Laurence Amicarilla tape on mines with map. Also Blanche Moon, Effie Amicarilla, LaJuan Swallow. TAPE #1040

Transcribed by Laura Simermeyer

Lawrence: These are chain fillers and barrier cables. Now these colors are on both sides of the motor ways and air intakes. (E.A.: And when they start a line, how do they go into those?) Lawrence: Well, they start like at the very bottom, the bottom of the shaft. They go through the bottom of the shaft and they see which way the coal hips, towards the shaft, because the shaft has got to be at the lower level. So the water drains. Then they start to what we call...getting out to the extended water, coal mine. A mile could be several thousand feet. And he showed me, see he's a...and when we get to these cross-cuts here, they have to put ... these barriers in here...they'll stop in there, to recollect the air coming up one way and down the other. (E.A.: And they coal out in between these...) Lawrence: Later, yeah where the motor road is or where the air ways go they take the coal out...that's what these little small lines are, see?...This other line here to here, you could tell the air went up this way and come back this way along the luber rule or went up this way and come back . (B.M.: May I ask how you tell which way the coal dips when you put the shelf down?) Lawrence: You drive probably north, south, east or west two, three hundred feet, take an elevation. If they don't to that, then they drill a hole through the surface, down before they start the line. (: And they go down 260 feet for this) Lawrence: Ok, and then you see a hole rolls to the north-west, that where the fault is. And it dips the southeast. Now you ask what a fault is. Fault is where there is a want. A want is where there is no coal. Either the coal has dipped down, or the coal has went up almost to the surface and then there's a want between the two, and the

coal over here either dipped down or went up, see? (B.M.: That was like an,....earth quake) Lawrence: Well, that's what caused it, I was coming to that, that caused it,...is a soft spot in the earth. Soft spot in the earth, so what happened upheaval, what time, I forgot that time I think, and so they call that a want. But it's a fault and a fault is a rooting. And on either side of that fault is usually a... throw me that piece of paper...on either side of that fault, now here's where the mine is, say this, and I want to drive up here you can, this is coal right here and this is coal over here. And on one side or the other of this block, like this way and this, either there's a... a... little screen right in here where the coal dips down, see, that's the weak pull, where the coal goes in, now the coal goes back the other way the little stream or the soft circle it was in. The fraction,... you know where.... (B.M.: In the back, in other words the stream is on the lower part of the yard) Lawrence: The lower part of the yard. Could be on either side. Like now, here it goes up and the inside goes down and the other side comes in up here. And if you know where it's gonna go in, a low spot. Or it goes in the cat tails in, wherever the cat tails go in. You don't know where the where the ... spot is. It's in the south. Did you get that? (B.M.: Um. Hm.) And that's where they find out where these faults are. Now, we don't know how far that is, So what you do, you drill a hole. You run out of that, so you might have to go under. THis side to this side you... (B.M.: And the material is in between that from one to the other, is that like rock, or is that more soft...) Well, it could be sandstone or it could be limestone or it could be just any kind of a stone, you know. Usually it's a...oh, what we call here, a... bottom wood stone that's soft. It's clay like. Till it get's down so far. Then when you get down to the bottom, you find sandstone,

then you find gravel, then you find water, then you find mold. (E.A.: Where is your layer of ironstone?) The ironstone we don't have. It's the pieces blown down, straight...straight down...look over here, here's where you're gonna start. Now, usually in this field, thirty feet down, find water.....Plus another 20...thirty, forty feet, you'll find a streak of sandstone.. Now between here it's clay, clay like rocks. We call it coal dust. Then you go down a little farther, and it's clay again. Then you go down here and you find.....ironstone. Down here. That's hard. Very few drills can go down and come out again. Lot of them. And this could be any where from two to four feet. And that does not break easy. It'll bend. Almost that hard, it'll bend when you get enough surface up there. Then it'll break. When that breaks, then it's more likely to break and go to the surface. All these mine hazzards. Now, from here down you have just ordinary soapstone. Around Louisville they have some sandstone right around over the coal. And usually soft rock maybe 6, 7 inches. Then you hit clay again, So you go farther in. (B.M.: And then is there coal under the soapstone again?) No, if you go down under. Now they got here in Broomfield, now that goes down some hundred feet. There's layers of coal between here anywhere from 3 up to 10 feet. Some places more. Like now down here south of town, there's only 25 feet up to the top of the coal, that's what they call the surface break. In the open day that's what they cut first. And there's about 6 men working. (B.M.: The vains wasn't too deep then?) No, some of them wasn't. But, underneath this one vain, you go down and come up , the original vain here is 300 some feet. Some like that is 360 feet. But they hit more than one vain coming down. And them vains are very warm; some carry gas. (E.A.: So then you work those vains going down?) No. NO. They go down to the original. Because probably these vains is where they got the originals vains. It's not very safe. It's not possible.

