

PETROLEUM INDUSTRY ORAL HISTORY PROJECT
TRANSCRIPT

INTERVIEWEE: Jim Scott

INTERVIEWER: David Finch

DATE: May 29, 2001

DF: Today is the 29th day of May in the year 2001 and we are with Mr. J. C. Scott, you go by Jim, at his home at 44040 Township Road, 242 west of Calgary. My name is David Finch. Would you like to start by telling us about your early years, where were you born?

JS: I was born in Winnipeg.

DF: What year was that?

JS: 1916, October 17th.

DF: Tell us about your education.

JS: Normal school education until university. I went to the University of Manitoba and took pre-engineering and in that year got introduced to a little geology. I think I originally had a mind to getting to be a mining engineer. But Manitoba didn't have engineering at the time and I kind of fell in love with the geology part of it and transferred to geology.

DF: So what did you think you wanted to do with geology?

JS: Well, I wasn't entirely sure, I started off working the hard rock and sometime I guess, about the time I got through my degree, I was deciding I wanted to do something a little more useful to the world. It's kind of laughable now isn't it, they think this business of hydrocarbons is a terrible thing but we needed it and still do really. So I decided I would see if I could switch to that. I was still working for the Canadian Survey in the summertime and I asked to switch from hard rock, which I had been exposed to, to soft rock. That's when I came out to work for Dr. Hume in, I guess the summer of '39. I had previously worked up north of Yellowknife, almost before it was formed, I was there in '38. Just passing through of course, at that time it was a tent city, the hotel was maybe boards. That was nice and I like that work. Of course, this was when I did all my canoeing, that year and the year before and the year before that. I came to Hume in '39 and we worked doing field work west of Calgary, on the Jumping Pound River. In fact, later on, I didn't know it at the time, I was helping Shell, they made the gas discovery there. I was taking my post graduate work in Indianapolis at the University of Minnesota and I guess, it was 1941 that something we hadn't seen in all my career at that point, a recruiter. So this man had come around and interviewed several people at the university, these were all graduate students and I was offered a job to go to Louisiana at the time. I never made it. It happened that the chap that I eventually went to work for came up from Los Angeles to Calgary to look the situation over and met Hume of course, he would do that because he was a man who would fill him in on what was happening and I had written to Hume saying I was going to join Shell. So I ended up right back where I was moving away from, back up to Alberta for that next summer. Our headquarters was Los Angeles. So my first year with Shell was working on the plains, this was in 1941. We

went over very rapidly the plains of Alberta from the North Saskatchewan River to the U.S. border and from the Calgary, Edmonton highway more or less, east to the Saskatchewan boundary.

#048 DF: What were you doing on this survey?

JS: We were just mapping if we could, we were just hitting the high spots. Really we were trying to find out if there were any obvious structures that would be suitable for looking for oil and gas. Walked over an awful lot of oil and gas. We did see a lot of the features that were eventually drilled later on, either by us or somebody else. We did walk over Leduc. There wasn't very much to see there but there was one anomalous feature on the river, some miles to the north which in retrospect you might say was some sort of an indicator, although I'm very doubtful that it was much. It was a little fault in the cretaceous, a little turnover. I don't think it was really in association with the reef too much. So after the end of that season we went back to where our headquarters was, Los Angeles, so I spent the winter in L.A. working geophysics mostly. I also had got a feel for some of the surface geology in the Bakersfield area.

DF: Tell us about the status of geophysics in that time period?

JS: We thought that Shell was one of the more advanced companies in using geophysics and I think that was true. Certainly it was up here because at that point I think the only company I knew that had done anything would be Imperial. We, at Shell thought that we were the leaders in the business. We had put out parties, out . . . as a matter of fact, one went from Edmonton east, along the highways there and also in other parts of Alberta and ended up drilling a well or two, which weren't successful at all. But it was interesting to note that had we continued with our seismic out of Edmonton the next well we might have drilled was going to be at the field east of Edmonton, I can't think of it

DF: Redwater.

JS: Yes. We were going to have a line running over it but we could see it and we were going to drill it and didn't do it. That would have been quite a start wouldn't it, a little bit ahead of Imperial's Leduc. It would have been kind of fortunate because all we were doing was running lines and it was just this one line crossing the feature that we saw. But that was enough to give us means to drill wells that would be useful to doing the stratigraphy in the section and so on.

#082 DF: So what year was this?

JS: I think that would have been done in 1942.

DF: So you ran geophysical line across the Redwater. . . ?

JS: Well, just by accident, we were going on the highway out northeast of Edmonton, that was it.

DF: But you didn't recognize it for what it was?

JS: Recognized it as an anomaly. There might have been people in the company thinking of reef but I doubt it. I don't think Imperial were really thinking that way either, until they got into it. But it would have found it. It would have been amazing wouldn't it. Probably Shell wouldn't have been ready for it either because they wouldn't have had. . . I don't

know too much about the business end of this but I doubt if they had picked up much acreage at that time. Now later on they did, they picked up a tremendous amount of acreage out from Edmonton, right out to the Saskatchewan boundary at Lloydminster. I guess they would have been on Redwater again, so maybe they would have had that land, not all of it, just Crown land.

