

--Cottonwood Uranium Mining Project--

Sponsored by Bureau of Land Management and USDA Forest Service in cooperation with
Blue Mountain Shadows and Utah Division of Oil, Gas, and Mining

INTERVIEWEE: Cleal Bradford
INTERVIEWER: Nancy Bradford
DATE: January 24, 2001
PLACE: Blanding, UT
TOPICS DISCUSSED: Cottonwood Mines
TRANSCRIBER: JoAnna Bethea

CB: This is Cleal Bradford. The date is January 24, 2001.

NB: What mines did you work in at Cottonwood or on the Elk Ridge?

CB: In Cottonwood I worked in Spring Creek, Big Hole, Found, and some AEC leases up on the hill in the Northwest part past the mines; also in mines that were owned by Howard Kimmerle.

NB: Did you own the mine, lease it, or work in it in partnership with someone else?

CB: I worked in a variety of ways. I worked as a laborer for different employers at different times. The first year I worked at the Cottonwood mines for Merwin Shumway, Keith Jones, Joe Neilson, and Calvin Black. I later worked for Lyman and Bradford. My father and Marvin Lyman had formed that partnership as they had completed the tunnel by then and moved to Cottonwood with their equipment. They mined for three or four years at different Cottonwood locations. I also worked for Howard Kimmerle and Gib Shumway who had partnered. And then later for Howard alone after Gib split away and was no longer involved. Also at different times I worked with my brothers Tex and Kay as we leased and worked some leased mines on our own.

NB: Who put up the operating money?

CB: Most of the miners at that time would put up their own operating money. Labor was, of course, the most expensive part. With the fuel and powder, fuse caps and other expenses also costing. But you would have to work free if you didn't make enough to do any more than to pay for the powder and other supplies. A compressor was always necessary. On some occasions we would lease a mine that would have a compressor attached to it so we would lease the compressor and the equipment along with the mine and do the work on shares.

NB: Do you have any ballpark figure of what it cost to operate the mines?

CB: No.

NB: Did those costs change through time?

CB: Of course they got more expensive. When I first started mining, as labor we were paid eight dollars a day. Three or four years later the price had doubled. We were possibly more valuable workers at that time; we knew more what to do but also inflation had kicked in and everything had gone up some.

NB: What year did you start mining?

CB: My first experience with the Cottonwood mines was when my father was working as foreman of the Blanding mines. During the Second World War I would go with him as a youngster and be out around and about. I didn't do any mining at that time. But I did travel with him out and spend the day exploring and doing other things while he would be involved. They were also mining under Blanding Mines in Montezuma Canyon and we used to go out there on occasion. During the war the labor was mostly of the older workers, and then some Navajo workers that would not be in the military.

NB: The mines you worked in, did they use timbers in any of them?

CB: Very little, we tried to use pillars and be safe in the mining without having to use the wooden timber. On occasion that was necessary.

NB: Where did the timbers come from?

CB: Hurst's saw mill was operating north of Blanding at that time and they would saw lengths of six by six or eight by eight. And we would cut those to the proper length and use them for timber when necessary.

NB: Who hauled your ore and where did it go?

CB: Again that would change through the years. In the first mine I worked, Cal Black had a truck; he was just fresh out of high school then. He would haul some of the ore. Bernard Black also owned trucks. We'd actually load the ore in horse carts, have the horse pull it out, dump it into the truck. We didn't even have bins in those early years. The truck would have to be there for us to dump into. The truck would wait until the necessary amount of ore was loaded in, whether it was an eight-ton truck or a ten-ton, or eleven, or whatever. Mostly the size of truck then, we called them two ton or two and a half ton trucks. After they'd get the ore loaded, they'd have to drive to Durango to off load and then return and be out to the mine the next morning to get their next load. Truckers probably put in double the hours that the miners did. Having to be out to get the truck loaded and then take it as far as Durango to the mill and come back for the next load.

NB: So by the time you started mining they were beyond loading it in wheelbarrows?

CB: The only time we used wheelbarrows was on the two mines where we used a shaft. And the wheelbarrows would be used to bring the mine and dump into a two-ton car on track. In a couple of different mines I was the hoist man; we had equipment on top, up in the shaft

where we had an ore bin. We would dump the car and then send it back down for it's fresh load of ore that would be brought by the wheelbarrows. But anytime that I was down in the mines mucking and loading, we used a horse and cart.

NB: Did you use rail or were they on tires; tire wheels on the carts?

