An Interview with LEONARD J. LARSON

An Oral History conducted and edited by
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Nye County Town History Project
Nye County, Nevada

Tonopah
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Jim Larson standing beside his Allis-Chalmers bulldozer
1990

PREFACE

The Nye County Town History Project (NCTHP) engages in interviewing people who can provide firsthand descriptions of the individuals, events, and places that give history its substance. The products of this research are the tapes of the interviews and their transcriptions.

In themselves, oral history interviews are <u>not</u> history. However, they often contain valuable primary source material, as useful in the process of historiography as the written sources to which historians have customarily turned. Verifying the accuracy of all of the statements made in the course of an interview would require more time and money than the NCTHP's operating budget permits. The program can vouch that the statements were made, but it cannot attest that they are free of error. Accordingly, oral histories should be read with the same prudence that the reader exercises when consulting government records, newspaper accounts, diaries, and other sources of historical information.

It is the policy of the NCTHP to produce transcripts that are as close to verbatim as possible, but some alteration of the text is generally both unavoidable and desirable. When human speech is captured in print the result can be a morass of tangled syntax, false starts, and incomplete sentences, sometimes verging on incoherency. The type font contains no symbols for the physical gestures and the diverse vocal modulations that are integral parts of communication through speech. Experience shows that totally verbatim transcripts are often largely unreadable and therefore a waste of the resources expended in their production. While keeping alterations to a minimum the NCTHP will,

in preparing a text:

a. generally delete false starts, redundancies and the uhs, ahs and other noises with which speech is often sprinkled;

b. occasionally compress language that would be confusing to the reader in unaltered form;

c. rarely shift a portion of a transcript to place it in its proper context;

d. enclose in [brackets] explanatory information or words that were not uttered but have been added to render the text intelligible; and

e. make every effort to correctly spell the names of all individuals and places, recognizing that an occasional word may be misspelled because no authoritative source on its correct spelling was found.

As project director, I would like to express my deep appreciation to those who participated in the Nye County Town History Project (NCTHP). It was an honor and a privilege to have the opportunity to obtain oral histories from so many wonderful individuals. I was welcomed into many homes--in many cases as a stranger--and was allowed to share in the recollection of local history. In a number of cases I had the opportunity to interview Nye County residents whom I have known and admired since I was a teenager; these experiences were especially gratifying. I thank the residents throughout Nye County and Nevada--too numerous to mention by name--who provided assistance, information, and photographs. They helped make the successful completion of this project possible.

Appreciation goes to Chairman Joe S. Garcia, Jr., Robert N. "Bobby" Revert, and Patricia S. Mankins, the Nye County commissioners who initiated this project. Mr. Garcia and Mr. Revert, in particular, showed deep interest and unyielding support for the project from its inception. Thanks also go to current commissioners Richard L. Carver and Barbara J. Raper, who have since joined Mr. Revert on the board and who have continued the project with enthusiastic support. Stephen T. Bradhurst, Jr., planning consultant for Nye County, gave unwavering support and advocacy of the project within Nye County and before the State of Nevada Nuclear Waste Project Office and the United States Department of Energy; both entities provided funds for this project. Thanks are also extended to Mr. Bradhurst for his advice and input regarding the conduct of the research and for constantly serving as a sounding board when methodological problems were worked out. This project would never have

become a reality without the enthusiastic support of the Nye County commissioners and Mr. Bradhurst.

Jean Charney served as administrative assistant, editor, indexer, and typist throughout the project; her services have been indispensable. Louise Terrell provided considerable assistance in transcribing many of the oral histories; Barbara Douglass also transcribed a number of interviews. Transcribing, typing, editing, and indexing were provided at various times by Jodie Hanson, Alice Levine, Mike Green, Cynthia Tremblay, and Jean Stoess. Jared Charney contributed essential word processing skills. Maire Hayes, Michelle Starika, Anita Coryell, Jodie Hanson, Michelle Welsh, Lindsay Schumacher, and Shena Salzmann shouldered the herculean task of proofreading the oral histories. Gretchen Loeffler and Bambi McCracken assisted in numerous secretarial and clerical duties. Phillip Earl of the Nevada Historical Society contributed valuable support and criticism throughout the project, and Tom King at the Oral History Program of the University of Nevada at Reno served as a consulting oral historian. Much deserved thanks are extended to all these persons.

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--Robert D. McCracken
Tonopah, Nevada
1990

Historians generally consider the year 1890 as the end of the American frontier. By then, most of the western United States had been settled, ranches and farms developed, communities established, and roads and railroads constructed. The mining boomtowns, based on the lure of overnight riches from newly developed lodes, were but a memory.

Although Nevada was granted statehood in 1864, examination of any map of the state from the late 1800s shows that while much of the state was mapped and its geographical features named, a vast region--stretching from Belmont south to the Las Vegas meadows, comprising most of Nye County--remained largely unsettled and unmapped. In 1890 most of southcentral Nevada remained very much a frontier, and it continued to be for at least another twenty years.

The great mining booms at Tonopah (1900), Goldfield (1902), and Rhyolite (1904) represent the last major flowering of what might be called the Old West in the United States. Consequently, southcentral Nevada, notably Nye County, remains close to the American frontier; closer, perhaps, than any other region of the American West. In a real sense, a significant part of the frontier can still be found in southcentral Nevada. It exists in the attitudes, values, lifestyles, and memories of area residents. The frontier-like character of the area also is visible in the relatively undisturbed quality of the natural environment, most of it essentially untouched by human hands.

A survey of written sources on southcentral Nevada's history reveals some material from the boomtown period from 1900 to about 1915, but very little on the area after around 1920. The volume of available sources

varies from town to town: A fair amount of literature, for instance, can be found covering Tonopah's first two decades of existence, and the town has had a newspaper continuously since its first year. In contrast, relatively little is known about the early days of Gabbs, Round Mountain, Manhattan, Beatty, Amargosa Valley, and Pahrump. Gabbs's only newspaper was published intermittently between 1974 and 1976. Round Mountain's only newspaper, the Round Mountain Nugget, was published between 1906 and 1910. Manhattan had newspaper coverage for most of the years between 1906 and 1922. Amargosa Valley has never had a newspaper; Beatty's independent paper folded in 1912. Pahrump's first newspaper did not appear until 1971. All six communities received only spotty coverage in the newspapers of other communities after their own papers folded, although Beatty was served by the Beatty Bulletin, which was published as a supplement to the Goldfield News between 1947 and 1956. Consequently, most information on the history of southcentral Nevada after 1920 is stored in the memories of individuals who are still living.

Aware of Nye County's close ties to our nation's frontier past, and recognizing that few written sources on local history are available, especially after about 1920, the Nye County Commissioners initiated the Nye County Town History Project (NCTHP). The NCTHP represents an effort to systematically collect and preserve information on the history of Nye County. The centerpiece of the NCTHP is a large set of interviews conducted with individuals who had knowledge of local history. Each interview was recorded, transcribed, and then edited lightly to preserve the language and speech patterns of those interviewed. All oral history interviews have been printed on acid-free paper and bound and archived in Nye County libraries, Special Collections in the James R. Dickinson

Library at the University of Nevada, Las Vegas, and at other archival sites located throughout Nevada. The interviews vary in length and detail, but together they form a never-before-available composite picture of each community's life and development. The collection of interviews for each community can be compared to a bouquet: Each flower in the bouquet is unique--some are large, others are small--yet each adds to the total image. In sum, the interviews provide a composite view of community and county history, revealing the flow of life and events for a part of Nevada that has heretofore been largely neglected by historians.

Collection of the oral histories has been accompanied by the assembling of a set of photographs depicting each community's history. These pictures have been obtained from participants in the oral history interviews and other present and past Nye County residents. In all, more than 1,000 photos have been collected and carefully identified. Complete sets of the photographs have been archived along with the oral histories.

On the basis of the oral interviews as well as existing written sources, histories have been prepared for the major communities in Nye County. These histories also have been archived.

The town history project is one component of a Nye County program to determine the socioeconomic impacts of a federal proposal to build and operate a nuclear waste repository in southcentral Nye County. The repository, which would be located inside a mountain (Yucca Mountain), would be the nation's first, and possibly only, permanent disposal site for high-level radioactive waste. The Nye County Board of County Commissioners initiated the NCTHP in 1987 in order to collect information on the origin, history, traditions, and quality of life of Nye County

communities that may be impacted by a repository. If the repository is constructed, it will remain a source of interest for hundreds, possibly thousands, of years to come, and future generations will likely want to know more about the people who once resided near the site. In the event that government policy changes and a high-level nuclear waste repository is not constructed in Nye County, material compiled by the NCIHP will remain for the use and enjoyment of all.

--R.D.M.

This is Robert McCracken talking to Jim Larson in Tonopah, Nevada, on January 11, 1990.

CHAPTER ONE

RM: Jim, let's start by you telling me your name as it appears on your birth certificate.

JL: Leonard James Larson - my birth certificate's out of California. I moved to Nevada during the 1929 Depression. My granddad was in Manhattan and I guess we couldn't make any money in California, so he came and got my mother and me and my brother and took us to Manhattan.

RM: What was your birthdate and birthplace?

JL: I was born in Ripon, California, which is about 10 miles north of Modesto, in 1924.

RM: What was your father's name?

JL: Leonard Christian Larson.

RM: Do you know his birthdate, off-hand?

JL: No, I don't remember any of that. He was born in Nebraska - I can tell you that - and he moved out to California. The people in his family were farmers. He met my mother in California.

RM: And what's your mother's name?

JL: Merle Coop Abernathy.

RM: What was her maiden name?

JL: Coop.

RM: And do you know when and where she was born?

JL: She was born in May 1906 in Manhattan. They had a hospital out there, then.

RM: What was her father's occupation?

JL: Well, he was originally a blacksmith. But then he did a little bit of work as a lawman and teamster. And then he became a prospector.

RM: Do you know when he came into Nevada?

JL: He came into the Tonopah rush, here. He'd been in the Klondike gold rush, and he came down and married my grandmother and came up into Tonopah and started freighting from Tonopah to Manhattan.

RM: After the Manhattan strike?

JL: Yes - after the Manhattan strike. I don't know when my grandmother and grandfather got married, but my mother was born in Manhattan.

RM: And then you came here in '29?

JL: Yes. My grandmother and grandfather separated, and my mother went with my grandmother down to around Manteca and Ripon, California. That's how she met my father, and they got married there. Then during the Depression my grandfather must've had a little bit of money; pretty near all the people in Manhattan had a little bit of money. He came and got us and brought us back to Manhattan.