DF: So what [tape gave a little zip]

JS: Well, next season, we stayed in Los Angeles and then came up in the early spring and I went into the foothills, which was where I had been hoping to go anyhow for a long time. I was headquartered at Entrance, have you heard of Entrance. It is not any longer the entrance to Jasper Park, but it was at one time. They moved it back further towards the mountains before my time, quite a long time. But Entrance had become, long before this, a headquarter and maybe the headquarter for hunting parties, horse parties. And it was a good takeoff point for us. The previous year when I was working on the plains Shell had a party working out of Entrance at the time. They worked out with a chap that became one of my good friends was leading the party, his name is Don Curry. He worked with Pete Sanderson, he was a well known consulting geologist at that time.

DF: And you worked with Sanderson too.

JS: No. The next year [tape gave a zip] Sanderson at all I don't think.

DF: Go ahead.

DF: Where were we. I guess Sanderson knew parts of these areas and he showed us how to go about mapping and where to some extent. In the course of the next few years Shell, with 2 or 3 different parties worked up and down the foothills. I took one party north in the foothills up into B.C., which is quite a ways by horse, out of Entrance. If I remember correctly, when I was the furthest point away from my headquarters, which was Entrance, I think it was a good two weeks of riding just to get there. With a pack outfit 20 miles a day was pretty good. I had taken them there, across the Smoky right up to the border. That was interesting too because about that time there were other companies out looking too. An old friend of mine, Hugh Beech was working for McCall Frontenac and he had a party out and I think Superior, Canadian Superior eventually they had a party out. This was probably 2 or 3 years after we had been started. And the Imperial party, in fact I spent one summer, I was doing the surface work and Imperial was doing the photo-geology, we got together on that. And eventually several of those companies got together and what did they call that, there was a name for it, Foothills. . .Cooperation was the term but they got together, Imperial was one, Shell, probably Standard and 2 or 3 others, eventually drilling a hole on a structure that we had first seen I guess, the year I first went into the foothills working with Don Curry.

#136 DF: So why were you still looking in the foothills at this point?

JS: It was the prime spot to look.

DF: Because?

JS: There wasn't very much had been found on the plains this high, there was all the oil down in the southern part of the province which was fine but I think our people kind of regarded that as just small potatoes and we should be looking for something like Turner

Valley. Really that was our model was to find something like Turner Valley. I'm not sure when we started drilling at Jumping Pound but that was going on too at that time. Well, Jumping Pound is over 50 years old now, it would be about 55 now I think, that's when we drilled it. I should digress here and tell you how that went. I wasn't working on it directly by that time. I had done some work there but nothing. . it was mostly geophysics by the time we were getting around to drilling. In fact, Shell had drilled 1 or 2 other holes in other structures there that weren't too successful. They drilled, I can't tell you the date but I guess you could get that easily enough if you want it, they drilled a first hole on top of the structure. You know how the structures are, quite complex when you get down to it and they managed to have worked it out just fine, got onto the gas cap and we thought that was great. All we have to do now is go down and find the oil lake. So we drilled, I think I remember it was about 4 miles down the flank. It seems a little bit far but I heard that figure and it was water. It didn't matter too much, we'll go back up to the oil lake. We went up about half way between that water well and the gas well on top and hit the gas, water contact. Just like having a dry hole when gas is 10 cents an mcf, I think, maybe.

#160 DF: If that, yes.

JS: So it was shut in for awhile but of course, as you know Jumping Pound has been one of our best fields. I've digressed now a little bit haven't I. Going back, not necessarily getting it all in proper time context, I was on other things with them and the finally did drill this, what was it, Solomon Creek I guess. It was kind of amusing. I wasn't around when they drilled it. It wasn't a great success, they did find something but it wasn't good enough to keep at the time. But it was funny, at the time we'd been in that area 2 or 3 years there were these other companies, Superior, I don't know if it was Canadian Superior then or not, I guess it was, Shell, well Shell of course, was us, Imperial, McCall Frontenac and so on, there would be about half a dozen companies and we all knew pretty well what each of the other companies was looking for and we hoped that we knew about this structure and nobody else did. I think we had found it because we had certainly done 2 or 3 years of work on it, outlining it. And it didn't show up too well on the creeks either because it was off east of the Muskeg River. So you'd be going out in the field and you'd see another party camped by a stream and you'd go by, you'd nod your head and you'd smile and you'd look away a bit and keep on riding, you didn't dare stop to talk. And I think they were doing the same, everybody was heading to the same place I think. Several places they could have been but I know that one time we knew the other companies had come to this structure and they were going to map it too. I think that was the beginning of the thing, I've forgotten the name but the foothills agreement for these major companies. By this time I was off doing other things and I didn't get too closely involved in it. Let's see, where did we get to. Oh yes, I worked out of Entrance several years. My last year of work in the foothills for Shell was down at Waterton, but before Waterton was thought of as a drilling prospect. Shell did find it but did find it later and it was through excellent geophysical work. It didn't show up too well in our mapping but I mapped down there. I guess I can't think which company it was, Oscar Erdman's