(B.M.: Is that why they do a lot of strip mining anymore?) Yeah. ON these top layers they do. They can strip a hundred feet of earth to one foot of coal. The same way here. They strip here, here, here, (E.S.: But here, there's coal.) Here this is coal. Yeah. (Well, I don't know what you're worring about, looks like there is more coal than the places that are worked.) (E.A. But you have to realize this is a progress map. And this progress map is also made what back what year?) (L.S. 1918) (E.A. 1918, but they wind up to 26.) You see. (E.A. So, you see there's 8 more years of coal they could have put up.) You see, it happened here long time ago. I can remember. Where the Rocky Mountain and what you call it? They robbed coal and didn't put it down. You see? Everybody was thieves. We got em today, but they was just as bad, so. (L.S.: So some of this is marked.) It could be, it could be, because the state didn't forcenthem to do it, they took everybody's word. You know when I worked with an engineer by the name of Canis when they had all the mines. I worked with him 22 years. And you better believe, I went into all the mines, Like the Bom, the Boulder Vally Bom. And there was coal taken out that didn't show on the map. And this was .... in the 50's! But they been taking out since 1920, Probably, 1918, you know. You see they robbed it. Robbed Peter but paid nobody but Paul. And there was Paul. Now this map could be true, whoever made it. I don't know, but I imagine a fellow by the name of....(E.A.: It's right there Lawrence, Under your hand I think. Right under the scale map, isn't it there?) (B.M.: Look over there in the corner.) Oh, I remember the fellow's name. He was...Albey! Albey was the chief engineer them days, see. And above him was...the chief engineer, was the vice president of the company was Harry Jones. You've heard about him haven't you? I knew the man well. You see....all these maps up here, now I don't know if this is part of the Simpson mine, I believe it is. And this here, they drove off to the

yellow they never did. Here they extracted the coal, see? Shows you how it went in see? There must have been houses shown here, and it shows you where the power lines are, and there also. I don't know what it says here the legend is the doors....you see the doors. Where's the.....along the branch. That went up into the school. Along the branch. Went up this way, could've went up this way, could've come down this way. Then then they drove up this way. Or, they could've come up this way. They call this long branch, too. This is all one section of the mine, here. (L.S.: Now the long branch is a section of the Simpson Mine?) Why sure it is. Yes, yes. (B.M.: This is a wall bash, is this a section of the mine too?) No, the wall bash is the name of the entry. They call that the wall bash, (E.A.: There's a broadway over here?) Yeah, you see the broadway was south,....was northwest of town, northeast of town. Am I right Effie? (E.A.: Well, there's the school, so it must be northwest.) (: The wabash is what?) (B.M.: An entry... of a mine. Like a straight named all their mules and everything else.) This is a wabash, this is a wabash entries here, these two they call wabash. (: So they're not entries to the.....) Uh, uh. They wouldn't work out here. (L.S.: All of this?) Now when you see these here, they drove the entries up, the rooms up, but they didn't get nothing. Now here they extracted a little bit, see? Cause this should be the same kind of back, but they didn't get it in here, see they left a little coal in there, they couldn't get it out. (E.A.: We realed coal out from the center of town, didn't they?) Yeah, you see, they just drove rooms up there. They didn't close the cellars. Here they pulled a little bit, but they didn't get it all. (B.M.: How far down is that?) (: I don't know. I don't know how to tell.) I'm trying to find the doors here, where the shaft was. That's timberline here, see. (E.A.: Showing the coal to be left in to prevent caving of buildings on the surface, in west Lafayette. This is B pocket fold. (LS: Explain to me what a sump is) A sump is a hole that the

water goes in, then they pump it from there. (LS: Ok, cause there's a lot of sumps in there.) Yeah, there's a lot of sumps in there. And that's where they got all the water. And that water hops to the big fuel pump station. They pump the water outside. (: Where did they pump all that water?) They pump it outside. (E.A.: What you actually need is an overlay of the town. Now see, this has an overlay and it makes it hard to read the mine, this reads the mine. But you can't tell where any of it is.) You see where the wooden shaft is. (BM: I wonder if it's on the same scale?) (: Here's an air shaft, right here. And there's the Strathmore shaft.) That's south see? (BM: You want the Simpson shaft?) (LS: This is the highway going up, so it has to,.....this is the highway, isn't it? So it has to be over here.) (: Maybe it doesn't show it over here.) (BM: No, the school is here, the shaft is over here.) (EA: No, because this would be Baseline here.) (BM: Oh, I see.) (EA: Am I wrong?) (BM: No, you're right.) Well, the hoist, it's got to say shaft. The hoist is on top where they pull the coal up and down. (LS: That isn't where the shaft is?) Yeah, that's where the shaft is too, but then, where is it? What's the number? (LS: It's just got a little mark like this.) OK. (BM: What does the mark look like? Here's a railroad track, so it would be close to that.) (EA: It has to be right in here somewhere. I was right near the railroad tracks.) That doesn't say here. I imagine that's a.... (BM: Is that it?) (: No, that's an air shaft) That's an air shaft, now the other shaft has got to be down here somewhere. (EA: Well, the air shaft and it weren't very far away) No. It has got to be in here somewhere. That's a stopping. (LS: A hoist looks like this here. This little white thing right here.) (EA: There's one that looks like that.) No, that's in these.....Here's a sump right here. That's the big sump, so it can't be far from that, the air, the main shaft. (BM: It can't be mined around?) Nope. (BM: Do you suppose this is it right here then?) No. (BM: No, that's