CB: The horse carts were on tire wheels with shafts that had been designed. In fact, my dad was the one that originally built the first three or four of the carts that were used that way. No springs at all, just a solid axle with the wheels on either side of the mine cart. The shafts would of course be in place on each side of the horse, held there by a band up over the back and then a britchen underneath. The horse would control the direction the cart was going by which ever direction the horse would walk.

NB: Did you ever work in a mine that had rail in it?

CB: Only the ones that I'd mentioned where we had the hoists. There were very few of the mines that used track and cars, at least in Cottonwood.

NB: What facilities were at the mine when you worked? Were there little houses or other structures?

CB: There had been a couple of homes built in Cottonwood in connection with the old vanadium mill that the Kimmerle family had constructed. And as I recall, it was the Kimmerle family that lived in the one larger homes. The others were more shacks where some of the workers would stay out there to work at the mines. Remaining in Cottonwood overnight, where most of the Blanding miners would drive back and forth.

NB: How big of a home was the Kimmerle home, built out there?

CB: I don't recall. It may have been eight hundred to a thousand square feet.

NB: How many portals do you remember in the mines you worked in? And how much ore was taken out?

CB: In Cottonwood and the tributaries of Spring Creek, on the west side, to where Brushy Basin comes into Cottonwood on the east; there would probably be forty or fifty different portals. I had only worked probably in fifteen or so of those. Different times for different employers. We had a saying as we were mining that the smart miner was the one with ore. Of course that would vary because there is always an opportunity of having ore found and mined out. Between having a pot of ore you'd have to do some drifting. That's the time that wages would be a little lean. Sometimes the miners would even have to go into debt to buy the supplies so they could go from one good time to the next. Old man Kimmerle had a saying of, "Chickens today and feathers tomorrow". That's kind of been the history of mining.

NB: Were the mines you worked in considered good mines and were they profitable?

CB: Well, yes. The early mines that I had mentioned, the Blanding mines, working during the war was for vanadium only. It was later that uranium started to be extracted. At that point the mill in Cottonwood closed down as there had been a uranium mill constructed in Monticello. The VCA mines would ship their ore out to Durango where the VCA had their own mill. As it was, the mill in Monticello didn't get much of the Cottonwood ore.

NB: Do you know or remember what a good year would bring in terms of profit?

CB: When you're talking about profit and loss, I don't know anything about what the owners might have done on the good years. Basically, as I recall, everyone was just making a living. Whether they mined on their own or whether they worked for someone else, there was not a whole lot of difference in the lifestyle and the amount of money that was put in the bank.

NB: What do you consider the best producing mines in the district?

CB: The one that's always referred to is the Big Hole. It had produced an enormous amount of high-grade ore. I worked in some of the peripheral areas of the Big Hole after it had been totally gutted out. In fact, Tex and I were working in a drift on the back side of the Big Hole when one winter morning we got out there and heard it popping and cracking. I told Tex, "Let's go get our equipment. If that's going to cave in we at least ought to get our equipment." He was bigger and stronger than I was and told me, "If you look like you're going into that Big Hole and walk through it to get the equipment, I'm going to lay you out right here." So I didn't challenge him on that. We did stand in a safe place between two pillars and watch the Big Hole cave in.

NB: When was that?

CB: It was kind of like watching a jigsaw come apart, as you pick it up. One piece would fall and then another would fall and pretty soon it was all coming. It would have been the winter of maybe fifty-three, or fifty-four. I don't recall the exact year.

NB: I keep saying it seems to me like, the way I remember it, that just about everybody mined in the Big Hole. Was that true? At one time or another.

CB: The Big Hole was mined by the VCA during the Second World War. And then as other miners would work in that same vicinity, they would go through what was called the Big Hole to get back to other parts of the mine. There are different formations. If you're working the Shinarump, which was more up on the Elk Ridge in the north Cottonwood, the face of ore was generally higher and wider. In the Morrison formation that was in lower Cottonwood, the ore included vanadium, where the Shinarump mines didn't have vanadium, just uranium ore. And as a result, they were a different color, different texture. The Morrison formation ore, that had vanadium, was a darker color. If it was high grade it would get a dark blue, almost into black. If it were a low grade it would get into a lighter brown or

even just a tan color if it was very low grade. In the Morrison formation, the ore was consistent anywhere from just pinching down a few inches to opening up to a full face.

NB: What do you remember about AEC drilling and old building programs in Cottonwood, or on Elk Ridge?

