PETROLEUM INDUSTRY ORAL HISTORY PROJECT
TRANSCRIPT

INTERVIEWEE: Ralph Flanders

INTERVIEWER: W. J. Wood

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JW: Ralph I wonder if we could start this morning by finding out about when and where you were born and something about the background of your family?

RF: I don't know too much about the background of my family but my father and mother came up from Indiana up to Alberta in 1915, just after they got married. They worked on a farm at Crossfield I think, for a few months anyway. Then they rented a farm 2 ½ miles north of Bircham, which is the next town down the line from Beiseker. That's where I was born in 1916.

JW: What motivated them to come up from Indiana to Alberta?

RF: I think it was just the general movement of people from places where they were pretty well developed to more of a frontier area where they could get land and I suppose, adventure.

JW: Your dad ended up, Earl Flanders, I should add, ended up in the oil field business with Royalite. How did that come about do you know?

RF: In 1925 we got hailed out on the farm so we went to California, intending to move to California. When he came back to sell his farm equipment in October or November, there were 5 children in the family, when it didn't start to snow in California I guess, we all got homesick and wanted to come back up here.

JW: Where were you in California?

RF: In Downey, well, it was then 15 miles out of Los Angeles but now it's a suburb of Los Angeles. So he took the money he got from the farm and purchased the Rock Creek Lumber Co. down on the road east of Crowsnest. But he hadn't researched the title so he lost all his money. Then in the spring of, I guess, the spring of '27 there was work in Turner Valley and he knew a fellow in Turner Valley. He told him if he got some steam papers there would be work for him. So he got some books and studied up and wrote for, I guess, it was ??? glass papers. And he did get a job down there, firing boilers on a drilling rig. Shortly after that he started work on what they called the bull gang, that was labourers, carpenters, and within a short time he became the foreman. The family continued to live in Calgary until summer holidays in '29, we moved to Black Diamond.

#042 JW: So did he live down there and you were in Calgary, or did he commute?

RF: He came home every other weekend. We were pretty poor then. Then he'd started to build a house in Black Diamond and as soon as it was finished enough we could live in it then we moved down there.

JW: Was that a legitimate house or what I've heard of as shacks?

RF: It was a legitimate house eventually. When we first moved in there was just a shell with

the partitions in, the dining room, living room and bedrooms. But they were only finished on one side, studs were bare on the other and there was no ceiling. In those days the way you built a house was you got enough money to get a lot and if you could borrow some money you did, anyway, you got as much money as you could together and you framed it and got it so you could live in it. You lived in it and saved money and as you had money you kept. . .which is a lot better than the method you have now. I mean, when you finished the house you owned it. After you got the first part you had paid for, then you could borrow money to. . .but not very much, I mean, $300 would be a big loan. And we moved that house to Turner Valley in 1936, to the town site south of the gas plant and we put a basement under it and modernized it and it's still there.

JW: It is? Still being lived in?

RF: Oh yes. It's in good shape, it was a well built house.

JW: What kinds of things was your father doing for Royalite at that time?

RF: There was what's called the bull gang. They provided labour to other departments on a kind of stand-by basis. They dug cellars for drilling rigs and put the cellars in before the rig moved in. Put the concrete pedestals for the rig to be erected on. They moved things all over, they got them ready to move and then the transportation department would come and move them but they'd have the skids under and everything. They provided labour for digging out or mining the mud that was used for drilling. They used local muds at that time and it was mined just north of Turner Valley town.

JW: Was that a fairly extensive operation or just a couple of guys and a shovel or did they have a regular. . .?

RF: Oh no, he probably had, maybe 70-80 men at that time, most of the time. They built the company houses and if they had an office they built that, they had carpenters and that. And they maintained those and the offices. Anything that was used that was made of lumber around the field they did. They cleared the leases, cut the brush, cleared it and moved it off.

JW: They didn't erect the derricks though did they.

RF: No, they had a rig building contractor, named Shorty Mann, you may have heard of him. Then later, he became the . . . I don't know if he was a superintendent or a foreman but he was in charge of that so-called bull gang and the transportation department. That was into the 40's.

#088 JW: So he weathered the Depression pretty well then, didn't he?

RF: Yes, very well. Mind you, people who had worked for the company for more than 2 years were provided for.

JW: They were?

RF: I think that's one thing that always made me pretty loyal to the company. When they didn't have to they did, you know, when it wasn't law or anything, they looked after all the families. It wasn't well known but the wives of the foremen and that helped. That's how I happened to know it was done. It wasn't advertised or anything, a lot of people didn't know they did it and I don't suppose anyone who didn't work for the company knew at all. But they took care of them and they gave them work when they could get

work again. And they did it without regard to whether they were good workers or bad workers.

JW: That's very interesting. Did they give them money or food supply or just help out as they could?

RF: I think they made some deal ??? and they bought clothing and food and if you were renting I guess they must have given money, I don't know for sure. Nobody talked very much about it and they didn't go around in the daytime and flaunt it. I know my folks worked hard on it.

JW: What do you recall of growing up. . .well, you were pretty well grown up by that time, about 18, 19, but life in Turner Valley for you at that time?

RF: I was 12 when I went to Turner Valley. Let's see, I was born in 16 and we went. . . we must have went out there late '28. I think I was about 12 when I went to Turner Valley. I was in about 7th or 8th grade I guess. It was quite exciting for children. In Black Diamond for example, it didn't have the beer parlour but there was a lot of action going on with people getting drunk??? and that. It was quite exciting for kids. Like at the stampede, I remember when they had the Black Diamond Stampede, we were just on the street and the street was full, after they opened the beer parlour. And they were fighting all over, they just loved to fight, they were men and there were 2 policemen. They were trying to catch these 2 guys fighting and they'd go and put them in the back of their car and they'd go to get some more and the guys would be fighting in the car. They'd have to take them all the way to Turner Valley to put them in jail. I guess that was just after the Depression, well, no, I guess that was during the Depression. It was when we were real small kids. It was just after they opened up the Black Diamond beer parlour. I don't remember just exactly what year that was but that must have been 1930, '31, something like that. It was open before the Depression because it was closed down and boarded up part of the time during the Depression.

#129 JW: Really? You'd think that would have survived if anything would have down there.

RF: Well. . . they must have had a license, sure they did but it was closed down for awhile and boarded up during the Depression. I can remember that. We used to do things like, one day we were all on the street as kids and these fellows were on the sidewalk across the street and they were arguing about something. They took this old Hudson car, a big car, the owner of it his name was Dewey Rick. Apparently he had bet the fellow named Hepburn, who owned the candy shop there, that that car was powerful enough that he could drive it right through his shop. This was when the Black Diamond Hotel was boarded up. So he got back up on the street, his back wheels up on the board sidewalk at the hotel and he floored the car. He didn't get in very far, he got in a couple of feet, like in the doorway. Then he backed up and he took another run at it and there was a kind of drop I guess, in the foundation on the floor and his wheels dropped down there and he couldn't get going. He was there in reverse and the wheels spinning and steam and stuff coming out of the thing until the police came along. They used to think of some pretty novel ways to entertain themselves.

JW: What do you recall of your schooling, do you recall any of your classes or anything?

RF: When I first went there they only had, I think, up to grade 6 in Black Diamond. So the rest of that year I went to a school that's about a mile and a quarter east of Black Diamond. I went to school there with the Thompson boys, you've maybe heard of them, ??? boys. Mostly farm kids. Then the next year they built the Black Diamond School I guess. First we went to school . . .no, the next year we went to school in Mrs. Hovis's church, maybe you've heard of it. There was the town hall on one side of the street and then across the street on the corner, I think it was the Church of England but I'm not sure, we went to school in the week in that church. The grade 7, I guess that was the start of high school. It was in the basement and the higher grade schools were there and the lower ones were across the. . . and then they built the Black Diamond School. I think it had grade 9 and 10 in it, in one room. I went there until they built the new high school and I went up there for a year.

#167 JW: Was the church much of an influence in the community at that time?
RF: We didn't go to that church, we went to the United Church, which was in the town hall.
JW: Well, church in general.
RF: But yes, I think it was. You know, we all went to Sunday School. Of course, the minster boarded at our place. My mother, she was like that, if somebody was in trouble she'd take them in. He was . . .his name was E. J. C. Elson. He lived in Edmonton but I think he lives at [the lake]??? now. He was one of the high school teachers and the United Church minister.
JW: How did you get, it's probably obvious but how did you get started in the oilfield business or the petroleum industry in general?
RF: I left school in grade 11 and I went to work at a farm out at Hussar for about 3 or months. When I came home, we had some relatives come up from the States and I came home to kind of see them my dad told me Royalite were taking some men on. They were putting in what they called the Gerbitol??? units in the gas plant. So I went down there and got on the labour gang in the gas plant. That was in 1935. We worked there, some of us. . . you know they kept laying people off as the work went on. I was one of those able to stay on the longest I guess, one of the longest. Worked up to pretty near Christmas anyway and the job was finished then. Then I went to work at a garage in Black Diamond. It didn't pay much money, through the winter, and I took a diesel engineering course. Then the next . . .
JW: Where did you take the diesel engineering course?
RF: It was correspondence out of Chicago. Then I got a job and I ???. Then the next summer I was hired by the engineering department as a rodman. It was kind of temporary but I've never lost any time since. They taught me to. . . you see, there was no engineering schools then and work with the department, the different ones, they were all learning and they taught me everything. They taught me to survey and to draft and construction, practical engineering I guess you would call it. Because later, I was in charge of the engineering department in Edmonton at one time. But it was, because of the time, there were no graduates available at that time. The first engineering graduates came from. . . were Canadians who went down to Norman, Oklahoma and came back as petroleum engineers.

The first ones I knew of were when we were at Norman Wells in 1943, some Canadian boys, they're still around, those folks.

#220 JW: Who was in the engineering department at that time, when you were say working as a rodman?

RF: A man named Dyson Phelps, he was a civil engineer, he was the chief engineer or he was the engineer anyway. There was a fellow named Christopherson who was a surveyor, a fellow named Woodhouse who . . . he did some mapping and inventory, the same things that they taught me. Inventory and mapping and keeping track of the equipment wherever it was moved and this kind of stuff. And a fellow named Broughton who had been. . .he ran the tech school in Red Deer I believe, and he'd done many other things. He was what they called a steam engineer. And a fellow named Charlie Stuart who was a draftsman for the refinery and kept track of where everything was.

JW: Do you recall the kinds of equipment you were using, were you using an alidade and plane table?

RF: No, we did mostly transit??? work. We didn't use plane tables at all, we did all our contouring and that with transit and double block, transit and a level. You set up a transit and a level side by side. The transit locates the spots and the level to get the elevation.

JW: They weren't built in at that time?

RF: No, they were separate. You could use the transit as a level but it wasn't very accurate. You had to double turn everything and take the difference.

JW: What kinds of things were you doing then, out there, at that time?