RM: So you came to Manhattan when you were 5 years old. Do you remember anything about before you came to Manhattan?

JL: No. I can remember that in one of the winters in Manhattan we wore burlap sacks and strings for overshoes; that's how poor we were. And I remember eating jackrabbits and deer; I was pretty near raised on deer meat.

RM: What's your earliest memory of Manhattan?

JL: Just that snow and those overshoes out of burlap sacks. I remember a big whirlwind one day that picked up an old bathtub out of a burned house right up in the air.

RM: No kidding. A dust devil did that?

JL: Yes.

RM: I'll be damned; I didn't know they were that strong. In fact, I always wondered how strong they were.

JL: Well, you know, they call it a hurricane when you have 70-, 80-miles-an-hour winds back east, but here it's just a wind or a dust devil. [chuckles]

RM: Did you go to school, then, in Manhattan?

JL: Yes, I went all the way through high school.

RM: So you would've started school there about 1930?

JL: Yes. I wouldn't remember that. My mother was the second white child born in Manhattan, I can remember (they didn't count the Indians). Ila Myers was the first child born there. She was a first-grade teacher, and that's how I happen to remember that.

RM: Tell me some more of your early memories of Manhattan.

JL: Well, just going up to the mine. My father was still down in California, trying to earn a living, and he finally came up and went to mining with my granddad.

RM: What mine did they work in; do you know?

JL: Granddad and his partner had a mine called the Jumbo.

RM: Where was the Jumbo located?

JL: Just this side of the Tonopah summit on the old road. Do you know where that road goes up?

RM: Roughly, yes.

JL: It's just past the S-turns, and you can see the glory holes up there. Tony Seelik has it now; he bought it from my brother.

RM: Was it a pretty good mine?

JL: Well, I don't know. I think that Houston Oil and Mineral would've

done some real exploration on it, but they couldn't make an agreement with Mr. Seelik. He came in and bought it from my brother just before the gold started to raise. I don't remember the dates on that. He's made money out of it - had it leased to different companies.

RM: Are you fairly familiar with the mines in Manhattan?

JL: I know where they're at, if that's what you mean.

RM: I mean some of their characteristics and so forth.

JL: Oh, the structures and things like that?

RM: Yes.

JL: Oh, I couldn't say. I studied Ferguson's report. He was a geologist who wrote a report on Manhattan in 1923. I studied that, but I can't tell you. If I thought there was really something good there, I would've picked it up and mined it myself, and I never did find anything that good.

RM: So when you were a kid, growing up, your father was working in the mines there?

JL: Yes - with my grandfather. My father was a jack of all trades, and one man I know of in my lifetime who was a master of all trades. Whatever my father did, he could do well. And when the war came along, he . . . well, he made cabinets and fixed the houses up.

You know, the houses in these old mining camps were one wall. They weren't double wall - they just had one wall. To keep the boards straight, if they were out of line they'd take a piece of tin and stick it through between, and nail it here on this one, then they'd pull it until the other board was straight and nail it on the other side. Then they'd just put cheesecloth on the inside and bat on the outside, and that was all. Even Tonopah had houses like that.

RM: Is that the kind of house you lived in?

JL: Yes; those overshoes felt good, too. [laughs]

RM: What kind of clothing did you wear as a kid there?

JL: Bib overalls - I remember that. And winter would come along, and my mother'd want to put the wool underwear on me, and I'd fight it like hell. I found out, while I was in the Second World War, in the service, that I was allergic to wool. I didn't know it before that, but that's why I'd always fight her when she wanted to put those long-handles on me.

RM: Did she win the fight?

JL: Well, she eventually got them on me. But in the Second World War, when I'd wear my wool uniform I'd break out in a rash. That's how we found out that I was allergic to wool.

RM: What do you remember about going to school in Manhattan?

JL: It was a 3-room . . . I had a teacher tell me that I learned 70 percent of what I learned by listening to the class ahead of me. He said I was going to be in trouble when I went out of the eighth grade into high school, because I couldn't listen to them. I don't know; I enjoyed going to school. I tell kids nowadays that the best years of their life are while they're going to school, but they don't realize that.

RM: Yes, right. Is that how you feel?

JL: I didn't feel it then, but that's . . . [chuckles]

RM: How many brothers do you have?

JL: One brother.

RM: One brother; no sisters?

JL: No.

RM: How much age difference is there between you?

JL: He's 2 years younger than I am.

RM: And what's his name?

JL: Bruce Larson.

RM: Did he stay in the area, too?

JL: Oh, yes, he's here.

RM: What did kids do, growing up, for fun and activities?

JL: Well, in the wintertime we rode sleds and what skis we had.

RM: Did you make skis?

JL: No, we had a few pair of skis, but we didn't have those lifts to take you up to the top of the mountain. You trammed up to get down. [chuckles] And there's a slight grade - about 6 percent, I guess - in Manhattan. When the cars would pack the snow down in the wintertime, you could really come down with a toboggan or a sled on Main Street.

RM: What other kinds of things did you do as kids?

JL: Well, they had us do football and basketball in school. And we went hunting a lot - chipmunks and rabbits.

RM: Did you eat the rabbits, then?

JL: No - none that I ever killed. When we first went there my father was bringing rabbits in for us to eat, but my mother finally put a stop to that.

RM: Why did she do that?

JL: He came in one night, just before supper was ready, and he threw 3 rabbits under the sink (they didn't have the sinks boxed in like they do now). And one big old warble about as big as your finger started crawling across the floor. That ended the rabbit-eating.

RM: What's a warble?

JL: A warble is from a fly that lays eggs in the back of cattle and rabbits and everything; they look like a big caterpillar. It was about

as big as your finger. So that ended the rabbits.

RM: Was he in the rabbit, or he was after it?

JL: He was in the back of the rabbit.

RM: Oh, my God.

JL: These flies lay their eggs right under the skin, I guess. And then the warble grows right . . .

RM: In the rabbit? While he's alive?

JL: Yes.

RM: What other kinds of things did kids do?

JL: My mother said she should've been a junk person. She said everything in Manhattan that was loose was in our yard at one time, and some that wasn't.

RM: [laughs] Because you kids were dragging it home?

JL: Yes, that's what she was saying; we'd drag everything loose, and some stuff that wasn't loose.

RM: How big was Manhattan, then?

JL: Oh, I can't say - there might've been 2000 people, but I don't think there were quite that many. It was real small when we came up. Then the gold went up in '32 or '34, and then it started to boom a little bit. Then in '39 the dredge came in and there were quite a few people there. But between '34 and '38, anybody in Manhattan who wanted to work had a new car. (A pickup was about $600.) I remember my stepdad bought a new Plymouth in '39. My father and my mother separated in about '36. And my stepdad (he wasn't my stepdad then) bought a new car and it cost $990 - a new Plymouth 4-door. And . . .

RM: So if a guy wanted to work, there was work available?

JL: Well, they could lease. Before the dredge came in, there were about

25 sets of leasers down in the gulch that were making a little bit of gold through placer mining - they'd dig it by hand and then wash it.

RM: They were digging that out of shafts and then tunneling off at the bottom of the shaft, weren't they?

JL: Yes - on bedrock.

RM: How did they know where to sink a shaft?

JL: They didn't; they went hit-and-miss. Your best gold is on the slack-water side. A stream comes down - a cloudburst - and it meanders. The water on the slack-water side slows down, so consequently it'll drop the heavy gold, where the outside bend is going faster and it wouldn't drop the gold. (Although I did find one place that I worked where the placer deposit was on the outside - the fast side - of the bend. But what made it do it was that it had cut into the bedrock about 4 feet, I guess, when it was coming down. It had washed the bedrock clear, and as it came around this bend, it was splashing some of the stuff over the rock, and that stuff immediately got out of the mainstream of the stream, so then it slowed down, too. So I did find gold on the fast water side of the turn, but it's very seldom you do that.)

RM: So you worked in those placer mines?

JL: I did a little bit. Boy, and I'm telling you, your hands get . . . you can't even move them, and when you wake up in the morning, your hands feel and look like they'll fit a pick handle. You've got to knead them.

RM: Is that right - you've got to knead them to get them back and going? Is that from picking in that gravel?

JL: Yes, just sitting there picking in the gravel nearly all day. Then you took about 30 minutes to wash . . . 2 men might dig out 7 yards if everything was just right.

RM: Is that right. And the ground would stand good?

JL: Well, it did pretty well if you didn't start robbing the pillars you left. If you had good rich stuff . . . about 30 inches to 2 feet was all that was good, and the rest of the tunnel you took out had hardly any gold in it at all. So we dug low tunnels - most of the time we were sitting down on our knees, digging the tunnels, with just enough room to push a little bucket. We didn't use cars, we'd use a dolly with a bucket. You'd push it back, fill it up, then you'd bring it out to the shaft. And most of the shafts had an electric hoist (there was an electric line down there) going down the hole. And you wouldn't have a hoist man up on top.

RM: How did you get it up, then?

JL: Well, you had the electric hoist down in the hole, in just a little dugout from the hole. The hoist sat in that and the line went up over the sheave (pulley) and back down and hooked onto the bucket. You pulled it up and you had a mark on your line - you knew where it would drop into the slots - and the bucket would dump in the bin. Then you'd pull it back up beyond that, and then there were a couple of runners that would fold down. The bucket hit them and they'd fold down and let it go back past the slots. The bucket had ears on it to fit in the slot, you see.

RM: Typically, how big was a shaft?

JL: Well, placer shafts were small - about 5-by-7, 7-by-7. You didn't make them very big, because you didn't want to see more work than you had to. Now, shafts that were sunk for ore by a company sometimes were a lot bigger than that. And I sank a few round shafts in Manhattan. The reason for that is, the round shaft will have a tendency to hold better in bad ground. A corner will kind of spoil out. Somebody must've told

me that, because I didn't find out by myself. But we did sink a couple of round shafts.

RM: Did you put any timber at all in the shafts?

JL: Oh, you had to put a little bit. You had a collar set, and then your gallows frame on top. And then where you had your hoist you had a couple of stulls - maybe 4 stulls - because you had to hold your hoist down. (A stull is a post from the roof to the floor.) You'd go up to the back of the little dugout where you had the hoist and you'd block to the back (i.e., roof) to hold the hoist up.

RM: Did you put skids in the shaft?

JL: The ladder was in backwards and the bucket would ride on the back of the ladder. Instead of having the rungs towards the front as you're walking, it was turned around so the rungs were in the back and the bucket would ride up it.

