STATEMENT UNDER OATH

OF

JOHN UROSEK

Taken pursuant to Notice by Richard J. Lipuma, CCR, a Court Reporter and Notary Public in and for the Commonwealth of Pennsylvania, at MSHA Technical Support Office, Building 2, Industrial Park Drive, Triadelphia, West Virginia, on Tuesday, December 11, 2007 beginning at 8:02 a.m.

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INDEX

EXHIBIT PAGE

NUMBER	DESCRIPTION	PAGE IDENTIFIED
One	Map	33

P R O C E E D I N G S

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MR. O'DONNELL:

My name is Joe O'Donnell. I'm an accident investigator with the Mine Safety & Health Administration (MSHA), an agency of the United States Department of Labor. With me is Derek Baxter, from the Solicitor's Office. We will be conducting the interviewing --- the questions today.

I, together with other government investigators and specialists, have been assigned to investigate the conditions, events and circumstances surrounding the fatalities that occurred at the Crandall Canyon Mine in Utah in August, 2007. The investigation is being conducted by MSHA under

Section 103(a) of the Federal Mine Safety & Health Act and the Utah Commission of Labor. We appreciate your assistance in this investigation.

After the investigation is complete, MSHA will issue a public report detailing the nature and causes of the fatalities in the hope that greater awareness about the causes of accidents can reduce their occurrence in the future. Information obtained through witness interviews is frequently included in these reports. Your statement may also be used in other proceedings.

Your statement is completely voluntary. You may refuse to answer any question and you may terminate the interview at any time. If you need a break, just let us

know. A court reporter will record your interview, so please speak loudly and clearly. If you do not understand a question, please ask me and I'll rephrase it. Please answer each question as fully as you can, including information that you have learned from someone else.

I'd like to thank you in advance for your appearance here. We appreciate your assistance in this investigation. And your cooperation is critical in making the nation's mines safer.

After we have finished asking questions, you will have an opportunity to make a statement and provide us with any other information that you believe to be important. If at any time after the

interview you recall any additional information that you believe might be useful, please contact Mr. Richard Gates at the telephone number and e-mail address that we'll provide to you.

Ms. Escott, would you swear in the witness, please?

MS. ESCOTT:

Please raise your right hand.

JOHN UROSEK, HAVING FIRST BEEN DULY SWORN, TESTIFIED AS FOLLOWS:

MR. O'DONNELL:

Ms. Escott, are you empowered as a notary in the State of West Virginia?

MS. ESCOTT:

Yes, I am.

MR. O'DONNELL:

And when does your commission expire?

MS. ESCOTT:

9/23/2015.

MR. O'DONNELL:

Have you sworn in Mr. Urosek?

MS. ESCOTT:

Yes.

BY MR. O'DONNELL:

Q. Please state your full name and address for the record.

A. John E. Urosek, that's U-R-O-S-E-K, (b) (7) (C)

Q. Thank you. John, what's your present position?

A. I'm currently the Chief of Mine Emergency Operations.

Q. And how long have you been in that position?

A. A little over six months.

Q. And who is your supervisor?

A. Terry Hoch.

Q. And if you would, just give us a brief description of your employment history.

A. I started with the agency in 1974 as a co-op student. Worked as a co-op student until I graduated from Penn State in 1979. As a co-op student, I worked in Technical Support and also for enforcement in Coal Mine Safety & Health District Two. I then --- in Technical Support, I started in the physical --- what was the noise group and then I shortly went into the ventilation group as a mining engineer and remained as a mining engineer until sometime in the '80s, when I became a supervisor in that division. And I remained as a supervisor in that division until approximately '96, when I became the chief of that division. And I was chief of the division until this year, when I was --- got the position of Chief of Mine Emergency Operations.

Q. And what are your primary areas of responsibility in regard to responding to mine emergencies?

A. Currently?
Q. Yes.
A. I'm in charge of all of the technical support response to a mine emergency. That includes --- the mine emergency unit is under my jurisdiction.
Q. Okay. And what kind of equipment are you responsible for?
A. That would include the seismic locating system, camera system. Directly under my control I would also be responsible for the ventilation monitoring equipment, the physical and toxic agent monitoring equipment and the mine emergency unit equipment.
Q. So what specific equipment was sent to this site?
A. Specifically we responded with the seismic equipment. We responded with the MEU. We responded with the monitoring equipment from ventilation, the chromatograph, physical toxic agents. That's ---

and obviously the command center.
Q. How many MSHA personnel do you supervise?
A. Currently, I don't have any at the moment. The mine emergency group is being formed and all the paperwork hasn't been completed to have people directly underneath me at the moment.
Q. Okay. When the mine emergency occurs, you're there as a director?
A. That's correct. That's correct.
Q. So how were you notified of the August 6th accident, John?
A. I received a call at approximately 7:53 a.m. from Bill Crocco. I was at home at the time. He called me on my cell phone, informing me of the accident at the Crandall Canyon Mine.
Q. Okay. If you would, beginning with your call, just go through what you did in preparation, who you notified and your role.
A. Well, when Bill called me that

morning, as I recall, he informed me of the accident. We had miners missing. As --- this was a typical response for us that usually comes from Bill Crocco to me. We talk about what's necessary, back and forth, because he's already talked to the district manager. It was decided at that point we would respond with the MEU, the seismic system and, of course, all the monitoring equipment. So after hanging up from him, my first call was to Jeff Kravitz because we're still on a changeover period as to how we're operating the MEU. And I called Jeff and told him that we needed the --- we'd need some Mine Emergency Unit folks, that the western Mine Emergency Unit folks were already notified by the district, that was being taken care of by someone else, and to prepare the seismic equipment to respond. The question at that time, we talked about whether we were going to fly it

or drive it. At that point, we were still in the driving --- we were going to drive it out because that's normally how we begin the response. My next call --- that call, by the way, was at 7:58. And the time in between each calls is pretty much because that's the length of time I was talking to that individual person.

At 8:03 I called John Seiler and notified him that they'd need personnel out there and to dispatch a chromatograph to the mine. And then it's up to him to do that response, whether it's from Pittsburgh or from Denver folks. The next call, at 8:06, went to Rich Stoltz, who's in charge of the ventilation division, at his office. He wasn't there, so I moved down the line to Denny Beiter, called him in his office, and that was at 8:07. And I told him about the situation and to have --- begin a response to the mine.

At 8:09 I called Terry Hoch, who is my supervisor, to let him know the situation and also that ---to put Roof Control on alert, because that was one of the things that Bill talked about, that they may need people from the Roof Control Division because of the type of accident it was. So Terry took care of that. At 8:15 I called District Nine, their offices, to get an update on the situation. I didn't receive an answer at that time, so I called Al Davis at 8:16 on his cell phone to get an update for what was going on and tell him what we were responding with.

At 8:23 I called Mark Skiles, who's the Director of Technical Support, to let him know the situation and to update him on what all we're responding ---. So that's pretty much typical how I do the calls.

Later that morning, about

10:58 --- there were a number of calls between 8:23 and 10:58, where we talked about how we should respond, in particular with the seismic system, and what was the situation at the mine, did we need to get it there quicker? Mark and I talked about the decision to airlift the seismic system. It was made at that time. And at 10:58 I called Jeff Kravitz. I believe the times are correct. There were a number of calls to Jeff, but I believe this was the time when we talked to him and said that --- to notify the Army, Air Force to attempt to airlift the system to get it out there quicker, and he was going to take care of that. At that time, it was also --- I let him know that he was going to be the senior person on site, that I would not be going to the site ---

Q. Okay.

A. --- on that day. And he was going to be there that week and then

I would come the following week.

At 11:03 --- I'm sorry, 10:58 is when the decision was made with Mark Skiles to do that. 11:03, I called Jeff to tell him, and then he moves on with the --- getting that done. So that's pretty much the calls to get everybody sent out there.

Q. It looks like you've taken some pretty good notes. Do you have a copy --- could we have a copy of your notes?

A. Yes.

Q. This is the notes of your timeline?

A. Of the timeline of the calls that I made.

Q. All right. Good. Thank you. So you said that you would relieve Jeff Kravitz in a week. What day was the first day that you arrived at the mine?

A. On Monday --- I believe it was Monday, August the 13th.

Q. And during that time that you weren't there, did you have any interaction with Mr. Kravitz or anyone at the mine site?
A. I had a number of telephone calls mainly to the district office, because I didn't want to call the mine site and bother them, with the activities they had, to find out what was going on. On the 6th I had talked to both Mark Skiles and to Kevin Stricklin and asked them --- told them what we were planning on doing as far as when I was leaving, when Jeff was leaving. They were fine with that. Kevin was --- had indicated to me that he was actually going to the mine site. And he said, based on the circumstances, if he needed me personally he would call me.
Q. Okay.
A. So he didn't that week, so I didn't go earlier that week.
Q. So August 13th, when you

arrived in Price, Utah, did you go to the mine on August the 13th or what?
A. No, I didn't. It took most of the day to get there. And when I got there towards evening, I talked to Kevin Stricklin. He had already left the mine site and he suggested that we meet at the motel. We just happened to be staying at the same motel that evening. And he briefed me on the situation, the circumstances of what was going on. He asked me to go in the morning with him to the family briefing, which I did the following morning.
Q. So after you were briefed, what was your impression of the operation as it was progressing?
A. Obviously, I mean, it was a much slower process than I think anyone would have liked, but the conditions warranted that it was going to be that way.
Q. Well, based on what you were told during your briefing, did you

make any recommendations to anyone? And if you did, what were those recommendations?

A. I do recall a recommendation early on. In fact, this was on August 6th, when I talked to Bill Knepp and to Al Davis. And the one thing we had learned and I suggested highly is they contact the mine and try to get as many bore holes and drill rigs headed to the area as they could possibly convince the company to do. And I know that that eventually happened, but I'm not sure how that went from once I contacted them.