RF: We would do survey jobs, like laying out pipelines, locating wells, locating the road, designing the road and supervising the construction of the road, laying out the lease and supervising the construction of the pits and stuff like that. We also laid out the foundation of the rig and cellar and all that. And that was done by the bull gang, my dad's gang, and laid out the foundations for the boiler houses and designed and built the buildings of the boiler houses and out buildings and stuff like that. As well as designing any of the buildings, like the superintendent's house and that kind of stuff. And we did inventory of all the . . .oh, we would locate the production batteries and shape the ground, contour the ground, pits and stuff like that. And ??? of the equipment. Then the production department had their own construction gang, they would build the batteries. We, for example, laid out and staked the pipeline from Turner Valley to the refinery in here. There were other jobs. One of the jobs that my dad had, his gang used to do, was once a week they had to go down and shut down their flare they called Half Acre and they had to go down and add a joint of pipe to the bottom of the . . .really, what they did, they had a valve box up at the top and they'd take it apart and they'd push it down, put another joint and then they'd get up again. Because it melted, it was about a 10" pipe and it would melt back about a joint a week. There was a pool of lava down under, you've maybe heard them talk about that.

#285 JW: Yes, you can see where it was today.

RF: There was a pool of lava about as big as ??? all the time.

JW: Royalite was a pretty dominant force in that area at that time, did you do any work that was of benefit to the community as well, was there a trade-off that way?

RF: Oh yes. Anything that was built, like any church, the church in Turner Valley, the bull gang really did it. But it wasn't done. . . they used to call it government work, it didn't show up on the books or anything. And I know the guys, a lot of them donated their time and that but they'd scrounge material around. The first hospital, that was one of the jobs I had, we measured it up and laid out the rooms and everything in that. That was done by the bull gang there. Any time anybody did anything, they wanted a ball diamond or anything like that, the golf course, of course, it's up on the hill but it was laid out by the company and the company maintained that for a long time. The swimming pool was down by the plant and they contributed a lot of that. A lot was volunteer labour, but the material and that. . . I don't know if they provided it all but you know.

JW: But they certainly helped.

RF: Yes. And the company knew what was going on but it wasn't . . . you know, they weren't stealing, they would get permission. I don't know how far up that permission went.

JW: Were you still living at home at that time?

RF: Yes, I lived at home till I got married in 1940.

JW: Do you recall what you were making?

RF: I started in 1935 at 50 cents an hour as a labourer in the plant. When I went to work for the engineering department, after I'd been there about 3 years and I was surveying and drafting and blueprinting and stuff like that I got a 5 cent raise, 55 cents.

#330 JW: Was that a significant raise at that time?

RF: That was kind of what a straw boss got. However, BA had a refinery down south and they paid two bits when you started. So we always figured Imperial were good pay, and they were.

JW: That's right. I'm going to turn the tape over here.

Tape 1 Side 2

JW: One other thing in that same vein I wanted to ask you, in terms of your working conditions, what day length did you work and how many days a week, did you get coffee breaks or anything along those lines?

RF: I think we worked 9 hours when we started. We worked 5 days a week because it was . . . we might have worked 5 ½. First it was 7 days a week, before I worked there, then it went to 6, then it went to 5 ½, then it went to 5. Yes, we just worked 5 days a week in the plant, anything over that was overtime.

JW: Do you recall any union movement at that time, was there any. . .?

RF: We never saw any union. I never heard, there was none that I know of.

JW: You mentioned that you were working on well site preparation and that sort of thing at that time. Was there any interesting difference between preparing a well site today for example, as opposed to doing that in Turner Valley in the 30's?

RF: When we were surveying we cut all the brush by hand. If we could see through a 2" space

we didn't cut any trees. You could drive down the road and never find a cut line. I guess at that time, we did minimum damage to anything. It wasn't until. . . the first I ever saw cats used to cut lines and that, was on the Canol project up north, at Norman Wells. When I came back here after that it was done here with seismic and stuff like that. Seismic originally was done the same way, I mean, they used pack horses and they didn't run bulldozers, I don't think, any bulldozers on seismic until after the war. Or maybe during the war. I don't know, a lot of the things that conservationists, a lot of the things, after they'd gone through the cycle, tearing everything up and started getting straightened out, were the way we did it originally. We always felt bad about the publicity we were getting, if it was over that because we didn't think it was right in the first place. And I never remember us having anybody ever questioning the cost because it was slow or something like that. It was just the right way to do things. I guess it was the kind of people that they hired that felt that way. Mostly everybody was farm people and farm backgrounds or something like that.

#038 JW: And you were living in the area too, it wasn't like you were going 300 miles up north where they. . .

RF: I don't think we acted any differently far away. That was just the way we were taught to do it, we never thought of doing it any other way.

JW: Do you think that changed at Norman Wells because they were in a hurry?

RF: I think what happened was, in the excitement of the war effort and the shortage of labour, I think that was what was felt to be necessary, because it was so much quicker. And once they got doing it that way they got doing it everywhere that way.

JW: It became the mentality.

RF: Well, there was quite a boom you know, when the oil boom started. There was a big need for money and things were done as rapidly as possible. That was used as an excuse to do it. I don't think anybody ever thought it was the best way. But it was justified in their minds by the urgency of the . . .I think that's it.

JW: You mentioned seismic a minute ago. Was there much seismic work being done in Turner Valley at that time, in the 30's, or do you recall?

RF: There was some done. Royalite used to have people come up from Carter. I wasn't involved in that. Some of it was gravitometer work and some of it was seismic. There was some because there were core drillers. . .there were crews, those crews went out on the prairies. There was not a lot of seismic done in Turner Valley, it was very hard to read. It was chopped up so bad.

JW: Your family was from Indiana and you mentioned the Carter crews coming up, what was the attitude towards Americans in Turner Valley at that time, especially Americans in the oilfield?

RF: When we first went to work all the drillers were Americans. Some of the floor people were Americans. There was no shortage of work and nobody felt they could do those things so they just seemed, you know, they got a lot of money and they were pretty flamboyant but I don't remember any resentment against them. There wasn't . . . as soon as you qualified you could have the job. It was generally understood they wouldn't be

there forever. Of course, it would take years to work up to driller. You couldn't do it, like you could later, in 2 years. I guess they didn't have any training courses and people learned by being around and in that kind of training you have to have a lot of exposure before you can be responsible. But even truck drivers, a fellow had to work as a helper, ??? trucks used to carry their own helpers. There were generally 1 or 2 with every truck. And you had to do that for 7 or 8 years before you could get to drive a truck. That's just the way it was.

#075 JW: Well, I understand that the roads were so bad down there so often that. . .

RF: No, it was nobody told anybody anything. When I first went to work my dad said, I'm going to tell you a few things. One of them was, don't ask any questions, just keep your mouth shut and somebody will ask the question, you just listen and you'll hear it. And one was, remember they're paying you for all your time so you work hard and do anything you're asked to do, because if you don't want to do it you don't have to take their money. It was just basic philosophy, that was from one of the supervisors. It wasn't bad philosophy, it worked. But if you asked questions you were ignorant. I remember one time they said to me when I was working, can you make blueprints and I said, sure, because I knew where the blueprint machine was. So they gave me some tracings and said, go and make some blueprints. So I was in there, looking this equipment all over and this fellow said to me, did you ever make any blueprints and I said, no and he showed me how to do it. So I came back with the blueprints you see. Well, I looked real smart. That was the way it worked. All of the Americans that we worked with were pretty nice guys. They didn't mind teaching you and they were nice to you. They didn't want to stay particularly because there was good jobs. . .you see, the east Texas field opened up just about the same time or shortly after. So there were a few stayed. But I don't know of any nationalistic feeling.

JW: You had, you mentioned 5 brothers and sisters.

RF: No, 4, I had 1 brother and 3 sisters.

JW: Any of them end up in the petroleum industry at all.

RF: Yes, my brother worked for Royalite and he worked for Imperial. Then about 1966 or '67, in there somewhere, he left and he started up a bottom hole outfit, bought a bottom hole truck. And things kind of dropped off at that time so it didn't do well so he went to work for the DIA, Department of Indian Affairs in Yellowknife. He took a year training here in Calgary and he's been up there ever since.

JW: What's his name?

RF: Alfred. So he was mostly the government supervisor or what do you call them, one of them, on the boat drilling on the Dome rigs, in the Beaufort. Now he goes to all the places.

#116 JW: You got married in 1940. Did you build a house at that time, or move out. . .?

RF: No. We rented a suite over, what they called the Fowler's ??? in Turner Valley, maybe you've heard of that.

JW: No.

RF: Right on the corner, it's still there. My mother passed away in 1941 and my father had 2 kids at home so we moved in with him until I went to Norman Wells. So we never. . . my wife was there, she bought a house though, about a year later, on what they call Poverty Flats. She bought that in 1944 and sold it in 1946 and doubled her money. So I haven't been the authority around that.

JW: Okay. You were with the engineering department then, weren't you, in the 40's and so forth? You had an offer to go to South America I guess, in '42?

RF: Well yes, early '42. That was with International. International was owned by Imperial. That was as a surveyor. But I didn't go, the superintendent wouldn't let me go, he said that they needed me there.

JW: Oh, in Turner Valley, they wouldn't let you.

RF: He also thought I was too small, something like that. That's what he said, I didn't agree with him but. . .

JW: Well, he wanted to hang on to you probably.

RF: I guess so. Then when the Canol project started, Walker Taylor was the head of it. He wanted to take me up to Norman Wells and they wouldn't let me go. So I thought, there's a lot going on, there's a war going on and I've never been anywhere so I'm going to join the Air Force, which I did.

JW: As what, what did you . . .?

RF: Direct Entry Corporal, as a surveyor. I was going to be a surveyor. I went through ??? and they posted all the flights, left me there. We didn't know what was going on. Then another fellow and I were posted to return to our civilian occupation and to report to the American Army. They wanted me to go to Norman Wells to work for Imperial so I went to. . .

JW: The American Army wanted you to?

RF: Imperial was on a contract with the American Army. So I guess Imperial asked for them to get me.

#154 JW: Okay, we'll talk about Norman Wells at a different time here and take a little bit of a jump then, after Norman Wells. I understand you went from the sub Arctic, or almost Arctic, down to Peru. How did that come about?

RF: I guess Colonel Lambart, he was the colonel in the American Army who Imperial reported to as the contractor, he had left and had gone to work for International Petroleum.

JW: Oh, that's an interesting. . .

RF: I don't know whether he worked with Exxon before or not. But he was in Florida, I don't know what his position was but it was a fairly high position with International. He offered me a job in Peru.

JW: Well, Colonel Lambart, who was the United States Army coordinator of the project?

RF: I guess he would be. . .I don't know what you would call him, I guess he was the manager of the project. Walker Taylor, who was the head of Imperial there, reported to Colonel Lambart.

JW: And Colonel Lambart had been an International Petroleum employee and . . .?

RF: I don't know but he'd had oilfield experience.

JW: That's interesting. Okay, so in any event, he went then to International Petroleum after the project shut down, or when his participation wound up, and asked you to go to Peru.

