into business for themselves and their timing has been tremendous and with a little bit of luck and energy, some of these people have become very rich.

#081 Nadine: What do you think of the National Energy Program?

Ed: Well, as a Canadian who worked for an American company most of my career, both here and in other parts of the world I have very mixed feelings about it. I do think

that in concept, there's scarcely any country in the world that doesn't very carefully look after their source of energy supply as they properly should. It's the mainspring of our economies and is very significant to the population of any country. The fact that . . . , it was terribly unfortunate, during post World War II, when Canada and Canadian financial institutions should have been investing money in the oil industry, very ,very few of them did. The American major companies filled the gap. They came in, in fact during the war and filed on a lot of land, and got good land positions and undertook some wildcat drilling programs. I would say that a company that lined up a good land position in the 40's and 50's are still the top companies today. And you can look right across the board and you can see them, they're Exxon, Texaco, Mobil, Chevron, Gulf, so on. All of these companies came in during that era and did put their money up front. I guess that the way I look at it, is that most of them have enjoyed a rather good financial position in Canada for 30 years. Whether you can now justify curtailing their opportunities in the future, by limiting subsidization to them, I feel it quite fair and within the priorities of the Canadian government. It seems to me that the citizens of Canada perhaps, should have financed activities in their own country in a different manner, more directly, through the stock market and through personal involvement. But I think our economy in Canada and the fact that all of our mineral rights are controlled by the Crown, has in fact played into the hands of the foreign investor because they made a very big game out of it. A company could line up a tremendous land spread and hold it if they had the wealth and the backing to do it. And most of the Canadian companies didn't and of course, the companies that came in with the capital did reap the tremendous economic benefits of their investments. I think the sad thing about the National Energy Policy is that it got into the hands of theorists in Ottawa who fundamentally didn't understand the oil business or the way the oil business works. These theorists created some terrible problems and it's rather amusing to look back at the early 70's, when some of them made the mistake of publishing their forecasts on the basis of all of their economic planning. The fact is of course, subsequent events proved that they were about 180 degrees out in most of their forecasts and as a consequence, their planning resulted in terrible blunders and waste and this combined with the political input from Ottawa that doesn't relate to good business sense, the purely political decisions that were made, combined to make a real mess of things and it's cost the Canadian taxpayer a great deal of money that was all wasted. For instance, subsidization, because of the fear of being accused of favouring any particular party, they tend to subsidize oil wells on precisely the same basis. And of course, this is a stupid way to spend money. It's just as easy to get a pit grant for the absolute worst wildcat prospect in Canada, just as easy to get one for that prospect as it is to get one for the best prospect in Canada. Now companies, and anyone with any intelligence, in fact, doesn't spend their money this way. What they do is they take their best shot and they drill it first. However because there's no selectivity in the federal government system, the way it's administered, there's just a tremendous amount of money that's actually wasted on very long shots. The reason people are drilling these long shots, a) is because the administration of federal land demands that they drill the long shots and b) that they're 80% subsidized, so people are prepared to take a tremendous amount of chances. Of course the after tax consequences to

a taxable Canadian corporation are rather minimal. And this tends to aggravate the problem. This is a subject that could be dealt with at great length. Perhaps I've touched on the more obvious elements of it. But I really think there is a good argument for a certain amount of government involvement in the oil industry for the benefit of Canadians. It's unfortunate that we built so many complexities, both political and regulatory, into our system that we in effect. . . .

#153 Nadine: Make things very difficult.

Ed: Make things difficult and tie up our industry. It's just like the income tax system, we've got a tremendous amount of intelligence and effort going into attempting to resolve and find our way through these thickets in the jungle that we create ourselves.

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

Ed: Well, I don't believe in Western Canada, there are any . . . , there is a significant volume of big oil reservoirs remaining to be discovered. I think there will be a good deal of oil still found but it will be in small accumulations and I think probably, the type of accumulations that are hard to identify technologically. By that I'm referring to, perhaps, porosity, faces??? change in certain formations that will permit local accumulations of oil. Porosity pinchouts???. But the major structural things in the foothills, the major reefs, all of these things, I believe have been largely discovered. As to the frontiers, I think there's a lot of oil to be discovered out there but, I'm very much afraid that much of it is going to be very high cost crude oil.

#173 Nadine: Can we talk about the contribution of the oil patch of Alberta to the development of the Canadian industry?