company, what is that company anyhow, it's a major company, they had found Pincher Creek. They had found that before I was down there. That was one of the reasons I was down, to see if we could see anything in the surface mapping that would give us a clue as to where to go for t find another field. At the end of that season, which was '46 my maps had been turned in and I don't think we got a good clue as to where Waterton was but I think the geophysics that was done later did find it and of course, it's a great field too. In the spring of '47 I believe is when Leduc was found and sometime prior to that Shell in London or Amsterdam had decided we'd move out of Alberta. None of us wanted to go, I don't think anybody in Los Angeles wanted to go, my boss didn't want us to go but we all went to Ottawa and New Brunswick. That was in the field season of '47. I remember I was in Jack Webb's office before we left, more or less saying good bye to him and he was getting a report on the jumping?? of the Leduc well. My gosh, here we were going. It seemed crazy. Anyhow we went. We went to Ottawa first. We were doing reconnaissance work, getting up to snuff on our photographs which covered all of New Brunswick and then when the field season came along we were, well I guess practically all of the Shell staff that had been in Calgary were out there, except for a few people, like the chap Curry, that I'd worked with, he went back to the States and so did a few others. Our overall boss, Les Clark, do you know of him, he followed Alex Clark being the head of exploration for Shell in Alberta. I guess he got eventually kind of teed off too, because he went to work for Barnsdahl, a group of three companies that came up and he left Shell to run their exploration. Anyhow we were down in Ottawa and then the Maritimes, I worked out at Sussex with a party and another chap had a party with me. We worked a lot of the area around Sussex, in fact, down to St. John and all that area. We were there for two seasons. In the winter time we went back to Ottawa and the next summer about half way through. . I don't know if you want to hear this sort of story or not, it's kind of funny. Les Clark became quite well known for the work he did around Calgary, he did a lot of amateur geology. In other words in his spare time he went out climbing mountains and published a lot of it too. I had earlier in my career, while we were still in the foothills, been approached to work for I guess it was McCall Frontenac who were down in Trinidad and I had talked to Clark about it and he just couldn't imagine how anyone in their right mind would think of leaving Shell. Eventually I guess he went out of his right mind because he did leave. And I could understand it really because here he was, sitting on the holdings that we had left in Alberta and we weren't doing anything with them. But in the course of the summer he phoned me and he said, if you weren't working for Shell I would offer you a job as Chief Geologist for me. I was too cautious, I said, well Les when you're ready to make me an offer, he said, I can't do that while you're working for Shell, I said, well I can't leave Shell until I know where I'm going. But he was a very good guy and he didn't change on that. But Husky had come up to Calgary and they were looking for a Chief Geologist and Les put me on to that, put them on to me actually. So they phoned me and they made me an offer and I decided I would take that.

#266 DF: Do you remember what you got paid when you first started?

JS: I sure do. Now this is 1941 and this is U.S. money but at that time I don't think it was

quite as good as ours, in that order anyhow. If I'd have been an ordinary B.Sc. it would have been \$150. I had done my work up to where I had everything done for a doctors degree except the thesis pretty well, so it was a masters. I got another \$25 for that, \$175. However by the end of the year, and I'd been half a year with them, it was raised to \$200. Pretty good eh. Those were good wages then. At least I thought it was.

DF: Now how did you avoid the war?

JS: That was an interesting thing too. In '39 I was here with Hume and there were 3 or 4 of us in the party and we decided we'd go on in and volunteer. I remember a whole lineup of volunteers and I was in it. But I'd been thinking about what would I do and I wasn't particularly anxious to be in the infantry, in the trenches. I wore glasses at the time and I didn't think I could be a pilot. My father was a land surveyor and he'd taught me quite a bit of surveying and I had used it and learned more in the course of the work I'd done for the Survey and for Shell. I could be a navigator. I thought, I probably have enough experience, I'll apply to be an instructor at it. So I went back to Minnesota, this was in '39, I still had 2 years to go and I didn't hear from Ottawa at all for a long time. Finally they wrote and said, how did they put it, I was too young I think, to be an instructor navigator but I would be accepted as a pilot. I couldn't believe that with my glasses and so on. By this time though, I was getting around to thinking I could work in the oil business which was very necessary and so I went that way. In fact, both in Canada and the U.S. I guess they got to the point where they probably wouldn't let you go leave the industry to go do something else. I was just joining of course, at that time. It was kind of interesting, when I first went to Minneapolis you needed to have a permit to come in as a visitor but if you were going to be any length of time and you were going to do any work you had to be, I'm not sure what they called it but it amounted to being a landed immigrant. So I had applied to do that because I was at the university I needed to work to keep us going. So I had gone through all this and did get to be, I don't think they called it a landed immigrant but it was a means by which you could work and eventually become a citizen if you wanted. The only thing about it was, I was now in the States and landed and when the U.S. got into the war and I was working out of it mostly in Canada by this time, you had to go back every six months to register. I think I had to do something in Canada too so you were sort of working it both ways. I guess I'd still been mulling over what to do about the armed forces and Shell recruiter came around and I gave into that, it wasn't hard to do I guess. I was married too, by that time, I was married in '39 so I guess that was part of my thinking. So I had everything done towards my doctorate but a thesis so I left to go to Shell. I never did finish the thesis except a paper here would have done it.

#339 DF: So tell us about the 1950's in Calgary then, is that where you were headquartered?

JS: It was '41 that I joined Shell and for one winter we went back to Los Angeles and I came back for the next season which would be the summer of '42 and we never went back so I was in Calgary until we went to New Brunswick in the spring of '47. Then I got accosted by Husky and I decided I would join them and came back to Calgary. I was the Chief Geologist and the only geologist for awhile. That wasn't very long at that. What happened this was now, we're talking '47 and the refinery that had been set up in

Whitehorse and I think it got to produce a few barrels of oil and the war was over and Glen Nielsen, of Husky, got his hands on that and he'd moved the refinery to Lloydminster. I knew nothing about all that of course at the time I joined the company but I learned about it when I got to Calgary. As I say, I was the only geologist. There was a draftsman, which the landman had hired. Did you hear of Alec Bailey, he was the landman. And we had a secretary, he had a secretary before I got there and I hired the draftsman. And then later on, because we had all this set up at Lloydminster we needed to have an exploration office there and I hired a geologist for there and a little later hired an assistant for him. Then gradually we started doing other things and I built up a staff in Calgary too. And some of it was related to some of this stuff I want to talk about. I went to Husky in '48 and I guess I was tied in at getting things set up at Lloydminster. I sure made a lot of trips to Lloydminster by car, across country.

