PETROLEUM INDUSTRY ORAL HISTORY PROJECT
TRANSCRIPT

INTERVIEWEE: John Downing

INTERVIEWER: Susan Birley

DATE: November 1983

SB: It's November 2nd, 1983, Susan Birley interviewing John Downing in his office at Elveden House. Mr. Downing I wonder if you could just first of all tell us where you were born and raised and a bit about your early background.

JD: Certainly. I was born in Vernon in British Columbia, February 14th, 1916. I lived there for 18 years and then went to work in the mines in British Columbia, specifically Copper Mountain. I attended one year at UBC and then ran out of money and went to work again in Copper Mountain and then in 1939 went to Montana School of Mines. In 1940 I came back and in '41 joined the Canadian Army, primarily overseas and spent 4 years there. I came home in 1945. . or was it '46, I'm not sure. Anyway I went back to school in 1946, Montana School of Mines and graduated in 1948 with a Bachelor of Science in Geological Engineering.

#019 SB: Was there one company that was in charge of the Copper Mountain mines?

JD: Yes, Granby Consolidated, they owned it. They were actually mining copper when copper was selling for 7 cents a pound, which is a fairly efficient operation.

SB: Is that what made you interested in geology was your start in mining?

JD: I suppose. Primarily I worked underground in Copper Mountain and the miners told me if I ever wanted to be a miner I should work in Butte, in Montana. So the only way I could get to Butte was to go to the school. So I did that and while I was there I got interested in geology, but primarily in hard rock geology.

SB: So how did you end up getting into petroleum geology?

JD: Well, I went to Yellowknife prospecting in 1948 and started working in the Giant Yellowknife Mines, again as a miner and I decided that I would try something different. So I came south, I had heard there was a lot of activity starting in the oil fields because of the Leduc discovery and looked around for a job and got a job with United Geophysical as a surveyor.

#035 SB: Do you remember who hired you or any of the other people you worked with there?

JD: I don't. The reason that I started working in the geological phase of the industry was that United Geophysical was doing some work for Bear Oil Company and Lorne Faulkner, who was head of Bear Oil Company wanted some geologists and he though I was a possible candidate and he got United Geophysical to release me to Bear Oil Company.

And that's the only reason I'm in the oil business. Lorne Faulkner unfortunately is dead now. But Bear Oil Company was designed really, to explore for oil between Leduc and the Athabasca Tar Sands. The thinking was, and this is where Ted Link came into the project, it was his theory that there was oil deposits between Leduc, which was the first discovery and the Athabasca Tar Sands. He theorized that the oil for the Athabasca Tar Sands was derived from, and migrated through, Devonian rocks. That theory is not necessarily the correct one. There are various conflicting theories now but eventually he may be right. So that company Bear Oil was formed and it was the operator for several other companies that were formed by Frank McMahon of Pacific. They acquired a lot of ground in the form of petroleum and natural gas reservations between . . .well, starting from the town of Athabasca, right up along the Athabasca River up to and beyond Fort McMurray.

#057 SB: How many different people or different crews were working on that project?

JD: There weren't that many. There was probably 4 or 5 geophysical crews and 2 or 3 geological crews.

SB: Were you on one of the crews?

JD: I was on one of the geophysical crews. It was rather interesting, we tried to. . .you know, up in that area, the land is fairly flat and quite inaccessible and so we tried to do a different method of gravity surveying. We erected huge towers, 50' high to get above the surrounding trees and had a helicopter with a gravity meter on it and it would descend down into the areas where we wanted to get readings and we'd have three towers and they'd intersect with survey instruments to where the helicopter went down and we'd take our readings that way. It didn't work but it was an attempt anyway. It was too imprecise.

SB: So what came out of all those surveys, were there any proven reserves or anything like that?

JD: The only thing that was found, other than a lot of good geological data was a few gas wells. Whether they're still producing or not, I don't know. But they found gas wells in the Cretaceous and also in the upper part of the Devonian, some were good, some were very poor. The area that they had covered quite a few fields which have now been discovered. And of course, in those days, we didn't think of the . . .for instance, the sands of the lower part of the Devonian as being productive. So it was a very good concept, it didn't pay out very well. It started the exploration in the northeastern part of Alberta.