been mined out.) That's been mined out. That's a block of coal. That's been mined out. So has this and this, and this. (: I know where the Wabash is on the other map, but....) What's the number here on the other shaft? (LS: It doesn't give us a number.) (: Just a symbol.) (BM: Would this be it? No, they can't mine around the shaft.) No, that's not it. (BM: Would this be it ? That's it! (: That's a want.) No, that's in a cave area also. Now this is a railroad, right? (: I..Don't know.) (BM: Yes, I think it's a railroad.) That's got to be right in here, somewhere's. That would be right here. That's where it has got to be. Where did I say the sump was? (: The sump was over here) It would have to be the main sump. Now if that's not the shaft here, it would have to be over here. (BM: Here's a air shaft here.) Ok, then it's not very far. See, these are 8, 16, 24, about 325 feet, that's about it here. (BM: Yeah, cause they used to bring the coal up here and get it put up right on the railroad tracks.) That's right, right on the railroad tracks. (BM: And here was there side back.....Here was where they pushed the cars.) (LS: there was no numbers on there, just symbols.) (BM: Here's 23.) (EA: I was just wondering if there was anything that....) This is coal here, 21 to 23. They didn't touch these chain fillers here, either. They didn't touch them at all. They're all in there, the blocks, they're all in there. (: So are these little dash marks where the air went in?) You bet, yeah, that's right. The air went one way and down the other. Probably they went all the way [illegible] through here and out here and in here, through here, up here and through the shafts. But they came down through the air shaft to it, see? (BM: All right. Let me tell you, ask you a question. When they got this big room of coal taken out, how did they get it all in there?) How did they? They didn't take this out all at one time, you know. They probably took, well let me put it this way. Well, they probably came up here, and

this here you know, and then they drove empties across here, and then they drove up to them, see, like this, and then this all caved in at different times, see? (LS: Yeah, because here's your other...cause see here's your entry there.) Yeah, cause here's all your connections there. (BM: And then this would cave.) That's right. They pull the coal out. (BM: I thought they had to timber it.) Yeah, they did. They probably had to some places, most places do have to timber it, they have to timber it one room at a time. When they come back with the pillar which is the coal between two rooms, they got to put it there, and then soon as you get the weight on, the timber breaks, and it caves. But if they had numbers on here, then.....these are all houses here. Now, this way up in here.... (: There's one. I've seen all these numbers here, and I haven't seen one.) (LS: Here if it says extended, I wonder if they worked these,..places in December to October 1911, December they worked 12 and 11...on those.) Well, 12 and 11, that's way up here, somewhere, I guess. (LS: And in January they worked 3 and 12.) .....(LS: Is that what it is?) (EA: I don't know, because June 2, 1913 didn't) (: I don't see a 12, do you see a 12?.....There's 13.) Well, they worked these in them years. And they can tell you what you see. Now this mine was new, in them days. My Uncle Charlie worked here in 1910. When that mine was new. (EA: The mine wasn't new in 1910. The mine was put in in 1809) Well, but I mean he was here in 1910 when there was still driving rooms and entry. Crosscuts and stuff. (LS: So there could be a lot more coal taken out of this) That's right or they can be a hell of a lot more in here than they show they took it out because you know they out there always. (LS: Yeah) See, the company owned the surface. The Union Pacific owned the coal. See what I mean? And that's how they cheated. They didn't turn it in. Now, the Union Pacific used to make their rounds... (EA: And Mrs. Miller owned this barn, and they paid her 10 cents a ton royalty.) Well, that's possible.