RF: He placed a lot of Imperial. . .you see, it was closing down, Imperial, they had a lot of men at Norman Wells. They had to let some go. They kept as many as they could. There were a lot went from there to different places in South America. Walter Dingle was one, you talked to him, he went to exploration in Lima and they were working out in the Mantagna???. I went to Tolera???.

JW: How did you get down there, what kind of a trip was that?

RF: I think I left about the 1st of May. Anyway, I had to bring my wife down and she moved in with my dad for awhile because she couldn't go for 5 months or something like that. I went to New Orleans by train.

#194 JW: From Calgary?

RF: From Calgary. That was quite a trip. I'd been to Indiana when I was little but I had never been very far out of Alberta, except to the north. Again, I didn't have any summer clothing, except some work clothes I wore up north because we didn't have any dress clothes or anything. Anyway, we had to get our Visas in New Orleans. One thing I remember about that trip was standing on sidewalk in one of the twin cities. . . Minneapolis and on the corner of the building there was a nameplate there and that building was 400 years old. I had read about things, I knew, but that was the first time I'd seen a building that was maybe over 40 years old. I was quite impressed by that. It was quite a long trip by train, I don't know how long it took. Then in New Orleans we were getting our Visa and I was really lucky. No, I went into stores in New Orleans and not only did they not have my size, I went into one store, it had only one suit. A great big clothing store. You had to have some kind of a permit to even buy anything.

JW: What year was this?

RF: That was in 1946.

JW: The war not over yet, or in May it wouldn't have been?

RF: Pretty well. The Canol project was over. This was in about the 1st of May.

JW: I guess, okay, it all wound down in '45 didn't it?

RF: Yes.

JW: That's right.

RF: But they just were short of clothing. Then I went to Balboa, which was the Pacific end of the Panama Canal and there was an Army base there.

JW: How did you get there from New Orleans?

RF: Flew. Flew with one of those. . .it had 4 engines, it had those great big Rolls Royce engines that were higher than ???, you know, the big 4 bladed props that were like a fan, they had a big wide engine. I forget what they were called. Anyway, I was lucky that it's a free port and to buy clothing there. So I bought all the clothing I would need for 3 years there.

#234 JW: You were starting to get hot with all your winter stuff weren't you?

RF: Well yes, I had a wool suit on. But I was able to buy everything. We were supposed to take a tuxedo and dress clothes and work clothes for 3 years and I had a list of this stuff. I didn't have a clue but I ran into a pretty nice guy in the clothing store, he really outfitted me pretty good. It was the right kind of clothing, I didn't have a clue. I didn't even know how to put the clothes on.

JW: Imperial wanted you to have a tuxedo down there?

RF: Yes.

JW: Why?

RF: That was the way . . . you see, it's a company camp, company buildings and everything and they had an English Club, that was just . . . you were invited to functions and you were expected to be dressed properly.

JW: So you got outfitted in Balboa and then kept on going down to. . .

RF: Yes, went down to Columbia and. . . We landed first in Costa Rica, we flew from New Orleans to Costa Rica. When I stepped out of that plane I didn't have any idea that any place in the world could be that hot. In the morning flying over Mexico the steam was just coming off the ground in the hot weather.

JW: So you were on your way to Peru, what were they going to do with you down there?

RF: I went down as a construction inspector. They were rebuilding the city of Tolera and combing the 2 cities of Nigridas??? and Tolera.

JW: International Petroleum was.

RF: International Petroleum.

JW: Why?

RF: It had got old and rotten. They were getting pretty rundown. I think it was also something to do, probably, with the Peruvian government. They probably were accusing them of maybe, I don't know, taking all the money out of the country or something. I think it was a little bit political.

JW: Were those company towns, Tolera. . .?

RF: Yes. They owned every building in town. All the tiendas???, little stores and everything. There were merchants in those tiendas but they either paid rent or they paid for them somehow. But the company owned them all and maintained them all.

JW: Looking at that situation in retrospect, it sounds somewhat of a colonial situation.

RF: That property was discovered in Pissaro's??? time. It was mined first, it was like asphalt, there was some surface stuff and it was mined. They dug wells and they brought it up and they had big wrought iron cauldrons that had been made in Spain and brought over and they fired them with wood. At that time they were all slaves. It was probably one of the most self-contained thing, the slaves had their own burrows, they did their own farming, they raised their own food, they did everything. And they worked there and they used the burrows to haul this asphalt, put it in jugs, to the shore, where they were loaded on to the sailing boats and taken over to Spain. They got it to the shore free, other than the little bit of equipment they had sent over. That was bought by an English company and the English company started to develop the oilfield. They owned all the land between 2 rivers, between the Sutura??? River and the River between Ecuador and Peru. Back to the mountains, from the shore to the mountains. Imperial Oil bought that, I don't know when.

At the time the war started it was their own country. By the time the war started the Peruvian government had moved in and laid claim to it.

#314 JW: In effect nationalizing it?

RF: They didn't nationalize it. But they said, you've got to pay taxes and we'll put our army in here and we'll run it. At the time the war started, that was before the Geneva Convention. Then the powers all got so busy with the war that that thing was dropped. So when we were there, I mean, they still owned all the town, they owned all the land. They owned all of the lands and the oil rights and everything. Then just gradually, it wasn't nationalized until 15 years ago, or something.

JW: Where was that Peruvian production going then, back up into the United States?

RF: I think most of it was. A lot of it would come up to Canada. I guess most of it came to Canada, that was exported, to Sarnia.

JW: Oh really?

RF: Montreal and Sarnia. There was a refinery there.

JW: In Tolera?

RF: Yes.

JW: So they would ship products then? That's interesting. End of the tape here.

Tape 2 Side 1

JW: Ralph, I don't want to dwell too much on Peru. Although it is interesting, it has not too much to do with the western Canadian petroleum industry, but I'm just curious to know the transition that you had to go through from the Northwest Territories, down to Peru, and how that felt then, to start working down there? And just a little bit about what you were doing?

RF: They were building a city there, it was supposed to have a population of maybe, well, there were 70,000 natives in the area and they were all in company housing but I think this city was being designed for about 50,000. One of the reasons they wanted us to go down, we had got into the American Army way of construction at Norman Wells so we had some experience with building row houses and assembly line construction. Before that a house was built, you know, one guy built a house and he built it from top to bottom. These, when we built down there, we had special crews for, like one bunch we were building, we had 22 steps. We had a different crew every day for 22 days and that crew did all they had to do on that house that day. So that we started out and we built one house and then they went to the next one and the next one and the next one. So on that first house we did all of our training. This is worth a day's labour, and then they did the same thing. So 22 days after we started the first house was finished and the next day. . . and we'd build 100 houses and it would take us about 121 days. They weren't row houses, they were 4 suite brick apartments, concrete roof. So that was just more of what we had been doing at Norman Wells. Later they came out with the other work when they put the 2 cities together. That was still one part of it but then I got back into construction for the refineries and that. I was looking after the brick layers department and the carpenters and the painters and the project, just the inspectors on the project, and the

surveyors.

JW: These were local help?

RF: Not all. Up to foremen were natives.

JW: You had to learn Spanish?

RF: Yes, I learned Spanish on the job. It didn't take long. When I got there the construction outfit was moving in and they hadn't even got any of the town site laid out. And they didn't have anybody that seemed to know how to go about it, so then they asked me if I would lay it out. So I started laying it out and that's when I learned Spanish and then the surveyors who developed it later, reported to me.

#037 JW: You mentioned, I think a minute ago, that when most people thought of somebody from Canada they thought in terms of Ontario or Sarnia at least. You mentioned there were some other Calgarians with you, do you recall who they were?

RF: Not with me but there were Calgarians there like Lou Kelly, who came from Ecuador, he was drilling superintendent. Barney, what's his name, Oilfield???, that used to have a drafting outfit here, then started his own, Middleton, Barney Middleton.

JW: That's right. He's still in business.

RF: There were more in Nigridas than there were in Tolera. Oh, Jack Bell, he's not living now. Brat Homeburg, he's in Calgary here, just retired from Gulf. That's all I can think of.

JW: When did you first hear of the discovery Imperial made at Leduc?

RF: I guess when they made it.

JW: Really, it was just electric?

RF: Yes, we heard of it right away. So that's really why I came back. While I was there, Imperial sold International Petroleum to Exxon or. . .

JW: Jersey, yes.

RF: We were told that we were not alone anymore, we were in foreign service with Jersey. Of course, we wanted to come home as soon as . . . So I eventually wrangled a transfer back up here. It took me a long time, I had to resign down there, then I went up to Toronto. Walter Taylor was the head of production in Toronto. As soon as I told him I had resigned then he said he could give me a job. Then after awhile, it was treated as a transfer and I didn't lose any seniority or anything. He sent me out to report to Don Mackenzie and they sent me to Redwater.

JW: What year was this?

RF: 1949.

JW: So it did take you awhile to get from Peru back up here.

RF: I was there 3 years. And I had 3 months holidays to take after and I had to take all them.

JW: And your wife stayed in Alberta throughout that time?

RF: No, no she went down there about 5 months after I did.

JW: Did she enjoy that experience?

RF: Not particularly. She likes to keep house herself and she's a housekeeper. The kind of people who like that are the people who don't like to keep house and who like to party. She didn't really like it. I liked it because you got fast promotions.

JW: So when Leduc #1 came in you heard about that. Do you recall how you heard?
RF: A delegation came down from New Jersey once a year at budget time to review our programs and that, and they came here. So there were people there who knew about it first hand. One fellow had slides of the exploration effort and told us. . . And it looked like oilfields from way up north of Edmonton all the way down. It was quite exciting, it looked like it was a big effort. It looked like it was bigger than International at that time.

#082 JW: Did it make the local press down there, Atlantic 3 or anything like that?
RF: No, we got it through the company. There was no English newspaper there.
JW: So you ended up in the Redwater field in 1949, in a rather hectic environment I imagine at that time. What were you sent up there to do?
RF: I went up there as, geez, I don't know what they called me. There were 3 of us, Ken Oakley and Danny Hawkhowser???, you've maybe heard of him. He's in Edmonton, he works for Wrights??? Engineering and they contract the Redwater disposal. We had the field divided up into 3 areas and in each area each of us looked after all of the getting all the easements and permits, preparing all the well sites and battery sites and supervising the well site preparation, battery construction, flow lines and everything to get the wells on production. Pump ??? and everything. All equipped and ready to go on production and then they were turned over to the production department.
JW: Did you encounter any equipment shortages then, equipment problems?
RF: There were shortages in everything. For example, we couldn't get ??? welders pipe, we had to use lap welders pipe. We couldn't get galvanized steel for our tanks, we had to use a lot of inferior material. But the Interprovincial Pipeline was under construction and we wanted to have oil ready to go into that line as soon as it came on because the company was borrowing money at that time to get out these fields. So we knew our equipment would have to be replaced but the payout on that equipment is about, less than a month. So you did it.
JW: Get her going and then. . .
RF: And it lasts for awhile, it isn't unsafe unless you keep it too long.
JW: You mentioned that you were able to complete 16 wells in 32 days?
RF: Sometimes they bought whole blocks of land in a land sale in the middle of the field so it was pre-proven. So what we would do was start out with 16 locations in a section. 4 drilling rigs on one side and the 4 of them would move together, they'd actually race. They would compete with one another. In the meantime we built the batteries and laid all the flow lines and everything, then wait till they were finished drilling and got tied up to the pipeline. And one of the them took us 32 days.