#080 SB: And so with the geological data that you produced, were you able to say, sell it to other companies that were interested in developing an area. . like, would it have been profitable later on?

JD: Certainly the data that was discovered during that time has been used by other companies ever since. Theories have changed a bit of course. We were particularly looking for reefs of Leduc age. Since that time there have been reefs of other ages found in the same area.

SB: Were you collecting cores as well?

JD: Oh yes. Coring. . . and there were several geological parties of course, that were up in the extreme northeastern part of Alberta to map the lower part of the Devonian and the

underlying beds. One of these parties was headed by Pierre Cote, who later went with Imperial. Some were headed by I think Dr. Charles Stelk???, who was with the University of Alberta. But they did very good work and their work has formed the basis for a lot of other geological concepts. But it was a very interesting project and I think Ted Link was responsible for it, at least for the initial concept.

#098 SB: How did Ted Link get involved with Pacific?

JD: Well, Ted Link was with Imperial at the time of the Leduc discovery. I think it was in 1948 or '49 that he started to consult and Pacific asked him to join them for that type of a project.

SB: Had he started forming any companies by then?

JD: No. Ted Link didn't start forming companies until he had an association with Art Knoss???. He was hired from International Petroleum in Peru, which is an Esso subsidiary to come to Alberta to be in charge of the Bear Oil Project. He in turn hired a fellow by the name of Jack Browning, who you probably have interviewed and Jack Browning came into Bear Oil Company after I was hired but of course, he was a far senior person because he had some experience in the oil industry, I had none.

SB: Was it difficult at that time to get trained geologists and trained technical personnel?

JD: Fortunately for the geologist it was, yes, it was very difficult. There weren't any around and I think . . .well, I didn't know anything about the business at all so obviously if they hired me, they'd hire anybody. But I remember the first Alberta Society of Petroleum Geologists I went to, I think there was only 50, now of course, there's something like 1,700 or 1,800. So obviously there was quite a demand for geologists.

#122 SB: Was there any on the job training or did you just sort of pick things up as you went along?

JD: Fortunately the first well I went on was in Redwater. Pacific had just bought some land from the Crown, adjacent to one of Imperial's discoveries and I was sent out to look after the first well. Well, I hadn't seen a well, I didn't know a well from a truck or a drilling rig or anything about it at all. Fortunately there was a fellow by the name of Rod Morris that worked for Imperial. Unfortunately he died a year or so ago. But I went to see him and told him my problems and he said, I'll give you a hand. He came around and of course, he got the information too but without him I would have been lost. So with that sort of training and also training under Dr. Knoss, I was able to finally know something about the geology of the oil industry.

SB: And were there many other people working for Pacific at that time?

JD: Not too many. There was 4 or 5 geologists. We looked after a lot of wells for Pacific as well as. . .and this wasn't Pacific, this was Bear Oil, Pacific had no staff except accounting. They used the staff of Bear Oil Company as their operating arm and it also operated for other companies, which had been formed by Frank McMahon.

#142 SB: Do you remember who some of the backers were of Bear Oil or how they raised the financing for it?

JD: You know, I don't. Max Bell was one. People from New York I know had invested. Sun Ray Oil Company came in somewhere but I'm not quite sure where. I don't think Atlantic was but Sun Ray was a fairly large contributor.

SB: So Bear Oil, was it basically independent from Pacific operations of were the McMahon's involved in decisions affecting Bear Oil?

JD: Oh sure. Well, they contributed money too.

SB: And where were the offices located?

JD: In Edmonton. I can't remember the name of the building but it was a fairly old one.

SB: And did you see the McMahon's very much yourself?

JD: Oh yeah, they came around. It was all one big happy family of course, because nobody knew really what they were doing.

SB: That was probably their attitude was just, get in there and do what you can. It seems to have affected their success anyway.

JD: Oh yes. In that same period of time of course, and it's partially through Ted Link again, partially through Art Knoss and partially through a fellow by the name of Stan Slipper, they got involved with the Fort St. John area of B.C. at that time there was only one well drilled. It was called Peace River Natural Gas #8, why it was number 8 I don't know because it was the first well. At any rate, people from Bear Oil looked after that project for Pacific. And that was really the big start for Pacific. They had their well in Leduc and some wells in Redwater but Fort St. John was the one thing that really made a fairly successful company out of Pacific.

