

PETROLEUM INDUSTRY ORAL HISTORY PROJECT
TRANSCRIPT

INTERVIEWEE: Clair Nabors

INTERVIEWER: Susan Birley

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SB: It's September 21st, 1983. Susan Birley interviewing Clair Nabors in his office in Calgary in the Home Oil Tower. Mr. Nabors I wonder if you'd like to start by telling us where you were born and raised and a bit about your early background?

CN: I was born in a very small rural town of Mark???, Texas, which is in the central part of Texas and I lived there for the first 5 years then we moved to a little larger town which is now a city called Waco, Texas. I spent all my school, pre-school, junior high and high school in Waco. Then I went to the University of Texas in Austin where I took mechanical engineering. You don't want any dates in here do you?

SB: Yes, dates are helpful.

CN: Graduated in Mechanical Engineering in 1935. Subsequently jobs were very difficult to find at that time, 1935, the economy was just coming out of the real Depression. There were 19 of us graduated that year and anyway I finally got a job in the late summer, after graduating in June, working for Reed Roller Bit Company in their shop with no firm promise but they indicated there might be an opening in their engineering department later on.

SB: When you were growing up was there a lot of evidence of oil activity around you?

CN: No. very little. The method of looking for and proving you had discovered oil in those days was a cable tool type of rig that companies would move onto an area and drill a well and if they found something sufficiently high pressure enough to blow the tools out of the hole then they knew that they had an oil well. It was called a gusher in those days. So I remember in the early days my father taking me to a place called Groesbeck, Texas where they had a well blow out and I saw the oil spurting out all over the ground and so forth. But otherwise it was not oriented to oil and gas during that period.

SB: So when you started for the Reed Roller Bit Company most of the wells were probably rotary were they?

CN: Yes, they were rotary by this time. But I still didn't really have any great ambition to become involved in the oil business as such. I was a mechanical engineer and I really didn't know what I wanted to do. So it was just one thing sort of led to the other as far as drifting off into the drilling contracting business which is what I have done most of my life.

#041 SB: Was the oil business seen as a big business at that time or was it just kind of borderline?

CN: It was borderline in those early days. I guess the first indication of the magnitude of the oil business is when I went to the University of Texas. There was no tuition at all but the

registration fees were \$30 a year. The reason for this was that the legislature in Texas had provided many thousands of acres of west Texas land to the University of Texas to sort of give them a basis to operate from. It subsequently discovered oil in many places on those thousands of acres so it made the University of Texas extremely wealthy. This was back then, so the idea was to provide education at the least cost for all the young people in Texas. Of course, you had to buy a few books and there were a few little lab fees and one thing and another but basically it was \$30 for the year. So that's the kind of economy it was, mostly agriculture. Where I was born it was raising cotton, lots of cotton. Since then they've gone to other types of crops. And quite a few cattle ranches in the general area. So the economy was really agricultural. Like I say, when we lived down in that area about the only time we thought about the oil fields or oil was when a well blew out. And people would drive from miles around in their new 1927 model cars or whatever it was to take a look at it.

SB: And was the exploration method very technical or was it just sort of looking for . . . I guess it was mostly wildcat wells was it? How would they decide to go and drill in an area?

CN: I really don't know too much about all the exploration tools that were available at that time but I would say they'd be very primitive and very few. Such as probably the use of surface geology more than anything else. I'm sure this is before very much seismic was used. So the geologists would take a look at what the land looks like on the surface and maybe relate that to some other wells that have been drilled in the area and decide where to drill. Being in the drilling contracting business I've always been a proponent of drilling lots of wells and not worry too much about the geology. Because if you drill enough wells you will find it and sometimes all the scientific methods, I'm not belittling them, don't really prove what there is there or what isn't there. I think at that time it was very primitive. An oil company would have a budget to drill some wells, maybe 1 or 2 or 3 or whatever it was. So they'd hire a drilling contractor or maybe they had the tools themselves, it would be cable tool rigs at that time. Go in there and drill and if the well blew out on you, well had an oil well. If it didn't, well you've got a dry hole.

#081 SB: So when you started working for Reed Roller Bit what areas were they supplying then, what fields?

CN: Actually they were well along as being a fair sized oil tool manufacturer. So they were supplying bits and other tools associated with bits, such as reamers and stabilizers and drill collars and tool joints to most all the fields that were then in existence or operating. Mostly though it would be Texas and Oklahoma, Kansas, to some extent Wyoming but also in California and that would be. . . I guess at that time they were commencing to maybe, export some of their tools overseas. I went to work in the shop as I told you and after working there about 6 weeks well they did move into the engineering department.

SB: So what was your job in engineering then?

CN: Drawing pictures, ???.

SB: Oh yes. Was it designing equipment?

CN: Working on primarily at that time I was working on ??? core drills but also bits and then

at the same time they would intersperse some of the drafting and work in the office with field trips. Go out and maybe watch some bits run, take data on their performance, such as that. But that didn't last very long there and they moved me from there to east Texas, this was right after the initial boom was over in the east Texas fields. I was there for 6 or 8 months, moved me back to Houston again and moved many other times in the next year.

SB: Was there any other major competitors at that time that were manufacturing. . . ?

CN: Hughes Tool Company was always our major competitor.

SB: Oh yes. And they were based out of California was it?

CN: No, it was Houston also. Both plants were in Houston.

SB: Oh wow. And when did Reed Roller Bit start supplying Canada?

CN: I guess maybe as early as 1937 or something. My first experience in Canada was when they moved me from Wyoming to Calgary in 1939. I was here for 2 years and it was a very small operation, there were only 19 rigs as I remember, running in Canada at the time. Most of the rigs were running in Turner Valley.

SB: And were they mostly cable tool at that time?

CN: There were some cable tool but nearly all rotary rigs. We didn't manufacture anything for cable tool, it was all rotary.

SB: Was it mostly Royalite rigs at that time or who were some of the other companies that were operating up here?

CN: Well, Ralph Will who had a company he called Drilling Contractors Ltd. He had I think, 9 rigs if I remember correctly. He was one of the biggest operators. Newell and Chandler was another contractor, Royalite did have some rigs of their own, Imperial rather. There was Snyder and Head, there were several other companies with fewer rigs, but all in all it didn't total but about 19 or something.

#126 SB: So there wasn't really, compared to where you were from in the States it must have been pretty slow moving.