#380 DF: What were the roads like?

JS: Not too bad. I don't think there was any pavement, you went across country to Lloydminster directly to Calgary, I don't think there was any pavement at all. They weren't bad though, they were good gravel roads. I think that if you got really down to it, the roads had improved from Calgary to Edmonton, and Edmonton to Lloydminster, even though that was much further it was an easier way to go. But I used the other route to sort of follow across a lot of this country I'd had a brief look at in 1941. In the course while I was working in Shell I'd ended up working on the Chungo structure. This was an area that a group from the States had worked on and it was in the 20's I think. I'm afraid that my former mentor, George Hume, Dr. Hume, held up a paper that they'd written on folded faults. It wasn't until I was due to go up, just before I was due to go up and work in that area, which was about . . . I'll have to look at my paper here. . they got it published in the AAPG. Which was a shame because he had no really good reason to hold that up but did. And he didn't believe it, I guess, what they'd seen. And he'd actually seen a bit himself.

DF: Can you just explain to us what this concept is, the folded faults.

JS: I think I might as well get the paper. Can you hold a minute.

419 DF: So the first paper on this is called Folded Thrust Faults in the Foothills of Alberta and it's by B. F. Hake, Robin Willis, and C. C. Addison, that was 1942 and then Mr. J. C. Scott's paper was called Folded Faults in Rocky Mountain Foothills of Alberta, Canada and that was also published in the Bulletin of the American Association of Petroleum Geologists in November 1951. So explain to us the significance of the folded fault.

JS: I guess I should start back a little bit, it wouldn't be a bad idea, it wouldn't hurt. When they first started looking for oil and gas structures and I guess they actually were doing that before Turner Valley was found but Turner Valley was sort of an accident. There was a gas seep in the river and they saw that by drilling it, which wasn't a bad idea. Before that and after geologist were going along the foothills looking for possibly similar structures or even before Turner Valley, looking for structures that could be an anticline or something that would amount to an anticline. It happens so often that an anticline

would be seen on the surface and they would have done lots of work on the sections and know how thick it was and how many feet it would be to get down to the Paleozoic, Mississippian usually in this case. And they'd figure out usually a depth of 5,000', just to give you a rough figure, you could do it in that, that or even less, providing there was no faulting. Quite often the well they drilled would be in beds, maybe even higher in the section than they were when they started, when they got down to that depth. This got to be a thing that got repeated and repeated. And this of course, is eventually where seismic came in to help an awful lot, but also figuring out the geology if you could properly. And it was difficult, there's no question about it. These faults would come in and they kept hoping that they would hit the Mississippian before they went through too many faults but at Jumping Pound that happened early. They ended up in rocks just as young as the ones they started in. And it got very frustrating. And it was recognized that the whole section on the surface of the foothills was a series of thrust faults. You're familiar with that aren't you. Trying to figure out when such and such a thrust fault would let you see rocks that are older got to be a real tough job and very often people just couldn't do it, they'd miss. And really, a lot of it, I can't see how they would have got it, if they knew what they know now about faults it would still be difficult. But they very seldom if ever, went into places, they did recognize that a fault went over into an anticline. [mumbling to himself] This is a man that really is an expert on them now, Jones.

#488 DF: P. D. Jones, Folded Faults and Sequence of Thrusting in Alberta Foothills, February 1971, again, AAPG.

JS: Yes. He's still in the business and he's done an awful lot of mapping and I think he probably doesn't agree with what I was saying either but we're not far apart. Here's another one, this was done in 1942, C. O. Hage and Hume too had mapped the same fault. In fact, I think I saw it later on with Hume.

DF: It's C. O. Hage, Folded Thrust Faults in Alberta Foothills, West of Turner Valley, published in Ottawa by the Royal Society of Canada in 1942. Good.

JS: You can borrow all these things if you want to.

DF: Well, they're available in the library too.

JS: Oh yes, they are, that's right. So Hume, let me digress a moment, am I going all right.

DF: This is good, perfect.

JS: Hume was familiar with. . I think this fellow Hage, Hage was working for Hume and I think I went with Hume too and looked at this fault. He was doing the looking, I was sort of looking at him looking at it and he saw it but I don't think he believed that Hake and Willis had. . they were going to far, there were just too many folds. And that's why he held it up, as far as I know. I'm going to see if I can get a map here. They have quite a long treatise on how these things would grow and I didn't get to see them. This is what creek. . you can see the folded faults in these sections and that's pretty extreme isn't it.

DF: Very extreme.

JS: True though. They were right, I think in everything they did. So I didn't get to see their work because it was just published and my boss again, was Clark and still is, ??? And he saw the thing himself of course, and it was a good idea, he wanted me to see it before I

got influenced by their work. There wasn't any question when you got into some of it, what you saw. I might try to show you if I can. Here are pictures, those are repetitions of the Cardium. They're all slices and these are all folded. There's no doubt about it at all, the folding had to be after the faulting. One fault you could, but not half a dozen or more. I think this is where Peter Jones has got the picture pretty well established. He's seen all this, my work and everybody else's and he's done more. I think his idea of what makes the structure that these are folded on isn't bad either.