#121 JW: Were there lots of short cuts taken?
RF: No. But what we were able to do, it's kind of mass production again, we were able to do things much more efficiently, more quickly and you could give a guy a contract for 16 things rather than 1. And then, he was there all the time, he wasn't just coming in his spare to time do it and he could get organized and we told him how long he had.
JW: Do you recall who those rigs were, they were all contract rigs?

RF: The Redwater production was nearly all drilled up with, it was ??? company rig but nearly all drilled up with contract rigs. I don't remember specifically which ones were there but they were all drilling contract rigs, like Brinkerhoff and . . . I didn't work with the rigs so I don't know. We also started building the town site in Redwater.

JW: I was going to ask you that in a minute. I want to get your reaction though, first of all, when you got into the Redwater area and the frantic activity, relative to, especially, how it was, which was nothing when you left?

RF: Yes, well, I guess you were excited. You were enthusiastic, excited. We realized it was an opportunity that was going to tax us. Conditions weren't very good for construction because it was wet and muskeg and smoke all over. Have you ever heard about how that was?

JW: No, I haven't.

RF: If you started driving out, like when I first went to Redwater, I didn't have any problem. They said, go north on 97th St. and you can see the smoke. So you just stayed on the best road you could heading towards that smoke.

JW: Was this smoke from. . .?

RF: At that time, the production, all producers, burned a lot of oil. For example, when oil first comes in and it's got mud in it you know, that oil would burn. If there was wax in it and they wanted to get the wax out of the lines they just opened it wide and let it go. We built the first batteries that you couldn't do that, you had to operate without the. . .and it didn't have steam at Redwater. Now maybe other companies did but we built the first ones we knew about. That was one of our objectives was to save that oil because it was worth money. The smoke we didn't think did any damage, and I don't think it did, but it was worth money. ???

JW: You drove north, following the smoke, and you got there, what do you recall seeing when you first arrived at Redwater?

RF: Well, it was what I expected, it was almost like Norman Wells, muskeg and everything else. The town wasn't built yet, there was just the old town so it wasn't a place that my wife was very enthusiastic about wanting to move to.

#165 JW: Was she with you at the time, out of Edmonton, up 90 south?

RF: Yes. She lived in Edmonton until we got company houses built. And we drove back and forth. I guess it was, you know, you don't get surprised, when you go see a place and you don't know what it's like and you realize you don't know what it's like. It just looked like a good place to work, there was lots of work.

JW: Lots to do, okay. Where were you living then, at that time?

RF: We rented a suite in Calgary but in Redwater we had built a bunkhouse and we lived in the bunkhouse. We got our meals in the old town, these cafes had all kinds of business. The meals weren't great but. . . There was a steak house that used to be in town, we used to go out there about the middle of the week and get one good meal.

JW: Was it a real boom town atmosphere?

RF: Yes. You know, there was always, for several years, whenever you moved into a town there would be the same fights and stuff there used to be in Turner Valley. But they

wouldn't be the company people who came there, like the supervisors, they were mostly the local kids that they'd heard all these stories and they'd get drunk. Devon didn't have this because there was no town there ???. And the drilling crews, because they were pretty transient. But it was mostly the local people. Bit it seemed to the local people that it was the oil people. I remember one time in Cardiff they had an indignation meeting because the young girls were going out and staying out with the guys. And they were upset with the company till one of our fellows stood up and said, it isn't the company that's doing this, it's your own kids. Those boys that you're fussing about are your own kids. That was the end of the indignation meeting because they realized that, it's the money that's brought in has caused the problem.

JW: Sort of an indirect social impact.

RF: Yes. But it isn't that people that came in and did it, they're not the ones that are doing that.

JW: So you mentioned you built a town at Redwater.

RF: Town site. The company supervised it, the company owned the land, and the people bought their houses with company backed mortgages.

JW: Was this sort of a prototype for Devon?

RF: No, Devon was built first.

JW: When was Redwater built then?

RF: '49.

JW: Okay.

RF: Devon was more a prototype for Redwater. Except that Redwater was just attached to an existing town where Devon was out in a wheat field.

End of tape.

Tape 2 Side 2

JW: Ralph, I wonder if we could talk a little bit more about the Redwater town site that you were building up there and just in general, what do you recall of the building of that town, in terms of planning and anything that sticks out, your relationship with the city fathers of the existing Redwater and how that went?

RF: I'm not sure that the town site was incorporated into the town. I guess it was because I forget whether we paid town taxes or not. I don't think we did, I think it was incorporated later, I think that the land belonged to the company and it was just kind of annexed to the town. The facilities that were put in were only for the houses that the company built at that time. The contractor was Bird??? Construction, they had built houses in Leduc too. The land was owned by the company and the company put up the money for the streets and the company built the houses, then they sold them to the employees with a low down payment, at least for that time, something like 10%, and the company backed the mortgage. Laid out pipeline from the Redwater River, about 7 ½ miles up the Redwater River to the North Saskatchewan River, 7 ½ miles up to the town and it was a modern town. This was only the company part. Subsequently, the company donated the land to the town and all of the water system and sewer system, everything and it became

incorporated into the town and then the people paid taxes. But that wasn't until some time in the 50's. Initially, I guess the impact of the oil business on the town was kind of varied. For the merchants and that, the competitive labour price went up and they had the feeling, and this was the same with nearly all the towns, they had the feeling that ??? pay too high and that there was a hardship connected with it. Because most of the people didn't buy from the local store and that, most of the company people that were brought in, bought their groceries in Edmonton. Gradually they got bigger stores in and it just changed. I think that there was feeling among a lot of the people who went to work there that the wages were too high and the company was like the government, had lots of money. It took quite a while for the oil people and the local residents to become integrated. Eventually they inter-married. There's kind of a normal relationship now. There are problems between farmers and the company, there are problems that exist but they are no different than there are in Calgary or Edmonton or anywhere else. The people who see the oil people as having money will take offense and try to get money out of them for things they wouldn't out of their neighbour. But this is the same everywhere. I think now most of the company people, the people who are working there for the oil companies, have either been there a long time or else they were raised there. But I think it's much better than it was. There still are problems but they're normal problems between industry and farmers and that, that exist anywhere.

#059 JW: So there was a little initial local resentment and Imperial. . .

RF: I don't think there was a lot of local resentment, I think there was very little. There was pretty good feeling between the garages because they were getting a lot of business, lumber company and those. And the hotel of course, was getting a lot of business, the restaurants were getting a lot of business. I thin it was maybe the grocery stores, the small grocery stores, or anybody who hired casual labour or anything like that. I don't think it was significant. I saw a lot more in smaller towns in Saskatchewan and places like that than I ever felt there was in Redwater.

JW: Because Imperial was apparently, a pretty good corporate citizen in terms of, you mentioned, last time they were upgrading the municipal roads that benefited everybody.

RF: Well, we weren't the only ones, all companies did this. But there were some instances, for example there was one woman who lived close to the river who didn't own the oil rights. She was getting good rental and that, but she still burned wood in her fire. A reporter from the city came out and took a picture of this poor old farm woman in her clothing, which was the same kind she had always worn, fetching in wood and having to heat her house with wood in the middle of this big oilfield where all this fuel was. Those kind of things were more aggravated I think, from the media or something like that, than they were real feelings. Because I had went to that place once and we wanted to take a pipeline across and we were talking to her and she pointed out several trees that she didn't want us to cut down under any circumstances because she loved those trees and we were quite happy to do that. I never realized, she invited us in for coffee and everything, the same as anybody else. So that, I think the conception that there was a problem between the local people and the town was really blown up by the media. Of course, you

know, we may not have been impartial. But I worked in the field and worked all over and I met them all every day, in the beer parlour and everything else, and we were always friendly. There was the odd guy you know, tried to capitalize on it but I don't think it's any different than anywhere else.

JW: There were other companies in Redwater, other than Imperial operating, weren't there?

RF: Yes, Gulf was a major operator, Royalite had a big operation. They didn't build town sites or anything, Imperial was the only one who added to the town site. They later, a lot of their employees bought houses in the town site too, after the company gave it to the town.

JW: Did Imperial work closely with Gulf and some of these other companies in the . . .

RF: No, not at that time. That was before there were any units. Other than the Imperial pipeline. . .no, Gulf even laid their own pipeline, gathering pipelines. Imperial gathered oil from other companies and so did Gulf. Not for any reason I guess, it just didn't occur to either one of them that it was to their benefit to cooperate. Unitization started, I think, the first I knew of it was in the Leduc field.

JW: Do you remember when, just as an aside?

RF: I think that was in the 50's.

#113JW: You mentioned last time as well, towards the end we were chatting a little bit, in the Redwater area or the Redwater field there were few regulations and things could proceed fairly quickly because of that. The equipment was available off the shelves from oilfield supply companies as opposed to custom ordering, or custom building this. maybe you could just comment a little bit on the kinds of equipment and the supply companies you were dealing with if you remember some of the specific happenings.

RF: The basic production equipment at that time was separators and treaters and tanks and pumps, pump jacks and things like that. All of the companies, for example, 500 barrel bolted tanks were made by BS&B and National Tank, they were the 2 biggest suppliers at that time. You just put in as many as you needed. If you needed 10,000 barrel, you put in 10 1,000 barrel tanks, you didn't build a 10,000 barrel tank. And you ??? them because you could build it so much quicker, that was just kind of the standard. The treaters came in about 4 standard sizes and they were equipped so they functioned and you didn't change the internal design or anything like that. They were very similar, National Tank brought in the first vertical treaters and later, BS&B came in with horizontal treaters. That was the only basic difference between them, whether they were upright or horizontal. Anybody else who made one kind of made one the same. The separators were in 3 standard sizes and they were all the same, they were all standard design and functioned the same. There might have been some valve changes or something. So that those vessels were all approved by the government or the board and you didn't have to get any other approval to put them together and make a battery or something like that. Whereas now, people insist on designing their own units and making their own units and they're welded up and they cost a terrific amount of money. The design has to be approved, and any time you want to change or approve something you have to go through approval procedures. This all may be very necessary, I don't know, but it sure slows up the operation and

increases the cost. Gaining rights of way and that, you could get approval from a farmer and you could go ahead and you could work right away. There was no problem of getting approval from everybody else in the area and that kind of thing. The environmental regulations that there are now were practically non-existent. There were some problems. For example, that was the first salt water flood in Canada and nobody seemed to know of a water flood, or a water disposal I mean. I should say that was the first salt water disposal in Canada.

#169 JW: You mean the water that was coming out of the ground was salt water?