CN: It was but that was great because I had plenty of time to fish and hunt. It was really wonderful in those days. Did a lot of fishing, stream fishing, fly fishing. And bird shooting in the fall, partridge and ducks. So it was a great place. The tempo was pretty slow, not having any more rigs than that. So it was a thoroughly enjoyable experience. I stayed here 2 years and was moved back. I moved back initially to Wichita Falls, Texas, which incidentally was the hottest place we ever lived. This was almost before they invented air conditioning, and it was really tough. Then from there to Oklahoma City and about this time, Pearl Harbour came along and I went in the Navy for 4 ½ years. It was after that, when I came back I went back to work for Reed for a short period of time in Tulsa as a special representative. That's when I got really interested in the contracting business. I had been on lots of rigs and done a lot of things with the rigs but never had worked for a drilling contractor. So I was offered a job working for the Parker Drilling Company of Tulsa with the express purpose that they would move me to Canada, where they were just starting up a pretty good sized operation here.

SB: Who were the owners of Parker at that time?

- CN: Gifford Parker was the principal owner. Since then his son Bob Parker has done a very fine job in developing the company. Gifford Parker is deceased and has been for quite a number of years.
- SB: And was it a very large operation in the States when you first started with it?
- CN: It was a good sized operation. I'd guess they had 50 rigs or something total. Now I would say they probably have 150 I don't really know.
- SB: So when you started with them you were originally in the States?
- CN: Yes, but that was for a short period of time in the office. More or less to get acquainted with what they were doing and trying to do. When I went to work for them I believe they had 7 rigs in Canada here, most of which had been moved, they were older type rigs that had been moved from Oklahoma to Canada. They were about the right sized rigs for drilling in Redwater and Leduc, which was the primary drilling areas at the time in Canada. By the time I actually got up here, which was in March 1949, they had 10 rigs, they had moved 3 more during the interim period. So we were operating 10 rigs scattered around, mostly around Redwater and Leduc. 1 or 2 in Pincher Creek and we had 1 or 2 in the general area of Stettler.
- #172 SB: Who were your clients at that time?
- CN: Mostly we were working for Imperial and Gulf. But we worked for all the major companies at one time or another in those days.
- SB: You mentioned Pincher Creek, that was in the foothills areas. Did you encounter a lot of difficulties in drilling in there or did you more or less know what to expect?
- CN: Initially when Parker Drilling Company first started operating in the Pincher Creek area it would have been about 1947, quite a while before I came up here. And yes, operating in the foothills where the formations are hard and where they are tilted is a much more complex drilling problem than it is on the prairies like Redwater and Leduc were. But they drilled the wells and did a good job of it and discovered Pincher Creek. Then Parker, this was before I went to work for them moved a second rig in there so they had 2 rigs running down there for awhile.
- SB: And who else was working for Parker in Canada when you started up with them?
- CN: Hull??? Taylor who was a drilling superintendent and who subsequently, after I took over the company, became Vice-President in charge of drilling for the new company. There was quite a number of other Americans. At the time Parker moved in here most of the superintendents and many of the tool pushers and drillers came with the rigs when the rigs were moved from Oklahoma to Canada. So quite a number of Americans were here.
- SB: And did they find the weather in the winter was all right or. . .?
- CN: It was very, very difficult. Trying to operate in places like Redwater and Leduc in the winter time was very difficult just due to the fact that the rigs were not insulated or heated nearly as well as they are today. They had a steam boiler to provide the heat but nevertheless it was not really adequate and we had many problems. Frozen mud lines and frozen water lines so it was not easy and it wasn't easy on the crews. The roads between Edmonton and Redwater were extremely primitive at that time and we would get a big rain or melting snow it would become almost impossible to get a car over them just

because of the mud. At the time we were trying to work all these rigs and despite the fact that we had quite a few Americans who did know how to rig a rig up and how to drill a hole in the ground we had to introduce and train Canadians because the government made it very clear. These people are in here on a temporary basis and you've got to replace them with Canadians. So we started doing that in the best way we could. Most of our material came from the farms in the adjacent area and many of these people believe it or not, couldn't drive a car. For transportation and we were basing most of them in Edmonton, to go from Edmonton to Redwater which is what, 38 miles, whatever, we had to provide transportation. So we rented a bunch of cars and this was not a total disaster because we survived but it was horribly expensive.

#233 SB: Did you lose a lot in accidents if they were learning how to drive?

CN: They were mechanically inclined, probably knew how to drive a tractor pretty well. We had some accidents yes. But mostly they were just tearing the cars up just due to the conditions of the road. But it was quite a chore to keep those rigs running, under the conditions, manpower and weather and temperature and so forth.

SB: Did you choose people from farms for any particular reason?

CN: Yes. I guess the primary reason is because they were there and they were willing and able. And they had been working hard, were used to hard work, used to working with a certain amount of machinery, like a combine or a mower, things that you have to use to operate a farm. In many instances their farm would be close by where we were going to drill so they could live at home and we wouldn't have to provide transportation for them. This kind of set a pattern that we followed for many years in that we made it a practice of hiring young farm boys that were willing to work, who needed to work, who wanted to make extra money. They would work for us during part of the year and they would go back to the farm for the harvest, they'd go back for the spring planting. But in the interim, in the dead of winter, that's when we needed them the most and they needed a job. So it worked out well over many, many years. And many of the people we have today now, maybe have sold their farm or a lot of them were buying farms and that's the reason they wanted to work. But many of them today still have farms, although they may live in the city on account of the children and so forth. But we found them the best, able and willing to work.

SB: Did you have any training program that was through your company for people that would come on?

CN: Not in a formal sense that we do today. But for instance, a driller in those early days would hire his own men. So he would feel obligated to teach them how to do their jobs. So they learned that way. In other words, a driller was usually a 5 man crew. Of course we'd have to hire the driller first but then he'd, in those days, it isn't true today, we don't do it that way today, he would hire his crew. Then he would give them the type of training that he knew he could give. In other words, how to keep from getting your toes smashed off, setting back a stand of drill pipe or how to just keep out of trouble. It wasn't till about, I imagine it was about 1950 or '51 that we started formally training our people and really take a real interest in enhancing their abilities and knowledge of what their job

was.