End of tape.

Side 2

DF: You were saying that a good example is?

JS: Savannah Creek. It would probably be better called Plateau Mountain because that's where the discovery was, it wasn't on the mountain but on the creek going through it. That's an interesting little aside, the creek running across the structure, you know where Plateau Mountain is and Savannah creek, the creek running across the structure where we drilled, can you guess the name. Dry Creek. We didn't want to call it that and neither did Anglo Canadian when they first went there to drill. All these things come to my mind and probably not in good sequence but I was working with Hume on the Survey out on the foothills to the east of Plateau Mountain and Anglo Canadian went in there to drill it. They had a nice road going in, boy did I ever want to go up that road and see what they were doing. I didn't get to do it till some years later. I don't know what they called there well, I think they used Savannah Creek too, it was a different creek which is actually a different rally. Are you familiar with this at all. They drilled, you know, it's a beautiful anticline in the surface, in the Mississippian and they started to set up their location in the valley, pretty well the top of the anticline. They drilled 40' and went through a thrust fault into Cretaceous. And they were heading for the Devonian, what were they going to do because they weren't expecting this to happen you see. So they drilled I think 2 or 3 thousand feet of Blairmore??? and they did find a little bit of gas but that was it. They gave up the whole thing. Later on when I was with Husky and I had by that time done my paper on the folded faults, I was looking for things like that and thinking oh boy, that's got to be a good one to work in. I don't think I actually set out to the company that we should go and get a permit here, I was approached by a - what do they call these landmen - a doodlebug type you know, you have a plumb bob on a string, you twirl it, that kind of thing. That's what he was. ...

DF: A dowser.

JS: A dowser. Now, Joe Irwin was the guy that came up with the play to drill first and it was a good play for him to do. This was the senior Joe. As a result of that, that again, Jack Webb, who was with Imperial later, with Anglo Canadian, decided it was a good thing to do really. The only thing was they didn't follow through about going down and it was pretty expensive to do as well. Also an area where doing seismic shooting wasn't too

easy. You could maybe do it along the creek and that would be about it. Anyhow this fellow, do you need to know his name, I can get it, I don't think you'd have to, he was a promoter and he had this permit covering it. This was just what I was looking for so I persuaded the company that we should have it, made the deal. Husky didn't have any money much, certainly not for that kind of thing. So I worked it up, walked all over the structure and decided that I had a pretty good picture of it, which I guess I really didn't, not quite. We persuaded . . . oh dear, the gas company out at Omaha, it's in the well name anyhow. . . and they had sent their geologist to Calgary and I got him talked into taking it on, so Husky farmed it to them. They drilled the first well and we went on down and we did hit the Rundle and got a little gas but faulted out. So that was that for the winter. Then we both got together and we got Phillips interested and we farmed it out to Phillips. So they made the big discovery in the 3rd block of Paleozoic. I'm looking back at it now and I've just been doing that thinking of what Peter, what's his last name, Jones, hard name to remember. . . I think that Peter has probably the right idea of what these structures are made up of. You can't go on down, you have to look for something that creates the folding. In my mind there's no question about it, the folding came later. But he came up with the idea for the kind of structure which could be faulted still, along the style of Turner Valley and other features like that. These faults raising up, making a high, made the anticline that these folds came over. That didn't quite explain what I was seeing thought because there was more than one fold, you could have two or three, but I think it all tied in to a major push up from underneath. So I like what Peter does. But anyhow I was looking for folded repeats of Mississippian. I think we had but it was sort of half way between, it would be faulted too some, so it was more complicated. But we got enough to make, I guess they're pretty good wells, they're still producing, some of them are. I've never checked back to see just how much Savannah Creek has made. But anyhow it became I suppose, I don't know if famous is the right word but it became well known anyhow, everybody knew about it. I guess when we made this field trip where Ted Link was going to scruter??? me, we had drilled the first seat and had a little gas. I'm not sure just what he had in mind but he knew that I wasn't right.

#073 DF: So what was Ted Link going to do?

JS: I don't know, he was just going to get up and tell everybody at the field trip that I was full of baloney I think. This is where Bill Gallup who worked for Ted for some time, he was a pretty good guy, he knew what Ted Link had in mind and he got up and made some remark, a little bit like the one end of the horse speaking like the other. It wasn't quite like that but similar and they pretty well shut the thing down.

DF: Could we talk about how you got associated with the ASPG, how did you get involved with the Society?

JS: Very simply, through people like Hume and Sanderson. They were a small group of the old timers. If you were going to be in the business of looking for oil structures in the foothills, there was only one place to be. When I joined the Society I suspect we made about 50 people, maybe not that.

DF: Do you ever remember them talking about forming the Society because Link and

Sanderson were two of the founders?

JS: Yes, they were. Oh yes, I remember it being discussed. At the time that I joined we had no formal place to meet except the restaurant not far from the Palliser, what was it, the Club Cafe I think, yes. And that's where they met, every. . .it was quite informally done, everybody just went down a certain day and all the tables would be reserved. There weren't many for the Society, you'd maybe have 30 people, something like that, that were in town. There'd be a total membership of probably not more than 50. There was no question, if you wanted to go ahead in the business and talk to these old fellows that knew all about what was going on that's where you did it.

