Tape #1066

Interview with Bob Johnson on April 8, 1986

This is Fred Stones on the 8th day of April, 1986 and I'm at 306 East Cleveland talking to Bob Johnson. Now Stacia Johnson is his wife. When were you married Bob? We'll have 70 years the 14th of August. My heavens thats been in 19 --- 1916. In 1916 we was married and went to Boulder and went up to Ward, I was working there before we was married and stayed there about 12 or 15 months and then I come down to Boulder and from Boulder to Lafayette. Came here to work in the mines. So you've been here since about 1917, since 1918 I came to Lafayette. Since 1918, Ok. Where were you born? Platteville, CO. When were you born? 1893 - September 18, 1893. Ok and when was Stacia born? September 15, 1896. And where was she born? In uh I think Omaha, Nebraska. Ok, did you have any children? Three. Ok, what were their names? Robert, Maureen and Betty. Are any of them still around here? No, Robert is in Cheyenne and Maureen is in Oregon and Betty is in Montana. Any grandchildren? Yes. How many do you have? Ha, Ha, Ha - I can't remember all of them. Ok, but just that you do have some grandchildren. Yes and great grandkids. Ok. Well Bob we appreciate you letting me come and talk to you about this and today I want to talk to you about the coal mining industry. I know you have been active in the coal mining industry all of your life and I want to talk to you specifically about the coal mining industry here in Lafayette. Now I'm just going to start, I'm just going to turn this over to you now and just let you talk and as you talk I'll think of some questions to ask you when you get through so you just go ahead now and a read those lists off that you've got there.

I uh came to Lafayette in 1918 and I went with the Rocky Mountain Fuel, the Standard Mine and I worked there until 1919. Driving a mule. And from 1919 to 1922 I worked the Rocky Mountain Fuel Company Simpson Mine in Lafayette, CO loadin' coal. In 1922 1923 I worked with Boulder Valley Company, Centennial and State Mine, Louisville and Erie at the State Mine and from 1923 to 1927 with the Rocky Mountain Fuel Company Columbine Mine here in Colorado loading pit coal. And un 1927, 1928 I sank the Hartman mine at that time it was the Hardman, Hardman sank it and that was the name of it to begin with but they went bankrupt and they turned out to be the Hiway Mine and that was in '27, '28 and uh I lost a brother-in-law in that mine, he was killed in that Hiway Mine. Let's see, the Hartman mine sinking, and in 1928 to 1937 I was with the Rocky Mountain Fuel Company Columbine Mine, seven years loading coal, 2 years mine foreman. In 1937 to 1939, Boulder Valley Coal Company new Centennial Mine Louisville sinking, sank the shaft and developed this mine. 1939 to 1943 Clayton Coal Company, Washington Mine in Erie, I sank that mine understand when I say was in charge of it, I - of course we had three crews, three shifts goin' on it when I was doin' it and uh let me see -- I was three years mine foreman there and then from '43 to '44 I went to Utah, was there 11 months and worked at Dragerton and then let see from '44 to '50 I came to Lafayette here and worked at the, went to the Leyden Mine and that was, I stayed there until from 1944 to 1950. The Leyden Mine I was foreman on the machines, the loadin' machines and supplies so I guess that's -- 1950 was the end of my coal mining days. Alright, let's start back at the Standard mine, when you started at the Standard Mine. Who were you working for then? Who was your foreman? Who was your boss? A, my a , my a half brother, my brother I just might just as well say that. He was Superintendent there. His name was? Tom Williams. And a George Warringer he was the driver boss, they called them the driver boss, they took care of the mules and was in charge of the men that hauled the coal out. Now what did you do over there?