RM: What kept it from flopping out, though?

JL: Well, when you went up, the way the gallows frame was made it had a tendency to pull it to that side of the shaft.

RM: I see. How big of a bucket would you typically use?

JL: It was about 3 feet tall and about 20 inches in diameter. And it had 2 ears on it so when it rode up it wouldn't turn. Then after it got up, it went over the ore bin and then these 2 ears would catch in notches. It was a little bit tilted, and when you slacked off of the hoist cable, the bucket would tip down. The ears were down about 4 inches from the bottom of the bucket, so all the weight would swing down and let the dirt fall out.

Then you'd know it was empty and you could give the cable a couple of pulls if you had bad muck, to bang it out of there. Then you'd pull

it up with the hoist, and you had 2 pieces of iron that stuck on the sides of the skids right above the notch. When you went up they stuck up, and of course the 2 ears on the bucket knocked them down. Then when the bucket went up they came back up. When the bucket hit them coming back down, it would turn them down and they had to stop, so the ears would ride over the notches the bucket sat in to dump. Oh, it was pretty ingenious.

RM: How much did the bucket hold, roughly?

JL: Oh, I imagine a couple hundred pounds. You had to dig a lot of buckets . . . some places had bigger buckets, but mostly you didn't want the buckets to be too high, because you were digging in less that a 5-foot tunnel. You were on your knees or stooped over all the time.

RM: Typically, how deep were the shafts there?

JL: Oh, they ranged from about 40 feet to some that were 100 feet.

RM: And of course they were all sunk by hand, weren't they?

JL: Yes - to bedrock.

RM: Did you sink any by hand yourself?

JL: Oh, yes.

RM: So it was just pick and shovel sinking? And then you would hoist the muck out . . .

JL: Well, you'd hoist the muck out with a windlass until you got down in, and then you'd have a collar set. And the dirt you were digging on the shaft would go around the collar set; it would anchor that well. Then when you got down to bedrock, you took and dug that first little cubbyhole for the hoist, then you built your gallows frame and your little ore bin to hold the gravel that you dug. And then after that you hoisted with a little hoist from underground.

RM: And then you would tunnel out from that. Now, how did you know where to tunnel?

JL: Well, if you hit gravel you'd pan and tell whether you were following a streak of gravel that had gold in it or not.

RM: Were there any paystreaks coming down the shaft before you got there?

JL: There are some places in Manhattan that are out in the valley where the cloudbursts came down where there were paystreaks higher up. But the gulch in Manhattan was so shallow and the cloudbursts are so violent that they normally tore the canyon up to bedrock. That's why the gold was on bedrock. I've seen several canyons that have been torn up by big storms in my lifetime that did the same thing those storms must've done to that placer gold.

RM: How could a storm tear up such a lot of layers of overburden?

JL: Thirty feet?

RM: Yes.

JL: Well, that's a good question. I can show you a canyon . . . I think it's been 20 years since the cloudburst came down, and it was about 70, 80 feet wide, and there were some trees that stood. You could see where the water was at least 8 or 10 feet higher than the floor of the gulch now. The few trees that stayed were kind of sticking out from the side; it tore clean to bedrock. I read that they say a cloudburst is 70 percent solids - only 30 percent water. Once it gets to moving, it gets rock, brush and everything else and the water just greases it so it can slide down the canyon.

RM: So you think that if it was - let's say, 80 feet to bedrock - a massive cloudburst could just churn it all up.

JL: It would stir it up - yes. And every time you stir it up, it's just like a jig - as soon as you touch gold, it starts seeking the lowest level.

RM: Well, when you got your shaft down, which was all dead work, then you started panning to see which way to go?

JL: Yes. And sometimes you didn't even use that shaft, because you didn't hit a paystreak. You see, when those things came down, they first came off the hills that eroded and didn't take the whole canyon. So some did build up by layer. And sometimes you'd hit a strata that didn't have any gravel in it.

RM: Was it all gravel, all the way down?

JL: Oh, you could see streaks of rocks which would represent a cloudburst that just tore up the whole thing to the bottom. And then you'd have a quiet period where nothing but silt came down. There would be, maybe, 3 or 4 feet of silt and 3 or 4 feet of rocks, and it was stratified in a lot of places.

RM: How big was the placer area in Manhattan?

JL: It's about 10 or 15 miles long, and then it's out on the flat. As I said, there were places there where they had caliche, and it didn't cut to the bottom of the valley floor - it ran out on what they call false bedrock; it wasn't clean to bedrock. But where it was shallow and steep then it usually cut it clean to bedrock.

RM: How wide was the placer area?

JL: Oh, you can go look at the Manhattan Gulch. It couldn't've been more than 200 or 300 feet wide at the most.

RM: I see. Was it pretty heavily pocketed with shafts before they began the dredge?

JL: Yes, there were a lot of shafts. Manhattan was discovered in 1904, I think - somewhere along in there. And one of the main things that they found was the placer, right off the bat. So they did a lot of work. The dredge took out $8 or $10 million and the placer miners before that took out a couple million, maybe.

RM: Was there water on bedrock?

JL: In some places. It all depended how deep you were. But they pumped water out of a shaft from a deep mine up in Manhattan. I don't know if the leasers went together [to pay for it], but they let it run down the ditch, and each leaser had a pond where they ponded the water.

RM: I see - for their own sluicing. But did any of the little leasers have to pump water?

JL: There were a few of the deeper shafts [where they did], and the lower end of the gulch was deeper - 100 feet or more. They called it Central City down there; I don't know that much about it, but they had water down in there. In fact, there's a shaft down there I think I could still show you with water in it now - where the dredge came up; they didn't take the full canyon every place.

The dredge sank lots of shafts by hand, and then they had different men who were expert on sampling. They had about 6 or 8 2-man crews - one on the windlass and one in the hole (and of course they'd trade in the middle of the day) - sinking prospect shafts so they could determine where the gravel was.

RM: Was there a major paystreak coming down the canyon?

JL: Well, it meandered, as I said. That's why they had to sink prospect shafts. And there were places where they had paystreaks of the high channels where they didn't try to run the dredge, and they took machinery

and stripped it and took the gold-bearing strata and dumped it in front of the dredge as it came up. There were several places that were that way as the dredge got down and there was a wider spot and the stream meandered in a wider way - instead of being only 300 feet wide there was one place where it was about 1500 feet wide. And then they might've hit a reef of bedrock which diverted it. So the dredge company went along and sank all these shafts; they had men who were specially trained to sample the stuff and see if it was good.

RM: How long did it take you to sink a shaft?

JL: Oh, you used a week and a half on about a 40-foot shaft.

RM: You could do it that fast, then?

JL: Yes. The main thing was getting set up. You had to build your collar set, as I said, and put your windlass up and . . . sometimes it went a lot faster, and sometimes it was pretty slow. But most of the time the gravel wasn't very tight. There was one man I know - a leaser, before the dredge came in - who got killed. They'd been in a place, and they were pulling the pillars as they were coming back. And he wasn't watching, and it caved in on him.

RM: But that was very uncommon?

JL: They were pretty sharp. When a man went out and earned his own keep, he was a pretty sharp cookie; very few of them got killed that way.

RM: Was it really hard to pick down?

JL: Well, it wasn't hard; it was just monotonous. And you were sitting . . . well, I learned to sit on a 6-by-6 block; most people kneeled down. My knees couldn't take it, so I'd sit on a block. And you'd sit there all day, swinging that pick.

RM: OK, so you tunneled out. Now, was it just these little tunnels,

then, going out from the shaft?

JL: Yes. And you followed the streaks. And then when you came back, after you got out as far as you figured there was no gold, you could rob those pillars, but you started on the back and came out, so if it caved it wouldn't cave around where you were working. I don't know just how this guy got caught in that cave. His name was Walker. There were 2 Walker brothers - I just barely remember them. They had an old phonograph with the round cylinders, and I'd walk down the gulch and they'd let me play that.

RM: Now, when you went out from the bottom of a shaft, did you go out with just a regular tunnel? I mean, how did that work?

JL: Well, you tried panning - you'd look at the rock [and] try to go crossways to the flow of the gulch. That way, you'd could pick up things in the strata. And you made it about 4 or 5 feet wide - just barely wide enough so you could crawl through . . .

RM: How high would it be?

JL: Well, actually, I had to run mine 5 feet, but a lot of guys ran them even lower than that. Earl Wilson had polio when he was a kid, and he had no muscles in his thighs. He could walk, but he could sit all day right on the ground and pick. My legs wouldn't take it; I had to sit on that 6-by-6, and then they'd go to sleep. That was the only redeeming thing about when you got your bucket full - you could push it out. You'd be stooped way over and [lose the] circulation in your legs, and then you'd hoist that bucket and come back and you could pick a little bit and your legs would get numb; then you'd shovel a bucket and push it back again. There'd be 2 to 4 men, usually, in one of these leases.

RM: Oh, there were that many?

JL: Yes - usually 2. It was bad business trying to work by yourself.

RM: Well, then you would start off with this tunnel that was 4 or 5 feet wide, and then how far would you go out?

JL: Well, you'd usually cross-cut the section of the gulch that you were in - if your lease was that big.

RM: And then what would you do?

JL: Well, as you went out you kept panning, and whenever you hit the

good streaks, then you'd triangle up and down the gulch.

RM: And how thick did you say the paystreak was there?

JL: It only averaged about 2 feet or less, most of the time. And then there was a little bit above, for working space. And if the bedrock was of the right constituents so it looked like riffles then you'd take, maybe, a foot of the bedrock. It was soft - shale - and the gold would work itself into it.

RM: So the bedrock was shale, there?

JL: Most of the places, yes.

RM: And then, how did you mine it? You got a 2-foot paystreak, and then you're taking at least another 2 feet above that?

JL: Yes.

RM: Did you take the top part first?

JL: No, you didn't try to separate them. You ran the whole thing that you took out through your placer, so the bottom had to carry the top. If it got too thin, it wouldn't do it.

RM: And then, typically, what did a good streak run?

JL: God, I don't remember - $4 to $6 was average, and a lot of times you'd get $7 to $10. And every once in a while you'd get more than that. In '36 a guy named Paul Wilson came to Manhattan, and he said he had $1.80 in his pocket. He was a rancher out of Missouri. It was still part of the Depression and they weren't making very much on those farms back there.