#095 DF: Were these informal lunches or were they actual meetings with speakers?

JS: Mainly informal but there would usually be a speaker, and he spoke probably informally. Like, Pete Sanderson, who first was being used by Shell when I joined, he was definitely the major participant and he was quite willing to get up and talk about what he was doing, what he thought. So would Hume if he was there. And Bertie McKay. He was another one who had seen folded faults too but he didn't really tie in. He had mapped the area I worked in, Chungo Creek and that environment but when you got down to looking at the details there was no follow up, you couldn't see the structure he was talking about, even though the surface map showed that there was some. I never did understand just how he operated. I think one way, he didn't get out and look at the outcrops too much, he would sit in his office, in the field in a tent and he'd be working it all out and then he'd tell one of his assistants, you go out tomorrow and go up on that mountain and see what's there and see which way the rocks are different and then he'd come back that night and tell what he saw. But he was pretty good, that's McKay I'm talking about now.

DF: So how did you come to be involved with the executive of the Society?

JS: Somebody asked me I guess. Maybe this is a possible answer. I was the assistant to Cam Sproule as the editor to this volume, Field Conference and Symposium, 1953. And you'll see in here the officers of the Society were Earl Abbott with Hudson's Bay Oil and Gas, Con Hage, you saw his paper here, he was past President and a consulting geologist by then, and so on, Fred Lyons and Barney Clare, I was telling you about Barney. And William Farmillo, he was President following me. In this one here we list the officers and then . . . the Crowsnest Field Trip Committee, Gallup was the Chairman, Sproule was the Guidebook editor and I was his assistant and so on.

#129 DF: So this was how you got involved.

JS: In the actual executive, right. Being the editor of the field trip didn't put you in the executive but it made you a pretty good candidate to get in it.

DF: It got you close anyhow. So let's spend a few minutes talking about the years you were in the executive, what do you remember about that time period?

JS: Here's where I am the Chairman the next year. 1954, I was the editor of this and Gallup was the President.

DF: Any stories about Bill Gallup?

JS: I told you one. There are lots of them. He was a good guy and also the stories that I think

are best remembered for me are the places when he spoke up when Link was going to really hammer me. Gallup was the guy who. . .

DF: Saved you.

JS: Yes. Maybe I could have answered, I don't know.

DF: I did send you this information, this report you wrote the year you were President, would you like to review that and see if there's anything that you'd like to comment on.

JS: I think any comments are in here pretty well. Unless, is there anything that you'd like to follow up on.

DF: Well, the Society was growing quite. . .

JS: Let me not digress too quickly here. I was assistant there.

DF: '53.

JS: I was the editor here.

DF: In '54.

JS: And I was the President here.

#152 DF: In 1955, right.

JS: And that was when we had the field trip and the whole conference at Jasper. I can comment about that maybe a little bit later on.

DF: Go ahead now.

JS: You got pretty well the essence from reading this I think but the Jasper conference was a major one. I wasn't the Chairman of it, the Chairman looking after the development and everything was working for me. I didn't have too much to do with organizing it except to be the figurehead at the meeting. We had Manning up there, so Manning met with us and our wives and so on.

DF: Premier Manning was there?

JS: That's right.

DF: Did he speak to the conference?

JS: Now I'm not sure, I don't think he did. He was at it, we had a dinner and we met with him, sort of a social evening, that type of thing.

DF: The year you were President, you're right, there was spectacular growth in the Society, why was that, what was happening?

JS: This was '55. There would be things like what I was doing at Savannah Creek and so on and the companies were just pouring in to do all these things so there was a lot of new geologist to the area and the thing to do was to join the Society.

DF: Yes, you say that there were 134 new memberships that year, so that really points out a real boom in the industry, doesn't it?

JS: That's right. And also you might note that the total members hadn't grown that much. A lot of people that were members had been transferred out to other areas, say Edmonton and Regina and things like that. At that time we were a little bit more parochial I'd say. To be a member you didn't have to be, but you probably wanted to be in Calgary.

DF: And it was still the Alberta Society at that point so if you were working in Saskatchewan you were probably part of that Society or Edmonton, you were that.

JS: Yes, but they weren't very well developed or very much developed compared to the one

in Calgary.

DF: No, that's right. So you pretty much had to be in Calgary in order to really participate.

JS: To get the full benefit off it, that's correct. It's really that way quite a bit now except you've got a lot more publications that you can have and I suppose with the Internet and so on, you can get more direct communication too.

#185 DF: Now during the year you were President you wrote that it was becoming obvious that the Society needed to be incorporated, do you remember anything about that.

JS: Pretty well just what you can read there. Probably the instigation of all these things wasn't likely me, it was probably somebody working on the executive committee.

DF: What do you think was the most valuable thing that was going on in the Society in that time period? Now, the publications. .

JS: Yes. One thing that's worthy of note was the chap that. . where is his name, I hear from him all the time, he worked for Phillips . . .

DF: What's the context, what was he doing?

JS: He was the one that suggested almost a letter, it was written on this kind of paper you know, see if I've got his name here, Carl Olson and he really was the guy responsible for starting up our publications. This is the one that we changed to, that we were talking about doing. Really he was the man responsible for starting up the newsletter. And he put it out, just that way, it was very few pages, just whatever was necessary, putting out the news of the Society and things like that. And he'd done that, just started a year or two before I was President. And it was during my time that it switched over to the Reservoir. So he was the instigator of it all, he didn't come up with the Reservoir but he would have.