- #293 SB: So I guess in a way by the driller training his own people he made sure there was safety procedures followed too or that they just be aware of the dangers I guess?
- CN: Well, he would acquaint them with them. He'd usually try to teach them the right and the wrong way to perform any particular operation. Of course, this is all the subsequent more formalized training is, is just teaching them the right way to do something.
- SB: In those days I understand that the drillers were a lot more autonomous, they were kind of more in control of everything that went on on the rig and they made a lot of decisions right on the spot that today would be up to somebody higher up.
- CN: This is very true. As I say, they hired their people, they also fired their people if they couldn't do their job, and replaced them. Also they'd have, a driller could select the type of bit maybe, he was going to run in the hole. Which today, with the engineering programs that we have, he wouldn't have a chance to do that.
- SB: Are there any drillers that you had that stand out in your mind as being more colourful characters or any stories you can remember about any incidents or anything about drillers?
- CN: We've had lots of so called colourful characters. We had a tool pusher who subsequently had come up here from Oklahoma as a driller, his name was ??? Tippen, he's now deceased in Australia a few years ago. But he tore up probably more pick-up trucks for us than any other tool pusher. I made nearly all the rigs with an airplane in the early days and also ??? I'd have him or have any tool pusher pick me up at the nearest little grass strip or good meadow that I could land and take me to the rig. Invariably he'd drive on the wrong side of the road, he's just scare you to death. He had a head on collision going across I guess it was the Saskatchewan River one time, on the bridge, because he wouldn't give way. Anyway we had a lot of people that, you know, they were a little different than run of the mill people. Most of them were good people though and knew their job reasonably well.

End of tape.

Tape 1 Side 2

- SB: Can you think of any of the people that you had that stayed with the company for a long time, any of the old timers that you picked up when you first came to Canada?
- CN: I don't believe we have more than 1 or 2 left now but many of the people who were here initially, that I spoke about, like Paul Taylor for instance, have long since left the company and are living elsewhere. I believe at one time we had 9 or 10 people with 25 years experience, still with the company. Many of whom actually, maybe moved up here with some of the rigs. But a lot of them, I'd say the majority were Canadians that we hired back in the early days like, 1949, '50, '51, that stayed with us, well, some are still with the company.
- SB: So you tried to hold on to some people. When you wanted to fill a new position how

would you go about finding somebody?

CN: We believed very firmly in building from within as best we could. You can't always do this but for the most part this is what we did. We hired young ambitious young men and trained them and put them in a better position when we had such available. Our man that's still in charge of human resources here is 27 or a 30 year man I guess he is now, most of them started working on the rigs. And then moved into the office in various jobs, either maintenance or drilling superintendents. So anybody going to work for the company as a roughneck in the field would know that this company does train from within and does promote from within when they can. So if they did a good job, why, they'd have a chance at a better one if one became available. So it really worked that way.

#036 SB: When they're higher up they know how things work so they know where the problems are too I guess eh?

CN: We've had great rapport with all of our people throughout all the years. I think one thing that made all this possible was, I spent a lot of time on the rigs myself throughout all these years to visit. I'd say I'd visit every rig at least once a month. This way you get to know the people that are out there, then when somebody, say your drilling superintendent recommends somebody be put into a better position as a superintendent or a drilling engineer or whatever, you know who they are, you have a good chance of knowing what they're able to do. Then this also helps you in the relationship with your customer when they know that you have been there and seen what the operation is and whether it would be difficult or easy or whatever they're talking about. Then they have more confidence in your company to do what you say you will.

SB: When you first started up here in about 1951 what was the attitude of the people in say, Edmonton and Calgary towards the oil people, was it good or indifferent or. . . ?

CN: I've always been a great believer in the Canadian people and became, subsequently, in 1959, became a Canadian citizen myself. So we had a great relationship, our company with the people in the communities where we worked. For instance you know that if we move into a little town and our people don't pay their bills, the merchants who live there are going to give us a bad time. So we very carefully nurtured that relationship as best we could through the years. We had to live in these areas where we worked and where we drilled and so our people have got to be good citizens. And this has worked out just fine.

SB: Did you usually have camps when you'd move into an area or. . . ?

CN: Initially no, we did not have camps. Because we were working in areas where, well, again, I'll cite Redwater and Leduc where many of our people would stay in a farm house nearby or maybe even lived at home nearby where they could commute back and forth. Camps were not necessary in the early days. Then we started moving further north, we had to have camps. We were not close by a small town or not sufficient number of farms or places for us to live. So we, in the Peace River country I guess is where we first bought our first camp. I think we paid \$14,000 for it, it was a used camp. And comparing that to some of the more recent camps that we've built in Alaska, which cost around \$2 million. There was a lot of difference between the quality of the camps. It served its purpose then, same as they do today. They're just a little nicer and the food's a little better and so forth

and so on.

SB: So the early camps were probably mostly skid shacks or something like that were they?

CN: Yes, they were.

SB: And bunkhouses instead of individual rooms?

CN: Oh yes, that's right. Well, most of them as you say were kind of skid shack type of, a bunkhouse would maybe at that time, have 4 bunks in it. And maybe some of them a little more elaborate would have 2. Now the new camps would have a maximum of 2 people to a room. They're all air conditioned and heated and cooled and everything you could think about that you'd have anywhere else now. But then, ordinary kerosene stove would be the heat, it would be the normal induction type of heating. Anybody on the top bunk would be just roasting and anybody on the lower bunk would be freezing. The heat was not distributed all that great. Now it's different.

#086 SB: Did you find any difference between Calgary and Edmonton for being better sources of supply for the oil field or anything like that?

CN: There again, it depends on where you operated. But back in the beginning, at the time this all happened, that is the boom type of atmosphere prevailed Edmonton became the supply centre, machine shop centre. There still were some here in Calgary, some in other areas, like Grande Prairie, Fort St. John had their little stores. You can't have everything centralized out of one place but Edmonton was the #1 place for maintenance and supplies.

SB: When did the emphasis shift to Calgary, what made Calgary become the centre I guess, of the different companies?

CN: Well, that's not exactly what I meant when I say. . . the major centre for supplying and servicing and maintaining the drilling rigs in this country is still Edmonton, it always has been. Calgary has been the focal point of all of the head offices. In the beginning there were some head offices in Edmonton but throughout the years it gradually drifted to Calgary. This is where your customers are, this is where the Imperial and the Gulf and the California Standard companies are headquartered and you have to have a relationship with your customers if you're going to do some work for them. So it really hasn't changed that much now. These customers do have district offices in many other places but the people that you need to deal with if you're a drilling contractor such as we have been all these years, basically they're here in Calgary. Their engineering people are here. So it hasn't changed a great deal. But the centre of your business dealings, your contractual dealings, is and has always been Calgary. Mostly.