He went over into California and went to work for a gold mine that was doing a little monitoring. He had about an 18-inch line coming down off of this canal they had up there, doing the monitoring, and somebody told him to go shut the valves down. Well, you've got to shut those

valves down real slowly, because the kinetic energy will build up in that water. If you shut the valves down too fast, you can burst the pipe, and that's what he did. So he got his walking papers, and he'd been fooling around with the placer a little bit, and somebody must've told him about Manhattan, so he came into Manhattan and he went to work.

And I knew him at the same time that I knew the Walker brothers - he went to work for them. The one died and the other one just gave up, and he sold the plant that they had accumulated - it had 3 or 4 electric motors and a set of transformers and a pump and that little hoist, and maybe 300 or 400 feet of track. He told Paul he could have that for so much money - you know, give him so much until he paid for it. So Paul immediately sent for 2 of his brothers back in Missouri, and they started there in '36. Well, some time in '37 they had $10,000 in the bank and a new Chevy car. That was like $100,000 today.

RM: Is that right! Well, to get back to the tunnel: You tunnel in till you cross the channel, and then you go parallel to the channel . . .

JL: You try to go follow the gold; yes.

RM: OK, then how wide did you make it when you once started following the channel?

JL: Well, usually you'd make it wide enough working in . . . that's why you wanted the one-to-one ratio, because you arched those tunnels back, and you'd arch the bottoms out as far as you could. That's what probably killed Walker; he probably was arched out too far, with nothing supporting it.

RM: How wide would you make them, then?

JL: If you went 5 feet, you couldn't go more than 8 feet wide. Sometimes you had to go narrower than that. It depended on the gravel.

You'd get used to understanding what it would do.

RM: Did you leave pillars, then?

JL: Oh, you had to leave some. If it was a wide place, you had to leave stratas of dirt to hold it, and then you could come back . . . as I said, when you were coming back out you'd dig out the corners and then get back and it would probably cave.

RM: Let's say you've got an arched thing that's 8 feet wide.

JL: Yes, and 5 feet long.

RM: Well, let's say your pay channel is 20 feet wide. What do you do?

JL: You either run little cross-cuts off or run another one parallel. You'd probably run little cross-cuts back in and throw it back into the bucket. Then you'd leave those pillars. Say you'd leave 8 feet here, then you'd leave 8 feet and then you'd take another 8 feet.

RM: How long would your tunnels be where you were looking to cross the channel?

JL: Well, I never saw any of them that were too long. But as I said, up to 300 feet the canyon is wide. But most of them would sink a shaft at 150 feet.

RM: Yeah. And then, once you found the paystreak, how far would you typically go on it?

JL: Well, other people owned the ground, and you leased a block of so many square feet, so you would go clear to your border if there was a paystreak.

RM: What would be a long one?

JL: Oh, I imagine (because the stream meanders) if you got 100 feet in one go, you were doing good. It'd be in and out. A lot of times you'd be digging and just hoping that you'd find another paystreak rather than

sink another shaft.

RM: How many linear feet could you make in a day?

JL: You wouldn't make too many; 2 men would take out 7 yards. You can figure that in cubic feet if you want to - you're making a couple or 3 feet ahead.

RM: And if you didn't find a paystreak, or your paystreak ran out, then you were facing sinking a new shaft?

JL: Or running . . . if you were down and you thought, "Well, that stream might've meandered over here on this lease, I can run 25 feet of dead tunnel here instead of sinking 75 foot of shaft."

RM: OK, yes. Did you ever backfill instead of hoist?

JL: No. It wasn't worth the effort to try and bring the gravel back in.

RM: I mean, instead of hoisting dead muck, you would just put it back in a cross-cut or something.

JL: Oh, I never did it. It's a possibility; some might have, especially digging a dead tunnel, if they had a place where they'd already done some digging . . . I imagine it was done, but I never did it.

RM: When it caved, did it cave clear to surface?

JL: Most of the time it did. You're taking out 5 feet, and you've only got 30 or 40 feet above that, and it'd cave on up; you'd see some indention.

RM: Was it dangerous walking across there?

JL: Oh, it might've been; I don't know. I never heard of anybody getting into any trouble. There weren't that many places where they took the placer out, I don't think.

RM: How big was a lease, typically?

JL: About 300-by-300, mostly; they wouldn't give them much more than

that.

RM: And what were the terms of a lease?

JL: I don't remember. There was a certain percentage - they'd take 25 percent or something like that. Curly [Coombs] would have it down pat. But placer gold doesn't take much to produce, so you got paid pretty high for it. If there were a couple of good leases there and you wanted one next to them, the owner might want more. Then they kicked all the leasers off when the Natomas dredge started to operate in '38 and '39.

RM: How many leasers were there when they did that?

JL: There were 20 or 30 pair of them. That would be 2 men; sometimes there were 4 men. I remember one family - the Cornells. They had 3 brothers and the old man, so that was 4 of them in that lease.

RM: Were the leasers kind of continuous there, or was it a situation where a guy would come in and try and go bust and leave?

JL: Well, from what I saw of it, it was kind of continuous, but it didn't last that long. They'd been working the gold all along at $20, and then it came up in '32, and then in '38 the dredge came in. So I saw them in a small time period.

RM: And before gold came up, how many set of leasers do you think were down there?

JL: There weren't too many. There might've been 6 or 8, maybe. I was too little then, you know.

RM: Were the leasers scattered all the way up and down, or was there an area where they tended to concentrate?

JL: They were pretty well [stretched out] from the old Gold Metals Mining Company down to the Williams patent - they got down where the fish ponds are now. And there were some below that.

RM: What would the distance of that be?

JL: Five or 6 miles. That's what made Manhattan nice for the dredge, because it was a long canyon and it wasn't spread out; it was contained in there. That dredge had a third-of-a-yard bucket - a 9-cubic-feet bucket. It handled 500 yards an hour. If they'd tried to push it harder than that, they'd probably have started having trouble. But it produced 500 yards an hour, every hour, day in and day out, and it worked . . . that's the only gold mine I know of that worked all during the Second World War.

RM: Why did they let them work?

JL: Well, the old man who was running it for Natomas - Jack (John) James - must've seen the war coming; I don't know. But he had a lot of supplies on hand [because] it just started up right in '38. (I think they started the dredge up in '38; they'd built it in '37.) And there were a lot of old-timers around who were working there and he got them all to sign letters that they were 4-Fs and that they wouldn't move out of Manhattan to take a war job. And he said he had all these supplies - he could run until his supplies run out. He worked until '48, and they dismantled the dredge and took it up to Battle Mountain.

RM: And then they did a big dredge up there?

JL: They built a dredge up there . . . they altered it a little bit. Down here it had 2 stackers - that's where they cleared it out. Up there they only had one stacker on it. I never did watch it work up there.

RM: Why did they have 2 stackers?

JL: Well, when they rotated . . . they were anchored on what they call their spud - that was a big iron thing that sat down. And then they had 2 tables . . .

RM: Oh - it was sitting down on bedrock?

JL: Well, into the gravel in back that they'd already worked. And then the bucket would hit against that. Because they were digging . . . I know of one place where they dug 13 feet of bedrock to get through. But as they turned they'd use the one stacker that was throwing it straight back and the other one would be out over the pond. Evidently, though, they balanced up one long stacker in Battle Mountain for the weight of the 2 here, and they were able to use one stacker instead of 2 and still turn like that, but still be throwing it back.

RM: What did the leasers do when they started the dredge?

JL: Well, some of them went to work for old Jack James on the dredge and some of them moved out. I don't know, they just seemed to disappear. There were a few hardrock mines around there.

RM: Did the leasers do OK there?

JL: It's like any other: Some did, some didn't. The majority of them did all right.

RM: Did anybody get rich?

JL: I don't think you'd say rich, but some of them made some pretty fair money. For instance, I told you about those 3 brothers who came in '36 and didn't have anything in their pants. They might've even ridden the rails to get from Missouri to here in '36. In '37 they had $10,000 in the bank and a Chevrolet car paid for. That was pretty good money, in those days - it was equivalent to $100,000 today or maybe more.

RM: What were the characteristics of the gold? Was it fine or in little nuggets or . . . ?

JL: Well, it all depended. The farther down the gulch you got, the finer it got because it would grind it up. It's a mill . . . nature's

mill, you might call it. But the gold up close to Manhattan was not quite 700 fine. In other words, it was 7 parts gold and 3 parts silver. Old Doctor Burdick owned the area where the dredge stopped, and he said it was making $70,000 a foot as it advanced. And yet, they stopped the dredge. Old James said he was going to run it right through Manhattan, but he didn't.

RM: So there's dredgable gold under Manhattan?

JL: There's a possibility, or the forehill might've thrown an awful lot of the gold that's down there, and the forehill's below Manhattan.

RM: Oh, I see. And it was fine down at the lower end of the canyon and . . .

JL: Yes. It was finer in size, and also the fineness of the gold came up. Because silver, you know, has a tendency to leach very easily. You find very few placer deposits of silver. Virginia City had one. In fact, they had a little gold there, in Gold Canyon, and they were fighting that blue metal - they thought it was lead or something. They were throwing it out, because it was fouling up their sluice boxes. There's are some good stories about how somebody finally found out and went back and dug up all this blue metal that they were throwing out. [chuckles]

RM: What's the biggest nugget you ever saw come out of there?

JL: Well, they used a shaker screen, so you had holes not more than an inch-and-a-half - you couldn't get enough volume of water to wash it down. So the nuggets that the leasers caught were trapped by the size of their screen. Now, in the dredge nothing bigger than 5/8ths ever got through - they couldn't handle anything bigger.

RM: Oh, so they were dumping bigger nuggets out.

JL: If they were there, yes. But the biggest nugget I ever saw looked like the axhead of an ax.

RM: Is that right!

JL: Yes. I don't know how many ounces were in it. A guy was walking up the gulch one day after a rain and the sun was shining. He saw something shining over on a dump where the leasers put their rocks when they washed their dirt. (They dumped the rocks one way, and the stuff that went through their shaker screen went through the sluice box and down into the pond. So wherever they'd worked gravel, you'd see a dump of just rock with no gravel in it.) Well, he was walking by this dump and it had rained and the sun had come out and he'd seen it shining, and there that nugget was - sitting there as big as an axhead. That's a pretty good-sized nugget.

RM: [laughs] Basically just gold - I mean, there wasn't a lot of rock in it?

JL: Right. But the leasers who dug that didn't find it - it went out with the rocks. And what was the percentage that it would be on top when the leaser dumped his car and would sit there all those years with this nugget on top, or pretty close to the top? Because when this guy saw it, it was on top or on the side of the dump. It could've been down in the middle of the dump and it never would have been seen again.