#169 SB: Were there any clues that these three geologists had theat led them to believe that it would be worth exploring up there?

JD: I think there was a bit of structure involved, they had a surface structure showing potential closure, which may or may not have been correct. At least that's where the first wells were drilled based on that premise. And as it happened there was gas there.

SB: Were they pleased about the gas, did they realize it would have any value at that time?

JD: That gas, they were able to start West Coast Transmission based on the fact that they had gas in Fort St. John and Fort St. John being in B.C., you could form a pipeline all the way to Vancouver and down south to California. So that actually was the reason for West Coast Transmission being started and I suppose you could say it's the reason there's production in B.C. now. At least that's one of the first reasons for it. The McMahon's did an awful lot of good work in financing that because really there weren't enough reserves there to finance a pipeline. But with Ted Link and Art Knoss and all the rest of them, and Charles Heatherington came in too, at that time, knowing that B.C. was a sedimentary basin, that eventually there would be enough gas found to justify a pipeline of that magnitude. And so they went ahead with it.

#195 SB: So when they did their initial gas reserve estimates, they were probably short for. . .or did they realize they would be short for what was needed?

JD: They hoped they wouldn't be short but as it happened, if they'd only had those wells in Fort St. John, they would have been short, in so far as justifying a pipeline of that

magnitude. But in any sedimentary basin, one field isn't the only field in that sedimentary basin. As you know there's hundreds more now. And Pacific discovered more of them as well as some of their associates.

SB: So do you feel that the type of company that Pacific was would have been able to survive today? Like, do you think a company could be started just on the strength of promotions and the people that are behind it?

JD: Not likely I wouldn't think. I think you have to witness the problems we're having starting a pipeline in Alaska, taking the gas from Alaska or even getting the gas and the oil from the Beaufort Sea area. There's so many different factors coming in now that I doubt very much whether, if we had the same conditions then as we have now, that West Coast Transmission Pipeline would never have been built. Probably the Trans Canada pipeline would never have been built.

#217 SB: Do you feel that Ted Link was a benefit to the company, by having them on their staff they could get more support for their ideas?

JD: No question about it. Ted went to New York with Frank McMahon and Art Knoss did. They met Charles Heatherington there and he got associated with West Coast through them so that's the reason Charles Heatherington is out here. And he's been a great asset to the industry too.

SB: With the McMahon's, did you get to know the two brothers very well?

JD: Not very well, no. We were on a hello basis.

SB: Which one was the one . . .I guess Fran was doing a lot of promoting. . .was he sort of the more influential?

JD: Oh, by far. Are they both alive now? Frank isn't, I don't know about the other one. Frank was by far the most astute and strong character of the two.

SB: George would handle the office duties mostly?

JD: I think so.

SB: Did you ever have any problems with. . .say, with Bear Oil, did they have all the money out front to begin with or did they have to continue promoting while they were operating, or did you know anything about that end of it?

JD: I didn't know anything about that, no.

SB: How long did the Bear Oil project continue?

JD: It lasted about 4 or 5 years. I didn't stay with them for that length of time, primarily because Ted Link and Art Knoss formed Link and Knoss.

#250 SB: And were they still working with Pacific at that time?

JD: No, they formed a separate company. It was in 1951, I think it was. And another chap who worked for bear Oil, Don Cook and I went with Link and Knoss. We were the workers.

SB: So what type of company was it?

JD: Geological consulting. We did well site work and wrote reports and did surface geological work up in B.C. and in the foothills of Alberta.

SB: Who were some of the clients that you were getting contracts with?

JD: There were clients all over the place. Pacific was one of them.

SB: So were there very many consulting companies starting up at that time.

JD: Not too many. There was a company called Denton and Spencer that had been around for a long time. Spy Langston was the President. They'd been around for 10 or more years which was long in those days to survive.

SB: And I guess they felt that it was more benefit to start out on their own, start their own company because there was so much, was there a lot of activity or what was their reasoning for branching off on their own?