SB: So in about the mid 1950's, things were moving out of the Leduc and Redwater area and people were starting to look elsewhere. Did you find yourself moving around the province looking for. . . ?

CN: Well, yes, we'd take work wherever we could find it. Our rigs, following Redwater and Leduc, were dispersed over large areas. At this time commencing in maybe, '52 or '53, well actually earlier than that we commenced moving north. Anybody that wanted to drill a well north, we were ready, willing and able to go and try to do it for them. So we started specializing in Arctic type cold weather work. So I guess it was 1956 we moved our first

rigs to the Yukon, then we went on into the Arctic Islands a little later and a little bit later on into Alaska. So we commenced to specialize in cold weather work.

#129 SB: Who was the company in the Yukon that you were drilling for?

CN: Western Minerals which was Mr. Eric Harvie's company. We carried on that program for about 3 years I guess, about '56 to '59 or something like that.

SB: Did you have your own company working on researching new methods of dealing with the cold?

CN: Yes. Maybe not in exactly the sense that you are thinking about in that, we didn't have any big research facilities but every time we would modify a rig, every time we would build a new rig we'd incorporate all the ideas that we could accumulate amongst all the experience that we had had. As to how to heat it, how to insulate it, and how to keep out of trouble in the hole when you're drilling. You just learn mostly from having done it, that was the way we were. . . gradually the transition into better equipment, more efficient equipment was mostly just through our own experience.

SB: When you went into the Arctic Island who was that for?

CN: That was a company called Lobedus??? Oil Field, which is an offshoot of Burma Oil Company. This was on Cornwallis Island and we only actually drilled one well. We had a contract to drill 2 but after drilling the first one, it was such a disappointment to them they never really drilled the second. So we took a rig from the Edmonton area, put it on the railroad and moved it to Montreal, put it a ship and took it to the Arctic Islands, unloaded it on the beach in Cornwallis Island and subsequently, the next year, we brought it back the same route.

SB: I guess that was one of the first exploration jobs in the Arctic Islands was it?

CN: That was the second. Peter Bawden's company drilled the first one and we drilled the second one.

SB: Do you know if they were affected at all, in their decision to drill there, by Bawden. . . well, I guess Dome going up into the Arctic?

CN: Well, this is the well that Bawden was drilling for Dome, the first one.

SB: So was this company you were drilling for, were they looking at his results or did they just go up there?

CN: No. Of course, they were quite acquainted with what went on but these were on different islands. The geological formations were not necessarily similar and the working conditions were not exactly similar. The first well that Dome and Bawden drilled, it was on Melville Island and this was on an adjacent island of Cornwallis Island. So at this time you didn't have time to analyse all the things that went on in the first well in order to plan for the second one. There's not that much time in it, you had to go ahead and drill your well on whatever information you have and what your past experience has been.

#172 SB: Do you remember how deep they drilled on that well, the well that your company drilled?

CN: We only drilled about 6,000'. But we had a lost circulation problem that was very, very difficult. We could go back in there today and do it differently and better. What I mean by

lost circulation is, we were pumping huge quantities of fluid down the hole but getting nothing back. It was going out into the formation. In this instance I'm sure it was connected directly to the sea. We were only onshore about one mile from the Arctic Ocean. So we had air equipment to drill with air as well as equipment to drill with mud. We tried at one point to evacuate the hole by pumping out all of the water . . . we had a twofold problem, lost circulation was the main problem but also we were having a intrusion of water at a different depth. So by using air and jetting we were pumping I think, 1,800 gallons of fluid per minute for 2 or 3 days and it was just going over the side, running back into the sea. So we never could complete, we actually did get it as deep as they wanted it but we had a lot of problems with it.

SB: You didn't come across any zones that they thought might have been producing.

CN: No, it was a completely dry hole.

SB: So you had to bring all your supplies at one time up on the boat eh?

CN: Yes. And took them all back. Well, not all of them, obviously we consumed a lot of supplies while drilling the well.

SB: Then you had another expedition in the north as well, in Alaska?

CN: Well, yes. We drilled other wells in the Arctic Islands, Canadian Arctic in subsequent year. Banks Island for instance. And we moved into Alaska in 1963 to work for British Petroleum. We had about a 3 year contract, we drilled 7 dry holes on the north slope of Alaska. At the same time that we were undertaking this program, initially, '63 and '64, we had the only rig in that part of the north slope. Subsequently Atlantic Richfield moved in a competitor's rig and while we were still drilling for BP they drilled a discovery well at Prudhoe Bay. Then Atlantic Richfield hired us to go in and drill a well 7 miles distant from this initial discovery. The one we drilled found the producing horizon at exactly the same depth as the initial well. So it proved that we had at least a 7 mile wide oil field and that was Prudhoe Bay. Then the next year, that would have been '68, next year, '69 we drilled the first discovery well on BP's land, which they had in the same area. Not where we had been drilling initially for them, which was further west.

#228 SB: So that really sort of started the whole activity up there in the Prudhoe Bay area.

CN: Yes it did. It appeared it was going to be just a tremendous boom, so to speak. They found tremendous oil wells, 2 of them and we thought, well, next year there will be 4 or 5 rigs in here doing the same thing. However that didn't really quite come about because there was so much objection to building a pipeline to get the oil out. It took about another 3 or 4 years before they really got the pipeline approved and actually constructed. I think it was finished in 1975 or something. It was several years later before they were actually flowing oil through it.

SB: So you were supplying the rigs up there, were you supplying everything else, like the people and the transportation and. . . ?

CN: For BP initially, on the first program we came in, in '63, they wanted us to do almost all aspects of the job, which we would not do down here in this area normally. They wanted us to furnish the trucks, the tractors, and the camp and almost everything that they needed, rather than go out and hire 2 or 3 different contractors. So that's when we first

got into the trucking business because we got trucks to move that rig around. Subsequently it's grown into a pretty fair sized segment of our company, the trucking business.

SB: Where is the closest source of supply when you're up working for BP?

CN: Sometimes the closest was Edmonton, which is a couple of thousand miles away. Food and things like this we could get out of Fairbanks, Alaska. And oil, we had to take the fuel for the diesel engines and trucks, we had to take it in in barrels primarily. Then we were flying a lot of it in there in large transports, with large tanks built in and we were then putting it into these rubber bladder type of storage tanks. So we had to haul the water and haul the supplies, doing everything that had to be done for the operation.