DF: So publications were becoming a very important part?

JS: I think that would be one of the major things, maybe the major thing to consider at that time. So yes. Let's see if there was anything else particularly.

DF: Was there any contentious issues that year you were President or when you were on the executive?

JS: There always were some but there were nothing terrific that I can remember. I think my deal at Savannah Creek was probably as contentious as any. It was as far as Link was concerned anyhow. You see, we had meetings, we had J. S. Irwin, this is Joe, the Savannah Creek structure, he was talking about it. Of course, I had already, I guess we had drilled Savannah at that time but Joe Irwin, he was giving some of the back history of that and so on. Is there anything else you can think of? Of course, I was wrapped up in this structure quite a bit and the idea of folded faults, how did they form and so on. Also I was very much involved with Lloydminster and the heavy oil up there, through the geologist I had up there.

#234 DF: How did you find the time to do this work for the Society?

JS: It seemed easy.

DF: Was your company supportive of you being involved?

JS: Oh yes. But we certainly didn't spend the time on it then, that the President would now, or his whole executive. I could see that it was going to come but maybe I was one of the

last of the amateur Presidents type of thing. That's not quite right but it's. . .

DF: Yes, because they're still not paid. But they have a lot of office staff.

JS: Oh no. But I would say that they would have to spend pretty well half their time on the Society. I was thinking at the time I was President that we had to spend a fair amount but we didn't do very much of it during the day time though, it was mostly evening kind of things. And our meetings. But it was coming. In fact, pretty quickly after that.

DF: Do you attend some of these past President's dinners?

JS: Most of them.

DF: What kinds of topics come up at those?

JS: One you have the past President giving, I don't know that they did what I did here, I'm sure they're right but they give it as a talk, take about an hour, talking to all the past Presidents. The turn out's pretty good, anybody that was able to make would be there, still alive and people like that. And the current executive would be there too. So you would be told what the Society was doing, what they're planning and if they were doing the job correctly, and I think most of them did, they'd be looking for ideas too. We're going to do this, is that a good idea type of thing. And there would be controversies but not particularly on the work of the Society, things like global warming and so on, which on recent years has had some going over. So yes, I attended, I would imagine, when I was in the east, which was not too many years, I wouldn't have. I was a member but I hadn't been on the executive at that point. I would say that if I was in town and not sick I would have been at every one. I think I missed last year, that was partly because I couldn't, I was sick.

#270 DF: What do you think about the future of the CSPG? It's almost 75 years old.

JS: It is, isn't it, this year. Amazing. I think that it will go on. It's hard to say just how big it is in everybody's requirements but I think most serious geologist will be members and they'll always get something out of it. Besides the Reservoir which I read all the time, I'm not so good about reading the volumes that we put out, which we put what, half a dozen a year. But they're certainly good for working geologists. I think it will go ahead without any major problems. There is a problem always of making sure that you're not spending more money than you're taking in. But it's pretty good so far. Did you happen to read the amount we had at the time I was President?

DF: Not very much was it?

JS: No, it sure wasn't. I made a comment here, I said, the total amount of money received at the conference amounted to 23 thousand and so many dollars, total expenditures amounted to 21 thousand. We always had to make sure we were watching to see our money was sufficient to what we were doing. They've got a fair amount more now of course. No, I think it's got a good future, I think it will carry on. It isn't going to be and probably hasn't been for a long time, the way it was when I joined where there would be 30 guys in that order, getting together and you knew pretty well everything that was going on in a general way. I don't think it's quite possible for somebody to do that, there's so many things, so many different lines. You have to pick out the things you're interested in, but it's there and I think they do a very good job.

DF: Did you ever work as a consultant, after you retired or. . ?

JS: Theoretically I am now. But I haven't done much over the last couple of years. I'm going to be seeing the fellow I worked for, and I guess I am if I do any work this coming week. He's a chap from Houston and he got kind of taken on this Savannah Creek thing. How did it happen, I wasn't really in on all the business end of it. But he came up and he liked it and I didn't blame him particularly. But he got, somehow by Nielsen and Nielsen didn't plan this, he got turned on to these minor companies that were involved and he came up with . . you better not quote me on this, this is just sort of hearsay I'm picking up, Bob got involved in a small company that was involved in a small way in this. They came up with a program to drill, right away after the discovery, several wells, very expensive. It just was something those companies couldn't do and Bob, I think, lost some money right away in that. But I wasn't involved with him in that. He came up after I retired and asked if I would phone him and I've done that. We haven't done very well. Really you need more money than he had I think. Because we were hanging on the coattails of other companies and it could work fine but it didn't always. Right now we've got a project up in B.C. and it's been in our portfolio for several years. Do you mind talking about it? We call it Lucy. Shell had drilled a well, it must be 15 years ago now and they found gas in reef, it would be lower Keg Point I guess. To their mind it wasn't good enough, it was on the edge of the reef and we got involved in the land, there had been several different combinations of companies working on it. Including having the land that well was drilled on. And just in the last couple of years there's been a heck of a lot of work there. Somebody picked up the land, including the land the well was on, still abandoned and with gas prices the way they are and made, I'm told, this is just rumour, \$3 million in just a short time. Maybe we could have done it too but at the time we were looking at it we were talking about \$2 or \$3 an mcf. But we have land there still and I think we'll be involved in that off and on here.