CB: Well, the core drilling that occurred systematically with the AEC being in charge was during the years that I worked at Cottonwood. I only worked in Cottonwood during the winter months. We would get out and do other things in the summer, build roads, work on the Elk or other locations in the mines. We could get to it in summer a little more easily. But the core drilling that occurred in Cottonwood was a system of laying the country out in quads and drilling every so often. If they were able to find ore, in one place, they would spot out in the four directions and drill around it. There was a considerable amount of core drilling occurred. Mapping occurred as well so that you knew which drill holes had the ore and whether it was one foot or two foot thick, and what the percent of the grade of the ore was. But in Cottonwood the ore generally was consistent of being anywhere from about one and a half percent in vanadium, fifteenth hundredth uranium. Up to two and a half percent in vanadium and twenty-five hundredths in uranium.

NB: Do you know anything about an AEC camp in the main Cottonwood area in the early fifties?

CB: Only that there was a trailer camp out there. People stayed there as they worked in the core drilling or in some cases the engineers that were plotting out the area. It wasn't housing that was permanent; it was just trailer camp.

NB: How did the money you made while mining change the life of your family and your community?

CB: Well, Blanding's population doubled from the 1930 census to the 1940 census. And that was basically because of the mining and milling and trucking that occurred. Again it increased into the 1950's and into the 60's. The mining pretty well phased out in the mid-sixties so anything that was mined would have been during the thirties, the forties, the fifties, and into the sixties. I didn't mine after 1956. My first year of actually working in the mine was 1949. I worked, like I said, mostly in Cottonwood during the winter months during that seven-year period.

NB: Were you able to make better money mining while the AEC had a New Claims Bonus program in effect?

CB: The AEC bonus program was on new claims. As there was new claims opened, of course that created additional employment, but anyone that lived here and wanted to mine pretty well had a job one way or the other. I made more money mining for myself than I did working for others. In fact, there was a time that I was working through the portal in the Big Hole that I hit a pot of ore that resulted in our being able to buy a building and remodel it into a pretty nice little home that we had paid for. During those months I was working alone I

would mine during the morning hours of the day and then come and work on the house in the afternoon hours of the day. Buying the material and doing most of the labor myself, we built a pretty nice little home during the year that we had that particular pot of ore to pay the bills.

NB: What do you know about the VCA mine operations? Do you know who worked for them?

CB: The Vanadium Corporation of America was a group that had most of the partners out in Colorado. Marvin Lyman had some stock in it and provided the fuel and other things out of his garage that was sold from there. The mines the VCA owned after they discontinued mining themselves were leased out and others would mine on a percentage. And so in Cottonwood the bulk of the mining that was done was on VCA property.

NB: Did the VCA workers stay in town or camp at the mines?

CB: I mentioned that during the war there had been some housing that resulted in some of the miners staying up there, but most of the Blanding miners would just travel back and forth.

NB: So you did re-work mines that the VCA had already mined in?

CB: I went into some of those same portals and would go further into the mine than what they had already mined out.

NB: Where did you get your mining supplies, explosives, fuses, picks, drills and etc.?

CB: There was a company formed in Monticello, called Western Mine Supply where I bought most of those items. Later Van Palmer started a mine supply in Blanding but it was small and come along late enough that I was pretty much out of mining by the time he started that business.

NB: Can you describe how much typical workers would make? The muckers, blasters, ore haulers, mine owners.

CB: I've already mentioned that I started out at \$8 a day and worked up to about \$16 a day during the three or four years that I was working for someone else in Cottonwood. The ones who were drilling and doing the blasting would be paid more than the ones that were doing the mucking. But back in the early fifties a \$15-\$20 a day wage was a good wage.

NB: Did you interact with the Ute's in any way during your mining years?

CB: There was a time or two that there were Ute employees hired by some of those who were operating mines that I would work side by side with. More of the Navajo than the Ute. I worked with quite a large number of Navajo men in the mines, especially with Lyman and Bradford because they actually preferred to hire the Navajo. During the time that they were mining, the Navajo would live at Cottonwood during the week and then go back down across the river on the weekends.

NB: Who were some of those Navajo men?

CB: John Bill Maryboy, Slim John Maryboy, old Grandpa Maryboy himself.

NB: Was David Yanito one of them?

CB: David Yanito, Adason Yanito, Richard Yanito, Willie Show married one of the Yanito girls. John Bill Atcity, and then John Billy Atcity; they were brothers. Harvey John Atcity, another brother. Sam Long John married into that family somehow. Dan Benally also worked out at Cottonwood.