SB: Did you have any special problems up there, like dealing with the cold conditions or anything?

CN: Well, it was just more so. You, frequently on the north slope in the winter, can have a 50 mile an hour wind at minus 50 degrees Fahrenheit, so it freezes any exposed skin just within a couple of minutes. So you have to be very careful under those conditions of wind and low temperatures. But we designed quite a number of new rigs for that area and it's not nearly the problem anymore as it was initially, to keep warm and to keep operating.

#284 SB: Are there any people that worked for the company that really made a major contribution over the years?

CN: I'd say they all have. Yes, we've had Joe Clark, who was our Vice-President in charge of drilling for many years, very innovative individual, very knowledgeable from the standpoint of drilling a well or whatever, very practical man. He came up with many new ideas about our rigs which have been incorporated over the years. And there have been lots of others that have done that.

SB: What about in the early days, like when you came up and you were working around Turner Valley, are there any people that really impressed you around that time as being kind of forward looking, where you could see that they were going to get somewhere in the oil business?

CN: Well yes, most all of those people that you encountered, not all but many of them were very innovative, hard working type of people that would get the job done some way despite what the hardships may be. So you would have to admire those people, there was quite a number of those. Even in Turner Valley in those days it wasn't a real simple operation to drill a well. At 9 or 10 thousand feet, it was a pretty difficult job. Mud problems and of course, we don't think Turner Valley is an Arctic type of environment but it can get kind of cold out there.

SB: What about Ralph Will, did you work with him very much?

CN: Oh yes, Ralph and I are great friends. We worked together, he helped me a lot. Having been in the drilling business for many more years than I, he was very helpful to me in many respects and we've been great friends, still great friends.

SB: So Parker Drilling, did it expand very much over the time that you continued working for it?

CN: What happened was, in 1952, only 3 years after I came up here, Mr. Parker, Gifford

Parker decided that the boom was over. He'd been through many ups and downs, lots of rigs running, very few rigs running, in Oklahoma and Texas and Kansas. He decided that the boom at Redwater and Leduc were over and he let me know that he might be selling the company. So this is when I, together with the help of Ralph Will for instance, found out how I might finance it and I bought Parker Drilling Company of Canada. It was at that time, it was an Oklahoma company licensed to do business in Canada. Immediately after consummating that purchase I formed a company, not to change the name, Parker Drilling Company of Canada Ltd., a Canadian company. So you know, rather than change the name and go through that procedure all we did at that time was just form a new company. But it not longer had any relationship to the Parker Drilling Company.

End of tape.

Tape 2 Side 1

SB: Okay.

CN: Well, we better start all over then.

SB: I was just asking about the beginnings of Parker Drilling in Canada and how you came to buy them?

CN: Well, the Parker Drilling Company of Canada, which was owned by G. C.. Parker, commenced, he moved up here in about 1947 and started drilling for Gulf in Pincher Creek. I moved up here in 1949 working for him and as his representative and manager. We were quite busy in Redwater and Leduc and scattered wildcats around, such as Stettler and Pincher Creek until around the latter part of 1951 at the time the drilling dropped off in Redwater and we were faced with several idle rigs. At this point we had 10. So Mr. Parker, the owner of Parker Drilling Company of Canada told me that he might be in the market to sell the company here in Canada. So I asked him what he wanted for it and he said, a million dollars. So I scurried around and talked to some of my friends and found out that I could finance a million dollars. Plus the fact that I decided to try to have an underwriting of the company and make a public company out of it, which we subsequently did. Anyway over a period of 3 or 4 months we completed all the negotiations and I bought Parker Drilling Company of Canada for a million dollars. But immediately thereafter, I had to borrow the money for an interim period from the bank, but after a very short period we were able to make a public offering of the stock and make a public company out of it. It was completely underwritten by [Oser, Hammer and Nanton]??? was the name of the company at that time. So at the conclusion of the underwriting we came out with enough money to completely pay off the indebtedness to the bank for the purchase of the company of a million dollars plus we had, something like 4 or 5 hundred thousand dollars working capital. So we started out with no debt whatsoever. So this gave us a good opportunity to continue to develop our human resources in the company and with no capital debt whatsoever, we were able to keep our rigs up and to buy a new rig every now and then over the next few years.

#033 SB: Which bank were you dealing with?

CN: Royal Bank.

SB: Were they more helpful to the oil community at that time or was there . . . ?

CN: I couldn't necessarily say that. They had been the company's banker since they first moved to Canada in '47 I guess it was, so we just kept them on and never changed banks. Still do business with the same bank.

SB: Was the political climate encouraging to people who wanted to form their own drilling companies at that time?

CN: Well the political situation here was such that any kind of enterprise was looked upon with favour and we certainly didn't have any stumbling blocks put in our path. E. C. Manning was the Premier of Alberta and he operated about the best government I've ever lived under. Free enterprise was the way to go in those days. Not the same as it is today. So the political climate was excellent but it was still free enterprise, you had to do it on your own. You had to provide a good service if you were going to sell something, or a good product. So this is what we set about trying to do, is to do a little bit better job than the next drilling contractor with the idea of developing some real fine clients, like all the major oil companies, like Imperial and Gulf and California Standard and Western Minerals.

SB: Did you change the company policy much when you took over the Canadian part or did it carry on much the same as before?

CN: Actually it has to change some. But not a great deal, we kept everybody on who wanted to stay as far as people are concerned. As I probably mentioned to you at an earlier time, we, at one time, during the early part of Redwater particularly we had to bring in a great many drillers and rig supervisors from Oklahoma and Kansas and places like that. Those Americans were welcome to stay as long as they wanted to but they came up here on a temporary basis and they gradually all went back home. So we had to develop our own people but this was a gradual process, and it worked out just fine and I think I mentioned to you also, we obtained a great many of our personnel from ranches and farms. We were busiest in the winter when the farmer is the least busy so they could work on the farm in the spring and fall and spend their winters in the oil field. A lot of them were able to buy their farms and places by doing this.

SB: The American workers, did they have to spend so much time in the States and so much time in Canada to satisfy the government or anything?

CN: Not at that time, they came up here on a temporary permit. There may have been a few of them as a landed immigrant but most of them were on a temporary permit obtained by the company. So they had a definite period of time, like 6 months or a year. You could get it extended from time to time.