JD: There's a lot of demand for that type of thing and for consulting in general. There seemed to be a very good opportunity to form your own public company and explore for oil and gas, which Ted Link and Art Knoss did by forming Scurry???. I think that was in 1951. The consulting company didn't work for Scurry but they worked on certain projects for them, they weren't directly employed by them. As you know, Scurry did fairly well, very well as a matter of fact. Art Knoss was primarily in charge of everything they did and they made several reasonable good discoveries. Acquired an awful lot of land which was farmed out to other people and that company is still alive as a subsidiary of Home Oil.

#295 SB: And that was their first venture into the drilling venture with Link and Knoss, was it, was Scurry?

JD: That is, in that type of approach, a public company approach, that was the first one. Ted Link didn't. . . well, he did have other ventures like that but Art Knoss was the one that really started several companies which turned out to be successful. They also got other people to start companies. Like Banff Oil is an idea of Ted Link and Art Knoss. And Banff Oil of course, eventually turned out to be an extremely profitable company. It was taken over by Aquitaine.

SB: So what was their main objective when they started up these companies, was it to go into drilling and production?

JD: To find oil and gas, primarily oil because at that time there was no market for gas. Primarily to find oil. They also incidentally, were partially responsible for Trans Canada Pipeline and then they got Delhive in the United States to investigate the possibility of a pipeline across from Alberta to eastern Canada. A chap by the name of Schultz of Delhive was here for some time and the firm of Link and Knoss prepared studies for Trans Canada Pipeline to present to the government of Canada as justification for putting in that facility. And at that time, really, there weren't enough reserves in western Canada to justify a pipeline but again, if you have a basin you know you're going to find enough reserves to justify a pipeline of that magnitude.

End of tape.

Tape 1 Side 2

#015 SB: It's November 23rd, this is the second interview with John Downing. Mr. Downing I wonder if we could just go over the story of Scurry, if you could tell us maybe how it started and what the objectives were behind it and things like that?

JD: Scurry Oil Ltd. was formed by Art Knoss with Ted Link, Spy Langston and some other chap from Wetaskiwin as the initial shareholders. It bought some land in Redwater on the western fringes of Redwater in, I believe, 1950. After that it had an underwriting with Knowles and Co. in Toronto and I think they raised something like $2 million. With that money they obtained land in Malmo and Drumheller and Carpona under the direction of Art Knoss. Art Knoss followed a procedure at that time, of just obtaining close in acreage or acreage which was on trend with some other discovery. It turned out very well for them in that they were able to make discoveries in Malmo and Drumheller as well as drilling offset wells in Redwater and Carpona or Big Valley. These wells I believe, are still in operation today, 30 some odd years after their discovery. They went on after that to acquire big blocks of land in northwestern Alberta, part of which now covers part of the Sturgeon Lake field.

#037 SB: Was that one of the more successful companies that link and Knoss established?

JD: At that time, yes. The shares came out at 20 cents and two years later they were at $5 so it was fairly successful. At the same time another company by the name of Rainbow Oil was formed by some people from Cleveland with the idea that as soon as it had some reserves and some other types of assets, it would amalgamate with Scurry. They did this, I believe that was 1952, probably '53 and so the company was then known as Scurry-Rainbow.

SB: And was that they main objective, to go out and acquire as much land as possible?

JD: Oh yes. The objective of course, as always, is to find oil and gas and to create resource assets.

SB: Did they farm out any of the land to any other companies?

JD: They farmed about 1 million acres out to Richfield and Richfield spent an awful lot of money on seismic and they drilled one well. They drilled one well which obtained oil in the Dunvegan sand. At that time, that was about 1953 and at that time it looked like it was going to be similar to the Cardium but unfortunately it hasn't proved out to be that yet.

SB: The people at Rainbow followed the same kind of strategy did they?

JD; They usually went along with Scurry on everything they did. They paid a premium to come in on Scurry's deal and eventually of course, as I mentioned they amalgamated with Scurry and formed a reasonably good company. Later on, I think it was 1956 or '57, somewhere in there, maybe even slightly earlier, they acquired a company by the name of Canadian Pipeline and the name was still known as Scurry-Rainbow but control passed to the owners of Canadian Pipeline. These owners were primarily Lawrence Morriseau??? from Red Deer and a fellow from New York and I can't remember his name.

#065 SB: It wouldn't have been Murphy, would it?