RM: Yes. So there might be others like that here and there.

JL: Oh, there might be a few, yes.

RM: Can we talk a little bit about the characteristics of the sluice outfit? Did you use a shovel to load the material into your little dolly?

JL: Yes. It was short-handled, because you were only 5 foot high.

RM: Did you use a round point?

JL: Well, most of the time, but if you got smart you'd dig down and work on a piece of slick sheet up ahead. You used a square point when you used a slick sheet.

RM: What kind of a pick did you use?

JL: Just a regular mine pick. In fact, the pick that I saw the most was a Washoe pick. It was all steel. Now, the picks that came out in the early part of the century had an iron eye and iron down about 4 inches on each side. Then the blacksmith laid the piece of steel in the end. (If you want to see one of these things, Jimmy Wolf's got one, I think, on his bench up there.) That pick has the eye where you put the handle in and then a stub that looks like a hammer, but they split that end and laid a piece of steel in that.

RM: I see - and they welded it in.

JL: Half-welded, yes; forge weld.

RM: But you were using all-steel picks?

JL: Yes. By the time I came along they had the Washoe pick, as they called it.

RM: Did you have to shorten the handle of the pick?

JL: Normally, no - you could swing it all right.

RM: And then you had to climb out of there on the ladder, didn't you?

JL: Yes.

RM: Did you have a stage every so often in case you fell?

JL: No, not on these placer shafts. Most of the placer shafts were less than 70 feet; very few of them were 100 feet. But I helped my granddad - he had 130 feet. I was helping him and his partner sink it, and he had me on the other end of that windlass. We had 2 buckets - you have 2

buckets so when a bucket is coming up on this side of the windlass, the cable's paying off and putting an empty bucket down on the other side. So when you get up and dump it, the miner down at the bottom's got an empty bucket to start filling. But, boy, 130 feet - I was just a young kid . . .

RM: Was it scary climbing out of there?

JL: Well, as I said, they were pretty intelligent men. They had to make a living - they couldn't go on welfare.

RM: And what were the ladders made of?

JL: A 2-by-4 and a 1-by-4 nailed on. But when you started production, it usually was 2-by-6s and the 1-by-4 nailed in. They adapted them in . . . As I told you, they turned it backwards and used it for a guide, so if it was a 2-by-4 it was too narrow for the bucket to ride and not catch your rung.

RM: Well, where was there room for your feet?

JL: It didn't lie right against the ground. You had a stull about every 10 feet, going across, to hold the ladder. The ladder leaned against the stull, so you had 4 inches between the ladder and the edge of the shaft.

RM: And how did they tram it?

JL: You had a little bucket on a dolly, as they called it. Usually they were made with mine car wheels and 2 timbers - the 6-by-6s or 8-by-8s. Then they were adapted a little bit for the bucket to sit in so when you pushed on the bucket it wouldn't slip off.

RM: I see; you had track, then.

JL: Yes, they used 8-pound track - a real light track - there. Each digger had one bucket and he brought it up and it had a deal it went through the . . . you've seen the loop in a bucket, haven't you - it

comes up and has a loop and goes back down?

RM: Yes, right.

JL: Well, all right: You have a chain bolted in the end, or your cable weaves back in with a loop in it. You stick it through the hole and lift and bring it back over the top of that round place in the bucket pail, and it locks it in. Then when you get down and get empty, you just get a little slack and you can pull it off the loop and pull it back out and let it lie against the ladder, and go about your business. And then your partner comes out with his bucket and he hooks it on the bale of his bucket.

And it's got an electric motor . . . most of the hoists were made out of Model-T Ford transmissions. They'd put a wooden pulley on the flywheel, and they had that planetary transmission. They'd turn the flywheel from the planetary transmission with a band, and there'd be a little drum. You'd pull the low gear in and it would engage the planetaries and up the shaft you'd go.

RM: And these were homemade rigs?

JL: Yes.

RM: So you hoisted it up to the top, and then it automatically dumped.

JL: Right - into a small hopper. Usually it wouldn't hold more than 10 yards because, as I said, 2 men usually worked a lease. Of course, if there were 4 men they had to make a bigger hopper.

RM: And then what did that ore bin feed into?

JL: You had a place where you could pull the dirt out of the side of it, away from the shaft, and there you had your shaker screen. And then the water would spray in the shaker screen and wash the dirt from the rock. The shaker screen had a gooseneck in it and it would turn over and dump

into the rock car, and the stuff that had the gold in it would go through and then go down the sluice box.

RM: OK, so the oversize would dump into the car and then you'd take that out there and dump it.

JL: That's where the guy found the axhead-size nugget; yes.

RM: Then the undersize would go through the screen and then . . .

JL: And into the sluice box.

RM: How long was your sluice?

JL: Well, most of the time they weren't more than about 70 feet long. And then they had a trap - a half barrel - underneath that. The material would drop into this barrel, doing the same thing as the water coming down the gulch: It would splash into this half-barrel and get churned up, and if you missed any gold going through your sluice box, it was liable to get trapped in that half-barrel. And every once in a while you'd dig it down; just take the bottom layer and pan it.

RM: Oh. And that was at the end of the sluice.

JL: Yes. It just dumped out of the end there. But then I made what they call "traps." I'd come out under my shaker screen, then I'd turn my sluice box about 30 degrees. It'd go down and hit, and it'd roll. I dropped my sluice box about 8 inches and I'd made a gold trap there. When it hit that side and then had to turn 30 degrees, that'd give you, again, a slack-water side. It'd drop and you had a little trap there, so you'd catch most of your gold in your traps before you got into your riffles. But occasionally the fine stuff would go clean down in the barrel, and some of it wouldn't even stay in the barrel.

RM: Was there a lot of fines?

JL: The farther down you got, the finer the gold, because Mother

Nature's mill just ground it as it went down.

RM: How wide was your sluice?

JL: Usually they made them about 12, 14 inches. With 12 inches you could use a 1-by-12 or 2-by-12 in the bottom, and nail 1-by-6s on the side. Then you could put your riffles, and you'd use corduroy or burlap sack under your riffles.

RM: And what did you make your riffles out of?

JL: It usually was a 2-by-2 - they were about 4 inches apart.

RM: They were about 2 inches high, then?

JL: Yes, sometimes they were a little lower than that. A lot of people put angle iron on to keep them from wearing. But usually if they wore out you could put new ones in quicker than you could get angle iron.

RM: How long did it take you to run a day's production - say 6, 7 yards - through a sluice?

JL: Oh, it only took about 30 minutes. It went through pretty fast.

RM: How did it feed out of the ore bin into the sluice system?

JL: Well, you had a little door there, and . . . have you ever seen a mine chute in a mine?

RM: Yes?

JL: Well, it was built just like that. You pried these doors up and it would run out of it into the shaker screen. And you had to control how fast you let it through. If you had muddy rock you didn't run it through quite as fast, and if it was a clean gravel, you could run it through pretty fast.

RM: And then it would run on down the sluice and into this trap barrel?

JL: Yes, and then flop out.

RM: OK. Where did it go then?

JL: Well, you built a big pile up next to the return water. We had a dam there and sometimes it'd get filled up and you'd try to muck it out. You didn't have bulldozers then; you'd get a horse with a Fresno and pull it out.

RM: Where did you get your water?

JL: Well, as I said there were a couple of mines that I think supplied the leasers with water. I was too young to remember that, but they had a couple of mines that were mining, like the White Caps, and they were pumping - the water was running down. Then there was one mine where I think they paid them to get water out of it. And they bailed it - they

didn't run it with a pump. They had a big bailer on the hoist; which was odd. It was a big bucket-type deal that would run up and down the skids. It was just like a cage that goes up and down a mine, but this cage was all sheet-metaled in. I don't know if it had a valve in the bottom - I was a pretty small kid. But I remember them bailing that mine for water.

RM: Was it an abandoned mine?

JL: It was a mine that wasn't producing any ore but still had a watchman and power, and the watchman would bail water, and somebody must've paid him for it.

RM: Do you remember the name of the mine?

JL: That was the Amalgamated; the Consolidated was the one just below the White Caps.

RM: Where was the Amalgamated located?

JL: South of the town there, up on a hill. It was kind of west of the White Caps. That's what they were doing - they were trying to get deep enough to hit the White Caps limestone, but they never did.

RM: Oh, is that why they called it the White Caps?

JL: Well, the White Caps was lime.

RM: What were they looking for?

JL: The ore was in the lime. A bunch of guys went together in this Amalgamated and they ran a shaft down and they were going to - at depth - catch the White Caps limestone, but they never did. It probably was faulted off before they ever got that far, because Litigation Hill goes up towards the White Caps, and the White Caps limestone's tipped up pretty high.

RM: Did you work on these placers, then, after gold went up?

JL: I didn't work too much; I was too little. I was just watching. I

worked a little bit right there before I went in the service - I was still going to school - and then after I got out of the service we did some placer mines. You see, the dredge came up and left some high channels that they couldn't get - they never stripped them. They didn't have enough money . . . when he told the war board that had so many supplies, well, he took right up through the middle, then. So there were some high channels that he didn't take out, and I worked on those high channels after the dredge was down.

RM: And did you mine those in the same way?

JL: Yes, I was taught by the old-timers.

RM: How long did you do that, then?

JL: I didn't do it too long; those high channels weren't that good.

RM: How deep did you have to go?

JL: We were going about 40 feet. There are a couple of shafts up there that are still sitting there, I bet, that I sank. [chuckles]

RM: But the values just weren't there?

JL: No.

RM: And you had your own sluice and everything?

JL: Yes, and we got our water from one little dredge pond that they didn't fill in. In the dredge operation they mixed so much water with the tailings that it kept draining back in those ponds; it stayed for years. We were working up on the same ground as this pond was, so we made arrangements with the owners and we set up the sluicing down there; we didn't sluice at the shaft. We hauled it down there with a little old truck.

RM: Did it take a lot of water to do that sluicing?

JL: Oh, yes. But it returned to the pond; you pumped it back.

RM: Did you get a pretty good loss each time?

JL: Well, the dirt soaked up so much of the . . . but the water was running down the canyon from these mines. I don't know why that one guy was at the Amalgamated, but I remember him bailing it; somebody must've been paying him to bail. It might not have run all the way down; there were a few mills that were using water out of that ditch, too. But there was water running down there all the time from these big, deep hardrock mines.