Q. Okay. So you arrived on the property then the next day. If you would, just walk me through what you observed, what your role was throughout the rest of your time there up until you left.

A. Well, I have to apologize for some of it, Joe, because I don't remember all of it offhand. I do

know that the next morning I remember we went to the briefing area, where the families were being briefed. Mr. Stickler was giving the briefing. I sat with Kevin and we talked. I listened to, you know, what was going on with the most current information.

We then went to the mine site later that day --- actually, in the morning. I believe that I met with Al Davis and other folks from the district that were there at the time. I went underground, and again, I'm not sure if it was that day or the following day, that would have been the 14th, with Mr. Stickler and Kevin Stricklin to observe what was going on underground that day. We went up to the area where they were mining. That's pretty much all I can recall at this time, as far as the duties that we were performing there.

I believe I later went up to the bore hole areas, where the drilling was going on, to see the

activities associated with that. Again, the days --- I'm not sure of the exact days. I do know that one of the bore holes was going in at that time. And I know that previously, before I had gotten there, they had gotten some early readings at one of the bore holes that turned out to be erroneous. And I remember Mr. Stickler and Kevin both asking me to go up to the bore hole and the next one in to make sure that the readings were accurate. And I do remember spending pretty much all night there doing that. I believe that was on the 15th because I believe the night --- I went up the evening of the 15th and onto the 16th. The 16th I believe was the day the accident occurred.

Q. Yes.

A. And on that day I remember --- I had been up all night dealing with the bore hole situation, but when I got back down to the mine office we

were talking about the situation underground. They were concerned about the air that they were getting up at the miner. In fact, they were concerned because low oxygen was coming back on top of the miner. And they were --- couldn't understand why they weren't getting enough air.

And I offered to go underground to look at that and also to observe the work being done by the MEU members. So I did go underground on that day, had gone up to where they were mining and did an evaluation of what the airflow was, found that they were losing quite a bit of air the way they had their curtain arranged. The curtain was two crosscuts back. Instead of just having one open crosscut, they had two open crosscuts. They thought that was assisting them, but --- I remember traveling with Laine Adair, and we went on the other side of the curtain, where we could make a better

evaluation what the air was actually doing, and found that the --- by having two crosscuts open, they were actually losing more air than they were picking up. So they were going to make that change later that day to get the air corrected.

I remember going back to where the Mine Emergency Unit had some sampling equipment set up. We evaluated that, how the pumps were all working, how they were getting their samples. We also had gone back into the return air courses to see how the air was actually moving back at those locations. And that was back away from the face.

I don't want to get off base or confuse the interview, but I remember on the first day --- something came back to me when I mentioned that. When we went underground with Kevin Stricklin, we went back into the return that day also, and we found a curtain in the

Number Two entry ---
Q. Okay.
A. --- that was --- had a lot of pressure on it and was impeding part of the return. And based on a discussion with Kevin and the senior company people which were there, we removed the curtain. Actually, the mine operator removed the curtain, but it was at our suggestion --- all of our suggestions because they were again having problems with air and there was a huge impediment by that curtain being there. And we were told the reason the curtain was there was so that the --- it would cause airflow to go to other locations where miners had been working previous to that. And they were no longer working there, so there was no need for the curtain anymore. So that was removed. Sorry about that backup, Joe.
Anyways, just continuing on, that was pretty much --- we came back

out of the mine that day. I went back to --- reported in to the command center and then went back to the motel to get some sleep. I left early because I had been there all night the night before. I got back to the motel and I was just falling asleep when I get a call from --- I believe it was either Bill Francart or C.W. Moore, the ventilation people, that there had been an accident and there were some miners hurt. They weren't exactly sure what happened. So obviously, I turned around and came back to the mine.

I called Kevin Stricklin just to make sure that I wasn't having a nightmare, and indeed it was happening. He confirmed that. So then I went back out to the mine. got to the mine just in time. They had already brought two victims --- two people that were hurt out. And I remained there for the --- while they brought the rest of the folks out.

After that was completed, we made arrangements I believe the next day to have a trailer brought in for the roof control people that were going to be brought in to evaluate the situation, both at the mine site and then we also made arrangements to have a trailer brought to the bore hole site. At that point, because the underground operations were going to be sustained for at least a period of time, we felt that there would be more emphasis on the bore hole site, and we needed to have a more permanent place to work on there. And so that was conducted then.

Later on that week, I do remember briefing the roof control people on some of the work that we had conducted up at the bore hole site. We did a test at the bore hole site to try and confirm how tight the fall had been in the area. We did that by turning on and off the compressors that were being used to

pump air into the mine and trying to get pressure readings. Based on that study that we did, we were able to determine that even with the small volume of air that we were introducing into the mine and the small pressures by the compressors, the fall was so tight that it was easier for the air to come out the bore holes than it was to come out the return. And we shared that information with the roof control experts that were there.

I was pretty much there the rest of the time. Any time a bore hole went in, I'd be at the bore hole. I would take the lead from MSHA as far as taking an air sample at the pipe, banging --- we would bang on the pipe. We would organize the seismic listening equipment. We would drop a microphone down the pipes to hear what was going on. And then, of course, we would report that back to the command center.

I was involved in helping to locate where some of the bore holes were based on some of the information that we received. For example, one of the bore holes that we got, when we were listening we were picking up some seismic signals. We couldn't exactly tell at that time where they were coming from, whether it was equipment or noise, but it was enough --- it was similar enough to someone actually pounding in the mine. It kind of changed some of our decision making on where the bore holes should be located.

Again, I was there pretty much until the --- let's see. I did leave, I guess, on the 30th. August 30th I left to go back home. And I was there for every bore hole in between --- up until that time. I think there were a few after that. But basically by the time I left on the 30th, we already had a hole that was drilled into the area, into that

Number One entry, that was filled to the roof. And it was pretty much the information that we were looking for in that area to understand a little bit better about what happened.

Q. So you were underground on the 14th or 15th. And when was the next time? You were underground twice?

A. Yes. That would have been the day of the accident, the 16th.

Q. Okay. And that was your last time in the mine then; right? Did you ever return?

A. No, I never returned into the mine.

Q. Okay. When you first went into the mine that first day, what were your --- how far did you advance into the mine? What did you see?

A. We made it up to the --- we went to the face area. I don't exactly remember what location in the mine it was at the time, but we went up to as far as they were mining. The --- we were with the roof control

folks. They had spoken to us about, you know, what are the conditions and the --- the face area was very full. I mean, there was a small opening you could see inby, past the miner. I remember the mine operator saying that --- the miner operator saying that it was relatively easy to cut. We watched them set their jacks and all the roof control things that they were putting in place for support. I was very impressed with that area. I mean, I thought it was very secure based on, you know, my observations.

I was concerned outby. After talking with the roof control folks, there were some roof control areas outby that they were concerned about. And in fact, again, Joe, I don't remember whether it was that day or the 16th, but one of the two visits they actually put wedges into some of the cracks and painted them so people could look at them to evaluate that area which was outby mining. And we

talked to the folks up on the --- who were working up on the section about that. In fact, they even moved some additional self-rescuers up closer to the face area for that reason, just in case something were to happen outby. They put in some additional support after that outby, in that area where they were concerned about the roof.

Q. So how was the section ventilated when you were in there?

A. The air was going up the Number One entry.

Q. We have a map here if you'd like to --- if it would refresh your memory.

MR. O'DONNELL:

Mark this Urosek Exhibit One.

(Urosek Exhibit One marked for identification.)

BY ATTORNEY O'DONNELL:

Q. This is a map of the mains

west area of the mine, this being the north barrier pillar, south barrier pillar. We reproduced this map from the AutoCAD that was provided to us by Crandall Canyon. So if you would, the best you can remember, how was the section ventilated?

A. The best I can remember, Joe, the air would have come up the Number One entry, starting somewhere near Crosscut 109, up in Number One, to as far as they were mining at the time. And I don't recall the exact crosscut number, but they were mining on the first day, too. But what they would have been doing is the air would have been coming up the Number One entry and it would have been going inby them, past where the mining was into --- through the crosscuts that were inby into Number Two, Three and Four. I believe they also had a small opening in the crosscut behind them to allow some of that air to go into the Number Two and Three entry from

the crosscut outby. So they needed enough air to mine all the way --- have all the pieces of equipment in the area. And of course they would have a curtain that would have been located --- for example, if they were mining between Crosscuts 120 and 121 in the Number One entry, there would have been a curtain from the outby rib that would have extended along the rib. And this is the rib between entries Number One and Two, up to the area where they were mining.

Q. So you're saying that they kept an air at their back, going over the miner and also a line curtain, prepping it to the last crosscut?

A. Yes.

Q. Okay.

A. That would have been the first day.

Q. So then most of the air then would be traveling down which entry, as your return and then out of the second?

A. Well, the first day I remember going through a door, and I'm not exactly sure where the door was, Joe, whether it's a door at 121 or 117, because I'm not sure where they were mining. But we actually went into the Number Two entry and you could feel the air coming down the Number Two entry. You could see into the Number --- that was the second day that you could see into the Number Three, so I'm not sure. But it would have been coming down --- all the other entries, as I understood it, were common. They were common returns. So you had an intake and the other three entries were a return because my understanding was the stoppings all had been damaged, so it was common.

Q. So you say that there was also some monitoring equipment that had been installed. Where was that located?

A. I can't tell you again what

crosscut, Joe. I don't remember. But it was located between, I believe, the Number One and the Number Two, is where the actual pumps and the tubing ended.

Q. Okay.

A. But the tubing itself would have extended outby, in either the Two, Three or Four entries, and they would have been monitoring --- they had previously installed a sample point to one of the seals. And I'm not sure which seal they breached. I believe it was the one on the Number One entry up in the main west, but I'm not positive of that. We also had one installed --- a seal located at Crosscut --- I guess it would be 107, into the sealed area. And I think we also came back to the same monitoring.