Part of it. See, you got to find out where, that's see you got to find where this, these lines are. (EA: I have and interview in which she told she was paid 10 cents a ton.) That's about right. And that's about 3 cents more than the average got. It was 7 cents. Of course, then there was wheel tax. Say, somebody owned this coal here, and somebody owned this coal here, they had to bring this coal here or this coal here, to get to the shaft. Well, you got to pay wheel tax. For running that coal to this property. Which run about 5 cents a ton. That's what they call a wheel tax. Get that? That's like coming to my property and to run it through there, you got to pay me, see? (BM: Well that was probably, it was probably cheaper for them to pay the wheel tax than it was to drive another shaft.) Oh, yeah, cause you know what the heck....You go down to the shaft. Them days you could drive a shaft, now I think for making mine. You know how much it cost to sank that mine? A million and a quarter. (LS: Then.) Then, and that was in 52. And I run it for 3 years and I lost 2 and a half million. And nobody's ever been able to bid sinse. You see? The wholesale was, we had a.... (BM: That's that slope mine isn't it?) Right. You see, them days it, to build it then it cost 18 dollars a foot. Now you go up to 40.....any more. See, we didn't use it in the mine, we used on coal, steel. We got part ways down, and then we found out we couldn't hold it, so we had to order some more, see? And the second batch that come in wasn't steel, almost doubled. (LS: Instead of timber, that's what you used?) Yeah, you would go in 20 feet, 10 feet, whatever amount. Then you know, you had one...one piece of steel that they called the headpiece. One here and the next one here, and the next one there, and we would go all the way around on the cement, see? But the cement went in after that was blocked up, with timber. So they would know where to put the cement. But come to show you it is pretty hibited anymore, so you can mine. This should go right in and start

producing coal, 50, 60 feet. Nobody can do it around here except the big corporations. Now the Rocky Mountain was big in them days, now I don't know how these people worked in the Simpson Mine, but they tell me they was getting coal out at 30 cents a ton. And they was selling it for dollar and 5, 10 cents. (LS: Somebody was raking in the money, weren't they?) No, it stands to reason that.... (BM: They had to pay their house.) I understand there was 260 people working at the mine, with this mine, see? You see this mine wasn't done all at one time. Probably this section of the mine was driven at one time, you had all the men working here. When this all done here, they probably put a big stop here, a fire stop mind you, incase it caught on fire, because when you extract the coal it starts to cave, spontageous combustion happens.. I don't care where. And either CH4 gas methane accumulates, or a fire starts on account of the heat. So they got to put a fire stop in there. And then from there, when this is done, probably they went over there and started one. But they always stayed close to the air shaft and the air shaft was last. In them days, when they got within 300 feet all round the shaft they had to quit mining. But I remember the Columbine....the old mine.....where George was there then, shooting shocks at that time, I remember. We mined right up to 100 feet. But we didn't pull no pillars, see? And that was against the law. (LS: Ok, what do you mean you didn't pull any pillars?) Well, here's the shaft, here we went down here 300 feet. Then we drove, see, we went down here, there was empties here, here, here, here, and here. Probably we took this empty here, and here, and we drove up here. It's within a hundred feet, then we come over here, this one we drove up here then we sent over here, you know. But we left the coal to thieves, see. (LS: That's what you mean by not pulling the pillar...) Not pulling the pillar, because you know what a shaft, when you get within 300 feet and swain, otherwise, it can cave

and the shaft can be there, see? An it does, it does. It moves, see. You can't help it because something's got to give. And...50 years from now I want to give.....I...take the Eagle mine, when I went there in 53, I think it was, that shaft was so close by, it swung the shaft in a big circle, not too big, say 4, 5 inches. And you don't notice it, see? But as soon as the cars come up, your...go up this way, see? Your broke you can see it in time. I had to straighten that out one summer. (LS: How did you do that?) Well, we had to go down there and put some bombs down there and have to go soon as the bomb comes down, see? So then here they got here. And waited their positions. And then you know, I repaired that twice. And you know....when.....now you take a slope and go this way, see? It's different then a shaft. Slope mine you go down until you get to the coal, you have just one blower fan, at the surface, until you get down to the coal, you see? When you get to the coal, you see where you want your air shaft and you drive to it. You drive up and down until you get to it. And then you start these places like this, see where you have these little places like this, where they have a... and then you travel a ways and where it goes through back, now you see here, now this I can tell which way the air went, because you see these crosscuts they come down here, over here, and they come out here. Well, the air went up here, across here, and come down this way if this was the air shaft here. There's the air shaft here. So, anytime the air comes down the horseman shaft, and goes out the shaft, that's what you call exhaust air, see? Now vice versa they just say it's forcible air. You know I give a lot of .....on that....you bet. Lot of classes on this lousy thing, see here. This is timberline, see here, and this must have been a railroad or something. Looks like it to me. But then it could've been a lap, a ditch. So you had to keep away from that see. Got to keep away. Here's three. We was talking about three...one and three a while ago. Here's three. And here's