Oh, I was driving a mule, loadin' coal and driving a mule. Tell me about the mules down in the mine. Well, lets see. I don't know just how to tell that story. They pulled the coal, you have to know something about mining, each pair of men, two man buddies all the time, they worked in one place and the driver he had a partner, two track partner, just like a switch on the railroad track outside of here and there was probably 10 or 15 drivers, mules in the mine and course they had a barn out at the bottom of the mine shaft and that's where they stayed, that's where they kept them and then from there they picked them up in the morning and took them to their working place, each driver got his mule and went to the part of the mine that he was working in. Pull that coal through. They would pull the emptys too then? Give them an empty and take the load away. Take the load to the bottom of the -- no to the pardon, to the pardon out there that usually hauls 15 or 20, 30 cars, something like that and the emptys was there, they'd get the emptys and go from there and then every so far there was another pardon like that or different parts of the mine, east and west, north and south they had pardons on all the Where they start these pardons till the end, yeah till the driver picked them up and took them to the, load this coal loaders that loaded the cars and loaded the coal and uh -- How were they loading the coal then? By hand. By hand? Ok. Yeah. Tell me how they would uh uh - a regular days work what would be done down in the mine there? How would it be handled? Well, regular days work each pair of guys had a place to work. They'd go , they'd drive two entrys and uh 60 foot between. 60 foot. Fine. And every 60 foot no that was 30 foot, beg your pardon, 30 foot entry centers and every 60 foot they'd come across like this, this was for ventilation understand. That was the purpose of two places going at the same time and they'd go 60 feet and the air come in here and comes on out the other place see, well they'd go so far away from the bottom, then they'd open up, they'd start a pair ofentry going this way, pair goin' that way and keepin' this pair goin' this way and off of these places, off of these entrys goin' we'll say for instance east or west there would be miners workin' on either side and they'd load that coal, pull that coal right back there then they'd stop over here that's why they'd --- and they sealed when they got through pullin' that coal back then they'd seal that place off and it stood there. And a when the man come to work, well the machine man here he'd a -- when I first started in there was, we had punchin' machines I ran a punchin' machine and a you know just like a cannon it is, like that you were on the board, the board was 2½ feet wide and 7 feet long, well you punched this and your punchin' would go in a minus on the bottom and start about like this here and go back about 4 or 5 feet, that's how far this machine would reach when we were doin' this by hand, that was before the electric machines come in. Alright, how did they run these uh -- with air-- with air -- forced air and each - mine had inch and quarter lines all the way through the mine and then they -- each one of these rooms had an airline into it and a this miner if he was machine wicked we called it and pick holed thats when you didn't have no machines doin'nothin'a man done it himself. That happened under certain circumstances, certain conditions you worked like that and a -- What was the object of punching, punching these holes in the mine? In the Coal? You had to shoot the coal here, you seamed the coal here, if it's 7 feet high or 10 feet high whatever, in order to get that coal out of there you mined it underneath see, opened it like that and you drilled a hole in here, shot that and it come down. What did they shoot it with? Black powder, giant or a - a another one -- dynamite? no well it was dynamite but permissable we called it you see, it was permissable to -- in the place of dynamite, it done the same deal, it was a dynamite of course but a different percentage of strength. Ok, now when they got this shot down, then what happened? The guy loaded it out in the cars and that's where this driver come in here and give him that car. Who laid the rails into the ---? Company man did. See the

company man, track man they called him, that lays the track, you took care of your own when you went in if you was workin' like that but a, but a they had company men that did timber, they did the timber not for you, you see you took care of that yourself, you kept the timbers up in your place and a, and a track man laid the switchs and turns and the straight track you put in yourself, the miner did -- Then where you worked you had to lay your own track? After you started, after you got into your workin' place that was yours when the track was straight but when you had to make a bend or turn in, goin' in or anything like that or lay a switch they call them a switch to go from the main line, a place where they have a switch in there, but the company paid to put that switch down and made any turns that was to be -- Yeah, Ok. laid in there. Alright, now tell me about the timbering. Well you, you would get depending on the condition of the a - a - a roof you were working under the coal top, but that was up to the judgement of the mine foreman how far apart those timbers had to be. And anyplace along the main line, of course that was always timbered up and repaired and soforth as necessary. Did they bring the timbers down to you so you ---- Oh yes, they had timbermen that did that themselves, yeah they had regular timber cars that they -- and whatever the height was that was the length, whatever the height the coal was you were in well that was you got within 3 or 4 inches of a-a-a the height of the coal was the length of your timber. Then you put a-a --- if it was across, what we call cross bars, they went across those timbers underneath the end of 'em and prop job remember you had a cap piece about so long and so wide and that was on top of there that was -- just to support the roof. Yeah, to support the roof. To keep it from falling down. Keep it from falling down. How often did the roof fall? Oh, you can never tell, it's hard to -- it wasn't supposed to fall until you made it fall. Yeah. But it did of course, it caved but there was no under any conditions it wouldn't be -- you knew all the time because there's a fire boss goes in the mine every morning --- I was, I went in at three o'clock when I was goin' ahead of the miners that go to work. He comes out he goes to every, every place in the mine, workin' place, he puts the date, the puts the date down and his initials that's a -- when the miner comes in he knows the fire boss has been there. If there's anything wrong in there when he goes out he'll put a timber across the track "Keep Out". That's the fire boss's job. What was he looking for? The fire boss? Well he could be looking for anything that was bad that didn't look regular, anything that wasn't right. If there had been a fall in there or a cave or anything like that that had happened in the night we he found it then he marked it and he had a book when he went outside he wrote down in that book anything that was wrong at all and if you, if you - you had no business to cross that if he had a -- Yeah had a bar across there that says "Keep Out". Yeah, Yeah. You can't go in there, you stay out here until the --- but the mine foreman when he come down then and then the next morning that's the first place he went. To see that this condition was safe for the guys that was workin' in there.

Now you said about the airshaft what was the a - how did they get the air down in the mine? The second shaft. When they had this one shaft, we called them the quarter shafts, see they'd sink a shaft like our shaft down here was 22 feet long and about 7 feet this way, it was timbered here, here and over here there was three sections then we had a what we called a quarter shaft that was to take the air to begin with and for miners to climb out too and they were -- both of these were two compartments one went up and one went down over here and then 4 feet over here was for miners it had a ladder to the surface. Alright, now as they got back farther into the mine, after you got it sunk, as they got back farther into the mine then, how did they get the air back to the men who were a mile under -- That's these two entrys I'm telling you, you've got a pair of them, one's for the fresh air in and the other one's for the spent air or used air to go out. Yeah, ok. Did they have fans to drive the air? Oh, you bet yuh, big fan units, that's right. Oh yes they had a big fan. So there