SB: Was there much of a change in the style of drilling, like I know there's a California style of drilling and Oklahoma style. Did things change, was there an Alberta style of drilling as well?

CN; I know what you're saying. There was a difference between the way a California operator conducted his operations and a difference in the type of equipment, how it was rigged up than the people in Oklahoma did. But basically it was all the same thing, it was rotary

type of drilling. So I would say that our techniques and the way in which we operated was similar to Oklahoma's. Because this is where nearly all the people and all the equipment came from. Basically they were not too different.

#083 SB: So just the fact, maybe some of the procedures or something like that, eh?

CN: Well, for instance, the way they racked the pipe in the derrick was different in California than it was in Oklahoma, it's not that way anymore. This was a long time ago. They thought that they knew how to do it better in California and the people in Oklahoma thought they knew how to do it.

SB: Oh yes. And did they have to make any changes to the procedure due to the climate, you know, dealing with the cold up here, ice and snow on the rigs?

CN: Yes. The rigs that we brought up from Oklahoma were certainly not equipped with boilers for instance and a way to keep them thawed out and to provide some shelter for the people who work on the rigs. But gradually we had to learn to do this, from time to time and year to year we learned how to do it better. In the beginning we'd go out here and buy a small boiler from somebody and put some steam heaters around the rig and thaw the boiler with coal. That was the normal way to do it in the early years. Then a little bit later on we started firing those boilers with oil. Of course now, we still have boilers but we use boilers mostly now for a different purpose, we use it for blowing out lines and to provide supplemental heat. We have air heaters as well now. So it's been a great improvement, a great transition but in the early years here, you didn't operate . . . the climate was bad in a few days of the year. But nothing like, you know, we've had to learn how to live with in the Arctic, where it could get quite a bit colder for a lot longer period of time.

SB: And eventually you ended up forming your own company again, Nabors Drilling, could you. . . ?

CN: No that was the same company.

SB: Oh, I see.

CN; You see, when we bought, in 1952, when we bought out Parker Drilling Company here we bought the name, we bought the whole company, everything. All the assets, and good will, whatever it may be, in the name. Anyway, we operated it as Parker Drilling Company of Canada Ltd. for several years. That was in 1952, in 1956 why we formed a company in Alaska. Since we couldn't use the name Parker Drilling Company back in the United States, due to the fact that the Parker Drilling Company with which we had been initially associated still operated in the United States and they didn't want us to use the name in Alaska. So we named the company in Alaska, Nabors Alaska Drilling Inc. So that's when we first started using the name Nabors. Even though Parker Drilling Company of Canada Ltd., the Canadian company who had bought Parker Drilling Company of Canada, the U.S. company, even though the Canadian company owned the American company in Alaska, we felt, after about another year that we'd change the name here in Canada. So we changed it to Nabors Drilling Ltd. and then they owned the Alaska company, Nabors Alaska Drilling. So that's the way that happened. So from 1952 on, it's been a Canadian company owned by Canadians, since 1952. Even though we used the

other name for a few years.

#129 SB: Did you still keep the public shareholders?

CN: Oh yes. It was quite a successful public company and we grew every year until I guess it was 1974 then that I sold out my share of Nabors Drilling. All the other shareholders, public shareholders eventually sold out to Anglo Energy, this was 1974 that this happened.

SB: Who were some of your major clients during that time? Were there any that you always did all the drilling for?

CN: I guess you couldn't say we did all the drilling for any company but we had many very good customers. I don't believe there's anybody that we didn't work for over all those years. Mostly major companies but not all. We did some work for some independents. Our major customers in Alaska were initially, British Petroleum and then Atlantic Richfield and then over the period since that start, which was 1956 why, we worked for Chevron, we worked for Shell, we've worked for practically all of them that have operated up there. The same thing here.

SB: Do you ever notice that any of these major companies have a distinct, say personality or a distinct style that you have to adjust to, say, in management or the way that they work with their contractors or anything?

CN: All major companies, all large companies have their distinct personalities all right and the way in which they operate is a little bit different, one from another. But basically, it's not all that different so far as your operating, drilling a well for them.

SB: Oh yes. So it doesn't really affect the way that your company is hired or carries out any of its work for them or anything like that.

CN: It's just like, in your day to day living, no doubt you have shops here in town that you prefer one over the other to buy a new dress or you prefer one grocery store over another. It's just that some major companies prefer one contractor over another. In other words, it's mostly probably associated with personalities more than anything else. We as contractors, get to know how an oil company, our customer liked for us to conduct our business and what they expect of us. So you gain a lot of confidence one in the other and so obviously you end up maybe, doing more work for one company than you will for another. On the other side of the coin, the oil company sits there and they like one contractor over another for whatever reason, maybe many reasons. Technical reasons, safety, cleanliness of your rigs and obviously one of the most important things is you've got to get the job done and do it well at the least cost to them. So it's just like some people like one make of car over another, some oil companies like one contractor better than another.

#181 SB: Is there any advice that you would give to somebody who was thinking of starting a drilling contractors or are there any things that are essential for the success of a drilling contracting firm that you've found over the years?

CN: I don't think being a drilling contractor is a whole lot different than a lot of other businesses. I think if you're going to succeed for a lot of years you've got to do a real

good job, you've got to do an honest job and you've got to develop people that can help you in your own company, that will eventually take over. You've just got to build up confidence to where your customers know that you're a responsible company and that you're going to do what you say you're going to do when you make a contract with them. So I guess if you're going to give advice to anybody, you've got to do a good job and you've got to do an honest job, something you're not ashamed of and you'll stand behind. But to be a successful drilling contractor in modern days you've got to be well financed too. You've got to be able to pay your bills, you've got to be able to carry out all your obligations, financial and otherwise. So I think a lot of companies get in trouble by being poorly financed and . . .oh, there's many facets to being a success or failure and I don't think one business differs too much from another actually.

SB: So the major change that's affected companies starting up you probably feel is the politics and how . . . or do you feel that the Canadian economy is based more on petroleum now? How do you feel that's changed over the years?

CN: Well, it certainly has changed and certainly, business has to be conducted within the Canadian general economy and the Canadian political situation. I think that what we really need is to get back to the basics of free enterprise in everything that we do here. I mean, the government to me, has interfered far too much. I think all these give away programs that are being conducted right now is bad for the country, I don't think it's good for the drilling contractors, the oil companies or anybody else. I think just back to basic free enterprise situation, the job would get done a lot better and a lot less expensive to the nation as a whole and right down to the individuals, you know. I just don't believe in the give away programs and the government operated companies. I think that a lot of people feel the same way.