one. You see what they done here, they pulled it, see? And this was done 1913, says here. Here they done the same here, but, here they had trouble. They come up into the other side and got into the free here, see? (LS: These little dots here is a disused road here, it says) That's right. That's got to be something on the surface that they can't swing one way or the other. Because they can't pull nothing out of those, well if it's just a little road...Now you see this mine wasn't the boundry yet, when they started pulling this coal, then probably in the winter time they drove this one, this one, and this, and this, and this, and this, and this, cross-cuts around, see. And actually they didn't pull these till they got up higher, then they came up here, and here, and here and here, and they started the same thing here. This cut went this way. Then this was blocked off. Probably they put a seal, a fire seal in here somewhere. Here's your sump where you gather water. See right here this little mark, that's a sump right there. Right there, see it right there? (LS: Ok, up here a little farther you got...here's the air shaft, right there, I mean not air shaft, but it's air right there.) That's right. That's air right there. That was a sump there. That's where the main sump come out, I don't know. (LS: This would be in the west side of town.) Right. There should be enough coal left on the west side of town. Now if you had to find the direction here, North, South, East and West,...(BM: Well this is North, because this is Baseline, there's the school) (LS: And this is your highway here.) So they drove over here...(BM: This is 287) Ok, you see, they drove up here...and is this the corner, no this is section corner. (ls: Yeah, this is the corner going to Boulder, Longmont.) You see they pulled up here, they had a little cave here and here and here, and they pulled here, but you see, these places just build the rooms up, and lift the coal between them. (: So these places all ready caved in?) (LS: This is all worked out then.) (: So they don't have to worry about them

cause they're all ready caved in.) It's not worked out. (BM: Well, yes but there's water in them, and see now they're pulling the water out. So there's gonna be more air) (: Is this caved in or not?) Yeah, well this here should be. There's subsidence there now. Otherwise, this mine south of us, been worked out for years, and years, and years. Finally, what happened down here, remember? Well, that's how long it took. Fifty, sixty years, maybe more. (: So, if this isn't caved in all ready, it is liable too.) It's caved in. Well it's liable too. Well, this caved in. Well, let's face it, when you get a...as much area as these pillars, now this pillar is I imagine thirty to fifty feet wide, and probably eighty feet long, you see,....these here, you would have to take both of them out, to get a good cave besides the sides, see? Otherwise, a cave will go to a peak. That's when you pour sand on the dirt, supposed to peak. And when that hard rock band breaks, it will do this. Oops, excuse me, it will come all together, see? (: Oh, ok, yeah, I couldn't understand how these could be all filled out) Well, this here, it probably took years to fill out. And as they worked part of it out, it caved. Work another little bit out, it caved. Then work another little bit out and it caved. But right here, they left the coal in. Probably because they it all out. (: So these are like hills now.) No, these got coal in them yet. (: Ok, but if this is caved in, these are like hills now.) Well.... these are on the edge of a hill, on the edge of a cave. Right? That's what the..... (BM: All right, now but this mine filled with water too, the whole area fills with water. Now they're pulling all that water out. Now does that go to the Saint Moore?) It could. It could, you know they pumped all that water. (BM: Takes up space) Takes up space. And the water, when it gets so high, I don't care what you dropped into it, will only go so high, and then something's got to give. Just like anything in the weight, once you take something under it and don't fill it up, got

to go down, see? On a dry year, down here at the Simpson Camp, down below Waneka, you know, them cat tails,...see them is almost dry. On a wet day you go down there and you sink up to here. That's because that's a low part, see. (B.M.: It's a low part of the fault, huh?) Low part of the Simpson mine. and they drove down there and that's filled up with water, and it'll come to the surface. (B.M.: Well, I know we used to live on Emma Street and we used to get water in wet years in our basement.) Right. (B.M.: The water would come up, the water level.) In wet years the water will come up, and in dry years when it goes down, then the earth has a tendency to take the place of the water. (L.S.: Where you lived on Emma wasn't very far from the Simpson Tipple.) (.BM.: No. And it wasn't very far from that....other mine that come off of, that went slope is Strathmore.) You see, when that caves in, the next year, if it's a wet year, the water raises up to that level. The dirt went down, the earth. (: So all that wet weather we've been having might cause a caving.) Well, when that goes down, as long as there's water in there, (: It'll take the place of the dirt) the dirt, right here. All that dirt here could crumble here, and you know. (BM; but the water would still hold it up?) It takes the place of the earth, and then when the water line goes down, the earth goes in, no question. And when you see that, now I've got hundreds of gr...grids in the mine from Northern Colorado, where we put them into here, go back two years later, and our instrument went down a foot. You know what I mean? (LS: Well do you think then, Lawrence, that pulling that water out from that....from the Standard mine is what caved in the air shaft then?) From the Standard Mine, nah, the Simpson. It could very well, cause you know you can pump water...say this is just a heat, this piece of paper, now you can go up and pump this, but that area, water wouldn't let it touch it, goes level. (BM: Water seeks its level) and as you pump, this has got to keep