NB: Do you know the names of the Ute men that worked out there?

CB: Harry Dutchie worked there. Some...I was going to say another one but it slipped my mind who it was.

NB: Were the Ute's living at Allen Canyon then?

CB: Yes.

NB: Were they...

CB: Most would be at Allen Canyon, some lived at Westwater across from Blanding. They had not yet started housing down at White Mesa. It was after the Ute's got a settlement of moneys that they started the White Mesa community. Then most of them moved out of Allen Canyon and out of the Westwater area, down into White Mesa. Prior to that most of the Ute people lived either around Blanding in tents or in some kind of dwellings; shacks mostly, and out at Allen Canyon in the same kind of setting.

NB: Were they raising anything out there?

CB: There was some farming occurring out at the Allen Canyon. The government had hired an employee called Ed Black that worked with the Ute's out at Allen Canyon. He had been able to get some of them to do a little farming. They had a few livestock.

NB: Did they ever tell you how they felt about all the mining and logging or those kinds of activities?

CB: Not while I was working out there. They were just as glad to have a job, as I was, the ones that I worked with. I worked at White Mesa years later where I visited with some of those same individuals. They felt the roads that had been constructed were to their benefit in some cases, but then they didn't particularly like all the traffic that the roads brought, so there was mixed feelings.

NB: Can you talk about how the landscape in Cottonwood Wash changed during mining times.

CB: There would be a flash flood usually in the middle or late July. Sometimes it would be about four-foot flood that came down, sometimes as high as six feet. It was always a good big flood from the thunderstorms that would occur about that time of year. Other than flood season, Cottonwood Wash would always run water and provide a place to get the drilling water that you'd need if you didn't have water in the mines themselves. A place to water the horses when you had the corrals on either side. The thing I've noticed about going out to Cottonwood more recently than what was there then is the growth that has occurred. I don't think that had anything to do with mining, I think it had more to do with extensive grazing that had occurred in the early years. That area was grazed more heavily in the thirties and forties and fifties than it has been in more recent years. You go out to Cottonwood now; there are large growths of cottonwoods up and down the creek that didn't used to be there. I don't think that was because of mining as much, it was just a different grazing pattern.

The one thing I do remember was going to Cottonwood after the mining had closed down. It was early enough after the mining had been going on to remember all of the different men, who worked there; and the commotion and the noise and the different portals that would be worked in. And then being out there by myself and just walking around and recognizing that even though the portals were still there, the landscape was basically the same, it was entirely different without people. Without the horses, without the activity that mining had created.

NB: Did you ever have to help build any roads to get into any of the mines you worked in?

CB: Not in Cottonwood. I helped build roads into Red Canyon, and in from Grand Flat across White Canyon, and Burch Canyon on to Deer Flat. Other locations that I used to do the rock work was...when Uncle Frost Black had a Cat he would always do road work for different miners or for the government. And as roads were being constructed he would hire me to do the rockwork. I went out quite a bit during the summer months when he hired me to do those kinds of things. The one road that was the furthest out was when we went from White Canyon over through Blue Notch into Red Canyon and down to where Lake Powell is at now. I don't know that there was ever any mining back in there but there was some drilling and some exploration back on the West Side of the Happy Jack mine in the White Canyon, Red Canyon area.

NB: Was there a blacksmith shop out in Westwater or Cottonwood or anywhere?

CB: Cottonwood, oh sure.

NB: Where was it?

CB: The blacksmith shop was there close to the housing where they'd sharpen picks, sharpen bits and make sure the tools were taken care of.

NB: Who ran it?

CB: Well asking that question brings a question to my mind. Early on it seems like a guy named Buck Winters, but then he only had one arm so I don't know how he could have been a blacksmith. During the years that I was out with dad, when I was younger, I do remember there being a tool house that had a forge in and a place where they'd sharpen their picks and do that kind of work.

NB: Do you know whether the creek has ever been re-aligned to get to the ore bodies, and where?

CB: Not that I've ever seen. When the flood comes down Cottonwood water goes where it wants to. There'd be places where the road would be carved on either side and after the flood you'd have to rebuild the road to gain access where the sand would be lifted up onto the banks on either side. This would block the road during the time of the flood.

NB: When you stopped working at the mine how did the area look? How was it different then when you started working there?