#232 SB: Do you feel like there's more competition between companies now as compared to during the 1950's or has it changed very much?

CN: You mean drilling companies or oil companies?

SB: Yes, between drilling companies, say, was there, during the early 1950's say, a lot of companies just starting out and now there's still the same number of companies but. . .?

CN; Well, during the boom, I call it that when there's more work for rigs than there are rigs, then you have a boom situation. During this period of time, which occurred in about 1950 and '51 here, there was many companies commenced business. People who had a little bit of money to make a down payment on a rig for instance. So all of a sudden we had more rigs here than we had work. When this happens, and particularly when the rigs are not paid for, most of them, then you have a problem of price cutting. People who have obligated themselves to buy a rig and maybe have paid 10% down. At that time you could buy a rig for \$150-200 thousand, maybe this guy has been running a grocery store or a filling station or something. He sees this big demand for drilling rigs in Redwater and Leduc areas. He goes to one of the supply companies and puts 20 or 30 thousand or 40 thousand down to buy a rig. All of a sudden he doesn't have any work for that rig and all of a sudden he can't make the payments to the bank or to the supply company he bought the rig from. So you have a situation now where he has to try to get a job by cutting the

price and the next thing you know he's broke. So what happened there, in that period of time was that a lot of rigs were bought by various individuals that knew nothing about the drilling business. They came in and hired some of our men or somebody else's to run it for them. Next thing you know they're out of business. But this is free enterprise, you don't mind this. But for instance, many of those rigs were absorbed by somebody else. We bought 1 or 2 distressed rigs and other contractors did the same thing so eventually they were gone and you get back to a stabilized economy as far as the drilling business is concerned.

#277 SB: I guess there's nothing to stop people from trying it. Even today. . . .

CN: They have done this recently. 2 years ago when we had a more recent boom here, they were doing exactly the same thing. And I knew what they were doing, there's no way you can stop them. The banks they've got lots of money to loan, or did have then. And a lot of them, the banks have got a lot of those rigs today, many, many. In fact, they've probably got as many rigs as anybody else today.

SB: Did you find that things changed much as far as having to do things more formally. I understand a lot of business in those days was just done on word of honour, you shook hands and made an agreement and. . . ?

CN: This is right. We've moved on and drilled lots of wells and completed them before we've ever made a contract.

SB: Why do you think that had to change, was it just that there were too many people getting involved or. . . ?

CN: It's just a more sophisticated business now. It was an individual business years ago, to where as you say, I gave my word that we'd go out here and do such and so and the company I'm agreeing to agreed to pay me, I knew they were going to pay me the right amount, whatever it was, maybe work it out later and see what it really should be. Time was essential. Things have become far more sophisticated so far as accounting, cost control. Major companies have got to account for every penny that they spend and most of them have certain rules and regulations as to how they operate which means they've got to go out and put everything out to bid and take the lowest bidder and all this. So it's just a lot different business. There's no such thing as a handshake anymore, you've got to get something signed because you might have to meet the other party in a court somewhere because a lot of things happen now that never did happen before.

SB: Is that because of more competition too or people just take advantage of things more?

CN: No, I don't believe it's that at all, it's just the fact that business is just done differently now than it was then. You have to account for everything you do. You've got your auditors and the revenue department with the government and so many things that you've got to keep close books on and that's the way most of these companies operate these days, just very intricate and very sophisticated as far as projections and performance. We've got computers and we've got all the things now that we used not to have.

End of tape.

Tape 2 Side 2

- CN: Anyway I guess this is the thing we tried to do a better job of than anybody else. In any kind of business you have to figure out some little way that people will say well, there's a company that knows more about this particular thing than any other company. So we tried to do the cold weather northern work. I probably mentioned to you previously, this meant moving into areas like northern Alberta firstly, then into the Northwest Territories and then into the Arctic Islands and then Alaska and various areas where it was extremely difficult conditions to operate under. We developed equipment that would operate under those conditions. So we designed and built many of our own rigs that were designed just to do that job better than anybody else's.
- SB: I guess there's a lot of innovations and technology that you could take advantage of. You could use the latest designs or something in. . .
- CN: Well, most of them we had to do ourselves.
- SB: That's right. Most of the methods of winterizing a rig, insulating it, providing heat and to prevent freezing up and to enable people to get in and work with their hands and get rid of too many intricate rig up and tear down techniques, where you have to put things together with your hands in extreme conditions, it's not good. So we developed quick methods of assembly and disassembly. So this is what the new rigs are about mostly, is just to do those things, rig up easily and be dismantled easily and moved easily, even under extreme conditions. And at the same time, not be too intricate to where people couldn't do the job.
- #043 SB: So is the conditions for drilling in the Arctic a lot different than they are, say on the Alberta plains? Are you coming into different types of formations or any special problems there?
- CN: There are some special problems that you'll encounter from area to area and winter to summer. But basically you just have more cold weather in the north than you do in the plains of Alberta. You've got permafrost throughout all the north that you have to deal with that we didn't know how to deal with in the beginning. We didn't know how to drill it, we didn't know how to case it. All these things have to be developed. So there is a difference in locality. But now, after doing these things and developing these new techniques and new equipment, we can drill just as well just about anywhere.
- SB: Was it British American that commissioned you to make this one well, drilling rig up in the North Sea?
- CN: Yes, it was British Petroleum that you're speaking about, on rig 18-E I think.
- SB: Yes. Can you just describe, say, some of the processes that you went through in designing the rig?
- CN: Well, firstly it had to be the rig to operate under extreme cold conditions and it had to do the things I just mentioned before. You had to be able to put it together quickly and easily without too many nuts and bolts to screw together and tighten up and you had to be able to disassemble it fairly easily. And you had to be able to heat it economically, so these were the basic things you start with, then you learn how to do it. You know what the

problem is and you have to find out what the solution is. And this is what we did with 18-E. As it turned out it's been working now for almost 9 years, the same rig and it hasn't missed a day's work.

SB: On the same location?

CN: No, no, same area. All of which has been in Prudhoe Bay area, in Alaska, on the north slope of Alaska.

SB: And how many people would it take to assemble it say?

