

PETROLEUM INDUSTRY ORAL HISTORY PROJECT  
TRANSCRIPT

INTERVIEWEE: Wes Rabey

INTERVIEWER: David Finch

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DF: Today is the 8<sup>th</sup> day of August in the year 2000 and we are with Mr. Wes Rabey at the offices of the Canadian Society of Exploration Geophysicists in Calgary. My name is David Finch. Could you start Mr. Rabey by telling us when and where you were born?

WR: I was born in Saskatchewan as a matter of fact, in Moosemin, Saskatchewan. My parents were there for about two years and then they moved back to Ontario, so all my formative years and schooling was done in a little place called Manila, Ontario.

DF: What year were you born?

WR: 1922.

DF: Great. Tell us about your education if you would?

WR: I went to public school in Manila and I went to high school in Lindsay, Ontario, which is about 14 miles away, which we had to drive back and forth every day and then I carried on to the University of Toronto and got my degree in Mining Engineering from the University of Toronto, graduated in 1944.

DF: What got you interested in that area?

WR: I was always good at math and science at high school. I liked the thought of engineering because my father was in the garage and service station business and so I had worked around cars and repairing different pieces of equipment that the local people would bring in. So I was kind of mechanically minded but I didn't know which engineering to take until there was a chap who lived in our village who was an old prospector. He used to go up into the old mining areas so he told me lots of stories about how he had to walk through the various areas and try to find these mineral deposits. He got me interested so I thought well, mining would be good so I decided to take mining. As it turned out it was probably one of the best courses that you could have taken at that time, because it meant you had to learn a little bit about surveying. Then you had to know mechanical engineering, you had to know chemical, you had to know electrical. So you had to know all of the different phases of the engineering because as a mine manager you had to have a knowledge of all these different things. So it turned out that it was a very broad education and I quite liked it for that reason.

DF: How did you get into geophysics then?

WR: That was kind of interesting because one of my theses was on the oil industry when I graduated. So my father being in the garage and service station business, I had known about the oil and gas from the petrol he had sold, or the gasoline that he had sold. Occasionally he would take me to one of the Shell presentations that they put on and they showed some very interesting pictures of the prospecting for oil and gas, which quite intrigued me, so I thought as a broader part of my education maybe I should write

something up about the oil and gas. So I sort of had that little edge there to feel that I wanted to have as much exposure to all of the different engineering types that I possibly could. So that got me interested. Another part of that, I wrote a small paper on the Tarsands in one of the term papers that you had to do, probably my third year or something like that. So that also intrigued me about the oil industry. I worked in the mining game for the summer of '44, when I got out. Typical of the mining game, they hired you and paid you very, very good wages but when you come to the fall, then they terminated you and hired you again next spring. I said, well what am I going to do for the winter, they said, you'll find something to do and then we'll see you back here next spring. This was the Ventures Ltd. So I did, I went and talked to Imperial Oil and they said, sure, we'll give you a job. So I thought that would be a good job for the winter months, going down to the southern states, which is what they did in those days. They did their seismic work. . . the Canadian crews that were working up in Canada would work in Canada for the summer and then they would go back to the states in the winter. So they had the best of all worlds, so I thought I'll tap into the winter part of it and get a nice, almost winter vacation here. But I liked it so much that I never did go back to mining.

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#044 DF: What did you do for Imperial at the beginning?

WR: We went down. . . there was another chap in the same boat, from mining in Toronto, a fellow by the name of Buzz Crosby. Buzz and I were in the same class and he joined Imperial at the same time. He went down and went to a different area than what I did but we both went down to learn about geophysics. So you got your training by working out on the field crew, finding jugs, geophones as you call them and helping the surveyor and helping the dynamite loading and all of the aspects and then eventually they move you into the office and taught you on the computing. This was in 1945, so the war was still on. I had joined up in 1943 in the Engineers and I went for Engineering training and then in my 4<sup>th</sup> year I was really in the army, going to school. When I got out in 1944 they had decided that they had too many officers, so me with my eyesight, they said, you're one of the first to go here Rabey. You can go get a job in strategic industry. The only strategic industry to get into was base metal mining or oil and gas. So both the jobs that I did after I graduated, one was in base metal mining with Ventures and then when I came back, I had to get back into another strategic industry and so that's why I went to Imperial Oil.