RF: Yes. So putting it back in the ground. And the place in the States, most of them produced fairly fresh water. So it was quite awhile before . . . so the salt water that was produced was gathered in ??? pits, actually in some places just sand pits. And that did quite a bit of damage. It did some damage which still exists. It wasn't done maliciously, it was done through ignorance. Well, it wasn't ignorance, nobody knew. So there was a lot of learning went on in Redwater and the in Leduc, that was new problems, that didn't exist anywhere else. It wasn't a matter of not being conversant with what happened or anything, these problems hadn't been recognized and resolved yet. Some people remember those things and the interpretation is that is was done through negligence. And that's what they like to interpret. I don't know . . . there might have been some negligence, you could say, people should have known but there's lots of things people should have known. It wasn't because they didn't care, it was because. . .well, they might have been a little excited or something like that. They were doing the best they knew. They had good intent.

JW: The spacing of the wells up there at Redwater was 40 acres, they were on 40 acre parcels weren't they? That was the maximum allowable at that time?

RF: Minimum.

JW: Right, minimum spacing allowable.

RF: Yes, it was the maximum too.

JW: Is it possible that that field could have been developed with greater spacing, with fewer actual oil wells, in retrospect?

RF: No, I don't think so. It might have been, the move towards wider spacing occurred later. Principally at Golden Spike, which everybody thought was a big tank. However, in the places where wider spacing was done, such as Golden Spike, Judy Creek, there has been a lot of infill drilling since then. The idea that the reservoirs were homogeneous, just like big tanks, you could just pump the oil out, has not proven to be correct. They are not and when you think about it, there's no reason they should be. The same as 40 acre spacing isn't necessarily the best way. Other patterns have proven to be more efficient and that's what infill drilling is.

#226 JW: Because at 40 acres, it's kind of an arbitrary grid over a very definite kind of structure, whatever it may be.

RF: Oh yes, and drilling a well in the centre of it is pretty arbitrary too. Now they have changed that, some of them, they're going towards the corner. Though that's from pressure from the farmers, so it won't upset their drilling patterns principally. But now, if

you can prove that something else is better you can go to the board and get that permission.

JW: Leduc, and then Redwater, there was a lot of activity at Imperial Oil and lots of excitement and lots of work to do. Were promotions coming fast, were people getting raises, were there personal benefits, were those advances rapid at that time in terms of those kinds of things?

RF: Compared to during the war, when raises were frozen and before the war when there wasn't much demand, they certainly were astronomic. But the oilfield wages were, before the war and during the war and after the war, they were the elite industry. It was the place to work, it was the place you got the fastest promotion. This existed until. . .well, this gradually equalized until, in the 60's, it became kind of the industry standard of all industry standard. And into the 80's it was behind construction, which was booming, some of the new industrial things. So it kind of went from being. . .well, for example, when I started 50 cents an hour, there were some guys working just as hard for $15 a month and board, or $1 a day. So even labour was pretty outstanding, there were a lot of professionals didn't get that much money. Until now, except in the Arctic and in the frontier operations, there's nothing special. Crane operators and that do as good as drillers.

#277 JW: Why do you think the oil industry paid relatively well in the earlier days?

RF: It isn't a big production part of the oil industry's cost. It isn't like in a factory, it's around 20% compared to maybe 90% in a factory. That's one reason it never has been unionized, very effectively anyway. The industry would be stupid not to pay what they have to to get people because it's not much of the cost so they can buy their way out of problems. And they've always done what they had to to stay out of problems. They've been smart enough to recognize that. It's a different thing when you're looking at a wage increase that's going to put you in debt. However, just as an aside, Imperial, I guess Exxon, or Jersey, the Rockefeller interests started Imperial system as a result of a very severe and bloody strike they had in the States. There's information on this. They hired Mackenzie King and somebody else come down and set up a system for them to deal with their employees. Their wage earning employees, which became what's known as the Industrial Council, which is Imperial's method. It's I think, one of the best in the world. The management and the people in the Council are charged with running the Council in such a manner that there won't be any trouble. There should be no need for any other, so that this method of representation should be the natural preference of the employees.

#330 JW: So that has its roots way back in the 20's then, or even earlier?

RF: In Canada . . .well, those ashtrays??? I have, it's about 65 years ago or something and we've never had a strike. A lot of companies have come to Imperial would like to start that system but you can't just take it. You have to educate and train all the people involved, it would take quite a while to get it going and the company would have to be absolutely dedicated to it and then you would have to have some impartial person who knew how it worked to arbitrate it for awhile. But I remember when it first started, I

wasn't a labourer anymore, but my father was a foreman and he told me they were doing this and what they were supposed to do and how it was supposed to work. I thought to myself, as long as they can afford to keep giving raises it's a pretty good system but I wonder what will happen when they can't. Will the company then back down and now go along with it, but they haven't. They've had lots of opportunities to put the squeeze on labour when times have been bad. It isn't a one way street but they've always been able to come up with solutions to problems that were acceptable and enthusiastically accepted by them.

JW: Good. I'm going to stop the tape here and turn it over.

Tape 3 Side 1

JW: What happened after you were through at Redwater Ralph, you moved on, where did you go from there?

RF: From Redwater I went to Devon. Devon was just finishing up its development and it was going into a . . . well, the rush of getting the oilfield wells on to production was pretty well over. It was time to take a look at all of the equipment and everything and upgrade it with more permanent ???. So the kind of things that were going on when I was there was rebuilding all of the batteries, trying to do away with flaring, making them more efficient, improving the salt water handling, consolidation of batteries, you know, increasing the efficiency and that kind of thing. the same kind of work, I was still working in the civil engineering department.

JW: How long were you there at Devon?

RF: From '51 to '54.

JW: Did it take that long to get everything consolidated and efficiently. . .?

RF: Well, that's an ongoing process, you're never finished, there's always upgrading to do. No, what happened about 1954, Imperial decided to centralize its Alberta operations in Edmonton. So they opened an exploration and production office in Edmonton and that's when I went to Edmonton.

JW: Prior to 1954 had Leduc been unitized yet? Or more specifically, were you involved or aware of the negotiations and the process leading to unitization?

RF: I was aware of it. In Redwater and Leduc we had such big blocks of land that the unitization didn't make a great deal of difference. Yes, I think it was unitized before I went there but I'm not certain. There's a person there who I think was looking after unitization but. . .

JW: Do you recall who that might have been?

RF: Jack McRae. But he was a different office than I, as a matter of fact, I think he came up from Edmonton most of the time. I don't remember the day it was unitized being a big deal so I don't think I was there.

#040 JW: All right. That's just an interesting concept.

RF: However, I wasn't working in the production department at that time, I was in the engineering department. I just can't answer that.

JW: Okay. When you went to Edmonton then, was that as part of the production department, you had a transfer into production at that time?

RF: No. That was still the engineering department, I was a civil engineer. It was made up of 2 sections, petroleum engineering and civil engineering and I worked at the civil engineering section which was ???, everything, roads for all of Alberta.

JW: Had things slowed down a little bit by 1954, '55?

RF: They had in Alberta, Saskatchewan was just starting to start up then. Saskatchewan up to then had been handled from Redwater. At that time, the same time, Saskatchewan became a district all its own. It reported to Calgary and Edmonton reported to Calgary. Any work that was done in northern B.C. was handled from Edmonton and anything was done in Norman Wells was handled from Calgary.

JW: By that time as well, 1954, was the company starting to get into the more northerly environments at that time? North of say, Grande Prairie, and up into northeastern. . .?

RF: Well, they were easing up. But they were doing exploration out at Peace River, which got over a little bit into B.C.

JW: You moved then, down to Regina, after they had been. . .?

RF: Well, after they had been, they started about '53 in Regina, in February '56 when the Estevan field. . .Cirrus??? Valley operations were about to get going, I went down there as a production superintendent. That's the first I worked in production.

JW: Maybe you could just talk about where Imperial was located in Regina and what your job involved, sort of a job description and something about the fields down in the Estevan area. I guess there were Steelman and Smiley and some others.

RF: When I went there as a production superintendent, that was just responsible for the field operations. At that time they were in the Smiley area, out of Estevan. We set up an office in Estevan, that was the Cirrus Valley area and an office in Virden, Manitoba which is in the middle of the Virden field. There were no gathering pipelines, there was a gathering pipeline in the Smiley area which gathered the oil till Coalville, where it was blended with Coalville heavy crude and shipped by tank cars at that time. The Producers Pipeline, which was staffed principally from Imperial pipeline, and was owned by I think, 7 producing companies, was building a gathering system from Weyburn through the Cirrus Valley, to Coloma???, Manitoba. Part of my department were operating a system for Producers Pipeline, gathering the oil to tank loading terminals along the railroad from all these fields, trucking it to the railroad and it was shipped by tank cars down to Brandon where it was either rerouted back up to Regina, up the other railroad line or to the Winnipeg refinery. It got kind of absorbed between Saskatchewan and Manitoba, a little bit of it got up through ??? and things like that, The Pas. So that was quite hectic, tracing all these cars and trucks. There was no road system or anything. That was a big part. At the same time the company had I think, 16 drilling rigs operating in Cirrus Valley and they had a good success record too, at least 1 out of 2. We were following this up, doing batteries and staffing. Because we had to use all local people, there wasn't a very big inclination for any Alberta people to go there, for one thing. We designed the Regina training program that's used all over in the company now.

#111 JW: The what training program?

RF: It was called, well, we called it the . . .???. But it was based on job instruction training which was developed during the war and used in industry. Nobody had ever felt it could be used in production operations but we adapted it and that's the training program they have.

JW: Where did that idea come from, do you recall?

RF: I first ran into it when I was in the Canol project in Norman Wells. And it was just as we were leaving so we never really got a good feel for how good it was. But we were having so many accidents and we had so many untrained people. And the only training that had been done in the industry that I knew of was by exposure. So we decided we had to do something so we shut down the operation for awhile, we had to, and started it. Basically, you develop all your work methods and procedures on the job, with people. You can break down every job in detail, like in the factory and make sure people are instructed and then enforce it and build your safety program on that, so that a person who had never seen anything done before, maybe he'll make a mistake the first time but you don't expect him to the second time. It's been very effective. Lewis Beatty???, who was in our ??? department had some facility for training instructors. When we got this job instruction training program it tells you how to do that. Between he and I we started it up and got it going. But there's no ownership to it, we didn't invent it, we just applied it.

JW: That's good. Did you notice a good immediate result?

RF: Oh yes. At one time we had about 12 people injured and we went through a whole year without an accident within about 3 years.

JW: No kidding. Were you ever recognized by the company for. . .?

RF: Oh yes.

#146 JW: Just quickly, you mentioned The Pas a minute ago, were refined products going up there, they didn't have a refinery at The Pas did they?

RF: No, that's at the refinery at Winnipeg.

JW: Okay, but you were looking after getting them up there and stuff?

RF: No, but I was thinking, that's how far the products, the Saskatchewan crude. . . You see, most of the Saskatchewan consumption was supplied down the Interprovincial Pipeline from Edmonton. It could come down Interprovincial to the Regina refinery but some of the Saskatchewan production backed up through Brandon, back up to the Regina refinery.