rolling in there, see? Cause you get down to where the level of the water is. And when you get the creek bottom, that's all there is. That's the bottom. Can't go any deeper than that cause the water's there. And as you pump this in you know, and you leave space, this does too. Just keeps coming. There is no way out. No way out. (BM: And the water moves in from somewhere else.) Well, well the water table...the water table in this town is what, 30 feet? And when you start pumping, this water all comes in. So you got a well, down 30 feet, and it's a dry year you got no water, barely even a trickle. You can pump it out in no time, cause of the pressure. Water goes to the least resistance, like air anyplace else. (LS: Ok, Lawrence, where they had these entrance ways, where they took the coal out, and they didn't cave it in, did they always usually cave it in?) No, they left it as they retrieved. (LS: Ok, would these fill with water?) You bet. (LS: All right, this is what, if they're pumping it out, this is what is pulling the water out of the entry way) Yeah, that's the water coming out of this entry way, regardless of what's caved in, regardless of what. There's water, which there is. (LS: Then you're gonna pull it out and it's gonna cost.....) (BM: Subsidence) (: So there's no use in pumping it because you'll never get it all out.) (BM: Well, you don't want it all out.) Well, you can pump it all out faster than it comes in till you get it filled up. But the occassion is there. Yau only fill up right there where you see it. YOu don't fill it up where it has all ready had no subsidence, still got water. (BM: See, that's why they don't want you to pump wells without permits, because that way they can control the number of wells that's put down and the number of...the amount of water that is taken.) See, now this map...I don't know if I've ever seen it or not. I...at the Columbine when I was there we...George...we had all the maps. See, we know that they was wrong. Coal was...At the

State Mine when I was...when I was blasting coal, I could hear the motors running and there was supposed to be 200 feet between us. There was no 50 feet, see? They rubbed coming and we rubbed going. (Laugh) You see, (EA: We live on a fault line, where's the fault here?) Well, it should say where the fault is. (EA: Where on a fault, it goes over by the school and right over .....) (BM: Don't you imagine this line here?) (EA: No the fault goes this way. Comes from West. The fault goes by, starts up by Ham Roberts) (LB: What's this right here?) That's coal taken out. (LB: But I mean it's got somethin written on it, what's it say?) That's number 10, I don't ...let's see here, that's the bottom...here, what does that say? (: Something chute...I think. B-A-B) (BM: B-A-L-T-E-R, isn't it) What's the last word? (BM: C-H-U-E or C-K) (LS: You need a magnifying glass) (:E-T or E-F) (BM & : Could it be chisel?) No, could be mule barn or something like that. I don't know where the mule barn should be here. (BM: And this is C-C) (: That doesn't mean anything.) That don't mean nothing. That's coal that's been extracted. See they left the coal in there and then drove up and took part of that out. What's this number 8? See what number 8 is. (LS: Doesn't have any 8.) (BM: Over here, what's that little thing?) (LS: No, it just says extended.) This was taken off an earlier map. See? That's all this is. That's all this is.....now I imagine the fault...came up, just look at this, see where this is going in? It's just like this, see? (: What is this, see this crack, arrow?....) (LS: Ok , it's a reverse fault.) Ok, then the fault's right here. You know what a reverse fault means? Either it came up, or it went down. Now if it came up on this side lays like this. Then if it's the other way, it looks something like this. That's where the fault is, right there. Well, you can tell that. (BM: Well the arrow shows it, it's going up.) Yeah, well, then it goes up this way.

And over here it goes down, (LS: Right here, Lawrence, see right here? That's a contour fault. And it's a reverse one because of that arrow.) Ok, this goes up, this goes up, this goes up. Over here it goes down. (LS: This is a contour fault. Here's your fault, right here.) This is a different fault here, see? Now, this is what they call a waldon fault. Comes off the big fault. That's a secondary Fault. (:This is a fault too?) Yeah, right up through here. (: So this one is younger than this one) (LS: This one is a contour fault right here.) You bet. (LS: And this one here, and right here, and on this fault is a reverse.) (BM: Yeah, but ....your house is not that fault.) No, I don't think we're up there. (BM: Well, she said her house was on a fault.) Oh, I think we're up here, yeah. I think we're up here. See, over here. (EA: NO.) (BM: Here's the highway, here's the school, and here's 287 and Baseline, so you would be in this area right here.) Probably is, in here where the coal's never been taken out, see? The coal's here yet and here, see? (: I bet those are those two buildings that...motel there or something? Isn't there a motel there or something?) There was no motel here on Baseline. No, see these white spots are all... (BM: I thought they were all...wasn't supposed to take out from under the cemetery.) It wasn't (BM: But they have.) Now, if this came up this way, see, and this went up that way, it would go up here so far and that's all, cause it dipped down the other way, see? As I see it. Now, you see here, they probably show that they got it out., but they didn't. Again you see, it's just guesswork. Cause you know.... (BM: Is the cemetery up that far? No, the cemetery would go up here.) (: the other school is right here, and there's the park) Where was the old school at? (:This is the school, because it wasn't undermined either. On the other map. That's the old one and this is where the middle school is) What went up here? (: The park, and that's the cemetery, this block