RM: So the hardrock mines and the leasers were operating at the same time during the '30s.

JL: Yes. The price of gold went up and the hardrockers were still working, but the dredge kicked all the leasers off. The people who owned the gravel had to terminate the leases.

RM: How many people do you think were working in the hardrock mines during this period?

JL: I think there were between 1500 and 2000 people there, counting the kids and everything, so there must've been 30 or 40 in each one of those mines. Well, sometimes there were only 15, but the White Caps had a big bunch of leasers up there. As far as a mining company, the White Caps wasn't doing anything when I was a kid; it was down to where the leasers were working on it. Just like Tonopah here - when the big companies couldn't make any more money, the leasers could go in and make a little.

RM: Did they do pretty well at the White Caps?

JL: Some of them did and some didn't. They killed a few men up there. Tony Brackett was riding with a bunch of cold steel and he shouldn't've been doing that. He let one fall, then it got into the timber, and when they got through, it tore him up and everything else.

RM: Oh, boy. And then, what were the other hardrock mines?

JL: Well, the Consolidated was just below the White Caps.

RM: Was it a pretty big operation?

JL: There were about 15 men working there. And then the Gold Metals and the Reliance were down in the gulch about where the dredge stopped. In fact, they took the Reliance out; you can't even see it anymore. You can see that it came right across that big pit that Echo Bay has there now.

RM: So Echo Bay now is open-pitting the area where the Reliance was?

JL: Yes. I don't know if they're going right straight down there or not, but they're . . . from the Reliance back up into the forehill. They called it the Golden Wedge fault; I remember that.

RM: What do you remember about the businesses in Manhattan when you were growing up?

JL: Old North ran a clothing store, and Mrs. Francisco ran a grocery store in the later part of Manhattan. In the early part of Manhattan, Southwards ran a grocery store. And there was Rippey - he was kind of like a drug store and tobacco and things like that.

RM: Do any of these people stand out as characters, or personalities, in your mind?

JL: No, I was too young.

RM: So after the war you worked placer?

JL: Right after the war I did a little bit of placer, and then I went into the heavy construction.

RM: Were you in the service, then?

JL: Yes. I was in the marine corps for 3 years, lacking about 25 days, and I couldn't get a good conduct metal. I said, "Well, I was only 25 days . . ."

The lieutenant said, "That's not 3 years."

I went in in '43, in March, and I came out in '46 in February.

RM: Yes. Did you join?

JL: No, by the time I went . . . I had a preference. All the branches were going through the selective service then. When I got up to Salt Lake, they asked me if I wanted to go in the navy, and I thought, "Well . . ."

And then the marines came into the navy's recruiting and said, "Well, anybody want to go into the marines?"

And I thought, "Well, hell, my father's been in the marines, so I'll go in the marines." [chuckles]

RM: When had he been in the marines?

JL: In the First World War.

RM: Did he see any action?

JL: No. He was so good with a rifle, they kept him in the United States as a rifle instructor. He could shoot a deer so far away that my granddad said you had to keep salt on the bullet to keep the meat from spoiling.

RM: [laughs]

JL: God, he was a good shot. That's what I said - he was a jack of all trades, and master of all - anything he did, he did well. I can't believe how well he did . . . He used to rewind motors and things like that for people - you don't do that today; if the motor goes out, you just throw it out in the garbage.

RM: Right. Did you go overseas?

JL: Yes, I was out in the Caroline Ulithi Atoll in the air wing.

RM: What did you do?

JL: Well, I was ordinance. I put the sting in the bee. [chuckles]

RM: Is that right. So you loaded those bombs on?

JL: Yes, we put bombs . . . I was one of the few people who learned to time a machine gun to shoot through a propeller. In the first war they tried everything, and they finally got what they called an impulse generator. It was hooked onto the timing gears of the motor and it pulled a wire on the machine gun. And we had a "turkey," they called it - that Grummand dive bomber - torpedo bomber. It had one 30-caliber shooting through the Argon propeller. I think it was the only plane in the Second World War that did that. [chuckles] There might have been some others, but that's the only plane that I knew of. We had to learn to time that impulse generator so you didn't shoot the propeller off.

We also had depth charges and torpedoes and small bombs, and then we had to link the ammunition for the machine guns - the metal clips. It wasn't in a belt like the old machine guns, which were in a web belt. I did a lot of making the machine gun belts with a hand-operated device that looked like these can mashers they've got today. You'd lay the links in a slot, then you'd lay the shells in grooves, then you'd throw that handle over, like you do smashing a can. It'd shove those shells into the metal clips. And you had to have a certain sequence - we had armor-piercing, incendiary, ball (that's regular ammunition) and tracers (that was the one you used to see). You had to load about 5, and then you'd keep repeating.

RM: I see - every load had these different types in it.

JL: Well, they had to have them; yes. You had a belt with 100, 200 rounds of ammunition, and they were in a sequence of 5 unless there was some special reason to load it otherwise.

RM: And where else were you besides Ulithi?

JL: I went down to a tank farm then - I can't think of [the name of] that little island. Then I went up to Guam on the way home. We flew to Guam, 850 miles, in less than 4 hours. And then I sat there for 20 days waiting for a boat, and we came on an LST from Guam to Pearl Harbor - 11 knots an hour was flank speed. The LST was a landing craft boat - it shouldn't've been out in the middle of the god-damned ocean.

RM: It sounds kind of risky.

JL: No, it wasn't risky, but it was made for landing tanks and so forth. It was about 400 feet long and it had the 2 doors that opened up and then a ramp would fall down and come out of the bottom bay. Then they had a top ramp to fall down on that and they would unload the top.

Then I came the rest of the way with the battle wagon Texas to San Diego.

RM: And then when you got out, you came back to Manhattan?

JL: Yes.

RM: And then that was when you did some of that high channel work?

JL: Yes, but there wasn't enough gold in it.

RM: So what did you turn to then?

JL: Well, I went into heavy equipment. I figured that I wanted the most money for whatever education I had, and I was pretty good at screwing nuts and bolts, so I went into heavy-duty repair and welding. The reason I went for that is that I worked when the machinery was working, then when it broke down I worked overtime. Then I went into construction for myself.

RM: And you began acquiring your own heavy equipment and everything?

JL: Yes. I went to work for the union, then I did some mining after

that - quicksilver mining - up in back of Round Mountain.

RM: Is that right - tell me about that.

JL: Well, we staked that claim in '55 or '56, my stepdad and I and my mother. You see, quicksilver and placer gold were the poor man's kind of mining. At the end of the day, you could weigh up your quicksilver or you could weigh up your gold, and if you didn't have enough you either moved on, or if you had more than enough, you were doing all right. So I fiddled with placer mining, then I went to quicksilver.

RM: What was the name of that mine?

JL: It was called the Senator Mine, and my stepdad called it the Redbird. There was a Redbird up around Winnemucca, so I called ours the Redbird Toquima Mine, because it's in the Toquima mountain range. When I'd sell the quicksilver I didn't want my checks going to the Redbird Mine up there. [chuckles]

RM: Did you guys discover the mine?

JL: No, no. It was found years ago. In fact, they had a little retort there and retorts down below. It was up about 9800 feet in elevation in back of Round Mountain in the Toquima Mountains. They had pack trails, and they'd made some retort on both ways. If the mining had been down below it would've been worked out, but it was up there where the weather was bad. I had an old junk Caterpillar by that time, so I built a road to it. And you can see the road if you're over at Carvers - you can look back over Round Mountain and see it up in those hills.

We took out maybe $200,000 or $300,000 worth of quick. We didn't make any big money, but we only worked about 6 months of the year. The road we had came down the north hillside of the mountain, and you know what that means - snow was there a long time. In fact, I've seen snow in

May on that side of the mountain. But the mine was on the south side of the hill, and it was pretty good. I tried to make an all-weather road, but I got down into some rocks I just couldn't get through. I could do it now; I've got the equipment to do it and I've got an air track, but at that time I couldn't get through it.

RM: What kind of workings were there at that quick mine?

JL: There was a little short tunnel in about 100 feet, and a little raise and then another little tunnel up above. When we got through, the lower tunnel was about 500 feet long and the second tunnel was about 300 feet long.

And after I put the road in, we started digging. We were digging in this little spot and there wasn't enough room for both of us, so I went on up the canyon in line with where they had worked and I started digging into the alluvial where the vein should be. I was about 50 or 60 feet higher up the hill than my stepdad - on the slope about a couple hundred feet. I was digging in there and I'd find some beautiful float in the dirt as I was digging it out. I finally got into the face, where it was solid rock, and there was a little quicksilver in it, but nothing like the float I'd found. I was sitting there with my back against the one wall in the shade, resting, after I'd been picking. And I though, "God damn it, where the hell's this float coming . . . ?" And then it dawned on me that the one wall that my back was against was all alluvial - it wasn't solid rock. All the way in - I'd gone in [a distance comparable to] from here to the door, maybe 8 feet - and I had a 5-foot face.

So I got off my fanny and I turned around with the pick and took one swing . . . I had paralleled that vein about 8 inches, and the sand had stood there. And I got what my mother used to call "grapes" - it was

like big Concord grapes. The ore was metacinnabar and cinnabar. Metacinnabar is black and cinnabar is red. The only difference is one percent difference in the sulphur and the mercury in the ore, which turns it from red to black. And she called it grapes. Well, I took one pick and I hit it and knocked that sand down, and big chunks of ore came down. I went out there and hollered at my stepdad and he came flying up. And the pocket was sloped. You know, it comes in lenses in the vein, and there was a lens coming up there.

RM: What was the country rock that it was in?

JL: It's a granite. It was a fissure vein in the granite. The granite had cooled, and then the granite had moved again, underneath, and been cracked, and the solutions came through.

RM: And how big was the pocket?

JL: Well, the pocket was about 15, 20 feet long, and the good ore was about a foot wide. And it went down . . . I ran the main tunnel in under and then stoped all the way up. As I say, we took out, I would guess, close to over $300,000 in about . . . we worked there - fiddled around with it - about 10 years. But there were only about 6 or 8 months of the year that we could work it. I came down off there one time pushing snow with that old 4-wheel drive right up even with the headlights. [chuckles] The hill was steeper than heck, but I found out something: You didn't have to worry about going off the road because the snow was thicker - deeper - in the inside of the road; it would always pull you in. But it's scary until you've learned that.

RM: Is that mine pretty well worked out, now?