JW: Were there significant differences in working in Alberta versus Saskatchewan in terms of. . . I know the environment was much easier, I mean, it's pretty easy down there in Estevan and so forth, good country, but in terms of government police and regulation and so forth.

RF: The Saskatchewan government adopted really, the Alberta regulations. From our point of view, the Saskatchewan people that were available to us, they were sons of successful farmers and they were ideally suited to our environment. They were very capable, quick to learn, they were very independent and they didn't see themselves as being exploited and see themselves as being downtrodden. They were used to being in the management group as farmers so they were cooperative and aggressive. Many of those folks we hired

are in senior supervisory positions in Alberta now. Some of them are managers and superintendents. Boys that we brought through this initial training program.

JW: Was anything going on at Lloydminster at that time, on the Saskatchewan side, that you might have been . . .

RF: Not at Lloydminster. We didn't have any operations at Lloydminster. Husky were drilling wells and they had the Husky refinery. The only heavy crude we had was in Coalville and that had been unitized. So we did a little bit of exploration drilling and produced some small properties, but we didn't have a lot of heavy crude at that time.

JW: There wasn't much market for it anyway was there?

RF: You had to go to the Husky plant or else down east, to Coalville, that went down east because they blended. Most refineries weren't set up to handle it.

#190 JW: Who else was working with you in the Regina office production department at that time?

RF: Vern Hunter was the manager. Peter White was the exploration manager and Lee Constable was the production manager. Bill McGreavy was the drilling superintendent, Ken Oakley was the engineer and I was the production superintendent. Of course, there was a staff of maybe 120 or something like that in the office.

JW: That's a really big operation. And where were you located in Regina?

RF: In the Derrick Building, which is on Macintyre St. and 12th Ave. I believe.

JW: Did you get the same kind of support in Regina from Calgary say, as the Edmonton office would have had?

RF: Yes.

JW: So you weren't perceived as being out there?

RF: No, not at all. As a matter of fact, it was where most of the development effort was going on at the time. So we got not a lot of interference but a lot of support. We were pretty autonomous.

JW: Did the supply companies come out and follow you, did they set up in Regina as well?

RF: Not in Regina, in Estevan.

JW: Down in the fields, yes.

RF: Estevan and in Kindersley and Virden.

JW: Was it as easy to produce the Estevan fields as it was say, Redwater, Leduc? Or were there significant differences in terms of producing these things and getting them on stream?

RF: The wells were shallow and the pressures weren't high so Redwater was easier than Devon and they were somewhat easier than Redwater. So they were relatively easy wells to produce. But there was a problem there of seeing close association between the water and the oil. There were big sections of reservoir where the oil and water were not separated, they were intermingled, which was different. We didn't have a good definition between where the water was and where the oil was. And Leduc and Redwater, you know, there was a good cut-off. So evaluation of the wells and getting them through to produce, and recognizing that you couldn't force them the way you can here, was a big problem for several years. It took us quite awhile to come to terms with that.

#242 JW: Throughout this process Imperial had found potash out there as well hadn't they?
RF: Right.
JW: Were there any efforts made to develop that or produce the potash?
RF: There was a potash section set up in the lab here under Don Wilson, ???. We got a mining property at a place called Finleader??? in Saskatchewan. We did a solution mining test there and it produced some potash.
JW: And was it a different subsidiary then?
RF: No.
JW: Just you had a potash department or people looking after it?
RF: It was under the production department but it was more under the lab. We provided the people and that and we did the drilling but it was a test. I got a sample of that up here.
JW: Was there ever any interest in going after it in a big way though?
RF: They determined then that it wasn't economic. There was an interest, if it had been economic.
JW: You became production manager in Edmonton then. . .well no, let's see.
RF: I became production manager in Regina in about 1961 or 2 or something like that, when Lee Constable left.
JW: You were there for a number of years then?
RF: Stayed there till 1968, when the districts were consolidated into Edmonton. I went to Edmonton as the production manger in '68.
JW: So your responsibilities were increased then, you had more than just Saskatchewan to look after out of Edmonton?
RF: Yes, but in Saskatchewan as production manager I looked after drilling and production and the engineering. In Edmonton as production manager I looked just after production. There was an engineering department and a drilling department. A separate drilling department had been set up in Edmonton. So we had a larger area. . .well, we had all the production operations in western Canada, but a narrower scope of responsibility.

#293 JW: When did the company, Imperial Oil, start getting an active interest in the Arctic?
RF: During that time, in '68. They probably had an active interest but they decided to go after it at that time.
JW: Do you remember anything behind that decision?
RF: Well, of course, there's other people that you can talk to that know more about it but what I think was, Imperial ??? concessions, operating them, you remember I mentioned that and that was the only place you could get a good sized concession at the time. So the feeling was, you better go after that, it costs more than a bigger operation but then the prize is going to be bigger. And it was kind of felt that there were no more big operations going to be in Alberta.
JW: Right, on the prairies.
RF: Right, on the prairies. So it was still ???. That's just a difference in the way you operate.
JW: Had their been any thought to upgrading the operating in Norman Wells at that early

time?

RF: No. We had looked at Norman Wells and we were concerned that there were a lot of reserves there and we didn't know how to get them out. Our thinking at that time was, if we get something in the Arctic then we'll be able to get a pipeline down into civilization. And however it goes, it will probably come by Norman Wells. Then we can develop Norman Wells, put it in.

JW: It didn't work that way.

RF: When we didn't get the permit for the oil then we said, okay, there's still a big reservoir at Norman Wells. Then we started another study to see how we could get that oil out of Norman Wells. The results of this study showed that it would be economic to build a pipeline to . . .

JW: Well, you've got Hay River and High Level.

RF: No, west of that.

JW: Zama.

RF: Zama. That was where the line was going to go.

JW: That's right.

RF: If we could get the oil out from under the river. So the problem then became how to get the oil out from under the river.

JW: So there's the development of the islands that had been constructed.

RF: One of the things we did was build a well out horizontally to the middle of the river. It was a drilling technical success but. . .

#344 JW: Was that what they would call a slanthole?

RF: Not really because it went down straight for about 66o' then turned over and levelled out at about 1,100' or something like that, then went at 3 degrees from horizontal right out.

JW: Were you involved in the technology of that?

RF: No, that was the engineering??? department, the drilling engineering. But in completing it and that, and it presented a lot of new problems because all the testing tools and everything else are gravity tools. Of course, the first thing we ran into was a crescent wrench down there at the bend. Before whenever anybody dropped something like that in the hole they never worried about it because the bottom was out of the way. Nobody thought about that wasn't going to go to the bottom.

JW: I've got to turn the tape over here.

Tape 3 Side 2

JW: We were talking about Norman Wells, let's go back a little bit. After the end of World War II there were a lot of wells that had been drilled at Norman Wells. Were all of those continuing to produce after they abandoned the pipeline over to Whitehorse?

RF: No, not all of them. Some of them, the Goose Island, Bear Island sites were getting ??? out by the aquifers coming in. And some on the mainland side, on the north side, a gas cap was developing in the field and some were getting gassed out. It was becoming evident that. . . well, first of all, production was restricted by the capacity of the refinery

which was controlled by the volume of sales in the Northwest Territories. So we were just keeping enough production to keep the refinery going.

JW: And that was the case until . . .?

RF: It's still the case and it will be until we get a pipeline up there.

JW: Have you recognized in those early years, that there was significant production under the river?

RF: Oh yes. I remember in Canol time, the outline of the reservoir was pretty well known and it's split up pretty good. It's a little bigger but. . .

JW: So when was the decision made then, to really go into Norman Wells again, and start producing that?

RF: After that study, which was right after they were going to get the Mackenzie pipeline, was that the Mackenzie, I think it was, the one down the Mackenzie River anyway. As soon as that study confirmed that the reserves were there and the economics were right, then the only thing that held it back for a long time was 2 things going on. one was getting the permit which was a long process. The other was developing the technology. Now the technology came from the drilling done in the Arctic.

JW: On the islands and.. . ?

RF: That's part of it.

JW: Was there more than one well, you mentioned these vertical and then horizontal?

RF: It was recognized then that the reservoir was in layers. We did some testing but we found we couldn't control the reservoir with just one line through it, with one layer of wells. In that type of reservoir you needed vertical holes or near vertical holes to get all of this, to communicate with all of the different strata.

#041 JW: These companies then, when you had this almost a right angle bend and you mentioned that it was a little difficult to go fishing . . .

RF: Well, you developed new tools for it.

JW: Were those developed by Imperial or the companies that. . .?

RF: No. We participated in it. It wasn't radical, it wasn't hard to do.??? much because. . .that came from really, the technology that's being developed at Cold Lake. ???

JW: What was the reaction in the company to the Berger Commission, do you recall, in his sort of negative findings on the construction of pipelines in general in the north? Because you had been. . .

RF: My personal reaction was that it was politically oriented.

JW: Was this a frustrating decision for the company, having planned and recognized that there was a . . .

RF: Naturally. Not so much that, they really you know. . .??? working out it would be a good thing, they recognized it would be a good thing for everybody, the natives and . . . I think Berger was just political. I mean, the Liberals knew when they assigned him that they were thought they were getting rid of a problem with the NDP by assigning him that. They didn't think this was very important. I think they were very embarrassed by the results. As I say, that's only personal. I wasn't involved in it as far as the company is concerned.

JW: Looking back on your career, what do you think was the highlight of your career?

RF: I don't know, starting work. It was a big deal. I like new things, like going to Norman Wells and helping to do something which we thought was important for the war effort. Going to South America, a chance to see a new part of the world and building a new city for these natives and that, that seemed a real worthwhile thing to do. Coming back and working in Leduc and Redwater and all over and helping to make Canada more oil sufficient I always felt was a worthwhile thing. All the time that I was working it was an up in the industry so it was kind of all the highlights. I think this depression has been a real low light. I kind of worked from the tail end of a depression to the start of one. The development of the technology in the 40's and 50's, and finding all the new fields and things like that was really kind of the highlight period. That was really the upper, most invigorating time. However, I never was bored and I was never disgruntled. I was always treated exceptionally well. I was just lucky, I just loved to work and I liked my work, didn't know anything else really. That helped. But ??? side of the work is pretty broad. It involves housing and people, moving people, relationships with the public, it's pretty broad. It's not like just sharpening tools or something like that. And it's always interesting, there was always something happening. And there's always problems, new problems that you get to solve yourself, somebody hasn't done them before.

#094 JW: Who would you say was the most influential in your career? Or was there one person?

RF: It changed with different places. I guess early in my career was probably Walker Taylor. When I was in Peru it was Joe Higgins, who was the chief engineer. When I was in Norman Wells Walter Dingle came there and I worked with him, and then later when I came back, when I was in engineering he was chief engineer here in Calgary. Don Mackenzie at both Norman Wells and back here. Tip Maroney. . .

JW: What was your involvement with Tip Maroney?