was a draft there. Oh yes, continuous draft and the fire boss would come down and he would mark -- every week he had a report with an anemometer to read the air, he had the velocity of and that was his place, it was up to him and the mine foreman also did that. The fire boss he was--he put things up to the mine foreman. See and that's what I was telling you about when they'd get up to 60 feet they'd put the air was always up at the face cause they'd put a stop in here between this place and the other entry, well that would make it go up further and while they was gettin' up there, the air wasn't to good as a rule - in the later years of course they had a blower pipe like this but it a was what we called a line brattice that was along side the track and then the fresh air was goin' in and still comin' around the workin' places to faces the place when you was drivin' these --- Now what did they build these a, these a partings you called them? Well the partings is two tracks that's a -- No, no, that diverted the air. What was a --- the two entrys. Yeah, but what was built to keep the air going? What was that? The fan was blowin' it, the fan upon top here you see--You said that they built something to divert the air around-- Well they put a stoppin in the air. A stoppin. Yeah, a stoppin, yeah just put a seal, yeah when it was permanent it was made of cement, the rest of the time it was a brattice cloth you see when they, when it was temporary and that just kept the guy goin up here and if he got up where it wasn't right or good then he took the line brattice with him you see, just half of this entry , half of the air was goin' in and half of it was goin' out. Ok, alright. Were the mines - we're still talking about the Standard out here now, was the Standard dry or wet down there? It was pretty wet . The Simpson, oh your just -- that's another. All these mines the water was terrible. That's what shut the most of them down, cost too much money to keep the water out, that's what shut the Simpson down alot of it was, it was so far in for the coal and then besides -- They had to pump all that out then? Oh, you bet your life, those pumps were going all the time, day and night, they had a night man on to that was pump man -- pumpin' water pumpin' water, that was his job, of course if they had it inside it was his job to carry the line in there to the water --- Did they have underground springs or underground -- Oh no, no, no -- it was just seepage -- just in the seam itself and sometimes from about 30 feet down all the way down that water was just running out the bottom. How could you work in a thing like that? You just got right under it when you started to work, I timbered, I done the timberin', shootin' and drillin' by myself, I had the experience in quartz mining, I was sinkin' mines so I've had quite a bit of experience and you just got wet from the time we started down there, first thing that I did was get right in them drips, because you couldn't keep yourself dry and you had boots on and water jacket too but nothin' could be done, cause that's runnin' down your sleeve and runnin' down this one, we timbered--we had two shifts sinkin' the mine, we had three shifts there. Our day shift done the timberin', drillin' and shootin' and the other two shifts that would take out about six feet of -- go down about six feet every day. We'll get to that in just about a minute now. How deep was the Standard? I think, I'm kind of mixed up on all these different mines here, 200, I think about 240 -- these seams of coal they varied, it was practically the main seam was what - practically the same all around the country - clear over --- I sank over there at the Hiway or the Washington Mine over there and the Puritan Mine and they vary on levels -- what started them they'd have a frog come in there, sometimes that would come clear up -- down below the Simpson here, it was only just a few feet of covering Waneaka's place there, that was the last place I worked out there and then we was just about to come out, it went up like that, when we had to have a guy standin' on the back end of one of those --- pullin' the coal, to keep the car from goin'. Now explain to me what a fault is? A fault is uh just like you see all over the world. You hear them talking about these faults. It's a break in the ground and then separates, a big crack comes up and of course I don't know how much, cause that's a different conglomerate of all kinds of stuff, you hit that and your seam of coal is gone and you go it's either up