CN: Well, in Alaska where this rig is operating we operate 12 hour shifts. So we would have 2 crews on at a time, each working 12 hours. There are a lot of reasons for this that I won't go into as to why we do 12. Some of these people live a long ways away and you have to fly them in and out so they can't possibly go to work every day, say from Seattle or from Tacoma. Some of them lived far south, some of them lived in Montana you know. So you worked 12 hours a day, 7 days a week, 2 weeks in and 2 weeks out is the way most of them operate. So you'd have a basic crew on a rig of about 12, and that would be 24 people plus a camp crew so you'd have around 30-35 people in a camp all the time operating the rig. That doesn't sound like it's very efficient because we operate rigs down here with sometimes as low as 4 man crews or 5 man crews. But up there we do it a little differently, you've got to have a few extra people, you've got to have a welder and you've got to have a mechanic. You just have a few extra people to do the job, it's a little more complex to operate there.

#085 SB: I guess because of the great distance between here and there, with supplies and things like that, you can't ship things out to get repaired or . . . ?

CN: No, you have to have some extra supplies. But in the early days in Alaska this was a real problem because sometimes you had to fly everything in, it's an emergency. You might have to be flying it from Calgary or you might have to fly it from Denver or someplace, wherever you can find it, whatever you need. But now, air transport in Alaska is a daily, 2 or 3 times a day operation out of Anchorage or Fairbanks. And you know, we built up supplies that are available in Alaska, most of the things that you need. So you hardly ever shut down for anything, waiting on anything.

SB: Do you see that the Arctic is going to become a major supply, do you think it's going to be as big a field or as big an operation as Alberta was in the 50's?

CN: Yes, I do. I think many parts of the Arctic will become equally as prolific as Alberta's been. Prudhoe Bay already is and there's other sizeable fields that have been discovered, there's others that will be discovered in the Beaufort Sea, both Alaska and Canada, offshore in relatively shallow water. And of course, the new east coast operations are very sizeable and will become very important as time goes on. They are already getting into that stage.

SB: Do you think that the cost of drilling in the Arctic will go down or drilling offshore or do you think it's still going to be prohibitive in the future?

CN: It isn't prohibitive in the respect that if you really need the oil we know how to drill for it and it's been discovered in many cases, it will be discovered in many other cases in the future. But the price of oil obviously is going to have to rise with respect to the cost of

finding it and producing it. This has to happen. But right now it looks like oil is kind of stabilized as far as price is concerned so I guess we'll have to live with the price they're getting for oil now. Which means there's still a lot of places that you can find and develop oil at the present day prices of crude oil and natural gas too.

SB: What do you see coming up in the future? Once we have found most of the available sources of oil and gas, what do you see as being the major fuel that's going to be depended on for the world?

CN: Of course we already have fossil fuels. And we have nuclear energy. Of course, we've always had many other small forms of energy, water power and whatnot. In the future I don't look for us to run out of hydrocarbons, fossil fuels for a long time yet. They'll be harder to find and the price no doubt will be commensurate with the cost of finding it and developing it, producing it. But I guess it has to be a combination, in the future you've just got to live with what you have. Nuclear power plants are probably going to continue to be the next most important source of energy, after fossil fuels. But I think the last few years has been a great lesson for us in that people can conserve and they have shown this and one thing why I feel so strongly about free enterprise is, this makes them conserve. When the price. . . you know, the price has to be competitive, whatever you're trying to develop and sell. I think had we not had this so called shortage of oil and gas, brought home by the OPEC people here a few years ago we wouldn't have realized what we can do. The actual consumption of our oil and gas is going down, it's not steadily going up. This is just done, this is brought about by free enterprise, this is exactly what . . . You see some very interesting statistics in these magazines, they come out every week, Oil and Gas Journal for instance. It tells you just what the consumption is and what's happening.

#148 SB: I guess when you first started in the drilling business, was oil and gas used that much or was it as much a part of the national consumption as any other fuel? Was there any reluctance by people then to really rely on it compared to now?

CN: They've been relying on oil and gas primarily, more than anything else for many, many years. Coal comes close by but it's kind of a little more difficult to. . . a lot more environmental reasons not to burn it. I remember when I got out of university and I was looking for any kind of job I could find but I was a little reluctant to go to work in the oil and gas industry for the reason that, I had felt then and I know it's still true, that the amount of oil and gas is a very finite substance in this world. There's just so much of it and it takes so many millions and millions of years for any more to form. It's here, all we're ever going to have is here and you've got to go out and find it, it's a little hard to find, it's a little more difficult to know where it is than ever before. But that shows what I knew when I got out of school that I felt that we would maybe come to the end of that source of energy long before now. But we haven't. They're still finding good quantities of it around the world. Many, many areas. So it's not finished for a long time but I think it's timely that we started using some other sources of energy, such as the nuclear and we're going to have to start using some more coal too, there's lots of coal available.

SB: Are there any significant events in the industry that you can remember seeing and realizing that it was a new era coming in or anything like that? In the industry, when say,

- Leduc blew in or anything like that, did you feel that it was the start of something new?
- CN: No, I didn't feel it was the start of anything new as far as any events with respect to the discovery of new oil or gas in any place because it's been a continuing process, it's been something that's going on for a long time. Occasionally you find discoveries much better than maybe you have in Canada for quite awhile. But I really don't recall ever having the feeling that anything brand new had happened.
- SB: Do you feel it's still basically the same type of people that are working in the industry today, that started out in the 40's and 50's?
- CN: I don't know what you mean.
- SB: There are a lot of people that were starting their own businesses and in those days one person would do the job of say, 5 today.
- CN: I think that has changed. It takes a lot more capital to get in business now than it used to.
- #193 SB: Are there any periods in your career that you enjoyed more than others?
- CN: I certainly have enjoyed my career very much. I think that there's always been a challenge to do something a little bit better or a little differently. I feel sorry for anybody that doesn't have that or hasn't had that experience, where you feel like there is a problem to be solved, so you set about it in whatever manner you can to solve it. So it kind of keeps you interested. And keeps you digging around trying to find other ways, new ways of doing things. But it is I think, a lot more difficult for people to get into business now. To get into the drilling business. . . I guess right now you could buy rigs pretty cheap but I think it's a little more difficult now. I have a son that has an idea that he'd like to have his own business one of these days but so far he hasn't come up with anything he can afford to do
- SB: I'd like to thank you for taking the time to participate.