RF: When I was in Regina I reported to him. I guess he had something to do with me coming back from Peru too, he told me later he just needed me at the time. Bob Welsh and Vern Hunter, when I was in Regina. I think I always . . .luckily I got people who seemed to understand me and who I seemed to understand and I always got along well with, felt I got along well with. In later years there was Gordon Hayde??? and Doug Baldwin, ??? Stuart, I think those are the guys that I worked most closely with, who influenced me, maybe a little bit two ways.

End of tape.

Tape 4 Side 1
CANOL

JW: Ralph, let's talk for a few minutes about your experiences with the Canol project in Norman Wells during World War II. I wonder if we could start by finding out how you actually ended up there. I know there was the story with Walker Taylor and the Air Force. I wonder if we could find out a little bit about that.

RF: In 1942, in October, I joined the RCAF and I went to #3 Manning pool in Edmonton for basic training. That was in October and I think they expect you to be there about 6 weeks or something like that. Anyway just before Christmas our flight was posted and another fellow and I, a fellow named Don McRae and I were left behind. Without any explanation, we just weren't posted. Shortly after that we were invited out to dinner by Don Mackenzie and Walker Taylor. . . no, I guess previous to that we had been. And they had told us they would like us to come to Norman Wells. The result of that conversation was, they said they could arrange it and we said that was between them and the Air Force.

JW: Because you had enlisted already.

RF: Yes. So we didn't know what was going on, whichever they thought was in the best interest of the war effort, then we'd go along with it. Just after Christmas, when we came back from New Year's leave we were advised that we were being posted to the American Air Force, to report to . . . I don't know, a colonel anyway there, in the American Air Force, who told us to report to Colonel Limebright, who was the United States Corps of Engineers person who was responsible for the Canol project. Well, for Imperial's contract with the Canol project. He said we were to go to work for Imperial Oil, that was what we would be paid. So they gave us a local leave, we went home for awhile. They told us we wouldn't be able to take our wives with us and families, and then we went down in January, down to Norman Wells.

JW: Had you run into a Bob Tramell at that time?

RF: I knew Bob Tramell, he was superintendent at Turner Valley where I worked. He was the guy who wouldn't let me go to Ecuador.

JW: I understand he had quite a pep talk for those people going to Norman Wells, you weren't a recipient of that were you? Okay.

RF: He wouldn't let me go. Walker Taylor had asked me to go before but he said he needed me in Turner Valley. I don't know why he wouldn't let me go but every job I got he wouldn't let me go.

#039 JW: How did you get up to Norman Wells then?

RF: At that time we went up on American Army DC-3. Do you want to hear about the trip?

JW: Absolutely, yes.

RF: The routine was, you would go out to the airport, you'd be there at 2:00 every morning when the planes left for Norman Wells and if there was space on them you'd get on one.

JW: Were they supplies and other people?

RF: Yes. And army people. So we went up, the first time we flew up to Fort St. John and landed there and had something to eat. Then we flew down past Simpson, we saw Simpson and started flying down the Mackenzie River. The pilots, there was no ground control, the pilots had never been north. The pilots came back and asked if anybody in the plane had ever been north and there was, either an Indian or a half-breed there said he had been north. They said, how do you tell an airport. He said, it generally has a barrel of oil burning at each end of the runway and some fir trees down each side, planted fir trees. So we started up the river and every time they saw some smoke they would circle and see if that was a landing place. The ceiling was getting lower and lower until we were flying

between the banks of the river. Finally they gave up and we came back to Fort St. John and back to Edmonton. So we were about 11 hours in the air that day and ended up where we started. The thing about that was, it was 50 or 55 below and they had a jeep heater in the plane which was leaking gasoline so they had shut off all the heat. I think there were somewhere between 12 and 16 of us. Half of us would crawl in the sleeping bags and the other half would walk around and then after half an hour or so, the walkers would go in the sleeping bags and the other people would walk around. That was my first airplane trip. Never had a bad flight since.

JW: Were you a little apprehensive when they were starting to wonder where. . .

RF: We were pretty trusting. We ??? these things through all right, we hadn't heard a lot of accidents.

JW: Who were you with, do you recall?

RF: With Don McRae and I don't know who any of the other passengers were. So then we stayed in Edmonton for pretty near 2 weeks, going out to the airport every morning at 2:00 and then not getting on and coming back. Finally we got on and we were stopped at Fort St. John and then we landed at Simpson. There was an army corps there and then we were left off there, we spent about a week there.

JW: What did you do during that week?

RF: The accommodation was just log houses and wood fires. Then there was an army mess-hall but you couldn't leave the wood fires on all the time so that was when we learned how to sleep in sleeping bags. Some of the people had been up before, as I recall, it was mostly a learning experience and you heard all the tales of the north and you learned how to sleep in a sleeping bag without freezing. We had to get out and rustle our own wood. It was, I guess, kind of an introduction to roughing it. We heard tales about, they were making their way down with army trucks and that too in the winter time and they were building, it still exists, an overland route from Hay River to Norman Wells. Which they did finish that year. About trucks breaking down and ???, like getting colder and colder and sitting down beside the tree and they were found in the morning, sitting there frozen stiff.

#093 JW: Were these true stories or just northern stories?

RF: They did happen. I don't know if the specific instances we heard of were true or not but it did happen. So I guess one thing we were getting was a little bit of respect for what we were running into. Anyway, we were there for a week or something like that and we got to Norman Wells. Norman Wells had a temporary airport. They had bulldozed the trees off on the ridge where the present strip is and flattened the snow out. Of course, it wouldn't be any good come spring. The first thing that happened, Laberge, you've heard me talk of Laberge, you've heard other people talk of him, he had come down as a core driller for the seismic crews but there was no core drill there and the seismic crews weren't going. So he and I went to work as a survey party to locate exploration, to stake out exploration of leases. The first thing they did, they sent us to ??? for a few days with a fellow named Peter Baker, who was an Armenian, who was famous in the north. He later became a member of the Northwest Territories, the governing body in Yellowknife. But

he had a dog team and he was on contract with the company to take people around. He gave us some basic training on northern survival. We learned how to snowshoe, how to make our own duffle socks and how to build a fire and how to cook and how to dress. You know, how not to wear too warm clothing, what kind of clothing to wear and how to navigate I guess, how to get around. Then the rest of that year we worked on 2 things, one was locating wells. You couldn't do much work in the winter, we'd just clear off the snow. But we were assessing the land along the river where the present town is in preparation for building a camp site.

JW: Let's go back a little bit to when you arrived in Norman Wells, what was there?

RF: They had what they called the hotel. That was a 2 storey bunkhouse with a mess hall, a little bit of a recreation hall. But most of lived in 16 x 16 tents which had a casing, what we used to call a casing heater in the middle of the tent, gas fired. It had a wood floor, 4' walls and then a tent over it. We ate in the mess hall.

#136 JW: At 55 below?

RF: Yes.

JW: Were you ever warm?

RF: You were always warm. Of course, you could sleep in a sleeping bag at 55 below. And we had lots of gas. So they were liked better than living in the mess hall, where those rooms had double bunks and 3 toa room and 4 to a room, they were really quite nice because you could generally work it around until you got 4 people who were generally compatible. It was really preferred. You could go in to the bathroom in the big bunkhouse to wash. Well, you had a wash basin and that there but you had access to a bathroom there. It wasn't really a hardship.

JW: What else was up there, there were the tents and then the mess hall complex?

RF: They had a warehouse, ???. The offices, they had several of what they called the Dallas type, those were generally 16 x generally 40, they could be made any length, green buildings that you might have seen around University of Edmonton or Calgary. They were brought back for temporary dormitories after the war. They were quite common U.S. Army buildings. But most of the things that had to be housed, there were log buildings or something like that. They had gas heat but they were just set on the ground so when you heat them up too much the ground started to melt underneath and you ended up with a mess. So they were kind of primitive conditions. And they only had 4 or 5 rigs drilling and they weren't able to put any production equipment or anything yet. So it was mostly kind of still in the preparatory stage. The next spring we started building the facilities, the warehouses and the machine shops and stuff like that.

JW: The spring of '43?

RF: But besides working that, we went out and staked exploration leases as far south as Morrel??? Creek and as far north as Pavilion Ridge.

JW: How far would that be?

RF: That's 16-18 miles, up and down.

JW: Were you travelling on the river then?

RF: We travelled in cats along the river, yes. And we slept in cabooses.

JW: Train cabooses?

RF: No, these were things we manufactures. They were big sleighs with about an 8' x 16' one room with 4 bunks in it and a stove. And we pulled our provision sleigh behind with things that could be frozen. We had to turn the heat off at night so everything got frozen. And we burned wood in the little stove so if we left it on and it caught fire we. . .

#179 JW: Did you shut the cat down at night too?

RF: No, the cat ran all night. But if anything happened to the cat you had to get out there and get after it because if it ever got cooled off we couldn't have got it started. They had a cable front from the winch at the back of the cat over 2 pullies and down. Today it would be in hydraulics. So cats running and that clutch has to be idling. And every once in awhile that clutch would start to grab and the blade would go up and down. We'd have to dash out there and back it off and adjust the clutch. That was quite ??? and it would be cold. The standard procedure was to put whatever you were going to have for breakfast in a pail and put it outside and let it freeze and then leave it there. Then in the morning somebody had to get up and build a fire, so generally you had some kind of a gambling game before you went to bed to see who was going to get up and start the fire. Somebody would get up and light the fire, this pail would be on top so by the time the fire got going and the ice melted in the pail . . .and he'd jump back into. . .it would be quite warm in there and then you could get up and get dressed and you'd eat. And then you'd go out to work you know, they would leave this. We weren't cutting line with bulldozers then we were cutting line by hand.

JW: Were you doing that or did you have local people up there?

RF: We had a crew of 4 with us who cut the line. The times when the cats was there was when we were travelling and putting up the claim posts. The claim at first was defined by a post on each side of the claim and some of them were 4 miles square, so you'd have to have posts every 4 miles. There were other shapes but that was the maximum. Then those lines had to be, a line cut between them, a base line eventually. Then the cat would go back and that's when we would be sitting there. We would be parked in the middle and we would walk out and cut some line and come back. And we only worked from, we would leave about 10:00 in the morning, we'd get out to the end of the line and we would be through cutting and back in by about 2. So it took a long time, we spent a lot of time in that caboose.

#218 JW: That's what I was going to say, just to get started in the morning was. . .

RF: Well, we'd do that all before daylight. It wouldn't have to be early.

JW: And that's the other thing, is daylight.

RF: We didn't eat out on the line or anything. We went out and did the work and then came back. The thing that was confining us was daylight.

JW: Did you have the right kind of winter clothes, were you getting the good kind of equipment and supplies and so forth?

RF: Before we left Calgary we were equipped. We took our clothes with us and our sleeping bag and everything from Calgary, from Edmonton I think. And you brought it back out.

Just as an aside, they claimed that those sleeping bags, in a year you were in there, gained 4 pounds. Later we got cleaning facilities down there but the first sleeping bag, you slept in the whole year before you could clean it. Uncle Ben's was where I was equipped and he knew what kind of equipment, they had always supplied the north. So he'd give you the right kind of clothes. They were adequate clothes, they weren't the stuff they have now, mostly heavy wool stuff.