or it's down. You don't know of course where it goes but it is that's what happens and it separates, it's either up here or it's down, most of the time it's up from the main level. You go upstairs that's where they get slopes in there, you drive up to that then , then they got to slope to get --- Were all the mines around here, shaft mines? No, they had on the creek down here, Coal Creek, right off the mine they had one went in there and the Blue Ribbon run back behind over there that was a slope, down and over going to the Columbine, Metz had that, uh I think Charlie Metz and a Morgan -- that cobbler that was here I think Morgan was in on that. Morgan -- Morgan, I think it was his dad wasn't it? Yeah, Morgans from Louisville was in on that shaft, right on the top of the hill as you're goin' to the Columbine. Yeah, uh uh that's right. A - at the Simpson now, we leave the Standard for a few minutes now, at the Simpson you was loading coal there, who was your mine foreman there? At the Simpson? Yes. A - Ike Griffiths was the superintendent and a Dave Allen was the mine foreman. Was he the Dave Allen that finally ended up to be the mining inspector? Was that the same one? No, no, that was Tom Allen. Oh, that's right. Tom, he was a particular friend of mine, Tom was, cause he was in charge of the Hardman when we sank that mine so that's how I got to -- that's how I got well acquainted with him. Okay. At the Simpson, this was a big mine, Oh Yeah. How many men approximately did they hire there? Well, when I was there it was just about worked out. I think there capacity was around about 1200 or 1250 tons a day. Okay. Was that all hand loaded then? Yeah, that was all hand loaded., in the beginning and a let see, Columbine had the first, no I put them in the first, the first machines was at the Hiway when they sank the Hiway. We opened up and started with machines, machines had just come into this area. Then I was on them again over to the, over to the Columbine. They were the first of the Rocky Mountain Fuel Company that had the loadin' machines. They were shaker conveyors. Yeah, okay. At the Simpson, they never did have any electric motors in there then. Oh yes. Oh they did un. Oh, yes, oh yes. When did the electric motor come into the mine? Well, I believe it was here, but they didn't have too many, it just depended who had the mine. Yeah. I guess to start with uh, there wasn't - the bigger they got well then they put uh, they had motors to start pullin' coal with motors. Why were they using the electric motors instead of the mules? Well because it would be cheaper. Okay. More economical. Oh yes. More efficient. Oh yes, oh yes. How many cars could a motor pull? Well that would depend on your grade. Yeah, I can see that. And then of course they scragged them up you know, they had scraggin' and that wheel would slide and they -- Now uh, the motors then would pull these loaded cars into these partings. No the mules brought them to the pardon and then the motor was on the main line -- and then the motor brought 'em into the bottom of the shaft -- yeah, brought 'em into the bottom of the shaft. Okay. Uh, now at the Centennial out here, you worked the Centennial -- which one now -- now we're talking about -- the one over here -- yeah, the one over here --- Yeah, I sank that. Now that's what I want to get into. I want you tell me just exactly what you did when you sank a mine. Well, first thing you started out, you went down far enough, you got a 12 by 12 timber, that's the collar of it and then as you kept goin' down from this big collar on there, this 12 by 12, you started 4 by 12's, that's with your timber, all the way around was a 3/8's notch, then down where the partition comes there would be a little notch so that would slip into there. That was, of course the first thing to mind had a head frame up here to get the dirt out see, then afterwards they built their tipples and everything else, head frame and everything, but to go with it was just a skeleton deal to get a --- Okay, do you get the collar around there first and then start diggin' out the dirt. Yes. And then you would timber it as you went down, -- yeah you timbered right down -- so it was timbered all the way down the shaft. Oh yeah, all the way down -- all the way down the shaft. Okay, how long did it take to usually sink a shaft? Well you can figure we went about 6 to 6½ feet a day so whatever the depth of the shaft was -- that was all three shifts? No, no just one shift. One shift.

Those three shifts got 6 feet because it would take me, it would take my crew all the day to timber, yeah, and drill the holes and shoot it. That would take our -- we was lucky if we got through on time and then the 3 O'clock shift come on and started muckin' out and we shot it and then the graveyard shift come up and cleaned it up and got it ready for -- squared it up so you could start uh -- so you could start timberin' -- timberin' again. We went down and we had a system of course like everything else, we brought the timbers just so and everything was just so, so -- they was all cut and everything -- oh yes---and notched up at the top before they were framed -- they were framed there was a guy framed it, all these timbers come and you just slipped 'em in, then you put a hickey in behind them and see and the wedge was about so long from about nothing to inch and a half and you used that to tighten it up on all sides and you had a plumb line comin' down the corners see and you just, that's how you kept goin'perfect -- straight down -- straight down because you had 4½ inches that was about what I used all the time - from that string and of course they'd roll that up at night----yeah, um um. Now how did you drill the holes? With a jackhammer. With a regular jackhammer. With a regular jackhammer. And then what would you do, tamp them full of powder and then blow them? No you wouldn't, no you uh, it just depends on how you, on how much powder you used, it depended on how the soil was that you was, how much powder you put in them holes. You had a string here and then they all went at one time and we had first, we had instant 1,2,3,4 and 5, a little bit longer tube, a little bit longer fuse in between them, well we set them accordingly and of course, up on -- we had this line going up to the top and we was ready, we shop 'em and they all went at one --- the instant went right now and then it started -- they followed, one followed the other -- one followed the other. That is, maybe two of 'em at a time, because they had two parts of the shaft goin' see so they could go at any time -- What did they have to pull the dirt out? Hoist, buckets. They had just a kind of a -- That steel bucket you see ridin' around here about - a big barrel about like that-- Yeah okay. And then they'd pull that up and when you would pull that up it had a tail on it see and it went up so high and it tipped over, the engineer of course took care of that, set up for that, that was the sinking of the shaft. And then they were -- on the top they had a, they dumped that into a , well here then they still had mules around, horses around to pull that dump away when I started on that. Now you said that one of them that you were sinking, your brother-in-law was killed in --- Yeah, that was the Hiway Mine. Hiway Mine. What happened there? Well, after they got - see when the timbers - when you shoot, this much piles up here -- you've just got one compartment here that you, till you can get around where you can get under see, cause there's timber in there, we usually left the center out so that you have a chance and the engineer when it gets down so that they get out of the road well a they put the second bucket on -- when you get down where you can get out of the road back in the quartershaft or the other compartment while this is goin' up, well you pull out the second bucket, well that engineer he supposed to when he comes down to stop that there about 20 or 30 feet from where the workers were workin' there until they bailed it down, well this drunkin' bum or -- he let that bucket down and about 30 or 40 feet of cable and he hit my brother-in-law on the neck and broke his neck. Yeah, just carelessness. Oh absolutely carelessness. No more, had no business being down there, let alone - he's supposed to come down and stop it. Yeah, was that the only accident that you had on these shafts -- that's the only one on all the shafts -- of all the shafts you drove, that was the only accident? That was the only one in the shaft and I timbered, I done quite a bit of timberin' in other shafts that had been sank before too. You know you get your reputation that you do it well and -why sure, sure -- and the companys knew whenever they was going to sink a mine well they were after guys that -- that knew what they were doing -- knew what it was all about. Alright. And we had water, when we got down, from about --- Centennial was the same way, we made a hole around it on the side and put a pump up