right here, where it says cemetery.) (BM: Oh, ok.) Where does it say cemetery? (: Right here.) Ok, what's...what's this little mark right here? (BM: Well then you folks would be living right over here from the cemetery.) I guess. We would be north. Which is north here? (BM: This is north. There's the cemetery, so you would be south.) (LS: You would be south of the cemetery.) We would be along in here somewhere. (LS: Here's your highway, right here.) Ok, now you got to measure 300 feet, wherever we're at here, then you got to measure the cemetery. Was another 4 or 500 feet, it would be down in here. .....Sandpipe. (: What's that?) (BM: Oh, that was where that's in that back yard.) That's up just west of me. I used to own that lot, see? Sandpipe, see. So we're in here, cause these come this way. We're in this lot right here. We're in this lot right here. (BM: Right here, ...) (: And you're not that far from the fault because it's right here.) No, the fault's right under us, because that fault comes up this way, see? Or, it goes down this way, I don't know if it come up or down here. But we're in here then, see? 190 feet. That's the Sandpipe. Ain't that funny? That's right there where Chuck's.....used to be. (BM: His back yard.) Yeah, I sold them two lots to Chuck, you see, they drove entries up there, but they never retrieved nothing. I'm sure. Cause.....we put grids in town and every year this town slides south-east inch, inch and a half. And we was.....I don't know how many times with different people then, goes to the south-west. So the cemetery must be over in here. (BM: No, right there) (: It slides to the what... south-west?) Southeast. (: South-east, that's right, because when we fixed the foundation on our house it slid toward the south-east.) You see, the fault runs northwest. The big fault., and then the ones that they call the secondary fault run little bit to the north. That's just north of here you know? All these faults are like fingers going up. Here's a whole fault. (LS: Ok, here's a fault here, and here's a finger coming out here.) That's right. (: And there's a fault and there's a finger.) That's right, you know these are just

short fingers. That's what you call a spur. It goes that far and then it probably goes down or up, and they forget about it. They don't pull the coal. Yeah, LaJuan? (: Well, here's a fault and here's a place where they've mined out,...area, why would they take it out so close to the fault?) Well, because they don't leave air down there. They probably drove this out and put a room up here. And they just left it cause they couldn't get in there, it's too steep. They couldn't get the cars up there, the mules couldn't get the cars up there.(LS: Ok, so Lawrence, then they can drive rooms up, but they didn't work them a lot of times.) Ahhhhhh, yes: I told you they could drive a room up, but they couldn't pull coal out of either side. there's a room here, another one here, now just driving the room up would never cave to the surface. It wouldn't have enough area. Now to have a good area, you got to have at least 300 feet, squared, see? And to get 300 feet, they have to cave 300 feet up. (BM: These little passages in here are about 30 feet?) Yeah, about 30 or 35 feet and maybe 60 or 70 feet long. It all depends. These here are about 80 feet and these here are about 40 feet, you know, through here, 35. But these here are the barriers between the air intake and the rich area, see? And they usually....(LS: Ok, Lawrence, then they on some of these area s it's just light here, they could have just laid the room and just left it because they couldn't work it.) Yeah, now see this is a map taken off of another map and it doesn't show distinctively what they've done. Now pull a room like this and leave this much coal here and here and it might give up there, 10 or 15 feet. No more! No more, won't cave any more. But if you pick out a big area,... (BM: Well, they said Simpson Street here, the sidewalk would be almost level and now you can see how the sidewalk is all broken.) It would go to the south-east, I don't care how they do it. This fault runs from Louisville from Superior, all the way to Kansas. Northeast. And it sometimes it gets wider and sometimes it gets narrower. Sometimes there's a walk. There's no coal at all you go to the side until you go all the way around. When it gets to Kansas they strip mine it. (BM: Well, now they're gonna start strip mining over in Kingsford,