Q. You said that there were some concerns over low oxygen at the miner?

A. Yes. I believe that was more

prevalent the second day than it was the first day.

Q. Where did you --- I mean, just --- you reviewed the ventilation of this mine, I'm sure. Where do you think the low O2 was coming from?

A. Well, I can tell you what we talked about at the time. Early on, the thought was that it was coming from one of the two sealed areas, either the sealed area to the left of the section, somehow that it breached over, or the sealed area to the right. And I don't think we knew which one it could have been. That was our thoughts at the time. And how did that occur? We weren't sure. When we looked at the entry, the Number One entry, it did look like the barrier pillar between the Number One entry and the sealed area to the left had actually moved into the entry or had been compromised in some degree. So would that mean that the sealed atmosphere that was in the

sealed area to the left could actually enter the area where they were mining? I don't know. Could that have occurred on opposite sides, although I never saw the opposite side, meaning the Number Four entry to main west? I guess that was the other possibility, it also could have breached over. We didn't know that. That was our thoughts early on.

Later on someone --- and I can't remember exactly who it was. I believe it was someone from the company and it was then further checked with one of our inspectors out there, that they indicated that after they have these bursts in the past at other mines, in the same seam they encounter low oxygen. And they were associated with other sealed areas. So all that told us, Joe, was it either came from the sealed areas or possibly it could have come because of the event itself. And I can't tell you how that would have

occurred. I don't understand the method that that could have occurred with the roof fall and how that oxidation would have occurred, but that's the information we have.

Q. And these people you talked to, did they say that it continued --- I mean, did they say that when they had this outburst, you had low oxygen, did the oxygen then become normal after a while or ---?

A. We never got into any further discussion on that because I don't think they'd had a situation of this magnitude to deal with. At least the way I understood it, Joe, it was something that occurred at the time. They were able to get back in there and get it ventilated. I don't believe we've had any incident of this magnitude, and so --- was it possible? I don't know. Why would it have stayed there and not been ventilated out? You know, that's a good question.

Q. Who did you talk to? Who told you this information?
A. I really don't remember. I've been trying to think of that so I could help you with that, but I don't remember. There were a number of people that we talked to on a daily basis at the command center from the mine operator.
Q. After the event, did you research this at all and try --- is there any way that --- did you talk to any other people?
A. I didn't. I didn't because I figured the investigation team would uncover that information out and find out one way or another. Because I was just looking at it for the accident and how --- I'm looking at it from the perspective of the rescue effort. And to me, really, it didn't matter. Because if it was coming from the sealed area, I couldn't change it. If it was already in there, we were doing everything that

we possibly could to try and ventilate the area out. I couldn't do anything to change the data, so there was no need to go any further.

Q. Okay. Did you have any input into any of the --- after you arrived at the mine, I know you said that you talked about getting equipment to the mine and that. But as far as any development of plans, did you have any input in that?

A. In the first week?

Q. Yes.

A. No.

Q. Now, what about after you arrived at the mine?

A. After I arrived at the mine, yes, I would have had input as far as sampling or what was going on, in particular, like location of bore holes.

Q. What about the mining plan, ---

A. The mining plan?

Q. --- how they were cleaning up?

A. As far as the usual rock props, the screening, the cable, I wouldn't have had any input into that. I mean, I guess I could have, Joe, if I had something to say. But because that's far out of my area of expertise, I depended on the people that --- we had people that know that depended on in this instance.

Q. What about while you were there, was anyone required to go under oxygen at any time, after you arrived at the mine?

A. You know, Joe, I know that we had someone breach a seal, but I think that was before I got there. And they made an attempt to go back in, a second attempt, and there was a roof fall and some other activities, but I believe that was before I got there. I don't remember a whole lot about that.

Q. It was. You got there on the 13th. All of this happened before. I was just wondering if after the

13th, if there was any --- if you could remember any other time that someone had to go under oxygen or go inby any seal?

A. I'm hesitating because I know there were some issues with sampling lines that needed to be corrected, and I can't remember the exact timing. I don't think we actually had to go inby the seal, but I think we had the teams actually carry their apparatus with them to go into the area. I don't remember.

Q. So who was --- you say that in your absence Kravitz was --- assumed your responsibilities?

A. Yes.

Q. Who would be responsible --- was he also responsible for the mine rescue team's scheduling and operation? Who would be involved in that?

A. Well, that's part of the new job that I have to do that. And of course, then that would be part of

his new job. But since it's all just becoming --- or it's just happening as this event is occurring, we're kind of depending a lot on the way it was done prior to that. So for example, the scheduling of the Mine Emergency Unit, although Jeff would be the one ultimately in charge of it, it would be done more than likely by Virgil Brown for the Eastern Mine Emergency Unit folks that were there, by the western --- Larry Ramey would probably be doing his work. And typically the ventilation would be done by the ventilation folks. I just need to make sure everything was covered. And Jeff would have needed to do that while he was there.

Q. Okay. So as far as the underground operation goes, you weren't involved in any of that planning, any of the ---?

A. The mining was already being conducted. They were already starting up the Number One entry.

They already had a plan in place pretty much by the time I ---.

Q. So as far as bore holes, you were more involved in bore hole ---?

A. In the location of those. I know that I would have been in some meetings with Mr. Murray and Mr. Stickler and Mr. Stricklin on discussing the bore holes, where to put them.

Q. Okay. So you got there --- you said there was already one hole in?

A. Joe, I believe bore holes one and two were already in when I got there. And I believe the bore hole that would have went in after I got there would have been number three. And did number three go in on the 14th or 15th? I don't remember the dates. It's not on the map.

Q. Do you have a bore hole map there?

A. Oh, here we go. I don't know the dates.

Q. But you're saying that --- this is the number three hole is what you were in?
A. What I remember about number three hole is it was chosen because one of the areas, and I would have been involved in the discussion that the pillars between Crosscuts 139 and 142 were not supposed to be mined. We thought that they would be intact. So we thought, based on discussions at the time with the roof control folks, there was an area where we were mining, whether it was in 122, 123 or 124 area, we were going to hit an area of very high cover between where we were mining and where the accident occurred, 139, and that it was going to be difficult to get through that area. But once we got through this very high cover area and we got inby it, that conditions would be better. That was based on the fact that the number one and number two hole was cameraed and it was open.

So it was open enough that you could see some of the entry. You could see, I think, the belt structure. I don't remember what you could see. But I know that it was open. There was like a five-foot void or something in number two.

So it was felt that maybe the area inby that was going to be open. So the decision on number three was if this were, indeed, open inby Crosscut Number 139, and if the miners were going to barricade, where is the most likely place they're going to go. And if the ventilation controls were in between number three and four and between Crosscuts 142 to 149, that would be an ideal place to go, and you would have to build less barricades and it would be a large open area. So that was the reason for putting bore hole number three at the location that we did.

When bore hole three went in, we did get --- the readings will

speak for themselves, but the readings were like 16 or 17 percent oxygen. It was high enough that it could sustain life at that point. But as I recall, our seismic array was located throughout the general area, and that means from like 148 down to 139. If I remember correctly, we had a sensor somewhere near 142, near the Number Four entry. That was the sensor that was picking up the vibrations. And we couldn't tell at that time what those vibrations were. They weren't consistent. In other words, like pound ten times. They would say pound three times and try to get some number back, but they were enough that they looked like someone pounding. They were the right amount of time apart.

The fourth bore hole was going to be somewhere in the Number One entry prior to that. Based on that noise that we heard on the seismic,

it was relocated to where it was.

Q. Have you had any experience using the seismic equipment in the past that you could reference what you were hearing?

A. Yes, I had --- I had practice with it earlier on in my career. We were actually going out on field studies with it and had seen what pounding looked like. I had used the mini seismic at QueCreek and thought we had heard some vibration from the miners at that point in time. So I knew what the expectations would be to look at. My job at that time was the --- and I was the guy that got to pound on the roof underground. So I didn't get to see them actual, but I got to see the pounding, what it looked like when it came to the surface. So I saw what the seismic graphs looked like. And that's what this looked like to me.

And of course it looked that way to Jeff Kravitz. He was there.

He was on site. And he evaluated, along with John Gibson and --- I'm trying to think who else --- Tom Barkand was down there.

Q. So initially you believe that you did hear something. What made you decide --- how did you conclude that it was incidental noise, or did you?

A. Again, I didn't, Joe. At that point in time I know that they actually sent a helicopter out to pick me up. I went to the seismic truck. I picked up the actual graphs, went back down to the office. I briefed Kevin Stricklin, Mr. Stickler, Mr. Murray, on what we saw, told them what it was. Obviously, we couldn't say that it was --- for sure what it was, but it was enough that I felt that the bore hole --- we tried to talk about locating the bore hole in an area close to that, and that's how the number four was chosen.

Q. So based on the information

you received, you drilled another bore hole.

A. Near the number four location.

Q. Did you ever hear any of those noises --- or those sounds again?

A. Jeff Kravitz later evaluated that noise or the signal as, per se, as well as other signals that were occurring. And I think that ultimately he determined that it was a noise of the --- on the pipe or something. He can answer whatever --- the truth of whatever he said. But he didn't believe I think after that that it was someone pounding. It was some type of strange noise that we were picking up.

Q. Just to give us a better understanding of how this system is set up, what are the components of the seismic equipment that you were using? How was it set up? How do you --- a monitoring system, is it a --- just explain to us how that system is set up and monitored.

A. Well, Jeff Kravitz will give you a much better picture of it because that's --- he's the expert in that area. From a layman's terms, it has devices that measure the seismic activity or the earth moving.