CB: I don't recall during those years that there was a whole lot of change. The last mining I did in Cottonwood was up in the King Edward and King James mines for the Ransom brothers. They had come up from Roswell, New Mexico and had started mines up further; this is in Shinarump formation rather than Morrison. They had hired me to do the drilling. There was a small cabin that I lived in just across the wash from the one mine. They lived up a little further, maybe a mile away, in another location where there was a fresh spring of water by the cabin they had built. I've been back there in more recent years and found the cabin that they lived in. The one that I was in is no longer there. The face of ore that I started working on was about four feet high and we'd shoot muck out of the top. As we got back in twenty to thirty feet from the outside, the face opened up and I was having to back a flat bed truck in to the mine and work off of the back to reach the top of the ore. We were shooting a face of ore that would have been fifteen to eighteen feet high. There was an enormous amount of ore come out of that mine during the months that I worked there, but I was only there the one summer.

NB: Did you drive the truck back out before you lit the rounds after you drilled?

CB: Oh, sure. We'd have to get everything out of the way before we blasted.

NB: Can you tell us anything more about the Ransom brothers? We haven't been able to find much information on them.

CB: As I said, I know they came from Roswell, New Mexico. They were two brothers and then they had a nephew of a third brother. His name was Phil. I don't remember the first names of the two men that I worked for. One of them stayed on site pretty well. And the other one wore fancy clothes and went to town to buy the supplies and cut the paychecks and those kinds of things.

NB: How old of men were they? Would they likely still be alive?

CB: I don't know it's been about forty-five years ago. And they were probably in their mid-forties then. So I doubt that they would still be living.

NB: Do you have any maps or pictures of the mines that you worked in?

CB: I've got pictures that were taken at different times. Yes.

NB: Would you be willing to let the...

CB: What ever we've got. If they wanted to have copies, duplicates made, why yes.

NB: Were the mines you worked in exhausted besides the Big Hole?

CB: Well, like I say, the ore had a tendency to roll. They'd pinch down to almost nothing and as you would follow it a ways it would open back up. And so I don't suppose there's a mine out in Cottonwood that would have a very good showing at this point. But I think that if you got in and followed any one of them, eventually you'd find that it would open up.

NB: Were very many of those mines resold, and to whom?

CB: There was very little during the years that I worked out there, the VCA had everything pretty well tied down. Howard Kimmerle challenged some of the VCA mines, and actually through court got a settlement and gained ownership of some mines. The ones I worked in when I was working for him, were those that he owned. Howard wasn't leasing from someone else; he was just mining his own property.

NB: At this point why don't you tell us that little story about Howard Kimmerle and his lunch pail.

CB: Well, each day as we would sit down to have our lunch, and Howard would open his lunch box, and it would include an orange and I never did see him eat it. I didn't pay much attention to this but this one day he said, "Pip, I don't know what to do about this. If I throw the damn thing away she sends another one. And if I take it back she sends the same one again."

NB: I've always liked that little story. What happened to the equipment and the facilities after those mines were exhausted? Do you know?

CB: Well, as the transition was made to start using diesel power and having the shuttle cars go back underground, front end loaders that would do the mucking, horse and carts kind of went by the way. Of course all of that old equipment just either got museumed or junked somewhere. But the equipment that I have now, that I still own, is a shuttle car, a front-end loader, a compressor, and a jackhammer. The thing that I noticed mostly in the years I

worked was change in the use of jacklegs, and in the different style of the jackhammer. The early mining was without a jackleg. A twenty-five pound hammer with a husky guy just pushing in by himself without any air pressure on the jackleg. And then the early jacklegs that first came out had a stinger that would extend about three feet. So there again in the high part of the drift, or up in the top, the stinger wouldn't be long enough to do much good. So you'd pretty well have to push that in by hand. But eventually they got telescope legs and put a V on the end so that you could make sure that it didn't slip out every time you wanted to use it. There was continuous improvement of the equipment used in the mines.

NB: You saw quite an improvement just in the few years that you were out there then.

CB: Oh, yes.

NB: Was there a typical way to mark a mine? Claim monuments for example.

CB: You'd mark six hundred feet in one direction and fifteen hundred the other to establish a location. You'd put a pile of rock up at the corners, and try to step it off and have it as accurate as possible. As you'd put a marker up, you'd try to describe on the paper that you'd place in a bottle or a can or something to leave on site. You stated who it was that had claimed the mine and it's dimensions and which directions you were running. Whether it was north and south, fifteen hundred feet or whether it was the six hundred feet. You'd file a duplicate copy of the paper in the courthouse with the county recorder's office.