Ed: I suppose in general terms we can. If you look around the world today and you see countries that have some degree of economic comfort, almost without exception, they are countries that are pretty largely self-sustaining in so far as their energy requirements are concerned. We've seen the consequences for the Third World countries when crude oil became so expensive that fuel and energy for the industrial system and transportation systems of these Third World countries, they could no longer afford to pay for it. Fundamentally, a country with a good energy position is pretty well off. The livid example today, of course, is some of the Arab countries. If they don't spend it on a war, they've got lots of money. Norway has a small population, tremendous oil production, they're embarrassed with wealth. They're more concerned about the sociological aspect of wealth than they are maintaining their population. Britain is a horrible example of a country that is self-sustaining in energy and yet has managed to run their industrial infrastructure into the ground and create such tremendous social imbalances, or at least keep them perhaps, that they still have problems. If we take a look at Britain and assume that they hadn't found the oil in the North Sea and the gas in the North Sea, which was the situation that obtained at the end of World War II, it's absolutely just shocking to think of what the decline of the British Isles might have been without this revenue. Certainly they would be worse off than Sicilians.

#201 Nadine: Mr. Barroll, who was the most influential person in your career, was it one person or several?

Ed: Well, naturally, it was several, and I might even say many. I think any intelligent being would have to say that they've learned something, or at least had the ability to learn something from several. I think all of us have our formative years though and perhaps some personalities are painted in brighter colours than others depending on the situation that we find them in. I suppose one man that I found particularly influential is an old timer in Alberta called Sandy Addison. I rough necked on some of his rigs that he was a tool pusher for General Petroleums right after World War II. Sandy was an old cable tool driller and a man without too much education but he was I think, a giant among men in so far as leadership and ability to get willing work out of people was concerned. He certainly set an example for a great number of young men of my time and we all look back very fondly on him. I've talked to several of my compatriots about this and we all have the same feeling about him. In appearance he was a man of about middle height, but tremendously husky and thick shouldered and chest and rather heavy features and startlingly bright blue eyes as I recall. He had a very strong voice and he used lots of decibels sometimes. It's a management technique that's frowned on these days but he seemed to use it effectively. He was very demanding of men who worked for him and I think became a father figure to many of us. He was a very human man and yet he had, I think a great deal of intelligence the way he treated people and worked people. He was always very much on the job himself, he wouldn't brook anyone laying back or not doing their ultimate best, both physically and mentally. I think, he had work habits and attitudes that were absolutely the best that any young man could learn. I know I certainly adopted some of the things that he set forth myself and it served me very well.

#243 Nadine: Anybody else.

Ed: I think that's the only one that I would perhaps, care to enlarge on. There were a number of people later in my career who were excellent managers and very good leaders. I've mentioned one already, Ken Joint, who was an American, from Minnesota originally. A lot of other people that I worked with and enjoyed my association with them. These were not, however, people that I would say I looked up to, in that sense. They were my peers and equals, perhaps, in many ways, and they demonstrated great attributes of intelligence, business sense, moral courage quite often and I gained a great deal from them but I think they tend to average out somehow.

#260 Nadine: What about the most exciting experiences in your career?

Ed: I think that right after World War II, when I went to work for Mobil, we were doing a lot of work drilling up new production, in various parts of Western Canada and everything was bright and brand new then. We didn't have much precedent in the oil industry and it was expanding very rapidly. People tended to do business on very much of a handshake basis.

Nadine: So it does not exist anymore?

Ed: It doesn't exist anymore. It was really nice to be in the oil business then. There

was
a feeling that you operated very much on a personal basis with people. There were some people who were known they couldn't be trusted and people who were crooks but on the other hand, there were people that you could pretty well accept at face value and if they said they were going to do something, they would do it and they would treat you fairly when it came to paying the bills. The fact that you could very often, just on the basis of a phone call, count on the fact that a man was going to go out and do a very difficult job for you without a lot of negotiation and all of this sort of thing that is necessary today.

#283 Nadine: People were more trusting.

Ed: I think they were perhaps. This is not to say that there weren't lots of rascals around too but we got to know who they were. Our business procedures of course, in those days, were much more open. When we gave a person authority, we gave them spending authority. With time and the passage of time, all that's disappeared and now, it's pretty hard for anyone to spend any money without getting five competitive bids and then he can't open the letters unless there's two people in the office to help him. Maybe this is good, maybe it's bad, but if we had a perfect society. . . ., the way I've described was a good deal more pleasant, let's put it that way.