Q. Do you put out probes?

A. Arrays, yes. They put out multiple arrays in the area.

Q. Okay.

A. And they connect those through telemetry back to a vehicle that has a computer that picks up all this data that's sent from the geophones that are in these arrays. And then it evaluates that data. And you look at different locations to try and triangulate any sounds that you would hear from underground. At this mine we all knew that the depth of the mine was at the limits of what the system would work, the upper limits. We knew that going in. We knew that noise was a factor. In fact, walking softly near one of these arrays would

generate a signal similar to, I was telling you, someone pounding.

Q. So whenever you were set up to listen, were there quiet times established underground and on the surface?

A. Well, at the time --- not underground. I believe during bore hole three we were still working on. Not at the time bore hole three was done. There was quiet times at the surface. We did not stop the operation. I don't remember us stopping the operation underground, Joe. And I think the decision was it was too important to stop.

Q. Would you be able to pick those sounds up from these geophones?

A. I believe that that would create some noise, yes. Jeff could describe that better than I could.

Q. Do you know if the mining activity was picked up?

A. Jeff would be the one to answer. But that would have only

applied to bore hole three, because every other bore hole was drilled after the event, so there really ---.

Q. No activity underground. I understand that. You said something about a mini seismic. That's different than the seismic equipment that was being used by the truck?

A. Yes. There's a mini seismic --- it's a small version, less complicated. It basically has the computer in a small box and you just take the geophones right away from it. In other words, it's got cabling right to the sensors. I actually believe that before I got there --- or I heard that they took it underground and tried to use it. I don't think they had any success.

Q. How would you use it? You would go --- what would you do, take it in as far as you could go and then set the probes up?

A. Yes. And you would try to signal the best you could by yelling

or pounding on something.
Q. Do you know what the limitations of that unit are?
A. I don't know the exact limits, sir, no, I don't. Jeff could give you a better --- but it's much, much, much less than what the full seismic system is.
Q. Now, you briefly discussed the drilling into the mine opening and determining the void and the tightness of compaction and all that. What was your protocol, if you had a protocol, on drilling the hole and then determining what you drilled into?
A. Well, the drillers, in conjunction with the company, were experts as far as the drilling. What they came up with was they would drill down until they lost their water or their air, and then they would stop the actual drilling.
Q. So when they hit that, that told them that they were in?

A. They were in some type of void.
Q. Okay.
A. Then they would just put pressure on the drill itself to get through --- they knew there was a wire mesh on the roof.
Q. Pressure, meaning just straight-down pressure?
A. Straight-down pressure. And it would take a certain amount of pressure to get through that wire mesh. Then there would be less pressure if there was a continued void. What we would do, because the concern was that there could be a person actually there, you know, because if their lights went out or whatever and they might not be able to see this. They would take it down in two-foot increments. We would go through a series of pounding on the pipe --- on the drill steel and listen both with the seismic and also we had a microphone that we would

use. And then we would actually put our ears against the steel pipe and listen. We would pound and listen.

Q. Where would you put the microphone?

A. We would put the microphone up against the --- the steel at that point ---

Q. The drill casing?

A. --- and they would later put it inside the drill steel after it was disconnected, after we got already to the bottom.

Q. Sort of like putting your ear to a rail?

A. Yeah.

Q. So you would put that onto the drill steel?

A. We tried that at first, but later we stopped that because it wasn't very successful. We just listened early on.

Q. So you would go down two feet?

A. Yes.

Q. And how many times would you

pound?
A. Well, we would do it multiple times. We would pound three times, then we would pound six times. We would do probably three series, and then we would go down another two feet.
Q. How long would this process take, this --- you know, run down two feet, now we started to signal, how long did we do that before you went down two more feet?
A. Well, again, it would depend on how open it was. If it was six feet, it would take, you know, three steps to get to the bottom. Each sequence would take, I don't know, Joe, ten minutes, something like that.
Q. And where would you stop?
A. Well, it would continue down and go another two feet, and we'd go through the sequence until they actually --- the drill would no longer go down, at which point what

they would do is they would begin just turning the drill with very little pressure. And the thoughts were if it were unconsolidated material or the same type of material we had seen underground, the soft coal and rock that had blown into the entry, that it would turn very easily through that. And they would do that until they encountered hard material, meaning the bottom, at which point what they would do is then they would turn on their pressure and turn the drill rig and put pressure on it to actually drill into the bottom, knowing that they're into solid material. And that would be the sequence they would do for each hole.

Q. You also mentioned air, forcing air into the hole.

A. Yes.

Q. Describe that.

A. Well, after the holes were completed, we would have --- we had compressors that were located at

various holes at various times. And of course that would be part of the log as to which ones were running. Early on the company had told us what volumes of air that they were putting into the mines for these compressors. After a few days, we started to question the numbers. They were higher than we thought compressors normally would run. After we did some work to --- go back to Pittsburgh, had them pull up information on the compressors and what they're capable of, we realized that the volume of air that they thought --- we all thought we were putting in the mine was much less than what we were really putting in the mine. I think we were thinking these compressor --- they were telling us they were putting in like 9,000 CFM or something to that ---. In reality, they were putting in like 1,500 CFM or somewhere in that neighborhood.

MR. BAXTER:

Why did they make that mistake?

A. The mine engineer that they had, I had asked him about it, and he told me that he had done a series of calculations, they were back in his office, that based on the expansion of air and the way the compressors were operating that this was correct. And the engineer, Dave Canning, I've worked with him in the past. He's very knowledgeable. Usually he does his homework very well. So usually if he told me something like that, I didn't need to double check it.

It just didn't seem right, so eventually we did double check it and found out we just didn't agree on the number. He still stayed with the number that he had, but we didn't agree that that number was correct.

BY MR. O'DONNELL:

Q. John, how was it documented whenever you did penetrate the seam?

Was there --- did someone document at two-foot increments what you found, the amount of material?

A. There was an inspector with us on each hole who --- well, he would report back all the information that was going on. In addition, the company --- communications were a bit difficult in that the company did have radios with a repeater system, but it was easy to hack into. So any information they would give on the radio would be public very soon. So we depended on the satellite phones and we would come back to the log at the command center.

Q. And ---. Go ahead. Sorry.

A. I would personally call back and talk to Kevin Stricklin, who was at the command center when they went in, and I would tell him the results of what we were doing.

Q. Now, you say that men were working in the mine for one, two and three.

A. Well, I don't want to say about one and two. I believe they would have been because they were ---.
Q. Right. This was before.
A. That was before.
Q. But you were there for three and four also?
A. Oh, yeah. I was here for four --- four they weren't working in the mine.
Q. Right. But three they were. Do you know --- how was that communicated with the command center and the fresh air base? Were men withdrawn whenever the seam was penetrated?
A. Joe, I ---.
Q. Did they stop the operation?
A. I don't think so. I don't think so, but I'm not sure. I don't think so.
Q. The number three hole, you said you were there for all of the --- let's talk about the one and two

hole. What can you tell us about the one and two hole? Were they intaking or were they blown?

A. They were --- based on the survey that I did, if you were not putting compressed air into any of the holes --- the holes were all intake, okay? If you were using the compressed air --- all the compressed air that they had at the time they did the survey, all that information, and I won't try to repeat it because I don't remember, but there is a record of that, if you had all the compressors on, then the holes would exhaust. If you just had one of the compressors on, I believe the fresh air would --- that the holes would continue to intake.

So what that --- that led us to believe that there was a blockage somewhere between where the holes were and where we had stopped mining at 126 that was so tight that the air would rather come up the bore hole

than go back out of the mine. It was just the resistance.

Q. Did you ever try to determine flow between, say three and four bore hole or four and one and two?

A. We did not use SF6. That was discussed early on. I think it was discussed before I got there with thinking of trying to inject SF6 into one of the sealed areas to see if we could pick it up here. But because of the --- so many unknowns and --- it was determined that it would not be likely that we would be able to tell anything. The problem with SF6 is when you're looking at an area that has very little ventilation, you only get one shot. Once you put it in, it stays there. And I would --- I think I would have been part of the decision to not do the SF6 study because I felt where they were talking about injecting it, which I believe was at the seal, ---

Q. Number One seal?

A. --- Number One seal in the main west, if we injected it at that location, it would contaminate all the returns from that point outby. And if it did, the likelihood of it going all the way up to where we were sampling, up to Number One and Number Four, with the limited amount of airflow that we had seen that was up there, that it wouldn't --- it wasn't going to go that direction. We wanted to save it for future operations in case we could --- you know, if there was something that came up ---

Q. Right.

A. --- in the future, we could use it and actually determine something. That's what we were saving it for rather than once we put it in, we screwed up.

Q. So was it ever used to determine communication between the holes in the south barrier pillar?

A. It never was.

Q. Okay. Why?
A. Because we never came to an instance to --- where we could --- felt we could have a successful study with it.
Q. In other words, there were no holes drilled in the main west area adjacent to, say, Crosscut 145 that you could determine. There were no holes drilled in the gob to the left, which you could sample and, say, bore holes one, two, three and four to make that determination, if the flow was actually going in that direction.
Drilling was tough. I mean, it was hard to do. There was only one drill that Mr. Murray had available, that he made available for the operation. And it was more important to use the drill for holes for the rescue than it was to --- I'll call it for the investigation.
BY MR. O'DONNELL:
Q. How many of the holes --- you said you --- let me just back up.

You said first you put the mic on the drill steel but later you dropped it into the mine?

A. What we would do, we tried that, and it really wasn't giving us any more feedback than we could get just by listening. So what we would do is when the drill steel hit the floor, they would uncouple it at the drill rig and we would lower the microphone down the drill steel. Now, the drill steel had a directional bit on it. The directional bit was --- the directional part of the bit was quite a ways away from the drill bit itself, like 40 feet. So when we dropped the microphone it would only go down to where that directional device was, which was going to be 40 feet or so above where the bit was.