NB: Do you know whether any of those markers are still there?

CB: There would be piles of rocks around but I haven't looked at them to see if the claims would still be attached. The Bureau of Land Management, on the land that they own, has changed the process. It used to be that you'd do assessment work on the claims to maintain ownership. More recently they have you file annually. When you file a claim you have to go through a process of paying a hundred and thirty-five dollars on each claim. You then maintain an annual payment of a hundred dollars to the BLM, and then you have to file with the courthouse. And so it costs you a hundred and ten dollars a year; at least the last that we did here just three or four years ago when Boyd was active in it.

NB: When you were working a mine did you go home every night?

CB: I camped out, as I mentioned when I worked for Ransoms. I stayed on the Elk when I was mining up there on different locations. In Red Canyon and White Canyon there were cabins built. But any mining I did in Cottonwood or out to the East in Bradford or Montezuma Canyon, we just drove back and forth.

NB: Did your family ever stay in Cottonwood or on the Elk Ridge with you?

CB: Boyd was little and went out with me on one occasion. I left a can of Sardines for him to eat and he took them out and fed them to the dog, only the dog didn't like them. He didn't

like them either. It was only an occasional thing like that when my family was out in the mines with me.

NB: What did you take out with you each time you went out? What kind of lunches did you take?

CB: Good ones. Big ones.

NB: Such as?

CB: It was hard work so we would take usually three sandwiches. I always liked to take a jug of lemonade.

NB: The times when you stayed out, what did you take out to cook and to eat?

CB: Just normal canned things or...didn't have any refrigeration so I wasn't able to take out any fresh meat or anything that way.

NB: Did you take out all your drinking water?

CB: Depend on where we were at. Most places the drinking water out there was as good as if we were to haul it.

NB: Did you ever use water from any of the wet mines?

CB: Only for mucking, or for drilling. We'd have a jack tank that we'd have to place the water in so it could keep the... as we would do the drilling you'd have to have it run water so it wouldn't make a lot of dust and get in your lungs. So we'd use the water in the mines for the jack tanks but never did drink anything other than...from Cottonwood we'd of course drink that.

NB: Do you remember that it took...we had three children and took those kids and lived out in a cabin out at the Ransom mine one summer for a little while.

CB: Just over night a time or two.

NB: Oh no, it was longer than that. I remember having to carry a bucket of water up from the creek to wash out diapers.

CB: Well, you may have been there the bulk of one week or something. But you weren't there very long.

NB: Wasn't there very long huh.

CB: Not very long.

NB: Well I remember that about it.

CB: I took you with me one time when we were building road. Kind of hot and stuffy at Red Canyon in a tent. You didn't enjoy that much either.

NB: Can you describe ways that your lifestyle changed when your family was mining? Like your dad when he was mining.

CB: Well, during the years that my dad and my brothers and I were mining we had work. I remember Blanding, without the mines, that in the winter months there was very little for the men to do. Summertime they would farm or do the ranching. Other than the livestock owners that would go out to their winter grazing, and pretty well stay out that way in the winter, other men had very little to do. In summer there was saw milling or trucking; in winter they didn't have any work. So after the mines opened up and the mill started, the ore trucking, hauling the ore, there was work through the winter months as well as the summer months. It changed the lifestyle of the whole community. It brought a considerable amount of money into town that other wise was just barely getting by.

NB: Before they started the mining and people were just living on what they raised, did any of them raise beef to eat or just live off buckskin?

CB: There was some beef used. I well remember a time that was an extended drought in the mid-thirties, and the government had bought the sheep and the cattle of some of the livestock men and were slaughtering and just giving it away. They didn't want it to spoil and people were hungry during the depression. I went with my dad as he had a team and wagon and we went up and he just loaded some meat in and brought it back. We had to bottle it then because there was no refrigeration. That was quite a thing in our life because other wise we just had the deer meat in season. We would have three or four deer that would be bottled, which would be the extent of our meat. A hamburger that was something was few and far between when I was young.

NB: Was there more money for things after you started mining?

CB: Of course.

NB: Did you eat differently or buy more store bought things?

CB: Oh, I suppose, but I remember in our early marriage that you pretty well cooked everything from scratch. Any soup you made...vegetable soup, you cut up all the vegetables. You didn't go buy a can of Campbell's vegetable soup.

NB: Did you get a phone or any new appliances or build an addition onto the house or anything like that?