JD: No. But they then of course. . . Canadian Pipeline had a tremendous amount of freehold acreage in Saskatchewan and some of it in Manitoba. And they got it from companies like Farmers Mutual, companies along that line which had gone out and talked the farmers into giving them half their mineral rights, or selling them half their mineral rights at a fairly cheap rate. So consequently Scurry-Rainbow ended up having the mineral rights on some millions of acres in Saskatchewan. This was just before the boom hit in Saskatchewan and a lot of that land was proven productive.

SB: So with Scurry as a sort of independent, are there any reasons why it was able to succeed where others weren't? Do you think that having the expertise of people like Ted Link and Art Knoss helped a lot?

JD: Certainly that helped. The big impetus of course, was the fact that they were able to acquire a lot of land in those days, fairly cheaply. I think most companies in those days succeeded, probably for that reason, the land was very cheap and a lot of the oil hadn't been discovered.

#083 SB: I noticed in the brief there, they call it an oilman's company because they say the people that were running it also had technical background. Was that common with most of the companies?

JD: Most of the companies that were formed had technical people in them, naturally. The officers of Scurry-Rainbow were all oil people in that Langston was an engineer, Art Knoss was a Doctor of geology and Ivan Burn was a landman and had an awful lot of experience with Imperial.

SB: So Ivan Burn would have been the one who would find out where a lease was available and go out and try to track it down would he?

JD: Well I think primarily what would happen would be that you would start with a geological concept which would be supplied by Art Knoss. Then Ivan Burn would try to get the acreage. Very simple.

#095 SB: So around the same time Ted Link and Art Knoss were forming other companies, such as Cree Oil, did that start up around that time?

JD: No that was a little later. There were several other companies that were started then, Central Explorer was one, it was amalgamated into another company and I can't remember the name of it now. Petrol Oil and Gas was started through Ted Link and Art Knoss, and several other smaller companies. It wasn't until 1956 that Cree Oil was started and that was started by Link, Downing and Cook. With Ted Link was President and Don Cook and myself as the prime motivators. The only asset that Cree had was the assets of Link, Downing and Cook and all that consisted of was a few royalties. What happened was that we approached the firm of Gerdner and Co.???, which is a Toronto underwriting firm, which they had previously done some work for Great Plains and they had underwritten them for about $5 or 6 million. And we approached them with the idea of starting a company with a capitalization and $7 or 8 million to go into the oil business. And they said yes and so we went ahead with it and we finally ended up with the name

Cree Oil. We started with lots of them but Cree Oil was the one that appealed most to us. One of the largest investors in Cree was a company by the name of North Star. It had refining and a marketing system in Winnipeg and the prairie provinces. Their idea was to add an exploration unit to it as well and this was the way they did it. They came in through Cree Oil. They put up 40% of the money.

#125 SB: So did you get much production through your exploration?

JD: No we did an awful lot. . . we actually raised about $7 ½ million, most of which was debt financing, but I think there was at least $2 ½ million of equity financing. What Cree did, they took over the staff of Link, Downing and Cook and employed other geologists. Some of them were Stan Tutenam???, Clyde Mcordan??? was a big asset, Fred Halco???, Louis Fife???, Ted Fisher as an engineer and Pat Tolgert??? as a scout and Barney Middleton as a general office manager.

SB: Had some of the people come over from Scurry or from previous companies.

JD: No. That team worked together very well. I think they made a good contribution to the oil industry. Cree participated in . . .must have been at least 50 or 60 wells, primarily in Alberta but also in Saskatchewan and southern Ontario and we even participated in one well on Wreck Island and the Barrier Reef of Australia. And it acquired. . . .I've got some notes here, so I won't forget. . it acquired large acreage spreads in Alberta and Saskatchewan, the Northwest Territories, in particular the Arctic Islands. That was in 1957. In those days we thought that nothing would happen in the Arctic for 25 years and that it would be 1980 before any oil would be produced there. And now it looks like it's another 25 years. So that's the way it goes in this exploration business.

#152 SB: Did you go up into the Arctic on your own initiative or was it suggested by another group or. . ?

JD: No, we joined with . . . we put together a group as a matter of fact, of some people in the States and ourselves and I think we were the third people to file on acreage in the Arctic.