#355 DF: Let's step back for a few minutes, we're getting near the end of the tape and just get you to look back over your career, what are you most proud of, of the things you have done, what did you most enjoy doing?

JS: I enjoyed doing the field work of course, wherever I was. And I think pushing along that Savannah Creek, that was one of my major things. One of the other things that I can't really say I had much direct geologic input in it but I was invited into taking Pacific overseas. It ended up of course, going in to Petrocan. We were in Spain and I enjoyed this very much, I went and looked at the geology there and so on and we took land and we worked with Cal Standard and the local Spanish company, who of course, didn't participate directly, they just had an interest you know. And we did the seismic offshore, what was the town, Teragona, it would be southwest of Barcelona, offshore. In our second well we made our discovery. I think that would be number two if not number one to me. But I didn't, you know, I looked at all the geology and proved during the geophysics and so on but I don't feel that I was the discoverer.

DF: But you were part of the team and that was exciting.

JS: Oh yes. Chevron was number one I guess. I have a funny story but I hesitate to tell it,

well, without names I'll tell you. I was back and forth quite a bit then, I enjoyed that, I got to go all over Spain and see a lot of the geology, also a lot in Britain too. I wasn't in France, we had some acreage offshore that would have been part of Germany I guess, yes, I was in Germany too. So that was interesting, I was in Norway as well. That was all very interesting. Well, on our first hole we drilled in the Mediterranean, it ended up it was a miss, which wasn't too surprising, if you hit once in ten you're doing pretty well. But Chevron had this rig for awhile and they wanted to put it to use so we all agreed to drill a second well. That's all right, I thought that was great. I was keeping track of it from Calgary I would get daily reports and towards the end of the hole, one of my geologists was going on vacation over to Spain, a hiking type. I said, well, you go on down when the well's ready to log, when they're at the critical point and have a look at the samples and so on and we'll pay you for part of your trip. The poor fellow, he went down and I guess the samples, there was quite a bit of porosity and so on but not any sign of oil. I got a telegram from him saying it was a washout really, ready to abandon. But I had already made up my mind, because I'd gone through this so often before, that if there's porosity there, even if you don't see anything you'd better test it. I think Chevron would have done the same thing, probably all the companies but anyhow, I said to them I want a test and I'm sure they did too. Well, they tested and it flowed 10,000 barrels a day. This poor guy was still on vacation. He came into my office when he came back and he still didn't know. He'd already sent me a wire saying it was a dud. I said, here, look at this. The poor guy. I can't blame him. I guess the reason I was this way and I'm sure the others too, Chevron, so was my friend Kirker who got me into the play, if it doesn't look good but if it does look like it could do something, you'd better check it. I remember earlier on when Phillips first came into our play in Alberta, because it wasn't just Savannah Creek, we had a lot of land in Alberta and in Saskatchewan, a lot of it in the south part of the province here. They were drilling wells for us and invariably we were getting water or nothing. On these wells that were getting nothing on the drill stem test I confronted their drilling engineer. I said, you know, on these wells they've got lots of porosity in there and what's happening is you're getting nothing, why. He very condescendingly decided he would educate me, he said, you know how the drill stem test works don't you, you go down there and you set your packer and you open things up and if there's anything there it comes in. I said, that's interesting isn't it, and you got nothing. So several of these wells what we did, after all this, we set pipe and you could see the porosity in the logs and we got lots of water. I said, how did that happen. Of course, you know what happens, it's plugged off by the drilling mud. But he wouldn't tell me that. It's amused me for years just thinking about it, having this voice over the phone condescendingly tell me, if it's there, it comes in. What am I missing here that you want?

#466 DF: Well, just some general comments, any regrets, any things you wish you would have had time to do? Sounds like you did some international work, that must have been interesting.

JS: It was, I liked it.

DF: Did you work in the far north?

JS: Did some. We didn't get to drill up there. My friend, Jack Gallagher was up in that area. Did you meet him at all? I did some work up there, with Husky. We worked up in the Yukon, north of Dawson City, the Porcupine Basin there. That was interesting, all that. I worked up . . . I didn't do the work myself, I was supervising the crews doing that kind of work, sure that was lots of fun. I was hoping to do a little more than just come up with. . . we really didn't get drilling at all, it was more earlier exploration. I think in all cases we were going to be looking for somebody to come in and drill for us. Again, I didn't work, but up in the area of Norman Wells, in the mountains west of there, I've been in that area and supervised work, quite a few places like that.

DF: Mapping?

JS: We were mapping yes, but I wasn't doing it.

DF: Did you do some canoeing up there?

JS: No. Very little if any, I can't think of it.

DF: So you were working with choppers by that point?

JS: Oh yes. One of the things, nothing very special about it but it was interesting. The pilot and I were flying looking over the valleys, just to check up on the geology of the rocks that our crew was working on and we saw a little, we were pretty high, an open beach down on the river below. I said, do you think we can go down there and land, he said, sure I think we can. We got down, we were both really surprised we were only about 200' above it and it was just as small as it looked from 2,000'. We had no room to land. That kind of stuff is interesting.

DF: Well, thank you so much for taking this time to let us interview you. On behalf of the Canadian Society of Petroleum Geologists and the Petroleum Industry Oral History Project we'd like to thank you for spending this time with us today and we'll end the formal part of the interview at this time. Thank you very much.

JS: Have I covered what you wanted, I hope I have.

DF: You certainly have, thank you very much.