So we knew we were not listening in the mine, we were some distance in the bore hole, but we felt that we could get a better ---

we could hear better. And that was part of our procedure.
Q. After the drill bit was pulled out of the hole, did you ever drop a microphone into the hole?
A. We would drop a microphone and then a camera.
Q. Okay.
A. And they would be in different orders depending on what was available at the time.
Q. And how successful were you with that?
A. The camera, we were able to obtain information from three, I believe four. I don't think we were able to obtain any information from five and six because the holes --- both five and six, when we drilled into those, were pretty much solid. In other words, there was very little void. And when we finished our ---.
Q. Solid coal or rubble?
A. I believe it was rubble because it --- what happened was you

would do the same thing. You would drill into it, you would lose your --- a lot of your air. And they would stop and they would have to apply pressure to get through the mesh. So they would apply the pressure, and on one of the two --- and I don't remember which one it was, on one of the two the --- there was a small void. They put the pressure, they went through the mesh, and within inches they were into what they felt was gob, gob material. And of course, then they drilled down through it and hit the floor, and then they came back up.

On the second hole, and again, I don't know whether it was five or six, which one it was, there was very little void, if any, when they went through the mesh. I do remember that I believe on both holes they tripped out with the drill steel and went back in with the camera, and I believe both holes were full of water

and the camera was unable to get even to the bottom, where we were. So that just shows you what we thought, how tight the hole was. All the holes made --- when I was there, all the holes made some water.

Q. You're saying this hole made water and it was so tight that it filled the hole up?

A. It started filling the hole up.

Q. Okay. What about the other holes? You said you did have some success with the camera.

A. Three and four we were able to see the entry for a ways on both cases. I think we were able to see actually what was left of the ventilation control in between number three and four. And I can't remember which hole we saw the ventilation control from. Again, the film will speak for itself as to what we saw. But I know that we did see an opening in both of those holes.

MR. O'DONNELL:

Let's take a short break.

SHORT BREAK TAKEN

BY MR. O'DONNELL:

Q. John, when you arrived on the property, was there a command center already established?

A. Yes.

Q. And who was there?

A. Well, on the first day I was with Kevin Stricklin and Mr. Stickler at the family briefing, so they weren't there yet. I got there at the same time they did. I believe Al Davis was there, because he did not come to the family briefing that day. And I believe it was staffed with District Nine personnel. I'm not sure exactly who was all in there at the time, but there was a number of people in the Blue Goose.

Q. Maybe Genwal people? Crandall Canyon Mine personnel?

A. Not that I recall.

Q. Is that typical?
A. No, it's not, but it was a different type of operation than they normally have. Normally when we're doing these types of --- I don't want to say these types. Normally during a mine rescue, where mine rescue teams were traversing into the mine with a --- which when you compare it to this event is a very rapid pace. In other words, we're looking at crosscut to crosscut. We're going a crosscut every half an hour or whatever it may be. But in this case, because it's actual mining, the conditions are very, very slow and we're doing a crosscut a day. The command center wasn't, per se, all in one place, running the operation. When something would come up, they would get together. They would either get together in the Blue Goose, they would get together outside the Blue Goose or they would get together in the trailer that Mr.

Murray had brought into the location. And that's where oftentimes the meetings were held. This is after I got there. And that's how it was for the basic two or three days that I was there with the underground operations.

Q. Did you feel that the system was efficient?

A. I didn't see any reason to make any changes when I got there. I mean, it was already in place. It seemed to be working. They were working underground. There was communications to underground folks. There was communications to the drill hole folks. So I didn't change anything.

Q. You said you talked with Kevin when he first briefed you. What did he tell you? What was the nature of the briefing?

A. He told me, you know, what had been going on at the mine, where they were. He told me about the family

briefing which would occur the next morning and how that would typically occur, you know, where we would sit and that it was being given by Mr. Murray or his representative, and Mr. Stickler would actually do the talking. So it was really just a protocol as to what to expect the next morning.

Q. What did he tell you happened? Did he tell you what happened? Did he say what occurred? Did we have a bounce, a bump?

A. This is on the 13th?

Q. Yes. What was going on?

A. I had already spoken to --- well, I spoke to him on the day of the accident, which was, you know, a week before that, and I had been in contact with the district, so he didn't need to bring me up to speed with where we were at that point as far as the basics. You know, I didn't keep track of every detail that was going on or plans being

approved, but I knew basically where we were underground, we were mining, those type of things. So he didn't need to --- he didn't go into that with me.

Q. Nothing had changed at all?

A. He just told me where they --- you know, that they had a plan, they were underground, you know, they were mining, here's what they were doing and generically, you know, what they were doing. He didn't get into roof control issues or anything.

Q. Who directed you, though? Who was the primary --- who was the man in charge of the operation? Who was the guy running the show?

A. Oh, Mr. Stickler.

Q. And was he also the primary spokesperson or communicator or was that shared by people?

A. Well, Mr. Stickler was in charge, and he would be --- or if he designated that Kevin were to do something or Al Davis were to do

something, he would --- they would do what he told them.

Q. What about for the company?

A. For most of the meetings that I was at, Joe, Mr. Murray was present and Mr. Murray was the senior spokesman. There were oftentimes that he would designate --- I don't want to say oftentimes, but there were times he would designate someone else in his hierarchy to do --- you know, give the family briefing or whatever it may be. But I mean, Mr. Murray was the senior representative.

MR. BAXTER:

If I may, how did you know that Mr. Stickler was in charge of the accident activities? What made you think that?

A. I guess just in the past it's always been the most senior MSHA person there is the person that is in charge of it. Now, sometimes in the past the person will play a more

behind-the-scenes type position, where they're the designee. For example, the district manager will give the family briefings or make the technical decisions. In this case, Mr. Stickler was very knowledgeable in mine rescue and he played more of a visible role in that. And I was --- at least in my mind he was in charge.

Q. Well, when you came onto the property you said that Jeff Kravitz had assumed your duties in your absence. When you came there, did you relieve him of his duties, and what was his role then after that?

A. After that, he pretty much dealt with the seismic system and keeping it operational. He also --- later on we decided --- MSHA decided to try and get a robot that we could actually put down the bore hole, and Jeff stayed to handle that portion of the activities.

Q. So did you direct him or are

you pretty much on an even playing field, he just has different responsibilities?

A. He has different responsibilities. I would be the senior person in charge of the operations as far as Technical Support would be concerned.

Q. Okay. We talked earlier about the seismic truck with the monitoring of the activity that was going on through the geophones. Were there any graphs as a record? Is there a printout that tells us --- that gives you the information that you can later analyze or is it stored on a hard drive? How is that information recorded?

A. Both ways, Joe. I believe they have a --- it's stored on the computer and also they have a printout that comes out.

Q. And do you know where those are?

A. I would assume that they still

have them, Jeff has them and they're probably still with the unit. I'm not sure if they download it and put it somewhere else or it's still on it. I don't know.

Q. But do they also keep a written log or is it just a recorded log?

A. I know that the printout that comes out, I've seen him write on that, Joe. Whether they keep all those, I don't know, as they go along or they ---.

Q. Okay.

A. But I know they keep it digitally. It's on a computer.

Q. We'd be able to access that if those ---?

A. I don't see why not.

Q. Okay. I don't know if --- I'm trying to remember here. Let's go back on the time that you said that you heard those --- thought you heard some type of activity in the mine. When did you hear that? How did you

become aware? Did Kravitz tell you, hey, I hear something on the seismic or was it after you had drilled through a hole or when did that happen?

A. That was when we were I think in number three, Joe. And what we would do is we had a radio, a handheld radio, that we could talk to the seismic truck on. And we would be talking to them about, hey, we're going to pound on the pipe ten times, listen now. And then that's what they would do, and they would listen.

And then I think what actually they did is they called back and they said, could you call us on the satellite phone. I think I actually --- rather than them repeating them on the radio, where it could be picked up by other folks, they called and said, hey, we're getting something or something like that.

Q. How far was the truck from where you were at?

A. The truck --- where the bore holes were located were on the mountain --- on one side of the mountain. And the mine itself was actually on the other side of the mountain. There was a valley adjacent to the side of the mountain where the bore holes were located, and the truck was located in that valley. The reason for that is if they locate it in the valley, because the information from each array, which is located up near the bore holes, is sent down via telemetry to the truck. It's a straight signal down over the hill to the valley. So it's an easier communication mechanism than if it were up on the hill somewhere. That's why it was --- so it was away from where we were at.

Q. It's a wireless system?

A. Right.

Q. So you were here. You were drilling that hole?

A. Yes.
Q. They called you and now where was the hole at whenever you got the call? Where is it ---? Did it already penetrate?
A. Oh, yes. This would have been the --- the seismic test, we would have been doing a seismic test every two-foot interval.
Q. That's what you were doing?
A. And then also at the end we would repeat that. Once the steel came out of the hole, we would repeat it again. On one of the holes, Joe, and I believe it was number four, but Jeff can give it to you more accurately, ---
Q. Okay.
A. --- on one of the holes we actually --- when we did the seismic test, we actually set off explosive charges and listened for noise after the explosive charges, exactly the way it says to do in the hard hat. But I don't --- I don't remember at

this time. I don't think it was number three. I think it was on number four hole we did it that way. We set off explosive charges and listened for that one.

Q. Where did you set the charges off at?

A. They were on top of the mountain. In relation to where that is in the mine, I'm not exactly sure.

Q. Who took care of that? Were you involved in any of that planning?

A. Well, I would have been --- to some degree, Joe, I would have at the bore hole site when that occurred, but it takes a blaster ---. We would work that through the company.