JL: Quicksilver's too low. When I was mining it at the last, you could buy a case of powder for $16. Now, if you buy one case it's up around

$80. If you buy a lot of it you pay about $40 per case. So you couldn't afford to work it. And the best price . . . we were getting around in the $500 bracket for a flask - that's 76 pounds of mercury. And now it's down to 200-and-some dollars. They call it a hazardous metal and they've quit using it. They made chlorine gas with it. They could make twice the chlorine gas with a quicksilver cell they could with a diaphragm cell, with the same amount of electricity, but they lost a tablespoon of mercury a day. And the EPA got after them and made them stop. Now they can make even 3 times the amount of chlorine gas with the mercury cell as they can with a diaphragm cell but they still don't do it.

RM: So you don't look for the quick to come back, then.

JL: Not in our lifetime; no.

RM: But there's still ore in that mine?

JL: Oh, a little bit, yes. I imagine . . . well, the dumps go about 5 pounds to the ton, because I ran some of the dump just to see. We hand-sorted it - what they call chloriding it. We'd take it out and then hand-sort everything that went through the retort.

RM: Did you do any other mining?

JL: I've worked for different people; I never did ferrite mines or different metals. The main thing I'm doing now is supporting the mining companies. I build the drill roads and the drill pads for them.

RM: And how long have you been doing this?

JL: Oh, I started up at the quicksilver mine when I had no bulldozers to make that road. I went and bought a bulldozer, so in the months that I couldn't work up there I would contract for different people. When the price of quick went low, I just went contracting and forgot about the quicksilver. I still hold the ground, but I don't know why. [chuckles]

RM: Did you spend much time in Round Mountain?

JL: My mother was postmistress there, and I lived with them, but most of the time I was living up at the mine. I don't know much about the old-time Round Mountain. Curly [Coombs] is the one who would really tell you that.

RM: Yes, I've talked to him about it. Did Manhattan really go down, then, after the dredge shut down?

JL: Yes. There wasn't enough to keep it going - the hardrock mines weren't going and the old mills that were there were worn out so they couldn't use them anymore. Now they've done a lot of exploration drilling and Echo Bay's got a mill in there, but they've been milling ore from up around Battle Mountain and from Round Mountain. You see, Round Mountain gets such rich ore that they can't put it in the heap leach, so they take it over to Manhattan.

RM: So they're really hitting high-grade streaks over there.

JL: Once in a while they do. When they do . . . the way that they determine their ore body is, when they drill for blasting, they also sample their hole so they know if they're getting waste or if it's good ore. In fact, I think they've probably got 2 or 3 grades of waste. In other words, they can't run in the heap leach but it's got so much gold they put it here, and if it's got so much it goes in there, and then they've got another place to put the stuff that's just dead. So if gold ever goes up, they've got 2 piles of stuff that they might run in later years.

RM: Can you talk about some of the jobs you've worked, in terms of contracting for the big companies?

JL: There's nothing much to say about it; and there are no secrets. Now, some of the geologists and people like that have a gag order.

RM: Right. But they don't have a gag on you?

JL: No. One time I was working some place and I sold a mining company a claim and they wanted to put a gag on me. I told them, "No way." Because, I said, "I'm not going to lie to my friends if they ask me a question." But the work that I do for them just isn't that sensitive.

RM: What are some of the places you've worked?

JL: Pretty near any place you see a road on a hillside within 100 miles of Tonopah, you know I've been there. [chuckles] My stepdad used to go down the road and say, "Well, looks like Larson's been here." [chuckles]

RM: Is that right. What is involved in doing a road now? Do you have to get all kinds of permission . . .

JL: Oh, it's going to get worse, because they want 100 percent re-cover - reclamation. Most of the work I've been doing lately is reclaiming old roads and so forth. The Forest Service and the BLM started making the mining companies put in a work order, but they just put them in and there was nothing more said about them. Well, to get them released now, they go out there and we [have to] re-cover the roads - push the dirt back up and contour . . .

RM: Can you really re-cover those roads?

JL: Yes. You can re-cover them 100 percent, but the cost goes way up. For every dollar they spend in digging a road, it takes them damn near $2

to re-cover it.

RM: Oh. So you spend a lot of time re-covering now.

JL: Well, most of my bulldozing, lately, has been re-covering work, because the mining companies aren't digging many roads. They're buying these track-mounted drills, and they're also got a drill made in Canada that's light pressure and is supposed to run over . . . it has big old farm tractor tires on it.

RM: Oh - it doesn't even need a road to get up there?

JL: Well, yes. And they've got a service buggy, as they call it, that's built the same way. Also, the geologists are getting better at finding ore. Eventually geology probably will be done from the satellites. They said one time that they found a big ore body east of Ely but it didn't pan out; I don't know what they saw - I never did follow it up. And your surface indication now . . . for instance, [there's a place] out here above the Test Site with just a big bunch of rocks sticking up. But the way the rock was made, the geologists figure there might be gold under it. It's big high thermal rock that was formed by water, and they figure that the gold didn't come up through. They don't have much gold on the surface, but I've put roads in for 4 companies that have drilled that thing, and they're still not backing off from it.

RM: Is that right. Where is it?

JL: Do you know where the Wonder Rock Mine is out here? It's just beyond that. They've got a hawk that has a nest there in the summertime, so they won't let them work at certain times because the hawk is nesting. God, I can't believe what they do.

RM: It's really changed, hasn't it?

JL: Yes. Society's going to strangle in its own juices. They're

getting so bad with the EPA and so forth . . . And we can't compete with foreign labor, shipping stuff in here. They want an open trade policy; no duty. How can our labor compete with that?

RM: Yes. I remember when we were mining with my dad, and when you wanted to build a road, you just went out and built the road.

JL: That's the way it was when I went up to the quicksilver mine - I just went out and built the road. And then Jack Buckhouse, who was the forest ranger, came by and said, "Jim, I've got to have a permit for that road."

I said, "What do you mean?"

He said, "You can't build a road on the Forest Service without a permit."

I said, "Well, what do you mean? You never told me that."

"Well, I'm telling you now." And so he gave me a form. He said, "I'd like you to fill this out."

And I looked at it, and you couldn't have any sustained grades over 10 percent, and stumps had to be buried so deep . . . Well, there are no stumps in this country. (You know, it was a general form.) I said, "Jack, I can't . . . " I said, "My road's 14, 20 percent all the way up there."

He said, "Well, I'll OK it." (The road was already in.) So I filled in a little bit of it and signed my name and he OK'd it.

In fact, I have a permit for the road from the mouth of Shoshone right above Round Mountain all the way up that canyon. And the mining company - Smoky Valley Mines - staked that <u>whole</u> country. They staked that whole hill, looking for moly, when moly was so high. And they were using that road. I was afraid the damn idiots - one of those geologists

- would drive off it and then they'd want to sue me. So I went in and told them, "You can use that road."

He said, "Oh, we already got permission to use the road." (I'd given the county permission to use the road for the TV antenna they put up there.) And I told him, "That's all it's for."

I said, "Send me a letter saying that you're using the road, and then I'll OK it." But he always put one sentence in there that if he did anything to the road I'd be responsible.

I said, "I can't sign this." I finally went into the Forest Service and I said, "Listen, I want you to get Round Mountain to give joint venture on that road so if there's any maintenance or stuff they have to take care of it, too." And I don't know if they ever did or not.

But moly has gone way down now, just like the quicksilver; so I don't know if they're still holding those claims or not. But that's one bad feature of the 1872 mining law: If they're contiguous and if you are doing the work in one place you can hold a thousand claims, if you were doing that much work. Well, with the big pit they've got, they can hold that whole area and never dig out on that hill at all. They shouldn't be able to hold more than 50 claims, and then they'd have to dig in a new place.

But the 1872 mining law wasn't a bad law; it lasted over 100 years. And then, if it wasn't for conspiracy . . . for instance, they said that timber would go for the betterment of the claim. Well, a person would go in and stake the claim and then he'd log it off. But he did it without the county and state fathers knowing that he was doing it. If they'd stopped him right away they could've stopped that, but they didn't do it. And the contiguous claims; there should've been a limit to them. And

there should've been a limit put on the amount of time that you could hold an unpatented claim before you patented it. But the people who made that law were people who didn't have anything in their pockets - they were miners; they were prospectors. They even put in that you couldn't tax an unpatented mining claim. They had high hopes and they were looking out for their own benefit, too, when they made that law. But I still say it was a good law, because it lasted so many years without being altered. They'd like to get rid of it.

RM: Do you think they are going to get rid of it?

JL: No, they're not going to get rid of it, but they're going to put so many amendments . . . For instance, now you have to pay $5 to the federal government every time you register a claim up there. When they first put that in, there was going to be one payment, and that would be all - they said that. And then they turned right around and changed it.

They're federal bandits, operating on state land - that's what I say about the Bureau of Land Management and the Forest Service. When a state becomes a state, in the Constitution, the way I read it, the land is supposed to be governed by the state. And if the Forest Service or the federal government wants any land in the state, it says right in there they've got to buy it from the state. When we became a state, our Nevada founding fathers said, "You can control that land; we don't want it." But they didn't amend the Constitution, and two wrongs don't make a right; they couldn't do it. There have been several things go through the Supreme Court, but they conveniently ignore that state land is state land and they don't rule on that at all; they rule on what went through the court.

RM: So you're for the state managing the land?

JL: Well, that's what I believe the Constitution states. Because it states if the federal government wants a port or wants land for a fort or something like that, they've got to buy it from the state. It says that right in the Constitution. I thought when the states' rights rebellion was going to go in that they would get up in front of the Supreme Court and prove it. But all of a sudden the states' rights rebellion just quieted right off. So somebody got paid off, I think.

We had guys like Lamm in our state who said we couldn't manage the federal lands because we didn't have enough money to manage them the way the government does. But I think that's foolish. We don't need the amount of men that are in Tonopah to manage the amount of land we've got around here. We could do it with 4 men and our regular police force: one man for mining, one for agriculture, one for recreation and then one for incidentals. And they could all work out of the same office and probably get by with one car. But we've got so many BLM guys up here and Forest Service guys that you can't believe it.

RM: Jim, you've seen a lot of changes in the way mining is done, haven't you? What are your thoughts on that?

JL: Well, they are mining gold in a different respect than they were before. This heap leach, for instance. It was done years ago by the Spanish - they called it patio leach.

RM: You mean, the Spanish heap leached with cyanide?