CB: I've already described how I bought a CCC barracks and moved it on site and then fixed it up to where it was a pretty nice little home. In fact, the home is still lived in today [300

West Center Street]. But, yes our lifestyle improved considerably during those years. I would buy one appliance and then buy the next one and the next one. There were always things that were coming into the community that way. Joe Hunt started an appliance store on Main Street. During the years that people were mining he was able to keep the store open. After the mines closed, so did his store.

NB: How did mining change the businesses in town? Were new ones started, and which ones? Are any of them still operating?

CB: It's a strange thing in the business community of Blanding. There are probably more businesses now but we had four grocery stores during those years. Riley Hurst had the West Side Market; Doug Galbraith had his Galbraith Merc. What was Sitton's Store for a few years later became the Blanding Merc. Then Grayson Co-op turned into the Parley Redd Merc. But all four of those locations would be able to service the customers that would trade with them. And today in Blanding we have two grocery stores with four times the population.

NB: Did having new businesses provide jobs for folks who other wise wouldn't have had any...

CB: I don't know of anyone who wanted a job in those years that was not able to find work.

NB: Did very many of the women in town go to work during those years?

CB: During those years, most of the women in town stayed at home and took care of their family and home. There was, of course, some in the school system; a few in the offices, but the bulk of women during those years just remained at home.

NB: Before you started working in the mine what did you do? Was that the first time you ever went to work?

CB: My dad had a farm and so I did the farm work for him during some of the years that he was working the tunnel. I worked in the tunnel prior to and in-between some of the times that I'd mine. I mentioned that we'd work Cottonwood in the wintertime. There was about three years that I worked at the tunnel during the summer months and Cottonwood in the winter months.

NB: Did the uranium industry cause any changes in San Juan County?

CB: It totally changed San Juan County. The country had been quite closed very few roads. The mining industry resulted in roads being built in every nook and cranny. It helped the residents be able to access the county. The guys that ran the sawmills were able to get the logs out better and those who were involved in sports get to the backcountry to hunt the buckskin. Maybe that's why we don't have deer anymore. They opened the country up to where deer didn't have any hide-a-ways where they could stay away from the hunter.

NB: What kind of work did you do on the roads that you helped build?

CB: I never did operate the bulldozer. I always would drill holes in the rock, cut the fuse, get the caps on and do the blasting. Sometimes we used fuse; sometimes we used electric caps and a plunger.

NB: Do you want to tell a little story about Wiley Redd when you were building road?

CB: When we were building the road from Grand Flat over toward Deer Flat there'd be several places along the way, and I don't remember which of these it was but, you'd have to make an S turn to head a canyon. I'd done the drilling, loaded the holes and sent a fellow...my compressor would have to be pulled into an area like that by bulldozer. So I sent the Cat skinner with the bulldozer up to block traffic from one direction and I pulled my cable down another way so that if anybody did show up we'd stop them before they got to where the rock was going to blast. I just pushed the plunger as a green pickup came out onto the point, the S turn was such that where I drilled was probably a hundred yards or so from where that pickup appeared. I had already pushed the plunger, the shots went off and I heard the tinkle, tinkle as some of the smaller ones were hitting that pickup. The driver shoved it into reverse and went back as fast as he could to get out of the way. The next Saturday I was in the barber shop and Wiley Redd who was the superintendent out at Natural Bridges turned out to be the person in that pickup. He said, "There's that little son of a bitch that tried to kill me". I asked him, "What are you talking about" and he told me he was the one in the pickup. And I said, "How did you get past the guy that was supposed to be stopping you?" He said, "Well, he was out in the trees taking a leak. I saw him standing over there and just drove on by him."

NB: Do you know where any new roads had to be built or constructed to mine or move any mill equipment into the area?

CB: Well, there were surface roads constructed during the years the AEC was doing all the core drilling. So there was quite a number of new roads built on a quad arrangement so that they could get the core drill trucks in. They've not been maintained as permanent roads in most cases. They've grown back to where it would be hard to even find them now. The roads that were constructed to haul ore out, that was a permanent road, most of those are still being used. Accessed more now by the recreationists.

NB: Who built the road up Cottonwood to the forest?

CB: I was up that road when only the Ute's lived there, when I was younger probably twelve, or thirteen. So that would have been in the early forties. The Ute's were living there at that time and the road went in as far as they lived. Later it was extended up Cottonwood over the Elk and on through. The road was built from Natural Bridges on into Hite, I think in about 1946. At least it was after the Second World War. On North Elk the forest service built several roads for the logging companies so they could access that area.