Q. Are the holes predrilled?

A. Yes.

Q. And do you know when those holes were drilled?

A. The holes --- you mean where you put the blast?

Q. The blast, the sinker holes.

A. That had been done previously,

and I don't know exactly when that was done.
Q. How many holes were drilled?
A. You'll have to ask Jeff.
Q. How deep were the holes?
A. Again, Jeff can give you that answer. I wasn't involved in that.
Q. Do you know how big the charge was?
A. No, I don't. Dave Canning may also be able to help you with that because he was involved also.
Q. Do you know, this date that they set off the blast, what date was that?
A. It would be --- it should be in the record, Joe.
Q. Okay.
A. I'll let it speak for itself.
Q. Do you know if they ever set any charges off prior to you being there?
A. No. I believe we only did that one time.
Q. So this was the first time

that these holes were --- the first time that signal blasts were sent?
A. I believe that to be true.
Q. If the holes were predrilled prior to this and now it's sometime after the 16th, would you say, is that ---?
A. Yes. I believe this was after the 16th, yes.
Q. Why were you signaling --- why didn't you signal before?
A. Well, in the week before, again, I don't know exactly why we didn't do it, but I suspect that the reason that the command center chose not to do that is it takes a --- if you're going to do that, it takes a quiet period. And I know that we --- it was very, very important before the 16th that the effort underground, all resources were being used to keep that going. And I don't think they wanted to stop it for a silent period to do the blasting. When you consider that, I agree with the

philosophy with it, and we talked about that at the time because we know if the miners are alive, they're in front of us. We're doing everything we can possibly do to get to them. We know with the depth that we're not going to be able to triangulate any better than to know that the miners are somewhere in this zone in front of us, so we couldn't change our bore hole locations based on that. So the only thing we --- the best decision is to get to them as soon as possible, and that's what we were doing. We didn't want to delay that for any reason.

Q. So you --- after --- I mean, this was after there was no one in the mine; right?

A. After the 16th, right.

Q. So you were setting charges off to try to locate the miners. Now, what was the plan then? Was there an alternate plan ---

A. Well, at some point ---.

Q. --- if you would have heard anything?

A. At some point, Joe, after the roof control experts confirmed that it was unsafe to re-enter this portion of the mine, the only mechanism left to get the miners would have been to drill a large-diameter hole. The decision to drill that hole obviously would be a decision by the mine operator because he's the one that contracts to get that hole. And the decision --- his decision was that hole will not be drilled unless there were signs of life. We were part of the decision that unless there were signs of life in the mine, we were not going to put people at risk either through a bore hole or going back into the mine to get them.

In other words, the way the roof control experts laid it out is it was unsafe in this entire area. So whether you come into this area

from the outside through the main entries or you drill a bore hole and drop someone in through the hole, it's just as unsafe either way.

Q. Was there ever any preparation made to drill that hole with getting a rig en route or any part of the equipment flown to the property in anticipation of drilling?

A. Again, I think Mr. --- again, I just have to speak to what he announced to the families. I believe he announced to them that they had located this rig and it was on standby to come to the site if it was necessary. Part of the drilling of that rig --- or the drilling of that hole, because of the depth that you're looking at to do it, it would take a substantial pad to do that. So there would have --- had we discovered signs of life, the philosophy was there would be ample time to get the drill rig there because we were going to take that

time to get the site prepared to put the drill rig on it.

Q. When do you think that was going to happen? I mean ---.

A. If there were signs --- if ---?

Q. Where in the operation would you say, let's get this truck out here?

A. Up until the 16th the effort was, we were going to get there from underground. After the 16th, it was only if we found signs of life through one of the bore holes that we were drilling would that occur.

Q. I understand that it's the mine operator's responsibility to provide the equipment for this. Do you know if any kind of arrangements were made to have it ready, to be there, that it was contracted or ---?

A. My understanding, it was located and ready to come to the site if needed.

Q. And where was that at, do you

know?
A. Where was the drill rig at, Joe?
Q. Yes.
A. I don't recall. Someone from the mining company could tell you for sure. I don't know if it was in California or ---. And I don't know why California comes to mind, but somehow it's stuck there.
Q. How much time would it take to drill one of these eight-inch holes that you were drilling? How long did it take?
A. Well, again, the record will speak for itself, Joe, but I'm ---.
Q. Two days?
A. Somewhere in that neighborhood, two days.
Q. So how much time would it take to drill a 24-inch hole?
A. I heard estimates of anywhere from 18 to 40 days. And there was some work that was done I think by Virgil Brown. Someone had asked him

to look into what type of hoist you would actually need to drop the capsule 1,500 feet, you know, to actually use it, and he had looked into that. So in addition to the time necessary to drill the hole and get all the preparations available to that in case of --- it was going to take a period of time because it was going to take a fairly large crane --- it was like a crane --- it was going to take a vice, not a crane, to actually get it lowered.

Q. We're talking 1,800 feet?

A. Yes. So it would take time to build a pad and anchor this in and all that.

Q. So early on in the operation --- you know, was there this alternate plan already in place? Why were we waiting?

A. I can't tell you what went on in the first week. When I got there, there was no real discussion of that large diameter of hole because up

until the 16th --- prior to the 16th, there was really no discussion of a large-diameter hole.

Q. Okay. You mentioned a robot. Did you --- are we referring to a down-hole robot?

A. Yes. One of the things that I probably failed to mention that we also dispatched to the site was all of MSHA's robots. We have two of them. We have a large one and we have a large --- large, meaning about the size of half this table, and we have a small one, which is maybe a quarter of this table, that were both at the site. The robot I'm speaking to is we contracted to a company to supply us with a bore hole capable of going down one of these eight-inch ---.

Q. Let me just interrupt you. This is nothing that we have used before? This is something new?

A. Brand new.

Q. Let's go back to the robots

that the agency has. Were they ever utilized in any way?

A. They were not, as I recall. I can tell you that on the day --- on the 16th, when I went underground and when Laine Adair and I had looked into the Number Two entry and I looked at the opening at the time in the Number One entry and there was a small opening that you could see a distance, it was my plans the next day to speak to the command center to ask permission to use our small robot in an attempt to go in either the Number Two or Number Three entry or Four entry and try to go further into the mine, knowing that if --- the attempt to do that and the approval to do that would be that I probably couldn't get it back. I could probably take it a crosscut or two or three ahead of where we were, but I probably couldn't get it back. So it was going to be a pretty major decision to do it.

Q. Well, based on your observations, not just considering whether you were going to get it back, did you really have a feeling that it would be successful or not based on what you saw? Did you think it could get through?

A. Well, what I was hoping, Joe, was what I --- what we were --- based on the premise of the operation that we were going to be going through the mountain. And once we got to the other side of the mountain, that we would be hitting an open entry. And my hopes was that maybe one of the other entries would have enough opening that maybe I would get an open that could go even further. And if that was the case, that would be a good thing. But realizing that it may not happen, I may get it to go one or two crosscuts if it had continued as it had. What happened was the entries between the crosscuts were very full. The crosscuts

themselves were, you know, open because there was no material in front of them. So I was hoping that maybe in one of these other entries that we have better conditions, but we never were --- after the 16th, we never went back in. And it would not go any great distance. I knew it wasn't something that I could use from the mouth of the mine ---

Q. Right.

A. --- into that location, so it had no use.

Q. Okay. So then based on your observations, the conditions that occurred, results of drill holes, encountering the rubble, you felt it wasn't going to be able to get anywhere anyway?

A. We had talked and in the command center there was discussions that, again, based on the premise that we're going to go through this mountain, once we get through it, we already made discussions that if we

ended up with an opening that was large enough and the stability of the area was good enough, that the possibility of sending rescue teams ahead of where the miner was at some point. So that discussion was already on the table if you encountered an open area that you could get in there to do that. But we never --- up until the 16th, have never encountered that open enough to do that.

Q. So you contracted this --- have you ever seen a down-hole robot before or how did you become aware of this? How did you know it even existed?

A. Part of the new duties that Jeff Kravitz and I have, I'm supposed to make things work out at the site of a mine emergency and he's supposed to look for new technology. We had been looking for new technology. In fact, the robot that MSHA has, we had attempted to use it at Lake Lynn in a

large diameter bore hole, with little success. But we are working on trying to improve that at this point in time.

So the philosophy of dropping a robot down a bore hole has been around for a long period of time. So when this event occurred, of course, Jeff had contacted some of the folks that he had been dealing with and this group that we ended up on felt that they had a robot that could be used in this situation. It had never been tried in this type of situation. It was more designed for going into pipe, the vertical pipe --- or horizontal pipe. So because we were willing to try anything at this point, it was attempted.

Q. So how big was this?

A. It was about eight inches and the holes were about eight and three-quarters.

Q. And how large was this? How long was the thing?

A. The robot itself is only about two feet long, complete with the tail that it had on it. It had a cable originally that was a thousand foot long because the discussion was that once this thing got into the bore hole, we would want it to go a thousand feet. At the end of a thousand feet was a device to change the signal from an electrical signal to a fiberoptic signal and it was --- as I recall, that device was probably about eight to ten feet long and about four to six inches in diameter. And that had to go down into the hole, too. So you would have the robot, you would have a thousand feet of cable and you would have this device, and then you would have a cable beyond that that connected to a control.

Q. Do you have any photographs of this robot?

A. I do not. I'm not sure if Jeff has any or not.

Q. If there are any, we'd like to have them and any kind of information that you have on this robot, too.
A. I'd be happy to provide it.
Q. Okay. So who was the company that provided the robot?
A. Jeff Kravitz can provide all that.
Q. Okay. Were you there when they dropped it?
A. Yes.
Q. And how far did it get into the hole?
A. Well, the first time we tried it ---.
Q. Now, this is a clean, uncased hole?
A. It's a --- yeah, an uncased ---.
Q. Bald-headed hole?
A. Yes. The first time we tried it, it --- I'm just trying to think, Joe, so I can get the time correct.
Q. Well, which hole did you put it into? That was the next question.