here and set it in the -- and that thing run all the time trying to keep that and yet there was that much water, that's why this lake is comin' down through - down here you know below the field here, the lake. Well that's comin' from that --- didn't use to be there but --- under there that water there's a sand but the Centennial or the Hiway boy they had about 30 or 40 feet of that, you couldn't spade it hardly and you couldn't get it off your shovel after you got it on there. It's a really a peculiar soil -- yeah, just old gumbo -- well its sand, yet it runs through, yet you expect it ought to be a -- we get clay, you know and its supposed to be puddled with clay. Now when you got to the bottom of the shaft, then what happened? Then you start spreading out, whichever way you're going this way you make your main pardon on the side, after you go off cause it's automatic see so whichever it depends entirely on how your coal seams laying when you get the shaft down, of course these guys are supposed to know because as a rule they drill, they drill so that they know where it is here and where here it is there, they can tell whether it's pitching that way.

How deep was the average seam of coal around here? Well about 8 or 10 feet was Oh maybe you would go through a half dozen seams of coal goin' down -- goin' down yeah -- smaller seams see, not workable see, alot of them you know -- well it has nothing to do with this story but I was under the impression that someday they was going to light them and take these -- someday they might -- yeah, they're going to light these small seams and take the gas off of them see -- someday they might, I know that has been talked about, I remember them talking about that. Because gee there is lots of coal in there, yeah there's still lots of coal underneath, lot more under there than was ever taken out -- Lyden, I went down, that's 800 feet, that's the deepest mine in the country. Was that harder coal than the other? No, no -- that's still lignite like it is around here. Pretty soft, but the a-a-a Streetcar they owned that you know, and after they took out their, after they took their power off you know, they made power for their, that's what they sank that mine for -- Oh! For the streetcars in Denver? Yeah, they owned it, they owned the mine, they made their juice there you know. Oh, I didn't know that. Oh, you didn't, yeah that's right. And all the streetcars was run from the juice from the Lyden mine that they made their-- Well, they got the coal from there but I think it was uptown there someplace. I don't know, I used to know but I've forgotten now. Yeah, they used to run a car out there, a-a-a steetcar clear out to the Lyden -- Yeah, yeah, oh yeah. That was still going there, they come out to Eldarado Springs, you know, the streetcar used to go up there. Yeah, okay. Now at the Columbine you

Now at the Columbine you was loading coal again, you was hand loading coal. When you went in in the morning what did you expect to find in the coal there, in the room? Well, I tell you that my work was pick work. Earl and I -- Who's that, Earl your brother my brother, alright-- he was younger than I, he was the young one in the family, he and I worked together all the time that we was around there and I had him here even on the shafts. Our work was always pick work, you see they'd get in a place where they can't - there's a squeeze on in other words, what we call a squeeze down there - the weights come back over here and it's got a - oh you could see where that come up to the bottom sometimes it come up to the roof you know. Just pressure on it and we'd just call it a squeeze. Well that coal you know how to work it, you know how to mine it, you know how to -- and pretty soon just poppin', crackin' and breakin' and breakin' like nobody's business and that's kind of -- well it paid almost twice as much a ton to load that because they had no expense, we done everything. Yeah, they didn't have to or shoot it or anything? No, they didn't have to do nothing, we done everything. with it, so we got I think it was 90 and the other was 46 I think, they call it machine coal and pit coal. That was the two scales that was set up for these with the union and the coal operator. How big were the rooms? What was the space size? Well, as a rule