SB: Do you remember who the previous ones were?

JD: There was an outfit, Joe Hersh??? runs an outfit in Toronto, Dominion Explorers I think is what they call it, were the first ones, and Dome went in and we were I think the third and Chevron went in after us. The only ones left . . .well, Pan Arctic is the operator for many companies. Part of that acreage we had is in the Pan Arctic.

SB: I understood that you were appointed on some Arctic Regulations Board or something like that at some time, was that around then?

JD: Oh yes. Dome and ourselves formed sort of a committee to study the Arctic and what regulations should be regulated, what should be in promulgate for that type of an area. I think we had an Arctic Commission, I've forgotten, this is a long, long time ago. Because of that of course, we were very active in . . . we were also very active in the geological end of the exploration up there. The Alberta Society of Petroleum Geologists formed the first Arctic symposium. This was in 1960 I think it was and the people in Cree did a tremendous amount or work on that because they were very familiar with it. Our draftsman drafted the entire map for the Arctic, geological map. It was strictly a

compilation of course. This was in 1960 and he did a tremendous job, his name was Rudy Swenson???, I don't know where he is now.

#186 SB: did you experience much trouble in getting the legislation through?

JD: My memory is pretty blank on that, I can't recall really what happened. But we hired Cam Sproule's outfit, Sproule and Associates to do most of the work for us. And that was his start in the Arctic.

SB: And that was aerial mapping and things like that, was it?

JD: Ground mapping, ground surveys, geological surface surveys. Anyway just to carry on with Cree. I was talking about the acreage and I think by 1959 Cree had something like 150 million acres of petroleum land, which isn't nearly as much as it sounds because most of it was in Australia. We had something like 70 million acres on the Barrier Reef and another 50 million acres in the interior of Queensland.

SB: Were you invited by the Australian government to do exploration there?

JD: We weren't invited, we just went down. At that time there was a lot of companies there. It was just after we had acquired the land, Union Oil acquired some and they made a discovery. And I think it's the only one that's been made in that area and I can't think of the name of it now. They ended up with 20 or 30 wells and we did some seismic on our acreage and drilled one well on Wreck Island, as I mentioned before. I think the depth was about 2,000 feet and we got through the barrier reef and went into Myascine sediments, sand and shale. And at 2,000 feet we quit the well and that was the end of it. I don't know what's happened to that area since then. I suspect the Barrier Reef has now been made reserved land and no exploration can take place. That would be my guess. It's rather interesting that one of the first wells that Cree drilled was at the north end of the Sundre field. I think there was only one or two wells in Sundre at the time and we had purchased a 320 acre parcel for something like $270,000. We drilled it and when we got down to the productive reservoir, it was only represented by two feet of porous limestone. And the question was, should we set 9,500 feet of casing for two feet of pay. We had no idea it was connected to the reef through the main field. We decided to go ahead and set the pipe and I think about 1975, that well had produced something like 1 million barrels of oil and was still going strong. So it shows that if you're close to a field, even a small amount of pay can produce an awful lot of oil. Obviously that two feet or porous rock was a direct pipeline to the main reservoir. Then in 1958 Cree and Northstar amalgamated and the name of Northstar survived. It continued on, exploring, developing reserves in Alberta and Saskatchewan and I guess ended up with something in the order of maybe 50 oil and gas wells, primarily oil. Because that's what we were looking for in those days, there was no market for gas, which is a familiar theme today. Then in 1959 the major shareholder in Northstar died, he was Mr. Frank Manning of Halifax. His estate sold his holdings to Shell Oil, which was in control of the company. Shell then offered all the other shareholders a somewhat similar deal but not quite as good. Shell was very generous with the employees of Cree and some of the former employees of Cree are still working for Shell. So that was the end of Cree and Northstar. At the same time Shell had taken over White Rose, that was a company which had a lot of marketing stations in eastern Canada.

#268 SB: Was this part of Shell's effort to get back into western Canada do you think?

JD: No. To complete??? their marketing. That's all it was, they wanted marketing outfits and refining.

SB: So what did you do after that, did you start up another company?