A. The discussions were between three and four.
Q. Okay.
A. And we tried one of the holes first, and I can't remember which one it was. But as we were dropping the robot down the hole, it --- the mechanism that we were using to hold the robot on like a tripod, it failed and the robot just dropped freefall down the hole. And we had to pull it back up and retrieve it. Remembering that this robot was not designed for this use, so in order to try and make this go --- allow it to go down a hole, everything had to be developed on site. And it took a lot of effort to try and develop that, and it wasn't a foolproof system.
Q. Was it a heavy ---? How heavy was the robot?
A. I don't know the exact weight of it, but when you put it at the end of a thousand-foot cable, it was very heavy. I mean, you couldn't hold it.

Q. Twenty (20), 30 pounds to begin with?
A. I would say 10 to 30, somewhere in that range. Yes, it was enough that ---.
Q. You would need a tripod and a hoisting device?
A. Yeah. And we had to --- because of the thousand foot of cable that was in between the robot and the transfer device, we had to rig a series of tripods to be able to winch the robot down --- allow the robot to go down the hole slowly and also be able to winch it back out. So it was rather complicated arrangements that we had there to do that.
Q. Did this thing have a --- did it have a camera on it?
A. Yes.
Q. And a microphone?
A. Yes.
Q. And did you film any of it going down the hole?
A. Yes. Yes, we did.

Q. Okay.
A. You can watch it actually go down the hole.
Q. And when it dropped?
A. I'm not sure. When it dropped suddenly --- they may have the footage of it dropping for a period of time. But when it stopped, because we were able to catch it with a winch, it severed some connections inside ---.
Q. Because I was wondering what stopped it.
A. Yeah. It came loose from the tripod directly above the hole and just --- it --- all the cabling went to the top of the hole and then it was stopped by the cable and went back to the truck.
Q. So were you able to retrieve it?
A. Yes.
Q. And made repairs?
A. Yes.
Q. And made another attempt?

A. Yes.
Q. Okay. What about that attempt?
A. I wasn't there for the second attempt to do that, but I do know that they did get it into the mine. They weren't able to go very far. The robot itself was very low to the ground.
Q. So it was functional?
A. They repaired it and it was functional.
Q. I mean, it got into the mine opening?
A. Yes. And it went a very small distance, but it bottomed out.
Q. Small, how far?
A. My understanding is it was just a few feet.
Q. Okay. And there is some documentation on that, film documentation?
A. I believe so, yes.
Q. How did you retrieve the robot?

A. We didn't. We attempted to pull it back up the hole after, you know, it wouldn't go any further and the hole had shifted to some degree. And they tried all --- various efforts to try --- they brought it out part way.

Q. Oh, you did? You got it into the hole?

A. Got it back into the hole. Got it part way up to the surface. Jeff can tell you approximately how far they got it. They also shortened the tether on the second one. And I understand that instead of having a thousand foot between the robot and the device, there's only like 300 and some feet or 400 feet. They brought it --- I believe they got the device out, but the robot itself they couldn't get out. And they brought in a company to try and wash out the hole, flush it out, suck it out, different things.

Q. You say it got stuck after it

was in there several feet, right, into the mine opening. Did you try to pull it out and start it off in another direction?

A. I wasn't there when they did that. Jeff could tell you about the success with that.

Q. Okay.

A. I don't know why they didn't try other ways, Joe. I think it was just because of the nature of the way the tracks and the cats were made. The cats were just so low to the ground that there was no clearance. I mean, it just wouldn't --- it wouldn't go. Anyways, it got stuck in the hole. And as a last result, they just put all their muscle to it and basically broke off the cable, and it's still in the hole today.

Q. I wasn't clear on the --- when you were monitoring the holes. We talked about forcing --- that there was a sequence of forcing air into the hole, whether it was intaking or

exhaust. Did you say when there was no compressed air going into any hole, all the holes would intake? Is that what you said?

A. Yes.

Q. And then when you would induce air into one hole, did you say that the other holes would exhaust? Is that what you said? You have to clarify that for me.

A. There's a record of the tests that I did. I gave it to the command center, about the data that I have. So hopefully that's available to you. But it will show --- Joe, and I don't remember whether we had two compressors on the site at that time or three, but I did multiple tests with no compressors running, with one, two or --- if there were three running, and then I have the results. But the results were with no compressors they would be acted upon by the mine fan and it would ---.

Q. Intake?

A. Intake.
Q. And when all of them were running, they would exhaust. So that told me that they were connected to the mine ventilation system because the intake was due to the mine fan. When I was pushing air down the bore holes with all the compressors, the volume of air that I was putting in was enough such that it was easier for the air to come back out the bore holes that were still open than it was to go down through the rubblized zone and out to the mine face, which told it was --- at least that was the thought that I had, was that the area was very tight in front of us.
Q. You said you had some concerns with the outby areas.
A. Yes.
Q. What were they and why were they concerns? You said that there were some cracks in the roof; right?
A. Yes. And that was from the roof control folks. They were

underground with us on one of the visits and they were concerned. And of course, if they're concerned, I'm concerned. Again, I'm not a roof control expert, but they were concerned about the cracks that they saw, so I was concerned. And I talked to MEU folks that were underground. That day I remember talking to them, specifically saying to keep an eye on this area. And in fact, I think they went back with the roof control folks and actually looked at the area about that. And then subsequently there was some additional support I believe put back into that area.

Q. So you thought that the roof conditions behind you were changing?

A. I don't want to say they were changing, Joe, but they were concerned with it. The roof control folks were concerned with it. I don't know if they felt it was changing. They had --- I know they

had developed sag stations in the additional entries, and they were checking those to make sure that the roof wasn't --- anything wasn't changing there. This wasn't in relation to the sag stations. This was in the Number One entry that they were --- they had that concern with.

Q. Now, you were talking --- let's talk about the compressors. There was --- you said you have information on the compressors. Do you have all the capacities of the compressors? All that stuff is documented for us?

A. It's somewhere in the log, Joe. I mean, I don't personally have it.

Q. I mean the compressors you were using, you have the CFM pressures?

A. What we did was, again, talked with Dave Canning, our engineer, and he had given us numbers of what the compressors were rated at.

Eventually, we were able to get to those compressors and look at them, look at the rating on them and get the numbers off, the model numbers. And we called back here to Pittsburgh, I'm not sure if it was Bruce or Triadelphia, and we had the engineers look that up and try and understand what Dave Canning was telling us. Because I didn't understand the compressors to operate the way he was telling us.

Q. So that information is available to us?

A. Yes.

Q. Okay. Quantities and pressures of the compressors.

A. I don't know where it's at, Joe. I mean, I personally do not have it, but it should be part of the log, and I can certainly look.

Q. Did you ever measure what the intake was without any compressors running in the holes, how much air was going into the mine?

A. At the time I did the test, it was after the 16th, and there was no going in the mine.
Q. No. I said is there any quantities of air intaking in the bore holes?
A. Oh, that's part of --- yes, we did that as part of that test.
Q. You talked about placement of the holes prior --- the number three and number four hole. What about the placement of the number five, six and seven hole, can you talk about that?
A. The original location of the number five hole, it was going to be the number four hole before we heard the noises at the number three hole. The reason for that hole was to get --- a number of things, to find out the conditions in that Number One entry inby where we were mining. We were still mining at that time, and to have a hole that would be in front of us to tell us what we're getting into and also to understand if maybe

the discussion was that after the event what would the miners have tried to do. They would have tried to come out. Where would they have gone. And that was one of the locations. Possibly they would have gone in that direction. And hopefully it was --- the thought was it was inby the high part of the mine and that, one, the conditions would be good and maybe the miners would even be located at that spot. So that was part of the philosophy.

Q. So tell me about that hole. What were your findings?

A. Again, Joe, the log will have to speak for itself because my memory isn't nearly as good as the written log was. But as I remember, both five and six were closed. When they hit the entry, there was very little, if any, opening at those.

Q. So based on what you found in five, you decided to go inby four or five crosscuts.

A. The decision at six ---.
Q. Was it the same thought process there?
A. Well, after five --- and we found that it was very tight at that location, so that really kind of gave us a different philosophy from what we had been thinking. We were hoping that once we got over what was going to be the high part of the mountain, that we would have an open entry. And this was on the other side. Number five was what we thought was going to be on the other side of the mountain, and it was full. So that really wasn't the news that we were hoping to see.

Number six, there was discussion of whether to put it in the crosscut or in the entry. And the reason for number six was the last place --- the best information we had as to where they were mining at the time was at the location in number six.

Q. That, too, was full of material, rubble?
A. It was full of material.
Q. What made --- how did you get the --- how did the company obtain the information or how was that information discussed of where the last location was of the miners? How was that determined?
A. That information must have occurred before I got there, Joe, because it was kind of like in the briefings that I had.
Q. Did it come from the company?
A. I think it was a combination of briefing --- the folks that had been underground that day and as to where they were mining, where they thought they were at last. There was a mechanic in there and someone had came out, and that was the best estimate as to where they thought they would be mining.
Q. What about the number seven hole, what was the purpose --- what

was the thought process in seven?
A. Joe, can you correct me --- this may be --- I may wrong with this, but I thought number seven was where they thought --- the dinner hole was somewhere located near that? In fact, I think the number one hole originally was planned to be in the crosscut just inby seven, but it actually had drifted over a complete entry and ended up in the Number Two entry instead of the Number Three. So I think number seven was drilled in that area to see --- at the dinner hole, you know, are the dinner buckets still there or what was the condition in that area. I had left by the time this hole had gone in, but I believe it also came back filled.
Q. Okay.
A. But I'm not sure.
Q. Was that the last hole that was drilled?
A. As far as I know, I believe it

was.
Q. And why was that?
A. The decision, I guess, was made at the higher levels that there would be --- unless someone had an idea specifically where the miners were or could have been or gathered any other information, any other holes in the area would just confirm what the previous holes had already had.
Q. So you pretty much exhausted areas where you thought they may be?
A. That was the decisions that were made, yes.
Q. Okay. We talked about one drill rig. They only had one drill rig operating; is that right?
A. Yes.
Q. Now, ---.
A. Well, originally they had two. They had a small one for number one and then ---.
Q. Do you know why the small --- the helicopter drill rig wasn't used,

say, to drill to any of the sealed areas to try to determine where this low O2 was coming from?