they'd go in narrow and then they'd wide out to about 20 feet. The face of the coal would be about 20 feet and then the next place over here when they pulled them back the next place would come alone up here, of course they'd go to their boundaries that was their purpose that was a good coal mining system was to go the boundaries and then start back see then you could dump this behind you. Yeah, then when they pulled back they just let it cave behind them? Yeah, they'd just let it cave. They didn't have to maintain the a-a -- no they knocked it, they knocked the timbers out and pulled out and let it cave down, then that took the weight off of these back here and of course sometimes they'd leave a stumper, it'd be too big in there and they usually tried to shoot them out when they'd get so far and then it wasn't safe to be in there because you couldn't get out of there in time if something would happen so they'd fill this up, drill holes in here and when they got through they'd shoot that see -- they'd shoot it out -- shoot it, so that then it'd let it down. Ok, explain the pillar system to me. Well that's the, that's the pillar, that's whats in between-- that's what's holding up the roof?-- that's what's holding up the roof from one to the other. Then when they start pulling the pillars out, that column, of course that there's supposed to be nothing back there cause when they lose it sometime they throw-- that's where you get your squeeze from. The way they come over instead of goin' down there and breaking down it's back over on to the main line and it starts, when the weight comes here at the bottom they can't do nothin' to the top so the bottom comes up. Yeah, okay, sure. Now a you say that the Hiway Mine was originally the Hartman Mine. Yeah, you know the Magnasens that used to be around here, was you around here, Magnasens and Simpsons, well Magnasen and Joe Simpson and Hartman, they sold stock and started, and sank that mine, see. Well, it was a poor deal because they had a small seam and a lot of rock in there, I don't know how come they didn't know that from the drilling that they had done but that was just a kind of a stock sellin' deal anyhow. Then of course when they went bankrupt, Louisville, Steinbaugh and a group over there bought the and was sold and they made a mine out of then. So we had a - that was in '27 that was -- that was when they sank that mine, in '27? Yeah, cause that was when we had the Wobbler's strike here, you know the WW strike here, well we was on that and we worked, we worked in there because they got the coal from the, - we were just developin' in opening up the mine and of course the Wobleys let us work so that miners could get coal there to burn to keep their -- yeah, um um and to develop the mine so that they'd have more jobs there -- yeah, that's right so that to open up that place so that they could produce more coal. Okay. What happened with all of the dirt and all of the rock and stuff in the mine that you couldn't put back - as you were developing the mine? What happened to that? Well, that come out. The rocks would come out, the dirt would come out and then here's what, these rooms that you , that I told you that come out like this see, then when you get in there about oh 25 or 30 feet, something like that, I've forgotten exactly, now off the main entry you'd widen out, this sides straight you know but this is your pillar side over here, well then when you're workin' in here, any slate or rock that you have at all you throw back here cause see you've got about 16 or 18 feet that the coals out and there's just nothin' in there but timbers, so - we call it the gob - you gob this rock that was in the face there because if you sent that out in the cart you're -- they'd tell you to pick up your tools and put 'em on the next cart. Alright, now what happened to the rock, did you have to load that eventually and -- you got paid for it - you got paid for it. You got so much a truck, so much an inch too was what the , they paid you for that you had to handle, if you throwed it away in there they'd pay you for the amount by the inch, how thick it was. And then they would haul it to the service and dump it in these big mine dumps around. Well, yes, the extra that they couldn't gob. Or maybe when they're gradin' down in the main line too they -- anything they didn't want went out on that dump that's where all these dumps use to be that was scattered around here. It's to bad that the dumps have all be taken away, because they

were distinctive, you know. Oh, yes. You know. But you see when they caught fire they may formed that red ash and of course that's what they took them for was the ashes. In other words the coal would burn but the rock would not. Yeah, that's right. And that's what made the red ash. And there was a kind of - we called it boney that was between coal and rock but it'd get in there and smother -- and it caught fire and a - a -- just snorted away. Just snorted away. Just its own combustion, formed its own combustion. Alright. You were the mine foreman for awhile at the Columbine? Columbine, State Mine and Centennial, Hiway -- I've done -- Washington, I was mine foreman there, that was the last place that I left there and went to . Tell me what was the mine foreman's main duties? You visited every workin' place twice a day. The law required and of course you were responsible for the operations of the mine. Fire boss, he's the guy that goes in the morning, he's certified, all these men and shop fires; they were certified. They had taken, they had mine foreman examination and fire boss examination and shop fires examination, mine foreman was -- and they were all under you then? Oh yes, they were all under me. Everything below the surface you were responsible for? The mine foreman was, yes. Yeah, Okay. Anything in the mines. Yeah, okay that included the water, the power, the air, everything. Oh yes, everything that comes under your supervision, of course you had a system you know that everyone knew and the men to do the certain jobs that was to be done like the guys we had a branch man he a - when the air was wrong, he was the one that took take of that and when they was drilling these stoppins',I was telling you about, after every 50 feet, he's the one that went in and built those stoppin's to move the air on around, to keep it a going and -- Did you ever have any fires in the mine? Oh yes, oh yes. That's a big deal. How did they start? Combustion. Just a-a- -- Yeah, if you can keep the oxygen from 'em you don't have no problems and that was a -- seal them off, we sealed off after we did - after we was through workin' in there and if it caved good it wasn't too much chance if got good cave but where it didn't and was squeezin well that would come on itself and that's what happened here. I was on the -- I did alot of first aid and mine rescue work in my time too. I was one of the first guys to get to the guys in the explosion down here after this -- at the Monarch -- at the Monarch Mine when it blew up. I got in on that, I was night watchman at the Standard Mine for the Rocky Mountain Fuel Company. They had me do alot of this and I wrecked these mines you know that abandoned places too for the company. They done alot for me and I done alot for the Rocky Mountain Fuel Company too. And Tom and I was good friends. And I called Tom up when I heard about this because you don't very often get a chance to use your experience that you've had in mine rescue work and the likes of that and I told Tom that I'd like to - and the company, I thought the company, they let me go so I was down with the first guys that went down the mine here. Jimmie Graham and the mine inspector and the federal mine inspector was with us - I was on that crew - Jimmie Graham and I was on that together. Explain to me how the mines kept this rescue squad going? What was the object of it? Just the desire to learn for the individual. Now alot of places they got a crew they pay. Utah, most all the big companies back there they had their crews, first aid crews. We had a big deal here I forget what year it was now, and 67 mine rescue teams from all over the United States was at the stock yards stadium there. You can imagine that, if you ever saw somethin' you should have seen that. Well we had a team down there too. And I don't know, its just fascinating to you, Bart Hartman and Buck Reese and a --- Did you work at the State Mine when Myron Padfield was over there? Oh yes. Did you work a-a--- Well a-a Paddy was on top, he was the top boss over there and then, oh let see, I was contracting there too because you know we used to a-a Simpson Mine too, I contracted there. We had a mule, we pulled our own coal out to this pardon you know, we'd a - no machine men, we done the cuttin', that's when, if it was necessary, if it wasn't pit coal, if it was regular machine coal, we'd get that and then we'd put it out on the pardon for so much a ton. That's what I did at the Simpson the last part of it, that was like that and then of course the State Mine they had that and the companys get after you too, they know you. I had worked at the Hiway too and a-a-