did you know that?) Well, I believe that,.... (BM: Coors has bought it and they're supposed to strip mine all the way from Kingsford, Colorado all the way to the Wyoming line. And they're supposed to start this next year.) (: Yeah, but they have to re-do the land after they strip mine it.) See,...Kingsford and Fort Collins are all out of coal. And Wellington, all those places. (BM: Well, and the gas and oil.) You see, and that's what, that surfaced there, now look. Let me try to explain this. We're on now, we can get the water, the fault, sandhill. Or did you know that? Ok, the fault sandhill stands right in here somewhere, all the way southeast. Now, across the fault when you get to Longmont and those places, that's a different situation. You call that the Limon.. formation. It goes up to Limon, past Limon, up to Cheyenne, and Wheatland, see? Now, when you get past that, they call that the Red Desert Formation. See what I mean Effie? All these places got different formations going down. (BM: And at different formations erupted and caused it...) Well, you get water here in the fox hill and sand area, and you got good water to drink. But this over here will be dry. And sometimes the water will be at the top of the surface. Within 10 or 15 feet. You know where the ..the chicken ranches are out here? You go down there 10, or 15 feet, and you will find water. This stuff, hurt your eyes. You see, am I right? (LS: Oh, you can't drink it.) And that, and that, and that water follows..... this fault. And this fault is that far, it won't leave that fault. It just keep going. (BM: Well, I know my sister lives in Flagler, Colorado, and we've always had soft water, this nice soft water. And when they was putting that water, that waste water down in that hole out there. What's that place called? Where they had those chemical plants, here in Denver. You know their water changed and they have hard water. That is all caused by that...remember when we had that earthquake down from that water. And that changed their water.) Forced down there, forced down. And I say that they pumped the chemical out but I doubt if they got it all out. Because

that was forced in there. And that has more force than the force that goes down. The forces... (BM: Well, it changed their water in Eastern Colorado.) I believe it. For so long, you take down the places Matheson, Simla, Limon, you know there's another big fault there. YOu know there's coal down there 30 or 40 feet. It comes up to a....rock that goes right down in to Colorado Springs. (BM: Well, there's a hill, a ridge along in there.) The coal is in there 300 feet. And that goes down and then levels up to Matheson. (BM: You go out of Limon and you have to turn, and a branch goes to Colorado Springs and the other one goes to Kansas. There's a big ridge...) Right hand side go to Colorado Springs. Now I worked down there, remember that Effie? One summer. It was the Union Oil Company. And we found coal underneath there when we went to that rock at 340 feet. Big coal. Then we got across the highway. Coal was only 60 feet deep. And lots of it, 22 feet. (LS: Well then there's still a lot of coal in Colorado.) A lot came out with no restrictions on it. And the Imperial Oil Company leased some of it, and they owned a section or two. But along the river bed, it was all coal. Then of course when you get on the other side of highway 85, the coal comes out, that is the coal strip, there's a vein going down a little deeper, the top of the vein goes to ....Kansas. East to Kansas. Goes down there 25 or 30 feet. It doesn't have any kind of capacity of rock or anything, over the top to hold it, see? It's gravel. Geor...George Brown and his brothers worked out there one time. Little mine, and they just put just trade lumber for coal, you know? The gravel was just poured in. (BM: So that way, if it was close enough to the surface, strip mining would be ok.) Oh yeah. Like I say, they would strip a foot of coal for every 100 feet of dirt. See, a foot of coal, an inch of coal in an acre, you know, is a ton of coal. Now you figure that up in inches and then in feet, you see how many tons you can get out of an....a....acre. (BM: If a vein is 16 feet.) Sixteen feet, and multiply that by 12, and you get your tonnage.

What you see...I been both sides. Working in a foreman. And the companies don't want to go in there for nothing, and you can't go in there for a week and start....stealing right? This map now, how correct I don't know, but I bet this was a copy of another map. It's not the same when you put them right there. Ok, they didn't have to. Well, if it's original, then the other map is not right, is it? Because they stole coal.....Bart Hartmen, you know him. They drove a pair they call Timberline. To the cemetery, almost, almost. Almost to the schoolhouse. So it would show here somewhere's. Right there see. Right here and it was so steep you couldn't do nothing with it. And he says they dodged a little bit here and there. So this comes to show you that these light spots will fade out here and there. (EA: The timberline in here is the school.) Yeah, well you see they drove this at timberline. Now what's that entry that goes up to the schoolhouse? Wabash. They drove right up there and didn't do much with it, see? On account of going up. (LS: But they took coal out of there) Yeah, but true, how true is it? It shows here probably where they didn't take it out. (BM: Now our house is up in here, and there's a ridge right behind it. Comes right there, you can see, where they left that stuff. See here they drove rooms. These are all closed. Now, what else can I help you with?