A. The drilling was --- as far as I was concerned, Joe, was a rescue operation.

Q. Okay.

A. The purpose of the holes was to try and locate the miners or try to get air to the miners or try to get --- to drill into the other areas, I mean, yes, it would be nice to know where the low oxygen was coming from, but even if we knew where it was coming from, we couldn't change it for the rescue operation.

Q. Do you think that small drill could have been used to drill other holes that were used for the rescue holes?

A. I don't believe that particular one --- could it have been used? Yes. Would it have been successful? It's doubtful because the hole itself, we were lucky that

it actually hit an entry. It drifted an entire entry from drilling. There was no way to put a directional drill on it. All the other holes were directionally drilled.

Q. That's what I was getting at. The reason why you used the one, because it was a directional drill. This was not. It was a --- with the distance that you were drilling at, it was a shot in the dark where you were going to hit?

A. That's correct.

Q. When you went through the --- how did the driller know when he was into the mesh? How could he tell when he was in the mesh?

A. Joe, I watched him. And drilling, I guess, is --- I mean, it's just --- they're the experts in the business. He would know that if he lost his air, his water, he would stop drilling. You know, we were all standing there, watching him. He would stop drilling and he would

watch his pressure gauges and the way the drill was operating.

Q. So was there an occasion in any of the holes where he didn't hit mesh or is it just --- what you're talking about is when he lost his air, when he was in the void, he would push two feet and stop, and then you started signaling, so you really didn't know if he was in mesh or not in mesh?

A. My --- the holes that I was there for, three, four, five and six, he indicated he was going through the mesh when he did it. He felt that he had resistance. And you would actually see the drill kind of shake after he went through it a little bit.

Q. When he would rip through the metal, it would ---?

A. Yeah. Now, whether that was just --- you know, I'm a layman looking at this, but he was the guy that would say that.

Q. Well, I'm sure he has some type of gauge ---
A. Yes, he ---.
Q. --- that the driller watches when he first penetrates and the amount of resistance that he has when he goes through different --- down pressure?
A. Yes.
Q. Down pressure has a gauge.
A. He would watch that along with Dave Canning and the other engineer that was there. They were very familiar with drilling. I'd be standing there with him and they would --- I would ask them and they would tell me what --- you know, what he's finding.
Q. Do you know if they recorded any of those pressures?
A. I did not. I don't think anyone from MSHA did. And I'm not sure whether the company did. I don't recall them doing it, but they may have.

Q. Usually a driller will keep a log. Do you know if they kept a log?
A. He may have. I didn't notice him writing anything down, but he may have.
Q. What about the samples from the bore holes, were they analyzed? Did they analyze samples from the bore holes in the sealed areas to determine where the low O2 was coming from?
A. We did analyze the samples that were taken from the main west sealed area. And of course there's information obtained from that. The samples that we analyzed from the sealed area that was adjacent to Crosscut 107, I believe that seal was intaking. I don't believe we were ever able to get a very good sample of what would be representative of the rest of the seal there because it was intaking at the time. So I don't think we were able to gain much information of that. And yes, there

was low oxygen there, but I don't think we could --- I mean, there was no signature there that I could say, this is --- this reading that I have that I'm getting from underground is definitely because it's coming out of main west. In other words, it didn't have a certain amount of CO or some other number that I could correspond ---.

Q. That's what I mean. Was there any way to determine a match?

A. No. I couldn't figure out how to do it, Joe.

Q. Okay. You said that when they were mining --- was there a requirement of so much air that they had to keep over the miner?

A. I believe there was.

Q. Do you know what it was?

A. No. We had --- of course, our MEU members were there. That was part of their --- their work was to check the airflow that they had. There was diesel equipment

underground, so they had enough air to maintain that.

Q. Do you know if they always had low O2 at the miner and had to keep pressure --- had to keep ventilating current there to keep it ahead of them, or do you --- or was it only whenever the bounce occurred on the accident date?

A. The first day that I was there I don't believe they had low O2 over the miner. In fact, I believe the air was actually going through the hole going forward.

Q. Okay.

A. The second day that I was there the oxygen coming from the hole I believe was low. So it was really because of the --- it was easier for the air to come back behind the line curtain than it was to go forward, past the miner.

Q. We talked earlier about seismic equipment. What kind of training is involved with that? Who

gets trained on its use and where do you get the training from?

A. Jeff Kravitz is our senior --- is our seismic person. He --- any training on that is done --- or was done under his group. There are --- John Gibson is trained in it. He works with it, maintains it. At one point a number of years ago the Mine Emergency Unit members were trained on how to help deploy it. Basically in the last few years the training has probably been minimal. I don't know of anyone who's been trained in the last few years on it.

Q. Okay. Do you know what date --- do you know when the system was up and running?

A. No.

Q. You talked about tracer gas. Just for the record, what is SF6?

A. Sulfur hexafluoride. It's a gas that's not found in the mining environment, and you're able to detect it in very low levels.

MR. O'DONNELL:

Let's take a short break.

SHORT BREAK TAKEN

BY MR. O'DONNELL:

Q. John, do you know if there were any sample results recorded or that were taken from the sealed area of main west or the Number Seven seal?

A. The Number Seven seal is the seal on --- 107. Yes, I understand that there was.

Q. And do you know who has those and where we could get those?

A. The results of the samples I believe were all ran by our chromato --- MSHA's chromatograph and should be available in the log either from the --- if it's not in the command center log, then it's in their log.

Q. Okay. Going back on the seismic equipment, do you know if there was ever a test run before --- after it was set up by someone

underground pounding on the roof to see if it was effective?
A. I don't believe there was, Joe. And the --- I don't believe there was because remember where we were mining was out in the 120 --- low 120s. And where we actually had it set up was near 139, 140, in that area. So I don't believe there was, Joe, but Jeff could answer that.
Q. Okay. Getting back to your trips into the mine, if you would, describe the conditions that you observed. Was there any activity going on as far as bounces?
A. There were noises, Joe. I mean, there were no big bounces while I was there, but there were noises that you could hear up in the roof and some distance away. Something was going on. I don't know if you would call those a bump or a bounce, but I heard those while I was there.
Q. So both times you went in there was some activity going on?

A. I mean, yeah, I heard --- it was nothing that --- you know, that I thought was dangerous or ---. It was just a noise.
Q. Did anybody talk to you? Any of the miners that were working in there have any concerns or question the operation or their personal safety?
A. They didn't say anything to me.
Q. Do you know if you or anyone ever contacted the people at the University of Utah Seismic Systems on any kind of seismic activity that was happening at the mine?
A. I didn't do it, but I think some folks did make that contact.
Q. Do you know who that was?
A. If it was anyone, it would have been either Jeff or the roof control folks.
Q. John, whenever you were putting air into the bore holes, did you notice any oxygen level changes

in other bore holes?
A. I believe we did see an upward trend, and I can't remember at the time, Joe, which ones were ---. But I think we did see an upward trend in the oxygen in some of the other holes.
Q. You don't remember where those were?
A. I think when you look at the numbers I think it will just speak for itself. I just remember, I think there was some change.
Q. Okay. You mentioned a gentleman by the name of --- I believe it was Dave Kenning.
A. Canning.
Q. Canning?
A. Yes.
Q. Who was that person?
A. Dave Canning was one of the senior engineers for Murray's operation. I think he was in a corporate capacity. I had worked with him at previous locations,

mainly at the Pyro Mine, during the investigation of an explosion there.
Q. Okay. So when was the --- was there ever any consideration given to using more than one drill rig?
A. MSHA doesn't have any control over the amount of drill rigs. That's up to the mine operator. And to my knowledge, he did not consider using more than one drill rig.
Q. Could that have been a possibility?
A. I believe it could have been, yes.
Q. Do you know why he chose not to use more than one drill rig?
A. I do not.
Q. When was the last time you were on mine property, John?
A. Joe, I believe I went out after August the --- August 30th is when I left. Then I went back out to meet with the investigation team the week after that. I don't remember if we went to the mine property as part

of that visit or not. That would have been the last time.

Q. So after you left, you did return one other time?

A. Yes. I'm not sure if I went back to the mine property, but I know we were in Price.

Q. You returned to Price, Utah, but not to the mine?

A. I'm just not sure if we went there or not.

Q. And what was the purpose of that visit?

A. Kevin Stricklin had asked me to come out to assist with the briefing of the investigation team.

Q. John, are there any other issues you'd like to discuss concerning the accident?

A. Can't think of anything, Joe.

MR. O'DONNELL:

On behalf of MSHA, I want to thank you for appearing and answering questions today. Your

cooperation is very important to the investigation as we work to determine the cause of the accident.

We ask that you not discuss your testimony with any person who may already have been interviewed or may be interviewed in the future. This will ensure that we obtain everyone's independent recollection of the events surrounding the accident.

After questioning other witnesses, we may call you if we have any other follow-up questions that we feel we may need to ask you. If at any time you have additional information regarding the accident that you would like to provide to us, please contact us at the contact information that we previously provided to you.

If you wish, you may now go back over any of your answers that you've given during the interview or make a statement.

A. I have no statement, Joe.

MR. O'DONNELL:

Again, I want to thank you for your cooperation in this matter.

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STATEMENT CONCLUDED

AT 10:43 A.M.

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