Now that's what you call contract coal? Yeah, yeah. In other words you do everything, you put the coal out on the parding for the company to haul it away. We picked it up and took it out to the main line.. We took it out to the bottom I mean and send it up on top. Yeah, okay. Was that a better paying--? Oh, sure it twas. If you knew how to do it. Yeah, Okay. How many people was there that would do this contract work in the average mine? Well, most of the men worked by the ton. Yeah, scaling even the machine work too that was contract alright but the pay was different because they mined the coal, shot it down, you loaded it out. That didn't take any skill or anything and they laid the track and all that, I think they --- but contract work you made more money and work too. Earl and I on my 30th birthday we loaded thirty cars of Columbine coal. Thirty cars. Thirty cars on my 30th -- on your 30th birthday -- on my 30th birthday. And a oh this mexican kid was our driver, I talked to him here just the other day. He used to live down on the creek. Oh, what the heck was his name. He reminds me of ----. Yeah, okay. About how many tons was in one of those cars? Around 45, 2½ or 2¼ tons, something like that. So you loaded over 65 or 70 ton then? Oh yes, oh yes. With a scoop shovel? Oh sure. Oh yes. You was hoofin' in other words? You can tell the world we was and if we didn't get 20 cars a day we used to think we didn't get anything. Is that right? We led the payroll, Earl and I did. You know. They got a bulletin outside here and you look at the bulletin and see what all your cars got up there or not. Sometimes the check -- they had checks you know, that was your check number. Alright, tell me how they identified these cars so that you got credit for it. That's what I'm talkin' about this check see, 144 and 145 was Earl's and mine, that was our check numbers. Well on this bulletin out here the check number was there and how many and what your, how many cars. I see. So you would pick up these checks when you went down in the morning. Oh yeah, you'd pick 'em up in the morning. Then you'd put 'em on the car and then when they dumped the car they would take the check out and put it on the --- the checkboard they called it. They had a board there that that's all they used it for was to put your check number on it. And that's how they kept them separated. That's how they kept them separated. Okay. Out at the Washington Mine, did you have any problems there, this is quite aways from the highway, was there any problems there that you didn't have at the Hiway or the Centennial when you sunk those mines? Well there wasn't as much water there. But we were on a throwup on it too, when you went down -- you know course I -- oh I can't a - what was our super over there -- Clayton Coal Company for a long time. Most of my life, working days had been with the Columbine Coal Company. Oh I got lost. Oh yeah, oh yeah, what I started to tell you about -- we sank the airshaft first and all the way goin' down I could see from the lay of the clay, the dirt that there was something wrong there. Because here its comin just like this see. And I kept trying to tell Sam that there's something wrong here, we're sittin' on a hillside here and of course I was just a dumb kid, I wasn't supposed to know anything. Was that Sam Sidle? No, Sam's dad. Yeah, Sam was our machine guy at the Washington over there. Sam's dad was there and when we got down there was about oh I guess there was about 48 or over 4 feet difference between this coal here and here it was down here see. Well when we went in now down on the bottom of course they found, they knew shortly after, they asked us and they come lookin' - because they had drill holes round there quite a bit course then they found out and started drilling more too and after they seen, I said you guys were on a hillside here. Somethin's wrong. So we started and we went north oh a couple 300 feet and we followed goin' up this way just to get air and that thing went way up like this and almost it wasn't very far to the top. I'll be darned. So then after we sank that. So then we went down and it hit the, it hit the flats it flattened off there then but it just come up like this and a - the coal there - and we drove down there and it run up north after we sank that big shaft, the main shaft, and then we of course were prepared, we knew what the plan was and set it up accordingly because we knew the hill was there