DF: Does that lead us then, into the Imperial's search for oil here in the Leduc, Redwater area?

WR: This was prior to that. This was in 1945, we went down and I worked in Louisiana, in a little town called Plain Dealing. As a matter of fact, I met Bob Boulware there, who became President of National Geophysical there, he's been a prominent Calgarian. But Bob, he was just a junior on a National seismic crew and I was a junior on the Carter Oil company, which was the operating arm for Standard of New Jersey. So Carter supplied the crews to all of the satellite companies of New Jersey, Imperial being one of those. They sent me down there for training so I could come back up in the spring on a Canadian crew, because people were hard to come by in those days to have Canadians that were trained in geophysics. That simplified the problem of sending a crew up to Canada.

DF: So can you tell us about the Leduc discovery and the role seismic played in that?

WR: Yes. That came along. . . we came up in ④45 and that didn't happen until the spring of ④46. We had moved the crew from Wainwright over to Leduc, that was March of 1946 and the very first line that we shot when we got into Leduc was a long, single profile line that went from Bruderheim clean over to Buck Lake on a single profile line. What you found on that were a series of anomalies, some of which were true structural anomalies and some of them were weathering anomalies from your near surface effects. It was a problem trying to differentiate which was which in those days. That was a big challenge for the geophysicists to try to be able to strip off these low velocity layers on the surface and then get your true timing that goes down, below these layers back to the surface and able to map these structures in time. So we did see the very, very faint evidence of a little turnover, sort of an easterly dip, all your beds are dipping to the west. We could see a flattening out on the south side of Leduc and that gave us the first clue as to where there might have been a little anomaly and we found several of those along the way on this particular line. Then they came back and we did some more in fill shooting around these areas that we thought were possible structures or places that were suitable for the accumulation of oil. And that's when we did outline then, what the Leduc field, in a very, very loose reconnaissance pattern. So I was the very first one to every map anything on Leduc and that was in, as I say, March 1946. Then we sent that information into Calgary because we were on the field crew and we did our interpretations in the field but we had to send our maps into Calgary to be followed up by the experts, who then carried the process a little further and tried to tie it into the geology and all the other aspects of what they knew about the area. Because we were just doing straight old geophysics on a seismic crew with no background information other than what we could provide ourselves. At that time they didn't have any well information, I think there was one well at Bruderheim and another one or two wells in the general area but that's the only wells that had been drilled in there and they were shallow wells. So we had nothing to tie to. And what we found, we had one major reflecting zone that seemed to retain its character all the way through. So we used that as our marker horizon for doing our mapping and it later turned out that it was the lower cretaceous that was the reflector and that gave us the structure that we could see. Because there was a little bit of structure you know, in the cretaceous over the Leduc reef itself. One of the hard parts of that was when you were on a seismic crew they were moving all over the place and doing this reconnaissance so it meant that the field crew itself was moving here, there and all over and to simplify some of these moves, the company decided that they would have the office in Edmonton. So I was posted to Edmonton during those days and they would bring all the data into Edmonton and we'd write up the records as we said and that's where you'd put all the elevations in and strip off the weathering and correct it for weathering and then make your structure maps and send them into Calgary.

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#114 DF: When you were doing that, did you have enough experience to see what you were unearthing there?

WR: We were able to see this very minor structure. We had something like 15-20 milliseconds of east dip on this area. But keep in mind we were only correlating one record to another,

we weren't using continuous profiling like we do today. Nobody every thinks of doing reconnaissance like we did but there was no information at all so this was a quick way to get a bunch of information and luckily we were able to carry these reflectors, they were consistent enough that we could carry them over quite large distances there. But yes, we were able to see this. And then they brought in a Heiland crew to do a more definitive seismic over the feature and that's when they did come up with a more prospect than we were able to turn out as the Imperial crew. Of course, the crew was a little upset about that because here Heiland came along as a contract and are able to keep their crew in one place and go back and forth to one area and they were there for probably a couple to three months to do that. Whereas our crew was moving here, there and all over, they thought that was not very fair.

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