JL: Yes. They put it out on a patio and then they'd cyanide it and then they'd take it off with scrapers and then put on more ore. Heap leaching's nothing new; the only thing new about it is . . . When I was a kid, a truck driver drove a truck that hauled 5 tons. Today he drives a truck that hauls 200 tons or more. You're just moving more muck per man

hour. And of course, the price of gold is higher. As I said, I can remember when I was a kid that trucks would hold 5 tons; and, hell, if you had a 10-ton truck that was really something.

RM: Yes - that was a big one, wasn't it? What about dozers? How have they changed?

JL: Oh, dramatically. [laughs] I've got one of the old gas engine ones still in my yard. To start it, we put a bar in the flywheel and pulled it through. But the hydraulics made a real difference in the tractors.

RM: In what way?

JL: Well, in your cable dozer you couldn't push down; it was just like riding over the ground. Now you can ride down on the weight of your tractor.

And the ripper that they put on back made it fantastic. Of course, to take that kind of a torque they had to build bigger tractors, and they're building them bigger right along. They've got a seismograph outfit that's run with a doublejack. You run your wires out, your boot hits ground, and it tells you if you can rip it at all.

RM: They can tell you if the ground will rip?

JL: Yes, by the speed the sound goes through. And what they couldn't rip and had to blast 10 years ago, the ripper will walk through like a dose of salts today.

RM: Is that right!

JL: It's just bigger machinery - yes.

RM: How big are the dozers, now?

JL: Oh, some of them are 700 or 800 horsepower.

RM: Is that right. What was the biggest dozer when you started in the business?

JL: Well, the one I've got down in the yard - where you put the bar in the flywheel - was 60 horsepower.

RM: Was that a D-8?

JL: No, that was a 60 Caterpillar. The D-8 was originally a 75. That was the first diesel that came out.

RM: What did it weigh?

JL: Oh . . . now, the 60 weighed 10 ton - they either called it a 10-ton or a 60. The first diesels must've weighed about 20 tons. The 2-U weighs about 25. They came out with a diesel engine in '32 or '36. I had a 60 (a gas engine) that was made in the First World War - it was what they called a "Prime Mover." It moved big guns around. It had outside dry clutches made by Holt.

RM: You mean like a car?

JL: Well, yes. Now they have what they call a wet deck - everything's running in oil. This is for two reasons: They last longer and they need internal cooling. You've got so much horsepower going and those clutches are opening and closing and building up tremendous heat. But the first oil clutches were a pain, because they'd get sticky, and they wouldn't release and the oil was too thick. But if you put light oil, it didn't do the job. But it's really amazing - from '36 to about '73, they really came on. They're still coming on - like that big tractor they're making now; I call them ladder drives - those high-cab deal things?

RM: They've got the big wheel and then the little wheel? Yes.

JL: They put that sprocket up there because the army found out a long time ago you couldn't put the drive chain of the big tanks on the ground; the shock would break the bearings. And that's the trouble with the tractors. The army found that out a long time ago, and that's what

Caterpillar is doing. They put it up so it'll take the shock out of the drive train; the only ground shock you're getting is just on the undercarriage. They're so big the undercarriage is not lasting the way it used to. But it does tremendous work; it must still pay. If they get 3000 hours out of a set of tracks now, it's phenomenal; you used to get 10,000 on a set of tracks sometimes if you were in the right material.

RM: And that's because they're so powerful?

JL: Well, and the weight.

RM: They make a D-10, don't they?

JL: They make a D-11 now.

RM: They do? What does a D-11 weigh?

JL: I don't know. I never seen any figures on it.

RM: Do you know what a D-10 weighs?

JL: No. My tractor is the same as an 8-K - I've got an Allis Chalmers - and it weighs around 40 tons. I've got one that was made in '73 and one from '74. But the newer ones are just a tremendous amount of weight.

RM: Is there any way you can describe the difference in the amount of work you can do with these new ones versus the kind that you started off with?

JL: Well, it's a matter of the horsepower plus the modern attachment - the ripper - and the hydraulic dozer. It's just like I was telling you about the truck driver: He was driving a 5-ton truck, now he's driving a 200-ton truck. The same thing is true with the dozer. The man is doing so much more work because the equipment's so much better. The horsepower plus the weight plus the modern innovation make the tractor better.

RM: Well, if the original diesel caterpillar could push X, what could a modern one push?

JL: Ten times as much, because they're 10 times as big and 10 times as powerful. These 10s and 11s are so damn big that they can't move them down the road in one piece; they've got to disassemble them [to comply with] the weight laws. And then they're got [to get] a special permit.

RM: Are there any 11s in the area?

JL: They prototyped part of one 11 out at Round Mountain. I don't know if it's still out there or not. They're using an awful lot of Caterpillar equipment in Round Mountain, and one of the agreements is that they keep one or two mechanics stationed here in Tonopah all the time. When they were prototyping, they had about 5 of those mechanics and a bunch of engineers and everything. But I never was around them because I don't work with heavy construction anymore; I work for myself and so I don't use the late model equipment. I just saw it - I don't get to operate it.

RM: Are the newer dozers easier on the operator?

JL: Oh, yes! You used to armstrong those clutches; you had to pull them back. Now they've got hydraulic everything - hydraulic assist on your brakes and hydraulic assist on your clutches. If I had to run an old 2-U, it'd kill me off.

RM: A 2-U is what?

JL: It's an old D-8 from about '46, and you had to armstrong it.

RM: So you were mechanically moving the clutch yourself.

JL: Yes. They had a booster spring - once you got so far, the spring helped you push. But then they finally got to putting hydraulic assists on everything.

RM: Are there occupational hazards involved in operating that heavy equipment?

JL: Yes. I've got to wear a hearing aid.

RM: So there's a hearing loss?

JL: Yes. Now you've got sound repressant caps and earmuffs and things like that, but when I started I didn't use them.

RM: Are they hard on a guy's kidneys? I think I've heard that.

JL: They'll bounce you around. The worse ones are the cans - the rubber-tired ones - because you're moving faster and bouncing harder. But there again, it's up to the operator. When I bounced my old tractor, I cussed myself out. I figure I should know enough - feel it moving - and know it was going to go over and bounce down. And you'd throttle down so you just eased down.

RM: Yes - you don't want to beat it up.

JL: Well, no. Then, you don't want to beat yourself up either. And I've got to make mine last longer than most people, because I'm not doing the contracting work where you can get repairs. At the mine, they're getting plenty of turnover on their dollar.

RM: Yeah. Jim, is there anything else that you recall?

JL: I don't know; we went far astray - from Manhattan and Round Mountain, you're talking about bulldozers. [chuckles]

RM: Yes, but that's all part of the history.

JL: I can remember in the '36 and '37 winter, the A. O. Smith Company was sampling Manhattan. They had an old D-7 bulldozer and there was so much snow out on this flat they'd run it clean from the Smoky Valley. They were bringing the mail into Manhattan. It went out Smoky Valley here instead of by 8A. They didn't have 8A then - we went back through . . . do you know where Elephant Rock is?

RM: No.

JL: There's a rock out there on the old road to Manhattan that looks just like an elephant. And you couldn't get through there, so they'd go up through the Smoky Valley and then they came up from Sayler's Lake up through the gulch with supplies. They were running a bulldozer to keep the road open down the valley. And Joe Francisco was running a 2-horse team with a sled down to meet the mail stage to bring the supplies into Manhattan for about a month. I froze my ears that winter.

RM: Has there been a winter like that since?

JL: Yes, but you had more modern equipment and better roads. There was one in '48, I guess it was - the year they airlifted all the hay. And then I think '69 was like that. I don't know if there was another one between then and now. We've got an exceptional winter this year; I don't believe it.

RM: It's so warm, you mean.

JL: Yes - shirt-sleeve weather.

RM: What do you make of that? Have you ever seen a winter like this?

JL: I can't remember one. But I'm hoping that sometime at the end of this month it'll . . . I don't care if it snows 6 feet in the last day of March and the sun comes out to 60 degrees the first day of April. It'd be a little muddy for a little while. But . . . if we don't get some moisture in the next 2 months, there's going to be trouble. Even the fish'll be packing canteens.

RM: [laughs]

JL: And your people back east probably don't even know what a canteen is.

RM: Are there any people in Round Mountain or Manhattan that stand out in your mind?

JL: Old Jack Berg. He came out of the Klondike and worked down in Round Mountain - gold - and leased there. He told me one time he was leasing from the company and they had the mill, and they would always be 30 or 60 days late when they'd mill the ore, getting the money to you. So they said the money would be a certain time and he sent them a telegram, "Money or lawsuit." He told me he got his money. He said it was going to be the last time he leased, so he really stepped on them. [laughs]

RM: Was that one of the Berg brothers?

JL: Yes. He ran the service station there, he and his brother. I don't know if they knew my granddad in Alaska or not, but they were good friends.

RM: Were there gas stations in Manhattan in the '20s and '30s?

JL: Yes - with old glass pumps.

RM: Was there more than one?

JL: Oh, yes - there were 3 or 4 places you could buy gas in Manhattan: Kaufburner's - he ran a kind of a hardware store, and he was a watchman. He came in the early days there, trapping, and he made his money and stayed there. And then Val's Garage down at the end of town. I don't know if the 2 pumps at Val's Garage are still up or not. They were glass to begin with.

RM: Do you remember what brand they were selling?

JL: No, I don't. I think we bought Shell gas in the bulk from the bulk plant - my granddad always had a barrel or two. If you had a dirty windshield, my stepdad said, "That's a gas-barrel windshield."

RM: [laughs] Yes, right. Was there a bulk plant in Manhattan?

JL: No; Tonopah. The delivery truck would come out and we'd keep a barrel filled up.

RM: Were there gas stations in Round Mountain?

JL: Well, Jack Berg had one - I think that was the only one. He had a glass thing, too. There were a lot of those around when I was a kid - some of them filled with air and some had a pump on them. I can remember when I was going to high school I was working the summertime, down haying. I'd buy gas from Val's Garage - 28 cents a gallon. Fuel oil was 10 cents a gallon. Some places I think you could - if I remember - get it for 7 cents. [chuckles]

RM: Did Manhattan have its own newspaper?

JL: It had a newspaper at one time, because I can remember the old press sitting outside of a building there when I was a kid. But in my time, it never did. In fact, there were 2 - the Standard . . . I think that building still says "Standard" in front of it, on Erie Street. But this was just down there, and the press was sitting outside. That's what they told me it was - I didn't know at the time.

RM: Now, you said a source on placer would be Richard's Ore Dressing?

JL: I'm not 100 percent sure.