and it just went like that and we had a slope comin' down there for quite a ways but then it flattened off again, there was just a throwup there in that one seam. There was about 10 feet of coal there. Is that right? Nine or ten feet and of course we leave that, we a-a, that's good for - and you don't have to timber when you got-- if you got a couple - a foot or two of coal up there that's -- That's what I was goin' to ask you, did you leave coal on the roof there to support the roof? Yeah, that's right. Okay, so about how deep was the seam that you actually mined? How many feet of coal did you actually mine? Oh a- a -- 6 foot, 8 foot? Oh, about 7 or 8 feet, something like that. Okay, then you'd leave that other 2 or 3 feet up at the top then. Yeah, and sometimes you'd get some of that when it would fall down before the place would cave. Yeah, okay. Tell me what happened when they started bringing the machines in to load the coal instead of the miners? Well, the beginning of that, my experience with it was I had it over at the Centennial when I sank that mine but at the Washington Mine we developed that for shaker conveyors. Okay. They had then. And of course it was crews,they had four men in the face and then a guy back on the shaker head. So it was a four man crew on about all of those. Did you have to shovel the coal into this shaker? No, it had a swing on it like this and you could, in lots of places they did, they had a flat sheet, that flat sheet would go under that and they'd shoot that down and then if we had a swing on here that would a-a- on this-everybody didn't use it but we did, anyhow you could move it around like this, otherwise they moved it over what they could or else shot down, shoveled it onto the shaker and then it took it on out to the main line. The shaker took it out there wherever and loaded the car. The car was set back there and the guy that was out on there he could handle those cars. They was just loaded right in the cars and when that was full they'd pull it up and load another one. Okay. How far could they shake that coal before they had to dump it into a coal car? Oh, a couple 300 feet. It would go that far? Oh yes. Okay. It would depend, of course if you're flat see. Then of course a lot of places have conveyor -- conveyor belts that was runnin' and the shakers would shake onto that conveyor belt and it would take it on out. Take it as far as it needed to go then. Was that more dangerous or less dangerous than just the regular loading? Oh, I think it's - I don't know - I don't think there's to much difference in the hazard of it, if it's goin' to happen it's goin' to happen. You've got safety measures. In other words you have to take a fatalistic view of it? That's exactly right. You gotta figure out just what the hazard is to coal mining and thats it. Okay. Insurance companies figure it that way so hazardous, certain things are more hazardous than others of course. Now before a - we're gettin' close to the end here and before we get there I want to ask you about the invention you put together out here in your shed. Well that was a-a - I got that to late in the coal industry because I was making chunk coal see. Yeah. And mine and what's that actually, what it did but - when I got that they didn't want chunk coal anymore they used to want it because it , they didn't want that slack. Alright. And of course I wasn't using powder either I was breakin' it with a coal breaker. I drill this hole and put the power on it, it had about 48,000 pounds per square inch, that's what I had on my rig. What was it then, how did you --? Oil. Oil, hydraulic? Hydraulic. It was a two deal a-a went in a - I drilled a five inch hole. And then it would expand about 3½ inches, well that broke anything down that was there and you'd drill them along like this and --. How far in would this go? To the end of it. You could have it as far as, you could put as many jacks on it as you wanted. Okay. See, but usually I had three on the end of that I was usin' them. Three jacks and then I had one that was six jacks on it. And you actually got that developed to where it would work? Oh yeah, I took it out of here and broke coal down with old ----. I took it out there, Pres he let me, I demonstrated it there and I demonstrated it at the a-a with Nesi over here at the -- Centennial -- the last mine we had over

the Centennial? No, over here round the bend over here , Black Diamond. Oh, the Black Diamond. I went over there, I put it down, I pushed it all down in the lump over at the State Mine. I demonstrated over to the State Mine. Um, did you actually get patents on it? Oh yes, sure I got a patent on it but about that time I got ready that was the end of it. They didn't want it, I took it back east to people I'd been communicating with, they were really interested and they wanted a demonstration back there so I loaded it in the car and went back there to Chicago - Cleveland, I forget just where. They was pretty much sold on it but the big shot there I think he throwed a sprag in the deal because they want slack they don't want lump coal anymore. But it had a safety factor there because there was no dynamite. Yeah, yeah. No shootin' and no polluting the air that was another factor that was --. I had quite a bit of favorable --. If I'd been a few years earlier with that I would have done alright. How long did you work on that? Oh, a couple three years, somethin' like that, I had two really. I had this one with the jack and the first one I had a slide deal, a pull deal on it but it didn't have the power, but these jacks they were slick, they were okay, they'd really-- They'd really push that coal out of there. Oh yeah, they'd just push it down there, you'd think the place was cavin' in when you heard it. Is that right? Did you have to cut the coal first? Oh yeah, sure you wouldn't get it, yeah you'd cut the bottom and then you'd drill it and push it down see. It just depends on the kind of coal or whether you was goin' one way with it or how another, it's how much you would push and a breakin' it down but you always have to undermine coal before you a -- unless it was a squeeze but you still have to, you still, you got to start it and then it'd do it-self when you had weight on it, squeeze on it, that was a -- then after you got in way in there then you'd shoot this down because you'd -- otherwise they'd cut it on the bottom with the machine, that cutter bar, we had one machine that cut about 11 feet went down underneath there like that it was -- I can't think of the name of that machine either but the majority of 'em had a 6 foot cutter bar on 'em. The majority of the machines. Do you still have the machine around? No, no -- oh mine, no I give Robert - Robert did alot of work with me, mechanical work with me on it gettin' that stuff - he and I was together on it. That's you son Robert? Yeah, as far as that goes and I turned it over to him here, you can -------