JW: What was your relationship or the relationship with the United States Army and the construction companies or was there, did you have much interaction with these people?

RF: We were pretty independent except that they had inspectors there, checkers, to make sure that it was a cost plus $1 contract. To make sure that what was being billed was what you were doing. So they'd come around once in awhile and ask you what you were doing and I suppose they'd look to see if you stayed in bed or went to work. you didn't see a lot of them, you didn't talk a lot to them, except that some of the things we did, if we didn't have enough men the army would supply men. So some of the officers were surveyors so we worked with them, I did. Quite a few of the jobs we did we got crews. There were a lot of Negroes there, I think there were about 1,000 Negroes in the area. They came as work gangs.

JW: What was their morale like?

RF: They were kept separate from us. At that time, in the American Army, no Negro could get above Sargent. Some of them were doctors, lawyers, their morale wasn't great. The other thing is, they were frightened of the cold. They, as soon as they stopped work, would build a fire. They wore great big army parkas and that but then they'd have a shin plaster right across their nose. When it got real bad you pretty near had to feed them, you really didn't get much done. They operated a sawmill on Bear Island which they operated pretty effectively, they seemed to know what they were doing and they did it themselves. They could keep warm. But in their own camps they'd have big poker games and you didn't want to stray in there. This was quite a while ago. It was about, at the time, when things were starting to change for them, but they were absolutely separate. And we didn't talk to them or give them instructions, we worked through their non-commissioned officers.

#280 JW: What was your job then, you were laying out exploratory well sites and so forth?

RF: Well, yes, we were called the engineering department. We looked after all construction, like buildings and well sites, locating the wells, digging the cellars, they still had cellars. About the same thing I had done in Turner Valley.

JW: How did you dig cellars in the middle of the winter?

RF: By hand.

JW: You did?

RF: Yes.

JW: You'd thaw the ground first, would you burn it?

RF: No. Just pick and shovel. The cellars weren't big, they were probably 8' square and maybe, deep enough that they provided some protection.

JW: When you got in there?

RF: Yes. Once you got down a little everybody wanted to stay in the hole. They'd want to go

down there and dig to keep warm, it was different from everybody wanting to get out of there. But we would have a tent there beside it and we would have a fire in the tent where we could eat and they would spell off. It was hard work but they didn't work too hard at it. Some of the areas frozen were pretty near just straight ice. We dug one basement. . . well, in some places where you dug those cellars there wouldn't be enough dirt to fill a wheelbarrow after it melted.

JW: Did you find that these presented problems, these cellars and so forth, in the spring, at break-up, or were they even used at that time?

RF: On the exploration wells, the well was abandoned before spring. On the production wells they were cribbed. The only place they were a problem was the ones that were below the flood level. In the spring they had to be, the equipment all moved off and build a ??? floor over them. Then the ice went out, it just went over it, there was nothing sticking up for it to cut off.

JW: Had you encountered permafrost?

RF: There's permafrost at the Norman Wells site and there's permafrost in all of the wells that were drilled up and down the river that were more than a few hundred feet from the river.

#324 JW: Did that pose problems or had you by that time come to grips with dealing with this?

RF: No. In the construction, the first years after the construction the floors went down and the buildings were all racked and everything else. We developed methods of piling, and we got some information from the Russian Army, who had worked in that kind of an environment. The Americans and the Russians were Allies at that time so there was some technical information that we got from the American Army that were developed in Russia.

End of tape.

Tape 4 Side 2

JW: What were you doing during the summer time then, you were going down river during the winter, that first winter when you got there and laying out the claims and so forth?

RF: On that end of the work, in the summer, the next year, we had to locate where these claims were. So we had to take solar observations to find out where these posts were, to tie them in to the world and the river system. And that can only be done in the summer because you need. . .and only a few days in the summer does the sun get high enough to be very active. So that had to be done the next summer. But by spring the road that I was talking about, that was coming down from Hay River, they got through in the spring, the cat trains and that. They didn't bring much but themselves through, they had consumed mostly everything they had started with. And the equipment was all pretty well racked up and broken up and that but they did get in there and we did get some equipment and was able to start some work. But when the first boats came down they started to bring in the supplied and equipment, to start building the camps. So we started to build our warehouses and large cookhouses and offices and machine shops along the river, between

where the town is now and the refinery.

JW: How many people were there when you say, landed in the winter of '42?

RF: I don't know, there were probably 1,000 of those Negroes and . . . I don't know how many. Those 1,000 Negroes were braced then, across the river. They were building Camp Canol, which is 12 miles back from the river, on the south side. In our mess hall I think we could seat something like 250. So there might have been, by that time, a couple of hundred people anyway.

JW: Imperial people?

RF: Yes. Imperial people and Army people, were these checkers.

JW: Were there drilling contractors up there?

RF: Drilling contractors came that next year, Noble Drilling Co. They of course, only had the supervisors staying in the camps because they had a camp with each rig. I've got a picture taken in the spring of '43 and there seems to be about 100 there so there were probably about 200, no more than that anyway. The new mess hall that was built in that year would seat 750. And in that year we built enough accommodations so that people could move out of the tents. Except for what was called casual people, like the exploration, seismic crew, or drilling crews or people who most of the time worked somewhere else but came in there when things were slack or between jobs or something like that. There was quite a few you could handle that way.

#040 JW: What did people do when they weren't busy, was there recreation provided or what was the community life?

RF: In the summer time, time doesn't mean very much so the first year we worked 10-12 hours a day. There was horseshoes, always horseshoes going it seemed like, day or night. Play baseball day or night on the end of the runway when they were getting the runway built. Most of the time you were off you were washing your clothes or something, or sleeping. You didn't need a great deal of recreation. There were no women until that fall, after we got some of these new facilities built.

JW: That would be the fall of '43 or 2?

RF: Yes, 43. And there was only 7 then I think, till the next year. They were to work in the mess hall. In the summer the mess hall was staffed by high school boys out of Edmonton, temporary. Waiters and dishwashers and that kind of thing. Besides whatever work you were supposed to be doing, every time a barge came in everybody had to go and help unload it to get it turned around and going back. So you spent a lot of your time handling material, getting it stored and getting it unloaded.

JW: Were you given good equipment and supplied properly up there?

RF: Yes. It was all good equipment that you got. One of the problems was all this stuff was going by Northern Alberta Railroad to Waterways. Then it was going down the, I guess it's the Athabasca River, to Fort Fitzgerald. Then it had to hauled overland 15 miles.

JW: Yes, that long portage thing.

RF: On a portage. Then it was loaded on the boats on Slave Lake at Fort Smith and came down to Norman Wells. All of the cats and that would be used on the portage until the sand there got caught in the rollers or something like that. Then it would go on. So you

didn't get any equipment that year that was in working condition. We had to spend all the next winter putting the equipment, rebuilding that equipment before we could do a lot of development work. We didn't operate that, that was operated by the marine division of the U.S. Army and the boats and everything. And also at this time, you see, Price and Callahan were also using that to bring their equipment down to start the pipeline to Whitehorse. It was the spring of '43 before they got that route through, before they got the pilot, before they figured out how they were going. Up to when they started building the line west they didn't know where they were going. They were building a road you see, and they'd go and go and go, kind of heading towards the mountains and then they'd come to muskeg they couldn't get across, then they'd come back so far and then they'd go another. It looked like a tree you know. Finally they figured out where the pass was and they got on the ??? River and they got going. That's the way they wanted to go.

#084 JW: Were you ever a little sceptical about the nature of this pipeline and the utility of this whole. . .?

RF: Not really, you see. . . first of all, it was only 4" pipeline but we knew 4" pipeline couldn't supply the refinery. But our conception was it was a pilot line in the hopes that we would find more oil. They needed to build a bigger line, they needed more oil and then the line would have to be ???. You can say, why would you do that before you found the oil, they thought they were going to be attacked by the Japs. So they were trying to get ready for it. To look at it as a commercial venture it didn't make any sense but it was needed for the war.

JW: That's true. What do you call Noble Drilling, who's operation was that, do you recall?

RF: It was Noble Drilling Co. from the States, I'd never seen them before, I never saw them after. They had, I think it was, 6 rigs. I did know at one time because I inventoried them at one time. We bought them all after, in 1944. They were all American crews. I'm not sure where they came from, I think they were Oklahomans.

JW: Okay, I just hadn't heard that name before, so that's why.

RF: They were drilling exploration wells, most of them.

JW: Were those exploration wells productive?

RF: No, none of them found anything. Some of them would find the reservoir but it would be full of salt water, some of them wouldn't be reservoirs. It had been flushed out. There's oil somewhere but nobody knows yet where.

JW: When did you leave then, that project?

RF: In 1944 when the American Army decided not to support the exploration effort anymore Imperial started a company called Imperial Norman Exploration to continue the exploration in the area. They took over a camp called Base Camp, on the south side of the river, across from Norman Wells. A fellow named Woodrow Wilson and I went over. He took charge of the drilling rigs and I set up a support group, what they would call the logistics end of where they were working in the Arctic. This was to provide a base camp and transportation and road building and all that stuff for the drilling department. Plus base support for the seismic operations and gravity meters, we built their cabooses and sleighs, their portable camps. And supplied them with rations and stuff like that. Then went on till the summer of '45, when Canol moved out and Imperial took over the

Norman Wells operation. So they consolidated the 2 back at Norman Wells and I went back there about the summer time, late '45.

#132 JW: You were up there a long time.
RF: Right. Then in the spring of '46 I went to Peru.
JW: Conditions continually improved up there, didn't they, more and more. . .
RF: Yes. ??? and the facilities. The buildings and stuff, the first ones we built, started to fall down. So we improved the method of construction and we built. But not as much because the effort went down a great deal. There were 750 people I think, there, when the Army moved out and we kept 250. We were getting more done with the 250 than had been getting done with the 750. For one thing, you didn't specialize on everything. If you desired something you went and built it.
JW: That's where you sort of adopted that production line construction techniques?
RF: That's what we were doing at that time, we were starting on that. And it was the first really we had a safety department and a safety program. There was one before but I guess they just kept track of who was sick. They didn't have anything to do with the operations. They'd investigate accidents but they didn't have anything to do with, it wasn't made part of the operation.
JW: Were you given holidays or sent out for a couple of weeks every year?
RF: We were supposed to have a month holidays every year. I don't know if people signed contracts or not, I never did. I went out on holidays once. Then I went back in and when I was supposed to have my holidays they told me if I would stay over they'd bring my wife down. So I was down there 2 years, my wife was there with me most of the second year. I had one holiday, actually I had 2 holidays.
JW: What did your wife think about going up there?
RF: She was tired of living out here alone. And it was an experience.
JW: What kind of facilities and so forth, did they have for women up there?
RF: We had modern houses.
JW: So it was a community by then?
RF: Yes, but when we first went there was only 12 families there. It wasn't a very big community. We got our groceries from the mess hall. There were quite a few single women, but there were only 12 families. It was just like a company camp. We were pretty close, we all had kids, a lot of kids there.
JW: Okay, Ralph, thank you very much for this.