JD: After that the three members of the former Link, Downing and Cook set up Link, Downing and Cook again. A lot of the people in Cree came with us, such as Clyde Mcordan and Stan Tutenam, geologists. Barney Middleton came with us. We were doing appraisals of companies and so forth. We appraised one company for Tech Corporation and they acquired it, which was Canadian Devonian and after that Tech Corporation asked us to come in and manage their oil and gas company, which was Canadian Devonian and then of course, everything became known as Tech Corporation. We stayed with them for some time and I think it was in 1963 or '64, I formed Ensign Oils and Ted Link and Don Cook formed Link and Cook. So after 15 years or so we split. I went on the company route and Ted Link and Don Cook still went into consulting. So that was the end of the Link, Downing and Cook association.

#301 SB: There were a lot of different companies that were formed in that association and before that with Link and Knoss, was there any reason for the pattern, where they would form a company and then eventually sell it and form another one.

JD: They didn't do very much selling of companies. Art Knoss did quite a bit but Ted Link and Art Knoss together didn't. Art Knoss formed, let's see if I can think of the sequence of companies. . firstly after leaving Scurry, after the Scurry Rainbow merger and the Scurry Rainbow, Canadian Pipeline merger, Art formed a company called Clintar???, which is the Swedish name for reefs. That company acquired land in Pembina and they developed oil reserves. That company, I believe, I may be mistaken here but I think that went into a company called Humber, which in turn went into Pacific. In other words Clintar was sold to Humber and Humber then was sold to Pacific Petroleum. After that Art Knoss and his brother Bill Knoss formed a company called Swain Oils??? Swain from the Swain reefs and the Great Barrier Reef you see. Art Knoss was quite taken with reefs. Scurry of course, is from Scurry Company in Texas. At that time, when Scurry was formed a tremendous reef development, oil development was carried on in Texas.

End of tape.

Tape 2 Side 1

JD: Swain did the same thing, they bought land in Pembina at reasonable rates, paying maybe 1/4 million for a half section and then drilling 2-4 wells, whichever the spacing required, putting them on production and I think they drilled 100 wells without having a dry hole. This is in Pembina of course, but in those days you could do it. They did very well and then they sold that company to Canadian Homestead. After that deal Art Knoss came in with me on Ensign. It seems to me I'm missing a couple too, but I can't really think of them, maybe I'll get back to it later on but I think Art Knoss had another company in there. However Art Knoss joined with me in Ensign. All we started with was about $250,000 in cash. We drilled wells in Manitoba to start with because it was cheap drilling. We were quite successful there in that the first well we drilled was a fairly good producer by standards in Manitoba. We followed that with about 8 more wells and so had a base from which to start with. Then went from there to Alberta, Saskatchewan and Montana. In Montana we had some fairly good success. We participated in the development in the Bear Paw Hills. We found gas in Eagle Sandstone??? which is the equivalent of Milk River in southern Alberta. But here it goes up to 150 feet thick of good porous sand. The field is controlled by faulting caused by volcanic intrusions and it's rather amazing you know, in some areas of that pool you drill through 100 or. . . as a matter of fact in one case we drilled through 1,000' of volcanic rock before getting into the producing sediments. If anybody had told me a year before that, that I would be doing that, I would say, they're crazy, it couldn't happen. But in some cases the well site would be within spitting distance of a big volcanic intrusion. Those things weren't generally recognized in those days. Eventually we had a lot of acreage in the Northwest Territories and some in the Arctic Islands, some in B.C., a lot in Montana, some in Texas and Nevada and New Mexico. We also acquired uranium, I'm sorry. Also acquired uranium privilege in Saskatchewan, Colorado, we even had a small producing uranium mine in Colorado.

#042 SB: Did you get production in all those fields or. . . ?

JD: We had production in Saskatchewan, Manitoba, Alberta, Montana, some in Texas, small amounts. But the one in Montana produced. . .when it finally went on production. . . it's rather an interesting case. When we first discovered that we were trying to sell the gas for Montana Power for 8 cents an MCF and they wouldn't buy it. Then later on, about two years later, the gas market started to pick up and we eventually wrote a contract at something like 40 cents an MCF, not with Montana Power but with another company. And of course, now, I suspect it's selling for about $3 an MCF. Then in 1970 Ensign was merged with Houston Oils and Houston had large land spreads in, primarily Saskatchewan. They didn't have a very good production base and Ensign did so it made a very good marriage. Houston had greater access to financial help from people in New York.