NB: Do you know anything about the mills, how they processed ore or...?

CB: No, I never had direct exposure to any of the uranium mills. There was one located in Cottonwood that was for vanadium. But it never did operate in the years that I worked there other than when I was young. The mill in Monticello was initially built for vanadium and then later was re-tooled for both uranium and vanadium. The one at Mexican Hat was built in the late fifties, operated into about the mid-sixties. It was just for uranium mostly for the Happy Jack and White Canyon ore.

NB: Do you know where the Red Cake was shipped to?

CB: Red Cake? We called it Yellow Cake.

NB: You called it Yellow Cake. Was the vanadium Red Cake?

CB: Could have been. The ore that I know was shipped out was bought by the government. They used it for nuclear energy.

NB: Do you know whether the mills were operated on a twenty-four-seven or whether they were in fits starts or...

CB: The uranium mills operated on a full time basis. During the years that I was mining. I don't know about Mexican Hat because I got out of the mines in fifty-six and it was about the time that Mexican Hat came on line.

NB: Do you know where people sent their ores after the mills were gone? And how that impacted their operations and profits?

CB: There's a mill out at Naturita, there was one in Durango, one in Monticello, one in Moab. There was one in Mexican Hat, one out in Ship Rock, there was ore buying stations in White Canyon and down by the Monument Two Mine; and across the river on Navajo land a mill down near Tuba City. So when you say when the mills shut down, if the mills not running anywhere there's no place to ship your ore. There were other mills, one over at Ticaboo, one up in Wyoming. I'm aware of other mills other than those I've mentioned. There's a small one in Green River. Around here, as long as I was in the mines, mills were operating.

NB: What was the most important new development in your point of view and why, as far as the technology in the mines?

CB: I've already mentioned the improvement in the mining equipment. The changes that occurred from better equipment were such that you could move more ore with less labor more economically. I don't know; mining is mining. It's a good way of life, a good honorable profession. I enjoyed mining during the years that I was there. I came to a point where I felt that there was no future in it in this country. So I decided to change occupations. I've never regretted having changed occupation from being a miner, but I've always enjoyed

mining. You get talking about it and it's kind of like talking about deer hunting; there were the good days, they were the good times.

NB: Did you ever work in a mine where a shuttle car was used?

CB: Oh, yes. Kay and I and Dan Black, a Navajo fellow, mucked out for Pep Redd in Blue Lizard at Red Canyon. We loaded out eight small trucks a day, it was bringing about sixty-four ton out, we were hand mucking. Kay and I would take turns on the three ton shuttle car and Dan would run the two ton shuttle car, and which ever of Kay or I was not on the shuttle car would stay and help Dan load. It was hard work, steady work. I suppose where Kay and I were each shoveling about twenty-five ton a day. Dan was shoveling the balance of that fourteen or fifteen ton.

NB: Have you got any other stories you'd like to tell me about mining?

CB: There was different times that Tex and I were working together one time, near the edge of the Big Hole, the ore there had been so rich that it was quite soft. We'd just stopped the horse and the cart there to see if we couldn't get a little of that soft ore to make the ore run a little better because it was high-grade. Tex shoved his... he used a D-handled shovel about three feet long, he shoved his shovel back in to a pillar that was standing there and the ore was soft enough under the pillar and there had been enough of the ore taken away that it came down. Blew our lights out, startled the horse, he rattled the cart around a little bit. When I turned my light...it was carbide light, when I flipped it and got it going again, there stood Tex with just the D-handled part of the shovel in his hand. The rest of it was under that rock pillar that he'd been trying to get the ore out from under. He had kind of a startled look on his face.

NB: Have you ever had any health problems from mining?

CB: No, I don't think so.

NB: Did you ever have any close calls?

CB: There was a time I was asked to light Gib Shumway's holes. He was mining at a different part of the same mine, a different drift than I was working in. He came by and said he needed to go to town early and would we light his holes. When I went in to do that he hadn't split his fuse. And rather than me taking time to do it, I just tried to light his fuses with the spitter, but the end of his fuse was wet. I stayed in just a little too long trying to get the last one lit and decided I'd better get out of there. As I went around the corner, the first shot went off. None of the rocks hit me but it sure sent me end over end up the drift. Lost my hat and my light. I just had to lay where I was protected until after the last of the shots went off, then I started feeling around until I finally found my light and got out of the mine.