#296 Nadine: What do you consider your achievements?

Ed: Oh, I wouldn't say that I've done anything particularly different from anyone else of my. . . , when I came into the oil business. We all more or less did similar things, we drilled up a lot of oil fields and put them on production. We were involved in an expanding industry where we learned a lot of new things ourselves as time went by and trained a lot of people and grew with expanding organizations. I think my satisfaction is having participated in this as broadly as possible, I got involved in a few blow-outs and that sort of thing that are exciting in a way. And of course, some other things that I suppose, we would call exciting that were very painful, like the loss of the Ocean Ranger, my involvement with that. I think, in a technological sense, I was part of an organization that . . . , we ran three rigs within a hundred miles of the Arctic Ocean in northern Yukon in the Eagle Plains, we built a couple of hundred miles of winter road over two mountain ranges to get in there. We set up a logistic system, where we could load supplies out of Vancouver and send them up to Skagway and over the White Pass Railroad and into the interior, into Whitehorse and the put them on a truck, truck them into the North Country there. We set this whole thing up. A couple of fellows who were involved in that, Herbie Rutz??? was one of them, Albert Tink. . . , these fellows did a lot of work in the field. Of course, we weren't fettered with too many environmental and legislative controls in those days and we could get out there and get it done and these fellows did a tremendous job. I'm very proud of that, I'm very proud of the fact that we drilled the first well in the East Coast off shore on Sable Island and set up a little amphibious operation for that

Nadine: This is the end of the tape.

Tape 3 Side 2

Ed: Mobil and Shell principally were the pioneers in the East Coast offshore drilling. I was involved in that from its inception for Mobil. It was an interesting challenge and we enjoyed that immensely. I think that relatively well sums it up.

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

Ed: Oh, yes. Obviously, I think that. . . , looking back on it, many of us. . . , we've spent our careers with major companies, because we were supported with a lot of capital, we had some very good opportunities to exercise our capabilities to the fullest. Many of us advance in an organizational sense and we were. . . , how should I put it, we had lots of money to work with. However in a personal sense, we were very much controlled by the rigours of a large organization. Before we really did anything, we were always involved in very much of a consultative process. And many people were involved in major decision making. If I had it to do over again, I think I would have, on the next go round, perhaps less modesty about my capabilities and I would search for opportunities where, perhaps there would be more freedom of action. In retrospect of course, all of us look back and we forget the problems that existed at the time and of course, looking backwards we can see some wonderful opportunities to become very rich. Whether or not we would have taken advantage of them, had we been in that position is hard to say.

#020 Nadine: Do you have any plans to retire one day completely from the oil patch, or not at all?

Ed: Oh, I think that in my particular position, one of the things that's apparent of course, and that's that people who advance to the top of the pyramid with large organizations have a tremendous amount of support from people who report to them and they have tremendous information systems, technological advice, all of this sort of thing. People don't really rise there on their own efforts and intelligence, they get a great deal of input that comes with the job. And of course, when an individual retires from that sort of position, the input is suddenly cut off, so that to a degree, we can coast on inertia for several years after our retirement and separation from our information source, but there

comes a time when it's difficult to perhaps, maintain the necessary ability to make informed decisions. And under those circumstances, I think you are better off to retreat from the scene gracefully.

#035 Nadine: After many years in the oil patch, what do you think of it?

Ed: Well, all that I can speak of is the oil patch of my era. It was great, I wouldn't imagine myself doing anything else. If I had it to do over again, I would do it again. I would certainly do a lot of things differently, of course, but the oil patch has been very, very good to a large number of us who, perhaps, if our abilities had been applied in other areas, we certainly wouldn't have lived as well as we have and we wouldn't have had the opportunity to exercise our capability to the extent that we did in the oil business. However the oil patch maintains, to a degree, it's character, regardless of change. I think people are still going to have to go into frontier areas and drill oil and gas wells and put them on production and build plants and do all of these things in the adverse climate that we have here in Canada. And I think it, of itself, builds a certain characteristic into people who are involved in this sense. However, obviously, things are a lot softer now and perhaps better than they were and the oil patch changes. I hope that we never get to the drab, grey, industrial life that we see in major plants where they're organized and unionized and all that sort of thing.

#052 Nadine: Thank you Mr. Barroll. This is the end of the interview with Ed Barroll. Mr. Barroll, I've really enjoyed interviewing you.