#060 SB: Is that where they were based?

JD: No, Houston was based in Calgary but their main financial support came from New York, from a toy manufacturer and I can't think of their name now.

SB: Do you know who the main people were in Houston, in Calgary?

JD: Yes, Mr. Al Whitehead. He'd been here for 20 years, he comes from Texas. But he was here for 20 years and he formed Houston, I think it was in about 1968 and part of that money came from Toronto but the bulk of it came from New York. The connection between Ensign and Houston was that Gerdner and Co. did an underwriting for Ensign as well as for Houston. So it looked like it was a good idea to put the two companies together. Houston was a surviving name and Roger Ball and I. . .Roger Ball incidentally, with Ensign, was one of the first members of Ensign. So that after Ensign was moved with Houston, Roger Ball and I formed a company called Polaris.

#077 SB: With Ensign, who were some of the other people that you hired, besides Roger Ball?

JD: We didn't hire anybody else. We had associations with other companies and that was the way we. . .it was just a three member company.

SB: And you just handle. . .do all the geological work and everything?

JD: Engineering and . . . Roger Ball took care of the land and all the accounting, it was a very good set-up. But after that we formed a company called Polaris. Art Knoss again was involved with us. He put up some money and of course, we put up money as well as individuals from Toronto, Vancouver and Montreal. Again we just followed the same format, acquired land and drilled some wells. We also acquired an interest in some land in the North Sea and right next to it, somebody, I've forgotten who it was, discovered some oil. That made Polaris look fairly good. It was only a 10% interest in a permit but after drilling all the wells and so forth and doing the geophysics on the land in the North Sea, which the geophysics made it look fairly good, there was a structure indicated, we sold that company to Peta Oils???, which was controlled by Bob Vanderham and Bill Poladarsky??? We took shares in Peta in exchange for shares in Polaris.

#101 SB: Did you continue with control of Polaris after that?

JD: No, that was the end of Polaris. After Polaris Roger Ball and I formed a company called Taurus, with somewhat the same group of shareholders and again, we used the same format. Acquiring land, drilling wells and working up production income. I think in 1978 we sold that company to Seagull Resources, then Roger Ball and I formed Sunburst. And that's the end of it.

SB: So you'd build up your production and everything to make it so that it would be an attractive package for somebody in a way. Can you give any figures, you know, what level of production you have to have to make it attractive?

JD: No really, it all depends. You certainly have to have some income. It depends on what you start with of course, if you only start with $100,000, if you can work up a production income of $100,000 in two years you're very lucky. By and large you have to have income and you should have some assets which have the potential for becoming quite

valuable. In other words, good wildcat land.

#122 SB: And what about your wildcatting strategy, did you usually go in near other major discoveries or did you have any special strategy there?

JD: No real special strategy except that trendology is a big thing of course, and indications of accumulations of large amounts of gas. For instance, in the tip off to the Bear Paw arch or the Tiger Ridge??? pool, which I mentioned as far as Ensign was concerned was the fact that some of the wells on the northern part of the field, or the arch, had good accumulations of gas in the Eagle sand. It just took a glance at the area to see that you were going updip to the south and therefore you should have. . .if the sedimentation was the same, you should have a chance for very good gas reserves to the south. This is what we did, rather which is what our group did. At that time we took 25% of the deal. Tri-Central or the predecessors of Tri-Central had 50%. It was that pool which caused Tri-Central to become quite a large company now. That was their first good deal. I think that company goes back to the old Turner Valley days, I think it was called turner Valley something or other. I think it has a rather interesting history.

SB: And now it's based in the States is it?

JD: It's got an awful lot of production in the States but it's still based in London, England. And they have quite a bit of acreage I think, in the North Sea. They actually went from here to Trinidad and they were known I think, as Tri-Central in Trinidad. They had some producing oil wells in Trinidad. They also owned a resort in Tobago, I think it was called the Blue Haven. Any shareholder of the predecessor of Tri-Central got a preferred rate at the Blue Haven. Whether that's still in existence or not I don't know.

SB: That's probably a good point to end it for today, thank you.